2023 Market Preview

Overview

2022 returns

2022 YTD	2021	2020	2019	2018	2017	2016	2015	2014	2013	5yr	10yr
Commodities 26.0%	Commodities 40.4%	Broad U.S. Equities 20.9%	Large Cap 31.5%	Real Estate 6.7%	Emerging Markets 37.3%	Small Cap 21.3%	Real Estate 13.3%	Large Cap 13.7%	Small Cap 38.8%	Large Cap 9.4%	Large Cap 12.6%
Real Estate* 9.4%	Large Cap 28.7%	Small Cap 20.0%	Broad U.S. Equities 31.0%	Hedge Funds 4.8%	Intl Small Cap 33.0%	High Yield 17.1%	Intl Small Cap 9.6%	Mid Cap 13.2%	Mid Cap 34.8%	Broad U.S. Equities 8.8%	Broad U.S. Equities 12.1%
Bank Loans -1.1%	Broad U.S. Equities 25.7%	Large Cap 18.4%	Mid Cap 30.5%	Bank Loans 1.1%	Broad Intl Equities 27.2%	Mid Cap 13.8%	Large Cap 1.4%	Broad U.S. Equities 12.6%	Broad U.S. Equities 33.6%	Real Estate 8.6%	Mid Cap 11.0%
Hedge Funds -4.3%	Mid Cap 22.6%	Emerging Markets 18.3%	Small Cap 25.5%	Core Bond 0.0%	Intl Large Cap 25.0%	Broad U.S. Equities 12.7%	Core Bond 0.5%	Real Estate 11.8%	Large Cap 32.4%	Mid Cap 7.1%	Real Estate 9.5%
High Yield -11.2%	Real Estate 17.7%	Mid Cap 17.1%	Intl Small Cap 25.0%	High Yield -2.1%	Large Cap 21.8%	Large Cap 12.0%	Broad U.S. Equities 0.5%	Core Bond 6.0%	Intl Small Cap 29.3%	Commodities 6.5%	Small Cap 9.0%
Core Bond -13.0%	Small Cap 14.8%	Intl Small Cap 12.3%	Intl Large Cap 22.0%	Large Cap -4.4%	Broad U.S. Equities 21.1%	Commodities 11.4%	Bank Loans -0.4%	Small Cap 4.9%	Intl Large Cap 22.8%	Hedge Funds 4.7%	Intl Small Cap 6.2%
Intl Large Cap -14.5	Intl Large Cap 11.3%	Hedge Funds 11.8%	Broad Intl Equities 21.5%	Broad U.S. Equities -5.2%	Mid Cap 18.5%	Emerging Markets 11.2%	Intl Large Cap -0.8%	Hedge Funds 3.0%	Broad Intl Equities 15.3%	Small Cap 4.1%	Hedge Funds 4.9%
Broad Intl Equities -16.0%	Hedge Funds 10.2%	Broad Intl Equities 10.7%	Emerging Markets 18.4%	Mid Cap -9.1%	Small Cap 14.6%	Bank Loans 9.9%	Hedge Funds -1.1%	High Yield 2.5%	Real Estate 11.0%	Bank Loans 3.2%	Intl Large Cap 4.7%
Mid Cap -17.3%	Intl Small Cap 10.1%	Intl Large Cap 7.8%	Commodities 17.6%	Small Cap -11.0%	Hedge Funds 8.6%	Real Estate 8.0%	Mid Cap -2.4%	Bank Loans 2.1%	Hedge Funds 9.1%	High Yield 2.3%	High Yield 4.0%
Large Cap -18.1%	Broad Intl Equities 7.8%	Core Bond 7.5%	High Yield 14.3%	Intl Large Cap -13.8%	High Yield 7.5%	Hedge Funds 5.4%	Small Cap -4.4%	Emerging Markets -2.2%	High Yield 7.4%	Intl Large Cap 1.5%	Broad Intl Equities 3.8%
Broad U.S. Equities -19.2%	Bank Loans 5.4%	High Yield 7.1%	Hedge Funds 10.5%	Commodities -13.8%	Real Estate 7.0%	Broad Intl Equities 4.5%	High Yield -4.5%	Broad Intl Equities -3.9%	Bank Loans 6.2%	Broad Intl Equities 0.9%	Bank Loans 3.8%
Emerging Markets -20.1%	High Yield 5.3%	Bank Loans 2.8%	Core Bond 8.7%	Broad Intl Equities -14.2%	Commodities 5.8%	Core Bond 2.6%	Broad Intl Equities -5.7%	Intl Large Cap -4.9%	Commodities -1.2%	Core Bond 0.0%	Emerging Markets 1.4%
Small Cap -20.4%	Core Bond -1.5%	Real Estate 1.6%	Bank Loans 8.2%	Emerging Markets -14.6%	Bank Loans 4.2%	Intl Small Cap 2.2%	Emerging Markets -14.9%	Intl Small Cap -4.9%	Core Bond -2.0%	Intl Small Cap 0.0%	Core Bond 1.1%
Intl Small Cap -21.4%	Emerging Markets -2.5%	Commodities -23.7%	Real Estate 6.4%	Intl Small Cap -17.9%	Core Bond 3.5%	Intl Large Cap 1.0%	Commodities -32.9%	Commodities -33.1%	Emerging Markets -2.6%	Emerging Markets -1.4%	Commodities -3.3%

