

# Internet Resources for Bond, Bond Mutual Fund & Exchange-Traded Fund (ETF) Investors



**The Center for  
Financial Studies**  
Southern New Hampshire University

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## **Executive Summary**

The purpose of this module is to cover several financial topics that are not covered in other modules in this series and could be useful to investors. The goal will be to introduce and work with internet tools/calculators to address the following four segments:

1. A discussion of bonds as financial assets
2. Exploring bonds and their characteristics
3. Investing in bond mutual funds
4. Understanding Exchange-Traded Funds (ETFs)

In Segment 1, the discussion of bonds might begin with a comparison of a stock vs. a bond and an explanation of the contractual characteristics and key features of a bond. In Segment 2, the class would then proceed to an internet exercise to identify available bonds that meet a given set of criteria (e.g., corporate vs. Treasury, short-term vs. long-term). This online tool may also be used to explore the key features of the selected bonds.

The facilitator will want to suggest that it is often most appropriate for individual, retail investors to invest in bonds via bond mutual funds. Bond fund investing can offer instant diversification and ready liquidity, but investors should realize that bond funds do not offer return of principal or consistent, predictable payments of interest. In Segment 3, a second internet tool will allow students to find and compare bond funds that meet selected criteria.

Segment 4 presents ETF investing as a popular alternative to mutual fund investing. The facilitator might find it useful to compare and contrast ETFs to standard mutual funds. An internet tool will allow students to identify and evaluate available ETFs.

## **Educational Motivation**

- To appreciate opportunities in bond investing
- To select and understand the characteristics of individual bonds and bond mutual funds
- To introduce ETFs as another investment option for the individual investor

## **Overview of Material**

### **Key Terminology:**

**Average maturity:** A weighted average of the maturities of the bonds owned by a bond fund, where the weights are values of the bonds divided by the total fund value. The longer the maturity, the more the fund value will be affected by changes in interest rates.

**Bond:** A financial asset that represents a loan made by the investor to the bond issuer. The issuer is legally bound to repay the face value of the bond at a set point in time. Many bonds also pay interest.

**Bond coupon rate (%):** The interest rate paid on a bond.

**Bond rating:** A designation provided by an independent rating company as to the risk of default for the bond issue. Bonds are rated AAA (safest) to C. A bond with a rating less than BBB—(also known as Baa3) is considered hi-yield, or “junk.”

**Bond rating average:** A weighted average of the ratings of the bonds owned by a bond fund, where the weights are values of the bonds divided by the total fund value.

**Callable bond:** A bond that contains a provision that allows the issuer to repurchase the bond from the investor prior to maturity.

**Corporate bond:** A fixed income security issued by a corporation; investing in a corporate bond is riskier than investing in a government guaranteed Treasury security.

**Current yield (%):** The ratio of the bond's annual coupon (interest) payment to the current price of the bond.

**Exchange-traded fund (ETF):** An indexed fund that trades continuously on an organized exchange. A basket of stocks that tracks a particular stock market index and trades like a single stock.

**Maturity:** The date on which the borrower must repay principal.

**Municipal bond:** A fixed income security issued by a municipality, state or authority.

**Par value:** The face value of a bond to be paid to the bondholder at maturity.

**QQQQ:** A popular ETF based on the NASDAQ 100, which consists of the 100 largest and most actively traded non-financial stocks on the Nasdaq.

**SPIDER (SPDR):** An ETF whose underlying index is the S&P 500, a broad-based market index sometimes used as a proxy for the whole stock market; this security trades on the American Stock Exchange.

**Treasury bill:** A short-term debt security issued by the US government, issued with a maturity of one year or less.

**Treasury bond:** A long-term debt security issued by the US government, issued with a 10- to 30-year maturity.

**Treasury note:** An intermediate-term government debt security issued with a 2- to 10-year maturity.

**Yield-to-maturity (YTM):** The annual rate of return that a bond will produce if it is held to final maturity and if all coupon payments are reinvested. YTM is composed of coupon interest payments as well as the difference between purchase price and par value.

