

Equity and Debt Securities

INTRODUCTION

The first chapter will lay the foundation on which the rest of the text is built. A thorough understanding of this material will be necessary in order to successfully complete the Series 99 exam. Because a Series 99 operations professional provides the operational support for the firm's transactions in equity, debt, and derivative securities, it is an important starting point.

WHAT IS A SECURITY?

A security is any investment product that can be exchanged for value and involves risk. In order for an investment to be considered a security it must be readily transferable between two parties and the owner must be subject to the loss of some or all of their invested principal. If the product is not transferable or does not contain risk, then it is not a security.

Types of Securities	Types of Nonsecurities
Common & preferred stock	Whole life insurance
Bonds	Term life insurance
Mutual funds	Retirement plans
Variable annuities	Fixed annuities

(Continued)

Types of Securities	Types of Nonsecurities
Variable life insurance	Prospectus
Exchange traded funds / ETS	
Exchange traded notes / ETNs	

Securities are broken up into two major categories for the Series 99: equity and debt. Let's begin by comparing the two different types of securities:

EQUITY = STOCK

The term *equity* is synonymous with the term *stock*. Throughout your preparation for this exam, as well as on the exam itself, you will find many terms that are used interchangeably. Equity or stock creates an ownership relationship with the issuing company. Once an investor has purchased stock in a corporation, he or she becomes an owner of that corporation. The corporation sells off pieces of itself to investors in the form of shares in an effort to raise working capital. Equity is perpetual, meaning there is no maturity date for the shares and investors may own the shares until they decide to sell them. Most corporations use the sale of equity as their main source of business capital.

DEBT = BONDS

A bond, or any other debt instrument, is actually a loan to the issuer. By purchasing a bond, the investor has made a loan to the corporation and becomes a creditor of the issuing company.

Debt instruments, unlike their equity counterparts, have a time frame or maturity date associated with them. Whether it is one year, five years, or 30 years, at some point the issue will mature, and the investor will receive his or her principal back and will cease to be a creditor of the corporation. We will examine how investors may purchase stocks and bonds, but first we must look at how the corporation uses the sale of these securities to meet its organizational goals.

CAPITALIZATION

The term *capitalization* refers to the sources and makeup of the company's financial picture. To determine a company's capital composition, an investor must look at the corporation's balance sheet. The balance sheet is like a

snapshot of the corporation's finances at the time it was produced. It shows a list of the company's assets and liabilities as well as the company's net worth, or stockholders' equity. Most publicly traded companies have to disclose or report their performance at least quarterly.

THE BALANCE SHEET EQUATION

$$\text{assets} - \text{liabilities} = \text{net worth}$$

ASSETS

Assets are everything that a company owns, including cash, securities, investments, inventory, property, and accounts receivable.

LIABILITIES

Liabilities are everything that a company owes, including accounts payable and both long- and short-term debt, as well as any other obligations.

NET WORTH

The company's net worth is equal to the value of all assets after all liabilities have been paid. This corporation's net worth is the stockholders' equity. Remember that the stockholders own the company.

COMMON STOCK

There are thousands of companies whose stock trades publicly and that have used the sale of equity as a source of raising business capital. All publicly traded companies must issue common stock before they may issue any other type of equity security. The two types of equity securities are common stock and preferred stock. Although all publicly traded companies must have sold or issued common stock, not all companies may want to issue or sell preferred stock. Let's take a look at the creation of a company and how common stock is created.

CORPORATE TIME LINE

AUTHORIZED STOCK

Authorized stock is the maximum number of shares that a company may sell to the investing public in an effort to raise cash to meet the organization's goals. The number of authorized shares is determined arbitrarily and is set at

the time of incorporation. A corporation may sell all or part of its authorized stock. If the corporation wants to sell more shares than it is authorized to sell, the shareholders must approve an increase in the number of authorized shares.

ISSUED STOCK

Issued stock is stock that has been authorized for sale and has actually been sold to the investing public. The total number of authorized shares typically exceeds the total number of issued shares so that the corporation may sell additional shares in the future to meet its needs. Once shares have been sold to the investing public, they will always be counted as issued shares regardless of their ownership or subsequent repurchase by the corporation. It is important to note that the total number of issued shares may never exceed the total number of authorized shares.

Additional authorized shares may be issued in the future to:

- Pay a stock dividend.
- Expand current operations.
- Exchange common shares for convertible preferred or convertible bonds.
- Satisfy obligations under employee stock options or purchase plans.

OUTSTANDING STOCK

Outstanding stock is stock that has been sold or issued to the investing public and that actually remains in the hands of the investing public.

TREASURY STOCK

Treasury stock is stock that has been sold to the investing public and that has subsequently been repurchased by the corporation. The corporation may elect to reissue the shares or it may retire the shares that it holds in treasury stock. Treasury stock does not receive dividends nor does it vote.

A corporation may elect to repurchase its own shares to:

- Maintain control of the company.
- Increase earnings per share.
- Fund employee stock purchase plans.
- Use shares to pay for a merger or acquisition.

To determine the amount of treasury stock, use the following formula:

$$\text{issued stock} - \text{outstanding stock} = \text{treasury stock}$$

VALUES OF COMMON STOCK

The market value of a common stock is determined by supply and demand and may or may not have any real relationship to what the shares are actually worth. The market value of common stock is affected by the current and future expectations for the company.

BOOK VALUE

The book value of a corporation is the theoretical liquidation value of the company. It is calculated by taking all of the company's tangible assets and subtracting all of its liabilities. To determine the book value per share, divide the total book value by the total number of outstanding common shares.

PAR VALUE

Par value, in a discussion regarding common stock, is only important if you are an accountant looking at the balance sheet. For investors, it has no relationship to any measure of value that may otherwise be employed.

RIGHTS OF COMMON STOCKHOLDERS

As an owner of common stock, investors are owners of the corporation. As such, investors have certain rights that are granted to all common stockholders.

PREEMPTIVE RIGHTS

As a stockholder, an investor has the right to maintain a percentage interest in the company. This is known as a preemptive right. Should the company wish to sell additional shares to raise new capital, it must first offer the new shares to existing shareholders. If the existing shareholders decide not to purchase the new shares, they may be offered to the general public.

TESTFOCUS!

Number of Existing Shares	Number of New Shares	Total Shares After Offering
100,000	100,000	200,000
10,000	10,000	20,000
10% ownership	10% of offering	10% ownership

In this example, the company has 100,000 shares of stock outstanding, and an investor has purchased 10,000 of those original shares. As a result, the investor owns 10% of the corporation. The company wishing to sell 100,000 new shares to raise new capital must first offer 10% of the new shares to the current investor (10,000 shares) before the shares may be offered to the general public. So if the investor decides to purchase the additional shares, as is the case in the example, the investor will have maintained a 10% interest in the company.

A shareholder's preemptive right is ensured through a rights offering. The existing shareholders will have the right to purchase the new shares at a discount to the current market value for 45 days. This is known as the subscription price. Once the subscription price is set, it remains constant for 45 days, while the price of the stock is moving up and down in the marketplace. The three possible outcomes for a right are that it is exercised or sold or that it expires.

EXERCISED

The investor decides to purchase the additional shares and sends in the money as well as the rights to receive the additional shares.

SOLD

The rights have value, and if the investor does not want to purchase the additional shares they may be sold to another investor who would like to purchase the shares.

EXPIRE

The rights will expire if no one wants to purchase the stock. This will only occur when the market price of the share has fallen below the subscription price of the right and the 45 days have elapsed.

VOTING

A common stockholder has the right to vote on major issues facing the corporation. Common stockholders are part owners of the company and, as a result, have the right to say how the company is run. The biggest emphasis is placed on the election of the board of directors.

Common stockholders may also vote on:

- The issuance of bonds or additional common shares.
- Stock splits.

- Mergers and acquisitions.
- Major changes in corporate policy.

METHODS OF VOTING

There are two methods by which the voting process may be conducted: the statutory and cumulative methods. A stockholder may cast one vote for each share of stock owned, and the statutory or cumulative method will determine how those votes are cast. The test focuses on the election of the board of directors, so we will use that in our example.

EXAMPLE

An investor owns 200 shares of XYZ. There are two board members to be elected and there are four people running in the election. Under both the statutory and cumulative methods of voting, the number of votes the shareholder has is decided by multiplying the number of shares owned by the number of people to be elected. In this case, $200 \text{ shares} \times 2 = 400 \text{ votes}$. The cumulative or statutory methods dictate how those votes may be cast.

