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By American Century Investments®

The Current State of the Fixed Income Market

August 20, 2024

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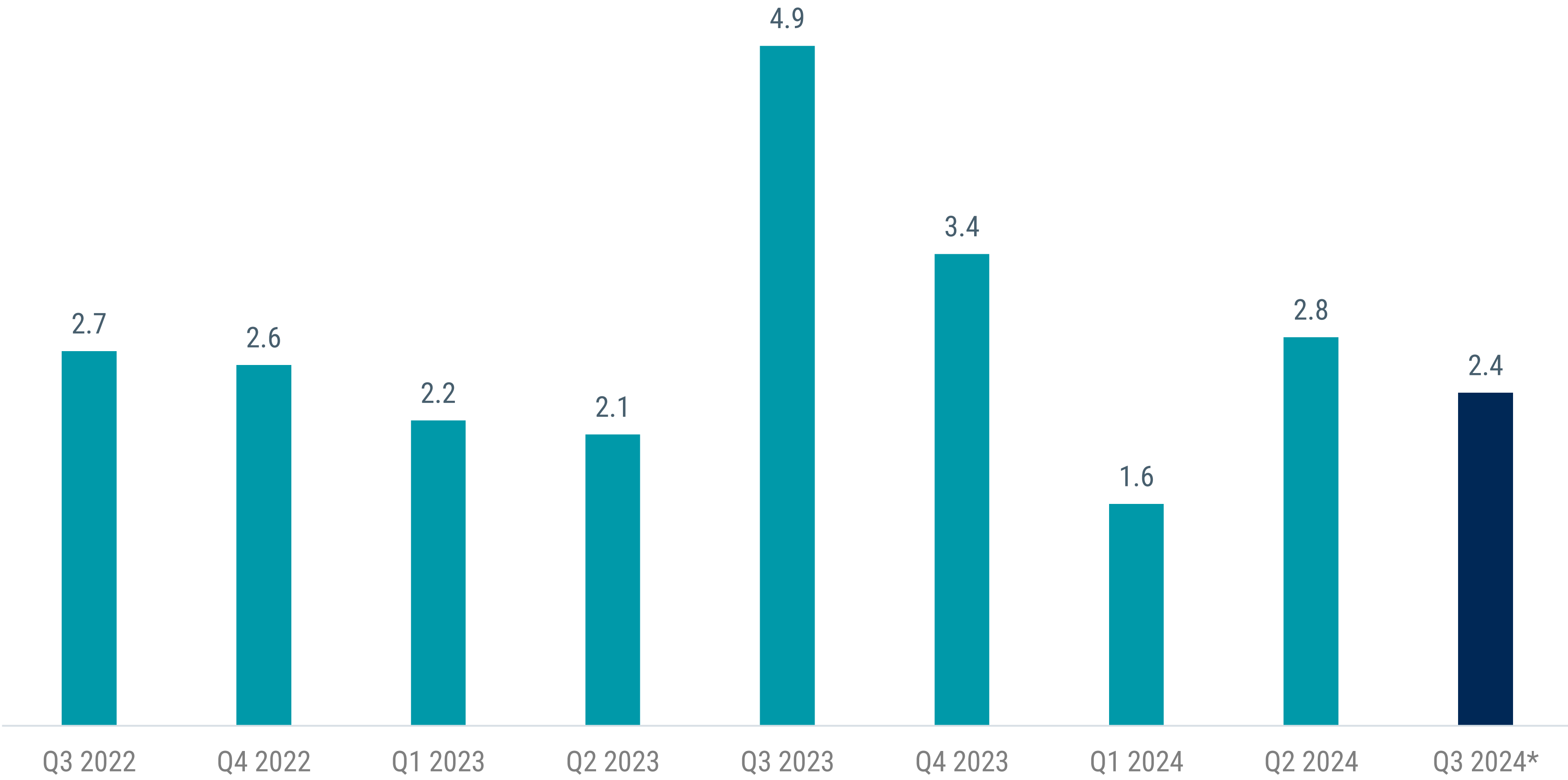
Recent/Estimated GDP Growth Remain Stable

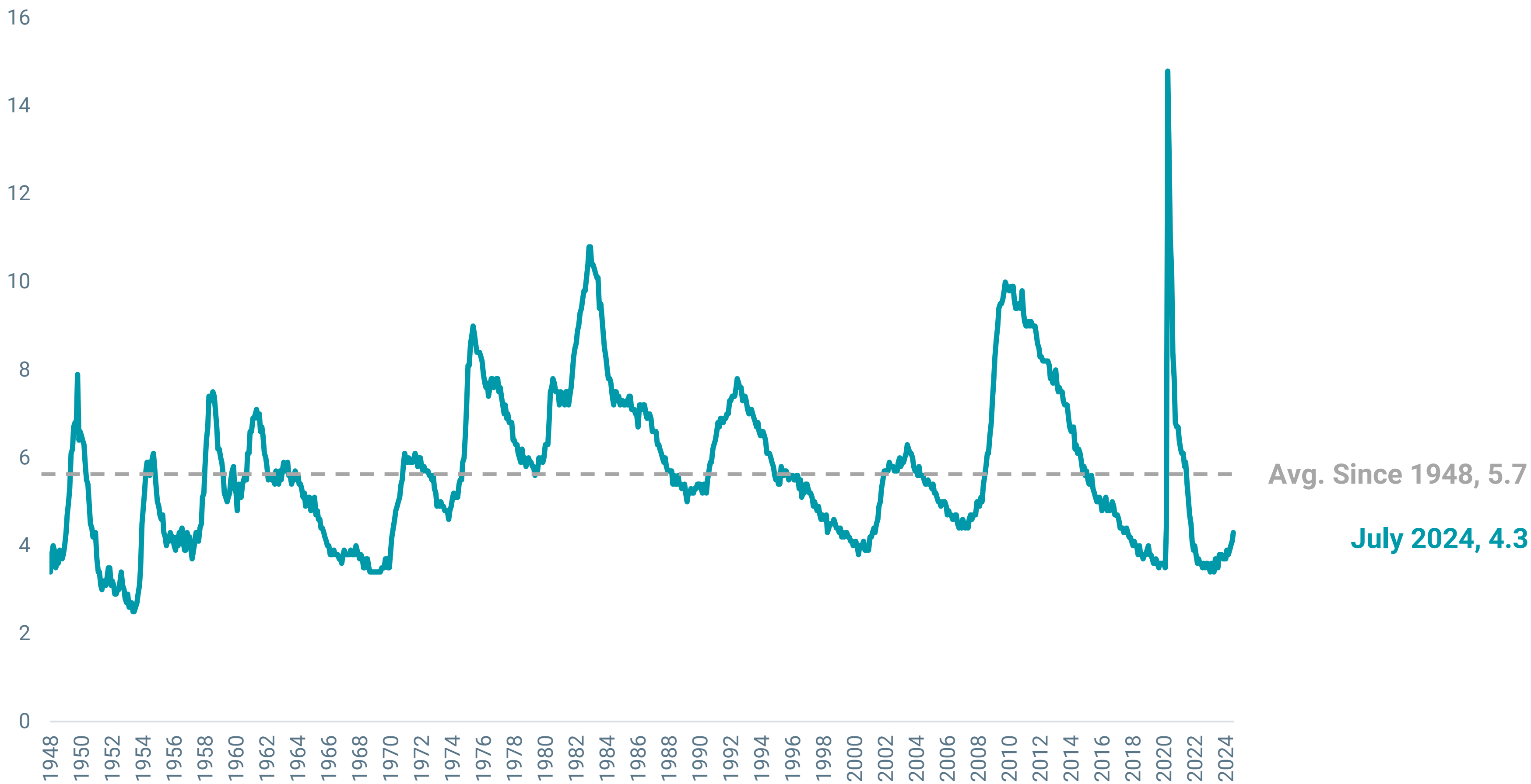
Quarterly US GDP Growth (%)



Source: Bloomberg. Data as of 8/15/2024.
* Estimate as of 8/6/2024 from Atlanta Fed GDPNow.

Current Unemployment Still Below the Long-Term Average

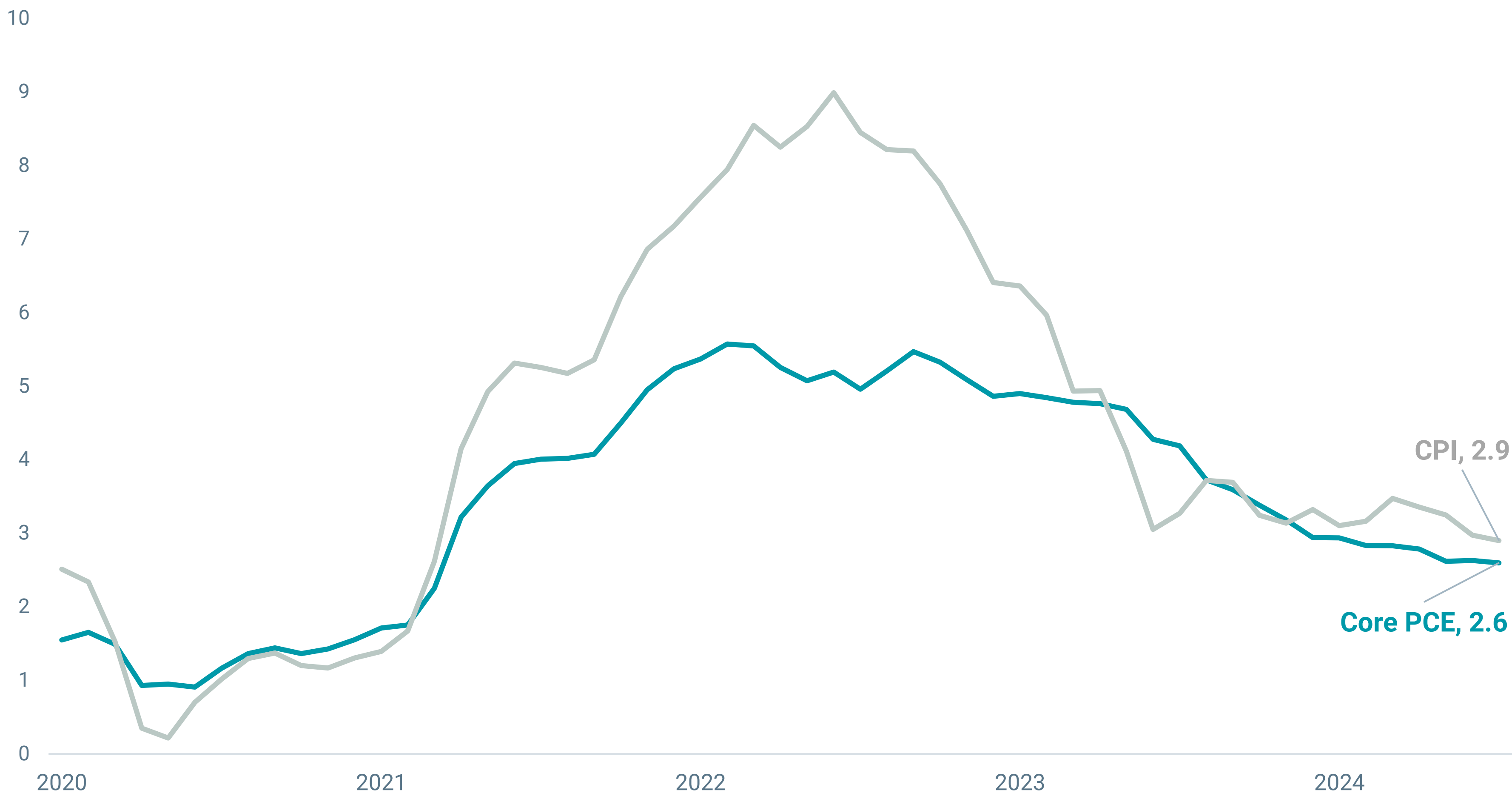
U.S. Unemployment Rate (January 1948 – July 2024, %)



Source: FRED. Data from 1/1/1948 – 7/31/2024.

Inflation Has Moderated

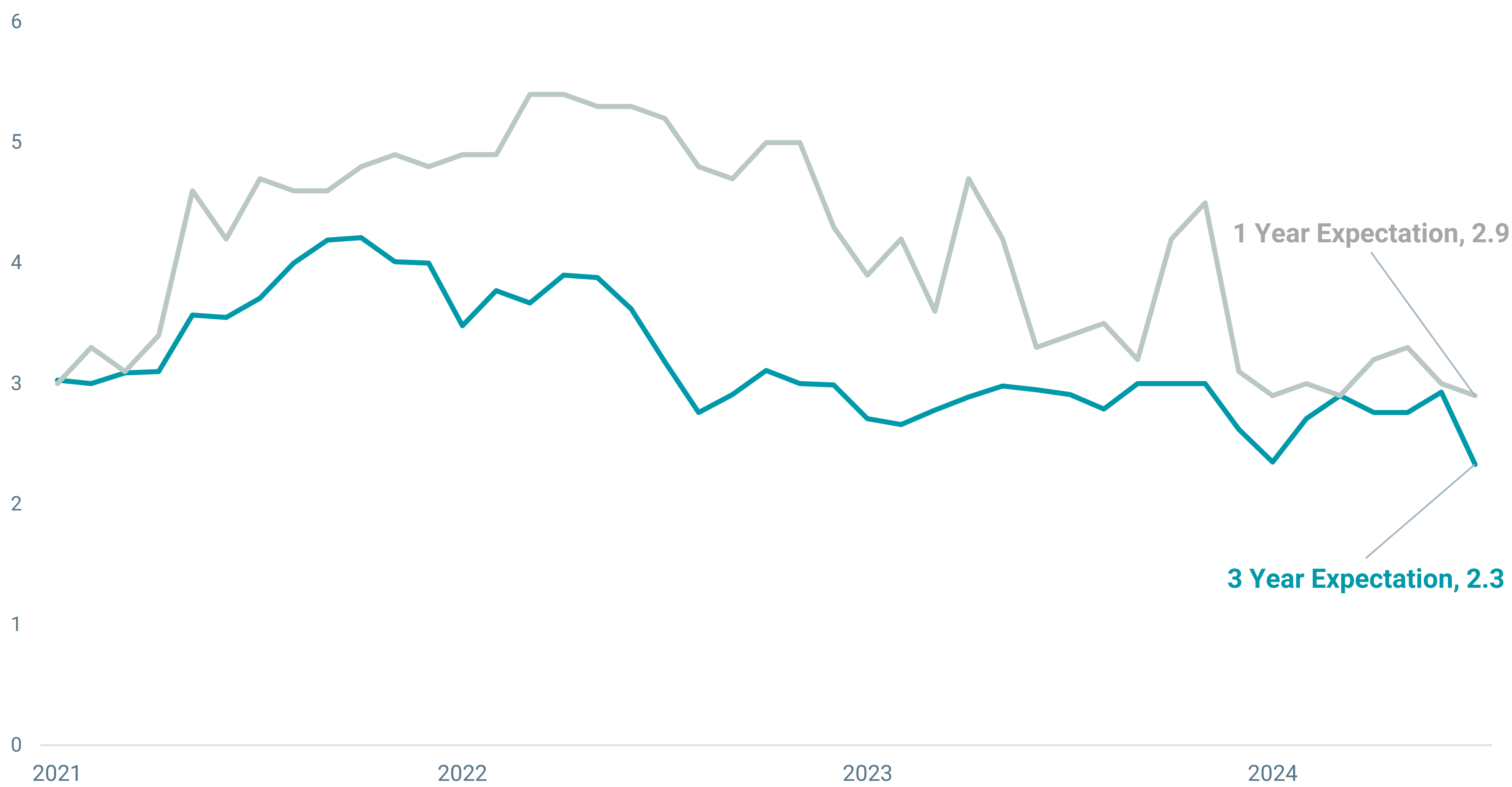
Year-over-Year CPI and Core PCE (January 2021-July 2024, %)



Source: Bloomberg. Data from January 2021 – July 2024.

Consumer Inflation Expectations Have Also Declined

Forward Consumer Inflation Expectations (January 2021-July 2024, %)



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Source: 1 Year Expectation is the median one-year expected change in prices from the University of Michigan. 3 Year Expectation is the median three-year expected change in prices from the Federal Reserve Bank of New York.

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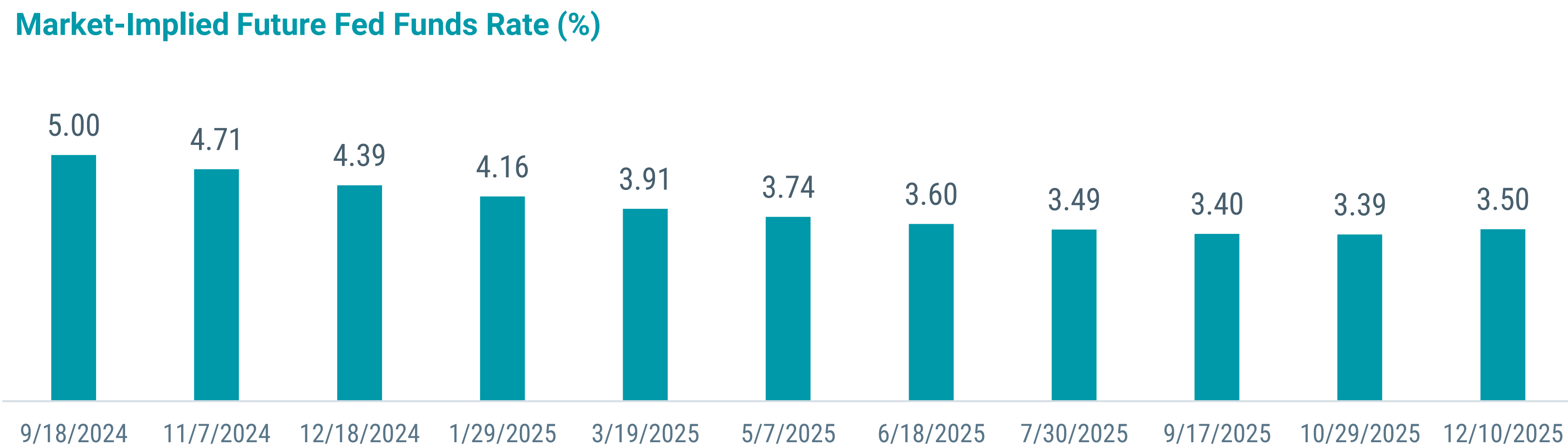
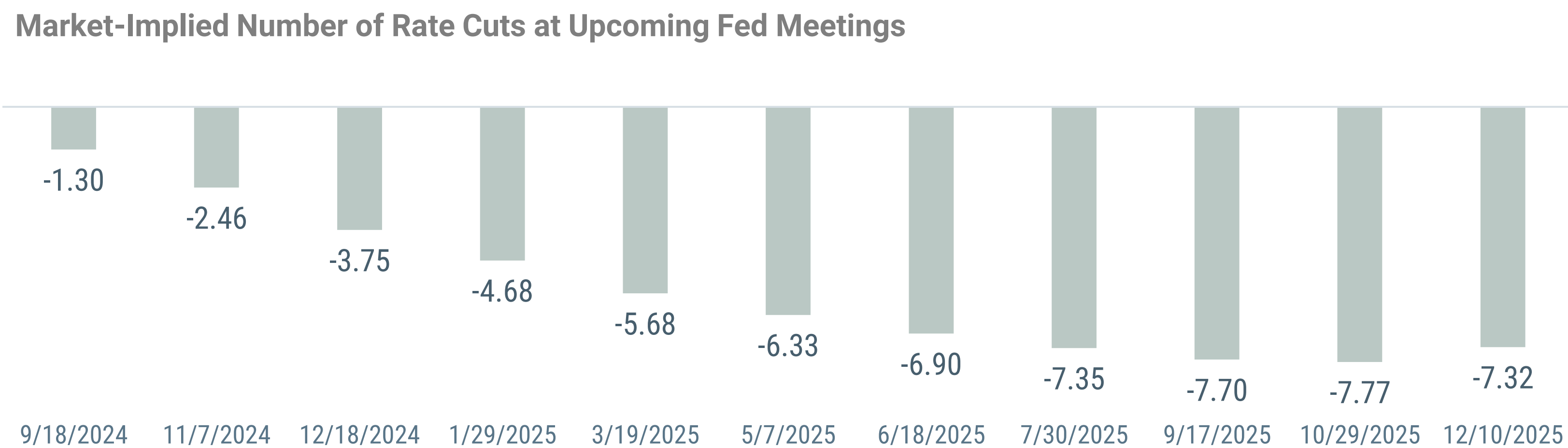
Market Expectations for the Fed Funds Rate Have Changed Quickly

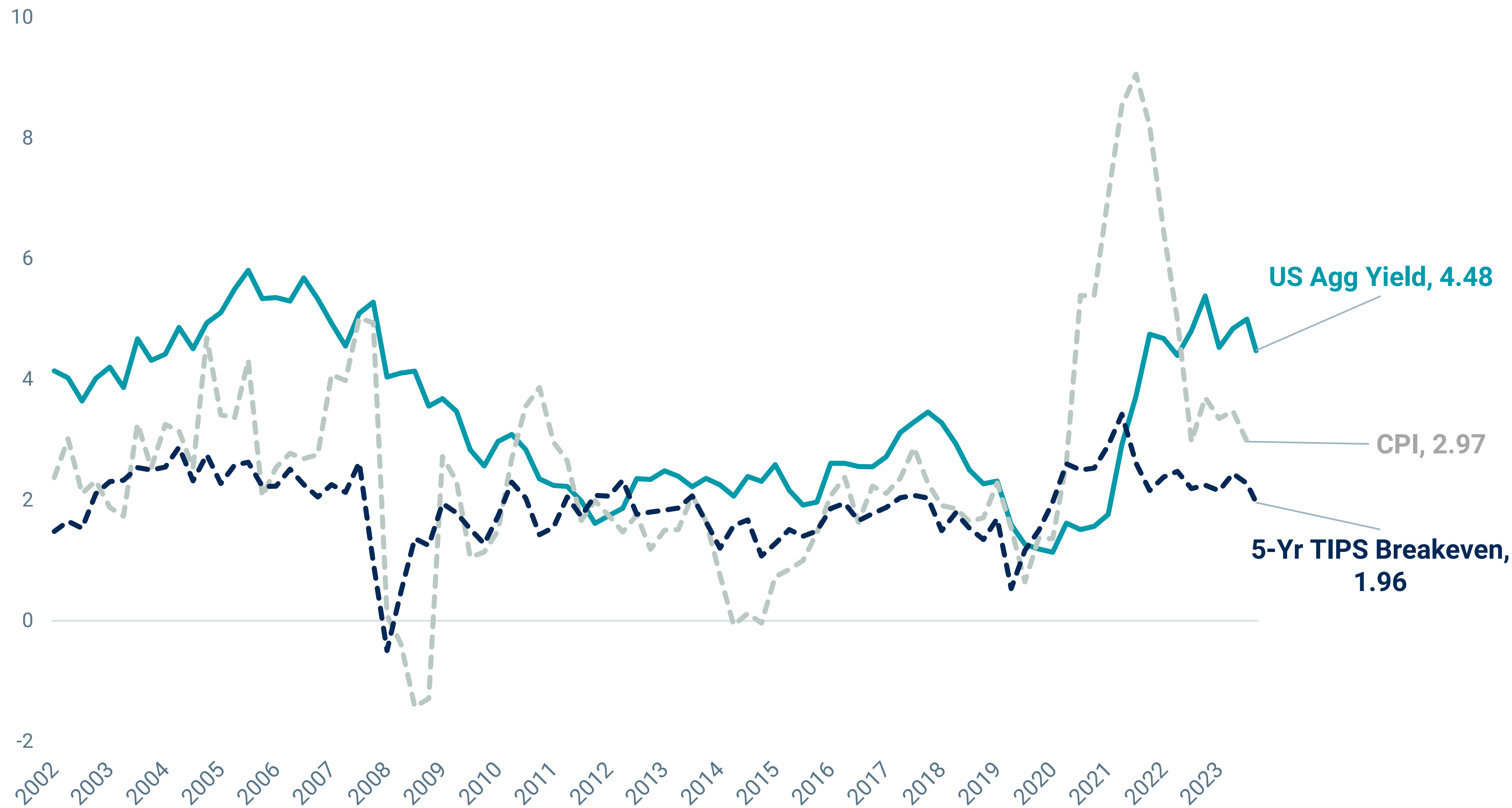




Source: Bloomberg. Data as of 8/15/2024.

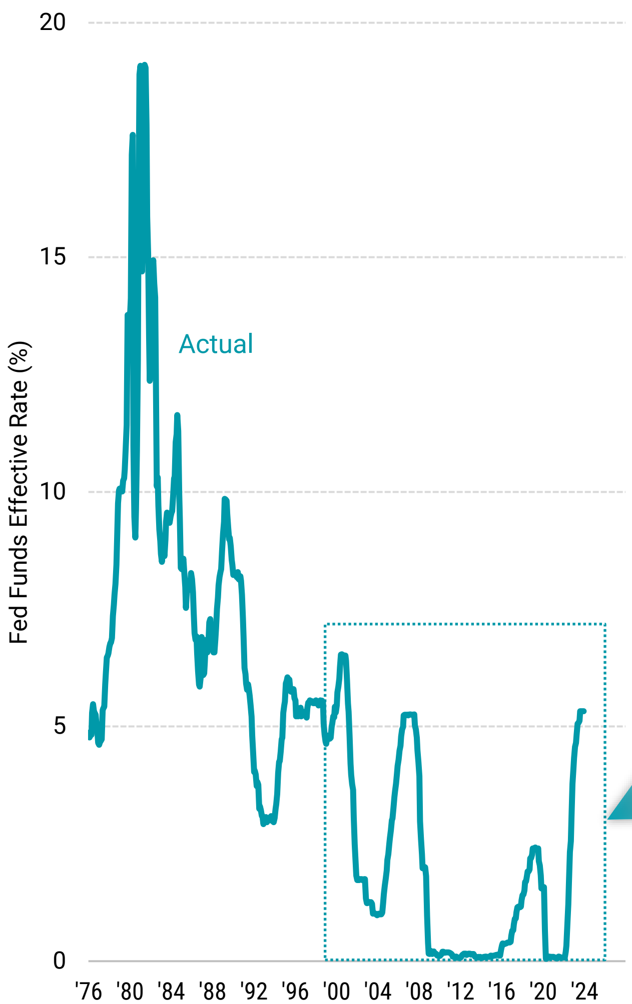
Bond Market Yield Versus Inflation Measures

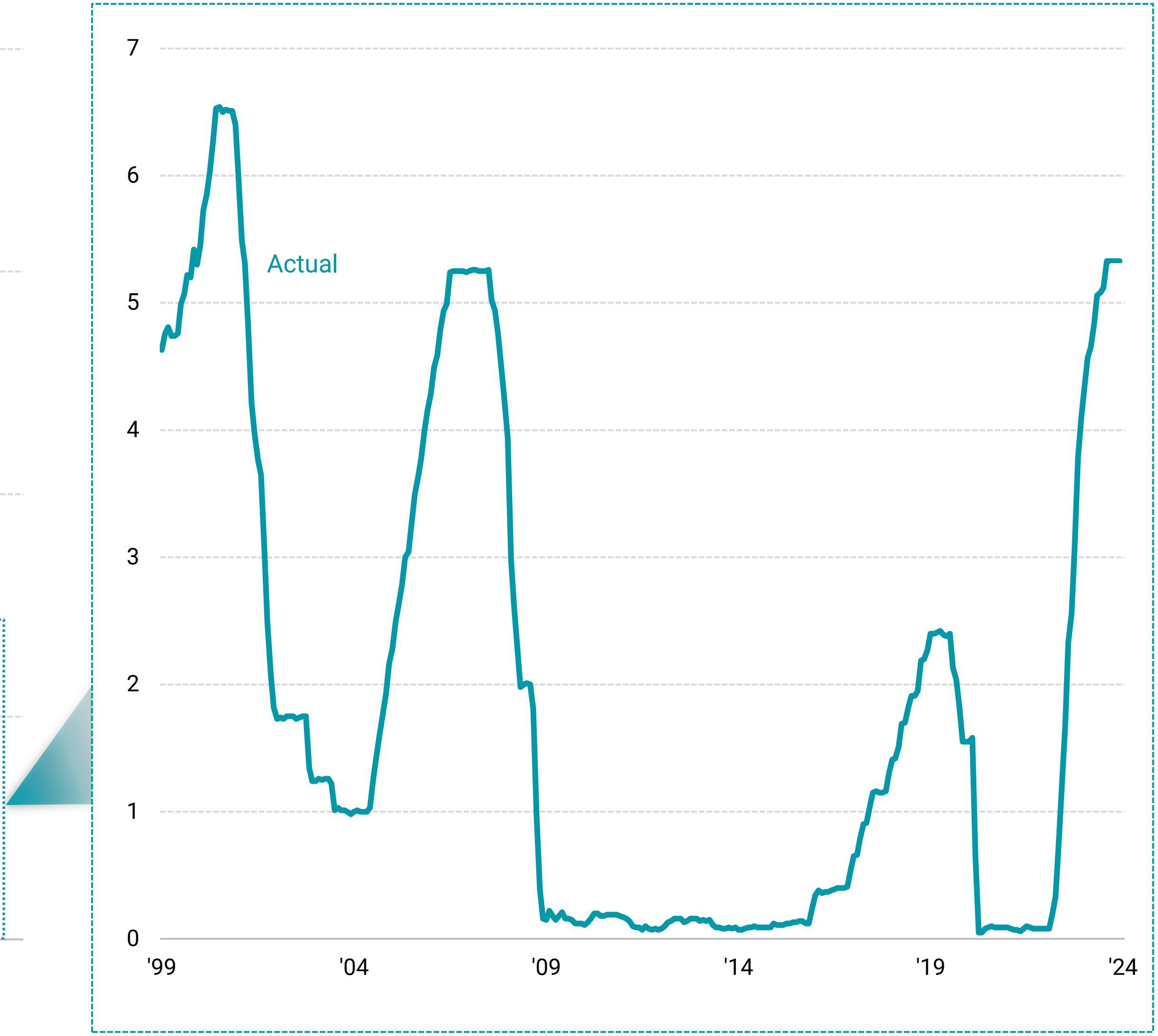
Bloomberg US Agg Index Yield vs. Inflation Measures (January 2002-August 2024, %)



Data from 12/31/2022 – 8/13/2024. Source: Bloomberg

When Rates Move, They Can Move Fast





Fed fund effective rate data from 1/1/1976-12/31/2023. Source: FRED.

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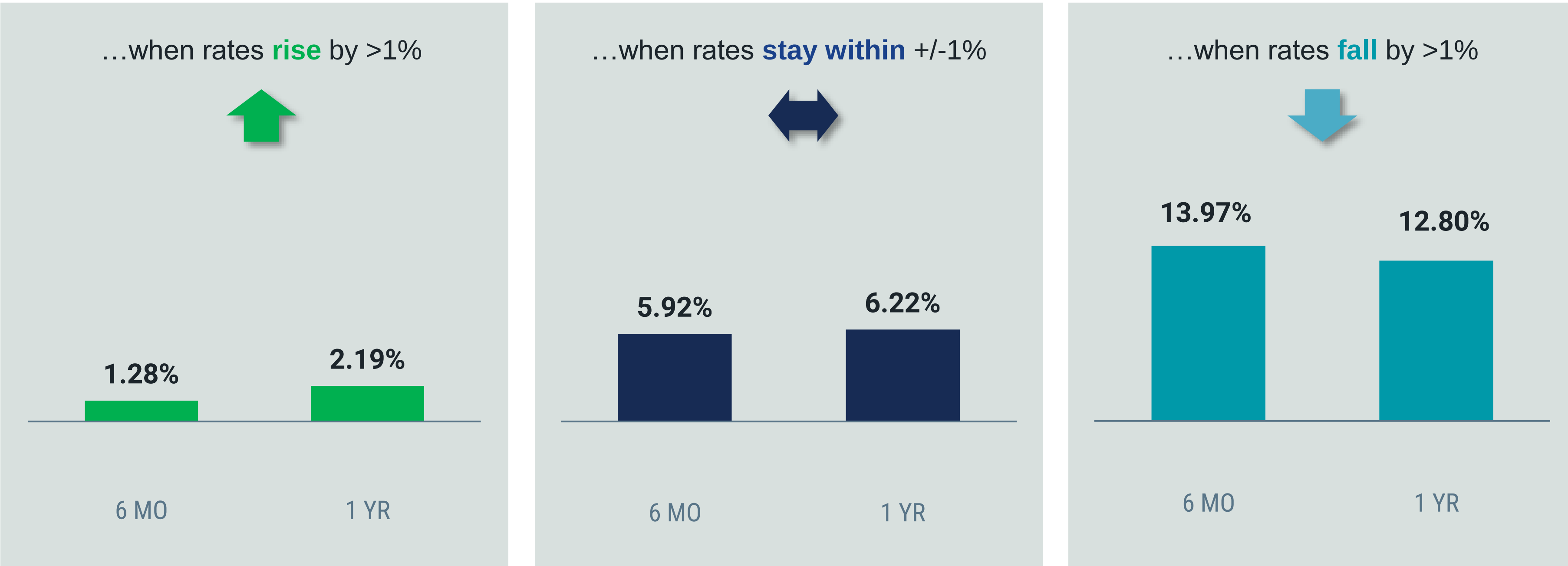
How Have Core Bonds Performed in Different Interest Rate Environments?

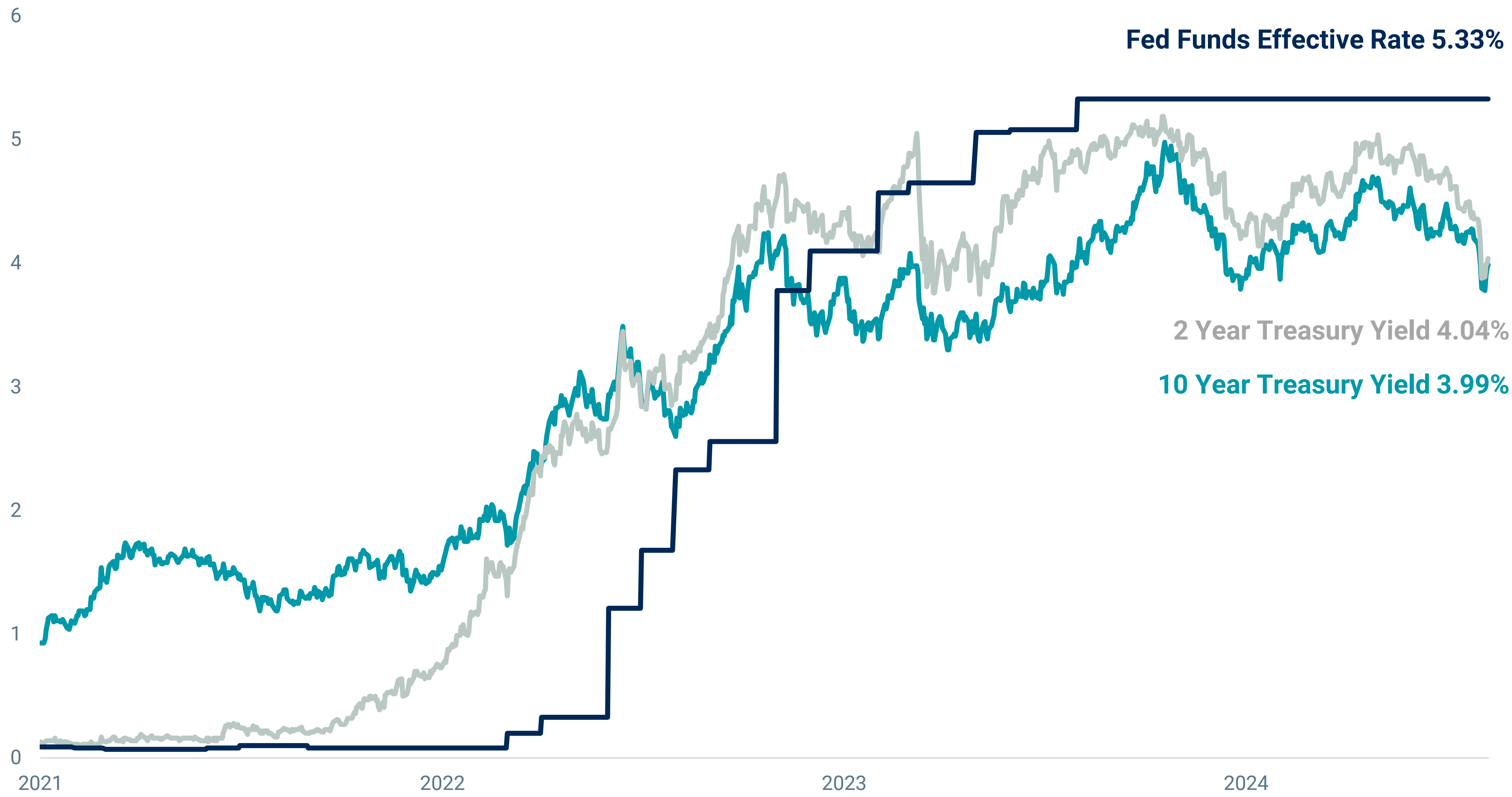
Bloomberg US Aggregate Bond Index Annualized Average Returns from 1976 through 2023



Meaningfully higher when the fed funds rate falls by more than 1% over 6 months or 1 year

Data from 1/1/1976-12/31/2023. Source: Avantis Investors, Bloomberg, FRED. Number of six-month and one-year periods when rates rise by >1% are 96 and 144, when rates stay within +/- 1% are 372 and 286, and when rates fall by >1% are 102 and 134, respectively.
Past performance is no guarantee of future results.

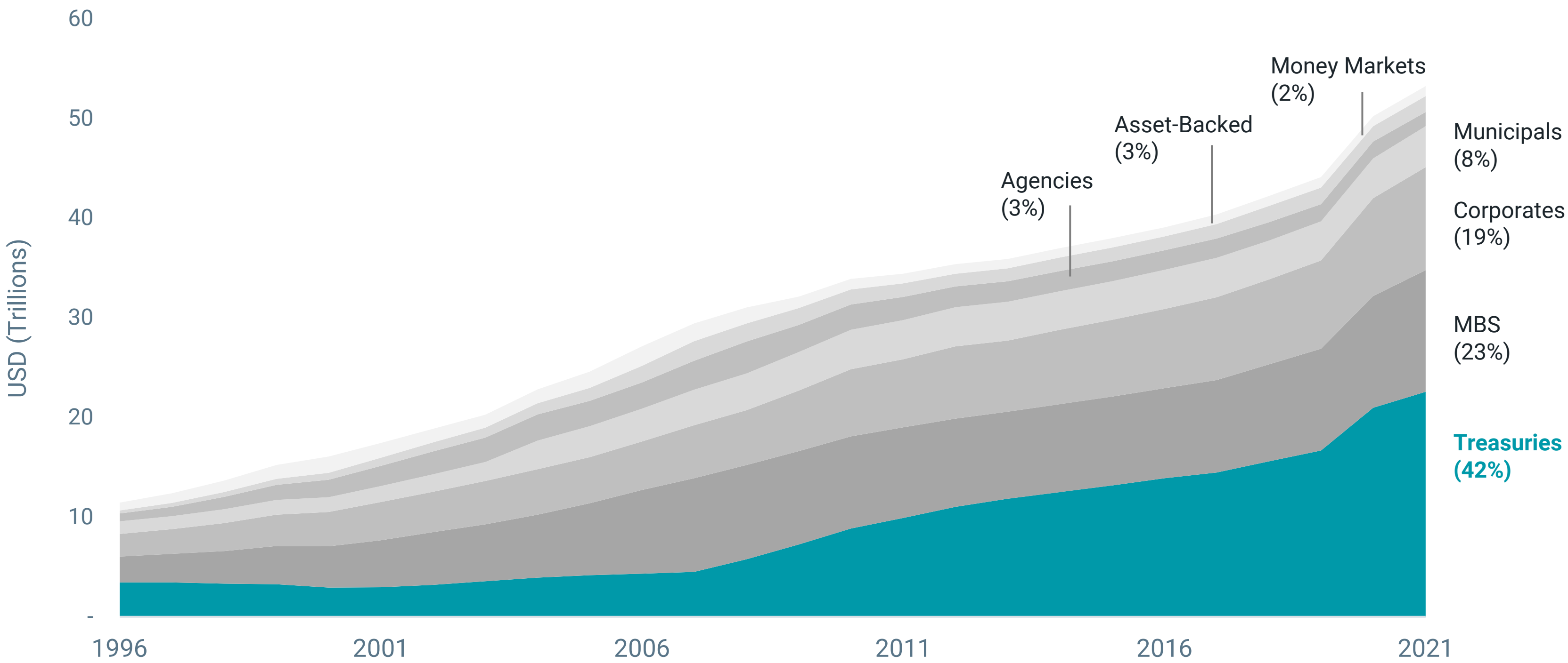
Treasury Yields Have Declined Ahead of Expected Rate Cuts



Source: FRED. Data from 1/1/2021 – 8/8/2024.

Treasuries Today Make Up More of the Market

Indexes allocate the highest weight to issuers with the largest amount of outstanding debt. That typically means holding 40+% in Treasury bonds and much less in corporates without any consideration for expected returns.

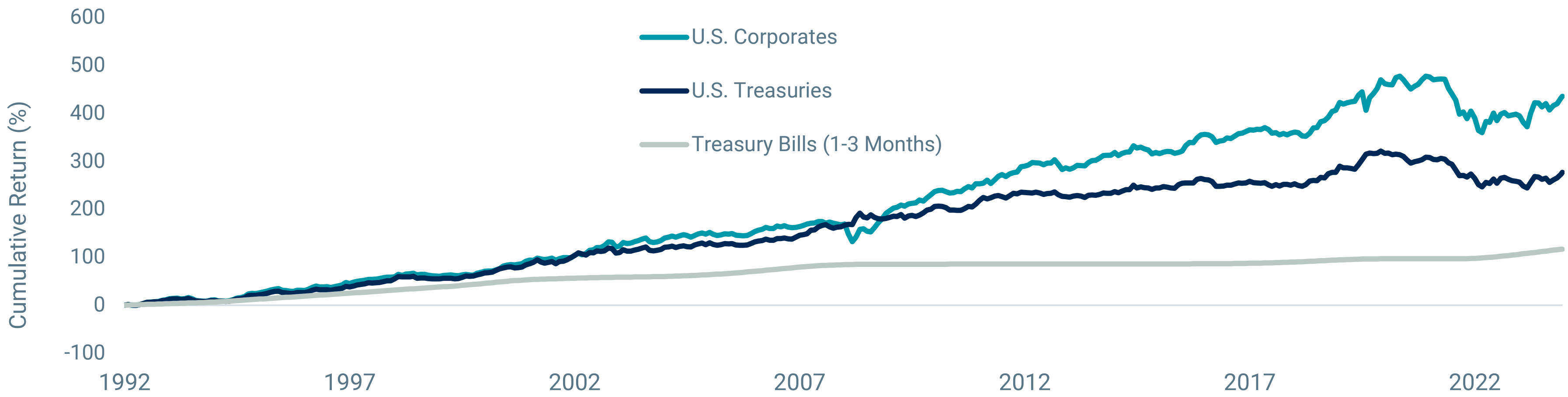


Data from 12/31/1996 – 12/31/2021. Source: SIFMA.

We Should Consider Diversification Levels

Investment grade corporates have historically offered higher growth potential than Treasuries without meaningfully increasing default risk.

Corporates and Longer Duration Bonds Across Sectors Have Historically Outperformed T-Bills



Investment Grade Corporates Have Historically Had Low Default Rates

	Investment Grade				High Yield		
	AAA	AA	A	BBB	BB	B	CCC/C
Average Annual Default Rate (%)	0.00	0.01	0.05	0.19	0.86	4.19	24.92
Maximum Annual Default Rate (%)	0.42				11.05		

Chart 1:Data from 8/31/1992 - 8/12/2024. Source: Morningstar. U.S. Corporates, U.S. Treasuries and Treasury Bills (1-3 Months) are represented by the Bloomberg U.S. Corporate Bond Index, the Bloomberg U.S. Treasury Index and the Bloomberg U.S. 1-3 Month Treasury Bill Index, respectively. Chart 2: Data from 1981 – 2020. Source: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

We Should Consider Expected Returns

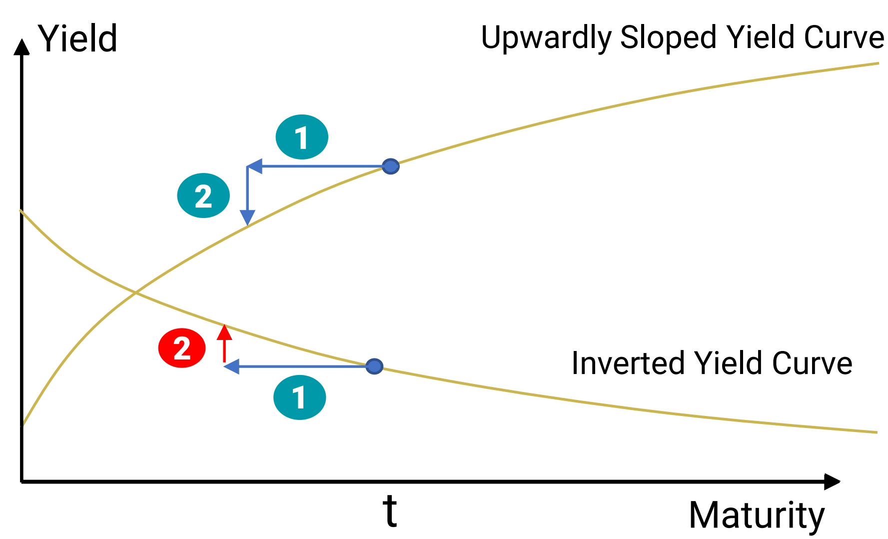
Buying all bonds and weighting by outstanding debt means holding both higher and lower expected return bonds. If the goal is higher expected returns, we need to consider that in how we select and weight bonds.

Expected returns for a holding period: upwardly sloped curve

1. Income/Yield
2. Capital appreciation

Expected returns for a holding period: inverted curve

1. Income/Yield
2. Capital depreciation

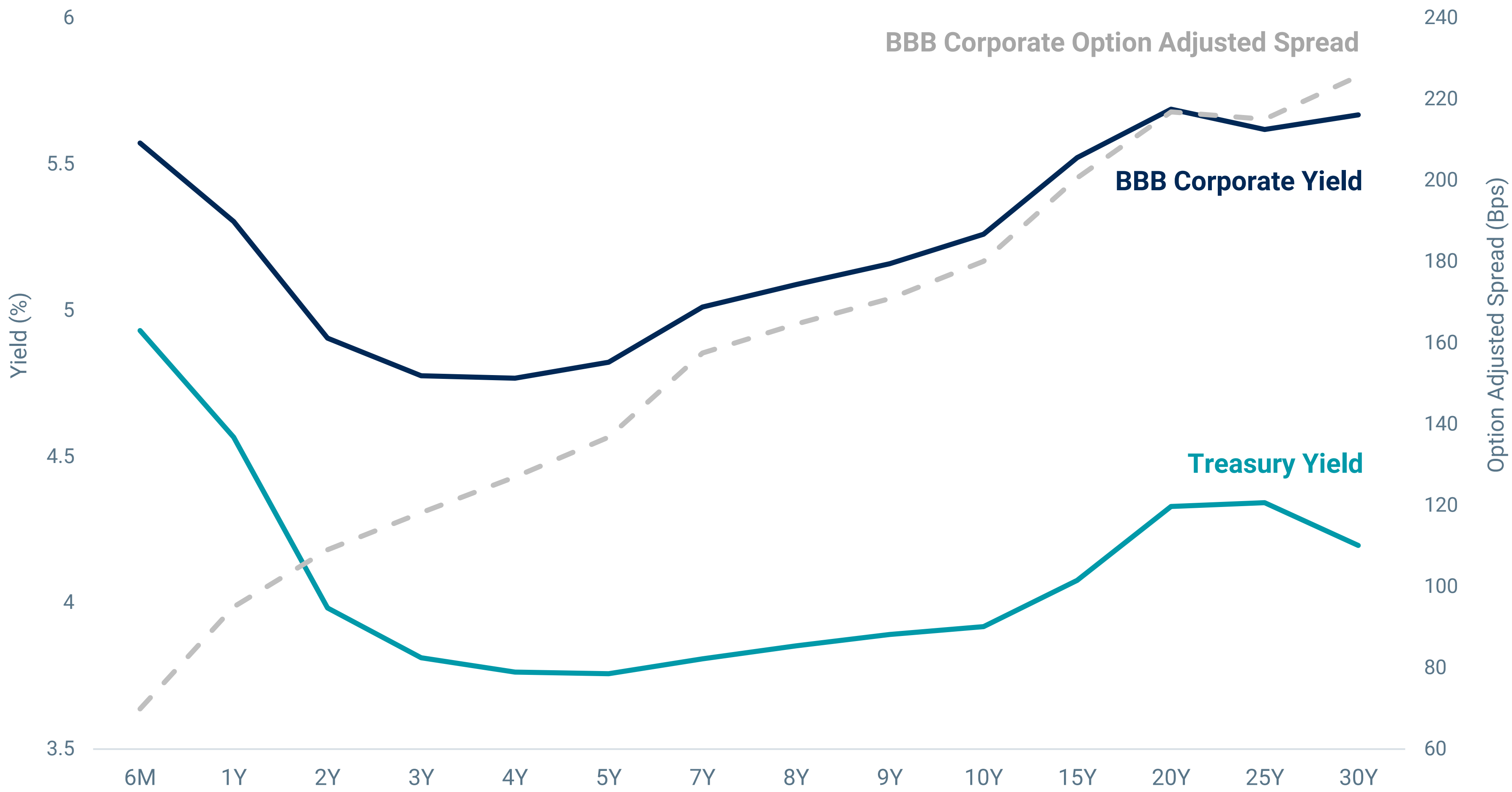


Aggregate Credit Spreads Don't Provide a Complete Picture

Investment Grade Corporate Option Adjusted Spread (August 2014 –August 2024)

Source: Bloomberg, based on the ICE BoA US Corporate Index. Data from 8/14/2014 – 8/14/2024.

Current Treasury and Corporate Yield Curves



An Alternative Approach

Indexing	Systematic Approach
+ Transparent, well-diversified and low fee	+ Transparent, well-diversified and low fee

We can achieve many of the benefits of indexing while seeking better outcomes by considering diversification levels, using current information on expected returns, and not blindly allocating to all bonds based on debt issuance.

An Alternative Approach

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+ Transparent, well-diversified and low fee	+ Transparent, well-diversified and low fee
- Allocate the highest weight to companies with the largest amount of outstanding debt	+ Allocate based on contribution to expected returns and risk management

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+ Transparent, well-diversified and low fee	+ Transparent, well-diversified and low fee
- Allocate the highest weight to companies with the largest amount of outstanding debt	+ Allocate based on contribution to expected returns and risk management
- Buy new issues and hold until maturity or close to maturity to allow for simple replication	+ Use current information about expected returns to make portfolio management decisions

We can achieve many of the benefits of indexing while seeking better outcomes by considering diversification levels, using current information on expected returns, and not blindly allocating to all bonds based on debt issuance.

General Disclosures

Investment return and principal value of security investments will fluctuate. The value at the time of redemption may be more or less than the original cost. Past performance is no guarantee of future results.

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Diversification does not assure a profit nor does it protect against loss of principal.

[1] Our philosophy is based on the idea that paying less for an expected stream of cash flows or the equity of a company should produce higher expected returns. Our systematic, repeatable and cost-efficient process uniquely designed for Avantis Investors is actively implemented to deliver diversified portfolios expected to harness these higher expected returns.