

investor's guide

# BOND BASICS



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## WHAT ARE BONDS?

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A bond is a debt security, similar to an I.O.U. When you purchase a bond, you are lending money to a government, municipality, corporation, federal agency or other entity known as an *issuer*.<sup>\*</sup> In return for that money, the issuer provides you with a bond in which it promises to pay a specified rate of *interest* during the life of the bond and to repay the *face* value of the bond (the *principal*) when it matures, or comes due.

Among the types of bonds available for investment are: U.S. government securities, municipal bonds, corporate bonds, mortgage- and asset-backed securities, federal agency securities and foreign government bonds. The characteristics of several different types of U.S. bonds are described in the glossary beginning on page 20. Market practices described in this pamphlet apply to the U.S. bond market, and may differ from those in other countries.

Bonds can be also called bills, notes, debt securities, or debt obligations. Throughout this pamphlet, to simplify matters, we will refer to all of these as “bonds.”

## WHY INVEST IN BONDS?

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Many personal financial advisors recommend that investors maintain a diversified investment portfolio consisting of bonds, stocks and cash in varying percentages, depending on individual circumstances and objectives. Whatever your investment goals, your investment advisor can help explain the investment options available, taking into account your income needs and tolerance for *risk*.

Typically, bonds pay interest semiannually, which means they can provide a predictable income stream. Many people invest in bonds for that expect-

<sup>\*</sup> *Terms that appear in italics are defined in the glossary found at the end of this guide.*

ed interest income and also to preserve their capital investment. Understanding the role bonds play in a diversified investment portfolio is especially important for retirement planning. During the past decade, the traditional defined-benefit retirement plans (pensions) have increasingly been replaced by defined contribution programs such as 401(k) plans or IRAs. Because these plans offer greater individual freedom in selecting from a range of investment options, investors must be increasingly self-reliant in securing their retirement.

Whatever the purpose — saving for your children's college education or a new home, increasing retirement income or any of a number of other financial goals — investing in bonds may help you achieve your objectives.

## KEY BOND INVESTMENT CONSIDERATIONS

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**Assessing Risk.** All investments carry some degree of risk, which is linked to the return that investment will provide. A good rule of thumb is that the higher the risk, the higher the return. Conversely, safer investments offer lower returns. There are a number of key variables that comprise the risk profile of a bond: its price, interest rate, *yield*, *maturity*, redemption features, *default* history, credit ratings and tax status. Together, these factors help determine the value of your bond investment and whether it is an appropriate investment for you.

**Price.** The price you pay for a bond is based on a host of variables, including interest rates, supply and demand, *liquidity*, credit quality, maturity and tax status. Newly issued bonds normally sell at or close to *par* (100 percent of the face, or principal, value). Bonds traded in the *secondary market*, however, fluctuate in price in response to changing factors such as interest rates, credit quality, general economic conditions and supply and demand. When the price of a bond increases above its face value, it

is said to be selling at a *premium*. When a bond sells below face value, it is said to be selling at a *discount*.

**Interest Rate.** Bonds pay interest that can be fixed, floating or payable at maturity. *Fixed rate bonds* carry an interest rate that is established when the bonds are issued (expressed as a percentage of the face amount) with semiannual interest payments. For example, a \$1,000 bond with an eight percent interest rate will pay investors \$80 a year, in payments of \$40 every six months. This \$40 payment is called a *coupon payment*. When the bond matures, investors receive the full face amount of the bond, \$1,000.

Some issuers, however, prefer to issue *floating rate bonds*, the rate of which is reset periodically in line with interest rates on Treasury bills, the *London Interbank Offered Rate (LIBOR)*, or some other benchmark interest-rate index.

The third type of bond does not make periodic interest payments. Instead, the investor receives one payment at maturity that is equal to the purchase price (principal) plus the total interest earned, compounded at the original interest rate. Known as *zero coupon bonds*, they are sold at a substantial discount from their face amount. For example, a bond with a face amount of \$20,000 maturing in 20 years might be purchased for about \$5,050. At the end of the 20 years, the investor will receive \$20,000. The difference between \$20,000 and \$5,050 represents the interest, based on an annual interest rate of seven percent, compounded semiannually, until the bond matures. Such *future value* calculations vary somewhat depending on the specific terms of the bond. Since all the *accrued interest* and principal are payable only at the bond's maturity, the prices of this type of bond tend to fluctuate more than those of coupon bonds. If the bond is taxable, the interest is taxed as it accrues, even though it is not paid to the investor before maturity or redemption.

Bond calculators are widely available on websites such as [www.investinginbonds.com](http://www.investinginbonds.com) and [www.investinginbondseurope.org](http://www.investinginbondseurope.org).

**Maturity.** A bond's maturity refers to the date on which the investor's principal will be repaid. Generally, bond terms range from one year to 30 years. Term ranges are often categorized as follows:

- Short-term: maturities of up to 5 years
- Medium-term: maturities of 5 - 12 years
- Long-term: maturities greater than 12 years

The choice of term will depend on when an investor wants the initially invested principal repaid and also on risk tolerance. Short-term bonds, which generally offer lower returns, are considered comparatively stable and safe because the principal will be repaid sooner. Conversely, long-term bonds provide greater overall returns to compensate investors for greater pricing fluctuations and other market risks.

**Redemption Features.** While the maturity date indicates how long a bond will be outstanding, many bonds are structured in such a way so that an issuer or investor can substantially change that maturity date.