Candidate	Statutory	Cumulative
1	200 votes	400 votes
2		
3		
4	200 votes	

The statutory method requires that the votes be distributed evenly among the candidates the investor wishes to vote for.

The cumulative method allows the shareholder to cast all of their votes in favor of one candidate if they so choose. The cumulative method is said to favor smaller investors for this reason.

LIMITED LIABILITY

Stockholders' liability is limited to the amount of money they have invested in the stock. They cannot be held liable for any amount that exceeds their invested capital.

INSPECTION OF BOOKS AND RECORDS

All stockholders have the right to inspect the company's books and records. For most shareholders, this right is ensured through the company's filing of

quarterly and annual reports. Stockholders also have the right to obtain a list of shareholders, but they do not have the right to review other corporate financial data that the corporation may deem confidential.

RESIDUAL CLAIM TO ASSETS

In the event of a company's bankruptcy or liquidation, common stockholders have the right to receive their proportional interest in residual assets. After all other security holders, as well as all creditors of the corporation, have been paid, common stockholders may claim the residual assets. For this reason, common stock is the most junior security.

WHY DO PEOPLE BUY COMMON STOCK?

CAPITAL APPRECIATION/GROWTH

The main reason people invest in common stock is for capital appreciation. They want their money to grow in value over time. An investor in common stock hopes to buy the stock at a low price and sell it at a higher price at some point in the future.

EXAMPLE

An investor purchases 100 shares of XYZ at \$20 per share on March 15, 2011. On April 30, 2012, the investor sells 100 shares of XYZ for \$30 per share, realizing a profit of \$10 per share, or \$1,000 on the 100 shares.

INCOME

Many corporations distribute a portion of their earnings to their investors in the form of dividends. This distribution of earnings creates income for the investor. Investors in common stock generally receive dividends quarterly.

EXAMPLE

ABC pays a \$.50 quarterly dividend to its shareholders. The stock is currently trading at \$20 per share. What is its current yield (also known as the dividend yield)?

$$\text{annual income/current market price} = \text{current yield}$$

$$\$.50 \times 4 \text{ quarters} = \$2.00$$

$$\$2/\$20 = 10\%$$

The investor in this example is receiving 10% of the purchase price of the stock each year in the form of dividends.

WHAT ARE THE RISKS OF OWNING COMMON STOCK?

The major risk in owning common stock is that the stock may fall in value. There are no sure things in the stock market, and even if a company seems great, an investor may end up losing money.

DIVIDENDS MAY BE STOPPED OR REDUCED

Common stockholders are not entitled to receive dividends just because they own part of the company. It is up to the company to elect to pay a dividend. The corporation is in no way obligated to pay common shareholders a dividend.

JUNIOR CLAIM ON CORPORATE ASSETS

A common stockholder is the last person to get paid if the company is liquidated. It is very possible that after all creditors and other investors are paid there will be little or no money left for the common stockholder.

PREFERRED STOCK

Preferred stock is an equity security with a fixed-income component. Like a common stockholder, the preferred stockholder is an owner of the company. However, the preferred stockholder is investing in the stock for the fixed income that the preferred shares generate through their semiannual dividends. Preferred stock has a stated dividend rate, or a fixed rate, that the corporation must pay to its preferred shareholders. Growth is generally not achieved through investing in preferred shares.

FEATURES OF PREFERRED STOCK

PAR VALUE

Par value on preferred stock is very important because it is what the dividend is based on. Par value for preferred shares is \$100. Companies generally express the dividend as a percentage of par value for preferred stock.

EXAMPLE

An investor buys 100 shares of TWT 9% preferred. How much would the investor receive in annual income from the investment?

$$\$100 \times .09 = \$9 \text{ per share} \times 100 = \$900$$

PAYMENT OF DIVIDENDS

The dividend on preferred shares must be paid before any dividends are paid to common shareholders. This gives the preferred shareholder a priority claim on the corporation's distribution of earnings.

DISTRIBUTION OF ASSETS

If a corporation liquidates or declares bankruptcy, the preferred shareholders are paid prior to any common shareholder, giving the preferred shareholders a higher claim on the corporation's assets.

PERPETUAL

Preferred stock, unlike bonds, is perpetual, with no maturity date. Investors may hold shares for as long as they wish or until they are called in by the company under a call feature.

NONVOTING

Most preferred stock is nonvoting. Occasionally, if the company has been in financial difficulty and has missed preferred dividend payments for an extended period of time, preferred shareholders may receive the right to vote.

INTEREST RATE SENSITIVE

Because of the fixed income generated by preferred shares, their price will be more sensitive to a change in interest rates than the price of their common stock counterparts. As interest rates decline, the value of preferred shares tends to increase. When interest rates rise, the value of the preferred shares tends to fall. This is known as an inverse relationship.

TYPES OF PREFERRED STOCK

Preferred stock has more features associated with it than common stock. Most of the features are designed to make the issue more attractive to investors.

STRAIGHT/NONCUMULATIVE PREFERRED

Straight, or noncumulative, preferred stock has no additional features. The holder is entitled to the stated dividend rate and nothing else. If the corporation is unable to pay the dividend, it is not owed to the investor.

CUMULATIVE PREFERRED

A cumulative feature protects the investor in cases when a corporation is having financial difficulties and cannot pay the dividend. Dividends on

cumulative preferred stock accumulate in arrears until the corporation is able to pay them. If the dividend on a cumulative preferred stock is missed, it is still owed to the holder. Dividends in arrears on cumulative issues are always the first dividends to be paid. If the company wants to pay a dividend to common shareholders, it must first pay the dividends in arrears as well as the stated preferred dividend before common shareholders receive anything.

TESTFOCUS!

GNR has an 8% cumulative preferred stock outstanding. It has not paid the dividend this year or for the prior three years. How much must the holders of GNR cumulative preferred be paid per share before the common stockholders are paid a dividend?

The dividend has not been paid this year nor for the previous three years, so the holders are owed four years worth of dividends or

$$4 \times \$8 = \$32 \text{ per share}$$

PARTICIPATING PREFERRED

Holders of participating preferred stock are entitled to receive the stated preferred rate as well as additional common dividends. The holder of participating preferred stock receives the dividend payable to the common stockholders over and above the stated preferred dividend.

CONVERTIBLE PREFERRED

A convertible feature allows the preferred stockholder to convert or exchange their preferred shares for common shares at a fixed price known as the conversion price.

EXAMPLE

TRW has issued a 4% convertible preferred stock, which may be converted into TRW common stock at \$20 per share. How many shares may the preferred stockholder receive upon conversion?

$$\text{par value/conversion price} = \text{number of shares}$$

$$\$100/\$20 = \$5$$

The investor may receive five common shares for every preferred share.

CALLABLE PREFERRED

A call feature is the only feature that benefits the company and not the investor. A call feature allows the corporation to call in or redeem the preferred shares at its discretion or after some period of time has expired. Most preferred stock that is callable cannot be called in the first few years after its issuance. This is known as call protection. Many callable preferred shares will be called at a premium price above par. For example, a \$100 par preferred stock may be called at \$103. The main reasons a company would call in its preferred shares would be to eliminate the fixed dividend payment or to sell a new preferred stock with a lower dividend rate when interest rates decline. Preferred stock is more likely to be called by the corporation during a decline in interest rates.

TYPES OF DIVIDENDS

CASH

A cash dividend is the most common form of dividend, and it is one that the test focuses on. With a cash dividend, a corporation will send out a cash payment in the form of a check directly to the stockholders. For those stockholders who have their stock held in the name of the brokerage firm, a check will be sent to the brokerage firm, and the money will be credited to the investor's account. Securities held in the name of the brokerage firm are said to be held in street name. To determine the amount that an investor will receive, simply multiply the amount of the dividend to be paid by the number of shares.

EXAMPLE

JPF pays a \$.10 dividend to shareholders. An investor who owns 1,000 shares of JPF will receive \$100:

$$1,000 \text{ shares} \times \$0.10 = \$100$$

STOCK

A corporation that wants to reward its shareholders, but also wants to conserve cash for other business purposes may elect to pay a stock dividend to its shareholders. With a stock dividend, investors will receive an additional number of shares based on the number of shares that they own. The market price of the stock will decline after the stock dividend has been distributed to reflect that there are now more shares outstanding, but the total market value of the company will remain the same.

