

#### **FIXED INCOME WEBINAR**

# **Fixed Income Pricing**

June 21, 2016

Chuck Brown VP, HNW Bond Desk
Richard Carter VP, Fixed Income Products

© 2016 FMR LLC. All rights reserved.

900 Salem Street, Smithfield, RI 02917

1 765139.1.0

# **Agenda**

- Bond Market Context
- Valuation Pricing and Historical Trades
- Live Pricing
- Pricing and Trading Costs
- Summary



# **Bond Market Context**



## Comparing the Bond Market to the Stock Market

Characteristics	Bond	Stock
Market Size <sup>1</sup>	\$40 Trillion	\$33 Trillion
Daily Trading Volumes <sup>2</sup>	\$785 Billion	\$188 Billion
# of Securities <sup>3</sup>	2,500,000	5,300
Ford (example) Outstanding 4	\$133 Billion	\$54 Billion
Ford (example) Number of Issues <sup>4</sup>	257	1



<sup>2.</sup>Bonds—SIFMA, Q4 2015, Equity AMEX/ARCA, NYSE, NASDAQ, BATS, DirectEdge.

In general, the bond market is volatile, bond prices rise when interest rates fall and vice versa. This effect is usually pronounced for long-term securities.

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

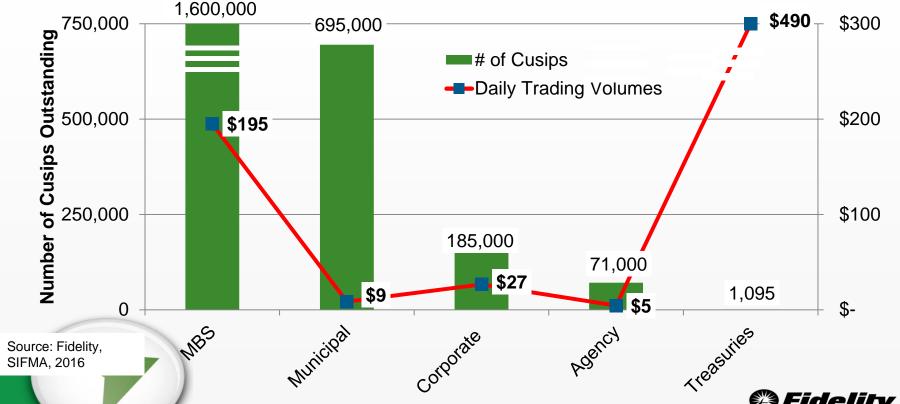


<sup>3.</sup>SEC Report 2012.

<sup>4.</sup>Bloomberg—Recent 10-K filing.

# Trading volume varies greatly across bond types

**Bond Cusips Outstanding (Green bars) vs Daily Trading Volume (Red Line)** 



# Valuation Pricing and Historical Trades



# **Bond Valuation Pricing on Monthly Statements**



Holdings (continued)

Bonds (continued)

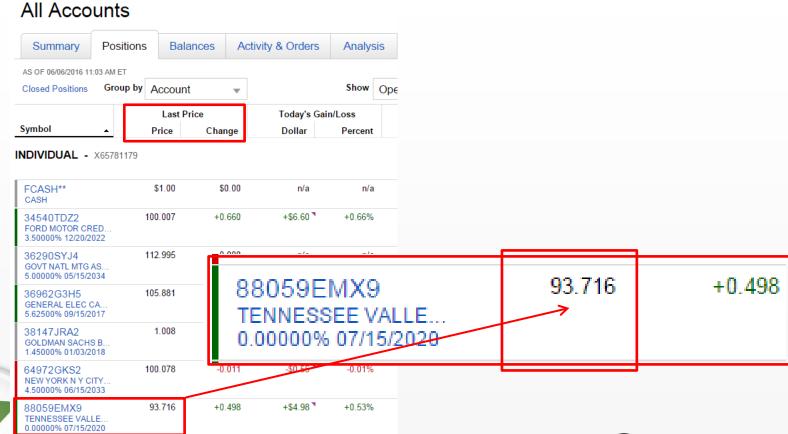
Description	Maturity	Beginning Market Value May 1,2016	Quantity May 31,2016	Pricel Per Unit. May 31,2016
TENNESSEE VALLEY AUTH FED BE ZERO COUPON CUSIP:	07/15/20 88059EMX9	934.04	1,000.000	93.209