**Call Provision.** Bonds may have a redemption - or call - provision that allows or requires the issuer to redeem the bonds at a specified price and date before maturity. For example, bonds are often called when interest rates have dropped significantly from the time the bond was issued. Before you buy a bond, always ask if there is a call provision and, if there is, be sure to consider the *yield to call* as well as the *yield to maturity*. (These terms will be discussed on page 6 and are defined in the glossary). Since a call provision offers protection to the issuer, *callable bonds* usually offer a higher annual return than comparable *non-callable bonds* to compensate the investor for the risk that the investor might have to reinvest the proceeds of a called bond at a lower interest rate.

**Put Provision.** A bond may have a put provision, which gives an investor the option to sell the bond to the issuer at a specified price and date prior to

maturity. Typically, investors exercise a put provision when they need cash or when interest rates have risen so that they may then reinvest the proceeds at a higher interest rate. Since a put provision offers protection to the investor, bonds with such features usually offer a lower annual return than comparable bonds without a put to compensate the issuer.

**Conversion.** Some corporate bonds, known as *convertible bonds*, contain an option to convert the bond into common stock instead of receiving a cash payment. Convertible bonds contain provisions on how and when the option to convert can be exercised. Convertibles offer a lower coupon rate because they have the stability of a bond while offering the potential upside of a stock.

**Principal Payments and Average Life.** Certain bonds are priced and traded on the basis of their *average life* rather than their stated maturity. In purchasing mortgage-backed securities, for example, it is important to consider that homeowners often prepay mortgages when interest rates decline, which may result in an earlier than expected return of principal, reducing the average life of the investment. If mortgage rates rise, the reverse may be true: homeowners will be slower to prepay and investors may find their principal committed longer than expected.

**Yield.** A bond's yield is the return earned on the bond, based on the price paid and the interest payment received. Usually, yield is quoted in *basis points*, or bps. One basis point is equal to one hundredth of a percentage point or 0.01%. For example,  $8.00\% = 800 \text{ bps}$  ( $8.00\% / 0.01\% = 800 \text{ bps}$ ).

There are two types of bond yields: *current yield* and *yield to maturity* (or *yield to call*).

Current yield is the annual return on the dollar amount paid for the bond and is derived by dividing the bond's interest payment by its purchase price.

If you bought a \$1,000 bond at par and the annual interest payment is \$80, the current yield is 800 bps or 8.00% ( $\$80 / \$1,000$ ). If you bought the same bond for \$900 and the annual interest payment is \$80, the current yield is 889 bps or 8.89% ( $\$80 / \$900$ ). Current yield does not take into account the fact that, if you held the bond to maturity, you would receive \$1,000 even though you only paid \$900.

Yield to maturity is the total return you will receive by holding the bond until it matures. This figure is common to all bonds and enables you to compare bonds with different maturities and *coupons*. Yield to maturity equals all the interest you receive from the time you purchase the bond until maturity, including interest earned, plus any gain or loss of principal. Yield to call is the total return you will receive by holding the bond until it is called - or paid off before the maturity date - at the issuer's discretion. In many cases, an issuer will pay investors a premium for the right to call the bonds prior to maturity. Yield to call is calculated the same way as yield to maturity, but assumes that a bond will be called and that the investor will receive the face value of the bond plus any premium on the call date. You should ask your investment advisor for the yield to maturity and the yield to call on any bond you are considering purchasing.

**The Link Between Price and Yield.** From the time a bond is originally issued until the day it matures or is called, its price in the marketplace will fluctuate depending on the particular terms of that bond as well as general market conditions, including prevailing interest rates, the bond's credit and other factors. Because of these fluctuations, the value of a bond will likely be higher or lower than its original face value if you sell it before it matures. In general, when interest rates fall, prices of outstanding bonds with higher rates rise. The inverse also holds true: when interest rates rise, prices of outstanding bonds with lower rates fall to bring the yield of those bonds into line with higher-interest bearing new issues. Take, for example, a \$1,000

bond issued at eight percent. If during the term of that bond interest rates rise to nine percent, it is expected that the price of the bond will fall to about \$888, so that its yield to maturity will be in line with the market yield of nine percent ( $\$80 / \$888 = 9.00\%$ ).

When interest rates fall, prices of outstanding bonds rise until the yield of older bonds match the lower interest rate on new issues. In this case, if interest rates fall to seven percent during the term of the bond, the bond price will rise to about \$1,142 to match the market yield of seven percent ( $\$80 / \$1,142 = 7.00\%$ ).

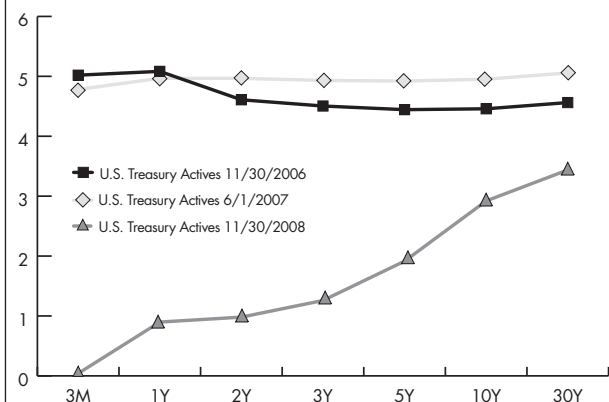
### **The Link Between Interest Rates and Maturity.**

Changes in interest rates do not affect all bonds equally. Generally, the longer a bond's term, the more its price may be affected by interest rate fluctuations. Investors, generally, will expect to be compensated for taking that extra risk. This relationship can be best demonstrated by drawing a line between the yields available on similar bonds of different maturities, from shortest to longest. Such a line is called a *yield curve*.