EXAMPLE

If HRT pays a 5% stock dividend to its shareholders, an investor with 500 shares will receive an additional 25 shares. This is determined by multiplying the number of shares owned by the amount of the dividend to be paid:

$$500 \times 5\% = 25$$

PROPERTY/PRODUCT

A corporation may send out to its shareholders samples of its products or portions of its property. This is the least likely way in which a corporation would pay a dividend, but it is a permissible dividend distribution.

RIGHTS

A right is issued to existing shareholders by a corporation that wants to sell additional common shares to raise new capital. All common stockholders have a preemptive right to maintain the proportional ownership in the company. If the corporation were allowed to sell additional shares to the general public, the existing shareholders' interest in the company would be diluted. As a result, any new offering of additional common shares first must be made to the existing shareholders. Common shareholders will receive a notice of their right to purchase the new shares. They will be offered the opportunity to purchase the new shares at a price that is below the current market value of the stock. This is known as the subscription price. The shareholder will have the right to purchase the new shares for 45 days.

POSSIBLE OUTCOMES FOR A RIGHT**EXERCISED**

The shareholder may elect to purchase the additional shares. This is known as exercising the right. The investor sends in the rights as well as a check for the total purchase price to the rights agent, and the additional shares are issued to the investor.

SOLD

The investor may not want to purchase the additional shares and may elect to sell the rights to another investor. The investor who purchases the right will then have the opportunity to purchase the stock at the subscription price for the duration of the original 45-day period.

EXPIRE

The right to purchase the additional shares will expire at the end of the 45-day period if no one has elected to purchase the shares. A right will only expire if the stock's market price has fallen below the subscription price of the right. While market price of the stock is fluctuating during the 45-day period, the subscription price of the right remains fixed.

TERMS

The particular terms of the rights will be printed on the right certificate, and each share of outstanding stock will be issued one right. The terms will include the subscription price, the final date for exercising the right, the number of rights required to purchase additional shares, and the date that the new shares will be issued.

STANDBY UNDERWRITING

A corporation may retain a brokerage firm to purchase any shares that existing shareholders do not purchase. This is known as a standby underwriter. The brokerage firm will purchase the shares that were not bought by the existing shareholders and resell them to the investing public.

WARRANTS

A warrant is a security that gives the holder the opportunity to purchase common stock. Like a right, the warrant has a subscription price; however, the subscription price is always above the current market value of the common stock when the warrant is originally issued. A warrant has a much longer life than a right—the holder of a warrant may have up to 10 years to purchase the stock at the subscription price. The long life is what makes the warrant valuable, even though the subscription price is higher than the market price of the common stock when the warrant is issued.

HOW DO PEOPLE GET WARRANTS?**UNITS**

Oftentimes companies will issue warrants to people who purchased their common stock during its initial public offering (IPO). A common share, which comes with a warrant attached to purchase an additional common share, is known as a unit.

ATTACHED TO BONDS

Many times companies will attach warrants to their bond offerings as a “sweetener” to help market the bond offering. The warrant to purchase the common stock makes the bond more attractive to the investor and may allow the company to issue the bonds with a lower coupon rate.

SECONDARY MARKET

Warrants will often trade in the secondary market just like the common stock. An investor who wishes to participate in the potential price appreciation of the common stock may elect to purchase the corporation’s warrant instead of its common shares.

POSSIBLE OUTCOMES OF A WARRANT

A warrant, like a right, may be exercised or sold by the investor. A warrant also may expire if the stock price is below the warrant’s subscription price at its expiration.

RIGHTS VS. WARRANTS

Rights		Warrants
Up to 45 days	Term	Up to 10 years
Below the market	Subscription price	Above the market
May trade with or without common stock	Trading	May trade with or without common stock or bonds
Issued to existing shareholders to ensure preemptive rights	Who	Offered as a sweetener to make securities more attractive

OPTIONS

An option is a contract between two parties, the buyer and the seller, that determines the time and price at which a security may be bought or sold. The buyer of the option pays money, known as the option’s premium, to the seller. For this premium, the buyer obtains a right to buy or sell the security, depending on what type of option is involved in the transaction. The seller, because he or she received the premium from the buyer, now has an obligation to perform under that contract. Depending on the type of option involved, the seller may have an obligation to buy or sell the security.

CALLS

A call option gives the buyer the right to buy, or to “call,” the security from the option seller at a specific price for a certain period of time. The sale of a call option obligates the seller to deliver or sell that security to the buyer at that specific price for a certain period of time.

PUTS

A put option gives the buyer the right to sell, or to “put,” the security to the seller at a specific price for a certain period of time. The sale of a put option obligates the seller to buy the security from the buyer at that specific price for a certain period of time.

BULLISH VS. BEARISH

BULLISH

Investors who believe that a security’s price will increase over time are said to be bullish. Investors who buy calls are bullish on the underlying security. That is, they believe that the security’s price will rise, and they have paid for the right to purchase the security at a specific price, known as the exercise price. An investor who has sold puts is also considered bullish on the security. The seller of a put has an obligation to buy the security, and therefore believes that the security’s price will rise.

BEARISH

Investors who believe that a security’s price will decline are said to be bearish. The seller of a call has an obligation to sell the security to the purchaser at a specified price and believes that the security’s price will fall and is therefore bearish. Buyers of a put want the price to drop so that they may sell the security at a higher price to the seller of the put contract. They are also considered bearish on the security.

	Calls	Puts
Buyers	Bullish Have right to buy stock; want stock price to rise	Bearish Have right to sell stock; want stock price to fall
Sellers	Bearish Have obligation to sell stock; want stock price to fall	Bullish Have obligation to buy stock; want stock price to rise

CHARACTERISTICS OF ALL OPTIONS

The Options Clearing Corporation (OCC) issues all option contracts and guarantees their performance. Standardized options trade on the exchanges, such as the Chicago Board Options Exchange and the American Stock Exchange.

All option contracts are for one round lot of the underlying security, or 100 shares. To determine the amount that an investor either paid or received for the contract, take the premium and multiply it by 100. If an investor paid \$4 for 1 KLM August 70 call, then the investor paid \$400 for the right to buy 100 shares of KLM at \$70 per share until August.

EXERCISE PRICE

The exercise price is the price at which an option buyer may buy or sell the underlying security, depending on the type of option involved in the transaction.

BUYER VS. SELLER

Buyer		Seller
Owner	Known as	Writer
Long	Known as	Short
Rights	Has	Obligations
Maximum speculative profit	Objective	Premium income
Exercise	Wants the option to	Expire

POSSIBLE OUTCOMES FOR AN OPTION

EXERCISED

If the option is exercised, the buyer has elected to exercise its rights to buy or sell the security depending on the type of option involved. Exercising an option obligates the seller to perform under the contract.

SOLD

Most individual investors will elect to sell their rights to another investor rather than exercise their rights. The investor who buys the option from them will acquire all the rights of the original purchaser.

EXPIRE

If the option expires, the buyer has elected not to exercise its right, and the seller of the option is not required to perform.

OPTION PREMIUMS

The price of an option is known as its premium. Factors that determine the value of an option and, as a result, its premium, are:

- The relationship of the underlying stock price to the option's strike price.
- The amount of time to expiration.
- The volatility of the underlying stock.
- Supply and demand.
- Interest rates.

An option can be:

- In the money.
- At the money.
- Out of the money.

These terms describe the relationship of the underlying stock to the option's strike price. These terms do not describe how profitable the position is.

IN THE MONEY OPTIONS

A call is in the money when the underlying stock price is greater than the call's strike price.

EXAMPLE

An XYZ June 40 Call is \$2 in the money when XYZ is at \$42 per share.

A put is in the money when the underlying stock price is lower than the put's strike price.

EXAMPLE

An ABC October 70 Put is \$4 in the money when ABC is at \$66 per share.

It would only make sense to exercise an option if it was in the money.

AT THE MONEY OPTIONS

Both puts and calls are at the money when the underlying stock price equals the option's exercise price.

EXAMPLE

If FDR is trading at \$60 per share, all of the FDR 60 calls and all of the FDR 60 puts will be at the money.

OUT OF THE MONEY OPTIONS

A call is out of the money when the underlying stock price is lower than the option's strike price.