Source: Fidelity.com

Screen-print taken on 6/6/2016

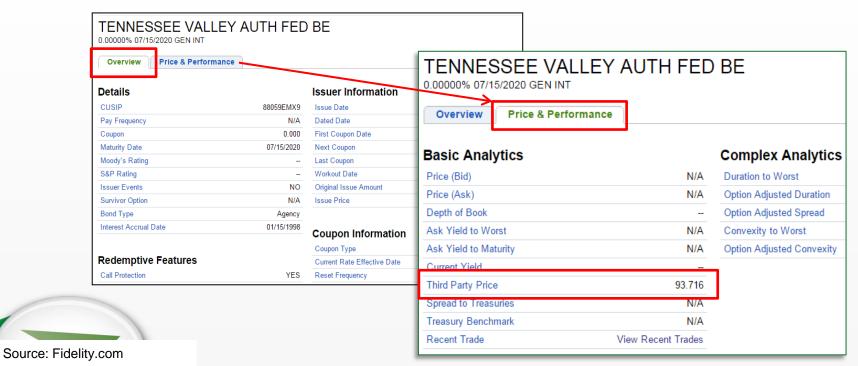


# Nightly Valuation Price seen on Account Positions

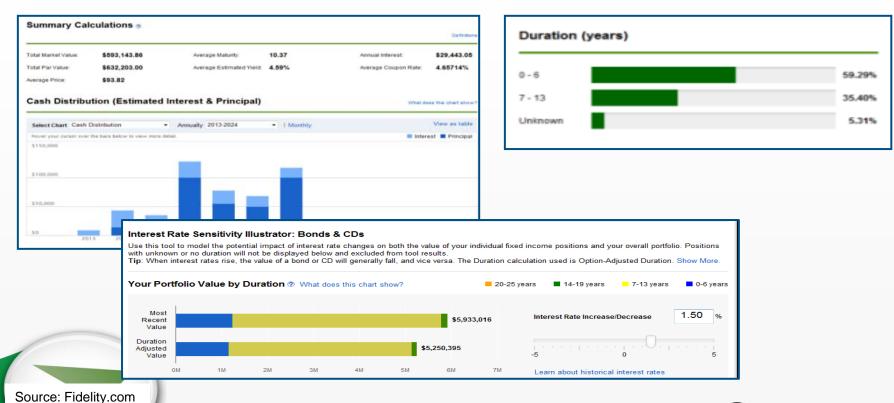


Source: Fidelity.com Screen-print taken on 6/6/2016

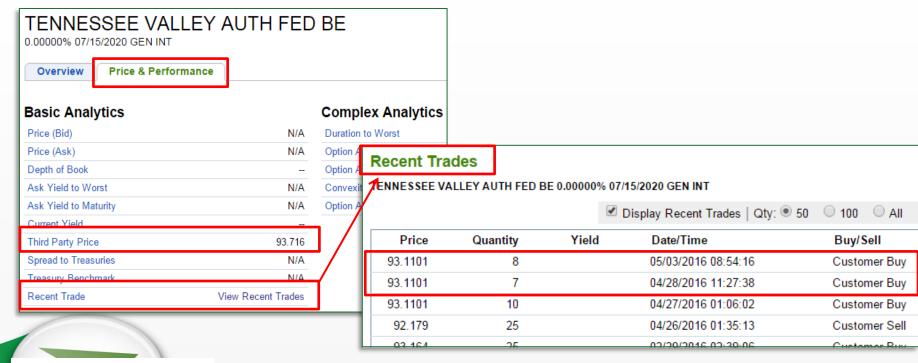
# Valuation price also labeled as "Third Party Price"



