



Understanding Bond Pricing



Comprehending
the Bond Market



Assessing Pricing for
Individual Bonds



Understanding
Trading Costs



Today's Agenda

Understanding the Bond Market



The Makeup of the Bond Market Varies from the Stock Market



STOCK MARKET

BOND MARKET

Makeup	Equity shares of publicly owned companies	Debt securities issued by corporations, governments, government agencies, municipalities
Size	Limited to size of shares offered by companies	Relatively small and large debt instruments
Trading marketplace	Centralized (Ex. NYSE or NASDAQ)	Fragmented, bonds are traded "over the counter."
Pricing transparency	Generally transparent and liquid	Larger issuance = more transparent/liquid Smaller issuance = opaque pricing/less liquid

Market Size



CHARACTERISTICS	BOND	STOCK
U.S. Market Size¹	\$53.6 Trillion	\$49 Trillion
Daily Trading Volumes²	\$1,036 Billion	\$291 Billion
Number of Securities³	1,307,040	6,316
Ford (example) Outstanding⁴	\$115 Billion	\$69 Billion
Ford (example) Number of Issues⁴	490	1

1. Bonds—SIFMA, Q1 2022, Equity-World Federation of Exchanges, Q4, 2021 2. Bonds—SIFMA, Q1 2022, Equity ICE, Nasdaq, Q1 2022 3. Bonds-FINRA June 2022, Equity-World Federation of Exchanges May 2022 4. FINRA—Recent 10-Q filing.

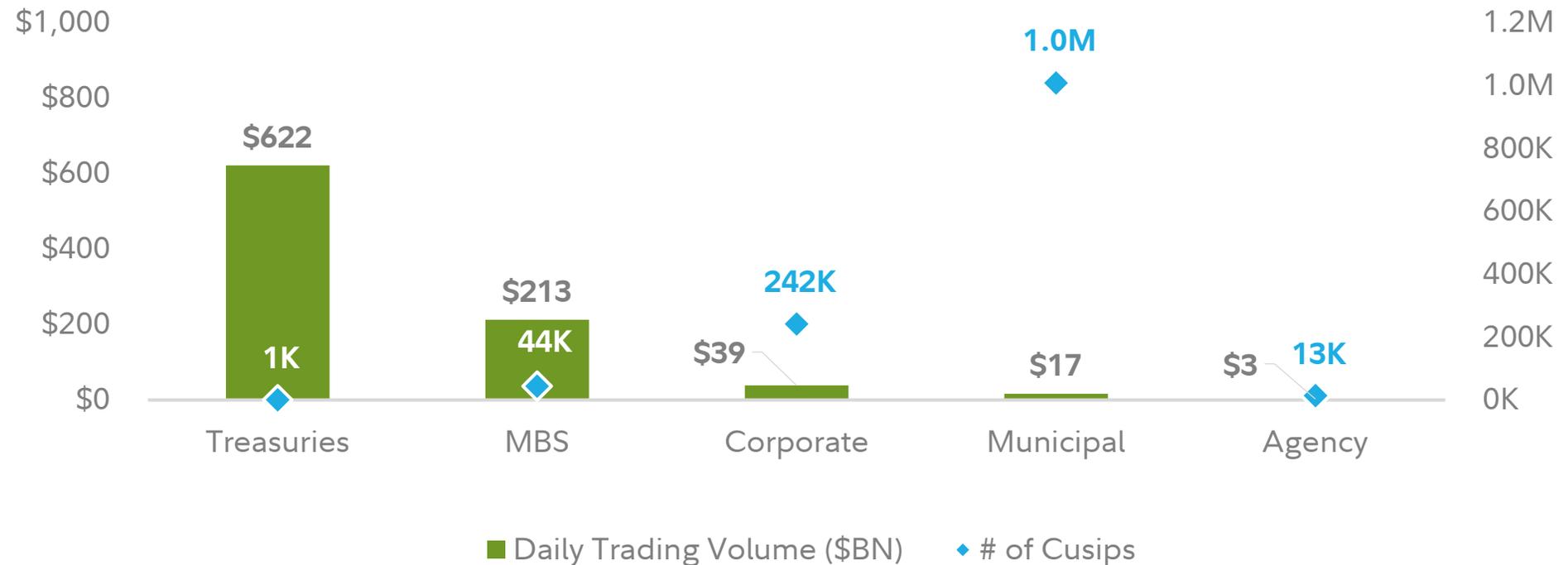
In general, the bond market is volatile, bond prices rise when interest rates fall and vice versa. This effect is usually pronounced for long-term securities.

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

Volume: US Bond Markets



DAILY TRADING VOLUME (\$BN) AND CUSIPS OUTSTANDING



Source: FINRA, SIFMA, Fidelity, May 2022

Assessing Pricing for Individual Bonds



Valuation Pricing: Monthly Statement

Bond Pricing Valuation



Bonds (continued)

Description	Maturity	Beginning Market Value May 1, 2022	Quantity May 31, 2022	Price Per Unit May 31, 2022	End. Market Value Accrued Int. (AI) May 31, 2022	Cost	Unrealized Gain/Loss May 31, 2022	Est. Annual Income (EAI)	Coupon Rate
Corporate Bonds (continued)									
FORD MOTOR CREDIT COMPANY MTN	12/20/22	977.28	1,000.000	99.2220	992.22 15.65	974.00 ^B	18.22	35.00	3.500
FIXED COUPON MOODYS Ba2 S&P BB+ SEMIANNUALLY NEXT CALL DATE 06/20/2022 CUSIP: 34540TDZ2									
APPLE INC NOTE CALL MAKE WHOLE	01/13/23	2,005.42	2,000.000	100.2280	2,004.56 18.40	2,025.04 ^B	-20.48	48.00	2.400
FIXED COUPON MOODYS Aaa S&P AA+ SEMIANNUALLY NEXT CALL DATE 12/13/2022 CONT CALL 12/13/2022 MAKE WHOLE CALL CUSIP: 037833DE7									
Total Corporate Bonds (22% of account holdings)		\$3,984.17			\$3,997.32	\$4,006.82	-\$9.50	\$92.87	
US Treasury/Agency Securities									
UNITED STATES TREAS BILLS ZERO CPN	06/09/22	\$1,999.10	2,000.000	\$99.9880	\$1,999.76 -	\$1,998.51	\$1.25	-	-
ZERO COUPON CUSIP: 912796R35									
UNITED STATES TREAS BILLS ZERO CPN	06/14/22	unavailable	1,000.000	99.9810	999.81 -	999.53	0.28	-	-
ZERO COUPON CUSIP: 912796V97									
Total US Treasury/Agency Securities (16% of account holdings)		\$1,999.10			\$2,999.57	\$2,998.04	\$1.53	-	
Total Bonds (38% of account holdings)		\$5,983.27			\$6,996.89	\$7,004.86	-\$7.97	\$92.87	