EXAMPLE

An ABC November 25 call is out of the money when ABC is trading at \$22 per share.

A put option is out of the money when the underlying stock price is above the option's strike price.

EXAMPLE

A KDC December 50 put is out of the money when KDC is trading at \$54 per share.

It would not make sense to exercise an out of the money option.

	Calls	Puts
In the Money	Stock Price > Strike Price	Stock Price < Strike Price
At the Money	Stock Price = Strike Price	Stock Price = Strike Price
Out of the Money	Stock Price < Strike Price	Stock Price > Strike Price

INTRINSIC VALUE AND TIME VALUE

An option's total premium is composed of intrinsic value and time value. An option's intrinsic value is equal to the amount the option is in the money. Time value is the amount by which an option's premium exceeds its intrinsic value. In effect, the time value is the price an investor pays for the opportunity to exercise the option. An option that is out of the money has no intrinsic value; therefore, the entire premium consists of time value.

EXAMPLE

An XYZ June 40 call is trading at \$2 when XYZ is trading at \$37 per share. The June 40 call is out of the money and has no intrinsic value; therefore, the entire \$2 premium consists of time value. If an XYZ June 40 put is trading at \$3 when XYZ is at \$44 dollars per share, the entire \$3 is time value.

If in the above example the options were in the money and the premium exceeded the intrinsic value of the option, the remaining premium would be time value.

EXAMPLE

An XYZ June 40 call is trading at \$5 when XYZ is trading at \$42 per share. The June 40 call is in the money and has \$2 in intrinsic value; therefore, the rest of the premium consists of the time value of \$3. If an XYZ June 40 put is trading at \$4 when XYZ is at \$39, the put is in the money by \$1 and the rest of the premium, or \$3, is time value.

**AMERICAN DEPOSITARY RECEIPTS (ADRs)/
AMERICAN DEPOSITARY SHARES (ADSs)**

American depositary receipts (ADRs) facilitate the trading of foreign securities in the U.S. markets. An ADR is a receipt that represents the ownership of the foreign shares that are being held abroad in a branch of a United States bank. Each ADR represents ownership of between one and 10 shares of the foreign stock, and the holder of the ADR may request the delivery of the foreign shares. Holders of ADRs also have the right to vote and the right to receive dividends that the foreign corporation declares for payment to shareholders.

CURRENCY RISKS

The owner of an ADR has currency risk along with the normal risks associated with the ownership of the stock. Should the currency of the country decline relative to the U.S. dollar, the holder of the ADR will receive fewer U.S. dollars when a dividend is paid and fewer U.S. dollars when the security is sold. It is important to note that the dividend on the ADR is paid by the corporation in the foreign currency and is converted so that the dividend is received by the holder of the ADR in U.S. dollars.

DEBT SECURITIES/BONDS

Many different types of entities issue bonds in an effort to raise working capital. Corporations and municipalities as well as the U.S. government and U.S. government agencies issue bonds in order to meet their capital needs. A bond represents a loan to the issuer in exchange for a promise to repay the face amount of the bond, known as the principal amount at maturity. On most bonds, the investor receives semiannual interest payments, during the bond's term. These semiannual interest payments, as well as any capital appreciation or depreciation at maturity, represent the investor's return. A bondholder invests primarily for the interest income that will be generated during the bond's term.

CORPORATE BONDS

Corporations will issue bonds in an effort to raise working capital to build and expand their business. Corporate bondholders are not owners of the corporation; they are creditors of the company. Corporate debt financing is known as leverage financing because the company pays interest only on the loan until maturity. Bondholders do not have voting rights as long as the company pays the interest and principal payments in a timely fashion. If the company defaults, the bondholders may be able to use their position as creditors to gain a voice in the company's management. Bondholders will always be paid before preferred and common stockholders in the event of liquidation. Interest income received by investors on corporate bonds is taxable at all levels: federal, state, and local.

THE U.S. GOVERNMENT

The U.S. government is the largest issuer of debt. It is also the issuer with the least amount of default risk. Default risk is also known as credit risk, which is the risk that the issuer will not be able to meet its obligations under the terms of the bond in a timely fashion. The U.S. government issues debt securities with maturities ranging from three months to 30 years. The Treasury Department issues the securities on behalf of the federal government, and they are a legally binding obligation of the federal government. Interest earned by the investors from U.S. government securities is only taxed at the federal level. State and local governments do not tax the interest income.

U.S. GOVERNMENT AGENCIES

The U.S. government has many agencies that operate to provide financial and other assistance to American businesses and families. These agencies also must raise capital to operate, and much of the money is raised through the sale of agency securities. These debt instruments have only a slightly higher risk of default than the direct government obligations. As a result of the small increase in risk, the interest rate earned by investors will, in most cases, only be slightly higher than those on Treasury securities. Interest income earned by investors on agency securities is taxable at all levels: federal, state, and local.

MUNICIPAL BONDS

Both state and local governments will issue debt securities to meet their goals. Municipal bonds are issued to meet a variety of needs, from working capital to bridge and tunnel projects. Once bonds have been issued, they become

a legally binding obligation of the state or municipality. Interest earned by investors will be free from federal taxes and may be free from state and local taxes if the investor purchases a municipal bond issued by the state in which he or she resides.

TYPES OF BOND ISSUANCE

BEARER BONDS

Bonds that are issued in coupon or bearer form do not record the owner's information with the issuer, and the bond certificate does not have the legal owner's name printed on it. As a result, anyone who possesses the bond is entitled to receive the interest payment by clipping the coupons attached to the bond and depositing them in a bank or trust company for payment. Additionally, the bearer is entitled to receive the principal payment at the bond's maturity. Bearer bonds are no longer issued within the United States; however, they are still issued outside the United States.

REGISTERED BONDS

Most bonds are now issued in registered form. Bonds that have been issued in registered form have the owner's name recorded in the books of the issuer, and the buyer's name will appear on the bond certificate.

PRINCIPAL-ONLY REGISTRATION

Bonds that have been registered as principal only have the owner's name printed on the bond certificate. The issuer knows who owns the bond and who is entitled to receive the principal payment at maturity. However, the bondholder will still be required to clip the coupons to receive the semiannual interest payments.

FULLY REGISTERED

Bonds that have been issued in fully registered form have the owner's name recorded for both the interest and principal payments. The owner is not required to clip coupons, and the issuer will send out the interest payments directly to the holder on a semiannual basis. The issuer also will send the principal payment as well as the last semiannual interest payment directly to the owner at maturity. Most bonds in the United States are issued in fully registered form.

BOOK ENTRY/JOURNAL ENTRY

Bonds that have been issued in book entry or journal entry form have no physical certificate issued to the holder as evidence of ownership. The bonds

are fully registered, and the issuer knows who is entitled to receive the semiannual interest payments and the principal payment at maturity. The investor's only evidence of ownership is the trade confirmation, which is generated by the brokerage firm when the purchase order has been executed.

BOND CERTIFICATE

If a bond certificate is issued, it must include:

- Name of issuer.
- Principal amount.
- Issuing date.
- Maturity date.
- Interest payment dates.
- Place where interest is payable (paying agent).
- Type of bond.
- Interest rate.
- Call feature (if any or noncallable).
- Reference to the trust indenture.

BOND PRICING

Once issued, bonds trade in the secondary market between investors similar to the way equity securities do. The price of bonds in the secondary market depends on the following:

- Rating.
- Interest rates.
- Term.
- Coupon rate.
- Type of bond.
- Issuer.
- Supply and demand.
- Other features (e.g., callable, convertible).

Bonds are always priced as a percentage of par. Par value for all bonds is \$1,000.

PAR VALUE

The par value of a bond is equal to the amount that the investor has loaned to the issuer. The terms par value, face value, and principal amount are all synonymous and always equal \$1,000. The principal amount is the amount that will be received by the investor at maturity, regardless of the price the investor paid for the bond. An investor who purchases a bond in the secondary market for \$1,000 is said to have paid par for the bond.

DISCOUNT

In the secondary market, many different factors affect the price of the bond. It is not unusual for an investor to purchase a bond at a price that is below the bond's par value. Anytime an investor buys a bond at a price that is below the par value, they are said to be buying the bond at a discount.

PREMIUM

Often times market conditions will cause the price of existing bonds to rise, making it attractive for investors to purchase a bond at a price that is greater than its par value. When an investor buys a bond at a price that exceeds its par value, the investor is said to have paid a premium.