**Zero-coupon bond:** A bond that makes no interest payments over its life but is issued at a price lower than its par value, i.e., at a discount.

### **Background Information**

The sections **Bonds**, **Bond Mutual Funds** and **ETFs** covered below can provide the basis for the classroom discussion.

### **Bonds**

When you invest in (buy) a bond or note, you have essentially made a loan to the issuer and you own a package of cash flows that the issuer promises to pay you. If the issuer is the US government, the promise to repay the loan is a certainty and all cash flows will be made to you in full and on time. If you have made a loan to a company, you expect to receive promised interest payments and return of principal from the company, but your investment is subject to some risk. You will not receive the promised payments if the corporate issuer is unable to make the payments.

It is also important to point out the difference in return profile between a bond and a stock. The bond has the package of promised cash flow payments whereas the stock is a riskier ownership position. Generally, bonds are less risky and typically provide a lower return than stocks. Because of the different risk/return profiles, it is reasonable to expect that investors will want to create a final portfolio containing both stocks and bonds.

An investor earns return on a bond holding (1) if the bond price increases during the holding period and (2) as cash coupon payments are received. The promised cash coupon payments are established by covenant when the bond is issued, so these payments will not vary with market conditions. The bond price, on the other hand, is very sensitive to market conditions and will fluctuate as the market environment changes. An important determinant in bond price fluctuation is the movement of interest rates. The relationship between bond prices and interest rates is an INVERSE relationship. As market-determined interest rates rise, bond prices will fall. This is because the fixed promised payments offered by the bond are LESS valuable when interest rates are higher. For example, in an inflationary environment (with high interest rates), goods and services cost more, so the fixed bond payments provide less purchasing power and are therefore less valuable. This relationship is symmetric, so the converse is also true. As interest rates fall, bond prices rise.

It is useful to include bonds in an investment portfolio because the fluctuation in bond prices does not move in lock-step with the fluctuation in stock prices. Consequently, diversifying the portfolio across this additional asset class (bonds) should be effective in reducing portfolio volatility.

### **Bond Mutual Funds**

An investor thinking about including individual bonds in a portfolio, faces the enormous task of determining WHICH specific bonds to hold. An investor must ask: Is it best to hold Treasuries or corporate bonds? If I decide on corporates, do I have the time and/or interest to do the necessary research on the issuing company, its riskiness and the individual bond covenants? Is my investment portfolio large enough to allow a diversified holding of individual bonds? Most individual investors ultimately decide that it is best to work with bond mutual funds as opposed to trading individual bonds.

Some typical bond fund categories include:

- Treasury – Treasury funds invest in US Treasury bonds and notes that mature in more than three years.
- Municipals (Munis) – These funds invest in municipal bonds, i.e., bonds issued by states, cities, counties, etc. They are sometimes called tax-free because the interest earned is not taxed by the US government.
- Corporate – Corporate bond funds invest in bonds issued by companies.
- High yield – Also called “junk” bond funds, these funds invest in corporate bonds that are at greater than average risk of default.
- Mortgage – Mortgage funds buy mortgage-backed securities. Mortgage-backed securities are composed of mortgages that have been ‘repackaged’ much like stock mutual funds ‘repackage’ shares of stock (as discussed in the *Investing in Equity Mutual Funds* module of this series).
- Foreign – These funds invest in bonds issued by companies and governments of several countries. International funds invest in bonds from countries other than the US. Global funds invest in bonds from various countries including the US.

The facilitator can visit FINRA’s Smart Bond Investing website for a more comprehensive listing of bond fund categories: [www.finra.org/smartbonds](http://www.finra.org/smartbonds).

The website exercise below will show that bond funds are available to satisfy almost any bond appetite. Investors can establish what characteristics they desire in their bond holdings and find a professionally managed fund to meet that end. For most investors, the bond fund approach will be cheaper and more cost- and time-efficient than dealing in individual bonds.

## **ETFs**

ETFs are similar to mutual funds but they allow for continuous trading throughout the business day (mutual fund transactions take place at the close of trading). Each ETF represents ownership in an underlying index portfolio, designed to replicate the overall market or a specific sector of the market.