# Valuation Prices vital for Fixed Income Analytics



# "Recent Trades" indicative of trading liquidity



Source: Fidelity.com

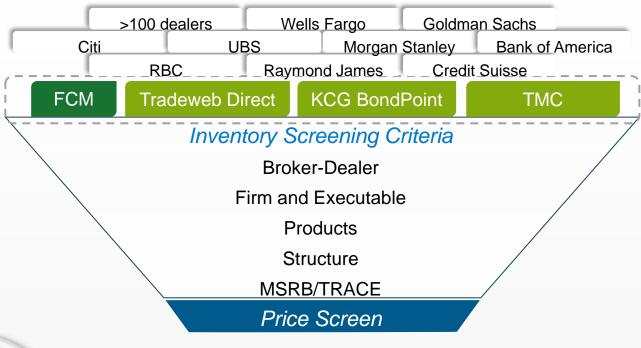
Screen-print taken on 6/6/2016



# **Live Pricing**



# Fidelity aggregates bonds from many dealers







# Treasuries and most Corporate bonds display both live bid and offer prices

			Rating			Bid	Ask		
<u>Description</u>	Coupon	Maturity Date	Moody's	<u>S&amp;P</u>	<u>Yield</u>	Price Oty(min)	Price Oty(min)	Yield to Worst	
UNITED STATES TREAS NTS NOTE 1.62500% 05/15/2026	1.625	05/15/2026	AAA		1.688	99.421 1,000(1)	99.469 1,000(1)	1.683	

Bid Price: 99.421

Ask Price: 99.469

Yield Spread: 0.005%

			Ratin	g	Bid		Ask	
<u>Description</u>	Coupon	Maturity Date	Moody's	S&P	<u>Yield</u>	Price Oty(min)	Price Oty(min)	Yield to Worst/ Yield to Sink
WELLS FARGO CO MTN BE 4.10000% 06/03/2026 FR	4.100	06/03/2026	A3	A-	3.398	105.904 75(10)	105.999 2(2)	3.387

**Bid Price: 105.904** 

Ask Price: 105.999

Yield Spread: 0.011%



# Muni bond offerings rarely display bid prices

Did	I @		Ask
Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink
	No Bid ()	71.956 5(5)	3.120
	No Bid ()	106.893 45(10)	2.990

- F				Ratir	ng	Underlyin	g Rating	Bid	?		Ask	
State	<u>Description</u>	Coupon	Maturity Date	Moody's	<u>S&amp;P</u>	Moody's	<u>S&amp;P</u>	<u>Yield</u>	Price Qty(min)	Price Oty(min)	Yield to Worst/ Yield to Sink	<u>Yield to</u> <u>Maturity</u>
IL	KENDALL KANE & WILL CNTYS ILL CMNTY UNIT00.00000% 02/01/2027SCH DIST NO 308 GO SCH BDS OSWEGO SER.	0.000	02/01/2027	AA2	NR	AA2				71.956 5(5)	3.120	3.120
NJ	NEW JERSEY ST HIGHERED ASSISTANCE AUTH 05.10000% 12/01/2026STUD LN STUD LN REV BDS STATE OF NEW	5.100	12/01/2026	AA2	AA	-			No Bid ()	106.893 45(10)	2.990	4.276
IL	COOK CNTY ILL CMNTY COLLEGE DIST NO 508 05.25000% 12/01/2026ULTD TAX GO BDS CITYCOLLEGE OF CHICAGO	5.250	12/01/2026	<u>-</u> – –	AA	=				116.347 45(5)	2.807	3.382
_ L	COOK CNTY ILL CMNTY COLLEGE DIST NO 508 05 25000 % 12/01/2025ULTD TAX GO BDS CITYCOLLEGE OF CHICAGO	5.250	12/01/2025	-	AA					117.132 10(10)	2.700	3.143
IL	PINGREE GROVE ILL SPL SVC AREA NO 2 03.50000% 03/01/2026SPL TAX REF BDS CAMBRIDGE LAKES PROJ	3.500	03/01/2026	-	AA				No Bid ()	106.578 10(10)	2.649	2.724
IL	WILL CNTY ILL CMNTY UNIT SCH DIST NO 00.00000% 11/01/2026365-U VY VIEW GO SCHBDS SER.2007 B	0.000	11/01/2026	AA2	AA	AA2	AA-			76.166 75(25)	2.640	2.640
IL	UNIVERSITY ILL UNIV REVS AUX FACS SYS 03.62500% 04/01/2027REV BDS SER. 2011	3.625	04/01/2027	AA3	AA-	AA3				105.191 15(5)	2.570	3.057
IL	WILCO AREA CAREER CTR ILL DEBT CTFS 02.37500% 12/01/2025SER.2016	2.375	12/01/2025		AA-					98.658 140(5)	2.535	2.535
IL	WILL CNTY ILL CMNTY UNIT SCH DIST NO 00.00000% 11/01/2025365-U VY VIEW CAP APPREC BDS SER.2005	0.000	11/01/2025	AA2	AA-	AA2	AA-			79.203 50(10)	2.501	2.501
CA	SALINAS CALIF UN HIGH SCH DIST GO BDS00.00000% 10/01/20262002 ELECTION SER. 2003 A	0.000	10/01/2026	AA2	AA-	AA2	A+		No Bid ()	77.624 5(5)	2.475	2.475