Source: Bloomberg as of December 31, 2022. *Real Estate is as of September 30, 2022. Please see end of document for benchmark information.

Asset class outlook

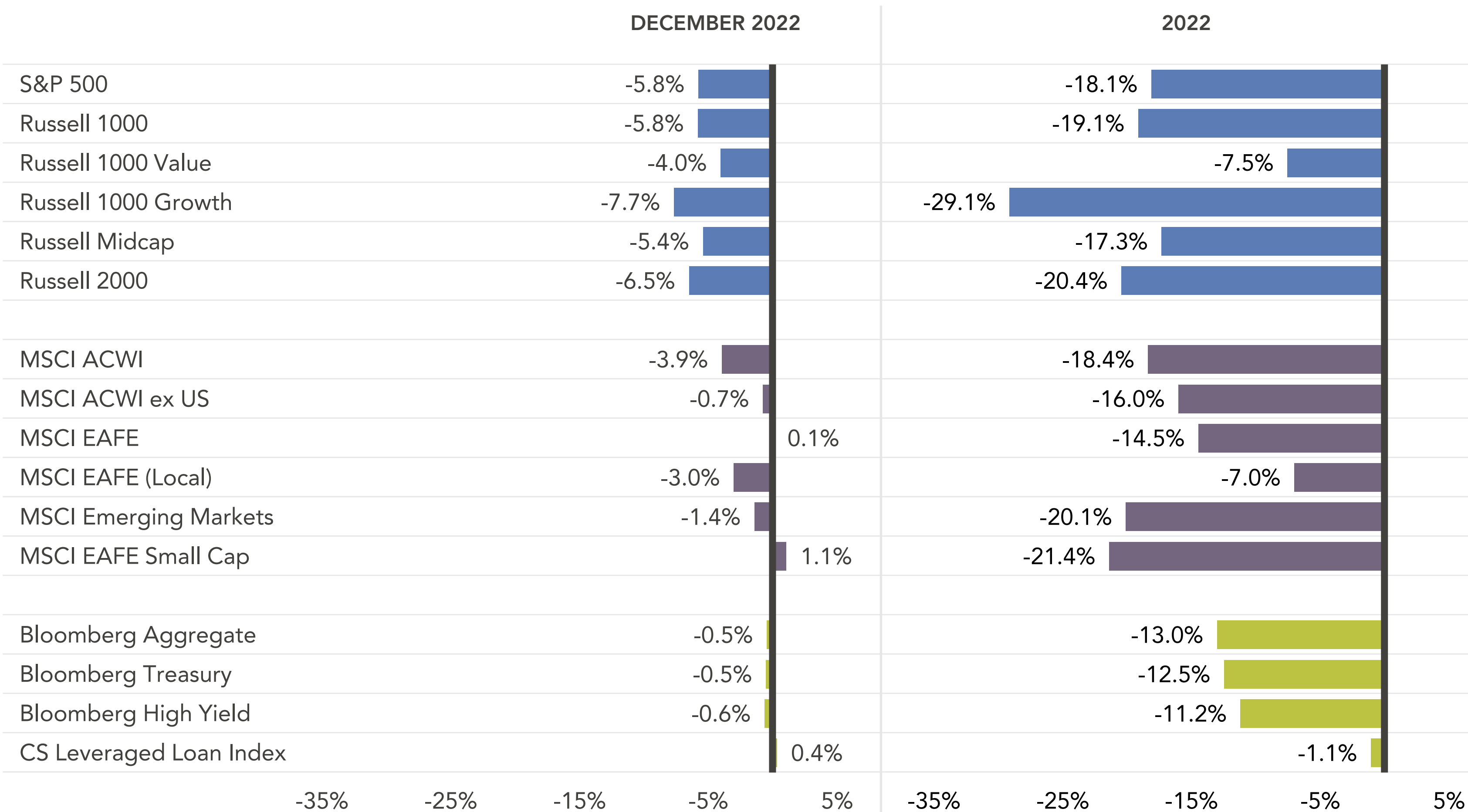
		CHANGE	HEADWINDS		NEUTRAL	TAILWINDS	
Fixed Income	Core bonds		□	□	□	■	□
	Bank loans	▼	□	□	■	□	□
	High yield		□	□	□	■	□
	EMD		□	□	■	□	□
U.S. Equities	Large-cap		□	□	■	□	□
	Mid-cap		□	□	■	□	□
	Small-cap		□	■	□	□	□
	Value		□	□	■	□	□
	Growth		□	■	□	□	□
Non-U.S. Equities	Developed large-cap	▲	□	□	■	□	□
	Developed small-cap	▲	□	□	■	□	□
	Emerging markets		□	□	■	□	□
Real Assets	Core real estate		□	■	□	□	□
	Value-add real estate	▼	□	□	■	□	□
	Infrastructure	▼	□	□	■	□	□
Hedge Funds	Equity long/short		□	□	□	■	□
	Credit		□	□	□	■	□
	VRP		□	□	■	□	□
Private Equity	Buyout		□	□	□	■	□
	Venture Capital		□	□	□	■	□
Private Credit	Direct lending		□	□	□	□	■
	Distressed/opportunistic		□	■	□	□	□

