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INVESTING IN BONDS

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Whether you are a seasoned investor or a beginner, you will probably want to allocate your assets so that some of the investments in your portfolio generate a steady and reliable stream of income. For younger people, that income will balance out the periodic dips in a stock-dominated portfolio; for those in retirement, it will provide money to live on. Getting that steady income often entails investing in bonds. Bonds are debt instruments issued by a corporation or a government (federal, state or municipal). When you buy a bond, you are basically becoming a creditor to the bond issuer, who pays you regular interest and repays the initial investment at a future date.

The value of bonds fluctuates with inflation and interest rates. Susceptibility to these factors is figured into the pricing of bonds. The more risk, the higher the yield. Investors demand higher yields for longer maturities because the longer you own bonds the more risk you face from interest rate changes or rising inflation.

Another issue to consider is default risk. The credit quality of companies and governments is closely monitored by the two major debt-rating agencies—Standard & Poor's and Moody's. They assign credit ratings based on the entity's perceived ability to pay its debts over time. Those ratings help determine the interest rate that a company or government has to pay when it issues bonds. Once issued, the market determines the price and resulting effective yield of bonds.

Buying Bonds

Bonds can be purchased through many financial institutions, but the most cost-effective way to buy bonds is through the government's commission-free Treasury Direct program (*www.treasurydirect.gov*), which allows you to bypass brokers and their fees. An application to open an account may be obtained online by linking to the New York Federal Reserve's Web site or by contacting your nearest Federal Reserve Bank or the U.S. Bureau of Public Debt (202-874-4000).

Two- and 3-year notes are available for a $5,000 minimum investment, while 5- and 10-year notes have $1,000 minimums. If for some reason you need to sell the bonds in a Treasury Direct account before they mature, you will have to have them transferred to a broker, who will charge about $50 per transaction. In addition, Treasury Direct accounts of $100,000 or more are subject to an annual $25 maintenance fee.

Types of Bonds

Most bonds are issued by one of three groups: the U.S. government; state and local governments; or corporations. These entities issue many different types of bonds that vary in terms of risk, reward and practicality for your needs. The most common bond types are discussed below.

1. U.S. government bonds

The bonds issued by the U.S. government are collectively referred to as "treasuries." They're grouped in three categories: U.S. Treasury bills that mature in 90 days to 1 year; U.S. Treasury notes that mature in 2 to 10 years; and U.S. Treasury bonds that mature in 10 to 30 years.

Treasuries are widely regarded as the safest bond investments because they are backed by "the full faith and credit" of the U.S. government. Income earned from treasuries is exempt from state and local taxes. Interest rates for T-Bills closely follow those for certificates of deposit (CDs), which are issued by banks. Bonds of longer maturity tend to have higher interest

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rates (coupons) because the buyer assumes more risk. A 30-year treasury has longer to pay interest than a 90-day T-bill or a 5-year note, but it is also at much more risk of losing value because of inflation or rising interest rates.

2. Agency bonds

Agency bonds are issued by a federal government agency or a privately owned corporation that is sponsored by the federal government. Agency bonds are considered relatively safe and liquid. They have slightly higher yields than treasuries, but these are offset by brokerage commission costs, which run about 0.5 percent, or 50 basis points. One type of agency bond is mortgage-backed bonds, which represent ownership in a package of mortgage loans issued or guaranteed by government agencies such as the Government National Mortgage Association (sometimes called Ginnie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae). These bonds usually require a minimum investment of $25,000. The primary risk with these bonds is that the issuer may decide to pay them off early. Even then, bond holders get back their principal plus whatever interest has been paid so far.

3. Municipal bonds (Munis)

Municipal bonds are a step up on the risk scale from Treasuries. Municipal bonds are issued by state and local governments and come in two types—general obligation bonds or revenue bonds. General obligation bonds are issued to finance the building of roads, schools and infrastructure and are backed by taxes collected by the issuing government. Revenue bonds are riskier because payments are secured only by the income of the specific project the bond is financing. Munis are backed by the full faith and credit of the local issuing government and rarely default. Thanks to the U.S. Constitution, the federal government can't tax interest on state or local bonds. Additionally, a local government will often exempt its own citizens from taxes on its bonds, so that many munis are safe from city, state and federal taxes (sometimes referred to as triple tax-free).