A yield curve can be drawn for any bond market but is most often drawn for the U.S. Treasury market, which offers bonds of comparable credit quality for many different terms.

By watching the yield curve, as reported in the daily financial press, and online at sites such as [www.investinginbonds.com](http://www.investinginbonds.com) and [www.investinginbondseurope.org](http://www.investinginbondseurope.org), you can gain a sense of where the market perceives interest rates to be heading, which is an important factor that could affect the price of bonds.

### CONSTANT MATURITY YIELD CURVES



A normal yield curve will show a fairly steep rise in yields between short- and intermediate-term issues and a less pronounced rise between intermediate- and long-term issues. This curve shape is considered normal because, usually, the longer an investment is at risk, the more that investment should earn.

The yield curve is said to be steep if the yields on short-term bonds are relatively low when compared to long-term issues. This means you can obtain significantly increased interest income (yield) by buying a bond with a longer maturity than you can with a shorter maturity bond. On the other hand, the yield curve is flat if the difference between short- and long-term rates is relatively small. This means that there is little reward for owning longer-dated maturities.

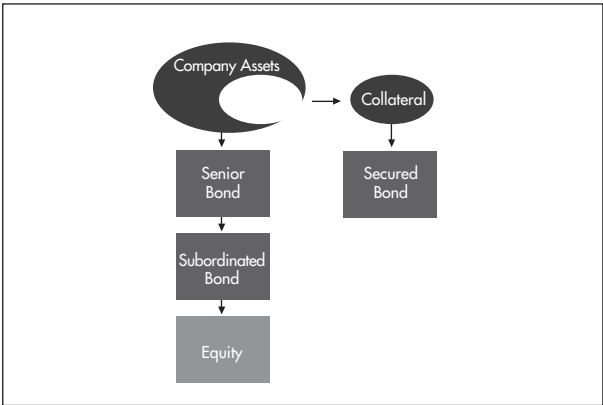
When yields on short-term issues are higher than those on longer-term issues, the yield curve is inverted. This suggests that investors expect interest rates to decline in the future and/or short term rates are unusually high for some reason, e.g., a credit crunch. An inverted yield curve is often indicative of a recession.

As a bond investor, you should know how bond yields and prices are directly linked to economic cycles and concerns about inflation and deflation. As a general rule, the bond market and overall economy benefit from steady, sustainable growth rates. Such moderate economic growth benefits the financial strength of governments, municipalities and corporate issuers which, in turn, strengthens the credit of those bonds you may hold.

But steep rises in economic growth can also lead to higher interest rates because, in response, the Federal Reserve Bank may raise interest rates in order to prevent inflation and slow growth. An increase in interest rates will erode a bond's price, or value. Fear of this pattern is what causes the bond market to fall after the government releases positive economic news, for instance about job growth or housing starts. Since rising interest rates push bond prices down, the bond market tends to react negatively to reports of strong, and potentially inflationary, levels of economic growth. The converse is also true: negative economic news may indicate lower inflation and expected interest rate cuts and, therefore, may be positive for bond prices.

**Default.** Default is the failure of a bond issuer to pay principal or interest when due. Defaults can also occur for failure to meet obligations unrelated to payment of principal or interest, such as reporting requirements, or when a material problem occurs for the issuer, such as bankruptcy.

Bondholders are creditors of an issuer and, therefore, have priority to assets before equity holders (e.g., stockholders) when receiving a payout from the liquidation or restructuring of an issuer. When default occurs due to bankruptcy, the type of bond you hold will determine your status.



*Secured bonds* are bonds backed by collateral. If the bond issuer defaults, the secured debt holder has first claim to the posted collateral.

*Unsecured bonds* are not backed by any specific collateral. In the event of a default, bond holders will need to recover their investment from the issuer. Unsecured debt will generally offer a higher interest rate than those offered by secured debt due to a higher level of risk.

Some bonds, such as *senior bonds*, have priority in making claims over those who hold *subordinated bonds*; a subordinated bond will typically offer a higher interest rate due to the higher level of risk.

**Credit Quality.** The array of credit quality choices available in the bond market ranges from the highest credit quality Treasury bonds, which are backed by the full faith and credit of the United States government, to bonds that are below *investment-grade* and considered speculative, such as a bond issued by a start-up company or a company in danger of bankruptcy. Since a bond may not reach maturity for years to come, credit quality is an important consideration when evaluating investment in a bond. When a bond is issued, the issuer is usually responsible for providing details as to its financial soundness and creditworthiness.

This information can be found in a document, known as an *offering document*, *official statement* or *prospectus*, which is the document that explains the bond's terms, features and risks that investors should know about before investing. This document is usually provided to you by your investment advisor and helps an investor evaluate whether the bond issuer will be able to make its regularly scheduled interest payments for the term of the bond. While no single source of information should be relied on exclusively, rating agencies, securities firms, and bank research staff monitor corporate, government and other issuers' financial conditions and their ability to make interest and principal payments when due. Your investment advisor, or sometimes the issuer of the bond, can supply you with current research.

