# A Primer for Investing in Bonds 

Bonds can provide a predictable stream of income that you can use for living expenses.


Texas State Securities Board

In partnership with


Investor Protection Institute


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## About the Investor Protection Institute

Investor
Protection
InstituteThe Investor Protection Institute (IPI) is a nonprofit organization that promotes investor protection by conducting and supporting research and education programs. For additional information, visit www.protectinvestors.org.

## More resources and tools

A variety of noncommercial investor education and protection materials, including booklets, videos and curricula, are available and can be downloaded for educational purposes at www.investorprotection.org.

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## Bonds offer an opportunity to spread your risk

## What Is a Bond?

A bond is basically a loan issued by a corporation or government entity. The issuer pays the bondholder a specified amount of interest for a specified time, usually several years, and then repays the bondholder the face amount of the bond.

Bonds may belong in your investment plan for a number of good reasons:

■ Bonds can provide a predictable stream of relatively high income that you can use for living expenses or for funding other parts of your investment plan.

■ Bonds offer an opportunity to spread your risk. During a recession, for instance, prices of high-quality bonds may go up even as prices of stocks go down. (Of course, bonds can also lose value. See page 5.) - Bonds can generate profits from capital gains. - Bonds can provide valuable tax advantages. In particular, interest from most bonds issued by state and local governments and their agencies is exempt from federal income tax and may be exempt from local income taxes, too.

Note that the word "safety" doesn't appear on this list. People often think that bonds are about the safest investment around. But as you'll see, such a notion is not always correct.

## How Do Bonds Work, Anyway?

Bonds are IOUs issued by corporations (both domestic and foreign), state and city governments and their
agencies, the federal government and its agencies, and foreign governments. They are issued for periods as short as a few months to as long as 30 years, occasionally even longer.

When you buy a bond, you become a creditor of the issuer; that means the issuer owes you the amount shown on the face of the bond, plus interest. (Bonds typically have a face value of $\$ 1,000$ or $\$ 5,000$, although some come in larger denominations.) You get a fixed amount of interest on a regular scheduleevery six months, in most cases-until the bond matures after a specified number of years. At that time you are paid the bond's face value. If the issuer goes broke, bondholders have first claim on the issuer's assets, ahead of stockholders.

In most cases, you won't receive the actual bond certificate. Bond ownership is usually in the form of a "book entry," meaning the issuer keeps a record of buyers' names but sends out no certificates. U.S. Treasury bonds, for instance, are issued only electronically or by banks and brokers in book-entry form.

After bonds are issued, they can be freely bought and sold by individuals and institutional investors in what's called the secondary market, which works something like a stock exchange.

All bonds share these basic traits, but they come in a variety of forms. Let's take a closer look.

Secured bonds are backed by a lien on part of a corporation's plant, equipment or other assets. If the

## Bonds can be freely bought and sold

corporation defaults, those assets can be sold to pay back bondholders.

Debentures are unsecured bonds, backed only by the general ability of the corporation to pay its bills. If a company goes broke, debentures can't be paid off until secured bondholders are paid. Subordinated debentures are another step down the totem pole. Investors in these don't get paid until after holders of so-called senior debentures get their money.

Zero-coupon bonds may be secured or unsecured. They are issued at a big discount from face value because they pay no interest until maturity, when the interest is paid in a lump sum at the same time the bond is redeemed and you get your original investment back. However, tax on the interest is due in the year in which it accrues, as if you had received it, unless the bond is in an IRA or other tax-deferred account.

Municipal bonds are issued by state or city governments, or their agencies, and come in two varieties:

General obligation bonds are backed by the full taxing authority of the government that issues the bonds. Revenue bonds are backed only by the receipts from a specific source of revenue, such as a bridge or highway toll, and thus are not considered as secure as general obligation bonds. Interest paid on municipal bonds is generally exempt from federal income taxes and usually income taxes of the issuing state as well. Interest on "private purpose" municipal bonds-those that provide some benefits to private activities-may
be subject to the Alternative Minimum Tax, however.
Build America Bonds, created in the aftermath of the financial crisis of 2008, are municipal bonds that pay taxable interest, but usually at a higher rate than paid by tax-free bonds of comparable quality and maturity. The idea is that the higher rate compensates for the fact that the investor will lose some of the interest to the tax man. Some BABs pay an interest rate similar to tax-free bonds, but the people who buy them get a federal tax credit to offset (and oftentimes

> Treasury securities are backed by the full faith and credit of the federal government, which is an ironclad guarantee you'll get your money back.

more than offset) the tax bill. BAB bonds are designed to appeal to pension plans, IRAs and other non-taxable or tax-deferred entities. Originally, no new BABs were to be issued after 2010, but the program may be extended. In any event, the bonds will be available in the secondary market.
U.S. Treasury debt obligations that mature in a year or less are called Treasury bills and those that mature in more than one year to ten years may be called Treasury notes. Treasury securities that come due in more than ten years are called Treasury bonds.