TAKEAWAYS

- **Fixed Income**: The all-in yield on the Bloomberg Aggregate remains attractive. Additional return may be realized if interest rates fall during a recession. Investment grade spreads have partially retraced the widening seen in 2022. With growing recession fears, deterioration in underlying quality makes loans less compelling.
- **U.S.**: The perceived safety of large-cap equities may support stocks early in the year as volatility persists. Attractive small-cap and value valuations may set the asset classes up well if the pace of interest rate hikes slows.
- **Non-U.S.**: Poor economic expectations may already be priced into forward-looking markets, though we expect volatility to remain. Potential tailwinds in 2023: historic valuation discount to the S&P 500, higher dividends than U.S. companies, a potential reversal of dollar strength as rate differentials narrow for developed markets.
- **Real Assets**: Continued rate hikes, declining transaction activity, and elevated debt costs will exert downward pressure on near-term real estate pricing. While lending is a short-term headwind for infrastructure, net zero initiatives and supportive legislative measures should support demand for asset class longer-term.
- **Hedge Funds**: Hedge funds can help preserve capital amid volatility and macro uncertainty. Market dispersion and positive returns on collateral improve the outlook for long/short managers. Credit managers are sourcing higher quality paper at attractive yields and preparing for an expanding opportunity set in stressed and distressed.
- **Private Equity:** Large private equity and late-stage venture valuations are most aligned with declining public market valuations. We expect valuations to continue to feel the impact of public market volatility, provided it persists, creating buying opportunities for those with dry powder to invest.
- **Private Credit:** Direct lending is attractive against the backdrop of increased inflation and rising rates, as most loans contain floating interest rates linked to LIBOR/SOFR. Investors benefit from a strong structure and yield premium relative to traditional fixed income. Distressed and opportunistic are challenged in the current market.

For illustration only, as of December 31, 2022. These views apply to a 6- to 12-month horizon; arrows in Change column represent change in view since last quarter. This summary of individual asset class views shows relative direction and strength of conviction but is independent of portfolio construction considerations. These views should not be construed as a recommended portfolio or investment advice. Past performance does not imply future returns.