The glossary section of FINRA's Mutual Fund/ETF Expense Analyzer nicely summarizes the differences between mutual funds and ETFs:

“Exchange-traded funds, like index mutual funds, are baskets of stocks that track a particular stock market index, such as the Standard and Poor's 500 Index. But ETFs trade just like stocks. You can buy or sell shares during market hours, and the prices of ETFs change throughout the trading day—just as with stocks. When you buy or sell mutual funds, on the other hand, shares are always priced at the shares' net asset value (NAV) as of the close of the trading day. ETFs differ from mutual funds in several ways. Unlike mutual funds, ETFs don't have sales charges or loads. Rather, you are typically charged a commission when you buy or sell an ETF. Like mutual funds, you will have to pay annual fund operating expenses.”

ETFs can often be less costly for the investor. Because the ETF is bought directly from a broker, there is no need for an ETF company to market the product to individual investors. While there is typically a brokerage commission to purchase ETFs, it is often the case that the management fee and administrative cost to operate the ETF can be lower because marketing and advertising costs are nonexistent. However, investors need to realize that they will face a bid/offer spread when trading ETFs, analogous to the spread in trading individual stocks. The bid is the price that a broker will pay an investor who wishes to sell a security. The offer is the price at which a broker is willing to sell a security and is higher than the bid price, hence a bid/offer spread.

ETFs have become a highly successful financial product as evidenced by the vast array of ETFs available. The student will have the opportunity to view many ETF variants during the ETF website exercise.

## **Web Site Documentation**

[www.finra.org/smartbonds](http://www.finra.org/smartbonds)

An excellent tutorial describing both individual bonds and bond funds; provides useful background reading for both students and teachers.

[http://apps.finra.org/Investor\\_Information/Smart/Bonds/605000.asp](http://apps.finra.org/Investor_Information/Smart/Bonds/605000.asp)

A section of the FINRA bond tutorial describing the differences between bonds and bond funds.

[http://apps.finra.org/Investor\\_Information/Smart/Bonds/301000.asp](http://apps.finra.org/Investor_Information/Smart/Bonds/301000.asp)

A section of the FINRA bond tutorial describing individual bond types and characteristics.

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[www.finra.org/fundanalyzer](http://www.finra.org/fundanalyzer)

A useful tool to analyze expenses for mutual funds and ETFs; quite comprehensive.

[www.sec.gov/answers/etf.htm](http://www.sec.gov/answers/etf.htm)

The US Securities and Exchange Commission's definition page for ETFs; contains links to more information.

<http://screen.yahoo.com/bonds.html>

Provides a comprehensive bond screening tool that can be used to identify a wide range of Treasury, corporate and municipal bonds.

<http://finance.yahoo.com/etf/browser/mkt>

Provides an ETF browser to display ETFs sorted by size, performance, volume or fund family.

[www.finance.yahoo.com](http://www.finance.yahoo.com)

A gateway to lots of finance-related information and tools, including the two internet tools listed above.

[www.kiplinger.com/tools/fundfinder/fundsearch.php](http://www.kiplinger.com/tools/fundfinder/fundsearch.php)

A search tool that identifies mutual funds that meet criteria set by the user, such as minimum initial investment, volatility, load, etc.; also provides flexibility in how data may be displayed.

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## **Lesson Plan and Relevant Assignments**

### **Materials Needed:**

- WEBSITES handout
- BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet

### **90-minute Lesson Plan:**

10 minutes: Segment 1. Discuss financial aspects of bonds; distribute WEBSITES handout and BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet.

20 minutes: Segment 2. Encourage students to use the bond screener website to identify bonds that meet various criteria using the **Viewing Bonds and Bond Characteristics** assignment below.

30 minutes: Segment 3. Use the **Viewing Bond Mutual Funds and Their Characteristics** assignment below, as well as the BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet to explore bond mutual funds.

