Important Information about Investing in Bonds

Baird has prepared this document to help you understand the characteristics and risks associated with bonds and other fixed income securities ("bonds"), so that you can make an informed decision when buying or selling these securities. Your Baird Financial Advisor can further explain the features, characteristics and risks of any particular security under consideration for your account.

What is a Bond?

A bond is a loan that an investor makes to a corporation, government, federal agency or other organization. Bonds are sometimes referred to as debt securities. Since bond issuers know an investor is not going to lend money without compensation, the issuer of the bond (the borrower) enters into a legal agreement to pay the investor (the bondholder) interest. The bond issuer also agrees to repay investors the original sum loaned at the bond's maturity date. The majority of bonds have a set maturity date—a specific date when the bond must be paid back at its face value, called par value. Bonds are called fixed-income securities because many pay interest based on a regular, predetermined interest rate—also called a coupon rate—that is set when the bond is issued.

A bond's term, or years to maturity, is usually set when it is issued. Bond maturities can range from one day to 100 years, but the majority of bond maturities range from one to 30 years. Bonds are often referred to as being short-, medium- or long-term. Generally, a bond that matures in one to three years is referred to as a short-term bond. Medium- or intermediate-term bonds are generally those that mature in four to 10 years, and long-term bonds are those with maturities greater than 10 years.

Common Terms for Bonds

Par Value

The par value of a bond is its denomination and represents the amount of money the holder will get back once the bond matures. The par value is not the same as the price paid for a bond. Bonds may be sold or trade at prices that are at a discount from (i.e., lower than) the par value or at a premium from (i.e., higher than) the par value.

Coupon

The coupon or coupon rate of a bond is the annual rate of interest paid to investors on the bond. The coupon rate is paid on the bond's par value and is set when the bond is issued. Interest is typically paid out semi-annually unless otherwise stated. Bonds may have fixed interest or coupon rates or may have floating or variable rates that are reset or adjusted from time to time. Variable rates may be linked to a benchmark, such as short-term Treasury bills, various published rates (e.g., the Fed funds rate, LIBOR or the Prime rate), or to a bond index. Zero-coupon bonds do not pay interest; rather, they are sold a significant discount to their par value and at maturity the par value is paid. Lower quality bonds generally have higher coupon rates than higher quality bonds, in order to compensate investors for the risk of a possible default.

Bond Price

A bond's price is the market price at which the bond trades. This price may be different from the par value. A bond's price may be affected by numerous factors, including prevailing interest rates and the issuer's creditworthiness. Generally, as prevailing interest rates go up, a bond's price will go down because the coupon is less attractive to potential investors, and as interest rates go down, bond's price will go up because the coupon is more attractive to potential investors. Bonds are generally sold in denominations of $1,000 and prices are expressed as a percentage of par. Thus, a bond price of 101.25 would mean that the bond would have a market value of 101.25% of par, or $1,012.50 (assuming $1,000 par value).

Maturity

The maturity of a bond is the future stated date when the principal will be repaid and interest payments will end. A bond's maturity is different from its duration.

Duration

Duration is a measure of the sensitivity of the price of a bond to changes in prevailing interest rates. Duration is often quoted in years but the number reflects the percentage change in a bond's price for each 1% change in interest rates. Duration is primarily affected by the bonds' coupon rate, yield, and remaining time to maturity.

Redemption/Call and Put Rights

A bond may be callable or subject to redemption at the option of the issuer, often after an initial non-call period. This allows the issuer to repay or retire the bond prior to its scheduled maturity date, at a redemption price determined when the bond is issued. The redemption price is often the par value but can be different from the par value. The redemption price may have a "make whole" call provision that requires the issuer to pay a redemption price equal to the par value plus a make-whole premium, which is designed to compensate investors for the risk of the bonds being called. Depending on the redemption price, an issuer is likely to exercise its redemption right and call the bonds when interest rates have declined, in order to lower its borrowing costs, much like a home owner refinances its mortgage when mortgage rates are low. Bondholders thus face the risk that the bonds may be called at a redemption price that may be less than what they paid for the bonds, such as when the bonds were purchased at a premium and the bonds are called at par. However, in a rising rate environment, it is less likely that the bonds will be called. Bonds that are callable tend to have higher yields than non-callable bonds. Some bonds may be subject to mandatory redemption upon the occurrence of certain events described in the offering document for the bonds. Some bonds may also give the holders the right to "put" their bonds, meaning that the holders can require the issuer to repay the bonds.