4. Corporate bonds

Corporate bonds are generally the riskiest of all fixed-income securities because companies—even large, stable ones—are much more susceptible than governments to economic problems, mismanagement and competition. However, corporate bonds can also be the most lucrative fixed-income investment, because you are generally rewarded for the added risk. The lower the company's credit quality, the higher the interest you're paid. Corporates come in several maturities: short-term (1 to 5 years); intermediate term (5 to 15 years); and long-term (longer than 15 years). Companies usually pay a fixed interest rate (coupon) every 6 months and redeem the bonds for face value when they mature. One risk is that some corporate bonds are "callable" by the issuer, meaning that the corporation can, at its discretion, pay off its obligation at a stated price and stop paying interest. If interest rates decline and the value of the bonds goes up, the corporation may call them, disrupting your expected income stream and cutting off a potential capital gain. Conversely, if interest rates rise, you are stuck holding a less valuable security that is yielding below-market rates.

5. Zero-coupon bonds

Zero-coupon bonds, also known as strips, are fixed-income securities that do not pay any periodic interest, or "coupon," like regular bonds. Instead, the bond is sold at a deep discount from its face value and at maturity the bondholder collects all of the compounded interest along with the principal. There are many types of zero coupon bonds, including federal government bonds tied to treasuries, corporate and municipal bonds. Zeros are useful for investors who are looking for a set payout on a given date, instead of a stream of payments. People saving for college tuition and retirement often invest in these bonds because maturity dates can be predetermined according to income needs. There is a tax drawback to zeroes unless you hold them in a tax-deferred retirement account or an education IRA. You must pay taxes each year on the interest as it accrues, even though you haven't received the money.

6. High-yield or junk bonds

High-yield or junk bonds are debt obligations issued by emerging companies or by established companies that have fallen on hard times. The term "junk" comes from their low quality (or credit) ranking as determined by bond-rating agencies. High-yield bonds are usually too speculative for the average investor because although the yields are high, so are the risks.

Bond Funds

For many investors the selection of an individual bond is a daunting task. That makes purchasing a bond fund an attractive choice. A bond fund holds many different bonds that are bought and sold by professional investment managers. Most funds buy bonds of a specific type, maturity and risk profile, and often pay out a coupon to investors monthly rather than annually or semiannually like a typical bond. The chief advantage of a bond fund is that it is convenient and allows investors to achieve instant diversification within their bond portfolio. It's also true that when it comes to buying corporate and municipal bonds, a professional manager backed by a strong research organization can make better decisions than the average individual investor. The disadvantage of a bond fund is that it's not a bond. Unlike individual bonds, bond funds have neither a fixed yield nor a contractual obligation to give investors back their principal at some designated maturity date. Management fees are usually just over 1 percent, which instantly cuts into returns. Also, bond funds do not permit investors to precisely tailor their bond portfolios to match up maturities with their income needs.

Strategies for Coping with Interest Rate Risk

One way investors can balance risk and return in a bond portfolio is to use a technique called laddering. Building a laddered portfolio means buying a collection of bonds with different maturities spread out over your investment time frame. For instance, in a 10-year laddered portfolio, you might purchase bonds that mature in 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 years. When the first bond matures in a year, you'd reinvest in a bond that matures in 10 years, thereby preserving the ladder (and so on for each year). The rationale behind laddering isn't complicated. When you buy bonds with short-term maturities you have a high degree of stability, but because these bonds are not very sensitive to changing interest rates you have to accept a lower yield. When you buy bonds with long-term maturities you can receive a higher yield, but you must also accept the risk that the prices of the bonds might change. With a laddered portfolio, you would realize greater returns than from holding only short-term bonds, but with lower risk than holding only long-term bonds. By spreading out the maturities of your bonds you get some protection from interest rate changes. If rates have fallen by the time you need to reinvest, you'll have to buy a bond with a lower return, but the rest of your portfolio will be generating above-market returns. If rates have risen, you might receive a below-market return on your portfolio, but you could start to take care of that the next time one of your laddered bonds matures.

Strategies for Coping with Inflation Risk

The U.S. Treasury is now offering a new kind of Inflation-Indexed security, commonly called an I-bond. It gives individual and institutional investors a chance to buy a security that keeps pace with inflation. When you buy an Inflation-Indexed security, the U.S. Treasury pays you interest on the inflation-adjusted principal amount. Competitive bidding before a security's issue determines the fixed interest or coupon rate. The security's value is adjusted for inflation periodically, and the principal you receive when it matures won't drop below the par amount at which it was originally issued. At maturity, the Treasury redeems your securities at their inflation-adjusted principal amount or the par amount, whichever is greater. Like other Treasury securities, they're safe and are guaranteed by the full faith and credit of the U.S. government. Inflation-Indexed securities are exempt from state and local taxes, although federal income taxes apply.

For further information:

Eisenberg, Richard. *The Money Book of Personal Finance*. Warner Books: New York, 1996.

Morris, Kenneth M. and Alan M. Siegel. *The Wall Street Journal Guide to Understanding Personal Finance*. Lightbulb Press, Inc. and Dow Jones & Company, Inc.: New York, 1999.

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