Fixed Income:
A Beginner’s Guide

Fidelity Brokerage Services, Member NYSE, SIPC, 900 Salem Street, Smithfield, RI 02917.
754633.2.0

Agenda

- What is fixed income?
- Key terms and definitions
- Differences between bonds and bond mutual funds
- Why fixed income?
- Next steps
- Online demo

What is fixed income?

- **Fixed income is the world's largest asset class. With an estimated value of over $200T globally, it is almost three times the size of combined global equity market valuation*.**
  - Examples of fixed income securities include various bond types as well as investments that hold bond collections, such as bond mutual funds and bond ETFs.
- **Bonds essentially represent a loan that has been turned into a security which can be traded. A government or corporation borrows money from investors and issues bonds in return. The bonds represent a commitment by the issuer to repay the amount back at some point in the future, usually with interest.**

Where can I learn more?
Research > Learning Center > Fixed Income, Bonds & CDs > An Introduction to the Fixed Income Market

* Source: 2015 Deutsche Bank, McKinsey Global Institute, Haver, BIS

Let’s start with individual bonds …

- **A bond is essentially a loan that an investor makes to the bonds’ issuer. Issuers can be:**
  - Federal government (as in the case of Treasury bonds)
  - Local government (municipal bonds issued by states or towns)
  - Government-sponsored enterprises (like Fannie Mae)
  - Companies (corporate bonds, both domestic and international)
- **A bond issuer offers investors a rate of return in exchange for their initial investment.**
- **Bond investors compare the potential for gain with the risk that the issuers will not pay them back at the level described in the bond’s terms of contract.**

Where can I learn more?
Research > Learning Center > Fixed Income, Bonds & CDs > An Introduction to the Fixed Income Market > What is a bond?

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Key terms for familiarizing yourself with fixed income and bonds

Coupon

Duration

Maturity

Credit Risk

Price

Yield

Fixed income & bond terms

Coupon

– The interest rate a bond's issuer promises to pay to the bondholder until maturity, or other redemption event. It is expressed as an annual percentage of the bond's face value.

– **Example**: A bond with a 5% coupon will pay $50 per $1000 of the bond's face value, per year.

Note: An exception is a zero-coupon bond bought at a discount and pays principal at maturity. which has no coupon, is generally bought at a discount and pays principal at maturity.

Fixed income & bond terms

Maturity

- The date on which the principal amount of a fixed-income security is scheduled to become due and payable, typically along with any final coupon payment.

Fixed income & bond terms

Price

– Bond investors have two key price concepts to consider:
  - **Market Price:** The currently quoted bond price. There will be a price that the buyer can purchase at – “Ask Price”, and usually a price at which they can sell at – “Bid Price”.
  - **Par Value:** The stated value of a bond-typically $1,000, also known as face value. Bonds are usually issued and mature at par (i.e.: at maturity the bond holder receives $1,000).

– Bond prices are quoted as a percentage of par:
  - The par value of $1000 is quoted as “100.00”. Market prices vary around that so a bond with an Ask Price of “99.00” is asking the investor to pay: 99% of $1,000 = $990”.

Example:

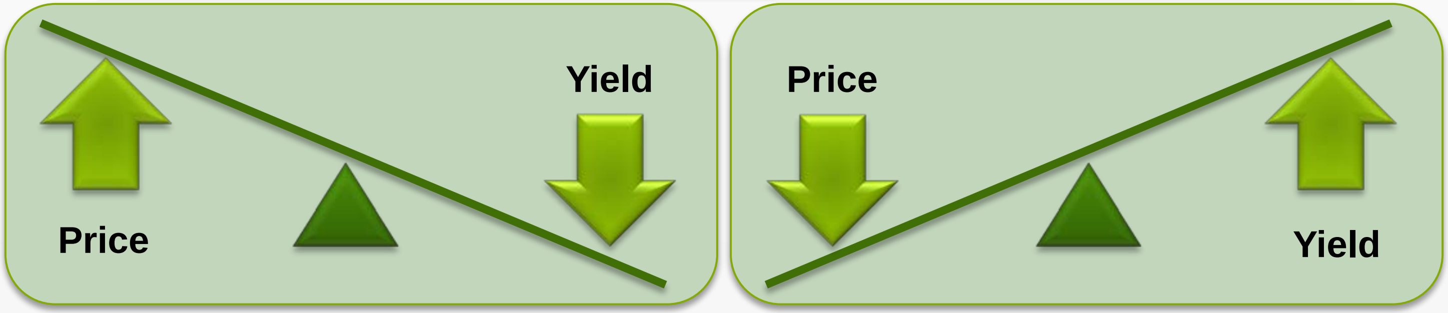
- You buy 20 bonds.
- The face value is $20,000. At three points in time, the market price changes from 97, to 95, to 102.
- In Dollar terms the bonds are valued at 97%* $20K = $19,400; 95% * $20K = $19,000; etc.

Fixed income & bond terms

Yield

- The anticipated return on an investment, expressed as an annual percentage.
- It takes into account the purchase price, the anticipated coupons or cash flows over its life, and the return of principal when the bond matures or is redeemed
- **Example:** A 3% yield means the investment averages a 3% return each year.

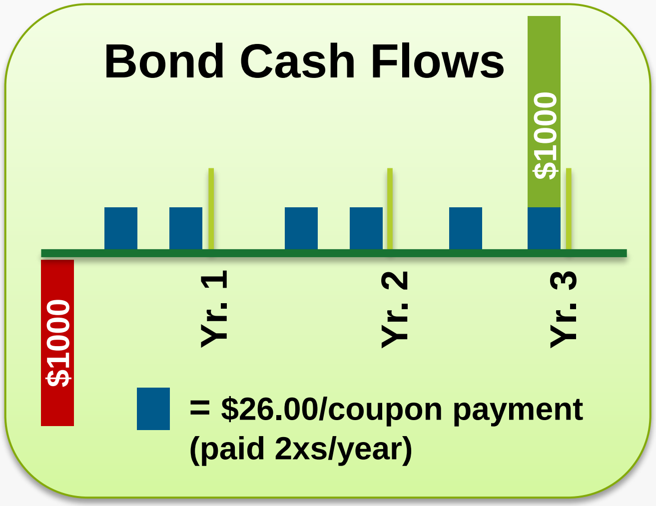
A bond's yield is inversely related to its price as the price moves up, the quoted yield of the bond moves down.



Closer look at Yield: Par bond cash flow

Purchase a 3-year bond at par ($1,000) with an annualized coupon of 5.2%.

- Coupon is paid semi-annually.
- Annual cash flow = $1,000 X Coupon 5.2% = $52.
- Coupon payment = $52 / 2 = $26.
- After 3 years, the bond matures and you receive $1,000 principal with the final coupon.
- The Yield would also be 5.2%, assuming you hold the bond over the three-year period and receive all the coupons.



Hypothetical example for illustrative purposes only.

Fixed income & bond terms

Credit Risk

- Refers to the possibility that the issuing company or government entity will default and be unable to pay back investors' principal or make interest payments.
- When an issuer defaults investors do not receive their expected yield
- A bond's degree of credit risk is summarized in "credit ratings" assigned by agencies such as Moody's and S&P.
  - **Examples** of some "AA-rated" corporate bonds*:

TOYOTA MTR CRD CORP MTN BE 3.40000% 09/15/2021CALL MAKE WHOLE ISIN #US89233P5F99	3.400	09/15/2021	AA3	AA-
BERKSHIRE HATHAWAY INC DEL NOTE 3.75000% 08/15/2021 ISIN #US084670BC16 SEDOL #B3SXTV5	3.750	08/15/2021	AA2	AA
CHEVRON CORP NEW NOTE CALL MAKE WHOLE2.10000% 05/16/2021	2.100	05/16/2021	AA2	AA-

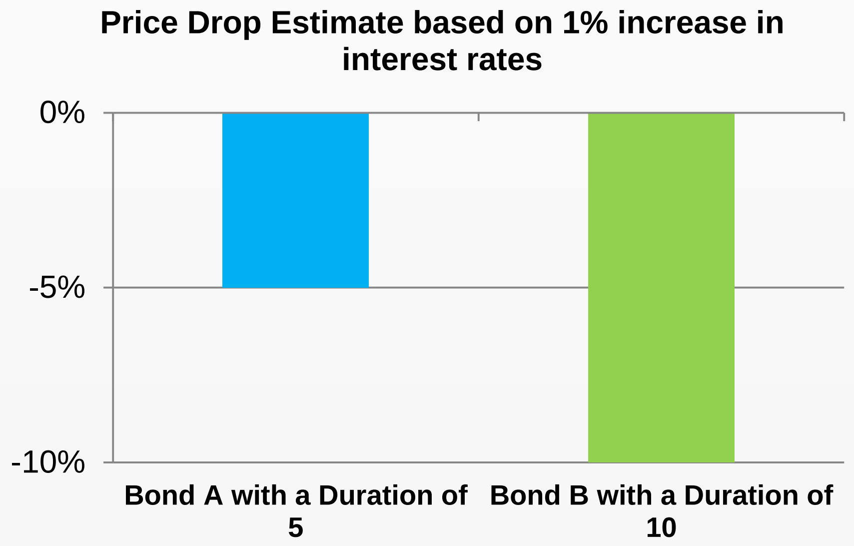
For illustrative purposes only.

