FIXED INCOME WEBINAR

Bonds, Bond Funds, and Bond ETFs

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Vice President, Fixed Income Products



Fidelity Brokerage Services LLC Member NYSE, SIPC

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Agenda

Bond Market Context and Composition

Individual Bonds

Comparing Bond ETFs to Bond Mutual Funds

Summary and Next Steps

Q & A



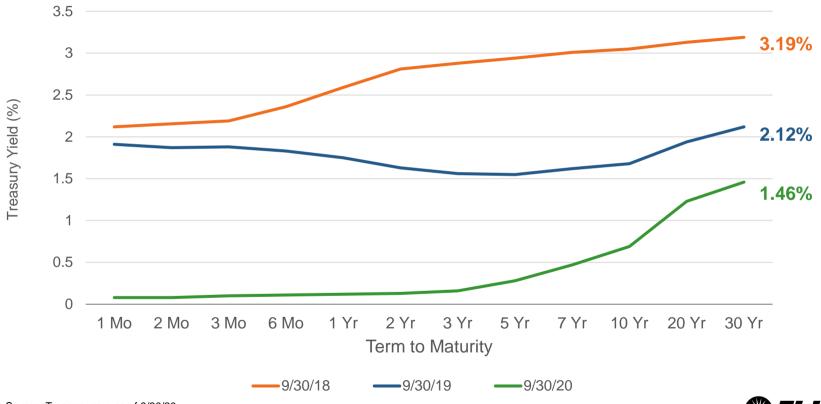


Bond Market Context & Composition

Beau Coash



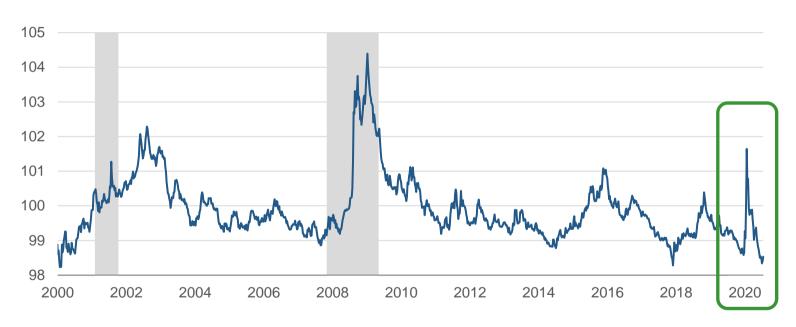
Interest Rate Environment





Financial Conditions Are Easy Again

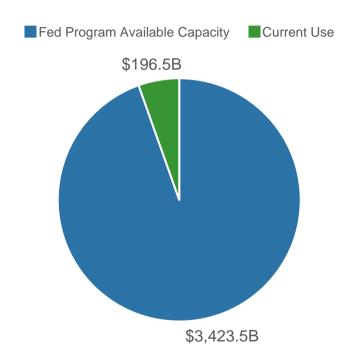
FINANCIAL CONDITIONS INDEX*



^{*} Note: The Goldman Sachs Financial Conditions Index is defined as a weighted average of riskless interest rates, the exchange rate, equity valuations, and credit spreads, with weights that correspond to the direct impact of each variable on GDP. An increase in the index indicates tightening of financial conditions, and a decrease indicates easing. Shaded gray bars represent periods in which the US was in a recession. Source: Bloomberg, Goldman Sachs as of 9/11/20.



Federal Reserve's Special Purpose Vehicles of 2020

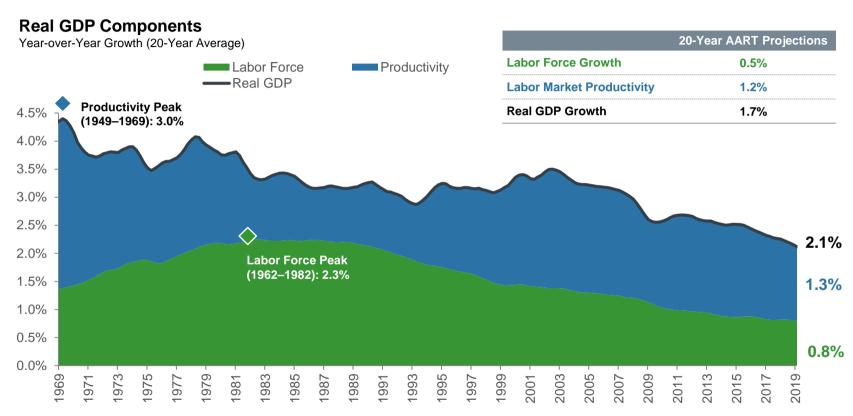


Fed Program	Program Limit	In Use
Primary Dealer Credit Facility (PDCF)	\$800B	\$0.233B
Money Market Mutual Fund Liquidity Facility (MMLF)	\$100B	\$7.088B
Corporate Credit Facility (CCF)	\$750B	\$45.042B
Term Asset-Backed Securities Loan Facility (TALF)	\$100B	\$11.715B
Main Street New Loan Facility (MSLF)	\$600B	\$39.718B
Paycheck Protection Program Liquidity Facility (PPPLF)	\$670B	\$67.573B
Municipal Liquidity Facility (MLF)	\$500B	\$16.547B
Commercial Paper Funding Facility (CPFF)	\$100B	\$8.589B