Yield

A bond's yield is generally the return of capital invested in a bond. There are different types of yield.

- **Coupon yield** refers to the annual interest rate paid on the par value of the bonds and is established when the bond is issued.
- **Current yield** is the bond's coupon yield divided by its market price. Thus, if a bond has a coupon of 5% and the market price is 101, the current yield is 4.95%.
- **Yield to maturity** is the overall interest rate earned by an investor who buys a bond at the market price and holds it to maturity. Mathematically, it is the discount rate at which the sum of all future cash flows (from interest and principal payments, assuming they are all paid on time and that the interest is reinvested at the same rate) equals the price of the bond. Yield to maturity will be the same as the current yield if the bonds were purchased at par value, will exceed the current yield if the bonds were purchased at a discount to the par value, and will be less than the current yield if the bonds were purchased at a premium.
- **Yield to call** is measured similarly to yield to maturity but instead of using the maturity date you use the bond's call date and call price. This calculation takes into account the impact on a bond's yield if it is called prior to maturity.
- **Yield to worst** is the lower of a bond's yield to maturity or yield to call. A callable bond that is trading at a premium to its par value will generally have a lower yield to call than its yield to maturity, and a bond trading at a discount will have a higher yield to call than its yield to maturity.

Credit rating

Many bonds have a credit rating, which represents the opinion of a ratings agency (such as S&P, Moody's or Fitch) as to the issuer's ability to pay interest and repay principal. Ratings agencies assign ratings based on their analysis of the issuer's financial condition, economic and debt characteristics, and specific revenue sources securing the bond. Issuers with lower credit ratings generally offer investors higher yields to compensate for the additional credit risk. At times, bonds with comparable ratings may trade at different yields, which may further indicate the market's perception of risk. Ratings agencies may change a bond's credit rating during the life of the bond, but they are not required to do so. A change in either the issuer's credit rating or the market's perception of the issuer's business prospects will affect the value of its outstanding securities. Ratings are not a recommendation to buy, sell or hold, and may be subject to review, revision, suspension or reduction, and may be withdrawn at any time. If a bond is insured, attention should be given to the creditworthiness of the underlying issuer or obligor on the bond as the insurance feature may not represent additional value in the marketplace or may not contribute to the safety of principal and interest payments. Bonds with ratings below investment grade are considered predominantly speculative. More information about credit ratings can be found in the SEC Investor Bulletin "The ABCs of Credit Ratings."

Indenture

Bonds may be covered by an indenture, which is a contract or agreement between the issuer and the bondholders under which a trustee, usually a commercial bank or financial institution, is appointed to uphold the rights of the bondholders.

Types of Bonds

US Treasury Securities

Treasury Bills

Treasury bills (or T-bills) are short-term U.S. Treasury securities that are non-interest bearing (zero coupon) with maturities of four weeks, 13 weeks, 26 weeks or 52 weeks. They are purchased at a discount to face value (par) and pay the face value when they mature. The interest income (i.e., the discount) is subject to federal income tax, but exempt from state and local income taxes.

Treasury Notes

Treasury notes (or T-notes) are fixed-principal securities issued by the U.S. Treasury with maturities of two, three, five, seven and 10 years. Interest is paid semiannually, with the principal paid when the note matures. Interest income is subject to federal income tax, but exempt from state and local income taxes.

Treasury Bonds

Treasury bonds are long-term, fixed-principal securities issued by the U.S. Treasury with terms from 10 to 30 years. Interest is paid on a semiannual basis with the principal paid when the bond matures. Interest income is subject to federal income tax, but exempt from state and local income taxes.