# More active bonds display "Depth of Book"

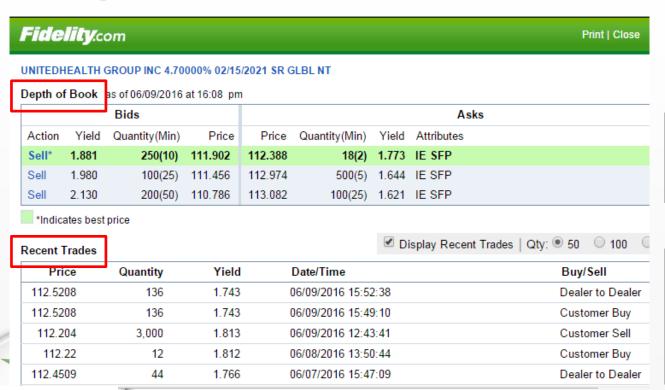


Action

- 6 dealers bidding
- Different quantities and prices
- Bids Asks Action Yield Quantity(Min) Price Price Quantity(Min) Yield Attributes 3.398 3.387 IE CP SFP Sell\* 75(10) 105.904 105,999 105.870 106, 181 3.366 IE CP SFP Sell 3.402 250(10) 174(174) Sell 3.405 324(1) 105.840 106.276 3.355 IE CP SFP Sell 3.407 65(25) 105.826 106.318 3.350 IE CP SFP 250(10) Sell 3.447 100(1) 105,479 106.363 3.345 IE CP SFP 3 460 105.366 106 363 3.345 IE CP SFP Sell 200(1) 106.401 3.341 IE CP SFP 106.412 3.339 IE CP SFP 106 450 3.335 IE CP SFP 106 450 3.335 IE CP SFP 106.889 3.285 IE CP SFP 264(1)
- 11 dealers offering
- Different quantities and prices



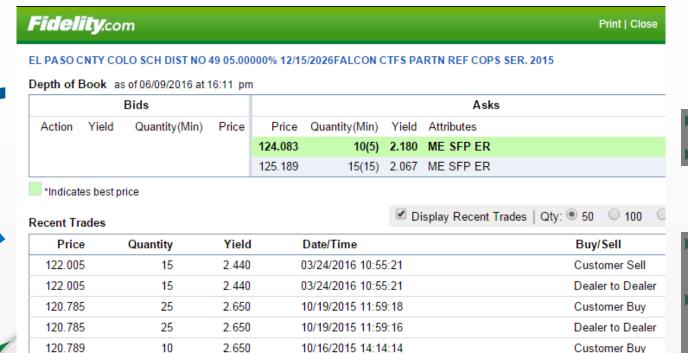
# Compare "Depth of Book" prices with "Recent Trades" prices



- **Best Offer: 112.388**
- Best Bid: 111.902
- Yield Spread: 0.108
- Recent Trades
- Investor Bought earlier at 112.52
- Investor Sold earlier at 112.20



# Compare & Contrast Corporate bonds with Muni bonds



10/16/2015 17:17:12

2 650

10

- Best Offer: 124.083
- No Bids

- Trades often months apart
- Pricing increased over time, in line with general Munimarket

Source: Fidelity.com

120 780

**Fidelity** 

Dealer to Dealer

# Fidelity displays prices as we receive them



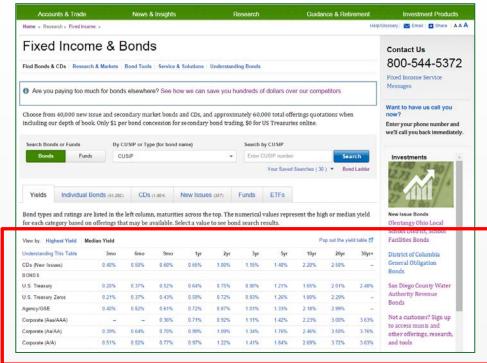




## Live bond prices drive the Yield Table

### Fidelity.com > Research > <u>Fixed Income Bonds & CDs</u>

- Quick and easy scan of 120 comparative yield data-points
- Derived every 15 minutes from live bond inventory
- Immediate, one-click, access to search results for that category