**Credit Ratings.** In the United States, major rating agencies include Moody's Investors Service, Standard & Poor's Corporation and Fitch Ratings. Each agency assigns its ratings based on analysis of the issuer's financial condition and management, economic and debt characteristics, and the specific revenue sources securing the bond. The highest ratings are AAA (S&P and Fitch Ratings) and Aaa (Moody's). Bonds rated in the BBB/Baa category or higher are considered investment grade; bonds with lower ratings are considered *high yield*, or speculative.

**CREDIT RATINGS\***

		MOODY'S	STANDARD & POOR'S	FITCH
INVESTMENT GRADE	STRONGEST	Aaa	AAA	AAA
	↓	Aa	AA	AA
		A	A	A
		Baa	BBB	BBB
NON-INVESTMENT GRADE		Ba	BB	BB
		B	B	B
		Caa	CCC	CCC
		Ca	CC	CC
		C	C	C
	↑	C	D	D
	WEAKEST			

\* These credit ratings are reflective of obligations with long-term maturities.

Lower ratings are indicative of a bond that has a greater risk of default than a bond with higher ratings. It is important to understand that the high interest rate that generally accompanies a bond with a lower credit rating is being provided in exchange for the investor taking on the risk associated with a higher likelihood of default.

The rating agencies make their ratings available to the public through their ratings information desks and online through their respective websites. In addition, their published reports and ratings are available in many local libraries. Rating agencies continuously monitor issuers and may change their ratings of such issuer's bonds based on changing credit factors. Usually, rating agencies will signal they are considering a rating change by placing the bond on CreditWatch (S&P), Under Review (Moody's) or on Rating Watch (Fitch Ratings).

Not all *credit rating agency* evaluations result in the same credit rating, so it is important to review all available credit ratings. It is also important to read the credit reports and related updates to properly evaluate the underlying credit risks. You should bear in mind that ratings are opinions, and you should understand the context and rationale for each opinion. Investors should not rely solely on credit ratings as a measure of credit risk but, instead, use a multitude of resources to assist in their evaluation and decision making. Additional sources of information include recent independent news reports, formal issuer press releases, research reports and company financial statements.

**Bond Insurance.** The credit quality of a bond can be enhanced by bond insurance, which is provided by a specialized insurance firm that guarantees the timely payment of principal and interest on bonds in exchange for a fee. Insured bonds receive the same rating as corporate rating of the insurer, which is based on the insurer's capital and claims-paying resources. For more information on the role of bond insurance, please see [www.investinginbonds.com](http://www.investinginbonds.com) and [www.investinginbondseurope.org](http://www.investinginbondseurope.org).

**Tax Status.** Some bonds offer special tax advantages. For example, interest from U.S. Treasury bonds is not subject to state or local income tax. Many municipal bonds are triple tax-free; that is, for investors who live in the same state as the issuer, the interest received from the bond may be exempt from federal, state and/or local income tax. However, in certain cases, the interest received may be subject to the individual federal alternative minimum income tax or may have to be taken into account in calculating the taxable portion of social security benefits. Furthermore, a portion of the interest on certain tax-exempt obligations earned by certain corporations may be included in the calculation of adjusted current earnings for purposes of the corporate federal alternative minimum tax, and interest income may also be subject to (i) a federal branch profits tax imposed on certain foreign corporations doing business in the United States or (ii) a federal tax imposed on excess net passive income of certain S corporations. The choice between taxable and tax-exempt bond income depends on one's income tax bracket as well as the difference between what can be earned from taxable versus tax-exempt bonds at the time of and through the entire period of the investment. You may access a yield calculator on [www.investinginbonds.com](http://www.investinginbonds.com) and your investment advisor can help you compare the various tax alternatives. For example, the decision about whether to invest in a taxable bond or a tax-exempt bond can also depend on whether you will be holding the bonds in an account that is already tax-preferred or tax-deferred, such as a pension account, 401(k) or IRA.

## HOW TO INVEST

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There are several ways to invest in bonds, including purchasing individual bonds, or investing in *bond funds* or *unit investment trusts*.

**Individual Bonds.** There is a wide variety of individual bonds to choose from in creating a portfolio that matches your investment needs and expectations.

Most individual bonds are bought and sold in the over-the-counter (OTC) market, although some corporate bonds are also listed on the New York Stock Exchange. The OTC market comprises securities firms and banks that trade bonds; brokers, or agents, who buy and sell bonds on behalf of customers in response to specific requests; and dealers, who keep an inventory of bonds to buy and sell.

If you are interested in purchasing a new bond issue in the *primary market* (when it is first issued) your investment advisor will provide you with the offering document, official statement or prospectus. You can also buy and sell bonds in the secondary market, after they have already been issued in the primary market.

Usually, bonds sold in the OTC market are sold in \$5,000 denominations. In the secondary market for outstanding bonds, prices are quoted as if the bond were traded in \$100 increments. Thus, a bond quoted at 98 refers to a bond that is priced at \$98 per \$100 of face value, which equates to buying a bond with a face value of \$5,000 for \$4,900 (or at a two percent discount).

Bond prices in the secondary market normally include a markup, which consists of the dealer's costs and profit. An additional commission may be added if a broker or dealer has to locate a specific bond that is not in its inventory. Each firm establishes its own prices, within regulatory guidelines, which will vary depending upon the type of bond, size of the transaction and service the firm provides.