Agency/GSE Securities

Agency securities are bonds issued by agencies of the U.S. Government, such as the Government National Mortgage Association (GNMA or “Ginnie Mae”), the Small Business Administration or the Federal Housing Administration. These securities are backed by the full faith and credit of the U.S. Government. The Tennessee Valley Authority may also issue agency securities but these bonds are backed by the power revenues generated by the authority. Certain agency securities may be issued by government-sponsored enterprises, such as the Federal National Mortgage Association (FNMA or “Fannie Mae”) or the Federal Home Loan Mortgage Corporation (FHLMC or “Freddie Mac”). These issuers are public companies currently under the conservatorship of the Federal Housing Finance Agency, an agency of the U.S. Government, so it is commonly but erroneously believed that their securities are implicitly guaranteed by the U.S. Government. These securities are not backed by the full faith and credit of the U.S. Government but are solely the obligation of the issuer.

Municipal Securities

Municipal securities, or "munis," are bonds issued by states, cities, counties and other governmental entities to raise money to build roads, schools, water and sewer systems and other projects for the public good. Munis pay a specified amount of interest (usually semiannually) and repay the principal on a specific maturity date. Municipal bonds can be general obligation bonds or revenue bonds. General obligation bonds are typically backed by the full faith and credit and taxing power of the issuer. In some cases, general obligation bonds are backed by real estate taxes or other taxes. Some governmental entities have unlimited authority to tax residents to pay bondholders but in other cases the governmental entities may have limited or no taxing authority. Revenue bonds are supported by fees and other revenues derived by the enterprise or project. Revenue bonds are not usually backed by the full faith and credit of the governmental entity that issues the bonds. The creditworthiness of revenue bonds depends on the financial success of the specific enterprise or project being financed. Some revenue bonds are "non-recourse," meaning that if the revenue stream dries up or if payments on the bonds are not made, the bondholders do not have a claim on the underlying revenue source or against the issuer or underlying borrower. Conduit revenue bonds are a form of revenue bonds, which are issued by a state, city or other government entity but for the benefit of a university, hospital, charitable organization or corporation that borrows the proceeds from the government entity. Those bonds are backed by the payments made by the non-governmental borrower under the loan agreement. The governmental issuer typically is not responsible for making the bondholders whole if the payments made by the borrower are insufficient. Conduit revenue bonds involve greater risk. Municipal bonds are often tax-exempt, meaning that the interest paid on the bonds is exempt from federal income tax. Some municipal bonds are double tax-exempt, meaning that the interest is not subject to federal or state tax. Other municipal bonds may be taxable. Municipal bonds may be "private activity bonds" and subject to the alternative minimum tax (AMT).

The Municipal Securities Rulemaking Board maintains the Electric Municipal Market Access (EMMA) website that contains information about specific municipal bonds, including official statements, financial information, notices of material events and trade data. Such information can be accessed at www.emma.msrb.org.

Like other fixed-income securities, municipal bonds are subject to a number of risks, including without limitation, interest rate risk and credit or default risk and liquidity risk. See below under the caption "Understanding the Risks of Investing in Bonds".

For more information about municipal bonds, please read the FINRA Investor Alert, "Municipal Bonds—Important Considerations for Individual Investors" at https://www.finra.org/investors/alerts/municipal-bonds-important-considerations-individual-investors, and the SEC Investor Bulletins, "Municipal Bonds" and "Municipal Bonds: Understanding Credit Risk" at http://investor.gov/news-alerts/investor-bulletins/municipal-bonds and http://investor.gov/news-alerts/investor-bulletins/investor-bulletin-municipal-bonds-understanding-credit-risk.

Please also see "Important Information About Investing in Municipal Bonds" at www.bairdwealth.com/retailinvestor.

Corporate Bonds

Companies issue corporate bonds to raise money for capital expenditures, operations and acquisitions.