CORPORATE BOND PRICING

All corporate bonds are priced as a percentage of par in fractions of a percent. For example, a quote for a corporate bond reading 95 actually translates into:

$$95\% \times \$1,000 = \$950$$

A quote for a corporate bond of 97.25 translates into:

$$97.25\% \times \$1,000 = \$972.50$$

TREASURY BOND AND NOTE PRICING

Treasury notes and bonds are also quoted as a percentage of par. However, unlike their corporate counterparts, Treasury notes and bonds are quoted as a percentage of par down to 32nds of 1%. For example, a bond quote of 92.02 translates into:

$$92 \frac{2}{32}\% \times \$1,000 = \$920.625$$

A quote of 98.04 translates into:

$$98.125\% \times \$1,000 = \$981.25$$

It is important to remember that the number after the decimal points represents 32nds of a percent.

TREASURY BILL PRICING

Treasury bills do not pay semiannual interest and are issued at a discount from par. The bill's appreciation up to par at maturity represents the investor's interest. Treasury bills are quoted on a discounted yield basis. Series 99 candidates are unlikely to see a Treasury bill quote on the exam.

MUNICIPAL BOND PRICING

Most municipal bonds are also quoted on a yield basis; however, they are quoted on a yield-to-maturity basis. Some municipal bonds are quoted as a percentage of par, just like corporate bonds, and they are known as dollar bonds.

BOND YIELDS

A bond's yield is the investor's return for holding the bond. Many factors affect the yield an investor will receive from a bond, such as:

- Current interest rates.
- Term of the bond.
- Credit quality of the issuer.
- Type of collateral.
- Convertible or callable.
- Purchase price.

An investor who is considering investing in a bond needs to be familiar with the bond's nominal yield, current yield, and yield to maturity.

NOMINAL YIELD

A bond's nominal yield is the interest rate that is printed, or named, on the bond. The nominal yield is always stated as a percentage of par. It is fixed at the time of the bond's issuance and never changes. The nominal yield may also be called the coupon rate. For example, a corporate bond with a coupon rate of 8% will pay the holder \$80 per year in interest:

$$8\% \times \$1,000 = \$80$$

Thus, the nominal yield is 8%.

CURRENT YIELD

The current yield is a relationship between the annual interest generated by the bond and the bond's current market price. To find any investment's current yield use the following formula:

$$\text{annual income/current market price}$$

For example, let's take the same 8% corporate bond we used in the previous example on nominal yield and see what its current yield would be if we paid \$1,100 for the bond:

$$\text{annual income} = 8\% \times \$1,000 = \$80$$

$$\text{current market price} = 110\% \times \$1,000 = \$1,100$$

$$\text{current yield} = \$80/\$1,100 = 7.27\%$$

In this example we have purchased the bond at a premium or a price that is higher than par, and we see that the current yield on the bond is lower than the nominal yield.

Let's take a look at the current yield on the same bond if we were to purchase the bond at a discount, or a price that is lower than par. Let's see what the current yield for the bond would be if we paid \$900 for the bond:

$$\text{annual income} = 8\% \times \$1,000 = \$80$$

$$\text{current market price} = 90\% \times \$1,000 = \$900$$

$$\text{current yield} = \$80/\$900 = 8.89\%$$

In this example, the current yield is higher than the nominal yield. By showing examples calculating the current yield for the same bond purchased at a premium and at a discount, we have demonstrated the inverse relationship between prices and yields. That is to say that prices and yields on income-producing investments move in the opposite direction. As the price of an investment rises, the investment's yield will fall. Conversely, as the price of the investment falls, the investment's yield will rise.

YIELD TO MATURITY

The yield to maturity of a bond is the investor's total annualized return for investing in the bond. A bond's yield to maturity takes into consideration the annual income received by the investor as well as any difference between the price the investor paid for the bond and the par value that will be received at maturity. The yield to maturity is the most important yield for an investor who purchases the bond.

YIELD TO MATURITY: PREMIUM BOND

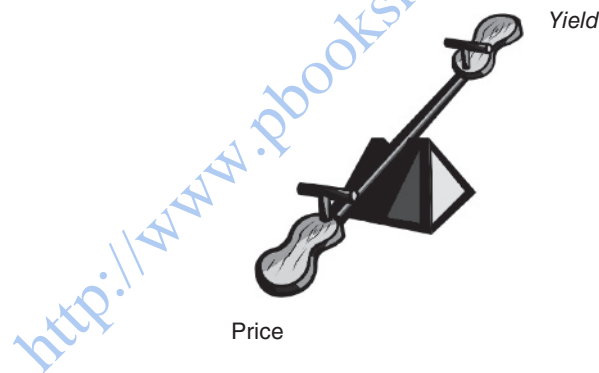
The yield to maturity for a bond purchased at a premium will be the lowest of all the investor's yields. Although an investor may purchase a bond at a price that exceeds the par value of the bond, the issuer is only obligated to pay

the bondholder the par value upon maturity. For example: An investor, who purchases a bond at 110, or for \$1,100, will receive only \$1,000 at maturity and therefore will lose \$100. This loss is what causes the yield to maturity to be the lowest of the three yields for an investor who purchases a bond at a premium.

YIELD TO MATURITY: DISCOUNT BOND

The yield to maturity for a bond purchased at a discount will be the highest of the investor's yields. In this case, the investor has purchased the bond at a price that is less than the par value of the bond. In this example, even though the investor paid less than the par value for the bond, the issuer is still obligated to pay the full par value of the bond at maturity, or the full \$1,000. For example: An investor who purchases a bond at 90, or for \$900, will still be entitled to receive the full par amount of \$1,000 at maturity, therefore gaining \$100. This gain is what causes the yield to maturity to be the highest of the three yields for an investor who purchases a bond at a discount.

The following illustration demonstrates the inverse relationship between prices and yields.



A corporation will issue or sell bonds as a means to borrow money to help the organization meet its goals. Corporate bonds are divided into two main categories: secured and unsecured.

SECURED BONDS

A secured bond is one that is backed by a specific pledge of assets. The assets that have been pledged become known as collateral for the bond issue or the loan. A trustee will hold the title to the collateral, and in the event of default the bondholders may claim the assets that have been pledged. The trustee will then attempt to sell off the assets in an effort to pay off the bondholders.

MORTGAGE BONDS

A mortgage bond is a bond that has been backed by a pledge of real property. The corporation will issue bonds to investors and will pledge real estate owned by the company as collateral. A mortgage bond works in a similar fashion to a residential mortgage. In the event of default, the bondholders take the property.

EQUIPMENT TRUST CERTIFICATES

An equipment trust certificate is backed by a pledge of large equipment that the corporation owns. Airlines, railroads, and large shipping companies will often borrow money to purchase the equipment that they need through the sale of equipment trust certificates. Airplanes, railroad cars, and ships are all good examples of the types of assets that might be pledged as collateral. In the event of default, the equipment will be liquidated by the trustee in an effort to pay off the bondholders.

COLLATERAL TRUST CERTIFICATES

A collateral trust certificate is a bond that has been backed by a pledge of securities that the issuer has purchased for investment purposes or by shares of a wholly owned subsidiary. Both stocks and bonds are acceptable forms of collateral as long as they have been issued by another issuer. Securities that have been pledged as collateral are generally required to be held by the trustee for safekeeping. In the event of a default, the trustee will attempt to liquidate the securities that have been pledged as collateral and divide the proceeds among the bondholders.

It is important to note that while having a specific claim against an asset that has been pledged as collateral benefits the bondholder, bondholders do not want to take title to the collateral. Bondholders invest for the semiannual interest payments and the return of their principal at maturity.

UNSECURED BONDS

Unsecured bonds are known as debentures and have no specific asset pledged as collateral for the loan. Debentures are only backed by the good faith and credit of the issuer. In the event of a default, the holder of a debenture is treated like a general creditor.

SUBORDINATED DEBENTURES

A subordinated debenture is an unsecured loan to the issuer that has a junior claim on the issuer in the event of default relative to the straight debenture.

Should the issuer default, the holders of the debentures and other general creditors will be paid before the holders of the subordinate debentures.