There are a number of resources to help investors compare current prices of bonds. SIFMA's investor education websites, [www.investinginbonds.com](http://www.investinginbonds.com) and [www.investinginbondseurope.org](http://www.investinginbondseurope.org), offer recent and historical price data on corporate and municipal bonds. Investors can sort and search the data by a variety of criteria and broad categories, such as yields, ratings, or prices. Prices of U.S. corporate bonds are now more widely available, as mandated by rules issued by the Financial Industry Regulatory Authority (FINRA). For municipal bonds, transaction price data and daily summary of trading activity can be obtained

from the Municipal Securities Rulemaking Board's Electronic Municipal Market Access portal at <http://emma.msrb.org>.

For the U.S. government bond market, Treasury bond yields are posted on both [www.investinginbonds.com](http://www.investinginbonds.com) and [www.investinginbondseurope.org](http://www.investinginbondseurope.org) and are updated throughout the day. SIFMA's investor websites also provide links to multiple services that provide price and yield information on many market segments. There are also a number of other internet sites, media sources and vendors that provide current and historical information on the primary and secondary markets. You can also compare prices for specific bonds through your broker or financial advisor.

**Bond Funds.** Bond funds, like stock funds, offer professional selection and management of a portfolio of bonds for a fee. Through a bond fund, an investor can diversify risks across a broad range of issues and opt for a number of other conveniences, such as the option of having interest payments either reinvested or distributed periodically.

Some funds are designed to follow a market, in general or a specified index of bonds. These are often referred to as index or passive funds. Other funds are actively managed according to a stated objective, with bonds purchased and sold at the discretion of a fund manager. In contrast to an individual bond investment, a bond fund does not have a specified maturity date because bonds being added to and eliminated from the portfolio in response to market conditions and investor demand. With *open-end mutual funds*, an investor is able to buy or sell a share in the fund at any time at the fund's net asset value. Because the market value of bonds fluctuates, a fund's net asset value will change to reflect the aggregate value of the bonds in the portfolio. As a result, the value of investment bond fund may be higher or lower than the original purchase price, depending upon how the underlying portfolio of bonds has performed. Alternatively, *closed-end mutual funds* have a specific number of shares that

are listed and traded on a stock exchange. The price of closed-end funds will fluctuate not only with the price of the underlying portfolio, but also the supply and demand of the shares of the fund, and so may be priced at, above, or below the net asset value of the fund's holdings. Because the fund managers are less concerned about having to meet investor redemptions on any given day, their strategies can be more aggressive. *Exchange-traded funds*, or ETFs, are similar to closed-end funds, but have transparent portfolios and are generally passively managed.

There are numerous sources of bond fund information available, including personal finance magazines and the internet. Fund research firms also provide detailed analyses by subscription to which many libraries subscribe. In addition, rating agencies also evaluate bond funds for credit and safety.

Most funds charge annual management fees while some also impose initial sales charges or fees for selling shares. When taken into account, fees and sales charges will lower overall returns, so investors need to be aware of total costs when calculating expected returns. Many funds also require a minimum initial investment.

Like individual bonds and other investments, bond fund investments entail risk. Investors should not automatically conclude that a fund offering a higher rate of return or income is better than a fund offering lower rates of return or income. Investors need to be aware of several factors, including the total costs, credit quality, manager quality, risks and the ability to exit these funds before making investment decisions.

**Money Market Funds.** Money market funds refer to pooled investments in short-term, highly liquid securities. These securities include short-term U.S. Treasuries, municipal bonds, certificates of deposit issued by major commercial banks, and commercial paper issued by corporations. Generally, these funds consist of securities and other instruments having maturities of three months or less. Money market funds may offer convenient liquidity, since most allow investors to withdraw their money at any time. The

minimum initial investment is usually between \$1,000 and \$10,000.

**Bond Unit Investment Trusts.** Bond unit investment trusts offer a fixed portfolio of investments in government, municipal, mortgage-backed or corporate bonds, which are professionally selected and remain constant throughout the life of the trust. One of the benefits of a unit trust is that you know exactly how much you will earn while you are invested because the composition of the portfolio remains stable. Since the unit trust is not an actively managed pool of assets, there is usually no management fee, but investors do pay a sales charge, plus a small annual fee to cover supervision, evaluation expenses and *trustee* fees. The minimum initial investment is usually \$1,000. As an investor, you earn interest income during the life of the trust and recover your principal as bonds within the trust are redeemed. The trust typically terminates when the last investment matures.

## INVESTMENT STRATEGY CONSIDERATIONS

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As you create your investment portfolio of bonds, there are various techniques you and your investment advisor can use to help match your investment goals with your risk tolerance.

**Active vs. Passive.** One important consideration is how a portfolio is managed day to day. A portfolio can be actively managed, which means the composition of the portfolio and how often it is traded depend, largely, on the investment decisions made by you or your investment manager. A passively managed portfolio tends to invest in a basket of stocks or bonds (usually mimicking an index) and, generally, employs a buy and hold strategy, where purchases are made for the long term.

**Diversification.** Diversification is the allocation of assets to several categories in order to spread, and therefore possibly mitigate, risk. Regardless of your investment objectives, diversification is an

important consideration in building any portfolio. Diversification can be achieved in any number of ways, including by:

**Bond Type.** Diversification by bond type may provide some protection for a portfolio, so if one sector or asset class experiences a downturn, the performance of other parts of the portfolio may help offset the negative impact. For example, a bond portfolio might consist of a variety of high-yield and investment-grade bonds in order to balance risk and return.