Corporate bondholders receive the equivalent of an IOU from the issuer of the bond. Investors who buy corporate bonds are lending money to the company issuing the bond. In return, the company makes a legal commitment to pay interest on the principal and, in most cases, to return the principal when the bonds come due or matures. Unlike equity stockholders, the bondholder doesn't receive any ownership rights in the corporation. The bondholder only receives the interest and principal on the bond, no matter how profitable the company becomes or how high its stock price climbs. Bonds are more senior than, and have priority over, equity securities in the event of bankruptcy or liquidation. Some corporate bonds may be secured by all or certain assets of the issuing corporation. Other corporate bonds (often called "debentures") may be unsecured or subordinated, meaning that they are not backed by any collateral and are junior in rank and priority to senior secured bonds. These bonds get paid only after payments on more senior corporate bonds. The typical priority of securities in a corporation's capital structure is as follows: (1) senior secured debt; (2) unsecured debt; (3) preferred stock; and (4) common stock. This means that in a liquidation or bankruptcy of a company, payments are made in that order.

Corporate bonds can be classified according to their maturity. Maturities can be short term (less than three years), medium term (four to 10 years) or long term (more than 10 years). Longer-term bonds usually offer higher interest rates but may entail additional risks. Many corporate bonds pay a fixed rate of interest throughout their term but some bonds may offer floating or variable rates that are reset periodically. Floating or variable rate bonds adjust their interest payments to changes in benchmark rates or market interest rates. Some bonds are zero-coupon bonds, which mean that they make no interest payments. The payment made on a zero-coupon bond at maturity is higher than the initial purchase price. The difference between the payment made at maturity and the price paid for the bond is called "original issue discount." Investors in zero-coupon bonds must pay taxes each year on a prorated share of the imputed interest or original issue discount.

Corporate bonds may be rated by an independent ratings agency. Some bonds are not rated. Ratings agencies assign credit ratings based on their evaluation of the risk that the company may default on its bonds. Corporate bonds with a rating of BBB- or higher by S&P or Baa- or higher by Moody's are regarded as "investment grade." Bonds that have lower ratings are "below investment grade." Bonds rated below investment grade are often referred to as "high-yield" or "junk" bonds. Such securities may offer higher interest rates but they are predominantly speculative in the issuer's ability to pay interest and repay principal. For more information about high-yield bonds and their risks, please read the SEC Investor Bulletin, "What Are High-Yield Corporate Bonds?" at http://investor.gov/sites/default/files/ib_high-yield.pdf.

Some corporate bonds may be convertible bonds, which entitle the holder to convert all or a portion of the bonds into equity securities of the issuer, at certain times and at conversion rates established when the bonds are issued. The prices of convertible bonds will be influenced by the prices of the underlying securities to which the bonds can be converted.

For more information on corporate bonds, please read the SEC Investor Bulletin, "What Are Corporate Bonds?" at http://investor.gov/sites/default/files/ib_corporatebonds.pdf.

International and Emerging Markets Bonds

Some bonds are issued by foreign governments or foreign corporations. These bonds may be subject to greater risks than bonds of domestic issuers, particularly if the government or issuer is located in an emerging market. Risks associated with investing in foreign bonds include economic, political, social, financial and military conditions and events (and possible instability), foreign inflation rates and prevailing interest rates, governmental intervention and regulation, less liquidity, different accounting and disclosure standards, and currency exchange rates and controls.

Mortgage Backed Securities

Mortgage backed securities (MBS) are bonds secured by home and other real estate loans. Loans with common characteristics are pooled together, packaged into one investment and sold to investors. The majority of MBS are issued by Ginnie Mae, Fannie Mae and Freddie Mac. These MBS carry the guarantee of those organizations to pay interest and repay principal, but again only MBS issued by Ginnie Mae are backed by the U.S. Government. Some MBS are "private label" securities issued by entities that are subsidiaries of or sponsored by banks, financial institutions or home builders. Asset-backed securities (ABS) are bonds secured by pools of cash-generating assets, such as credit card receivables, auto loans, student loans, equipment loans and leases, business trade receivables, and home equity loans.