INCOME/ADJUSTMENT BONDS

Corporations, usually those in severe financial difficulty, issue income or adjustment bonds. The bond is unsecured, and the investor is only promised to be paid interest if the corporation has enough income to do so. As a result of the large risk that the investor is taking, the interest rate is very high, and the bonds are issued at a deep discount to par. An income bond is never an appropriate recommendation for an investor seeking income or safety of principal.

ZERO-COUPON BONDS

A zero-coupon bond is a bond that pays no semiannual interest. It is issued at a deep discount from the par value and appreciates up to par at maturity. This appreciation represents the investor's interest for purchasing the bond. Corporations, the U.S. government, and municipalities will all issue zero-coupon bonds in an effort to finance their activities. An investor might be able to purchase the \$1,000 principal payment in 20 years for as little as \$300 today. Because the zero-coupon bonds pay no semiannual interest and the price is so deeply discounted from par, the price of the bond will be the most sensitive to a change in the interest rates. Both corporate and U.S. government zero coupon bonds subject the investor to federal income taxes on the annual appreciation of the bond. This is known as phantom income.

CONVERTIBLE BONDS

A convertible bond is a corporate bond that may be converted or exchanged for common shares of the corporation at a predetermined price, known as the conversion price. Convertible bonds have benefits to both the issuer and the investor. Because the bond is convertible, it usually will pay a lower rate of interest than nonconvertible bonds. This lower interest rate can save the corporation an enormous amount of money in interest expense over the life of the issue. The convertible feature will also benefit the investor if the common stock does well. If the shares of the underlying common stock appreciate, the investor could realize significant capital appreciation in the price of the bond and may also elect to convert the bond into common stock in the hopes of realizing additional appreciation. As an investor in the bond, the investor maintains a senior position as a creditor while enjoying the potential for capital appreciation.

CONVERTING BONDS INTO COMMON STOCK

All Series 99 candidates must be able to perform the conversion calculations for both convertible bonds and preferred stock. It is essential that prospective representatives are able to determine the following:

Number of shares: To determine the number of shares that can be received upon conversion use the following formula:

$$\text{par value/conversion price}$$

EXAMPLE

XYZ has a 7% subordinated debenture trading in the marketplace at 120. The bonds are convertible into XYZ common stock at \$25 per share. How many shares can the investor receive upon conversion?

$$\$1,000/\$25 = 40 \text{ shares}$$

The investor is entitled to receive 40 shares of XYZ common stock for each bond owned.

PARITY PRICE

A stock's parity price determines the value at which the stock must be priced in order for the value of the common stock to be equal to the value of the bond that the investor already owns. The value of the stock that can be received by the investor upon conversion must be equal to or at parity with the value of the bond, otherwise converting the bonds into common stock would not make economic sense. Determining the parity price is a two-step process. First, the number of shares that can be received must be determined by using the formula: par value/conversion price. Then it is necessary to calculate the price of each share at the parity price. To determine the parity price, use the following formula:

$$\frac{\text{current market value of the convertible}}{\text{number of shares to be received}}$$

In the above example, the convertible bond was quoted at 120, which equals a dollar price of \$1,200. We determined that the investor could receive 40 shares of stock for each bond, so the parity price equals:

$$\$1,200/40 = \$30$$

If the question is looking for the number of shares or the parity price for a convertible preferred stock, the formulas are the same; the only thing that

changes is the par value. Par value for all preferred stocks is \$100, instead of \$1,000 par value for bonds.

THE TRUST INDENTURE ACT OF 1939

The Trust Indenture Act of 1939 requires that corporate bond issues in excess of \$5,000,000 dollars that are to be repaid during a term in excess of one year issue a trust indenture for the issue. The trust indenture is a contract between the issuer and the trustee. The trustee acts on behalf of the bondholders and ensures that the issuer is in compliance with the promises and covenants made to the bondholders. The trustee is appointed by the corporation and is usually a bank or a trust company. The Trust Indenture Act of 1939 only applies to corporate issuers. Federal and municipal issuers are exempt.

TREASURY BILLS, NOTES, AND BONDS

Treasury Security	Type of Interest	Term	Priced
Bill	None	4, 13, 26, 52 weeks 1, 3, 6, 12 months	At a discount from par
Note	Semiannual	1–10 years	As a percentage of par to 32nds of 1%
Bond	Semiannual	10–30 years	As a percentage of par to 32nds of 1%

The minimum denomination for purchasing a Treasury bill, note, or bond through TreasuryDirect.gov is \$100.



TAKENOTE!

The Treasury does not currently sell one-year bills. However this is a policy decision; the Treasury may at any time elect to issue one-year bills, just as it recently decided to reissue 30-year bonds.

PURCHASING TREASURY BILLS

Treasury bills range in maturity from 4 to 52 weeks and are auctioned off by the Treasury Department through a weekly competitive auction. Large banks and broker dealers, known as primary dealers, submit competitive bids or tenders for the bills being sold. The Treasury awards the bills to the bidders who

submitted the highest bid and work their way down to lower bids until all of the bills are sold. Treasury bills pay no semiannual interest and are issued at a discount from par. The bill appreciates up to par at maturity and the appreciation represents the investor's interest. Because bills are priced at a discount from par, a higher dollar price represents a lower interest rate for the purchaser. All noncompetitive tenders are filled before any competitive tenders are filled. A bidder who submits a noncompetitive tender agrees to accept the average of all the yields accepted by the Treasury and does not try to get the best yield. All competitive tenders are limited to a maximum amount of \$500,000. All bids that are accepted and filled by the Treasury are settled in fed funds. Treasury bills range in denominations from \$100 up to \$1,000,000.

TAKENOTE!

A quote for a Treasury bill has a bid that appears to be higher than the offer. But remember that the bills are quoted on a discounted yield basis. The higher bid actually represents a lower dollar price than the offer.

EXAMPLE

<u>Bid</u>	<u>Ask</u>
1.91	2.75

TREASURY STRIPS

The term Treasury "STRIPS" stands for Separate Trading of Registered Interest and Principal Securities. The Treasury securities are separated into two parts: a principal payment and semiannual interest payments. A Treasury STRIP is a zero-coupon bond that is backed by U.S. government securities. An investor may purchase the principal payment component of \$1,000, due on a future date, at a discount. An investor seeking some current income may wish to purchase the semiannual coupon payments, due over the term of the Treasury securities.

TREASURY RECEIPTS

Treasury receipts are similar to Treasury strips except that broker dealers and banks create them. Broker dealers and banks will purchase large amounts of Treasury securities, place them in a trust, and sell off the interest and principal payments to investors.

AGENCY ISSUES

The federal government has authorized certain agencies and quasi-agencies to issue debt securities that are collectively referred to as agency issues. These

agency securities are secured by revenues generated through taxes, fees, and interest income. Investors who purchase agency securities are offered interest rates that generally fall between the rates offered by similar-term Treasury and corporate securities. Investors who purchase agency issues in the secondary market will be quoted prices for the agency issues that are based on a percentage of par, just like corporate issue.

GOVERNMENT NATIONAL MORTGAGE ASSOCIATION (GNMA)

The Government National Mortgage Association (GNMA), often referred to as Ginnie Mae, is a wholly owned government corporation and is the only agency whose securities are backed by the full faith and credit of the U.S. government. The purpose of Ginnie Mae is to provide liquidity to the mortgage markets. Ginnie Mae buys up pools of mortgages, which have been insured by the Federal Housing Administration and the Department of Veteran Affairs. The ownership in these pools of mortgages is then sold off to private investors in the form of pass-through certificates. Investors in Ginnie Mae pass-through certificates receive monthly interest and principal payments based on their investment. As people pay down their mortgages, part of each payment is interest and part is principal, and both portions flow through to the investor on a monthly basis. The only real risk in owning a Ginnie Mae is the risk of early refinancing. As the interest rates in the marketplace fall, people are more likely to refinance their homes, and, as a result, the investor will not receive the higher interest rates for as long as they had hoped. Ginnie Mae pass-through certificates are issued with a minimum denomination of \$1,000, and the interest earned by investors is taxable at all levels: federal, state, and local.

FEDERAL NATIONAL MORTGAGE ASSOCIATION (FNMA)

The Federal National Mortgage Association (FNMA), also known as Fannie Mae, is a public for-profit corporation. Fannie Mae's stock trades in the market and earns a profit by providing mortgage capital. It is called an *agency security* because Fannie Mae has a credit facility with the government and receives certain favorable tax considerations. Fannie Mae purchases mortgages and, in turn, packages them to create mortgage-backed securities. These mortgage-backed notes are issued in denominations from \$5,000 to \$1,000,000 and pay interest semiannually. Interest earned by investors from Fannie Mae securities is taxable at all levels: federal, state, and local. Fannie Mae has been placed in conservatorship, and its debt is guaranteed by the federal government.