All are backed by the full faith and credit of the federal government, which is an ironclad guarantee that you'll get your money back. Interest from Treasuries is exempt from state and local income taxes but not from federal income tax.

Agency securities are issued by various U.S. gov-ernment-sponsored organizations, such as Fannie Mae or the Tennessee Valley Authority. Although they are not technically backed by the full faith and credit of the U.S. Treasury, they are widely considered to be moral obligations of the federal government.

Treasury inflation protected securities, or TIPS, are Treasury bonds that adjust with changes in con-sumer-price inflation. The value of a TIPS adjusts upward when consumer prices rise and adjusts downward when prices fall (although you cannot get back less than your original principal). The interest rate applies to the adjusted principal, so if the Consumer Price Index rises, your interest payments also rise.

Callable bonds are issues that can be redeemed, or "called," before they mature. A company might decide

U.S. savings bonds come in three varieties: series EE bonds; inflation-indexed bonds, or I-bonds; and HH bonds, which were created to produce income but are no langer being sold. You can buy savings bonds online at www.treasurydirect.gov. Unlike the othe bonds discussed in this booklet, savings bonds do not trade in the secondary market.

Series EE bonds pay a fixed rate of interest for the $30-y=a r$ life of the bond. Interest is compounded semiannually, with a three-month interest penalty $f$ the bond is cashed in before five years. Inflation-adjusted I-bonds make interest payments in two parts. You get an underlying fixed rate, announced when the bond is issued, plus a second rate equal to the level of inflation. You can't redeem the bond within the first year of ownership and you must hold it for at least five years to avoid forfeiting three months of accrued interest. The inflationadjusted interest rate changes every six months. The federal government guarantees that if there is deflation-meaning that prices actually fall-for a specific six-month period, the earnings rate can never go below zero and the redemption value of the bonc zan't be less than what you paid for it.

## Interest on a new bond is called the coupon rate

to call its bonds if, for instance, interest rates fell so that it could issue new bonds at a lower rate and thus save money. If a bond is called for more than you paid for it, you owe tax on the profit.

Convertible bonds are corporate bonds that can be swapped for the same company's common stock at a fixed ratio-a specified amount of bonds for a specified number of shares of stock.

## How Much Does a Bond Really Pay?

When a new bond is issued, the interest rate it pays is called the coupon rate, which is the fixed annual payment expressed as a percentage of the bond's face value. (It's called a coupon rate because in the past, bonds actually came with coupons that were detached and redeemed for each interest payment; now the payments are almost universally handled electronically.) A 5\% coupon bond pays $\$ 50$ a year interest on each $\$ 1,000$ of face value, a $6 \%$ coupon bond pays $\$ 60$ and so forth. That's what the issuer will pay-no more, no less-for the life of the bond. But the return you earn from the bond may differ from the coupon rate, and understanding why is the key to unlocking the real potential of bonds.

Yield versus price. Take a new bond with a coupon interest rate of $5 \%$, meaning it pays $\$ 50$ a year for every $\$ 1,000$ of face value. What happens if interest rates rise to $6 \%$ after the bond is issued? New bonds will
have to pay a 6\% coupon rate or no one will buy them. By the same token, you could sell your 5\% bond only if you offered it at a price that produced a 6\% yield for the buyer. So the price at which you could sell would be the price for which $\$ 50$ represents $6 \%$-in this case, $\$ 833.33$. Thus, you'd lose $\$ 142.86$ if you sold. (If, however, you held the bond to maturity and the issuer didn't default, you'd get back the full $\$ 1,000$ you paid for the bond.)

But what if interest rates were to decline? Let's say rates drop to 4\% while you're holding your 5\% bond. New bonds would be paying only $4 \%$ and you could sell your old bond for the price for which $\$ 50$ represents $4 \%$. Because $\$ 50$ is $4 \%$ of $\$ 1,250$, selling your $5 \%$ bond when interest rates are at $4 \%$ would produce

a $\$ 250$ capital gain. A.ctual prices are also affected by tee length of time left before the bond matures and by tาe likelihood that the issue will be called. But the uncerlying principle is the same, and it is the single most important thing to remember about the relationship between the market value of the bonds you hold and

> The key to unlocking the
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changes in current interest rates: As interest rates rise, bond prizes fall; as interest rates fall, bond prices rise.