30 minutes: Segment 4. Discuss and view different types of ETFs according to the **Viewing ETFs and Their Characteristics** assignment below.

### **35-minute Lesson Plan:**

A reasonable strategy for a shorter class session might be to eliminate consideration of individual bond investments (Segment 2) and concentrate on the other segments.

5 minutes: Segment 1. Discuss financial aspects of bonds; distribute WEBSITES handout and BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet.

15 minutes: Segment 3. Use the **Viewing Bond Mutual Funds and Their Characteristics** assignment below, as well as the BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet to explore bond mutual funds.

15 minutes: Segment 4. Discuss and view different types of ETFs according to the **Viewing ETFs and Their Characteristics** assignment below.

### **Assignments:**

#### **Segment 2 – Viewing Bonds and Bond Characteristics**

The assignment presents the opportunity to investigate treasury, corporate and municipal bonds. Bonds that meet various criteria can be identified and studied.

URL: [www.finance.yahoo.com](http://www.finance.yahoo.com)

1. Go to <http://screen.yahoo.com/bonds.html>.
2. The webpage presents an input screen that will find and display bonds based on the criteria selected. The user will need to select “bond type” and specify “bond criteria” search parameters to input other desired bond characteristics. Enter the necessary “bond type” and “bond criteria” fields and then click “Find Bonds” near the bottom of the webpage.
3. For the high school audience, the facilitator may want to stick with Treasury and corporate bonds as “bond type” choices. To make the session manageable, the facilitator might choose a few “bond criteria” on which to concentrate, such as maturity and debt rating, and explore each in turn. To do so, the facilitator will want to provide min and max inputs for all the other “bond criteria” and let students experiment with the criteria under study. The results may be sorted by clicking on any column heading.

For example, to study US Treasuries, select the “Treasury” box. The facilitator might set the minimum and maximum maturities to 10 years and 30 years, respectively, and set the “Callable” option to No. Note that a Debt Rating Range is not necessary for US Treasuries. Some relationships may be pointed out:

- a) In general, YTM increases as maturity increases.
- b) Current yield = coupon/price

Similarly for corporate bonds, the facilitator might again set the “Callable” option to No and set the minimum and maximum maturities both to the same horizon. Another relationship may be pointed out:

- c) In general, a higher credit rating, meaning less risk, results in a lower YTM, or lower return.

### **Segment 3 – Viewing Bond Mutual Funds and Their Characteristics**

The facilitator may want to review why a bond mutual fund might be appropriate for retail investors interested in a fixed income component to their portfolio, comparing the advantages and disadvantages of purchasing and holding individual bonds and bond mutual funds (as discussed in the background material). This discussion will motivate the need to identify potential bond mutual fund investments. Direct students to complete the BOND MUTUAL FUNDS & THEIR CHARACTERISTICS worksheet prior to visiting the website. This sample fund selection questionnaire may be helpful when used in conjunction with the online Mutual Fund Finder to limit the sample of funds from which to make a final selection. This questionnaire is similar to one found in the *Investing in Equity Mutual Funds* module of this series.

URL: [www.kiplinger.com](http://www.kiplinger.com)

1. Go to the mutual fund finder at [www.kiplinger.com/tools/fundfinder/fundsearch.php](http://www.kiplinger.com/tools/fundfinder/fundsearch.php).
3. The student will now want to “Select Fund Type” and “Select Performance Criteria.” For this exercise, select “Taxable Bonds” at the fund universe entry. “Intermediate-Term” would be a good choice for fund style. The facilitator may encourage a discussion of how choice of fund style is affected by investment horizon. As in the exercise above for individual bonds, the facilitator will want to concentrate on specific “Select Performance Criteria” fields. To be consistent with the first exercise, you might choose the avg. maturity and avg. bond rating fields. It would also be useful to explore selections related to fees and management expenses. Expect to find many bond funds displayed for most choices of performance criteria.
4. Investigate aspects of a bond mutual fund using the financial data provided with each fund. The student can click on any title heading to get a pop-up box defining that particular term.