FEDERAL HOME LOAN MORTGAGE CORPORATION (FHLMC)

The Federal Home Loan Mortgage Corporation (FHLMC), also known as Freddie Mac, is also a publicly traded corporation whose stock trades in the

market. Freddie Mac purchases residential mortgages from lenders, packages them into pools, and sells off interest in those pools to investors. Interest earned by investors from FHLMC-issued securities is taxable at all levels: federal, state, and local. Freddie Mac has been placed in conservatorship, and its debt is guaranteed by the federal government.

COLLATERALIZED MORTGAGE OBLIGATION (CMO)

A collateralized mortgage obligation (CMO) is a mortgage-backed security issued by private finance companies as well as by FHLMC and FNMA. The securities are structured much like a pass-through certificate, and their term is set into different maturity schedules, known as tranches. Pools of mortgages on one- to four-family homes collateralize CMOs. Because CMOs are backed by mortgages on real estate, they are considered relatively safe investments. The only real risk that the owner of a CMO faces is the risk of early refinance. CMOs pay interest and principal monthly. However, they pay the principal to only one tranche at a time in \$1,000 payments.

CMOs AND INTEREST RATES

CMOs, like other interest-bearing investments, will be affected by a change in the interest rate environment. CMOs may experience the following if interest rates change:

- If interest rates fall, homeowners will refinance more quickly and the holders of CMOs will be paid off more quickly than they had hoped.
- The rate of principal payments may vary.
- If interest rates rise, refinancing may slow down and the investors will be paid off more slowly than they had hoped.

Most CMOs have an active secondary market and are considered relatively liquid securities. However, the more complex CMOs may not have an active secondary market and may be considered illiquid. Interest earned by investors from CMOs is taxable at all levels: federal, state, and local.

MUNICIPAL BONDS

State and local governments will issue municipal bonds in order to help the local governments meet their financial needs. Most municipal bonds are considered almost as safe as Treasury securities issued by the federal

government. However, unlike the federal government, from time to time an issuer of municipal securities does default. The degree of safety varies from state to state and from municipality to municipality.

THE MONEY MARKET

The money market is a place where issuers go to obtain short-term financing. An issuer who needs funds for a short term, typically less than one year, will sell short-term instruments, known as money market instruments, to obtain the necessary funds. Corporations, municipalities, and the U.S. government all use the money market to obtain short-term financing.

MONEY MARKET INSTRUMENTS

Money market instruments are highly liquid fixed-income securities issued by governments and corporations with high credit ratings. Because of the high quality of the issuers and the short-term maturities, money market instruments are considered very safe.

CORPORATE MONEY MARKET INSTRUMENTS

Both corporations and banks sell money market instruments to obtain short-term financing. These money market instruments include:

- Bankers' acceptances.
- Negotiable certificates of deposits.
- Commercial paper.
- Federal funds.
- Repurchase agreements.

BANKERS' ACCEPTANCES

Corporations, in order to facilitate foreign trade (import/export), use bankers' acceptances (BAs). The BA acts like a line of credit or a postdated check. The BA is a time draft that will be cleared by the issuing bank on the day it becomes due to whoever presents it for payment. The maturity dates on BAs range from as little as one day to a maximum of 270 days (nine months).

NEGOTIABLE CERTIFICATES OF DEPOSIT

A negotiable certificate of deposit (CD) is a time deposit with a fixed interest rate and a set maturity ranging from 30 days to 10 years or more. A negotiable

CD, unlike the traditional CD, may be exchanged or traded between investors. The minimum denomination for a negotiable CD is \$100,000. Many negotiable CDs are issued in denominations exceeding \$1,000,000, but the Federal Deposit Insurance Corporation (FDIC) only insures the first \$250,000.

COMMERCIAL PAPER

Commercial paper is used by the largest and most creditworthy corporations as a way to obtain short-term funds. Commercial paper is an unsecured promissory note, or an IOU, issued by the corporation. Corporations will sell commercial paper to finance such things as short-term working capital or to meet their cash needs due to seasonal business cycles. Commercial paper maturities range from one day to a maximum of 270 days. Commercial paper is issued at a discount of its face value and has an interest rate that is below what a commercial bank would typically charge for the funds. Corporate debt securities with less than one year to maturity, regardless of their original maturity, may be traded in the money market as long as their credit rating qualifies.

FEDERAL FUND LOANS

Federal fund loans are loans between two banks that are typically made for short periods of time. These loans may be exchanged in the money market between investors.

REPURCHASE AGREEMENTS

A repurchase agreement is a fully collateralized loan made between large financial institutions. These loans are collateralized with U.S. government securities that have been sold to the lender. The borrower agrees to repurchase the securities from the lender at a slightly higher price. The slightly higher price represents the lender's interest.

GOVERNMENT MONEY MARKET INSTRUMENTS

The U.S. government and many of its agencies will go to the money market to obtain short-term funds. Some of the government money market instruments include:

- Treasury bills.
- Treasury and agency securities with less than one year remaining.
- Short-term discount notes issued by government agencies.

Government issues with less than one year to maturity, regardless of the original maturity, may be traded in the money market.

LIMITED PARTNERSHIPS

A limited partnership (LP) is an entity that allows all of the economic events of the partnership to flow through to the partners. These economic events are:

- Income
- Gains
- Losses
- Tax credits
- Deductions

The two types of partners in a limited partnership are the limited partners and the general partner. The limited partners:

- Put up the investment capital.
- Losses are limited to their investment.
- Receive the benefits from the operation.
- May not exercise management over the operation.
- May vote to change the objective of the partnership.
- May vote to switch or remove the general partner.
- May sue the general partner, if the general partner does not act in the best interest of the partnership.

A limited partner may never exercise any management or control over the limited partnership. Doing so would jeopardize the limited partner's limited status, such that he or she may be considered a general partner.

The general partner is the person or corporation that manages the business and has unlimited liability for the obligations of the partnership business. The general partner may also:

- Buy and sell property for the partnership.
- Receive compensation for managing the partnership.
- Enter into legally binding contracts for the partnership.

The general partner also must maintain a financial interest in the partnership of at least 1%. The general partner may not:

- Commingle funds of the general partner with the funds of the partnership.
- Compete against the partnership.
- Borrow from the partnership.

It is important to note that there are no tax consequences at the partnership level. In order to qualify for the preferential tax treatment, a direct participation program (DPP) or LP must avoid at least two of the six characteristics of a corporation. These characteristics are:

- Continuity of life.
- Profit motive.
- Central management.
- Limited liability.
- Associates.
- Freely transferable interest.

Several of the characteristics cannot be avoided, such as associates and a profit motive. The easiest two characteristics of a corporation to avoid are continuity of life and freely transferable interest. The LP can put a termination date on the partnership, and substitute limited partners may not be accepted or may only be accepted once the general partner has agreed.

STRUCTURING AND OFFERING LIMITED PARTNERSHIPS

The foundation of every limited partnership is the partnership agreement. All limited partners must be given a copy of the partnership agreement. The partnership agreement will spell out all of the terms and conditions, as well as the business purpose for the partnership. The powers and limitations of the general partner's authority will be one of the main points detailed in the partnership agreement. Prior to forming a limited partnership, the general partner will have to file a certificate of limited partnership in the state in which the partnership is formed. The certificate will include:

- Name and address of the partnership.
- A description of the partnership's business.

- The life of the partnership.
- Size of limited partner's investments (if any).
- Conditions for assignment of interest by limited partners.
- Conditions for dissolving the partnership.
- Conditions for admitting new limited partners.
- The projected date for the return of capital, if one is set.

A material change to any of these conditions must be updated on the certificate within 30 days.

Most limited partnerships will be offered to investors through a private placement. All investors who purchase a limited partnership through a private placement must receive a private placement memorandum. Private placements, with very limited exceptions, may only be offered to accredited investors. However, a few limited partnerships will be offered to the public through a standard public offering. All investors who purchase a limited partnership through a public offering must receive a prospectus. If the partnership is sold through a syndicator, the syndicator is responsible for filing the partnership documents. The maximum fee that may be received by the syndicator is limited to 10% of the offering. If a secondary market develops for a partnership, the partnership will be known as a master limited partnership, or MLP. All investors wishing to become a limited partner must complete the partnership's subscription agreement. The subscription agreement will include:

- A power of attorney appointing the general partner.
- A statement of the prospective limited partner's net worth.
- A statement regarding the prospective limited partner's income.
- A statement from the prospective limited partner that he or she understands and can afford the risks related to the partnership.

TYPES OF LIMITED PARTNERSHIPS

A limited partnership may be organized for any lawful purpose. Limited partnerships are most commonly set up to:

- Invest in real estate.
- Invest in oil and gas wells.
- Engage in equipment leasing.

There are several types of real estate partnerships. They are:

- Existing property.
- New construction.
- Raw land.
- Government assisted housing.
- Historic rehabilitation.

Type of LP	Risk	Advantages	Disadvantages	Tax Benefits
Existing Property Purchase income property	Low	Immediate predictable cash flow	Rental problems & repairs	Deductions for mortgage interest & depreciation
New Construction Build units for appreciation or rental	Higher	Potential capital gains low maintenance	No deduction for current expenses and no promise of rental or sale	Deduction of expenses and depreciation only after completion
Raw land Purchase land for appreciation	Highest	Only appreciation potential	No tax deductions or income	No tax benefits
Government-Assisted Housing Low-income housing	Low	Government rent, subsidies, & tax credits	High maintenance costs; risk of a change in government programs	Tax credits and any losses on the property
Historic Rehabilitation Restore sites for use	Higher	Tax credits	Financing trouble; no rental history	Tax credits, deductions, and depreciation

An investor can participate in several types of oil and gas partnerships. They are:

- Income programs.
- Developmental programs.
- Exploratory or wildcatting.

Intangible drilling costs are usually 100% deductible in the year they are incurred. Intangible drilling costs (IDC) include:

- Geological surveys.
- Wages.

- Supplies.
- Well casings.

Investors in oil and gas programs will be given a depletion allowance for the decreasing reserves.

Type of LP	Risk	Advantages	Disadvantages	Tax Benefits
Income Buys existing wells	Low	Immediate predictable cash flow	Reserves run out or prices fall	Depletion allowance
Developmental Drills near proven reserves	Higher	Higher probability to find reserves than wildcatting	Not many fields ever produce	Immediate deductions for IDCs
Exploratory/ wildcatting Drills to find new reserves	Highest	Huge payoff if significant reserves are found	Not many fields ever produce	Immediate deductions for a high level of IDCs

EQUIPMENT LEASING PROGRAMS

Equipment leasing programs are formed to purchase equipment with the intention of leasing it to a corporation. The program generates income from the lease payments received from the corporation. Investors will receive tax benefits from operating expenses, depreciation of equipment, and any interest expenses paid by the program.

TAX REPORTING FOR DIRECT PARTICIPATION PROGRAMS

Direct participation programs are organized as either limited partnerships or as subchapter S corporations. These entities allow for the flow through of income and losses, and the DPP has no tax consequences. The DPP will only report the results of its operation to the IRS. The responsibility for paying any taxes due rests with the partners or shareholders. DPPs allow the losses to flow through to the investors. Losses from DPPs can only be used to offset the investor's passive income. Investors may not use the losses to shelter or offset the ordinary income. Investors should not purchase DPPs simply for the tax benefits; they should purchase them to earn a return. Any DPP that is found to have been formed simply to create tax benefits may subject the investors to strict penalties. Investors could owe back taxes, fines, or be prosecuted for fraud.

LIMITED PARTNERSHIP ANALYSIS

Before investing in a limited partnership the investor should analyze the key features of the partnership to ensure that the partnership's objectives meet their investment objectives. The investor should review:

- The economic viability of the program.
- Tax considerations.
- Management's ability.
- Lack of liquidity.
- Time horizon.
- Whether it is a blind pool or a specified program.
- Internal rate of return.

A blind pool is a partnership where less than 75% of the assets that the partnership is going to acquire have been identified. In a specified program, more than 75% of the assets that the partnership is going to acquire have been identified.

A partnership's internal rate of return is the discounted present value of its projected future cash flow.

TAX DEDUCTIONS VS. TAX CREDITS

Tax deductions that are generated by partnerships are used to lower the investor's taxable income. A tax credit results in a dollar-for-dollar reduction in the amount of taxes due from the investor.

OTHER TAX CONSIDERATIONS

If a limited partnership has used up all of its deductions and has a gain on the sale of a depreciated asset, the sale above the asset's depreciated cost basis may subject the limited partners to a taxable recapture. There are two types of loans that a partnership may take out: a nonrecourse loan and a recourse loan. With a nonrecourse loan, if the partnership defaults, the lender has no recourse to the limited partners. With a recourse loan, in the event of the partnership's default, the lender can go after the limited partners for payment. A recourse loan can increase the investor's cost base. Partners must monitor their cost base and adjust it for:

- Cash or property contributions to the partnership.
- Recourse loans.
- Any cash or property received from the partnership.

Investors are responsible for any gain on the sale of their partnership interest in excess of their cost basis.

DISSOLVING A PARTNERSHIP

A partnership will terminate on the date set forth in the partnership agreement, unless earlier terminated. A partnership may dissolve if a majority of the limited partners vote for its dissolution. If the partnership terminates its activities, the general partner must cancel the certificate of limited partnership and liquidate the partnership assets. The priority of payment will be as follows:

- Secured lenders.
- General creditors.
- Limited partners' profits first, then return of investment.
- General partner for fees first, then profits, then return of capital.

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Pretest

EQUITY AND DEBT SECURITIES

1. Which of the following is NOT a right of common stockholders?
 - a. Right to elect the board of directors
 - b. Right to vote for executive compensation
 - c. Right to vote for a stock split
 - d. Right to maintain their percentage of ownership in the company

2. Which of the following is NOT true regarding ADRs?
 - a. They are receipts of ownership of foreign shares being held abroad in a U.S. bank.
 - b. Each ADR represents 100 shares of foreign stock, and the ADR holder may request delivery of the foreign shares.
 - c. ADR holders have the right to vote and receive dividends that the foreign corporation declares for shareholders.
 - d. The foreign country may issue restrictions on the foreign ownership of stock.

3. Which of the following is NOT true of authorized stock?
 - a. It is the maximum number of shares a company may sell.
 - b. It is arbitrarily determined at the time of incorporation and may not be changed.
 - c. It may be sold in total or in part when the company goes public.
 - d. It may be sold to investors to raise operating capital for the company.

4. Which of the following issues standardized options?
 - a. The exchanges
 - b. The OCC
 - c. The company
 - d. Nasdaq

5. Common stockholders do not have the right to vote on which of the following issues?
 - a. Election of the board of directors
 - b. Stock splits
 - c. Issuance of additional common shares
 - d. Bankruptcy

6. Which type of bond requires the investor to deposit coupons to receive interest payments but have the owner's name recorded on the books of the issuer?
 - a. Registered bonds
 - b. Bearer bonds
 - c. Book entry/journal entry bonds
 - d. Principal-only bonds

7. Which bonds are issued as a physical certificate without the owner's name on them and require whoever possesses these bonds to clip the coupons to receive their interest payments and to surrender the bond at maturity in order to receive the principal payment?
 - a. Registered bonds
 - b. Book entry/journal entry bonds
 - c. Principal-only registered bonds
 - d. Bearer bonds

8. In a DPP all of the following may be depreciated, EXCEPT:
 - a. buildings.
 - b. machinery.
 - c. equipment.
 - d. raw land.

9. Which of the following are true about an option?
- I. It is a contract between two parties that determines the time and place at which a security may be bought or sold.
 - II. The two parties are known as the buyer and the seller. The money paid by the buyer of the option is known as the option's premium.
 - III. The buyer has bought the right to buy or sell the security depending on the type of option.
 - IV. The seller has an obligation to perform under the contract, possibly to buy or sell the stock depending on the option involved.
- a. II, III, and IV
 - b. I, II, III, and IV
 - c. I, II, and III
 - d. III and IV
10. Which of the following are bearish?
- I. Call seller
 - II. Put seller
 - III. Call buyer
 - IV. Put buyer
- a. II and III
 - b. II and IV
 - c. I and IV
 - d. I and II

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