The farther away tee bond's maturity or call date, the more volatile its price tends to be. Because of this relat onship, the actual yield to an investor depends in large part on where interest rates stand on the day the bond is purchased. So the vocabulary of the bond mark.et needs more than one definition for yield.

Coupon yield, the annual payment expressed as a percentage of the bond's face value, is only one way to look at a bond's payout. Current yield is the annual interest payment calculated as a percentage of the bond's current marke: price. A 5\% coupon bond selling for \$90C has a current yield of $5.6 \%$, which is figured by taking the $\$ 50$ in a nual interest, dividing it by the
\$900 market price and multiplying the result by 100.
Yield to maturity includes the current yield and the capital gain or loss you can expect if you hold the bond to maturity. If you pay $\$ 900$ for a $5 \%$ coupon bond with a face value of $\$ 1,000$ maturing five years from the date of purchase, you will earn not only $\$ 50$ a year in interest but also another $\$ 100$ when the bond's issuer pays off the principal. By the same token, if you buy that bond for $\$ 1,100$, representing a $\$ 100$ premium, you will lose $\$ 100$ at maturity.

## How to Reduce the Risks in Bonds

Inflation and rising interest rates are two of the biggest risks bondholders face. Inflation erodes the value of those fixed payments to bondholders. If investors see inflation accelerating, they are likely to demand higher interest rates to lend money. And if interest rates rise, the market value of the bonds you own will decline. This unalterable relationship suggests the first of several risk-reducing steps you can take as a bond investor:

Don't buy bonds when interest rates are low or rising. The ideal time to buy bonds is when interest rates have stabilized at a relatively high level or when they seem about to head down.

Stick to short- and intermediate-term issues. Maturities of three to five years will reduce the potential ups and downs of your bond holdings. They fluctuate less in price than longer-term issues, and they don't require you to tie up your money for ten or more years

## As interest rates rise, bond prices fall

in exchange for a relatively small additional yield.
Acquire bonds with different maturity dates to diversify your holdings. One common approach is to build a "bond ladder." For example, you could buy bonds maturing in one, two, three, four and five years. As each bond matures, you buy another one coming due in five years. If rates rise, you'll have to wait no more than one year to reinvest some of your money at the higher rate; if rates fall, you'll have some of your money locked in to the higher rate for five years.

Default risk. An increase in interest rates isn't the only potential enemy of bond investors. Another risk is the chance that the issuer won't be able to pay off bondholders.

It's not realistic to expect that you could do the kind of balance-sheet analysis it takes to size up a company's ability to pay off its bonds in ten, 20 or even 30 years. Assessing the creditworthiness of companies and government agencies issuing bonds is a job for the pros, the best known of which are Standard \& Poor's (S\&P) and Moody's. If the issuer earns one of the top four "investment grades" assigned by the companies-AAA, AA, A or BBB from Standard \& Poor's, and Aaa, Aa, A or Baa from Moody's-the risk of default is considered low.

See the box on page 7 for a breakdown of the firms' ratings systems for issues considered to be worthy of the investment-grade designation. Sometimes the ratings will be supplemented by a "+" or a "-" sign.

Ratings that are below investment grade (BB, Ba or B) indicate that the bonds are considered either "speculative" or in real danger of default (various levels of $C$ and, in the S\&P ratings, a D , indicate that the issue is actually in default).

You can consider any issue rated speculative or lower to be a "junk" bond, although brokers and mutual funds usually call them "high-yield" issues.

Individual junk bonds are risky; it's best to avoid them unless you're willing to study a company closely. Alter-

Assessing creditworthiness of companies and government
agencies that are issuing
bonds is a job for the pros,
such as Standard \& Poor's.
natively, you could invest in junk bonds through a mutual fund or an exchange-traded fund (ETF), which would spread out your risk among dozens of issues. Consider junk bonds to carry risks similar to those of stocks.

Check the rating of any bond you're considering purchasing. A broker can give you the rating, or you can look it up in the Moody's or S\&P bond guides found in many libraries. Online sources for ratings include S\&P (www.standardandpoors.com) and Bondsonline.com. Moody's also has a Web site (www.moodys.com), although you may find it difficult to search for ratings

A PRIMER FOR INVESTING IN BONDS DECIPHERING THE BOND RATINGS

## AAA from Standard \& Poor's; Aaa from

Moody's. Either of these is the highest possible rating, indicating the agencies' highest degree of confidence in the issuer's ability to pay interest and repay the principal.
AA from S\&P; Aa from Moody's. A very high rating, only marginally weaker than the highest. An A ratirg from either S\&P or Moody's indicates a high capacity to repay debt but slightly more vulnerabiilty to adverse economic developments.

BBB from S\&P; Baa from Moody's. The lowest investment-grade rating, indicating "adequate" capacity to pay principal and interest but more vulnerabi.ity to adverse economic developments.
of individual companies.
For a mutual fund, the prospectus will describe the lowest rating acceptable to the fund's managers, and the annual reports should list the bonds in the fund's portfolio, alcng with their ratings.

In general, the lower the rating, the higher the yield a bond must offer to compensate for its risk.

Spread your bond holdings across several different issuers, whe-her corporate or municipal. The fact that a municipal or corporate bond has a high rating is no guarantee that it is completely safe. Bonds issued by the federal government are the only exceptions to this rule. One way to diversify your bond investments is to buy shares $n$ bond mutual funds.

Pay attention to the news. The rating agencies do a good job of tracking the issues they've rated, raising or
lowering ratings when they think a change is justified. The last thing you want is to have the rating of a bond issue lowered while you're holding it in your portfolio. Even a slight downgrade can affect a bond's value. To guard against a downgrade, you have to pay attention to the company's prospects after you buy the bond.

Consider a bond's rating in the context of other information about bond issues you might buy. For example, compare the bond's price and yield with those of bonds that have identical ratings to see which is the better buy. And make sure you're looking at the bond's current credit rating.

Finally, make sure there's a market for the bond. This advice sounds obvious, but one thing that can cause junk bonds to lose so much of their value so fast is a situation in which there are suddenly many, many sellers and very few buyers, as when bad news hits.

## Going the Mutual Fund Route

Buying individual bonds offers several benefits. You know which bonds you own. You can control their maturities. And you don't have to pay ongoing fees. Plus, if you hold to maturity and the issuer doesn't default, you know you'll receive the bond's face value.

On the other hand, many investors may prefer owning bonds through managed vehicles, such as mutual funds. Funds are convenient. They let you spread your risk and provide professional management. But they have their drawbacks. If you invest in

## You're better off using funds to buy risky bonds

##  STATE SECURITIES REGULATORS

State Securities Regulators have protected investors from fraud for nearly 100 years. Securities markets are globa., but securities are sold locally by professionals who are licensed in every state where they conduct business. State Securities Regulatcrs work within your state government to protect investors and help maintain the integrity of the securities industry.

## Your State Securities Regulator can:

- Verify that a broker-dealer or investment adviser is properly licensed;
- Provide information about prior run-ins with regulators that led to disciplinary or enforcement actions; serious complaints that may have been lodged against them; their educational background and previous work history; - Provide a Web site, telephone number or address where you can file a complaint; and $\square$ Provide noncommercial investor-education and -protection materials.

For contact information for your State Securities Regulator, visit the North American Securities Administrators Association (NASAA) Web site at www nasaa.org and click on "Contact Your Regulator."
a fund, for example, you don't know in real time which bonds you own (most funds report their holdings quarterly). You'll have to pay management fees and, perhaps, sales charges. And, except in rare instances, a fund doesn't mature. So when you sell your shares, you may get more money than you paid, or the same amount, or possibly even less.

Here's a good rule for deciding whether to purchase individual bonds or go with a mutual fund: The simpler and safer the bond-think Treasuries and high-quality corporate bonds-the more appropriate it is to buy an individual issue. The riskier and more complex the in-strument-think junk bonds, foreign bonds and assetbacked securities-the better off you'll be investing through a mutual fund or an exchange-traded fund.

Bond mutual funds, which you buy through an intermediary (such as a broker or financial planner) or directly from the fund sponsor, and ETFs come in a variety of styles and flavors. You can buy funds that specialize in Treasuries, municipal bonds, foreign bonds and mortgage securities, as well as funds that buy all sorts of bonds.

Wrap up. Whatever vehicle you use for investing in bonds, keep your expectations modest. In general, you don't buy bonds to get rich. You buy them to get higher income than you could expect from a savings account and to temper the risk of more-aggressive investments, such as stocks and commodities.

Accrued interest. Interest that is due (on a bond, for example) but that hasn't yet been paid.

Bond. An interest-bearing security that obligates the issuer to pay a specified amount of interest for a specified time (usually several years) and then repay the bondholder the face amount of the bond.