Valuation Pricing: Nightly Valuation



Symbol	Last Price	Last Price Change	\$ Today's Gain/Loss
912796W96 AR UNITED STATES TREAS BILLS ZERO CP... 0.000% 07/12/2022	\$99.952	+\$0.005	+\$0.05
38149M2X0 GOLDMAN SACHS BK USA CD 1.00000... 1.000% 03/16/2023	\$98.863	-\$0.002	-\$0.02
38148P2R7 GOLDMAN SACHS BK USA CD 3.60000... 3.600% 12/05/2023	\$100.828	+\$0.09	+\$0.90
34540TDZ2 FORD MOTOR CREDIT COMPANY MTN ... 3.500% 12/20/2022	\$98.228	+\$0.009	+\$0.09
037833DE7 APPLE INC NOTE CALL MAKE WHOLE 2... 2.400% 01/13/2023	\$99.931	-\$0.111	-\$2.22

037833DE7 APPLE INC NOTE CALL MAKE WHOLE 2... 2.400% 01/13/2023	\$99.931
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For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Live Pricing: Fidelity Bond Aggregation

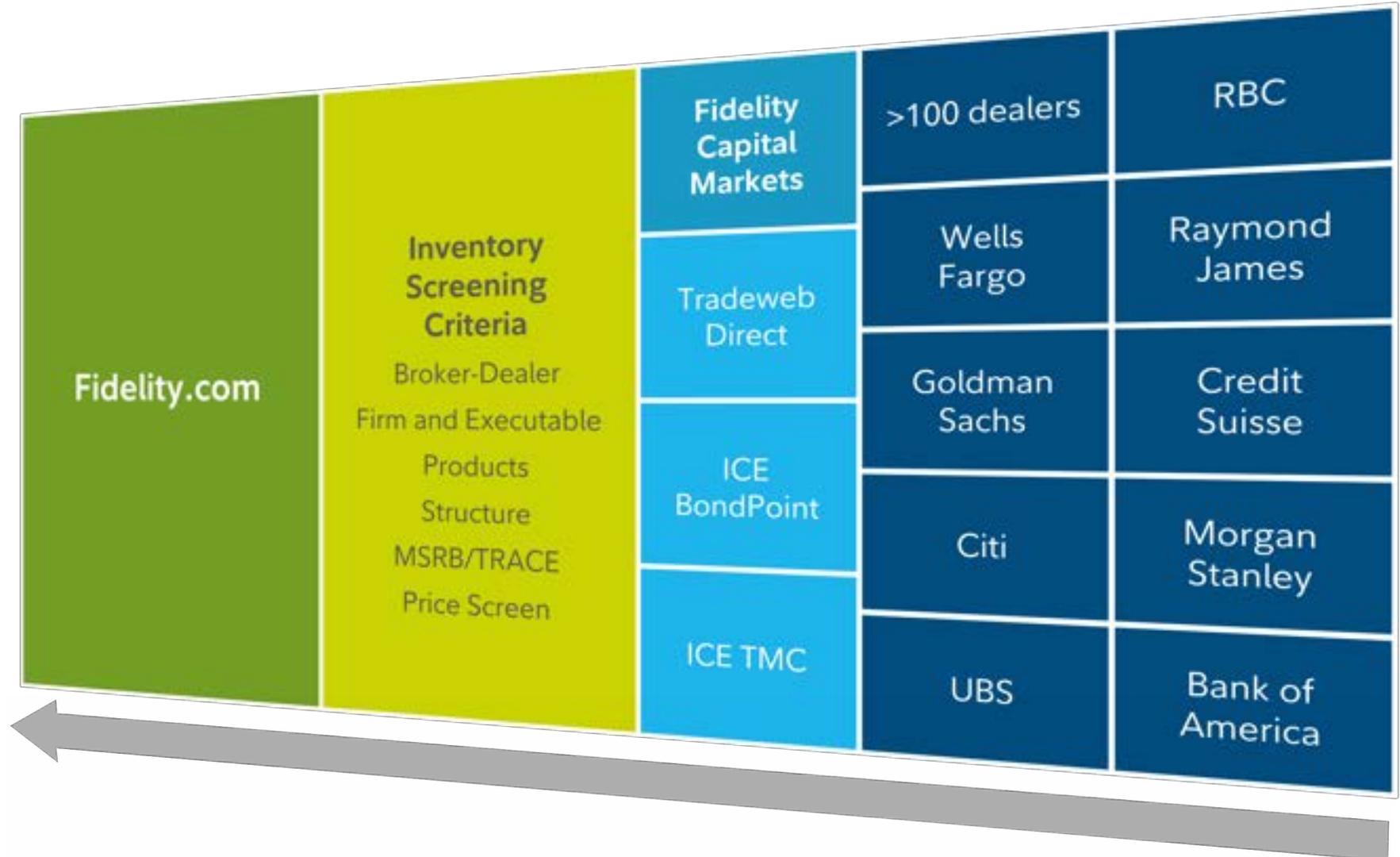


~75K

Unique Bonds Offered

~120K

Total Offerings



Corporate Bonds: Live Listing of Offerings



Research > Fixed Income > Individual Bonds > Search Results

Corporate Bond Search Results

View other important information and risks of investing in fixed income securities.

Table View

Price/Yield Calculator | Taxable Equivalent Yield Calculator

Investors can view company filing information through the SEC's [EDGAR](#) company search.

Attributes Legend

IE: Issuer Event CP: Call Protection SFP: Sinking Fund Protection ER: Extraordinary Redemption
 SO: Survivor's Option D: Depth of Book Available

YOUR KEY SEARCH CRITERIA Edit | Save

Search Name	CORP A3 to A1 A- to A+
Maturity Date	01/2028 to 12/2030
Moody's Rating	A3 to A1
S&P Rating	A- to A+
Call Protection	All
Sinking Fund Protection	Yes
Sector	Auto, Business Machines, Chemical, Paper, Petroleum, Steel, Tobacco, Wood, Other Industrials, Financial(All), Utilities (All)

Total Bonds Found: 582

As of 06/27/2022 at 03:27 p.m.