*Source: Fidelity.com

Fixed income & bond terms

Duration

- Duration measures how sensitive a bond's price is to changes in the level of market interest rates.
- **Example**:
  - If interest rates were to rise 1%, a bond with a 5-year average duration would likely lose approximately 5% of its value.
  - If the duration of a bond was 10 then the same 1% rise in interest rates would cause it to lose approximately 10% of its value.



Moving beyond individual bonds to bond mutual funds

Bond mutual funds

- Invest your money into a pool with other investors.
- A professional invests that pool of money according to what he or she thinks the best opportunities are and in accordance with the fund's stated investment goals.
- Easier way to achieve diversification even with a small investment.
- Income payments are made monthly, and reflect the mix of all the different bonds in the fund and the payment schedule of each.
- The distribution may vary from month to month.
- Unlike a bond, most bond mutual funds do not mature.

Where can I learn more?
Research > Learning Center > Fixed Income, Bonds & CDs > Bond vs. bond funds

Key terms for learning about Bond Mutual Funds

- **Net Asset Value (NAV)**
  - Represents a fund's per share market value. The NAV plus any applicable sales charge is the price at which investors buy fund shares from a fund company and sell them ("redemption price") to a fund company.
  - An NAV computation is undertaken once at the end of each trading day based on the closing market prices of the portfolio's securities.
  - NAV is derived by dividing the total value of all the cash and securities in a fund's portfolio, less any liabilities, by the number of shares outstanding.
- **Morningstar Rating™***
  - Is determined on how well the fund performed (after adjusting for risk and accounting for sales charges) over the past three-, five- and 10-year periods in comparison to similar funds.
  - Scores range from 1 to 5 stars based on:
    - Fund's past performance
    - Fund manager's skill
    - Risk- and cost-adjusted returns
    - Performance consistency

* For each fund with at least a three-year history, Morningstar calculates a Morningstar Rating™ based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a fund's monthly performance (including the effects of sales charges, loads, and redemption fees), placing more emphasis on downward variations and rewarding consistent performance. The top 10% of the funds in an investment category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. (Each share class is counted as a fraction of one fund within this scale and rated separately, which may cause slight variations in the distribution percentages.)

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How do Bonds differ from Bond Mutual Funds?

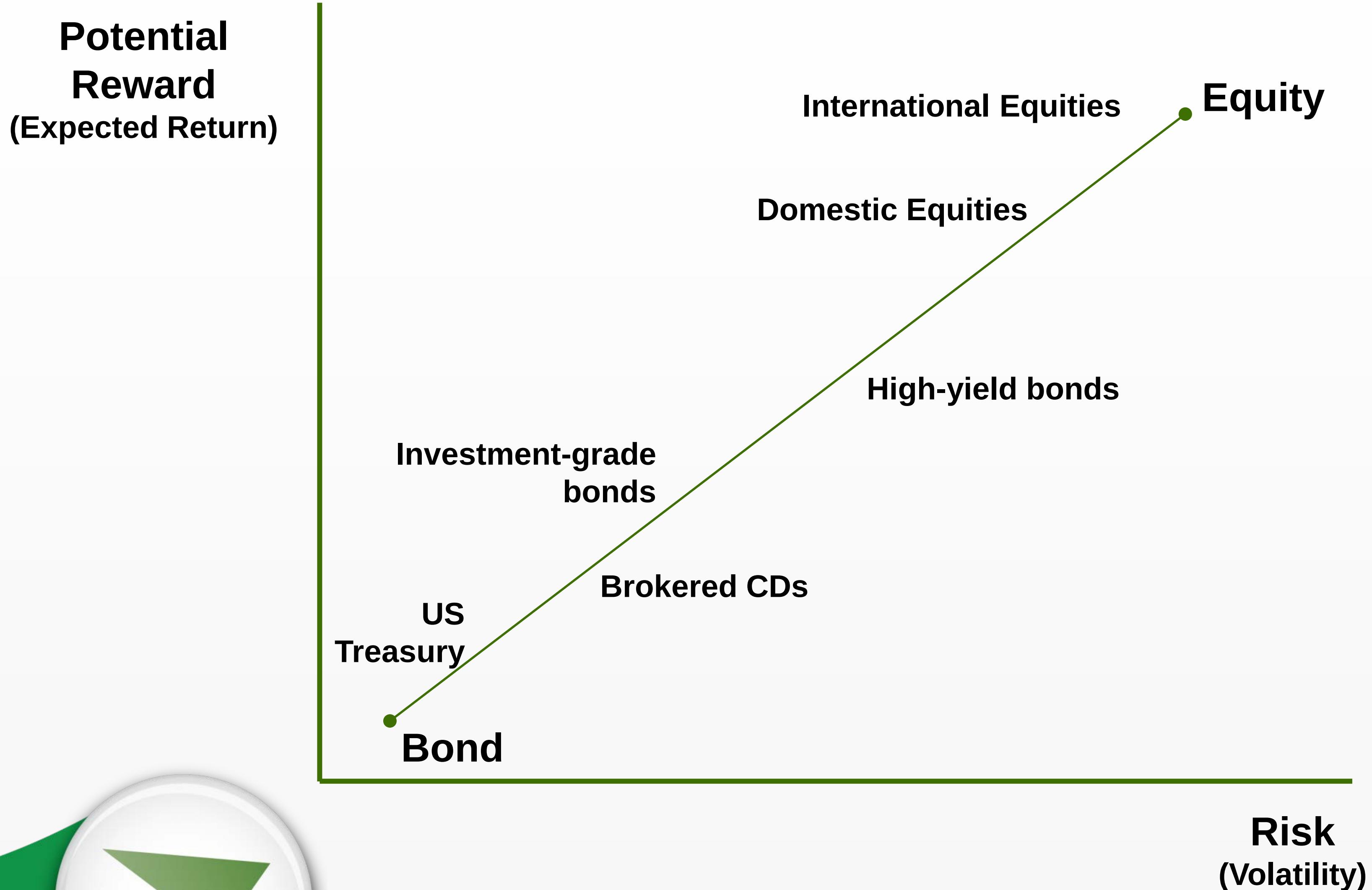
	Individual Bonds	Bond Mutual Funds
Management	Investor	Professional Management
Maturity Date	Defined maturity dates	Never matures*
Income Payments	Defined coupons	Variable distributions
Liquidity	Market-dependent	Fund liquidity
Diversification	Portfolio of bonds needed	Typically bond funds invest in many individual bonds
Credit Risk	Issuer Dependent	Dependent upon underlying holdings
Cost	One-time commission or markup	Ongoing management fee and other potential costs
Duration	Unique to the individual bond	Average of the fund's holdings durations

* **Note**: Exception to this is defined maturity bond funds

Why Fixed Income?

- **Helps diversify your investment portfolio:**
  - Potential to generate steady income
  - Offers diversification
    - Generally the value of Government bonds, such as Treasury bonds, in the U.S. tends to move in the opposite direction as the stock market. But lower quality corporate bonds tend to move more in line with the general direction of the stock market and so offer less potential diversification benefits to your portfolio

Risk and Potential Reward



For illustrative purposes only.

Note: This illustration is simplistic and in reality the relationship is not linear.

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Example: An introduction to the fixed income market

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Example: Using Fidelity's Fixed Income & Bond Investing Tools

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Online Demonstration

Fixed Income, Bonds & CDs on Fidelity.com

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Wrap up

Questions & Answers

Legal disclosures

In general the bond market is volatile, and fixed income securities carry interest rate risk. (As interest rates rise, bond prices usually fall, and vice versa. This effect is usually more pronounced for longer-term securities.) Fixed income securities also carry inflation risk, liquidity risk, call risk and credit and default risks for both issuers and counterparties. Unlike individual bonds, most bond funds do not have a maturity date, so avoiding losses caused by price volatility by holding them until maturity is not possible.

Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Any screenshots, charts, or company trading symbols mentioned, are provided for illustrative purposes only and should not be considered an offer to sell, a solicitation of an offer to buy, or a recommendation for the security.

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