**Laddering.** Another diversification strategy is to purchase bonds of various maturities in a technique called laddering. When you buy bonds with a range of maturities, you are reducing your portfolio's sensitivity to interest rate risk. If, for example, you invested only in short-term bonds, which are the least sensitive to changing interest rates, you would have a high degree of stability but low returns. Conversely, investing only in long-term bonds may result in greater returns, but prices will be more volatile, exposing you to potential losses. Assuming a normal yield curve, laddering allows returns that would be higher than if you bought only short-term issues, but with less risk than if you bought only long-term issues. In addition, you would be better protected against interest rate changes than with bonds of one maturity.

For example, you might invest equal amounts in bonds maturing in 2, 4, 6, 8 and ten years. In two years, when the first bonds mature, you would reinvest the money in a 10-year maturity, maintaining the ladder.

**Barbells.** Barbells are a bond investment strategy similar to laddering, except that purchases are concentrated in the short-term and long-term maturities. This allows the investor to capture high yields from longer maturities in one portion of their portfolio, while using the lower maturities to minimize risk.

**Bond Swap.** *Bond swapping* is the sale of a block of bonds and the purchase of another block of similar market value. Swaps may be made to achieve many goals, including establishing a tax loss, upgrading credit quality, extending or shortening maturity, etc. The most common swap is done to achieve tax savings by converting a paper loss into an actual loss that could partially or fully offset other capital gains or income. We strongly recommend that you speak with your financial advisor to learn more about this investment strategy.

## FOR MORE INFORMATION

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### Conclusion

Always talk with your investment advisor to discuss which investments are most appropriate for you. If you choose to pursue an investment in bonds, be sure to receive more detailed information about each of the specific types of bonds in which you are interested before investing.

### Additional Resources

The SIFMA Foundation for Investor Education provides many educational resources, including: [www.tomorrowsmoney.org](http://www.tomorrowsmoney.org), a suite of five basic personal financial literacy websites for adults; [www.ahorrando.org](http://www.ahorrando.org), a Spanish language version of Tomorrow's Money; [www.pathtoinvesting.org](http://www.pathtoinvesting.org), a basic investor education site; [www.investinginbonds.com](http://www.investinginbonds.com) a resource for multiple audiences, including beginners, those familiar with equities but new to bonds, and sophisticated bond investors; and [www.investinginbondseurope.org](http://www.investinginbondseurope.org), the European sister site to Investing in Bonds, available in five languages.

## GLOSSARY

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**Accrued interest.** Interest deemed to be earned on a security but not yet paid to the investor.

**Ask price (or Offer price).** The price at which a seller offers to sell a security.

**Average life.** On a mortgage security, the average length of time that each principal dollar is expected to be outstanding, based on certain assumptions about prepayment speeds.

**Basis point.** One one-hundredth (.01) of a percentage point. For example, eight percent would be equal to 800 basis points. Yield differences are often quoted in basis points (bps).

**Bearer bond.** A physical bond that does not identify its owner and is presumed to be owned by the person who holds it. In the United States, it has not been legal to issue bearer bonds in the municipal or corporate markets since 1982. As a result, the only bearer bonds that still exist in the secondary market are long-dated maturities issued prior to 1982, which are becoming increasingly scarce. Among the disadvantages of bearer securities are that you must actually clip the coupons and present them to the issuer's trustee in order to receive your interest; and if the bonds are called, you will not automatically be alerted by the issuer or trustee as they do not know who the owners are.

**Bid price.** The price at which a buyer is willing to purchase a bond.

**Bond fund.** An investment vehicle, which invests in a portfolio of bonds that is professionally managed. Types of bond funds include open-ended mutual funds, closed-end mutual funds, and exchange traded funds.

**Bond insurers and reinsurers.** Specialized insurance firms serving the fixed-income market that guarantee the timely payment of principal and interest on bonds they insure in exchange for a fee.

**Bond Swap.** The sale of a block of bonds and the purchase of another of another block of similar market value.

**Book-entry.** A method of recording and transferring ownership of securities electronically, eliminating the need for physical certificates.

**Bullet bond / Bullet maturity.** A bond that pays regular interest, but that does not repay principal until maturity.

**Callable bonds.** Bonds that are redeemable by the issuer prior to the maturity date, at a specified price at or above par.

**Call premium.** The dollar amount paid to the investor by the issuer for exercising a call provision that is usually stated as a percent of the principal amount called.

**Cap.** The maximum interest rate that may be paid on a floating-rate security.

**Closed-end mutual fund.** A fund created with a fixed number of shares which are traded as listed securities on a stock exchange.

**Collar.** Upper and lower limits (cap and floor, respectively) on the interest rate of a floating-rate security.

**Compound interest.** Interest that is calculated on the initial principal and previously paid interest.

**Convertible bond.** A corporate bond that can be exchanged, at the option of the holder, for a specific number of shares of the company's stock. Because a convertible bond is a bond with a stock option built into it, it will usually offer a lower than prevailing rate of return.

**Coupon.** A feature of a bond that denotes the amount of interest due and the date payment will be made.

**Coupon payment.** The actual dollar amount of interest paid to an investor. The amount is calculated by multiplying the interest rate of the bond by its face value.

**Coupon rate.** The interest rate on a bond, expressed as a percentage of the bond's face value. Typically, it is expressed on a semi-annual basis.

**Credit rating agency.** A company that analyzes the credit worthiness of a company or security, and indicates that credit quality by means of a grade, or credit rating.