# Using the Bond Yield Table on Fidelity.com

View by Highest or Median yields

Click on a yield to see offerings

Bond types and ratings are listed in the left column, maturities across the top. The numerical values represent the high for each category based on offerings that may be available. Select a value to see bond search results.

View by: Highest Yield | Median Yield

View by: Highest Yield	Median Yield							Pop
Understanding This Table	3mo	6mo	9mo	1yr	2yr	3yr	5yr	10yr
CDs (New Issues)	0.40%	0.50%	0.60%	0.65%	1.00%	1.15%	1.40%	2.20%
BONDS								
U.S. Treasury	0.20%	0.37%	0.52%	0.64%	0.75%	0.90%	1.21%	1.65%
U.S. Treasury Zeros	0.21%	0.37%	0.43%	0.59%	0.72%	0.93%	1.26%	1.80%
Agency/GSE	0.40%	0.52%	0.61%	0.72%	0.87%	1.01%	1.33%	2.18%
Corporate (Aaa/AAA)			0.36%	0.71%	0.92%	1.11%	1.42%	2.23%
Corporate (Aa/AA)	0.39%	0.64%	0.70%	0.99%	1.09%	1.34%	1.76%	2.46%
Corporate (A/A)	0.51%	0.52%	0.77%	0.97%	1.22%	1.41%	1.84%	<u>2.69%</u>
Corporate (Baa/BBB)	0.60%	0.77%	1.06%	1.28%	1.65%	1.90%	2.43%	3.34%
Municipal (Aaa/AAA)	0.40%	0.40%	0.45%	0.68%	0.73%	0.85%	1.09%	1.56%

Source: Fidelity.com



### Prices and Yields distilled in the "Yield Curve"



# Lower-yielding bonds generally indicate lower risk



Source: Fidelity.com



### Higher yielding bonds invariably mean higher risk



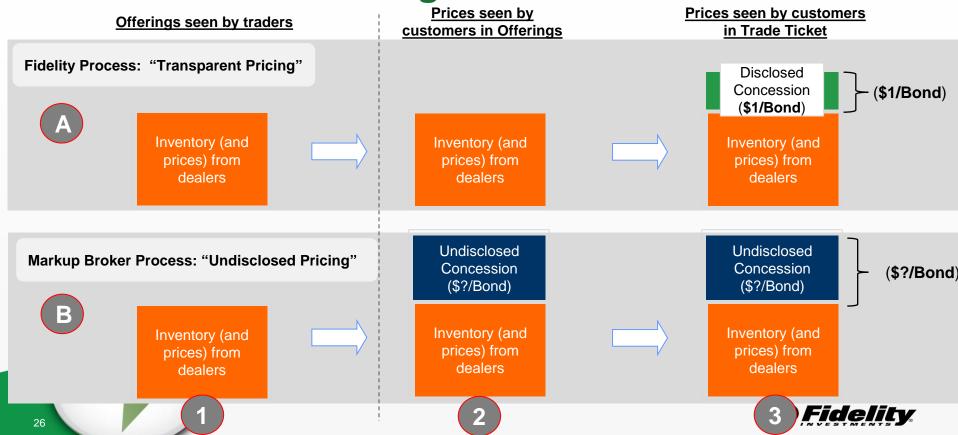




# **Pricing and Trading Costs**



# Fidelity displays live prices as we receive them from dealers and charges \$1/ bond



# Fidelity's \$1 per bond concession vs another broker's \$19 markup per bond



Source: Fidelity.com



## **Understanding the Impact of Transaction Costs**

Compare Fidelity's \$1 per bond with mark-up competitors



https://www.fidelity.com/go/bond

### See how we stack up against the competition<sup>1</sup>

	Morgan Stanley average mark-up	Wells Fargo average mark-up	TD Ameritrade average mark-up	Merrill Lynch average mark-up	Fidelity concession
Corporate Bonds	\$23.28	\$20.19	\$14.04	\$11.04	<b>\$</b> 1
Municipal Bonds	\$12.50	\$12.24	\$11.85	\$13.43	\$1
Example Trade Costs	\$275 - \$510	\$265 - \$440	\$260 - \$305	\$240 - \$295	\$22