The most basic MBS are known as pass-throughs. They are a mechanism—in the form of a trust—through which mortgage payments are collected and distributed (or passed through) to investors. The majority of pass-throughs have stated maturities of 30 years, 15 years and five years. While most are backed by fixed-rate mortgage loans, adjustable-rate mortgage loans (ARMs) and other loan mixtures are also pooled to create the securities. Because these securities "pass through" the principal payments received, the average life is much less than the stated maturity life, and varies depending upon the paydown experience of the pool of mortgages underlying the bond.

Collateralized mortgage obligations (CMOs) are a complex type of pass-through security. Instead of passing along interest and principal cash flow to an investor from a generally like-featured pool of assets, CMOs are made up of many pools of securities or multiple pass-throughs. In the CMO world, these pools are referred to as tranches, or slices. There could be scores of tranches, and each one operates according to its own set of rules by which interest and principal gets distributed.

Understanding the Risks of Investing in Bonds

The risks associated with investing in bonds are important considerations in making a purchase decision.

Set forth below are the more common risks.

- Interest Rate (Market) Risk. When interest rates fall, bond prices rise, and when interest rates rise, bond prices fall. Bond prices and interest rates move opposite directions. Bond prices are thus inversely correlated with interest rates. Interest rate risk is the risk that changes in interest rates in the U.S. or the world may reduce (or increase) the market value of a bond you hold. Interest rate risk usually increases the longer you hold a bond. Similarly, as bond prices changes their yields to maturity will change as well. If bond prices go down, the yield to maturity of the bond will go up for investors who buy the bonds at the new lower price. If bond prices go up, the yield to maturity will go down for investors who buy the bonds at the higher price. Bonds are also subject to inflation risk, meaning that the yield and interest earned on a bond may not keep up with the rate of inflation, thus reducing an investor's purchasing power. If interest rates rise from the current low rate environment, as is generally expected, bond prices are expected to fall. Even a small rise in prevailing rates could have a dramatic negative effect on bond prices. Some bonds are more sensitive to interest rate changes than others. Typically, bonds with longer maturities are subject to higher interest rate risk than those with shorter maturities, and bonds with lower coupon or interest rates are subject to higher interest rate risk. See "Duration Risk" below. In addition to interest rate fluctuations, bonds may fluctuate in price due to other factors, such as the time to maturity, call features, the issuer's financial condition, macroeconomic forces and developments, and the prices of other fixed income securities.

  For more information on interest rate risk, please read the SEC Investor Bulletin, "Interest Rate Risk—When Interest Rates Go Up, Prices of Fixed-Income Bonds Fall" at http://investor.gov/sites/default/files/ib_interestraterisk.pdf.

- Duration Risk. Duration measures the sensitivity of the price of a bond to a change in interest rates. Duration is calculated using a complex mathematical formula and is different from maturity (maturity reflects the years remaining until the principal is scheduled to be repaid). A bond with a duration of 5 years means that for a 1% change in interest rates, the price of the bond will change by 5%. The higher a bond's duration, the greater its sensitivity to interest rate changes and fluctuations in price will be more pronounced. Longer term bonds tend to have higher durations than shorter-term bonds. A bond's call features, coupon rate and yield will also have an impact on duration. Duration is higher for bonds with lower coupon rates and yields. Knowing a bond's duration is very important given the fact that interest rates are at historic lows and are expected to increase. Bear in mind that because a bond may have a low duration, that does not mean that the bond involves less risk. Please read the FINRA Investor Alert, "Duration—What an Interest Rate Hike Could Do to Your Bond Portfolio" at https://www.finra.org/sites/default/files/InvestorDocument/p230297.pdf.