Source: Federal Reserve; as of 09/30/20



Productivity and Labor Force Growth

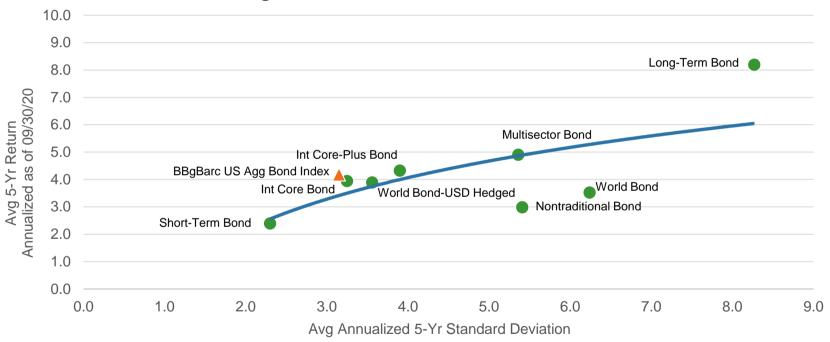


Source: Bureau of Economic Analysis, Bureau of Labor Statistics, Haver Analytics, Fidelity Investments Asset Allocation Research Team (AART), as of 12/31/19.



Fixed Income Morningstar Categories Efficient Frontier

FIXED INCOME Morningstar CATEGORIES AVG ANNUALIZED 5-YR RISK/RETURN

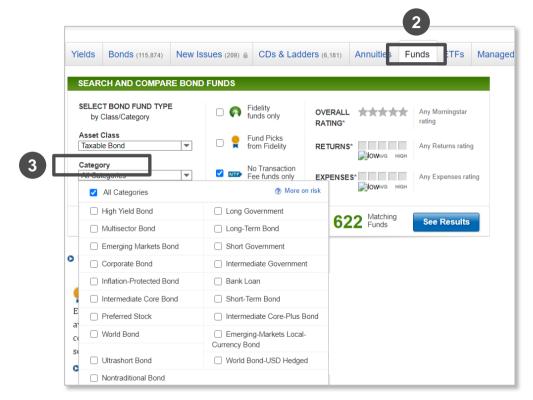


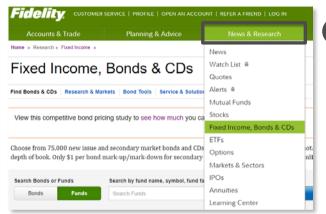
Past performance is no guarantee of future results. Standard deviation shows how much variation there is from the average (mean or expected value). Low standard deviation indicates that the data points tend to be very close to the mean, whereas high standard deviation indicates that the data is spread out over a large range of values. A higher standard deviation represents greater relative risk.

Source: Morningstar Direct as of 9/30/20.



Navigating Bond Fund Categories



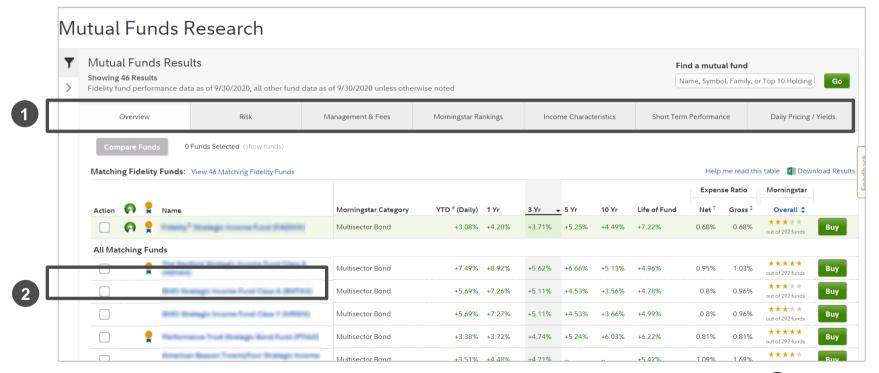


Source: Fidelity.com, November 2020. For illustrative purposes only.

Certain FundsNetwork funds may be subject to separate and additional redemption fees imposed by the particular fund. Investors should refer to that fund's current prospectus for details.



Example Mutual Fund Search Results: Multisector Bond



Source: Fidelity.com, November 2020. For illustrative purposes only.



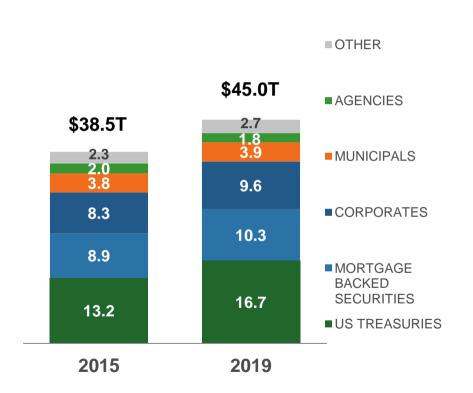


Individual Bonds

Kristin Moroz



U.S. Bond Market by Product Types and Owners



U.S. TREASURIES OWNERSHIP (\$19.4T)



U.S. MUNI BOND OWNERSHIP (\$4.0)



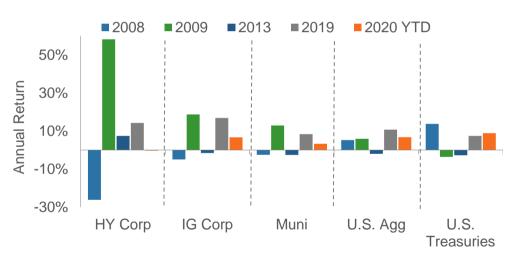
Source: Federal Reserve; September 30, 2020.