Source: Fidelity.com



# **Summary**



### **Next Steps**



### **Get More Information**



# Visit: Fidelity.com > Research > Fixed Income Bonds & CDs

Access to the Yield Table and bond offering visible on Fidelity.com

# More on the Corporate Insight pricing Study:

www.fidelity.com/go/bond

See how we stack up against the competition <sup>1</sup>									
	Morgan Stanley average mark-up	Wells Fargo average mark-up	TD Ameritrade average mark-up	Merrill Lynch average mark-up	Fidelity concession				
Corporate Bonds	\$23.28	\$20.19	\$14.04	\$11.04					
Municipal Bonds	\$12.50	\$12.24	\$11.85	\$13.43					
Example Trade Costs	\$275 - \$510	\$265 - \$440	\$260 - \$305	\$240 - \$295	\$22				



# **Appendix**



## Why Buy Bonds at Fidelity?

#### Why Buy Bonds & CDs at Fidelity

With industry-low fees, award-winning online tools, and dedicated support, it's easy to see why Fidelity is ranked A+ in bond investing.<sup>1</sup>

#### Industry-low fees

Enjoy pricing that beats markup-based bond brokers over 98% of the time.2

- Trade new issues for free.<sup>3</sup>
- Trade secondary bonds for just \$1 per bond—a savings of \$13 per bond compared to the industry average.<sup>2</sup>
- Purchase U.S. Treasuries online for free or for a flat rate of just \$19.95 when placed with a representative.
- Pay a maximum concession of \$250 for individual bond orders or just \$50 for those maturing in a year
  or less.

#### Over 40,000 bonds and CDs

We offer one of the largest bond inventories available from a single brokerage firm.

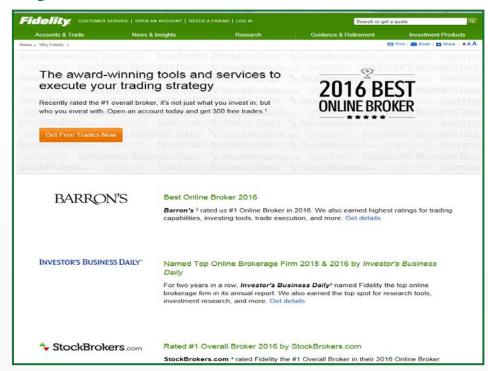
- $^{\circ}$  Choose from over 40,000 bonds and CDs, aggregated from hundreds of dealers around the country.
- Access a regular stream of new issue tax-exempt municipal offerings from various states -44 different states in 2014.
- Select from over 100 FDIC-insured new issue CDs, from a variety of banks with multiple maturities and competitive rates.<sup>4</sup>

#### Bond tools and resources

Our tools and educational resources can help you succeed as a fixed income investor.



PER BOND TRADE





Images are for illustrative purposes only.



# Thank you!

- 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. Any fixed-income security sold or redeemed prior to maturity may be subject to loss.
- Interest income earned from tax-exempt municipal securities generally is exempt from federal income tax, and may also be exempt from state and local income taxes if the investor is a resident in the state of issuance. A portion of the income received may be subject to federal and state income taxes, including the federal alternative minimum tax. In addition, investors may be subject to tax on amounts recognized in connection with the sale of municipal bonds, including capital gains and "market discount" taxed at ordinary income rates. "Market discount" arises when a bond is purchased on the secondary market for a price that is less than its stated redemption price by more than a statutory amount. Before making any investment, investors should review the official statement for the relevant offering for additional tax and other considerations.
- 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.
- For secondary market fixed-income trades to which concessions apply, minimum charges for rep-assisted trades are \$19.95. The maximum charge applied to a fixed-income trade is \$250. The maximum charge will be reduced to \$50 for securities with a maturity date of one year or less.
- Please note that concessions may impact the total cost of the transaction and the total, or "effective," yield of your investment. The offering broker may separately mark up or mark down the price of the security and may realize a trading profit or loss on the transaction.
- Past performance is no guarantee of future results.