Download Data to Spreadsheet

Select Action

OK

Trade	Description	Coupon	Maturity Date	Next Call Date	Rating		Bid		Ask		Depth of Book	3rd Party Price / Recent Trades	Attributes and Issuer Events	
					Moody's	S&P	Yield	Price Qty.(min)	Price Qty.(min)	Yield to Worst/ Yield to Sink				
Buy Sell	DEERE JOHN CAPITAL CORP SER G MTN 3.05000% 01/06/2028	3.050	01/06/2028	--	A2	A	4.090	94.908 250(5)	95.371 150(15)	3.993 --	3.993	95.307 View	IE CP SFP D	1
Buy Sell	TOYOTA MTR CR CORP SER B MTN 3.05000% 01/11/2028 CALL MAKE WHOLE	3.050	01/11/2028	View	A1	A+	4.246	94.155 250(10)	94.531 90(9)	4.167 --	4.167	94.544 View	IE SFP D	2

For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Corporate Bond Live Bid and Offer Prices



Trade	Description	Coupon	Maturity Date ▲	Next Call Date	Rating		Bid		Ask		
					Moody's	S&P	Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink	Yield to Maturity
Buy Sell	JOHNSON & JOHNSON NOTE CALL MAKE WHOLE 2.90000% 01/15/2028	2.900	01/15/2028	10/15/2027	AAA	AAA	3.731	95.869 500(250)	96.033 1,000(10)	3.698 --	3.698

Bid Price: 95.869
 Ask Price: 96.033
 Yield to Worst: 3.698%

Trade	Description	Coupon	Maturity Date	Next Call Date	Rating		Bid		Ask		
					Moody's	S&P	Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink	Yield to Maturity
Buy Sell	CARNIVAL CORP BOND 6.65000% 01/15/2028	6.650	01/15/2028	View	B2	B-	11.765	79.582 100(10)	81.750 274(5)	11.149 --	11.149

Bid Price: 79.582
 Ask Price: 81.750
 Yield to Worst: 11.149%

For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Corporate Bonds: Depth of Book



Trade	Description	Coupon	Maturity Date	Next Call Date	Rating		Bid		Ask			Depth of Book	3rd Party Price / Recent Trades	Attributes and Issuer Events
					Moody's	S&P	Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink	Yield to Maturity			
Buy Sell	JOHNSON & JOHNSON NOTE CALL MAKE WHOLE4.50000% 09/01/2040	4.500	09/01/2040	View	AAA	AAA	4.487	100.150 200(15)	100.790 150(2)	4.436 --	4.436		100.384 View	IE SFP D

JOHNSON & JOHNSON NOTE CALL MAKE WHOLE4.50000% 09/01/2040



Depth of Book as of 06/27/2022 at 15:56 pm

Bids				Asks				
Action	Yield	Quantity(Min)	Price	Price	Quantity(Min)	Yield	Attributes	Action
Sell*	4.487	200(10)	100.150	100.790	150(2)	4.436	IE SFP	Buy*
Sell	4.490	50(10)	100.116	100.880	201(2)	4.429	IE SFP	Buy
Sell	4.493	250(2)	100.080	101.139	500(5)	4.408	IE SFP	Buy
Sell	4.495	40(2)	100.055	101.205	100(5)	4.403	IE SFP	Buy
Sell	4.509	20(20)	99.880	101.952	21(2)	4.343	IE SFP	Buy
Sell	4.536	100(5)	99.548	102.303	50(10)	4.315	IE SFP	Buy
Sell	4.644	70(9)	98.243	103.116	250(2)	4.252	IE SFP	Buy
Sell	4.676	150(5)	97.856	103.245	450(9)	4.242	IE SFP	Buy
Sell	4.717	500(10)	97.370					

*Indicates best price

9 dealers bidding
Different quantities
and prices

8 dealers offering
Different quantities
and prices

For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Corporate Bonds: Charting for Recent Trades



Equity Chart



Corporate bond prices and yields often correlate with the movement in equity prices

Bond Chart



For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Corporate Bonds: Charting for Recent Trades



Fidelity | Recent Trades

BED BATH & BEYOND NOTE CALL MAKE WHOLES.16500% 08/01/2044

Trade View Options

AS OF 12:33:32 PM ET 05/05/2022

Trade Chart

Customer Buy/NMAB Customer Sell/NMAS Dealer to Dealer



These charts show an inverse relationship between a bond's price and its yield

As prices go down, yields will increase and vice versa

Municipal Bonds: Live Listing of Offerings



State	Description	Coupon	Maturity Date	Next Call Date	Rating		Underlying Rating		Bid		Ask		Depth of Book	
					Moody's	S&P	Moody's	S&P	Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink		Yield to Maturity
MI	MICHIGAN ST HSG DEV AUTH RENT HSG REV 00.95000% 04/01/2027BDS SER. 2021 A	0.950	04/01/2027	View	--	AA	--	--	--	No Bid --(-)	90.050 60(5)	3.222 --	3.222	--
AL	TUSCALOOSA ALA PUB EDL BLDG AUTH 02.60000% 07/01/2027STUDENT HSG REV REF BDS RIDGECREST STUD	2.000	07/01/2027	07/01/2028	--	AA	--	A-	--	No Bid --(-)	94.771 105(5)	3.136 --	3.136	--
TX	FORT BEND CNTY TEX LEVEE IMPT DIST NO 02.00000% 03/01/2027007 UNLTD TAX BDS SER. 2020	2.000	03/01/2027	--	--	AA	--	A+	--	No Bid --(-)	95.220 200(5)	3.106 --	3.106	--
MI	MICHIGAN ST HSG DEV AUTH SINGLE FAMILY 03.30000% 06/01/2027MTG REV BDS SER. 2018C More Issuer Information from BondLink	3.300	06/01/2027	View	AA2	AA+	AA2	--	--	No Bid --(-)	101.030 730(5)	3.073 --	3.073	--
SC	BROOKLAND CAYCE S C SCH DIST NO 002 GO 02.00000% 03/01/2027BDS SER.2016	2.000	03/01/2027	03/01/2026	AA1	AA	AA3	AA	--	No Bid --(-)	95.520 35(5)	3.035 --	3.035	--
ND	NORTH DAKOTA ST HSG FIN AGY HOME MTG 01.25000% 07/01/2027PROG BDS SER. 2020 B	1.250	07/01/2027	View	AA1	--	AA1	--	--	No Bid --(-)	91.828 120(20)	3.020 --	3.020	--
NY	HILTON N Y CENT SCH DIST GO BDS SER.201602.00000% 06/15/2027	2.000	06/15/2027	06/15/2024	--	AA-	--	--	--	No Bid --(-)	95.419 100(25)	3.000 --	3.000	--
MO	PARKVILLE MO CTF'S PARTN COPS SER. 202102.00000% 03/01/2027A	2.000	03/01/2027	View	--	AA-	--	--	--	No Bid --(-)	95.793 50(10)	2.838 --	2.838	--

Bid ?		Ask		
Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink	Yield to Maturity
--	No Bid --(-)	90.050 60(5)	3.222 --	3.222
--	No Bid --(-)	94.771 105(5)	3.136 --	3.136

Fidelity

NORTH DAKOTA ST HSG FIN AGY HOME MTG 01.25000% 07/01/2027PROG BDS SER. 2020 B [Print](#)

Depth of Book as of 06/24/2022 at 12:52 pm

Bids				Asks				
Action	Yield	Quantity(Min)	Price	Price	Quantity(Min)	Yield	Attributes	Action
			91.828	92.834	120(20)	3.020	ME SFP ER	Buy*
					40(25)	2.838	ME SFP ER	Buy