Bond Sub-Asset Classes Have Different Risk/Reward Characteristics

You manage credit review and reinvestment for individual bonds

BOND RETURNS VARY BY BOND SECTOR BY YEAR



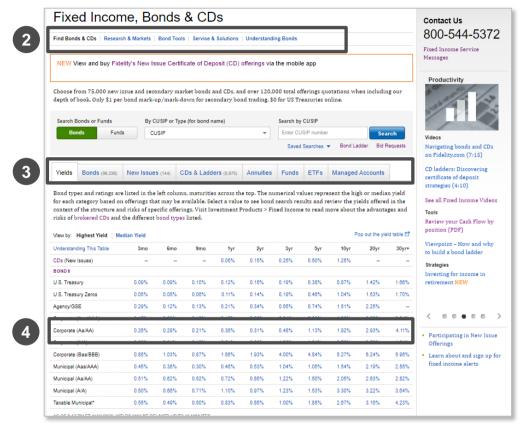
Considerations when Investing in Bonds:

- Assessing bond sectors and features
- 2. Assessing credit ratings
- 3. Assessing liquidity
- 4. Assessing diversification

HY Corp—Bloomberg Barclays U.S. High Yield Index, IG Corp—Bloomberg Barclays U.S. Corporate Investment Grade Index, Muni—Bloomberg Barclays Municipal Bond Index, U.S. Agg—Bloomberg Barclays U.S. Aggregate Index, UST—Bloomberg Barclays U.S. Treasury Index. Past performance is no guarantee of future results. Source: Barclays. September 30, 2020.



Using the Bond Yield Table on Fidelity.com







Where can I learn more?

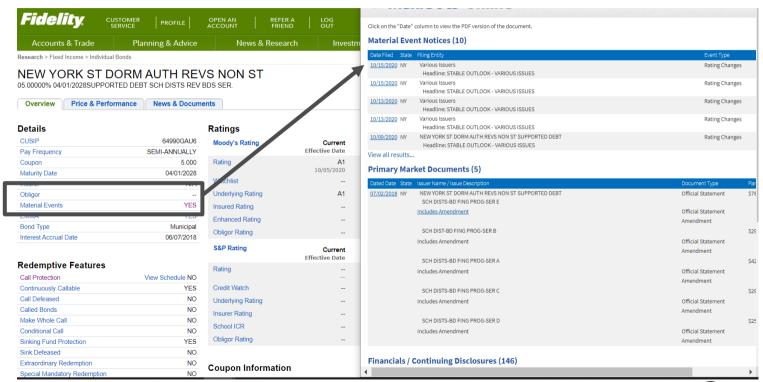
Research > Fixed Income Bonds & CDs

Source: Fidelity.com, November 1, 2020. For illustrative purposes only.



Using the Bond Details Pages—Municipals

Researching the bond's features and attributes

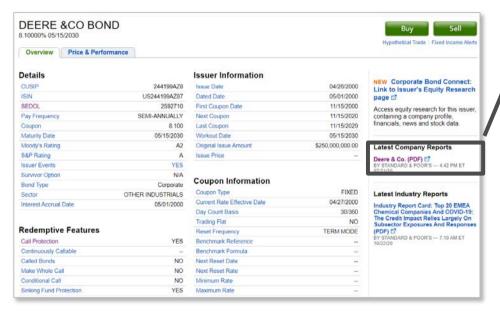


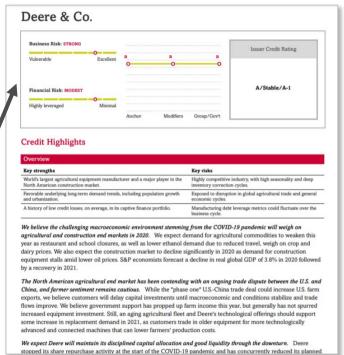
Source: Fidelity.com, November 2020. For illustrative purposes only.



Issuer-Specific Credit Reports—Corporates

Understand why a bond has its rating and potential risks

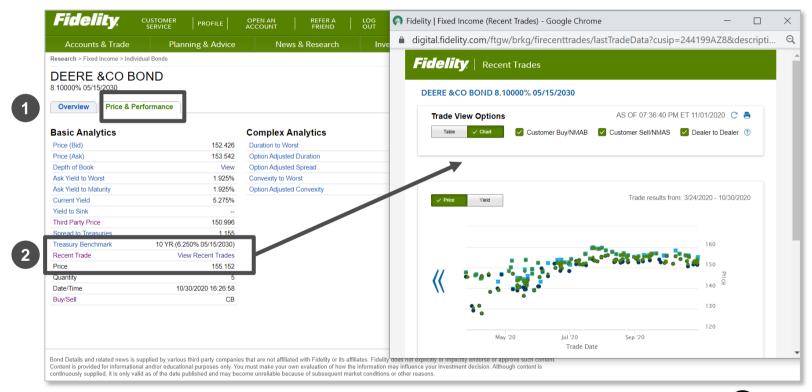






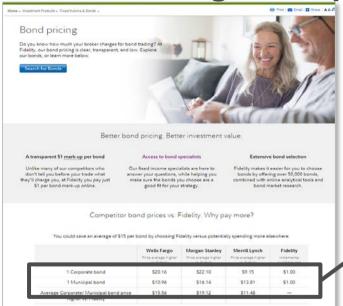
Using Pricing Information to "See the Market"

Aggregated live offerings and historical trading prices



Fidelity

Understanding the Impact of Transaction Costs



See Footnote #2 on page 37 for details on this study.