**Current yield.** The ratio of the interest rate payable on a bond to the actual market price of the bond, stated as a percentage. For example, a bond with a current market price of par (\$1,000) that pays eighty dollars (\$80) per year in interest would have a current yield of eight percent.

**CUSIP.** The Committee on Uniform Security Identification Procedures was established by the American Bankers Association to develop a uniform method of identifying securities. CUSIP numbers are unique nine-character alphanumeric identifiers assigned to each series of securities.

**Dated date (or Issue date).** The date of a bond issue from which a bond begins to accrue interest.

**Default.** A failure by an issuer to: (i) pay principal or interest when due, (ii) meet non-payment obligations, such as reporting requirements or (iii) comply with certain covenants in the document authorizing the issuance of a bond (an indenture).

**Discount.** The amount by which the par value of a security exceeds its purchase price. For example, a \$1,000 par amount bond which is currently valued at \$980 would be said to be trading at a two percent discount.

**Discount note.** Short-term obligations issued at a discount from face value, with maturities ranging from one to 360 days. Discount notes have no periodic interest payments; the investor receives the note's face value at maturity. For example, a one year, \$1,000 face value discount note purchased at issue at a price of \$950, would yield \$50 or 5.26 percent ( $\$50/\$950$ ).

**Discount rate.** The interest rate the Federal Reserve charges on loans to member banks.

**Duration.** The weighted maturity of a bond's cash flows, used in the estimation of its price sensitivity for a given change in interest rates.

**Embedded option.** A provision that gives the issuer or bondholder an option, but not the obligation, to take an action against the other party. The most common embedded option is a call option, giving the issuer the right to call, or redeem, the principal of a bond before the scheduled maturity date.

**Exchange-traded fund.** A fund that tracks an index, a commodity or a basket of assets. It is passively-managed like an index fund, but traded like a stock on an exchange, experiencing price changes throughout the day as they are bought and sold. Bond ETFs like bond mutual funds, hold a portfolio of bonds and can differ widely in their investment strategies.

**Extension risk.** The risk that investors' principal will be committed for a longer period of time than expected. In the context of mortgage- or asset-backed securities, this may be due to rising interest rates or other factors that slow the rate at which loans are repaid.

**Face (or Par value or Principal value).** The principal amount of a security that appears on the face of the instrument.

**Federal funds rate.** The interest rate at which depository institutions lend balances at the Federal Reserve to other depository institutions overnight. The target federal funds rate is set by the Federal Reserve Board's Federal Open Market Committee and is a principal tool of monetary policy. For more information, see [www.federalreserve.gov](http://www.federalreserve.gov).

**Fixed rate bond.** A long-term bond with a set interest rate to maturity.

**Floating rate bond (or Variable rate bond or Adjustable rate bond).** A bond whose interest rate is adjusted periodically according to a predetermined formula; it is usually linked to an interest rate index such as LIBOR.

**Floor.** The lower limit for the interest rate on a floating-rate bond.

**Future value.** The value of an asset at a specified date in the future, calculated using a specified rate of return.

**General obligation bond.** A municipal bond secured by the pledge of the issuer's full faith, credit and taxing power.

**High grade bond.** See Investment-grade bond.

**High-yield bond (or junk bond).** Bonds rated Ba (by Moody's) or BB (by S&P and Fitch) or below, whose lower credit ratings indicate a higher risk of default. Due to the increased risk of default, typically issued at a higher yield than more creditworthy bonds.

**Investment-grade bond (or high grade bond).** Bonds rated Baa (by Moody's) or BBB (by S&P and Fitch) or above, whose higher credit ratings indicate a lower risk of default. These bonds tend to issue at lower yields than less creditworthy bonds.

**Issue date.** See Dated date.

**Issuer.** The entity obligated to pay principal and interest on a bond it issues.

**Interest.** Compensation paid or to be paid for the use of assets, generally expressed as a percentage rate of par.

**Junk bond.** See High-yield bond.

**LIBOR (London Interbank Offered Rate).** The interest rate banks charge each other for short-term eurodollar loans. LIBOR is frequently used as the base for resetting rates on floating-rate securities.

**Liquidity (or marketability).** A measure of the relative ease and speed with which a security can be purchased or sold in a secondary market.

**Marketability.** See Liquidity.

**Maturity.** The date when the principal amount of a security is due to be repaid.

**Mortgage pass-through security.** A debt instrument representing a direct interest in a pool of mortgage loans. The pass-through issuer or servicer collects payments on the loans in the pool and “passes through” the principal and interest to the security holders on a pro rata basis.

**Mutual fund (or Open-end fund).** Investment companies that invest pooled cash of many investors to meet the fund’s stated investment objective. Mutual funds stand ready to sell and redeem their shares at any time at the fund’s current net asset value: total fund assets divided by the number of shares outstanding.

**Non-callable bond.** A bond that cannot be called for redemption by the issuer before its specified maturity date.

**Offer price.** See Ask.

**Offering document (Official statement or Prospectus).** The disclosure document prepared by the issuer that gives in detail security and financial information about the issuer and the bonds or notes.

**Official statement.** See Offering document.

**Open-end mutual fund.** See Mutual fund.

**Par value.** See Face.

**Paying agent.** The entity, usually a designated bank or the office of the treasurer of the issuer, that pays the principal and interest of a bond.