Bond rating. A judgment about the ability of a bond issuer to fulfill its obligation to pay interest and repay the principal when it is due.

Call. The ability of a bond issuer to redeem a bond before its maturity date.

Capital gain (or loss). The difference between the price at which you buy an investment and the price at which you sell it.

Central Registration Depository (CRD). A computerized database that contains information about most brokers, their representatives and the firms they work for.

Compound interest. This is really interest paid on interest. When interest is earned on an investment and added to the original amount of the investment, future interest payments are calculated on the new, higher total.

Coupon rate. A way of expressing bond yield, this is the fixed annual interest payment expressed as a percentage of the face value of the bond. For example, a $5 \%$ coupon bond pays $\$ 50$ interest a year on each $\$ 1,000$ of face value.

Diversification. The method of balancing risk by investing in a variety of securities.

Exchange-traded funds (ETFs). Mutual funds that trade like stocks on the exchanges. Their portfolios generally track an index that represents a particular market or a slice of a market.

Face value. The amount an issuer pays to a bondholder when the bond reaches maturity.

Maturity. The amount of time it takes for a bond to pay the face value. Bonds are issued with varying maturity dates.

Mutual fund. A professionally managed portfolio of stocks, bonds or other investments divided up into shares.

## North American Securities Administrators Association

(NASAA). Membership organization for state securities regulators
who work to protect investors' interests (www.nasaa.org).
Portfolio. The collection of all of your investments.
Prospectus. The document that describes a securities offering or the operations of a mutual fund, a limited partnership or other investment.

Risk. The possibility that you may lose some (or all) of your original investment. In general, the greater the potential gain from an investment, the greater the risk that you might lose money.

Risk tolerance. Risk tolerance is the degree to which you are willing to risk losing some (or all) of your original investment in exchange for a chance to earn a higher rate of return. In general, the greater the potential gain from an investment, the greater the risk that you might lose money.

Secondary market. The general name given to marketplaces where stocks, bonds, mortgages and other investments are traded after they have been issued and sold initially.

State Securities Regulators. Agencies that work within state governments to protect investors and help maintain the integrity of the securities industry.

Stock. A share of stock represents ownership in the company that issues it. The price of the stock goes up and down, depending on how the company performs and how investors think the company will perform in the future.

Total return. An investment-performance measure that combines two components: any change in the price of the shares and any dividends or other distributions paid to shareholders over the period being measured. With mutual funds, total-return figures assume that dividends and capital-gains distributions are reinvested in the fund.

Yield. In general, the annual cash return earned by a stock, bond, mutual fund or other investment. Bond yields can take many forms. Coupon yield is the interest rate paid on the face value of the bond. Current yield is the interest rate based on the actual purchase price of the bond, which can be higher or lower than the face value. Yield to maturity is the rate that takes into account the current yield and the face value, with the difference assumed to be amortized over the remaining life of the bond.

# WHERE TO FIND MORE FREE INFORMATION ABOUT INVESTING 

The following booklets from the Editors of Kiplinger's Personal Finance magazine and the Investor Protection Trust are available at your library and offices of State Securities Regulators.

## Five Keys to Investing Success

Make investing a habit
Set exciting goals
Don't take unnecessary risks
Keep time on your side
Diversify

## The Basics for Investing in Stocks

Different flavors of stocks
The importance of diversification
How to pick and purchase stocks
Key measures of value and finding growth
When to sell
What's your return?
Consider mutual funds

## A Primer for Investing in Bonds

How do bonds work, anyway?
How much does a bond really pay?
How to reduce the risks in bonds
Going the mutual fund route

## Mutual Funds and ETFs: Maybe All You'll Ever Need

Mutual funds: The best investment The different types of funds How to choose funds and assemble a portfolio Solrces of mutual fund information Where to buy funds

Getting Help With Your Investments
Do you need a financial adviser?
Who's who among financial advisers
How to choose an adviser
5 questions to ask before you hire an adviser
How to open an account
What can go wrong
How to complain

## Maximize Your Retirement Investments

Three key rules
Creating the right investment mix
Guidelines for saving at every life stage
Investing on target
Best places to save
Getting the money out
Creating an income stream
Protect your money: Check out a broker or adviser

## Where to Invest Your College Money

The basics of investing for college Investing in a 529 savings plan Locking in tuition with a prepaid plan Other tax-favored ways to save
Tax credits for higher education
Save in your child's name?

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[^0]
[^0]:    A variety of noncommercial investor education and protection materials, including booklets, videos and curricula, are available and can be downloaded for educational purposes at www.investorprotection.org.