Source: Fidelity.com, November 2020. For illustrative purposes only.

Where can I learn more?

fidelity.com/fixed-income-bonds/bond-pricing

Competitor bond prices vs. Fidelity. Why pay more?

You could save an average of \$15 per bond by choosing Fidelity versus potentially spending more elsewhere.

	Wells Fargo Price average higher vs. Fidelity	Morgan Stanley Price average higher vs. Fidelity	Merrill Lynch Price average higher vs. Fidelity	Fidelity Incremental purchase cost
1 Corporate bond	\$20.16	\$22.10	\$9.15	\$1.00
1 Municipal bond	\$10.96	\$16.14	\$13.81	\$1.00
Average Corporate/ Municipal bond price higher vs. Fidelity	\$15.56	\$19.12	\$11.48	

Example of a hypothetical single bond purchased online based on average price differentials taken from the 2020 Corporate Insight study¹ commissioned by Fidelity.

When purchasing a bond online, there are incremental costs to the customer including mark-ups and other fees that a financial firm could charge the customer. Fidelity charges a \$1 mark-up per bond for online trades, which is added to the price displayed from the dealer. After factoring in Fidelity's \$1 per bond mark-up, the three brokers identified in the chart were asking, on average, \$15.41 more per bond for online trades than Fidelity.

Access the 2020 Corporate Insight study at:

fidelity.com/bin-public/060_www_fidelity_com/documents/BondPricingStudy.pdf

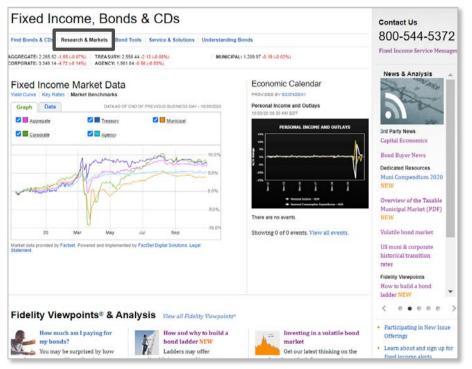
Read more about demystifying bond prices at: https://www.fidelity.com/viewpoints/investing-ideas/how-much-for-bonds

Minimum markup or markdown of \$19.95 applies if traded with a Fidelity representative. For U.S. Treasury purchases traded with a Fidelity representative, a flat charge of \$19.95 per trade applies. A \$250 maximum applies to all trades, reduced to a \$50 maximum for bonds maturing in one year or less. Rates are for U.S. dollar-denominated bonds; additional fees and minimums apply for non-dollar bond trades. Other conditions may apply; see Fidelity.com/commissions for details. Please note that markups and markdowns may affect the total cost of the transaction and the total, or "effective," yield of your investment. The offering broker, which may be our affiliate, National Financial Services LLC, may separately mark up or mark down the price of the security and may realize a trading profit or loss on the transaction.

Mark-up For secondary market bonds and CD purchases, the difference (dollar and %) between the Prevailing Market Price (PMP) and the trade price. Mark-up is calculated as: Mark-up / Total initial price x 100. The mark-up includes, but may not be limited to, Fidelity's \$1 per bond pricing. Details available on our fee schedule.

Bond Market News and Reports

News and analysis from Fidelity and third parties



Source: Fidelity.com, November 2020. For illustrative purposes only.

News, commentary, and research reports are from third-party sources unaffiliated with Fidelity. Fidelity does not endorse or adopt their content. Fidelity makes no guarantees that the information supplied is accurate, complete, or timely, and does not provide any warranties regarding results obtained from its use.



Key Considerations of Individual Bond Investing

Using Fidelity's offering and proprietary tools to help

Bonds mature

Plan for future expenses, real estate tax payment, college education, reinvestment

Cash flow planning

Bond valuations may fluctuate but cash flow is consistent, barring an issuer default

Research before you invest

Bond structure and pricing

Strive to lower costs

Use depth of book. Compare Fidelity to firms with significant markups.

New issue products no charge at Fidelity¹

Monitor your holdings

Fixed income analysis; alerts on maturities, ratings changes



Where can I learn more?

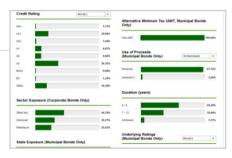
Research > Fixed Income Bonds & CDs > Bond Tools tab

For illustrative purposes only.

¹ Fidelity makes certain new issue products available without a separate transaction fee. Fidelity Brokerage Services LLC and National Financial Services LLC receive compensation for participating in the offering as a selling group member or underwriter.

Fixed Income Analysis







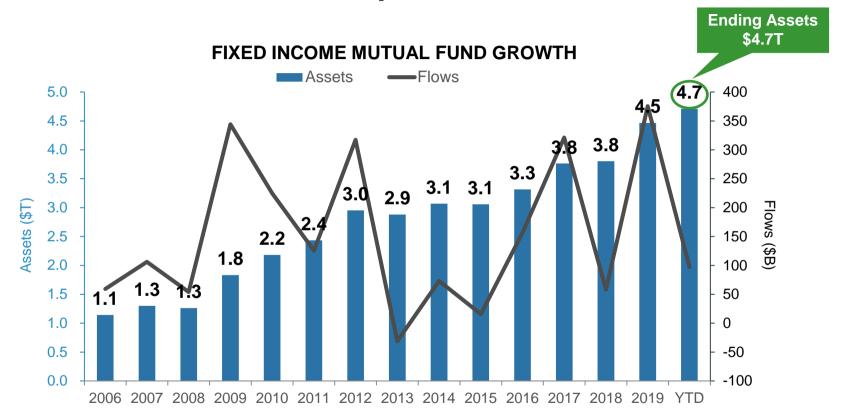


How Do Bond Exchange Traded Funds (ETFs) Compare to Bond Mutual Funds?

Lee Sterne

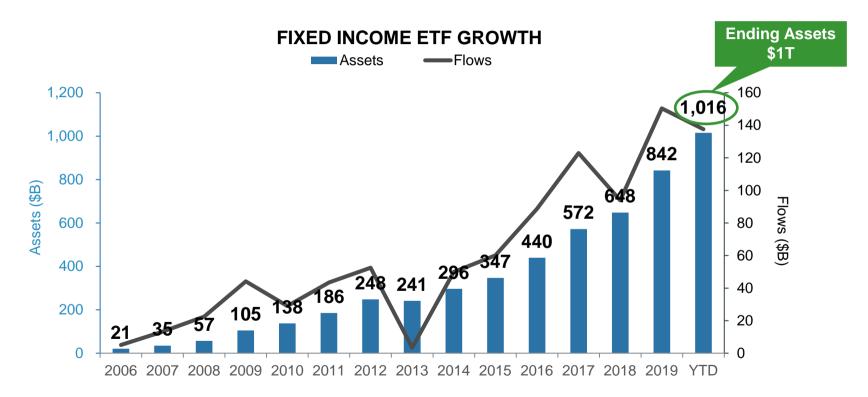


Bond Fund Market Landscape





Bond ETF Market Landscape





Things to Know About Trading Attributes

ETFs	Mutual Funds	
Intra-day trading on secondary market	Most transact once a day at close	
Allow limit, stop, and conditional orders	No limit, stop, or conditional orders	
Short sales and margin permitted (conditions may apply)	No shorting (margin 30 days)	



Things to Know about Costs

ETFs	Mutual Funds	
Expense ratios	Expense ratios	
Commissions (may be waived)	Load and no load	
Premium/discounts & bid-ask spreads	Bought/sold at NAV (may have redemption fees)	

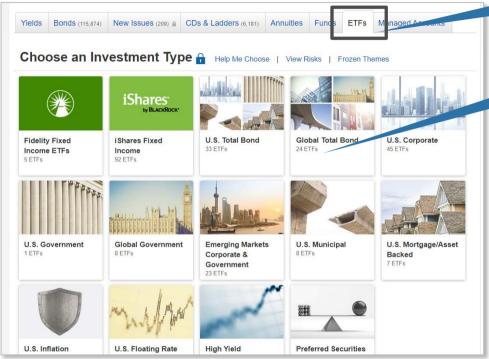


Things to Know About Access, Transparency, and Taxes

ETFs	Mutual Funds	
Many sub-sector and industry focused ETFs, in addition to broader-market ETFs	Most funds focus on broader markets; few sub-sector funds	
Generally, daily transparency of holdings	Holdings data, usually at least one month old	
Capital gains tend to be lower due to creation and redemption	Less tax-efficient structure; all shareholders bear tax burden	



ETF Research—Tiles



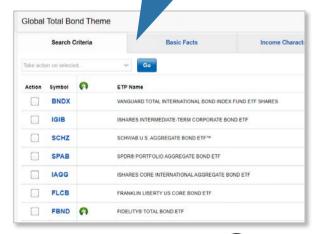
Source: Fidelity.com, November 2020. Images are for illustrative purposes only.

Free commission offer applies to online purchases of Fidelity ETFs and iShares ETFs in a Fidelity retail account. The sale of ETFs is subject to an activity assessment fee (from \$0.01 to \$0.03 per \$1,000 of principal).

Select the ETF Tab

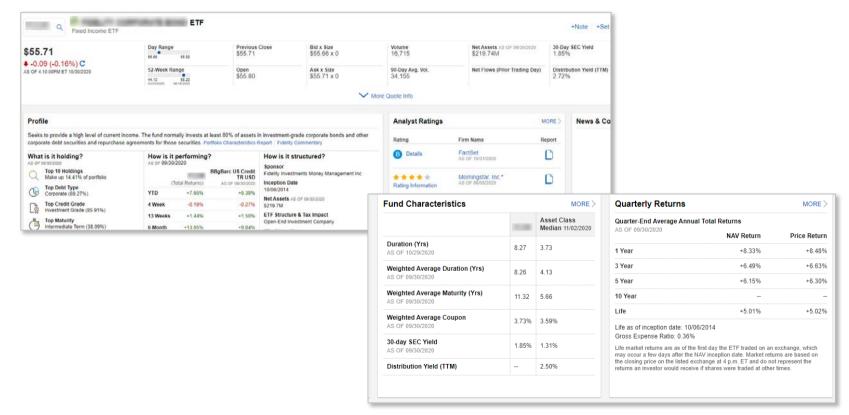
Select the theme

3 View results



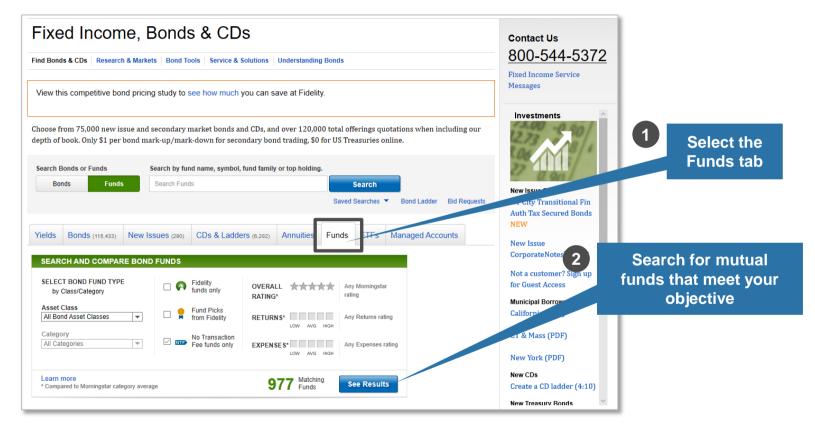


ETF Research—Specific Bond ETF Research



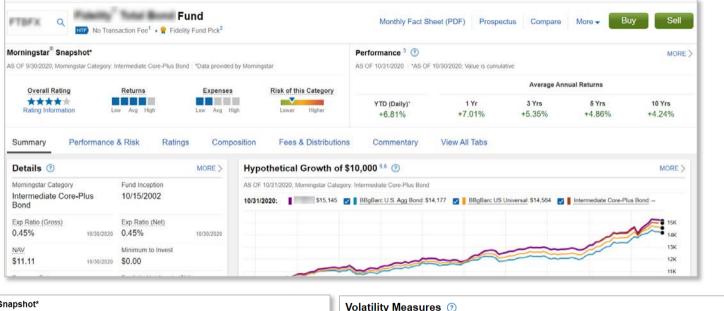


Mutual Fund Research





Mutual Fund Research—Specific Bond Fund Research



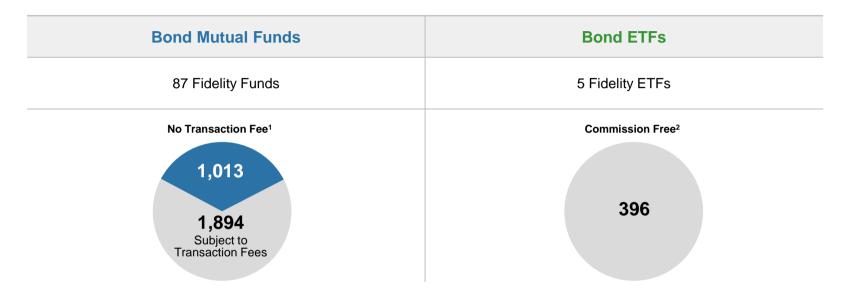




Source: Fidelity.com, November 2020. Images are for illustrative purposes only.



Bond Mutual Funds and ETFs on Fidelity.com



¹ Certain FundsNetwork funds may be subject to separate and additional redemption fees imposed by the particular fund. Investors should refer to that fund's current prospectus for details.

For iShares ETFs, Fidelity receives compensation from the ETF sponsor and/or its affiliates in connection with an exclusive long-term marketing program that includes promotion of iShares ETFs and inclusion of iShares funds in certain FBS platforms and investment programs. Please note, this security will not be marginable for 30 days from the settlement date, at which time it will automatically become eligible for margin collateral. Additional information about the sources, amounts, and terms of compensation can be found in the ETF's prospectus and related documents. Fidelity may add or waive commissions on ETFs without prior notice. BlackRock and iShares are registered trademarks of BlackRock Inc., and its affiliates.



² Free commission offer applies to online purchases of Fidelity ETFs and select iShares ETFs in a Fidelity retail account. The sale of ETFs is subject to an activity assessment fee (from \$0.01 to \$0.03 per \$1,000 of principal).

ETF Strategies Covering the Credit Spectrum

CREDIT SPECTRUM HIGH YIELD INVESTMENT GRADE **Fidelity Low Duration Fidelity Limited Term Fidelity Total Fidelity Corporate Fidelity High Yield Bond Factor FTF Bond FTF Bond FTF Bond FTF Factor FTF FLDR FLTB FCOR FDHY Ticker FBND Expense** 0.15% 0.36% 0.36% 0.36% 0.45% Ratio¹ Seeks a high level of A core fixed income FTF Seeks income potential A credit-oriented ETF income and capital A credit-oriented ETF greater than a money for clients seeking income serving clients with appreciation, Quantitative, market fund with less and a measure of serving clients with longer Summary shorter investment rule-based approach volatility than a short-term protection from stock investment horizons to exploit market horizons bond fund market volatility inefficiencies Factor/Model-Based Factor/Passive Active Active Active Active

There is no guarantee that a factor-based investing strategy will enhance performance or reduce risk. Before investing, make sure you understand how the fund's factor investing strategy may differ from that of a more traditional index product. Depending on market conditions, funds may underperform compared with products that seek to track a more traditional index. The return of an index exchange-traded fund (ETF) is usually different from that of the index it tracks, because of fees, expenses, and tracking error. An ETF may trade at a premium or discount to its net asset value (NAV).



¹ As of 09/30/20. Expense Ratio is the fund's total annual fund operating expenses as available in each fund's prospectus and represents the expenses that you pay each year as a percentage of the value of your investment. Any applicable brokerage charges are not included in the expense ratio.



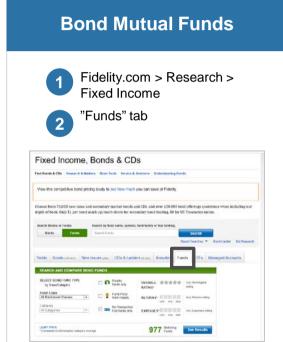
Summary and Next Steps

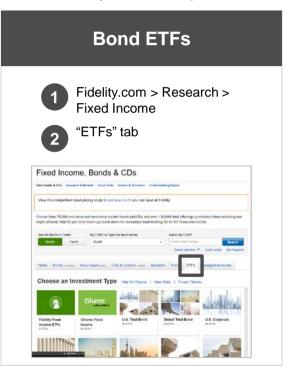


Your Next Steps

Locating the products on Fidelity.com | More education and support services | How to buy

Individual Bonds Fidelity.com > Research > Fixed Income "Yields" tab or "Individual Bonds" tab Fixed Income, Bonds & CDs 1870 Marc and Sec Printers Since Server Published at Present CPN Affection at Microsoft Spinished Change from 78,000 new inner and secondary market bonds and CDs, and over 1,21,000 tond offerings connections when including nor the CSTNIF or Type (for bond name) New Issues you. CDs & Laddens (Long). Arouties. Punds. ETFs. Managed Assesseds stings are listed in the left column, maturities across the top. The numerical values represent the high-or-median yield for each company based on offering that may be explained. Edition a value to per band search results and arriver the prints effort on the opposite of the surrounce and make of specific offerings. Yest investment Forders: Fixed testings to reed source down the advantages and register of the surrounce and make of specific offerings. Yest investment Forders: Fixed testings to reed source down the advantages and register of the surrounce and the surrounce of the surrounce and the AGMINISTRATE. \$200 0.00 1.00 \$200 \$300 \$300 \$200 Commercial Management Concern (A.A.) 1305 1375 1385 1375 1385 1385 1385 1375 1385 1375 Concess Sea Still 68% 88% 18% 51% 58% 12% 18% 18% 18% 18% MINORS IANA

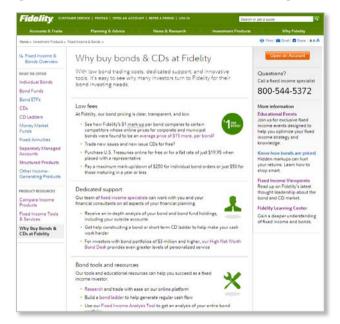


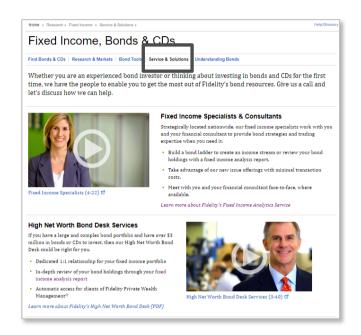


Source: Fidelity.com, November 2020. Images are for illustrative purposes only.



Why Buy Bonds at Fidelity?





Images are for illustrative purposes only. Source: Fidelity.com

A bond's markup is the difference (dollar and %) between a bond's Prevailing Market Price (PMP) and the trade price. The markup includes, but may not be limited to, Fidelity's \$1 per bond pricing. Details available on our fee schedule.

Further information about bond pricing and markups may be found in this Fidelity Viewpoint.

1. Minimum markup or markdown of \$19.95 applies if traded with a Fidelity representative. For U.S. Treasury purchases traded with a Fidelity representative, a flat charge of \$19.95 per trade applies. A \$250 maximum applies to all trades, reduced to a \$50 maximum for bonds maturing in one year or less. Rates are for U.S. dollar-denominated bonds; additional fees and minimums apply for non-dollar bond trades. Other conditions may apply; see Fidelity.com/commissions for details. Please note that mark-ups and mark-downs may affect the total cost of the transaction and the total, or "effective," yield of your investment. The offering broker, which may be our affiliate, National Financial Services LLC, may separately mark up or mark down the price of the security and may realize a trading profit or loss on the transaction.

See disclosures 2 and 3 on page 37 for details of the information presented above.



Fixed Income Assets Under Management

Total Fixed Income AUM	Institutional (\$ Billions)	Retail (\$ Billions)	Total (\$ Billions)
Bonds	\$111.6	\$356.6	\$468.2
High Income	\$15.9	\$89.5	\$105.4
Money Market	\$292.1	\$606.3	\$898.4
Total	\$419.6	\$1,052.4	\$1,472.0

Source: Fidelity Investments as of 9/30/20.

Data is unaudited. Fidelity fixed income assets include investment grade and high income products, bond sub-portfolios of multi-asset class strategies and money market cash management vehicles.



Important Information

(from pages 18 and 35)

- 2. Fidelity commissioned Corporate Insight to study bond pricing, available online, for self-directed retail investors from three brokers that offer corporate and municipal bonds for comparison to Fidelity's standard online pricing. The <u>Study</u> compared online bond prices for more than 27,000 municipal and corporate inventory matches from January 28 through March 2, 2020. It compared municipal and corporate inventories offered online in varying quantities. The study found that, on average, the three online bond brokers identified in the chart were asking \$15.41 more per bond. Corporate Insight determined the average price differential by calculating the difference between the prices of matching corporate and municipal bond inventory at Fidelity, including Fidelity's \$1 per bond markup for online trades vs. the prices offered online for the same bonds from the three brokers in the table, then averaging the differences of the financial services firms. The analysis included investment-grade corporate and municipal bonds only, as the three brokers in the study do not offer non-investment-grade bonds for purchase online.
- 3. Fidelity makes new issue CDs available without a separate transaction fee. Fidelity Brokerage Services LLC and National Financial Services LLC receive compensation for participating in the offering as a selling group member or underwriter.



Important Information (Cont'd)

Before investing in any mutual fund or exchange traded fund, you should consider its investment objectives, risks, charges, and expenses. Contact Fidelity for a prospectus, an offering circular, or, if available, a summary prospectus containing this information. Read it carefully.

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 holding them until maturity to avoid losses caused by price volatility is not possible. Any fixed income security sold or redeemed prior to maturity may be subject to loss. High-yield/non-investment-grade bonds involve greater price volatility and risk of default than investment-grade bonds.

The municipal market can be adversely affected by tax, legislative, or political changes and the financial condition of the issuers of municipal securities. Investing in municipal bonds for the purpose of generating tax-exempt income may not be appropriate for investors in all tax brackets or for all account types. Tax laws are subject to change and the preferential tax treatment of municipal bond interest income may be revoked or phased out for investors at certain income levels. You should consult your tax adviser regarding your specific situation.



Important Information (Cont'd)

ETFs are subject to market fluctuation and the risks of their underlying investments. ETFs are subject to management fees and other expenses. Unlike mutual funds, ETF shares are bought and sold at market price, which may be higher or lower than their NAV, and are not individually redeemed from the fund.

The tax information contained herein is general in nature, is provided for informational purposes only, and should not be construed as legal or tax advice. Fidelity does not provide legal or tax advice. Fidelity cannot guarantee that such information is accurate, complete, or timely. Laws of a particular state or laws that may be applicable to a particular situation may have an impact on the applicability, accuracy, or completeness of such information. Always consult an attorney or tax professional regarding your specific legal or tax situation.

The Fidelity ETF Screener is a research tool provided to help self-directed investors evaluate these types of securities. The criteria and inputs entered are at the sole discretion of the user, and all screens or strategies with preselected criteria (including expert ones) are solely for the convenience of the user. Expert Screeners are provided by independent companies not affiliated with Fidelity. Information supplied or obtained from these Screeners is for informational purposes only and should not be considered investment advice or guidance, an offer of or a solicitation of an offer to buy or sell securities, or a recommendation or endorsement by Fidelity of any security or investment strategy. Fidelity does not endorse or adopt any particular investment strategy or approach to screening or evaluating stocks, preferred securities, exchange traded products, or closed-end funds. Fidelity makes no guarantees that information supplied is accurate, complete, or timely, and does not provide any warranties regarding results obtained from its use. Determine which securities are right for you based on your investment objectives, risk tolerance, financial situation, and other individual factors, and reevaluate them on a periodic basis.

References to individual securities are for illustrative purposes only, and should not be construed as investment advice.

Past performance is no guarantee of future results.

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Fidelity does not review the Morningstar data. For mutual fund performance information, you should check the fund's current prospectus for the most up-to-date information concerning applicable loads, fees, and expenses.

The Morningstar category average is the average return for the peer group based on the returns of each individual fund within the group, for the period shown. This average assumes reinvestment of dividends. Past performance is no guarantee of future results..

Views expressed are as of the date indicated, based on the information available at that time, and may change based on market or other conditions. Unless otherwise noted, the opinions provided are those of the speaker or author and not necessarily those of Fidelity Investments or its affiliates. Fidelity does not assume any duty to update any of the information.



Important Information (Cont'd)

A bond ladder, depending on the types and amount of securities within it, may not ensure adequate diversification of your investment portfolio. While diversification does not ensure a profit or guarantee against loss, a lack of diversification may result in heightened volatility of your portfolio value. You must perform your own evaluation as to whether a bond ladder and the securities held within it are consistent with your investment objectives, risk tolerance, and financial circumstances. To learn more about diversification and its effects on your portfolio, contact a representative.

The Fixed Income Analysis tool is designed for educational purposes only and you should not rely on it as the primary basis for your investment, financial or tax planning decisions. Investment decisions should be based on an individual's own goals, time horizon, and tolerance for risk. Nothing in this content should be considered to be legal or tax advice and you are encouraged to consult your own lawyer, accountant, or other advisor before making any financial decision.

Investment decisions should be based on an individual's own goals, time horizon, and tolerance for risk. Nothing in this content should be considered to be legal or tax advice and you are encouraged to consult your own lawyer, accountant, or other advisor before making any financial decision.

Indices

All indexes are unmanaged, and performance of the indexes includes reinvestment of dividends and interest income, unless otherwise noted. Indexes are not illustrative of any particular investment, and it is not possible to invest directly in an index.

Bloomberg Barclays U.S. High Yield Index is a market value-weighted index that covers the universe of dollar-denominated, fixed-rate, non-investment-grade debt.

Bloomberg Barclays U.S. Corporate Investment Grade Index is a market value-weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more.

Bloomberg Barclays Municipal Bond Index is an unmanaged index that includes investment-grade, tax-exempt, and fixed-rate bonds with maturities greater than two years selected from issues larger than \$75 million.

Bloomberg Barclays U.S. Aggregate Bond Index is an unmanaged index that tracks domestic investment-grade bonds, including corporate, government, and mortgage-backed securities. Bloomberg Barclays U.S. Treasury Index is a market value-weighted index of public obligations of the U.S. Treasury with maturities of one year or more.

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