**Premium.** The amount by which the price of a bond exceeds its principal amount.

**Prepayment.** The unscheduled partial or complete repayment of the principal amount outstanding on a loan, such as a mortgage, before it is due.

**Prepayment risk.** The risk that principal repayment will occur earlier than scheduled, forcing the investor to receive principal sooner than anticipated and reinvested at lower prevailing rates. The measurement of prepayment risk is a key consideration for investors in mortgage- and asset-backed securities.

**Present value.** The current value of a future payment or stream of payments, given a specified interest rate; also referred to as a discount rate.

**Primary market.** The market for new issues.

**Principal.** See Face.

**Prospectus.** See Offering document.

**Ratings.** Designations used by credit rating agencies to give relative indications as to opinions of credit quality.

**Registered bond.** A bond whose owner is registered with the issuer or its agent. Transfer of ownership can only be accomplished if the bonds are properly endorsed by the registered owner.

**Reinvestment risk.** The risk that interest income or principal repayments will have to be reinvested at lower rates in a declining interest rate environment.

**Revenue bond.** A municipal bond payable from income derived from tolls, charges or rents paid by users of the facility constructed with the proceeds of the bond issue.

**Risk.** The measurable probability that an actual return will be different than expected. There are many types of risk such as market risk, credit risk, interest rate risk, exchange rate risk, liquidity risk, and political risk.

**Secondary market.** Market for issues previously offered or sold.

**Secured bond.** A bond that is backed by collateral.

**Senior bond.** A bond that has a higher priority than another bond's claim to the same class of assets.

**Settlement date.** The date for the delivery of bonds and payment of funds agreed to in a transaction.

**Sinking fund.** Money set aside by an issuer of bonds on a regular basis, for the specific purpose of redeeming debt. Bonds with such a feature are known as "sinking."

**Subordinated bond.** A bond that has a lower priority than another bond's claim to the same assets.

**Trade date.** The date upon which a bond is purchased or sold.

**Transfer agent.** The party appointed by an issuer to maintain records of bondholders, cancel and issue certificates, and address issues arising from lost, destroyed or stolen certificates.

**Trustee.** An institution, usually a bank, designated by the issuer as the custodian of funds and official representative of bondholders. Trustees are appointed to ensure compliance with the trust indenture and represent bondholders to enforce their contract with the issuers.

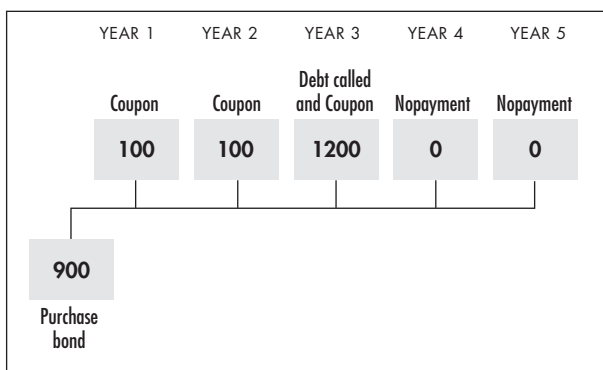
**Unit investment trust.** An investment fund created with a fixed portfolio of investments to provide a steady, periodic flow of income to investors.

**Unsecured bond.** A bond that is not secured by collateral.

**Yield.** The annual percentage rate of return earned on a bond calculated by dividing the coupon interest rate by its purchase price.

**Yield curve.** A line tracing relative yields on a type of bond over a spectrum of maturities ranging from three months to 30 years.

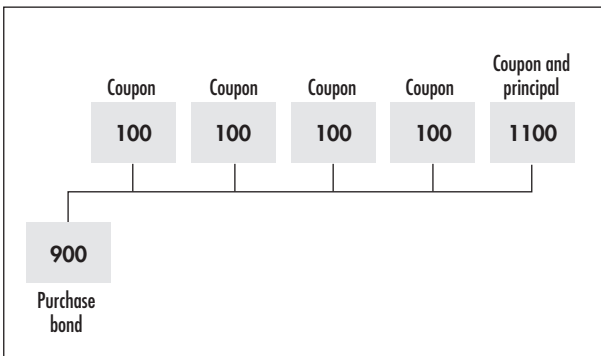
**Yield to call.** The yield on a bond calculated by dividing the value all interest payments that will be paid until the call date, plus interest on interest, by the principal amount received on the call date at the call price, taking into consideration whatever gain or loss is realized from the bond at the call date.



Example: You pay \$900 for a five year bond with a face value of \$1000. The bond pays an annual coupon of ten percent. This bond is called at year three for \$1,100.

The yield to call of this bond is 18.4 percent. This reflects the three years of coupon payments and the difference between the price paid and the call price. Had the bond not been called, the yield to maturity would have been 12.8 percent. Bond calculators may be found at <http://investinginbonds.com>

**Yield to maturity.** The yield on a bond calculated by dividing the value of all the interest payments that will be paid until the maturity date, plus interest on interest, by the principal amount received at the maturity date, taking in to consideration whatever gain or loss is realized from the bond at the maturity date.



Example: You pay \$900 for a five year bond at a face value of \$1000. The bond pays an annual coupon of ten percent.

Here the yield to maturity is 12.8 percent. This reflects the coupon payments and the difference between the price and the face value of the bond. Bond calculators may be found at <http://investinginbonds.com>.

**Zero-coupon bond.** A bond which does not make periodic interest payments; instead the investor receives one payment, which includes principal and interest, at redemption (call or maturity). See Discount note.



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