- Credit and Default Risk. Bonds are subject to credit risk, which is the risk that the issuer may not pay interest or repay principal. While U.S. Treasury securities are generally deemed to be risk-free, most bonds face a *possibility* of default. This means that the bond issuer/obligor will be late paying creditors (including bondholders), pay a negotiated reduced amount or, in worst-case scenarios, be unable to pay at all. It is also important to know where the bonds are ranked in the issuer's capital structure in event of insolvency, bankruptcy or liquidation. Bonds that are rated below investment grade are speculative with respect to the issuer's ability to make interest and principal payments. These bonds, known as high-yield or "junk" bonds are subject to greater default risk and liquidity risk than investment grade bonds. Please see "Important Information About Non-Rated, Split-Rated or Below Investment Grade Securities, and Securities in Lowest Investment Grade Category" located at www.bairdwealth.com/retailinvestor. www.rwbaird.com/disclosures. Also, please read the SEC Investor Bulletin, "What Are High-Yield Corporate Bonds?" at http://investor.gov/sites/default/files/ib_high-yield.pdf.

- Call/Reinvestment Risk. A bond with a call feature runs the risk that when interest rates drop the bonds will be called by the issuer. The issuer is able refinance the debt at a lower rate thus saving it money. The bond's principal is repaid early, but the investor is left unable to find a similar bond offering a comparable yield. Call risk also is referred to as reinvestment risk, which is the risk that the investor may not be able to reinvest the proceeds from the redemption of the bond and earn a comparable rate of interest. Similarly, mortgage backed securities are prone to prepayment risk because homeowners tend to pay off their existing mortgages and refinance their homes at lower rates.

- Event Risk. Mergers, acquisitions, leveraged buyouts and major corporate restructurings are all events that put corporate bonds at risk. Other events or developments affecting an issuer's financial health may also impact the price of its bonds.

- Liquidity Risk. Liquidity risk is the risk that you will not be easily able to find a buyer for a bond you need to sell, or at price you consider attractive. A sign of liquidity, or lack of it, is the general level of trading activity: A bond that is traded frequently in a given trading day is considerably more liquid than one which only shows trading activity a few times a week. Although U.S. Treasury securities are extremely liquid, some corporate bonds and many municipal bonds may not be actively traded and thus more difficult to sell at advantageous times and prices. Unlike common stocks, bonds are not traded on a national exchange but rather between dealers who make but are not required to provide a secondary trading market. It is also important to understand that bonds typically trade in large blocks, so selling a small number of bonds may be more difficult, and the prices paid when purchasing a small amount of bonds or obtained when selling a small amount of bonds are likely to be unattractive.

  For more information on liquidity risk, see the FINRA Investor Alert, "Bond Liquidity – Factors to Consider and Questions to Ask" at http://www.finra.org/investors/alerts/bond-liquidity-factors-questions.

- Interest Payment Risk. Some bonds may allow the issuer to skip or miss an interest payment under certain conditions. The bond terms may also allow payment-in-kind, or PIK, which means that an interest payment may be made in the form of additional bonds rather than cash. Many bonds pay interest in a semi-annual basis, but some bonds may have different payment schedules. Before purchasing a bond, invests should make sure they understand the payment terms.

- Tax Considerations. Investors should consider tax consequences before investing in bonds. Gains on the sale of bonds are subject to federal and state tax. Interest on corporate bonds is likewise subject to federal and state income tax. However, some bonds may offer tax advantages. Interest on U.S. Treasury securities is exempt from state income tax. Interest on municipal bonds is generally exempt from federal income tax and, for some municipal bonds, exempt from state income tax. Nonetheless, certain municipal bonds may be taxable and/or subject to the federal alternative income tax. Please consult your tax advisor before investing in bonds.
- Diversification Risk. Ownership of individual bonds may not provide investors with sufficient diversification. A decline in the price of a particular bond or a default by an issuer of a particular bond may materially and adversely affect an investor's bond portfolio. Individual investors seeking investments in bonds may wish to consider a diversified mutual fund that is managed by an investment advisor and invests in fixed income securities.

Before investing in bonds, please consult your Baird Financial Advisor to understand the structure, terms and risks and determine whether they are right for you in light of your objectives, financial goals, tax status and risk profile. More information about bonds is available from the Securities Industry and Financial Markets Association (SIFMA) at www.investinginbonds.com and from the Financial Industry Regulatory Authority under Smart Bond Investing at https://www.finra.org/investors/learn-to-invest/types-investments/bonds.

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