*Indicates best price

For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/24/22

Municipal Bonds: Recent Trades



SANTA CLARA CNTY CALIF FING AUTH

04.00000% 05/01/2034LEASE REV BDS FAC SER. 2019 A

Overview Price & Performance News & Documents

Basic Analytics

Price (Bid)	N/A
Price (Ask)	102.936
	--
	3.515%
	3.691%
	--

Best Offer: 102.936
No Bids

Complex Analytics

Duration to Worst
Option Adjusted Duration
Option Adjusted Spread
Convexity to Worst
Option Adjusted Convexity

Trades often months apart
Pricing increased over time, in line with general Muni market

Fidelity | Depth of book and recent trades

SANTA CLARA CNTY CALIF FING AUTH 04.00000% 05/01/2034LEASE REV BDS FAC SER. 2019 A

As of 6/27/2022, 4:10:14 PM ET ↻

Price	Quantity	Yield	Date	Buy/Sell	Trade Attributes
				Cancel Rebill	
100.605	20	3.898	6/21/2022 14:27:17	Customer Buy	
100.545	20	3.908	6/21/2022 14:27:17	Customer Sell	
100.374	20	3.937	5/20/2022 15:36:41	Customer Buy	
100.224	20	3.962	5/20/2022 15:36:41	Customer Sell	
108.47	20	2.677	4/1/2022 14:54:06	Customer Buy	
108.47	20	2.677	4/1/2022 14:54:06	Dealer to Dealer	
108.08	20	2.738	3/24/2022 13:41:47	Customer Sell	

For illustrative purposes only Source: Fidelity.com Screen-print taken on 6/27/22

Request for Bid Quote



Symbol	Last Price	Last Price Change	5 Today's Gain/Loss	% Today's Gain/Loss
Manage Dividends				
05620PDJ9 BABYLON N Y TAXABLE PUB IMPT BDS ... 4.250% 09/01/2024	\$102.936	+\$0.171	+\$17.10	+0.16%

BABYLON N Y TAXABLE PUB IMPT BDS 04.25000% 09/01/2024 SER.2013

[Buy](#) [Sell](#)

[Purchase History](#) [Research](#)

[View details for BABYLON N Y TAXABLE PUB IMPT BDS 04.25000% 09/01/2024 SER.2013](#)

[View fixed income analysis for your bond holdings](#)

Trade Welcome to the new Fixed Income Trading Experience.

Account: [dropdown] Cash Available to Trade: \$1,425.07
AS OF 04/24/2022 11:04:20 AM ET

Cusip: BABYLON N Y TAXABLE PUB IMPT BDS 04.25000% 09/01/2024SER.2013
USA20PDJ9 Bid Price: -- Bid Yield: -- Bid Quantity(min): --(-) Third Party Price: 102.936

[More Quotes - Depth of Book and Recent Trades](#)

Action: Request Bid Quantity: [input]
1 BOND EQUALS \$1,000 FACE VALUE.

[Submit Bid Request](#)

Account: [dropdown] Cash Available to Trade: \$1,425.07
AS OF 04/24/2022 11:04:20 AM ET

BABYLON N Y TAXABLE PUB IMPT BDS 04.25000% 09/01/2024SER.2013

Bid Price	Bid Yield	Bid Quantity(min)	Third Party Price
--	--	--(-)	102.936

Bid Request Submitted for 5 Bond(s) (1 bond equals \$1,000 face value)

Response Expected at 4/24/2022 12:09 PM ET

[Bid Quote Status](#) [View Positions](#)

[Exit Ticket](#)

Responses to your request will be emailed or texted to you via an app. Your request is valid only until the close of the current trading day.

For illustrative purposes only Source: Fidelity.com

Alerts: Text & Email Messages



Home » Research » Alerts »

Update Alert

You are updating the Request a Bid Quote alert for account XXXXXXXXXX.

Sign up to receive alerts for when you have initiated a bid quote request on a fixed income security in your portfolio.

Send emails to:

John Smith Email

[Add new email address.](#)

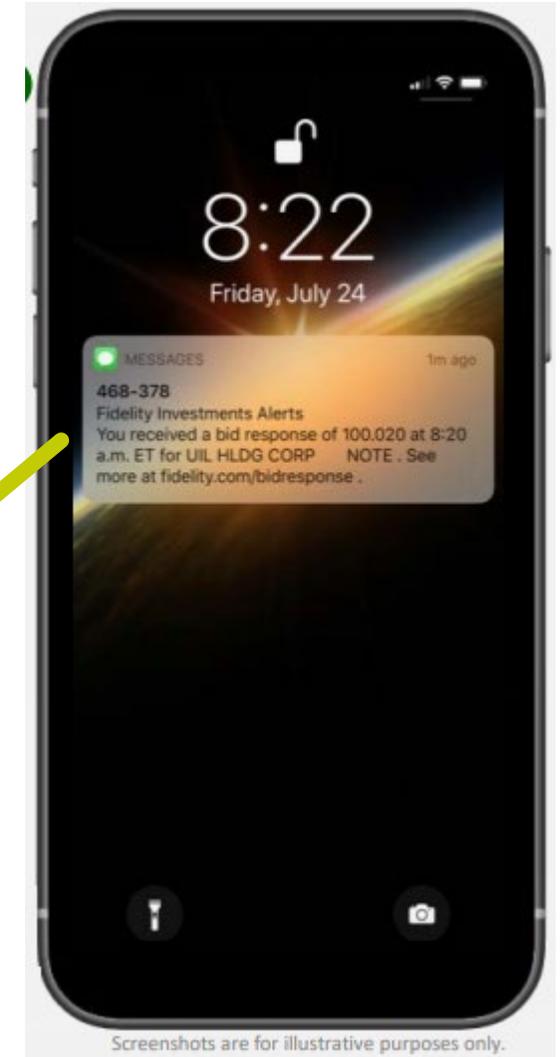
Send text messages to:

TXT:555-555-5555

Need to update or delete an existing email or mobile phone? [Manage email & mobile phone.](#)

Add or update your Alert election to receive bid responses via text message

Once a bid response is available, you will receive a text message informing you of the latest status and price



Screenshots are for illustrative purposes only.

Bid Wanted Dashboard



Bond & CD Bid Quote Status

[Orders](#) | [Online Message Center](#)

Select an Account

View by Account

AS OF 04:17 PM ET 06/27/2022 [↻](#)

Request Date/Time	Issue Description	CUSIP	Quantity	Best Bid	Bid Valid Until	Bid Status	Action
06/14/22 10:49 AM ET	CALIFORNIA ST GO VAR...	[REDACTED]	5	--	N/A	Response Expected: 03:04:49 PM ET	
06/13/22 8:52 AM ET	FIRST NATL BK LONG ...	[REDACTED]	1	98.012	04:15:00 PM ET	Responded	Place Order
06/07/22 10:52 AM ET	BMW BK NORTH AMER ...	[REDACTED]	7	99.532	02:06:00 PM ET	Expired	Request Bid

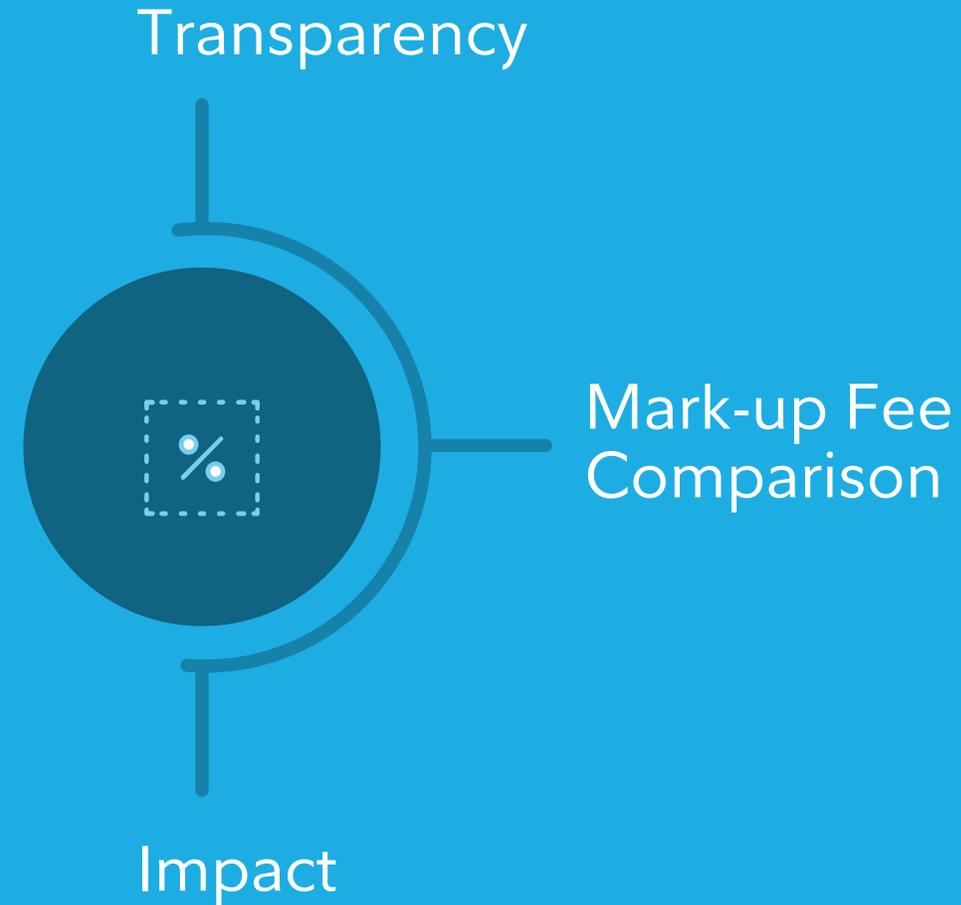
Easily see the Best Bid:
98.012

Clearly identify the
exact time a bid
response will be
returned

Ability to Place Order
directly from Dashboard

For illustrative purposes only Source: Fidelity.com

Understanding Trading Costs

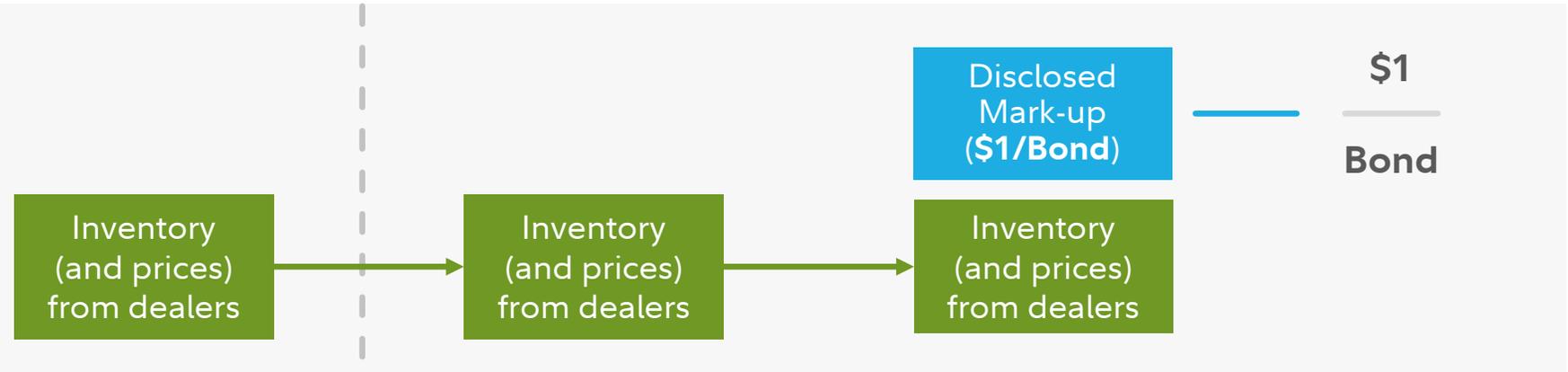


Cost Transparency



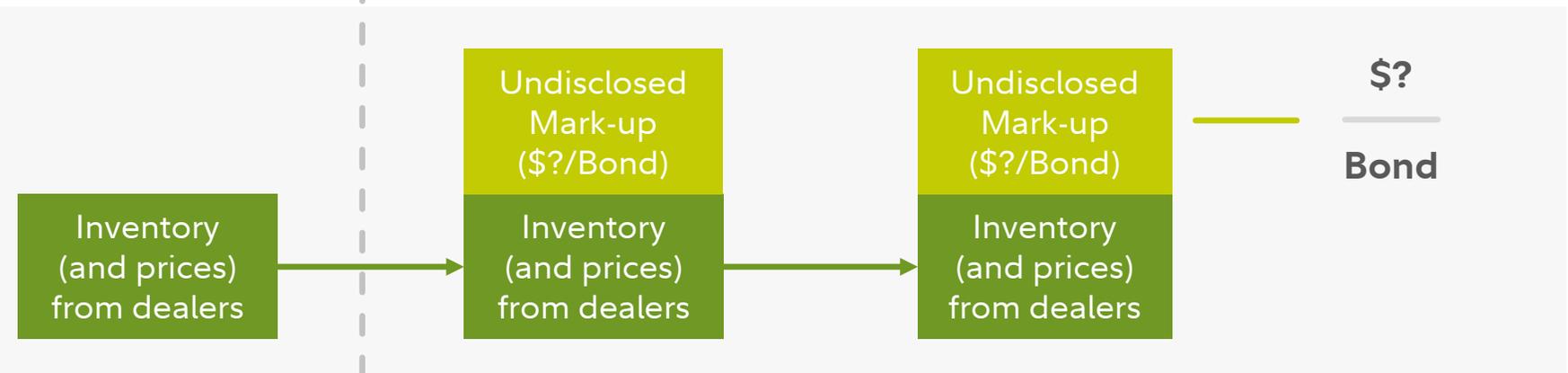
A

**Fidelity Process:
"Transparent Pricing"**



B

**Mark-up Broker Process:
"Undisclosed Pricing"**



Mark-up Comparisons – Post-Trade



LOWES COS INC NOTE CALL MAKE WHOLE 3.75000% 04/01/2032

Trade View Options AS OF 11:19:00 AM ET 04/26/2022

Table
 Chart
 Customer Buy/NMAB
 Customer Sell/NMAS
 Dealer to Dealer

Price	Quantity	Yield	Date	Buy/Sell	Trade Attributes
96.021	70	4.245	4/26/2022 10:56:49	Customer Buy	
95.958	70	4.253	4/26/2022 10:56:49	NMAB	NREM
96.123	5000	4.232	4/26/2022 10:42:59	Customer Sell	
97.596	10	4.046	4/26/2022 10:20:14	Customer Buy	
96.154	10	4.228	4/26/2022 10:20:13	Dealer to Dealer	ATS
96.154	10	4.228	4/26/2022 10:20:13	NMAB	
96.45	500	4.190	4/26/2022 10:15:52	Customer Buy	NREM
96.45	500	4.190	4/26/2022 10:15:52	Dealer to Dealer	
96.249	3000	4.216	4/26/2022 09:45:02	Customer Buy	
96.33	4407	4.206	4/26/2022 09:41:54	Customer Buy	

96.035	10	4.243	4/22/2022 13:26:27	Customer Buy
94.616	10	4.425	4/22/2022 13:26:20	Dealer to Dealer
95.471	10	4.315	4/19/2022 13:31:41	Customer Buy
95.371	10	4.327	4/19/2022 13:31:41	Dealer to Dealer

Another broker's **\$14.19 per bond Mark-up**
(96.035 - 94.616)

Fidelity's **\$1 per bond Mark-up**
(95.471 - 95.371)

For illustrative purposes only

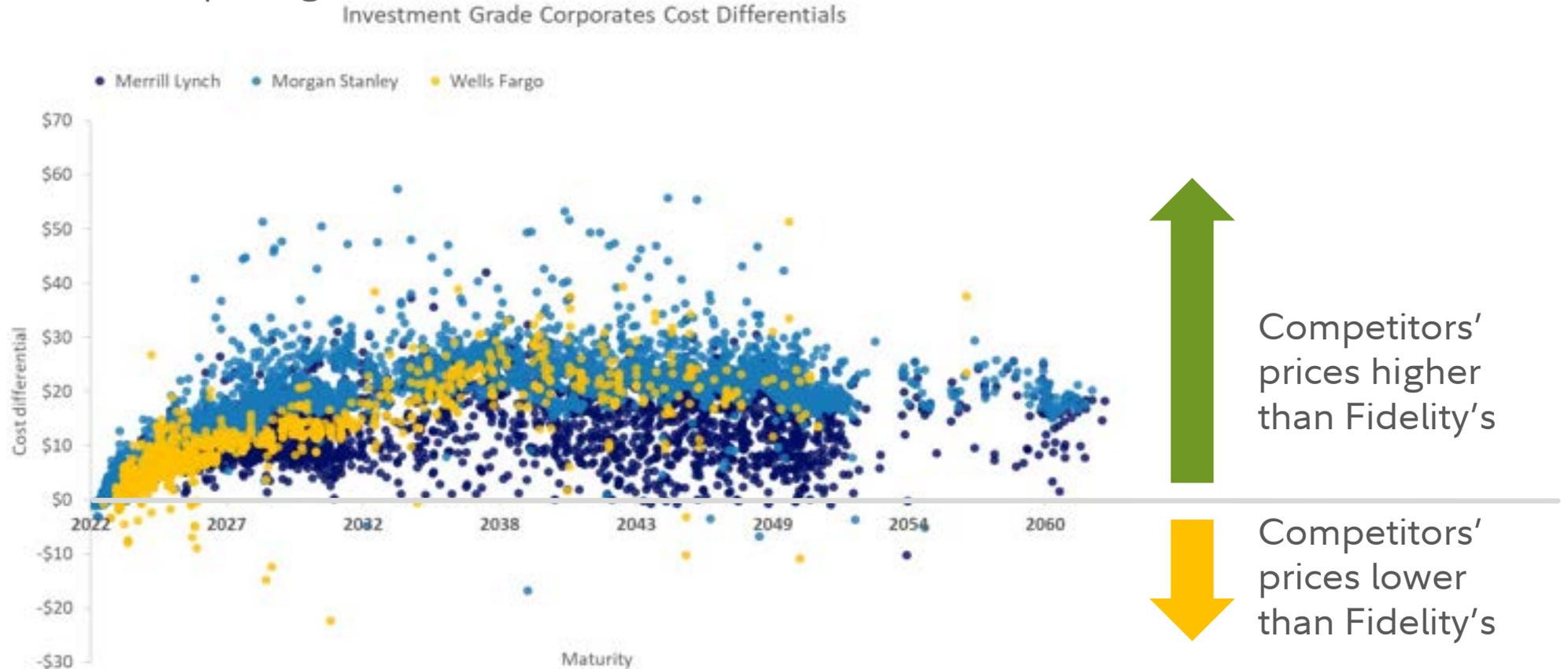
Source: Fidelity.com

Pre-Trade Pricing Comparisons



Corporate Insight Bond Pricing Study 2022

- 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.



Source: Corporate Insight, Fixed Income Pricing Study Report 2022

See disclosure on page 31 for details on this study

Bond Pricing Study 2022



SUMMARY OF FINDINGS from Corporate Insight

1. Fidelity's prices were found to be lower than certain other brokers over 97% of the time, on average.¹
2. Fidelity's online bond pricing beat that of certain other brokers by \$15 per bond, on average.
3. As bond maturities lengthen, the three brokers in the study generally charged more per bond.

Online:
fidelity.com/go/bonds

For illustrative purposes only.

Source: Fidelity.com.

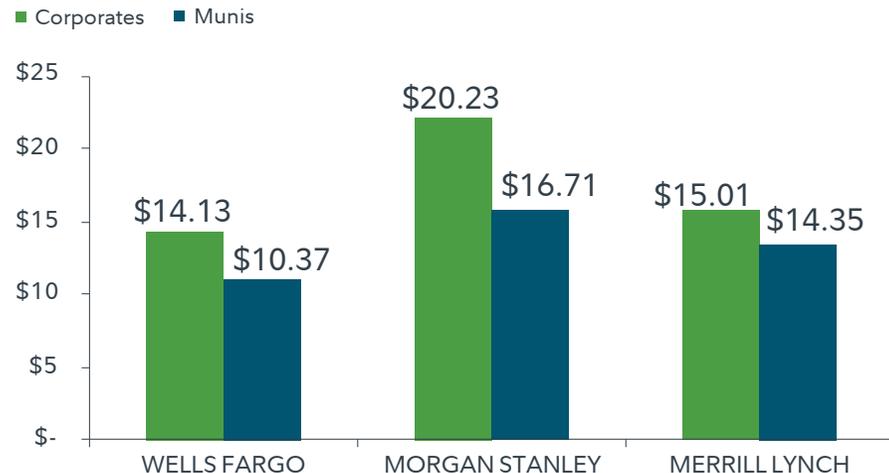
¹ If cost differential was within \$0.02, then Corporate Insight considered prices equal

See disclosure on page 31 for additional details on this study

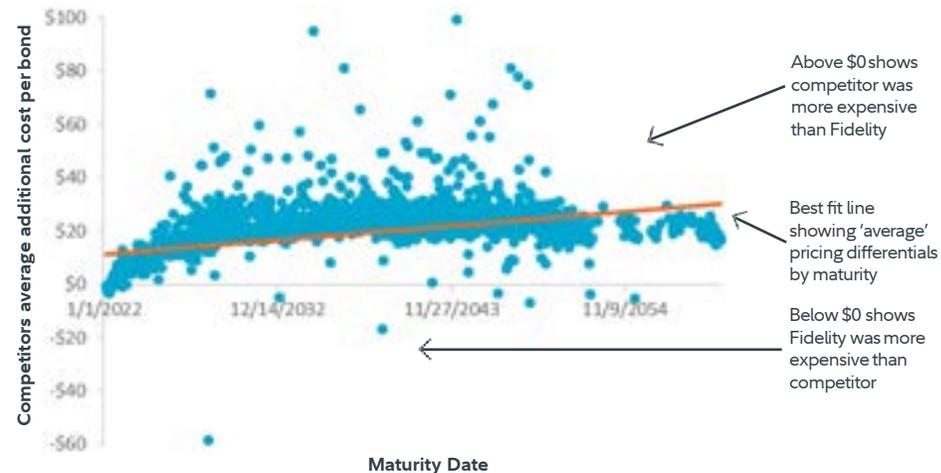
1 % OF MATCHING BONDS WITH FIDELITY CHEAPER¹

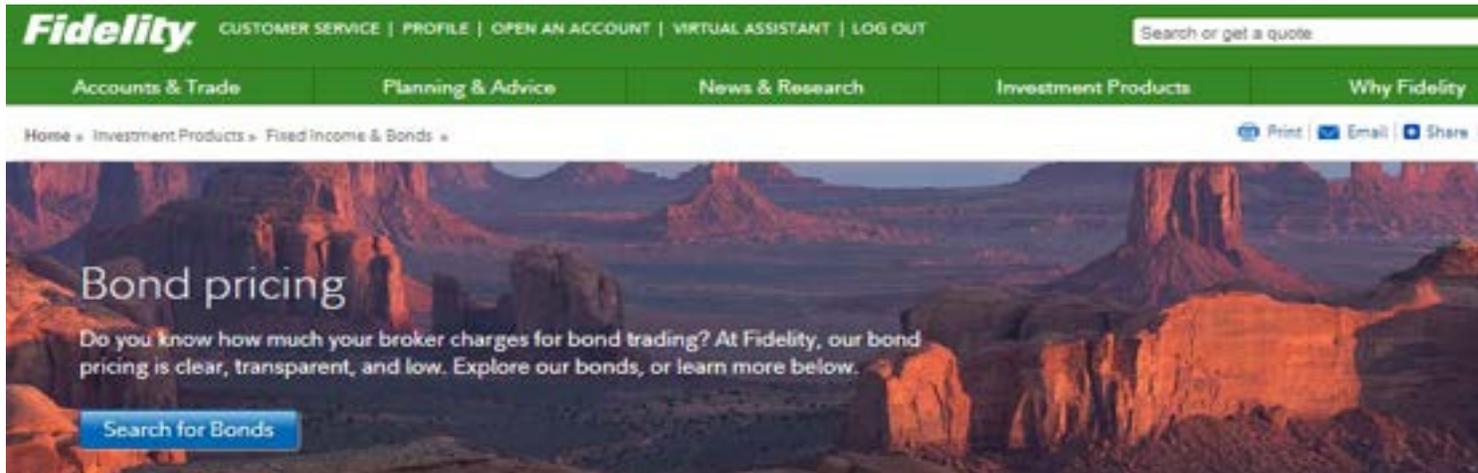
BOND TYPE	VS. WELLS FARGO	VS. MORGAN STANLEY	VS. MERRILL LYNCH
Corporate Bonds	96.8%	99.3%	99.6%
Municipal Bonds	94.7%	99.2%	97.4%

2 AVERAGE COST DIFFERENTIALS PER BOND VS. FIDELITY FOR LOWEST PRICE



3 OBSERVATIONS FOR CORPORATE BOND PRICING DIFFERENTIALS PER BOND FOR MORGAN STANLEY





Pricing:

Fidelity's \$1 Per Bond Transaction Costs Are Very Competitive

Online:

[Fidelity Viewpoint: How much am I paying for my bonds?](#)

For illustrative purposes only

Source: Fidelity.com, April 2022

See disclosure on page 31 for details on this study

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	\$14.13	\$20.23	\$15.01	\$1.00
1 Municipal bond	\$10.37	\$16.71	\$14.35	\$1.00
Average Corporate/ Municipal bond price higher vs. Fidelity	\$12.25	\$18.47	\$14.68	—

Example of a hypothetical single bond purchased online based on average price differentials taken from the [2022 Corporate Insight study](#)¹ commissioned by Fidelity.

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](https://www.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.

(Markup - 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.

Confirms display Mark-up/down



Account: TRADITIONAL IRA

Cash Available to Trade: [REDACTED]

AS OF 06/27/2022 02:56:43 PM ET

GOLDMAN SACHS GROUP INC SER N MTN 3.35000% 12/10/2023

Ask Price	Ask Yield	Ask Quantity(min)	Third Party Price
99.800000	3.492000	1000(1)	99.891

- (313063) Quantity is the number of bonds. One (1) bond equals \$1000 face value.
- (013001) The limit price that you entered has been adjusted to reflect a mark-up based on the number and type of bonds you are attempting to purchase.