### **Segment 4 – Viewing ETFs and Their Characteristics**

In this website exercise, financial information will be shown for ETFs displayed using alternative search and sorting criteria.

URL: [www.finance.yahoo.com](http://www.finance.yahoo.com)

1. Go to the ETF Center at <http://finance.yahoo.com/etf/browser/mkt>.
2. This page provides a list of available ETFs that meet the criteria as well as financial characteristics of each. By clicking any ETF characteristic, the ETF list can be sorted in either ascending or descending order based on the criteria selected. This page presents an ideal venue to view ETF details and their relevance to investors.

## **INTERNET RESOURCES FOR BOND, BOND MUTUAL FUND & EXCHANGE-TRADED FUND (ETF) INVESTORS**

### **WEBSITES**

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**INTERNET RESOURCES FOR BOND, BOND MUTUAL FUND  
& EXCHANGE-TRADED FUND (ETF) INVESTORS**  
**BOND MUTUAL FUNDS & THEIR CHARACTERISTICS**

For this exercise, we will use [www.kiplinger.com/tools/fundfinder/fundsearch.php](http://www.kiplinger.com/tools/fundfinder/fundsearch.php). A sample fund selection questionnaire, which might be helpful when used in conjunction with the online Fund Finder, is provided below.

Mark your criteria for selecting a mutual fund, keeping these things in mind:

Your horizon: \_\_\_\_\_

How much volatility are you comfortable with:

\_\_\_\_\_ High or Moderately high: I have a long horizon (more than 10 years) and plenty of time to make up for any losses.

\_\_\_\_\_ Moderate: I have a long horizon and plenty of time to make up for any losses, but I will be kept awake at night, worrying about my investments, and checking on my investments every day.

\_\_\_\_\_ Moderately low: I will use these investment funds in the next 6–10 years.

\_\_\_\_\_ Low: I will use these investment funds in the next 3–5 years.

\_\_\_\_\_ I will use these investment funds in the next 1–3 years and so MONEY MARKET is the right choice for me.

Do you want to invest globally, or do you want to confine your investment choices to the US?

(circle one)      Global                      US only

How much money do you have to invest, i.e., your initial investment? \_\_\_\_\_

Based on your criteria, use the online Fund Finder to select two mutual funds. Note the funds, their ticker symbols, and 5-year total return here. Click on the ticker symbol of each fund and note its NAV per share.

Fund #1: \_\_\_\_\_ Ticker: \_\_\_\_\_ 5-yr. Return: \_\_\_\_\_ NAV: \_\_\_\_\_

#shares to purchase = NAV/Initial Investment: \_\_\_\_\_

Fund #1: \_\_\_\_\_ Ticker: \_\_\_\_\_ 5-yr. Return: \_\_\_\_\_ NAV: \_\_\_\_\_

#shares to purchase = NAV/Initial Investment: \_\_\_\_\_

**INTERNET RESOURCES FOR BOND, BOND MUTUAL FUND  
& EXCHANGE-TRADED FUND (ETF) INVESTORS**  
**BOND MUTUAL FUNDS & THEIR CHARACTERISTICS**

URL & source: [www.kiplinger.com/tools/fundfinder/fundsearch.php](http://www.kiplinger.com/tools/fundfinder/fundsearch.php)

**1. Select Fund Type**

Fund universe:

Fund style:

**Search tips**  
You must select a universe to select a fund style

Make selections for fund universe, fund style, avg. maturity, avg. bond rating, and min. investment based on information outlined on page 1 of the worksheet.

**2. Select Performance Criteria**

1 Year total return:  Data is **updated monthly** and is from the close of the last trading day of December

3 Year total return:  Select **do not display** if you do not wish to see this information with your results

5 Year total return:

S & P star rankings:

Down market:  You must select a fund universe for down market screen to work

Volatility rank:

Avg. maturity:  Average maturity and average bond rating for **bond funds** only

Avg. bond rating:

**3. Select Fee and Management Information**

Net assets:  Max load:

Expense ratio:  Turnover:

Manager since:  Minimum investment:

**4. Select Display Format**

Order data by: