

Welcome!

We look forward to beginning today's program shortly.



Connect with us:



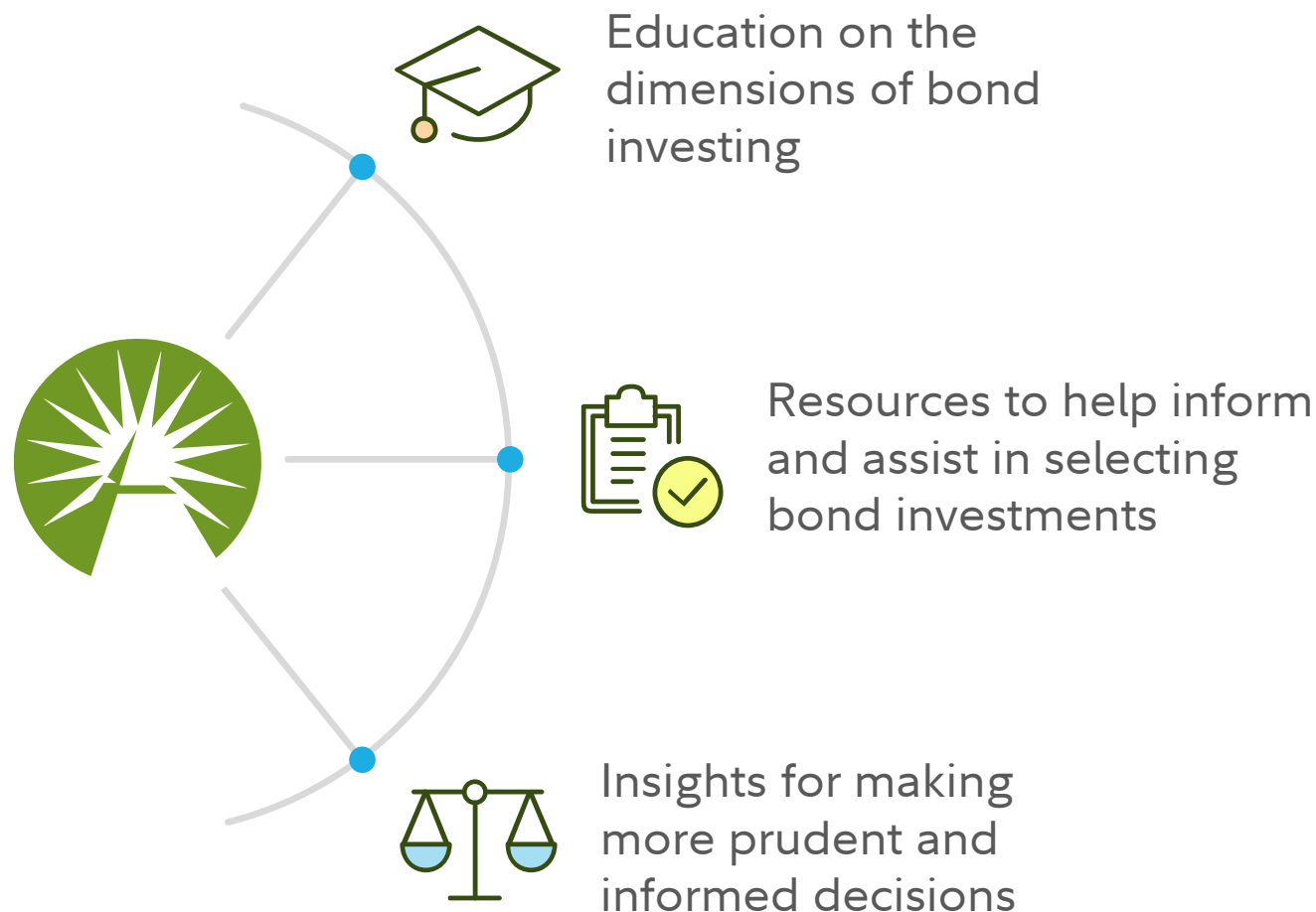


Bond Investing, Beyond Yield— A Deeper Dive



With a more sophisticated understanding of the bond landscape, you can make empowered decisions to help you grow your portfolio.

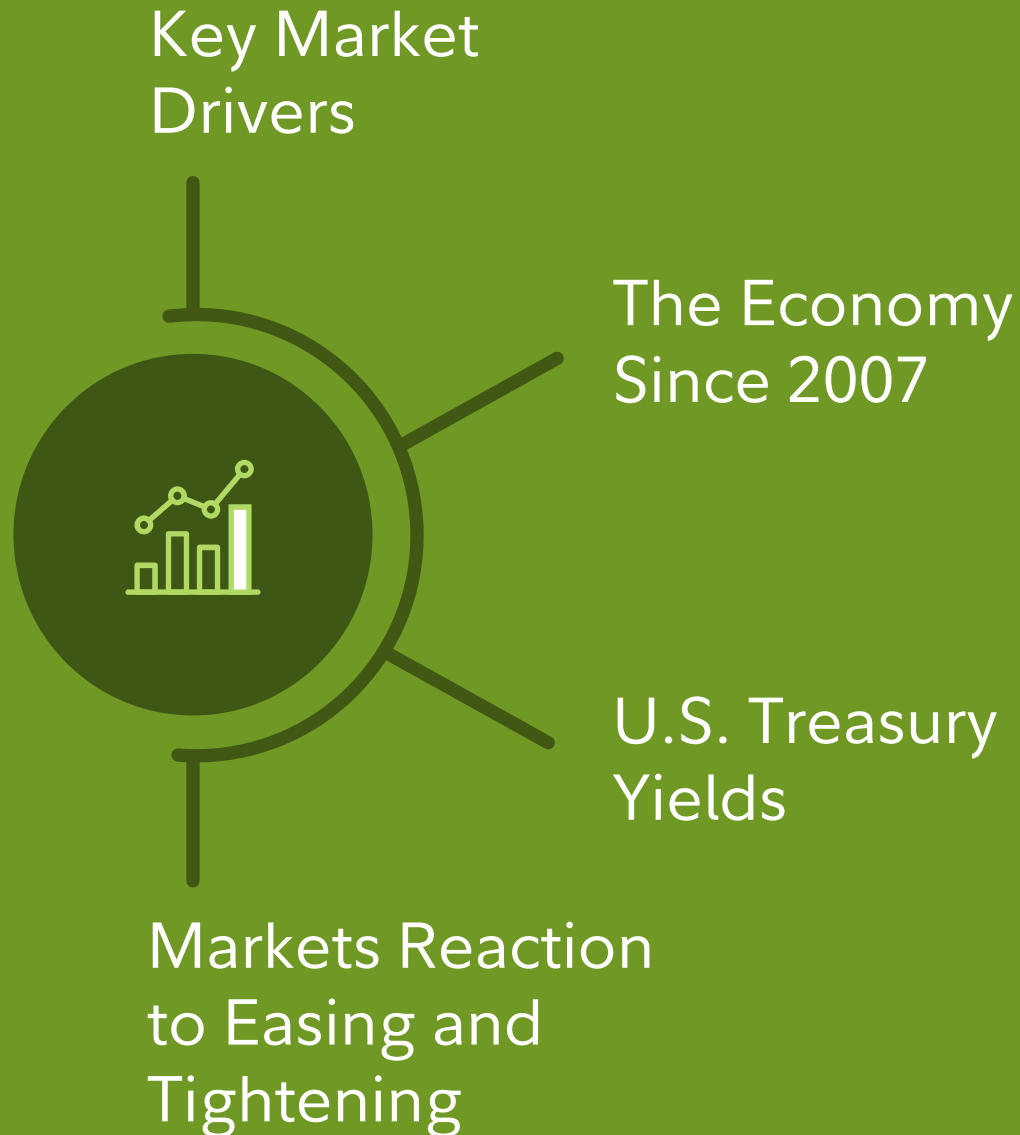
Develop an Ongoing Strategy with Fidelity





Today's Agenda

Understanding Macroeconomic Trends



Key Market Drivers



US Equity market sputters as global inflation takes root

- The S&P 500 posted its worst first half total return performance since 1962, posting a loss of 20%.
- In Q2, the S&P 500 slumped -16.1%, highlighted by a -8.3% drop in June alone. After a +9.1% bounce in July it fell back -4.2% in August.
- Consumer price inflation touched 9.1% in the US in June and in the Eurozone in August as supply constraints in energy, food, and labor met longer-term trends of a deglobalizing world economy.

Quantitative Easing era officially ends as monetary policy tightens

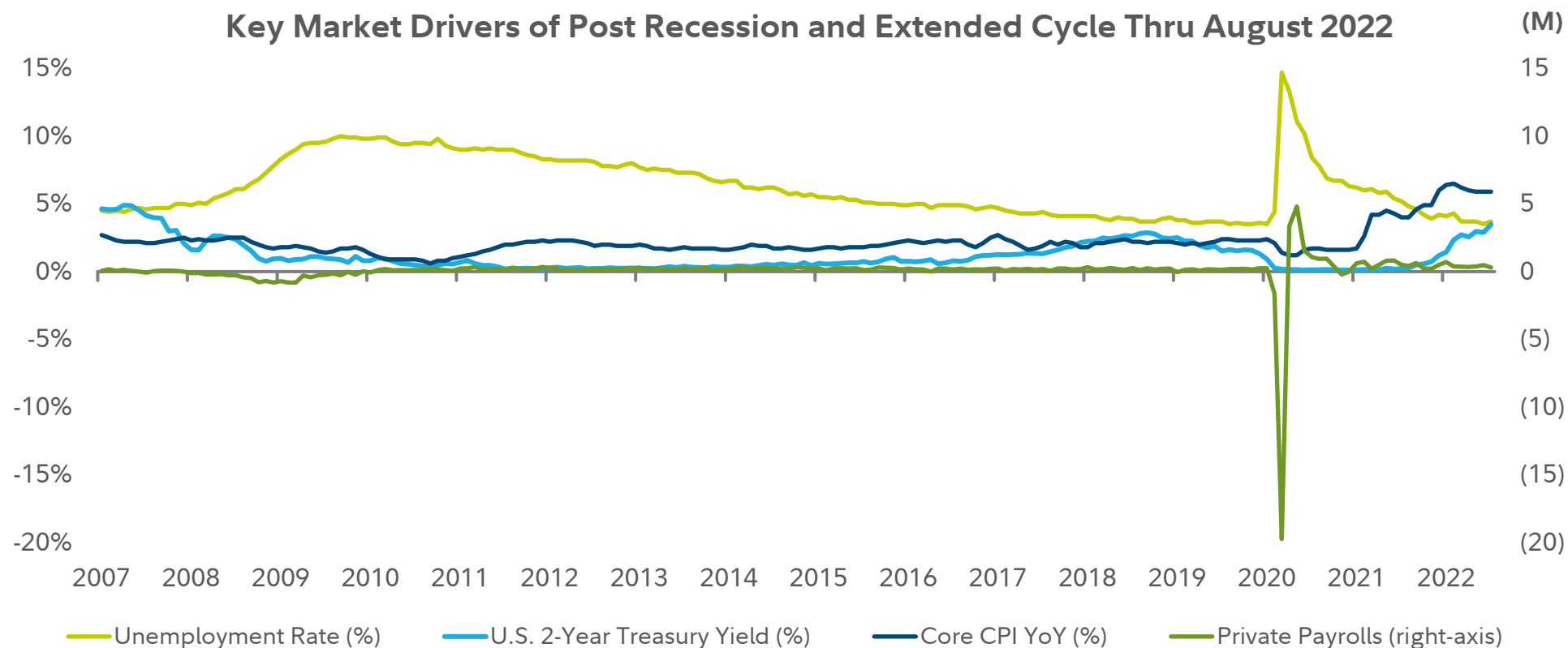
- Federal Reserve became increasingly hawkish, beginning a rate-hiking cycle in March and announcing that it would end its U.S. Treasury and mortgage-backed security asset purchases.
- The Fed raised its Fed Funds Rate by 0.75% in June & July, taking it to 2.25%-2.50%.
- Quantitative tightening began in June at \$47.5B / month and is set to double in September to \$95B per month and remain at this pace per Fed plans.

Inflation, employment and the labor market – economic momentum wanes

- The US Consumer Price Index peaked at 9.1% in June but with July's 8.5% reading and 8.3% in August it will be a while before we return to the Fed's 2% target.
- US unemployment plummeted from 14.7% in April '20 to 3.5% by July '22 and 3.7% in August.
- Despite high employment, U of Michigan's Consumer Sentiment index hit an all-time low of 50 in June. Its recent bounce to 59.5 in September mirrors the recent fall in gas prices.
- Treasury 10-year yields spiked to 3.5% in mid-June after starting off 2022 at 1.51%. Yields then retreated to 2.60% by August before their most recent rise to 3.46% as of 9/16/22.
- 2-year Treasury yields rose from 0.73% in December to 2.96% by the end of Q2 and 3.87% on 9/16/22 as the Fed remains hawkish in the face of a negative-sloping yield curve.

Trends:

The Economy Since 2007



Source: Bloomberg, August 2022

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.

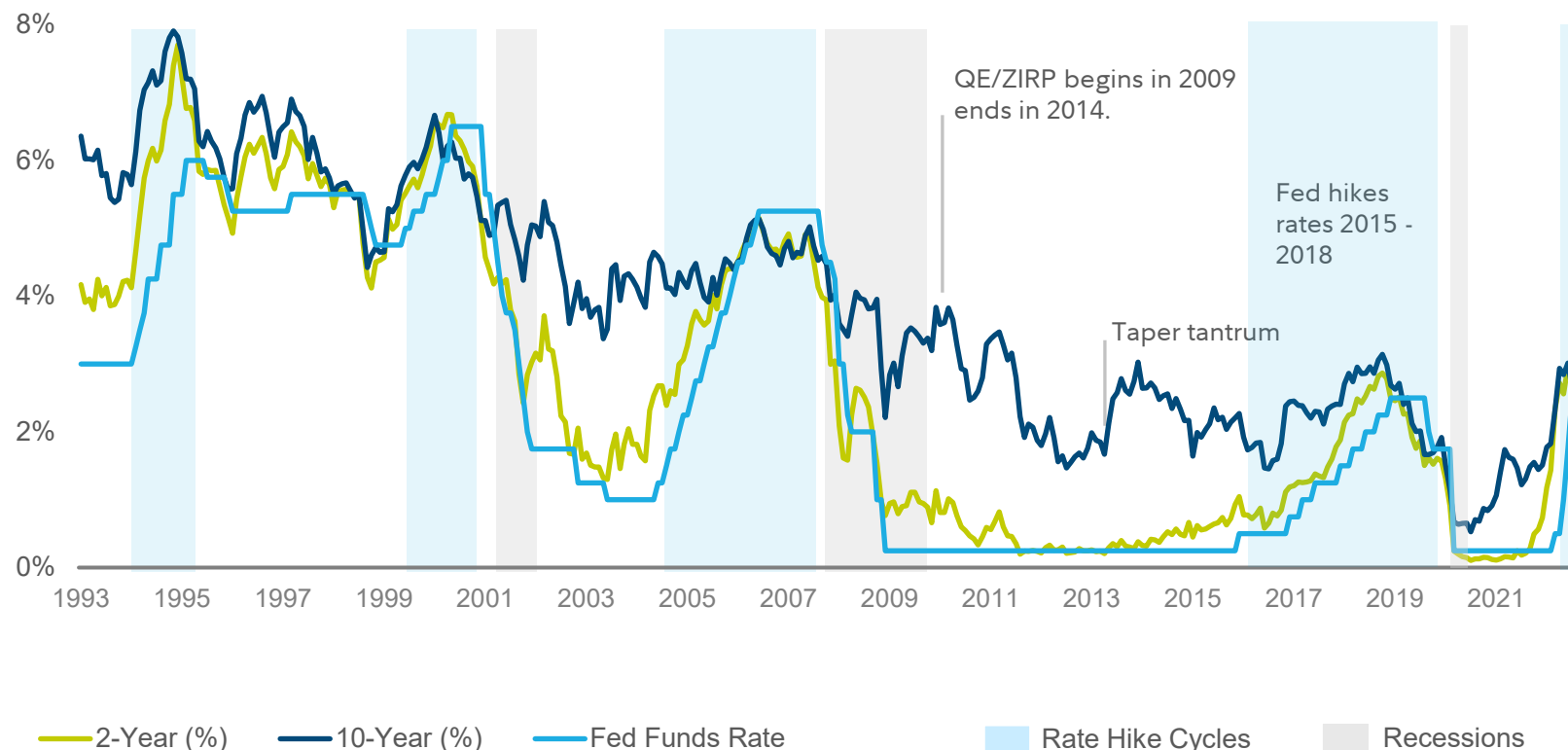
Past performance is no guarantee of future results.

Trends:

U.S. Treasury Yields



- The previous four rate hike cycles averaged 10 rate hikes of 25 basis points each over an average of 22 months.



Source: Bloomberg and NBER, August 2022

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.

Trends:



Markets Reaction to Easing and Tightening

QUANTITATIVE EASING CYCLES

	QE1 11/25/08– 3/31/10	QE2 11/3/10– 6/30/11	QE3 9/13/12– 10/29/14	QE4 3/15/20 – 3/9/22
U.S. Treasury Bonds	1.5%	(0.3%)	1.7%	(3.9)%
Investment-Grade Bonds	30.4%	1.4%	6.3%	2.8%
U.S. High-Yield Bonds	79.3%	5.4%	15.9%	17.6%
U.S. Large-Cap Stocks	26.0%	16.1%	35.8%	62.2%
Gold	21.5%	17.7%	(32.0%)	15.0%

FED RATE HIKE CYCLES

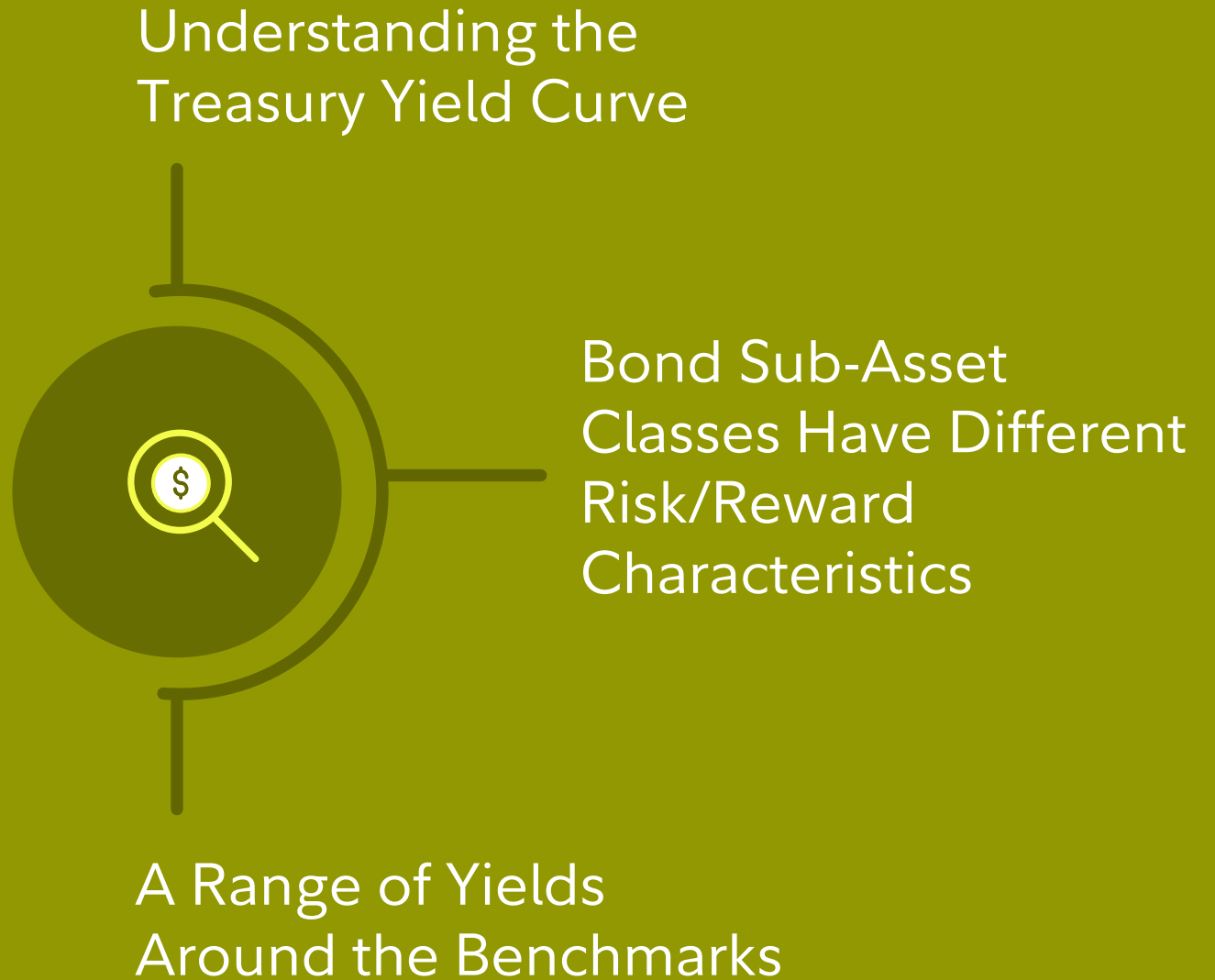
	2/28/94– 3/31/95	5/31/99– 7/31/00	6/30/04– 7/31/06	12/16/15– 12/31/18	03/16/22– 9/16/22
U.S. Treasury Bonds	2.0%	6.2%	5.3%	4.3%	(7.1%)
Investment-Grade Bonds	2.2%	3.7%	5.8%	9.2%	(8.1%)
U.S. High-Yield Bonds	2.9%	(0.5%)	16.2%	23.8%	(6.6%)
U.S. Large-Cap Stocks	10.5%	11.4%	9.4%	10.3%	(10.4%)
Gold	4.3%	4.3%	54.2%	19.6%	(13.1%)

Assets represented by the following: Gold – Gold Spot Price (Bloomberg); U.S. Treasury Bonds – Bloomberg Treasury Index; U.S. High-Yield Bonds – Bank of America Merrill Lynch High Yield Master II Index; U.S. Large-Cap Stocks – S&P 500® Index; IG Bonds – Bloomberg Corporate Investment Grade Index.

Source: Bloomberg September 2022

You cannot invest directly in an index. See appendix for important index information. Past performance is no guarantee of future results.

Three Dimensions of Bond Investing



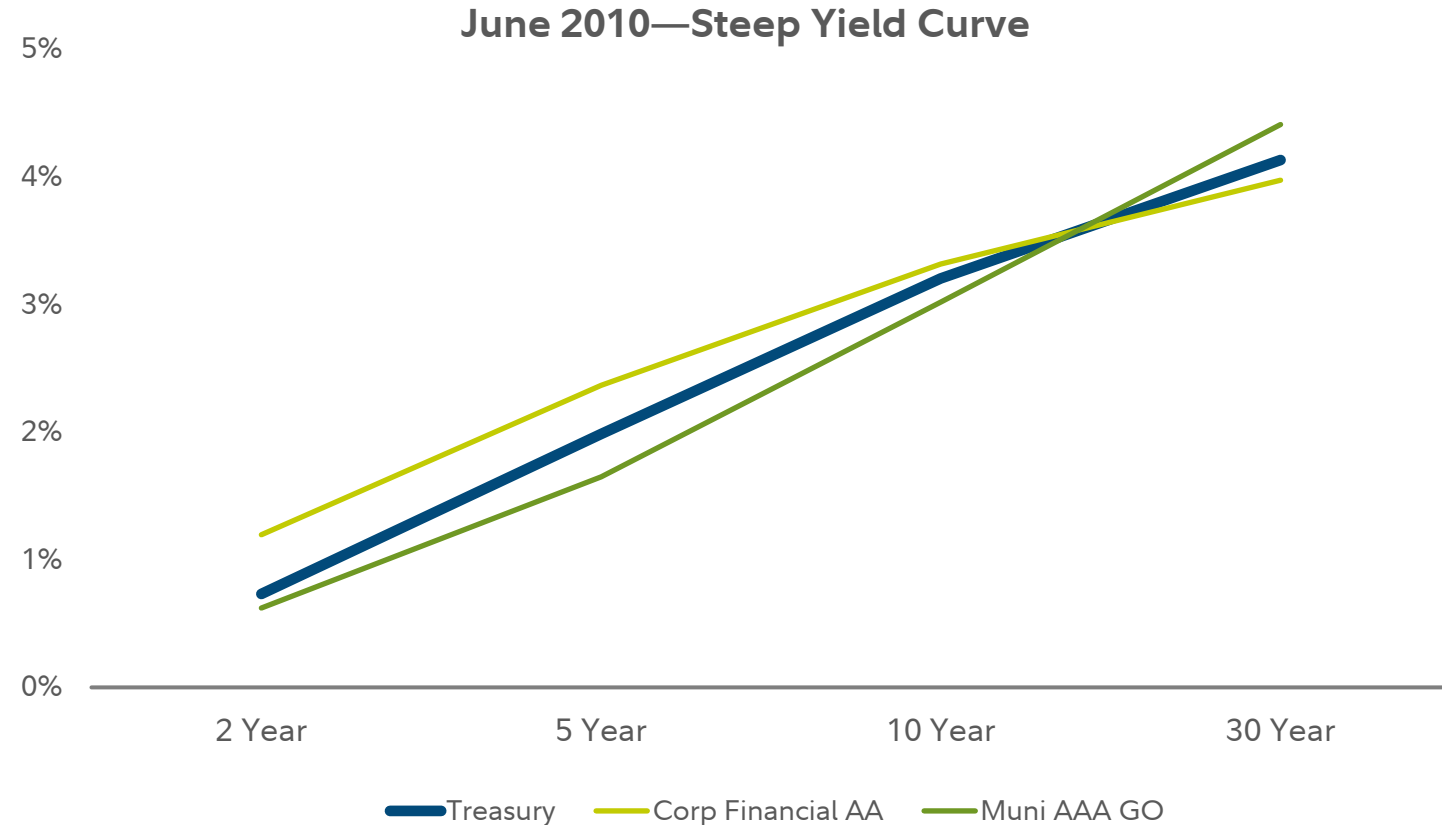
Dimension 1:



Understanding the Treasury Yield Curve

Steep, upward-sloping curve:

During a recession or at the early part of the expansion.
Fed (completed) cutting rates



Source: Bloomberg

Yield Curves were taken from 7/21/06, and 6/4/10, and 08/27/2019. UST – U.S. Treasury Actives Curve, Bloomberg; Corp – U.S. Dollar Swaps (30/360, S/A) Curve Financial AA; Muni – U.S. Muni General Obligation AAA Curve.

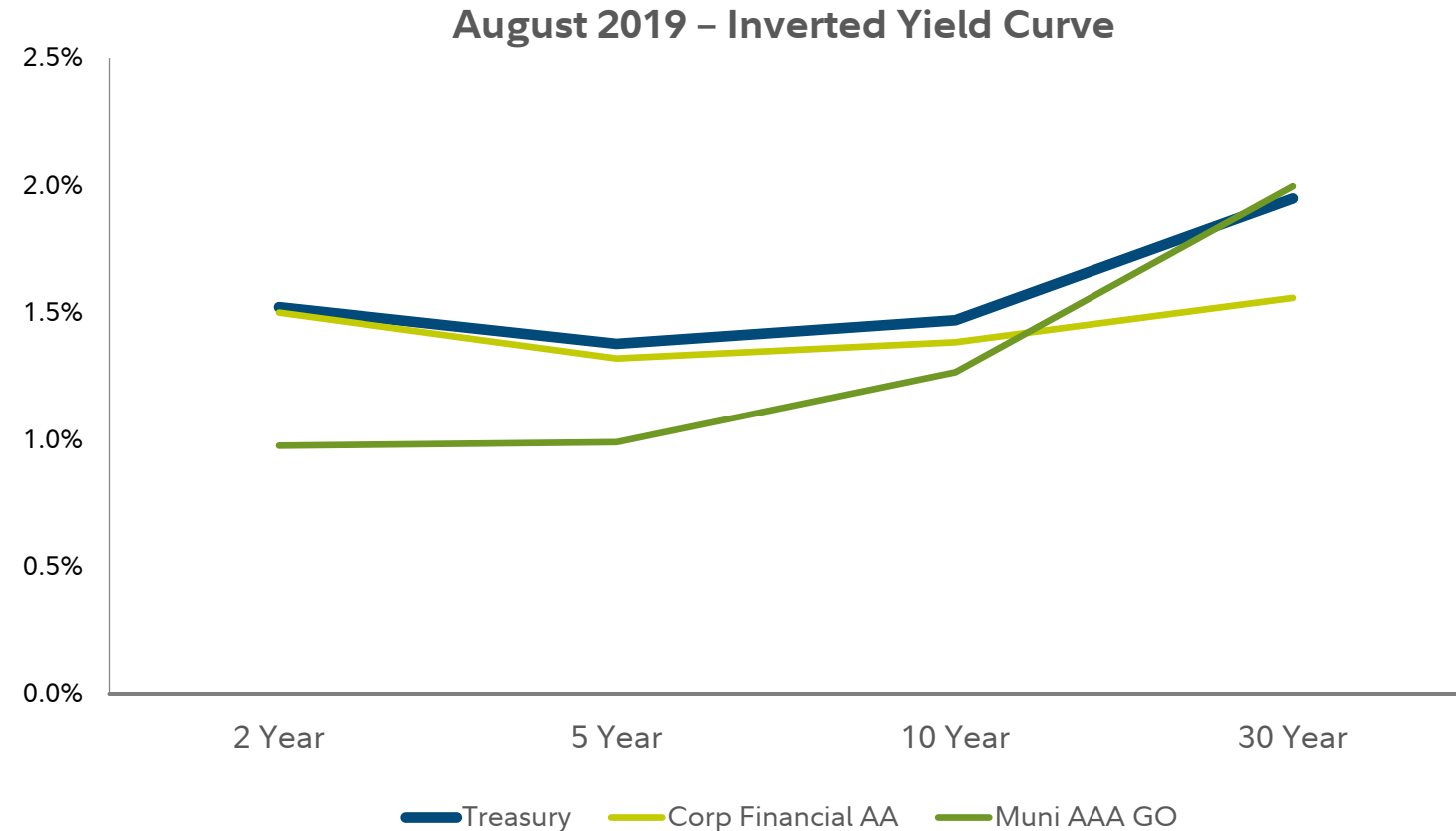
Dimension 1:



Understanding the Treasury Yield Curve

Inverted curve:

Typically at the end of an economic cycle.
Fed rate hikes complete



Source: Bloomberg

Yield Curves were taken from 7/21/06, and 6/4/10, and 08/27/2019. UST – U.S. Treasury Actives Curve, Bloomberg; Corp – U.S. Dollar Swaps (30/360, S/A) Curve Financial AA; Muni – U.S. Muni General Obligation AAA Curve.

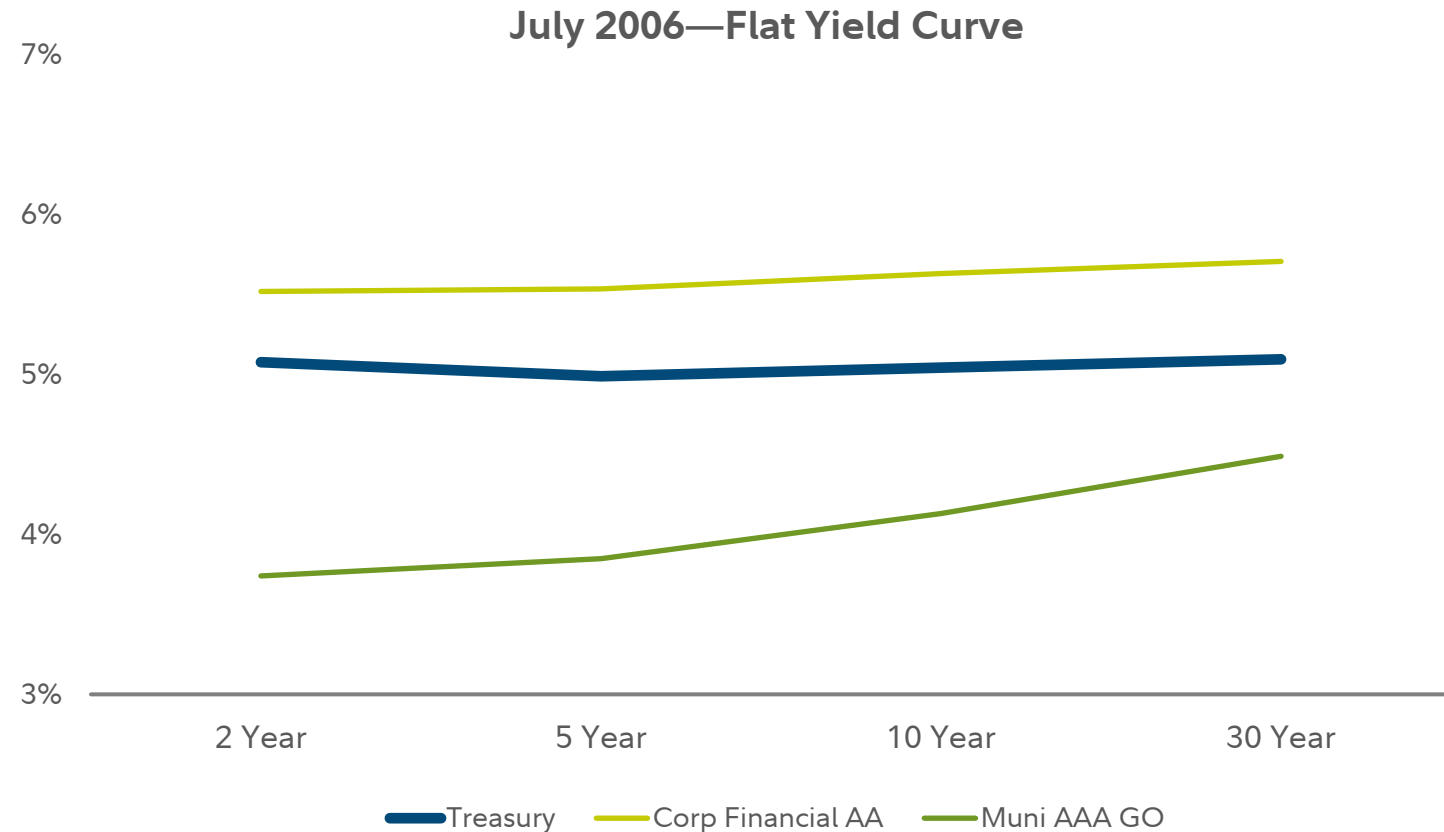
Dimension 1:



Understanding the Treasury Yield Curve

Flat curve:

Close to the end of the cycle.
Fed still raising rates,
growth strong



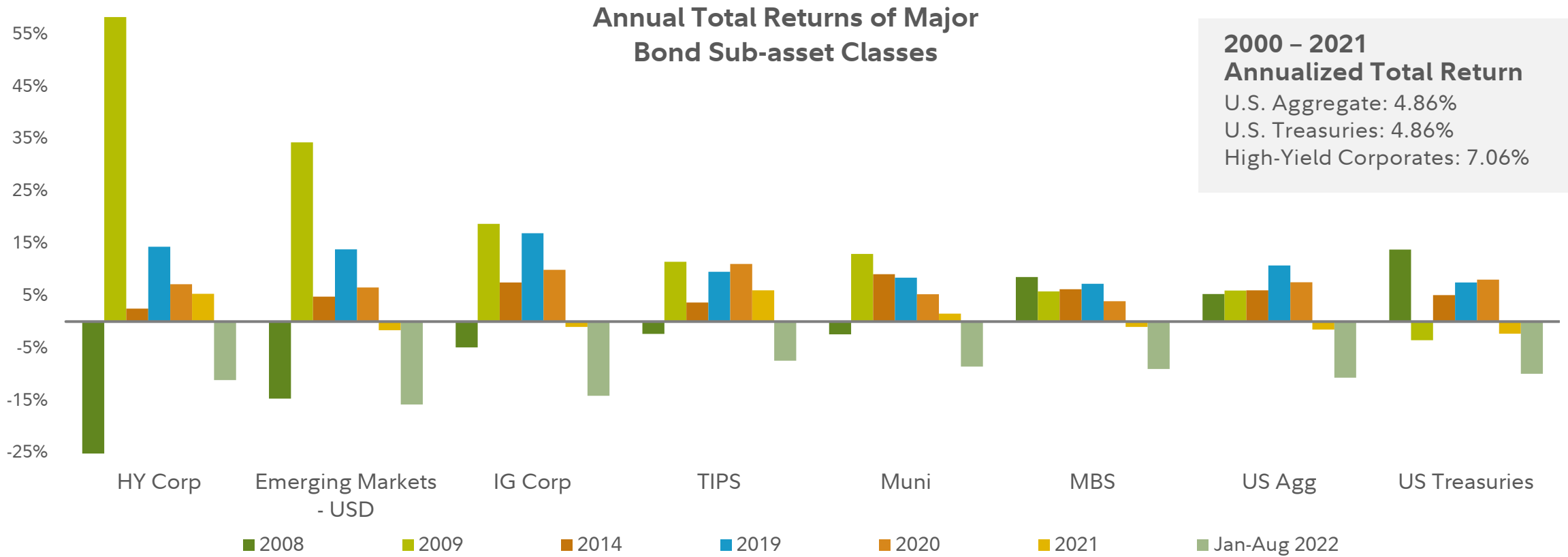
Source: Bloomberg

Yield Curves were taken from 7/21/06, and 6/4/10, and 08/27/2019. UST – U.S. Treasury Actives Curve, Bloomberg; Corp – U.S. Dollar Swaps (30/360, S/A) Curve Financial AA; Muni – U.S. Muni General Obligation AAA Curve.

Dimension 2:



Bond Sub-Asset Classes Have Different Risk/Reward Characteristics



Source: Bloomberg, August 2022

HY Corp – Bloomberg U.S. High Yield Index, EM – Bloomberg USD Emerging Markets Index, IG Corp – Bloomberg U.S. Corporate Investment Grade Index, TIPS – Bloomberg U.S. TIPS Index, Muni – Bloomberg Municipal Bond Index, MBS – Bloomberg U.S. Mortgage Backed Securities (MBS) Index, U.S. Agg – Bloomberg U.S. Aggregate Index, UST – Bloomberg U.S. Treasury Index (see index definitions on page 44).

Past performance is no guarantee of future results.

View by: **Highest Yield** **Median Yield**

Understanding This Table	3mo	6mo	9mo	1yr	2yr	3yr	5yr	10yr	20yr	30yr+
CDs (New Issues) 	3.00%	3.40%	3.40%	3.50%	3.60%	3.65%	4.00%	4.00%	--	--
BONDS 										
U.S. Treasury	3.42%	3.68%	3.73%	3.82%	3.76%	3.76%	3.61%	3.45%	3.87%	3.62%
U.S. Treasury Zeros	--	--	3.51%	3.60%	3.59%	3.73%	3.62%	3.59%	4.01%	3.56%
Agency/GSE	3.13%	--	3.88%	3.90%	4.03%	4.22%	4.50%	4.92%	4.11%	4.51%
Corporate (Aaa/AAA)	2.45%	3.28%	3.40%	3.60%	3.67%	3.74%	4.03%	--	4.42%	5.00%
Corporate (Aa/AA)	2.98%	3.63%	3.77%	3.63%	3.84%	4.29%	4.49%	4.61%	4.97%	5.42%
Corporate (A/A)	3.38%	3.86%	4.08%	4.53%	5.23%	4.98%	5.91%	5.89%	6.15%	5.96%
Corporate (Baa/BBB)	3.56%	4.25%	4.39%	4.81%	5.98%	6.34%	6.98%	7.81%	6.78%	7.35%
Municipal (Aaa/AAA)	--	2.39%	2.56%	2.45%	2.64%	2.73%	3.38%	4.15%	4.37%	--
Municipal (Aa/AA)	2.62%	2.54%	2.68%	2.81%	2.78%	3.05%	3.32%	4.20%	4.59%	4.47%
Municipal (A/A)	2.47%	2.52%	2.72%	2.70%	2.87%	3.11%	3.48%	4.25%	4.77%	--
Taxable Municipal*	2.53%	3.55%	3.86%	3.92%	4.05%	4.20%	4.46%	5.22%	--	5.46%

Dimension 3:

A Range of Yields Around the Benchmarks

Source: Fidelity.com as of September 2022

For illustrative purposes only

*Taxable Municipal ratings cover a rating range from Aaa to A3 from Moody's or AAA to A- from S&P.

Trade	Description	Coupon	Maturity Date	Next Call Date	Rating		Bid			Ask	Yield to Maturity	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					
<div>Buy</div> <div>Sell</div>	NORSK HYDRO A S BOND 7.25000% 09/23/2027	7.250	09/23/2027	View	AA2	AA-	4.620	111.668 250(5)	112.294 10(5)	4.488 --	4.488		112.309 View	IE SFP D	
<div>Buy</div> <div>Sell</div>	CHEVRON USA INC NOTE CALL MAKE WHOLE1.01800% 08/12/2027	1.018	08/12/2027	06/12/2027	AA2	AA-	4.149	86.222 500(2)	86.284 5(2)	4.134 --	4.134		86.701 View	IE SFP D	
<div>Buy</div> <div>Sell</div>	WALMART INC NOTE CALL MAKE WHOLE3.95000% 09/09/2027	3.950	09/09/2027	08/09/2027	AA2	AA	4.126	99.216 500(50)	99.494 500(2)	4.063 --	4.063		99.978 View	IE SFP D	
MEDIAN YIELD															
<div>Buy</div> <div>Sell</div>	APPLE INC NOTE CALL MAKE WHOLE2.90000% 09/12/2027	2.900	09/12/2027	06/12/2027	AAA	AA+	4.066	94.780 275(275)	94.818 100(5)	4.057 --	4.057		95.241 View	IE SFP D	
<div>Buy</div> <div>Sell</div>	VISA INC NOTE CALL MAKE WHOLE2.75000% 09/15/2027	2.750	09/15/2027	06/15/2027	AA3	AA-	4.094	93.977 100(10)	94.338 100(10)	4.011 --	4.011		94.590 View	IE SFP D	
<div>Buy</div> <div>Sell</div>	COLGATE PALMOLIVE CONOTE CALL MAKE WHOLE3.10000% 08/15/2027	3.100	08/15/2027	07/15/2027	AA3	AA-	4.002	96.006 6,737(20)	96.233 200(10)	3.950 --	3.950		96.703 View	IE SFP D	

Dimension 3:

A Range of Yields Around the Benchmarks

Source: Fidelity.com as of September 2022
For illustrative purposes only

Investing in Corporate & Municipal Bonds

Comparing the
Risks & Rewards
of Various Bonds

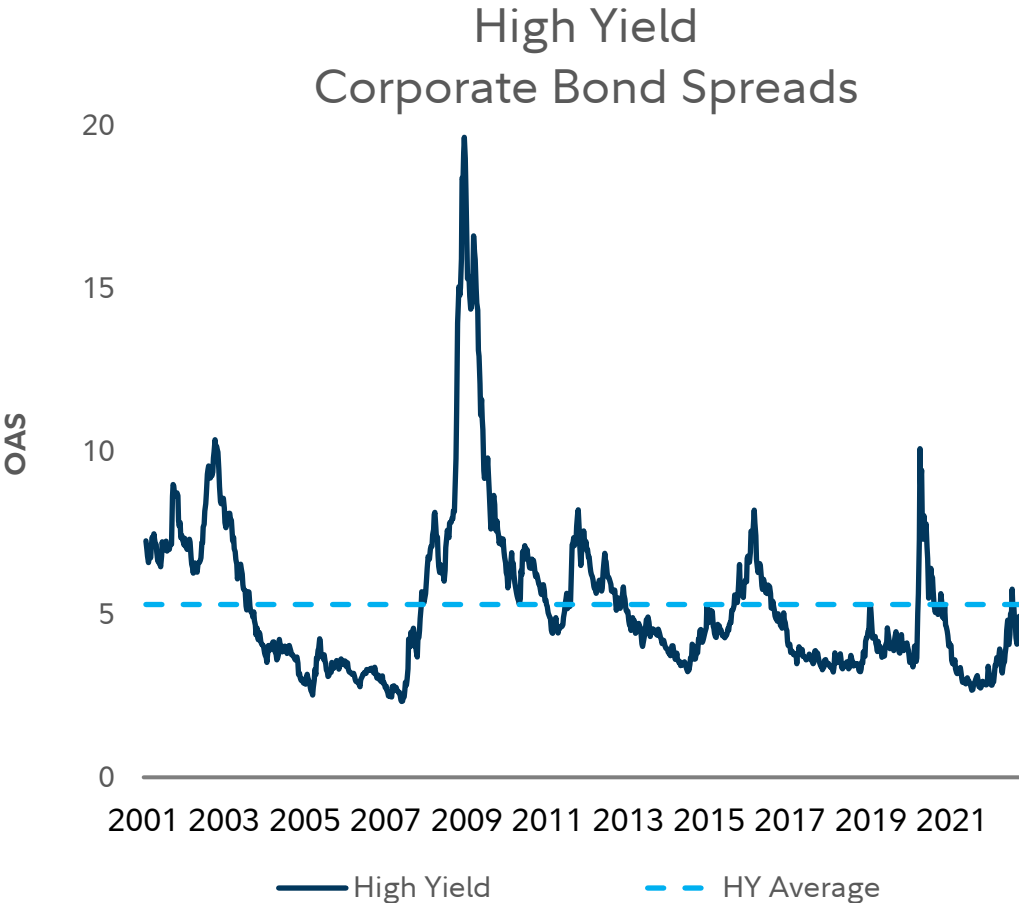
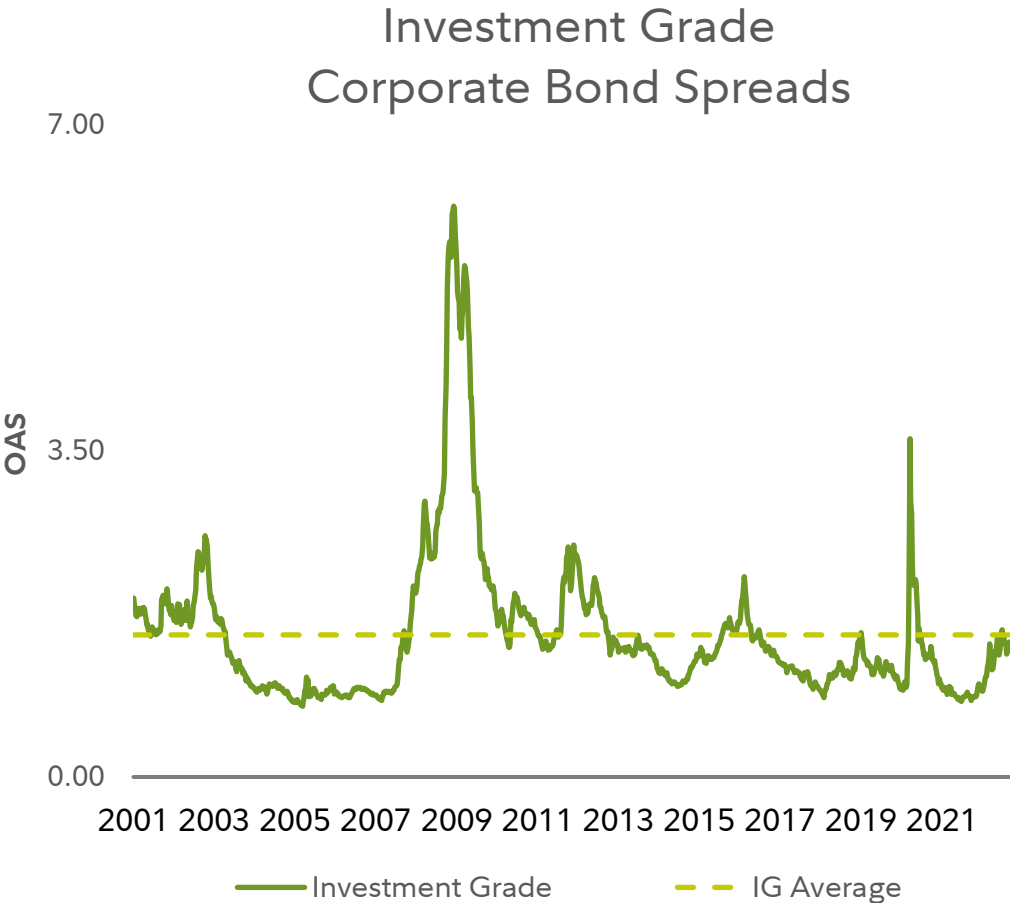


A Deeper Dive
into Pricing & Risk

Fidelity's Tools Can Assist
in Your Research

Corporate Bonds:

Corporate Bond Spreads Return to Historical Averages



Source: Bloomberg U.S. Agg Corp Index (Investment Grade – Left Chart) & Bloomberg 's U.S. High Yield Index (High Yield – Right Chart), August 2022
OAS – Option Adjusted Spread

BOND STRUCTURE AND RATINGS

CVS HEALTH CORP NOTE CALL MAKE WHOLE

3.87500% 07/20/2025

Overview

Price & Performance

Details

CUSIP	126650CL2
ISIN	US126650CL25
SEDOL	BYPFB82
Pay Frequency	SEMI-ANNUALLY
Coupon	3.875
Maturity Date	07/20/2025

Moody's Rating	BAA2
S&P Rating	BBB
Issuer Events	YES

FINRA	YES
Survivor Option	N/A
Bond Type	Corporate
Sector	OTHER INDUSTRIALS
Interest Accrual Date	07/20/2015

Redemptive Features

Call Protection	View Schedule	NO
Continuously Callable		YES
Called Bonds		NO

Issuer Information

Issue Date
Dated Date
First Coupon Date
Next Coupon
Last Coupon
Workout Date
Original Issue Amount
Issue Price

Coupon Information

Coupon Type	12/04/2017 11:45 PM EST OTHER MATERIAL EVENT
Current Rate Effective Date	07/14/2015
Day Count Basis	30/360
Trading Flat	NO
Reset Frequency	TERM MODE
Benchmark Reference	--
Benchmark Formula	--
Next Reset Date	--
Next Reset Rate	--

Fidelity.com

Print | Close

Issuer Events

12/07/2020 3:30 PM EST
OTHER MATERIAL EVENT
REP AS OF 12/07/20

08/12/2020 1:30 PM EDT
OTHER MATERIAL EVENT
REP AS OF 08/12/20

11/28/2018 12:30 PM EST
OTHER MATERIAL EVENT
REMOVED FROM NEGATIVE MDY CREDIT WATCH ON
11/28/18

11/28/2018 12:30 PM EST
MOODYS RATING DOWNGRADE
DOWNGRADED TO Baa2 ON 11/28/18

03/06/2018 10:30 AM EST
S&P RATING DOWNGRADE
DOWNGRADED TO BBB ON 03/06/18

03/06/2018 10:30 AM EST
OTHER MATERIAL EVENT
REMOVED FROM NEGATIVE S&P CREDIT WATCH ON 03/06/18

12/04/2017 11:45 PM EST
OTHER MATERIAL EVENT



Corporate
Bonds:
Dive Deeper
to Assess Risk
Before You Invest

For illustrative purposes only

Source: Fidelity.com, September 2022

Corporate Bonds: Dive Deeper into Pricing OFFERED PRICES AND YIELDS



Overview

Price & Performance

Basic Analytics

Price (Bid)	98.649
Price (Ask)	98.789
Depth of Book	View
Ask Yield to Worst	4.330%
Ask Yield to Maturity	4.330%
Current Yield	3.922%
Yield to Sink	--
Third Party Price	99.187
Spread to Treasuries	0.583
Treasury Benchmark	3 YR.(2.875% 07/31/2025)
Recent Trade	View Recent Trades
Price	98.715
Quantity	2
Date/Time	09/13/2022 09:17:41
Buy/Sell	DD

For illustrative purposes only
Source: Fidelity.com, September 2022

DEPTH OF BOOK AND TRADE HISTORY

Depth of book

Recent trades

More Quotes - Depth of Book

Indicates best price

A comprehensive view offering alternative choices — select a new price

Bid Prices				Ask Prices			
Action	Bid Yield	Qty(min)	Bid Price (Sell)	Ask Price (Buy)	Qty(min)	Ask Yield	Action
Sell	4.386	200(10)	98.641	98.799	175(10)	4.326	Buy
Sell	4.389	250(15)	98.633	98.805	200(15)	4.324	Buy
Sell	4.390	150(15)	98.631	98.814	250(2)	4.321	Buy
Sell	4.393	125(10)	98.622	98.814	100(2)	4.321	Buy
Sell	4.394	249(10)	98.621	98.942	75(2)	4.272	Buy
Sell	4.398	1500(2)	98.610	99.000	500(2)	4.250	Buy

Depth of book

Recent trades

Trade View Options

AS OF 09:28:17 AM ET 09/13/2022

✓ Table

Chart

✓ Customer Buy/NMAB

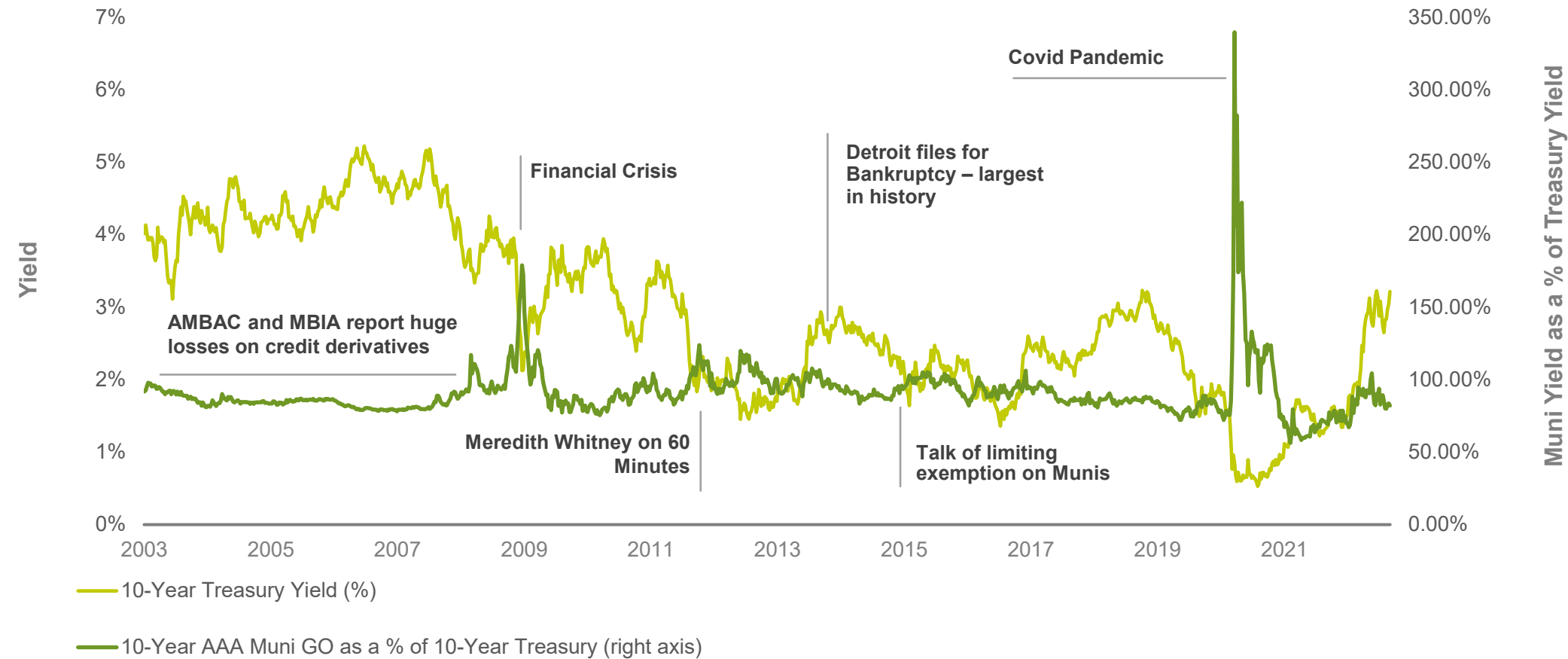
✓ Customer Sell/NMAS

✓ Dealer to Dealer

Price	Quantity	Yield	Date	Buy/Sell	Trade Attributes
98.715	2	4.358	9/13/2022 09:17:41	Dealer to Dealer	
98.715	2	4.358	9/13/2022 09:17:41	Dealer to Dealer	
98.689	2	4.368	9/13/2022 09:17:22	Customer Sell	
99.469	400	4.073	9/13/2022 08:22:39	Dealer to Dealer	
99.345	3000	4.119	9/12/2022 16:00:32	Customer Buy	
99.192	10	4.177	9/12/2022 15:34:47	Customer Sell	

Municipal Bonds:

Municipal Yields Compared to Treasury Yields



Past performance is no guarantee of future results.
Source: Bloomberg, August 2022

Trade	State	Description	Coupon	Maturity Date	Next Call Date	Rating		Underlying Rating		Bid [?]		Ask		Depth of Book [?]	3rd Party Price / Recent Trades	Attributes and Issuer Events
						Moody's	S&P	Moody's	S&P	Yield	Price Qty(min)	Price Qty(min)	Yield to Worst/ Yield to Sink	Yield to Maturity		
Buy Sell	NJ	GARFIELD N J GEN IMPT BDS 01.50000% 10/15/2025	1.500	10/15/2025	--	--	AA-	A1	NR	--	No Bid --(--)	95.470 100(5)	3.050 --	3.050	--	94.839 View ME CP SFP GO
Buy Sell	NJ	MAYWOOD N J GEN IMPTBDS 01.25000% 09/15/2025	1.250	09/15/2025	--	--	AA	--	--	--	No Bid --(--)	95.024 100(20)	2.997 --	2.997	--	93.882 View ME CP SFP GO
Buy Sell	AZ	MARICOPA CNTY ARIZ SCH DIST NO 028 01.00000% 07/01/2025KYRENE ELEM IMPT BDS2017 PROJ SER. 2020	1.000	07/01/2025	--	AAA	AA	AAA	--	--	No Bid --(--)	94.725 5(5)	2.981 --	2.981	--	94.168 View ME CP SFP GO
Buy Sell	VA	VIRGINIA ST HSG DEV AUTH RENTAL HSG BDS 02.15000% 09/01/2025SER. 2019A	2.150	09/01/2025	View	AA1	AA+	AA1	--	--	No Bid --(--)	98.100 30(5)	2.823 --	2.823	--	98.727 View ME SFP ER R
Buy Sell	OK	CANADIAN CNTY OKLA EDL FACS AUTH EDL 03.25000% 09/01/2025FACS LEASE REV LEASEREV BDS MUSTANG PUB	3.250	09/01/2025	View	--	AA-	--	--	2.895	101.000 10(10)	101.211 10(10)	2.821 --	2.821	--	101.586 View ME SFP ER R
Buy Sell	CA	HUNTINGTON BEACH CALIF PUB FING AUTH 03.00000% 09/01/2025REV LEASE REV BDS SENIOR CTR PROJ SER.	3.000	09/01/2025	09/01/2024	--	AA	--	--	--	No Bid --(--)	100.378 15(5)	2.800 --	2.866	--	100.513 View ME SFP ER R
Buy Sell	IN	INDIANA BD BK REV SPL PROG BDS CLAY 00.00000% 07/15/2025TOWNSHIP HAMILTON CNTY SER. 2019B More Issuer Information from BondLink	0.000	07/15/2025	--	--	AA-	--	--	--	No Bid --(--)	92.449 5(5)	2.790 --	2.790	--	91.936 View ME CP SFP R
Buy Sell	OK	OKLAHOMA CNTY OKLA INDPT SCH DIST NO 01.50000% 08/01/2025012 EDMOND GO BLDG BDS SER. 2021	1.500	08/01/2025	--	--	AA+	--	--	--	No Bid --(--)	96.460 130(5)	2.788 --	2.788	--	95.533 View ME CP SFP GO

Municipal Bonds:

A Range of Issuers & Risk/Return Within a State

For illustrative purposes only

Source: Fidelity.com, September 2022

Table shows secondary offerings from various states

HASBROUCK HEIGHTS N J BRD ED SCH DIST
01.00000% 08/15/2025BDS



- Overview
- Price & Performance
- News & Documents

Details

CUSIP	418092ES7
Pay Frequency	SEMI-ANNUALLY
Coupon	1.000
Maturity Date	08/15/2025
Insurer	ASRD GUARTY MUN CORP
Obligor	--
Material Events	YES
EMMA	YES
Bond Type	Municipal
Interest Accrual Date	07/01/2021

Redemptive Features

Call Protection	YES
Continuously Callable	--
Call Defeased	--
Called Bonds	NO
Make Whole Call	NO
Conditional Call	NO
Sinking Fund Protection	YES

Ratings

Moody's Rating	Current Effective Date	Prior
Rating	--	--
Watchlist	--	--
Underlying Rating	--	--
Insured Rating	--	--
Enhanced Rating	--	--
Obligor Rating	--	--

S&P Rating	Current Effective Date
Rating	AA 05/08/2022
Credit Watch	--
Underlying Rating	AA-
Insurer Rating	AA 03/18/2014
School ICR	AA- 06/14/2021
Obligor Rating	--

Municipal Bonds:
Check Material Events for Other Important News



MuniDOCS® Online

Click on the "Date" column to view the PDF version of the document.

Material Event Notices (1)

Date Filed	State	Filing Entity	Event Type
04/06/2022	NJ	HASBROUCK HEIGHTS N J BRD ED SCH DIST Headline: Upgrade (S&P) SCH BDS JUL 1, 2014; SCH BDS DTD JUL 1, 2021 (BK QUALIFIED); SCH REF BDS SER 2015	Rating Changes

Primary Market Documents (1)

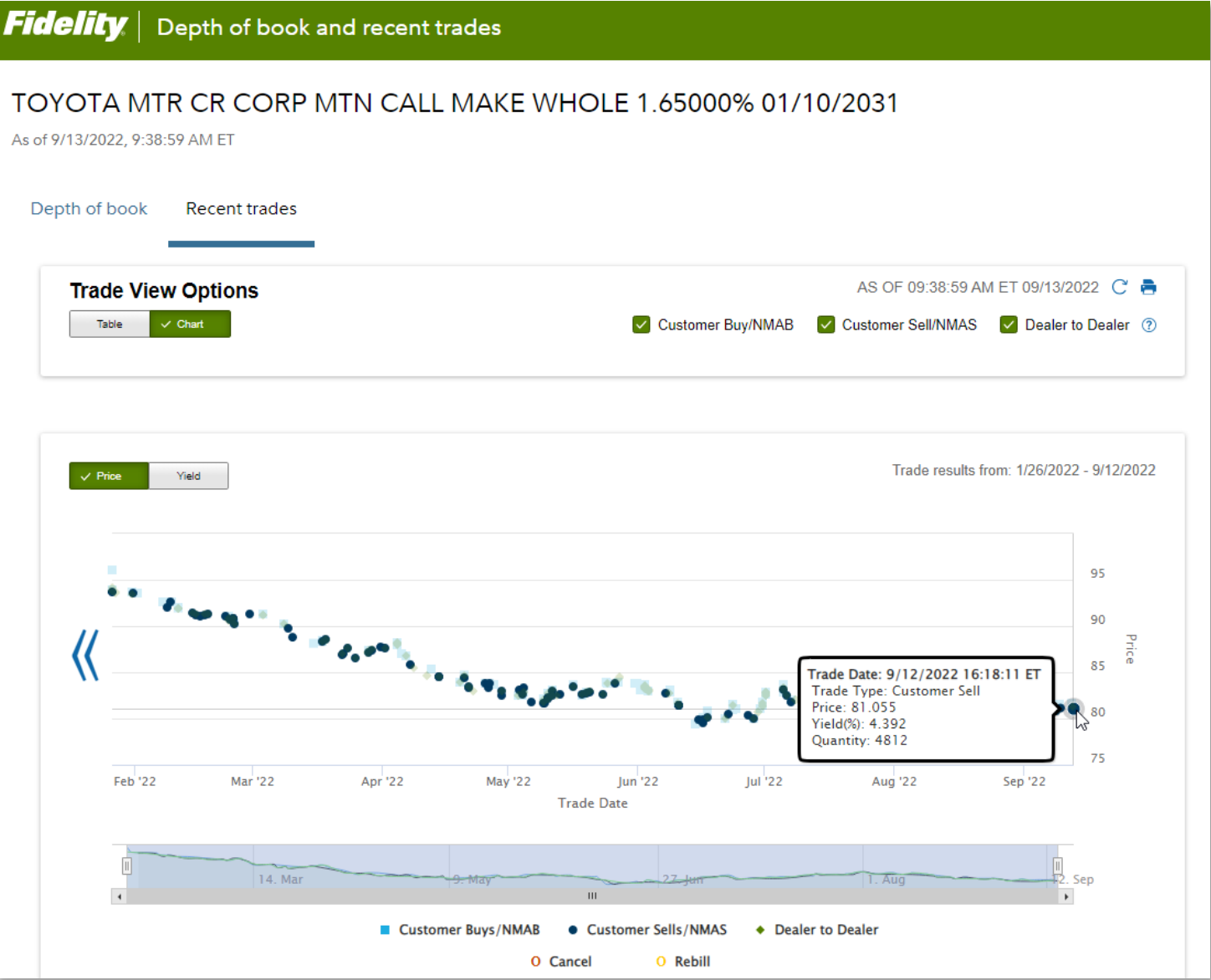
Dated Date	State	Issuer Name / Issue Description	Document Type	Par Amount
07/01/2021	NJ	HASBROUCK HEIGHTS N J BRD ED SCH DIST <no issue description provided>	Official Statement	\$3,895,000.00

Financials / Continuing Disclosures (49)

Doc Date	State	Document Description	Filing Type
06/30/2022	NJ	HASBROUCK HEIGHTS BRD OF ED Obligor: HASBROUCK HEIGHTS BRD OF ED	Budget
06/30/2021	NJ	HASBROUCK HEIGHTS BRD OF ED (UNAUDITED) Obligor: HASBROUCK HEIGHTS BRD OF ED	Annual Financial Statement, Statutory Financial
06/30/2021	NJ	HASBROUCK HEIGHTS BRD OF ED Obligor: HASBROUCK HEIGHTS BRD OF ED	Continuing Disclosure Report
06/30/2021	NJ	HASBROUCK HEIGHTS BRD OF ED Obligor: HASBROUCK HEIGHTS BRD OF ED	Continuing Disclosure Report
06/30/2021	NJ	HASBROUCK HEIGHTS BRD OF ED Obligor: HASBROUCK HEIGHTS BRD OF ED	CAFR

For illustrative purposes only
Source: Fidelity.com, September 2022

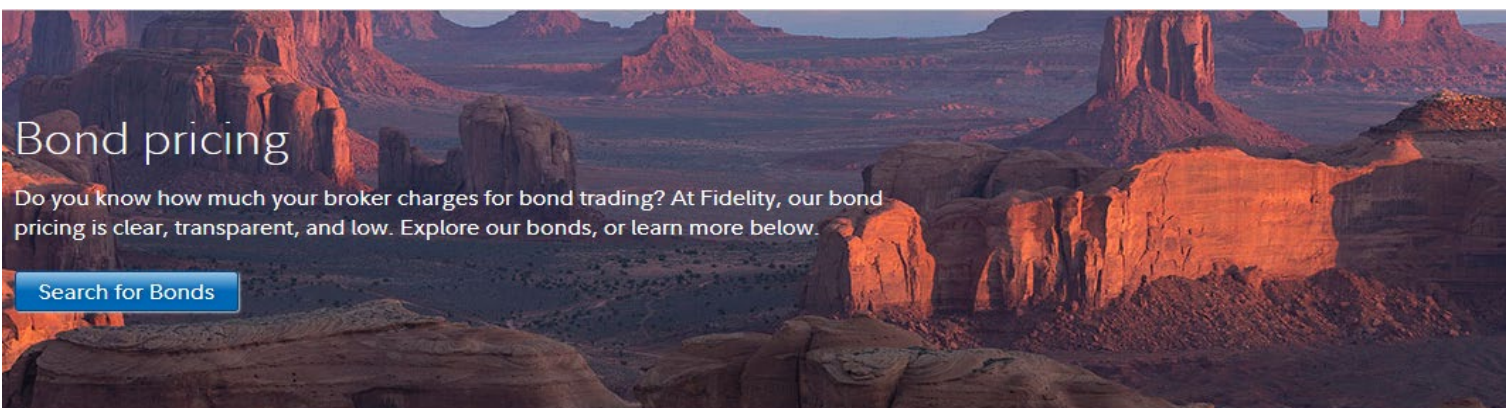
Recent Trade Charts for Municipal & Corporate Bonds



Municipal & Corporate Bonds:

Research Bond-Specific Information

For illustrative purposes only
Source: Fidelity.com, September 2022



Better bond pricing. Better investment value.

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 study¹ 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.

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, September 2022

See disclosure on page 43 for details on this study

Insights:

Market Commentary from Fidelity and Independent Sources



How much am I paying for my bonds?

You may be surprised by how mark-ups vary—and how they impact yields.

FIDELITY VIEWPOINTS – 05/18/2022



Key takeaways

- ✓ Mark-ups are dealer commissions bundled into the price of bonds.
- ✓ Many investors don't know how much dealers mark up bonds—or even if they're paying a mark-up at all.
- ✓ Mark-ups reduce a bond's yield, thereby reducing the buyer's total returns.
- ✓ There are ways to determine the amount of dealer mark-ups so you can find the lowest-cost provider.



US Economics | 12th August 2022



CAPITAL ECONOMICS

US ECONOMICS WEEKLY

More good news on inflation coming soon

The drop back in CPI inflation in July wasn't enough alone to convince Fed officials to change their plans for interest rate hikes. But we expect the better news on inflation to continue over the coming months, which will eventually persuade the Fed to halt its tightening cycle early next year.

Disinflationary forces beginning to build

The weakness in the July CPI was mainly due to a drop back in energy prices, which are on track for an even bigger decline in August. Furthermore, over the next few months we expect that disinflationary pressure to broaden out. Food prices, which increased by a stiff 1.1% m/m in July, will be the next deflationary shoe to drop. The surge in food price inflation was caused by a series of supply shocks that are now beginning to unwind. Poor harvests and the war in Ukraine drove up corn and wheat prices, drought in the South and West raised meat and fresh vegetable prices, while the avian flu outbreak in the Midwest earlier this year triggered a massive surge in the price of chickens and eggs. Dairy prices have also

That could change dramatically in October, however, when new data on health insurer profitability are incorporated. Admittedly, the current elevated pace of CPI rents and owners' equivalent rent will persist for some time, but the private measures do already show a moderation in the inflation rate for new rental agreements.

All things considered, we still think that headline inflation will drop below 2% by the middle of next year. (See Chart 1.) But we would stress that the balance of risks is shifting, with downside risks now dominating. It's no longer out of the question that headline inflation could briefly turn negative in the second half of 2023. Admittedly, core CPI inflation would still be running at around 3%, which would limit the Fed's scope to slash interest rates. But we doubt it would be enough to prevent officials from supporting a limited series of cuts to take the fed funds rate back toward neutral.

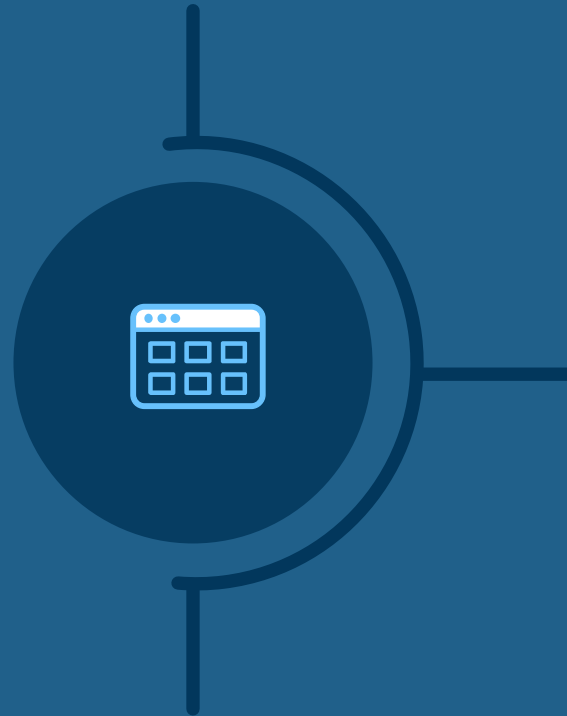
Chart 1: CPI Inflation (%)

For illustrative purposes only

Source: Fidelity.com, September 2022

Viewing Fidelity Bond Tools & Strategies

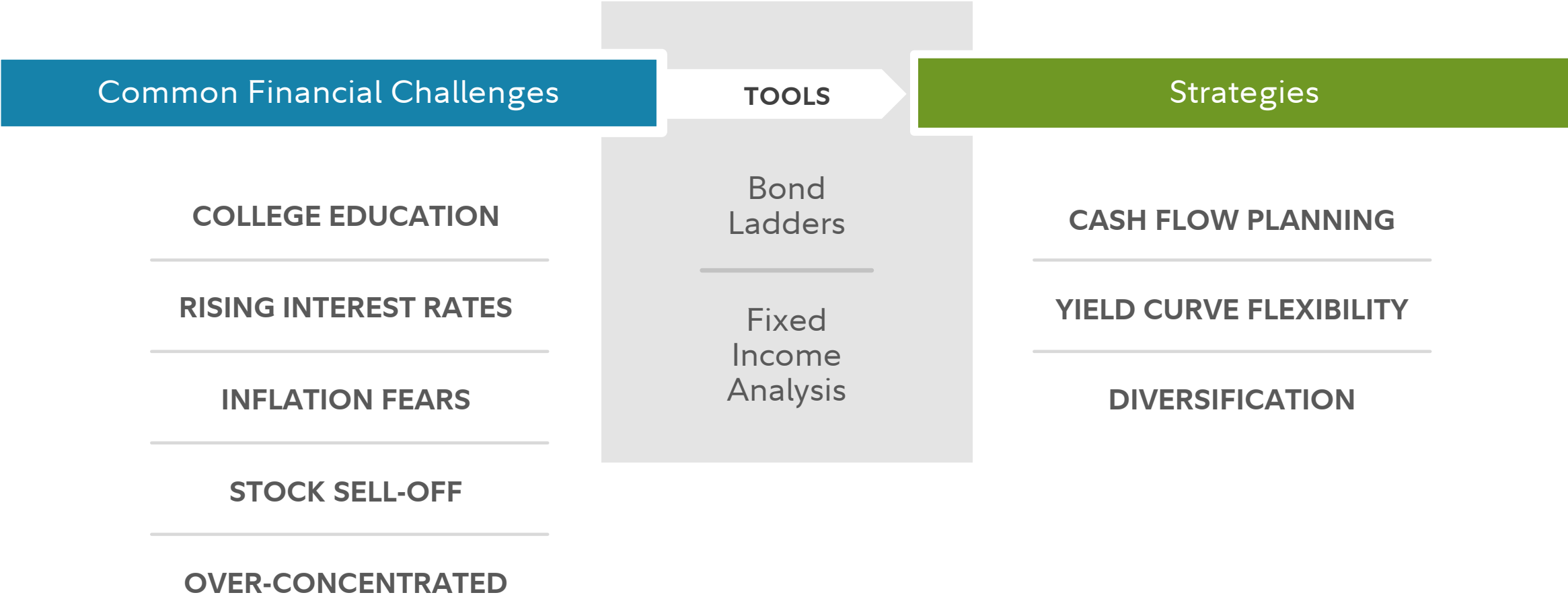
Using Investment
Strategies to
Manage Wealth



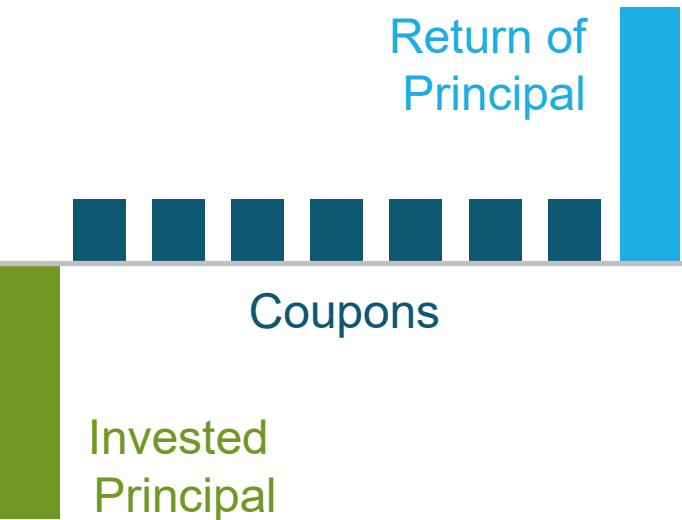
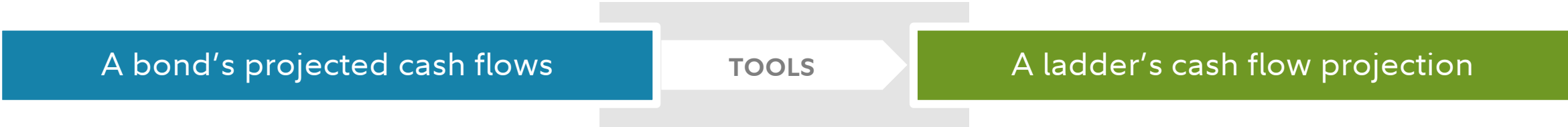
Bonds Are a Series
of Cash Flows

Diversifying Across
Bond Types & Sectors

Using Bond Strategies to Manage Your Wealth



A Bond Is a Series of Cash Flows that Can Be Mixed with Others



Search Results

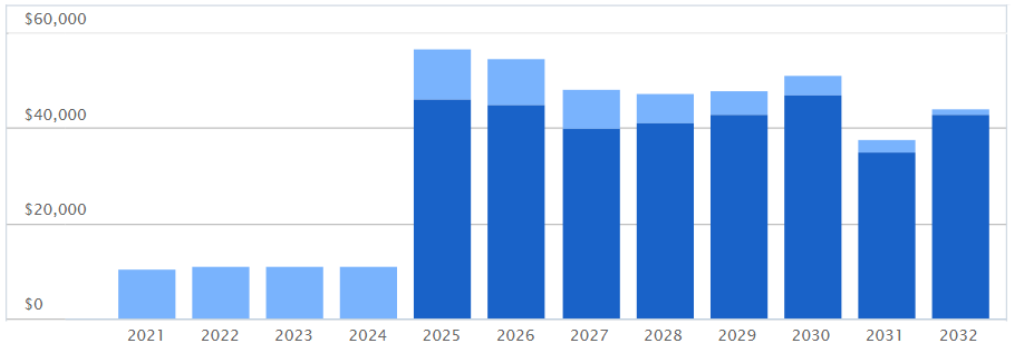
Summary Calculations¹

[Export to Fixed Income Analysis](#) | [Create PDF](#)

Principal Cost	\$395,937.23	Total Par Value	\$340,000.00	Average Yield	0.95%
Accrued Interest	\$3,546.65	Average Coupon Rate	3.27%	Average Price	\$116.39
Principal Gain/Loss	(\$55,937.23)	Average Maturity (Years)	7.54	Annual Interest	\$11,108.50

[Overview](#) | [Estimated Interest & Principal Chart](#) | [How the Bond Ladder Tool Works](#)

[Monthly](#) | [Annually](#) | [Estimated Interest](#) | [Principal](#)

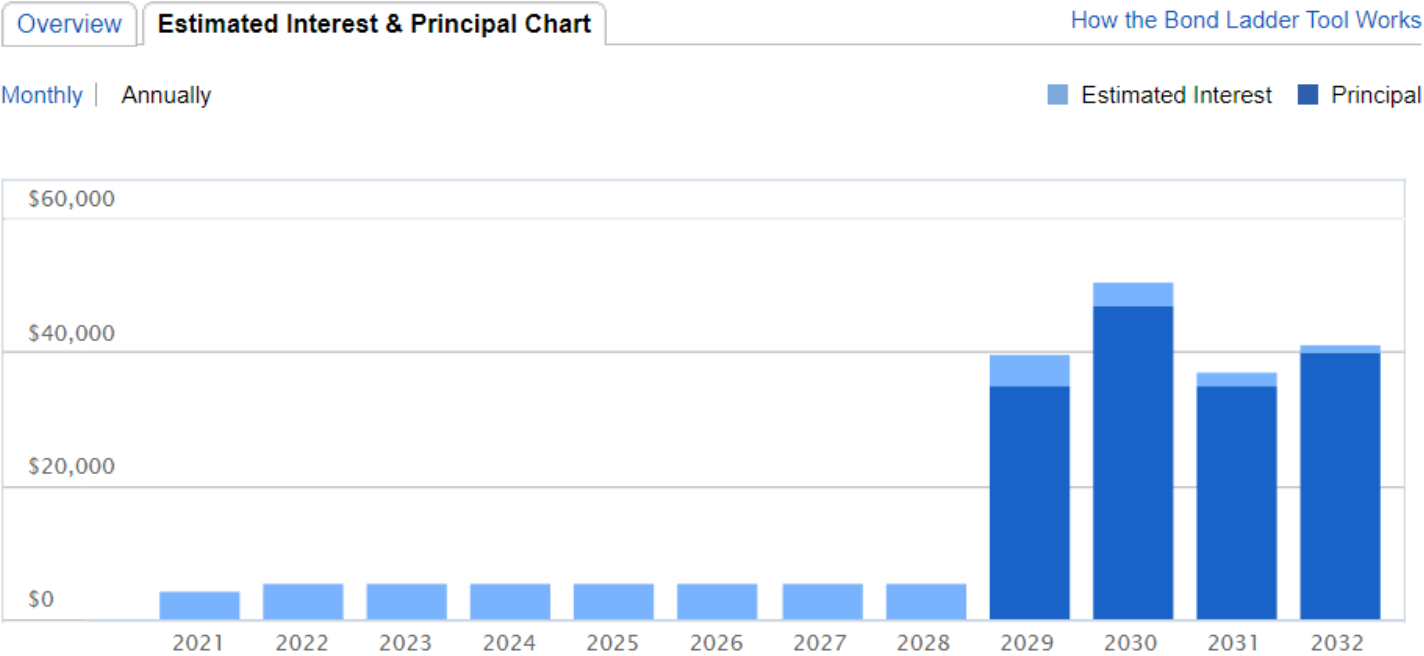
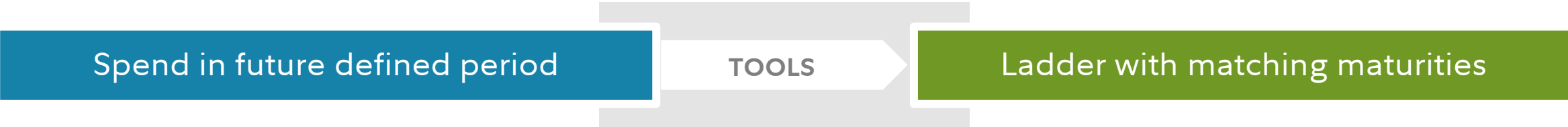


For illustrative purposes only Source: Fidelity.com, February 2021
Past performance is no guarantee of future results.

College Education



Plan the Exact Year and Month Your Bonds Will Mature

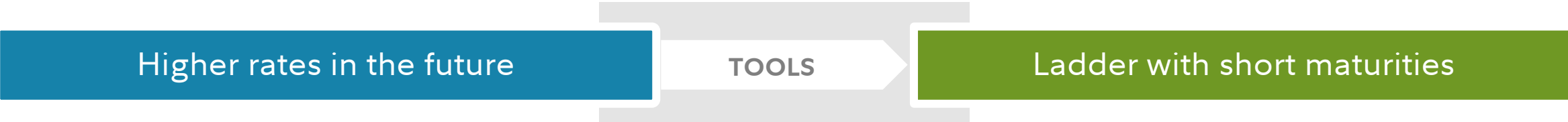


For illustrative purposes only Source: Fidelity.com, February 2021
Past performance is no guarantee of future results.

Rising Interest Rates / Inflation Fears

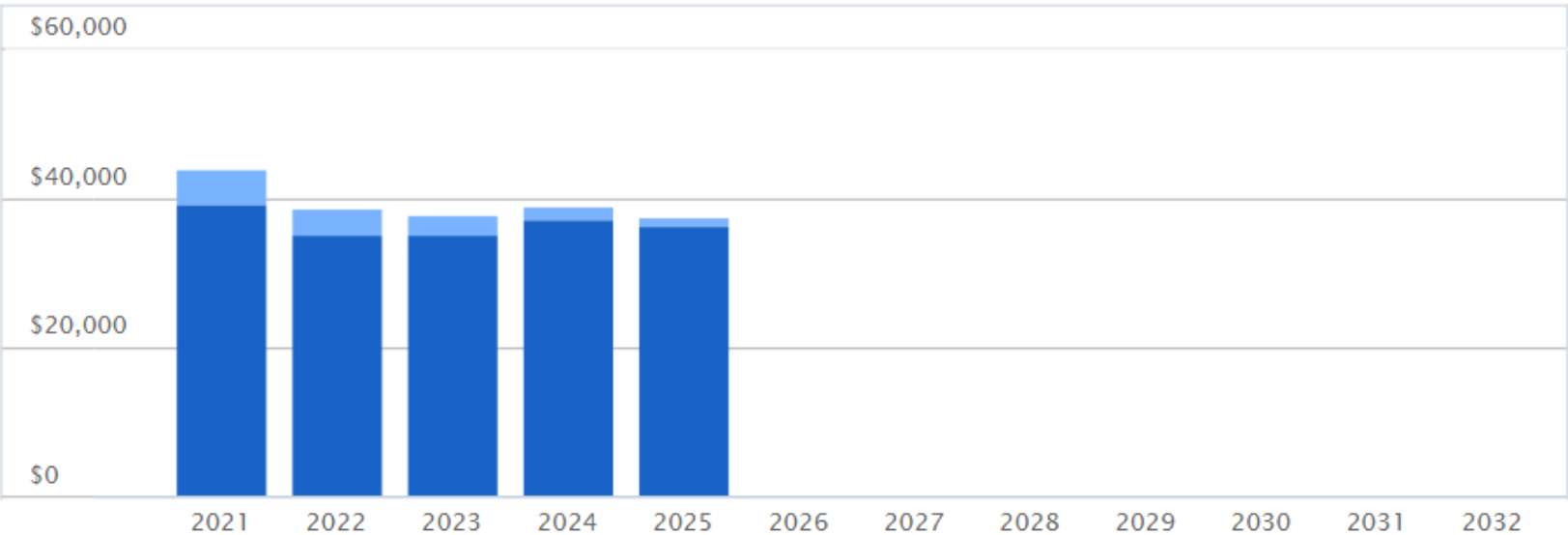


A Short-Dated Ladder Allows You to Reinvest Sooner



[Overview](#) **Estimated Interest & Principal Chart** [How the Bond Ladder Tool Works](#)

[Monthly](#) | [Annually](#) ■ Estimated Interest ■ Principal



For illustrative purposes only
Source: Fidelity.com, February 2021
Past performance is no guarantee of future results.

Stock Sell-Off



Certain Bond Types Are Less Correlated with Stocks than Others

Earn a return, inverse correlation

TOOLS

Fixed income market data

Bond Product Type ¹	Correlation ² vs S&P 500
Treasury	(0.20)
U.S. Aggregate	0.11
Mortgage-Backed Securities	(0.02)
Municipal Bonds	0.15
Inv. Grade Corporate Bonds	0.40
Emerging Market Bonds	0.57
High Yield Corporates	0.72

For illustrative purposes only

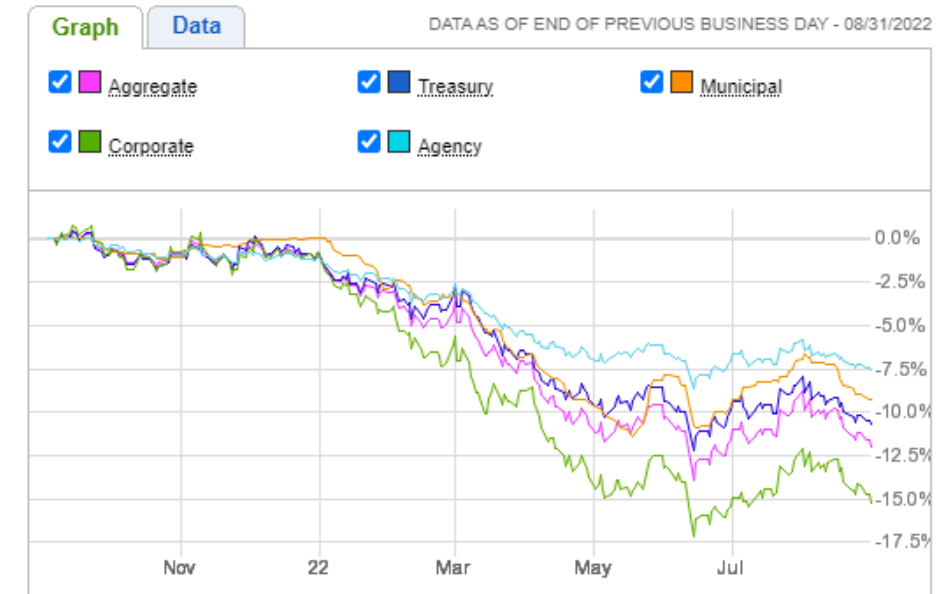
(1) Source: Morningstar using Bloomberg indices

(2) Correlations 12/31/2002 – 8/31/2022

Past performance is no guarantee of future results

Fixed Income Market Data

[Yield Curve](#) | [Key Rates](#) | [Market Benchmarks](#)



Market data provided by [Factset](#). Powered and implemented by [FactSet Digital Solutions](#). [Legal Statement](#).

S&P 500 return over similar period (8/31/21 – 8/31/22) was (11.23)%. Source: Fidelity.com

Aggregate – Bloomberg Aggregate Bond Index, Treasury – Bloomberg Aggregate Bond Index, Municipal – Bloomberg Municipal Bond Index, Corporate – Dow Jones Corporate Bond Index, Agency – Bloomberg Aggregate Bond Index Agency (see index definitions on page 44)

Over Concentrated

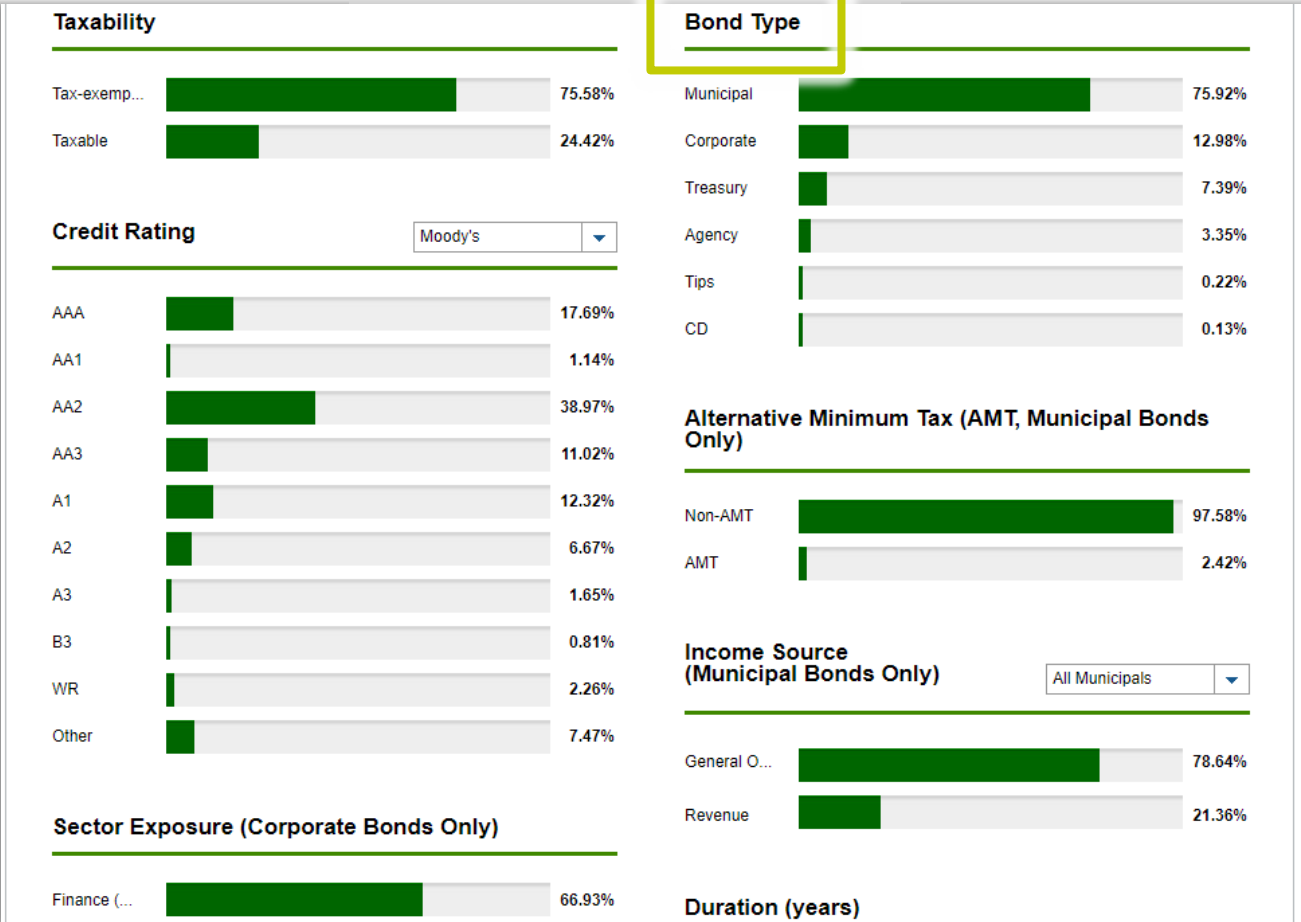


Use Fixed Income Analysis to Help Diversify Across Types and Sectors

Bond type & sector type

TOOLS

Fixed income analysis: Diversify



For illustrative purposes only
Source: Fidelity.com, January 2022. Past performance is no guarantee of future results.




Next Steps



Review Our Online Resources

Fidelity's Fixed Income Tools

 fidelity.com/fixedincome/tools

Fidelity's Research Page

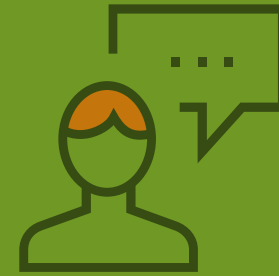
 fidelity.com/fixedincome/research

Attend additional seminars:

- Demystifying Bond Selection for Your Portfolio
- Understanding Bond Pricing
- Using Fidelity's Fixed Income & Bond Investing Tools



How Fidelity Can Help



Create a more effective, overall fixed income investment strategy

Available resources include:

- Your local Financial Consultant
- A local Fixed Income Consultant
- A Fixed Income Specialist at 800-544-5372

With a more sophisticated understanding of the bond landscape, you can make empowered decisions to help you grow your portfolio.

A man in a dark suit and blue tie is sitting and holding a tablet, looking at it and talking to a man and a woman. The man is wearing a plaid shirt and the woman is wearing a brown sweater. They are in a modern office setting with large windows in the background. The entire image has a green overlay.

The Advantage of Working with Us

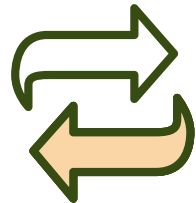
Why Fidelity



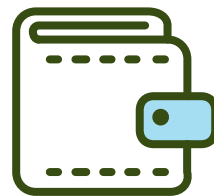
WE BELIEVE IN MAKING THE COMPLEX, SIMPLER



Planning
and Advice



Trading



Straightforward
Pricing



Expert Insights
and Investing
Tools



Security and
Protection

Important additional information



Investing involves risk, including risk of loss.

\$0.00 commission applies to online U.S. equity trades, exchange-traded funds (ETFs), and options (+ \$0.65 per contract fee) in a Fidelity retail account only for Fidelity Brokerage Services LLC retail clients. Sell orders are subject to an activity assessment fee (from \$0.01 to \$0.03 per \$1,000 of principal). There is an Options Regulatory Fee that applies to both option buy and sell transactions. The fee is subject to change. Other exclusions and conditions may apply. See [Fidelity.com/commissions](https://www.fidelity.com/commissions) for details. Employee equity compensation transactions and accounts managed by advisors or intermediaries through Fidelity Institutional® are subject to different commission schedules.

Options trading entails significant risk and is not appropriate for all investors. Certain complex options strategies carry additional risk. Before trading options, please read Characteristics and Risks of Standardized Options. Supporting documentation for any claims, if applicable, will be furnished upon request.

Fidelity now offers the Fidelity ZERO Total Market Index Fund (FZROX), Fidelity ZERO International Index Fund (FZILX), Fidelity ZERO Large Cap Index Fund (FNILX), and Fidelity ZERO Extended Market Index Fund (FZIPX) available to individual retail investors who purchase their shares through a Fidelity brokerage account.

Zero account minimums and zero account fees apply to retail brokerage accounts only. Expenses charged by investments (e.g., funds, managed accounts, and certain HSAs), and commissions, interest charges, or other expenses for transactions, may still apply. See [Fidelity.com/commissions](https://www.fidelity.com/commissions) for further details.

Other fees and expenses may also apply to straight forward pricing.

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.

Disclosures



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.

References to specific securities are for illustrative purposes only and should not be construed as recommendations or investment advice.

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.

Diversification does not ensure a profit or guarantee against loss.

1. (from page 27) 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 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.

Past performance is no guarantee of future results.

Disclosures



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 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 Emerging Market Bond Index is an unmanaged index that tracks total returns for external-currency-denominated debt instruments of the emerging markets.

Bloomberg 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 U.S. TIPS Index is an unmanaged index that consists of inflation-protected securities issued by the U.S. Treasury.

Bloomberg 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.

The Bloomberg U.S. Mortgage Backed Securities (MBS) Index tracks agency mortgage backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage. Introduced in 1985, the GNMA, FHLMC and FNMA fixed-rate indices for 30- and 15-year securities were backdated to January 1976, May 1977, and November 1982, respectively. In April 2007, agency hybrid adjustable-rate mortgage (ARM) pass-through securities were added to the index.

Bloomberg U.S. Aggregate Index is an unmanaged index that tracks domestic investment-grade bonds, including corporate, government, and mortgage-backed securities.

Bloomberg 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.

The Bloomberg Municipal Bond Index is an unmanaged market value-weighted index of investment-grade municipal bonds with maturities of one year or more.

BofA Merrill Lynch US High Yield Master II Index tracks the performance of US dollar denominated below investment grade rated corporate debt publicly issued in the US domestic market. Each security must have greater than 1 year of remaining maturity, a fixed coupon schedule, and a minimum amount outstanding of \$100 million.

The S&P 500® is an unmanaged market value-weighted index including 500 leading companies and captures approximately 80% coverage of available market capitalization.

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Before investing, consider the funds' investment objectives, risks, charges, and expenses. Contact Fidelity for a prospectus or, if available, a summary prospectus containing this information. Read it carefully.

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

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Thank you for attending.



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