Preview Order

Account	[REDACTED]	Action	Buy
Quantity	1	CUSIP	[REDACTED]
Order Type	Limit Price	Price	99.800
Price w/Mark-up	99.900	Effective Yield	3.420455%
Time in Force	Fill or Kill	Trade Type	Cash
Trade Date	06/27/2022	Settlement Date	06/29/2022

Estimated order value, including \$1.00 (0.100%) mark-up and \$1.77 accrued interest:

\$1,000.77

Please verify your order information before placing order.

REFERENCE NO.	TYPE	REG. REP.	TRADE DATE	SETTLEMENT DATE	CUSIP NO.	ORDER NO.
You Bought	1*	W##	06-27-22	06-29-22		
at	1,000					
	99.9000					

DESCRIPTION and DISCLOSURES

GOLDMAN SACHS GROUP INC SER N MTN
 WE HAVE ACTED AS PRINCIPAL
 COUPON 3.35000% MATURITY DATE
 12/10/2023
 CALLABLE NEXT CALL 12/10/22 @ 100.000
 CURRENT YIELD 3.353300
 YIELD TO MATURITY 3.420455%

TO VIEW SECURITY DETAILS AND TRADE ACTIVITY, GO TO
<https://bondfacts.fiera.org/>

EXECUTION TIME 14:55:42
 MARK-UP/DOWN IS THE DIFFERENCE (DOLLAR AND %) BETWEEN THE PREVAILING MARKET PRICE (PMP) AND TRADE PRICE. N/A REPRESENTS INSTANCES WHERE TRADE PRICE IS BETTER THAN PMP.

MARK-UP \$1.00 / 0.1000%

MOODY'S A2 STANDARD & POOR'S BBB+
 INTEREST PAID SEMI-ANNUALLY
 DTD 06/10/2022
 ADDITIONAL CALL FEATURES MAY EXIST THAT COULD AFFECT YIELD. COMPLETE INFORMATION WILL BE PROVIDED UPON REQUEST
 THIS NOTICE IS PROVIDED TO YOU, IN LIEU OF THE FINAL PROSPECTUS, PURSUANT TO SECURITIES ACT RULE 173. TO THE EXTENT THE SALE WAS MADE PURSUANT TO A REGISTRATION STATEMENT OR IN A TRANSACTION IN WHICH A FINAL PROSPECTUS WOULD HAVE BEEN REQUIRED TO HAVE BEEN DELIVERED IN THE ABSENCE OF SECURITIES ACT RULE 172, YOU CAN VIEW THE FINAL PROSPECTUS AT WWW.SEC.GOV, OR YOU MAY REQUEST A PAPER COPY BY CALLING

ALL ORDERS ARE UNSOLICITED UNLESS SPECIFIED ABOVE

9900264917

Cancel

Edit

Place Order

For illustrative purposes only
 Source: Fidelity.com

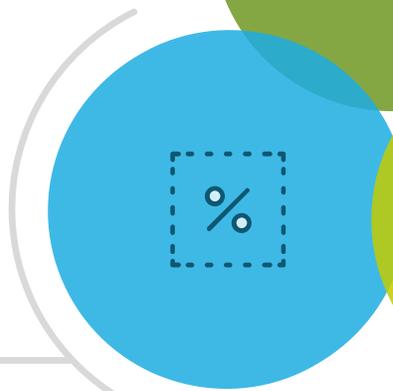
Comprehending
the Bond Market



Assessing Pricing for
Individual Bonds



Understanding
Trading Costs



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Choose from 75,000 new issue and secondary market bonds and CDs, and over 120,000 total offerings quotations when including our depth of book. Only \$1 per bond mark-up/mark-down for secondary bond trading, \$0 for US Treasuries online.

Search Bonds or Funds Search by CUSIP

Bond types and ratings are listed in the left column, maturities across the top. The numerical values represent the high or median yield for each category based on offerings that may be available. Select a value to see bond search results and review the yields offered in the context of the structure and risks of specific offerings (requires login). Visit [Investment Products > Fixed Income](#) to read more about the advantages and risks of [linked CDs](#) and the different [bond types](#) listed.

View by: [Highest Yield](#) | [Median Yield](#) [Pop out the yield table](#)

Understanding This Table	3mo	6mo	9mo	1yr	2yr	3yr	5yr	10yr	20yr	30yr+
CDs (New Issues)	1.80%	2.10%	2.50%	2.85%	3.25%	3.55%	3.50%	--	--	--
BONDS										
U.S. Treasury	2.08%	2.51%	2.82%	2.95%	3.12%	3.22%	3.28%	3.19%	3.01%	3.14%
U.S. Treasury Zeros	--	--	--	2.68%	2.95%	3.12%	3.26%	3.30%	3.74%	3.27%
Agency/DOE	1.70%	2.57%	2.82%	3.10%	3.24%	3.52%	3.58%	4.56%	4.85%	4.29%
Corporate (Aaa/AAA)	0.01%	--	2.68%	--	3.37%	3.64%	3.49%	--	--	4.66%
Corporate (Aa/AA)	1.75%	2.58%	3.19%	3.23%	3.41%	3.92%	4.32%	4.66%	4.92%	5.38%
Corporate (A/A)	2.29%	2.85%	3.32%	3.57%	4.21%	4.47%	4.66%	5.56%	5.76%	5.70%
Corporate (Baa/BBB)	2.09%	3.19%	4.02%	4.18%	5.05%	6.50%	6.82%	7.19%	6.78%	7.10%
Municipal (Aaa/AAA)	1.42%	1.64%	1.73%	1.88%	2.22%	2.30%	2.65%	3.06%	4.36%	4.25%
Municipal (Aa/AA)	1.90%	1.78%	1.85%	2.19%	2.36%	3.02%	3.29%	4.11%	4.87%	4.34%
Municipal (A/A)	1.60%	1.98%	1.80%	2.07%	2.52%	2.80%	3.13%	4.10%	4.95%	4.43%
Taxable Municipal*	2.44%	1.79%	2.80%	3.42%	3.87%	4.00%	4.45%	5.00%	5.00%	5.14%

AS OF 12:44 PM ET (6/27/22) YIELDS MAY BE DELAYED UP TO 15 MINUTES.

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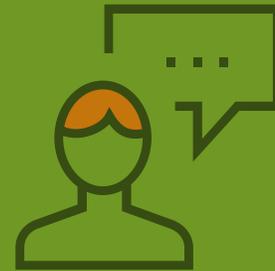
Where to start: Fidelity.com > Research > Fixed Income, Bonds & CDs

fixedincome.fidelity.com/ftgw/fi/FILanding

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How Fidelity Can Help



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portfolio with bonds

See if you're currently paying additional
mark-ups on bond transactions

Disclosures



1. (from pages 24) 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 [study](#) compared online bond prices for more than 27,000 municipal and corporate inventory matches from February 4 through March 7, 2022. 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 \$15.14 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 mark-up 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.

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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.

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