Index summary



Source: Bloomberg as of December 31, 2022

Inflation continuing to ease

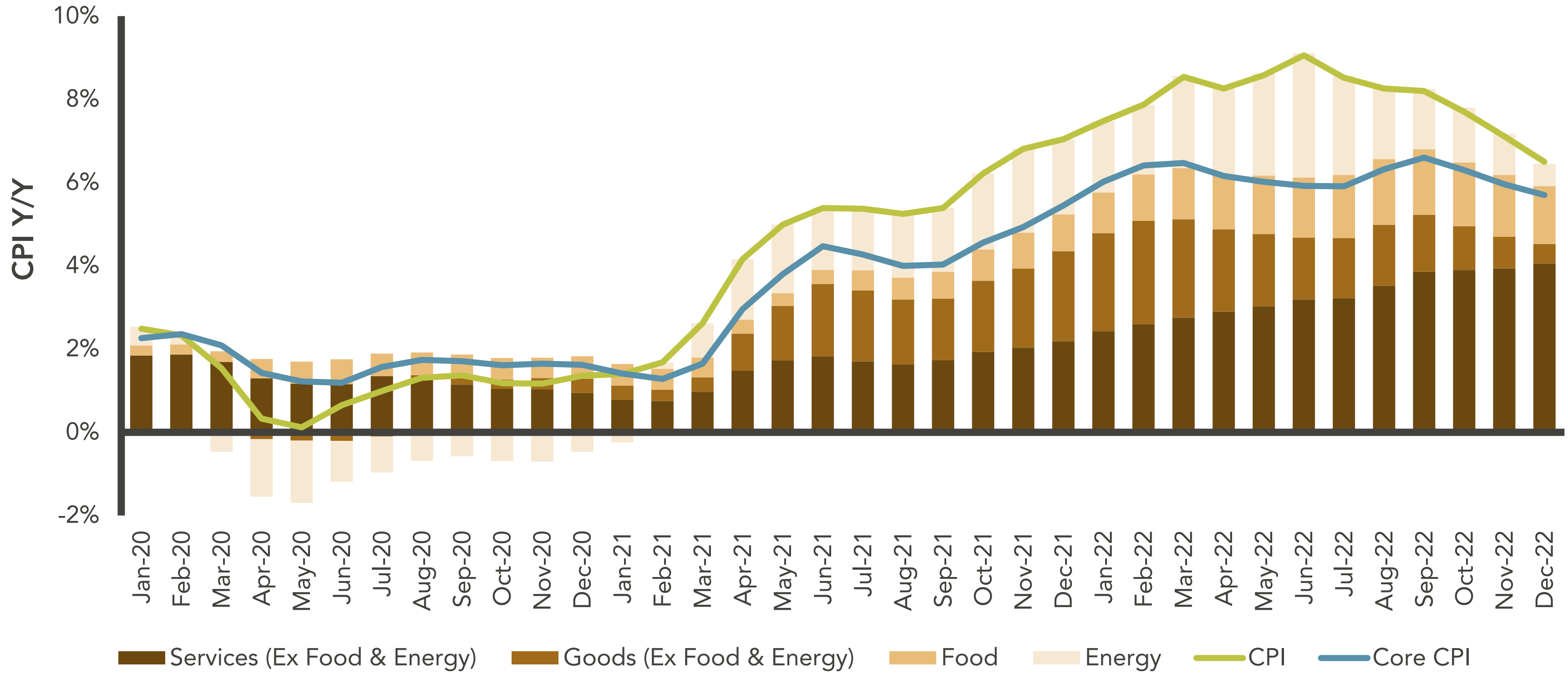
Year-over-year headline and core CPI continued to ease in December, though core CPI reaccelerated month-over-month, driven by shelter

Source: Bloomberg, Bureau of Labor Statistics, Federal Reserve Bank of St. Louis as of January 12, 2023

MarquetteAssociates

Contribution to headline CPI

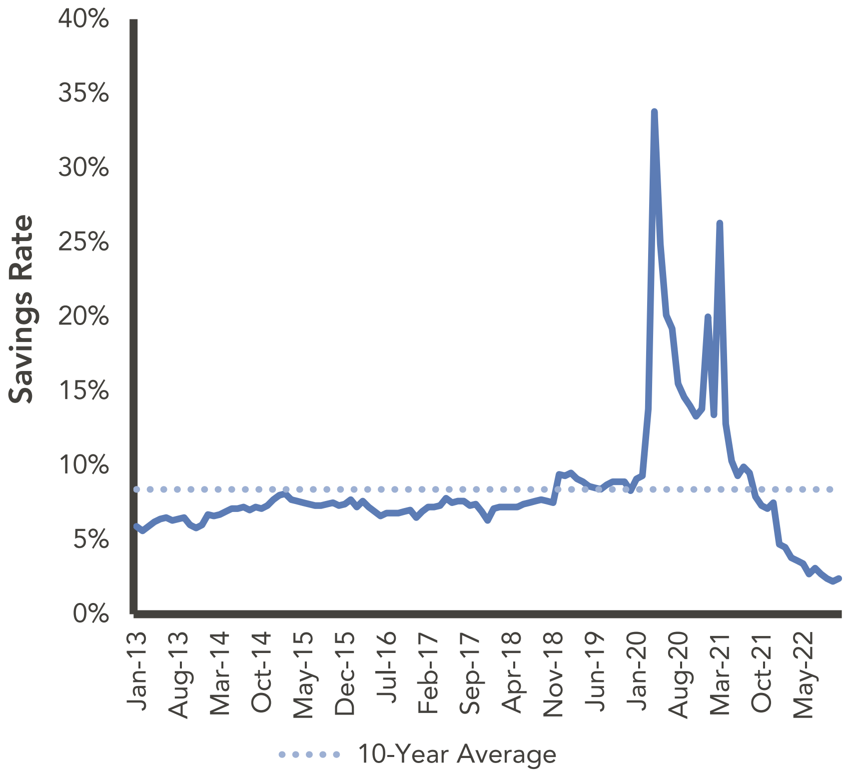
The contribution from Services continues to increase, partially offsetting the relief from goods and energy

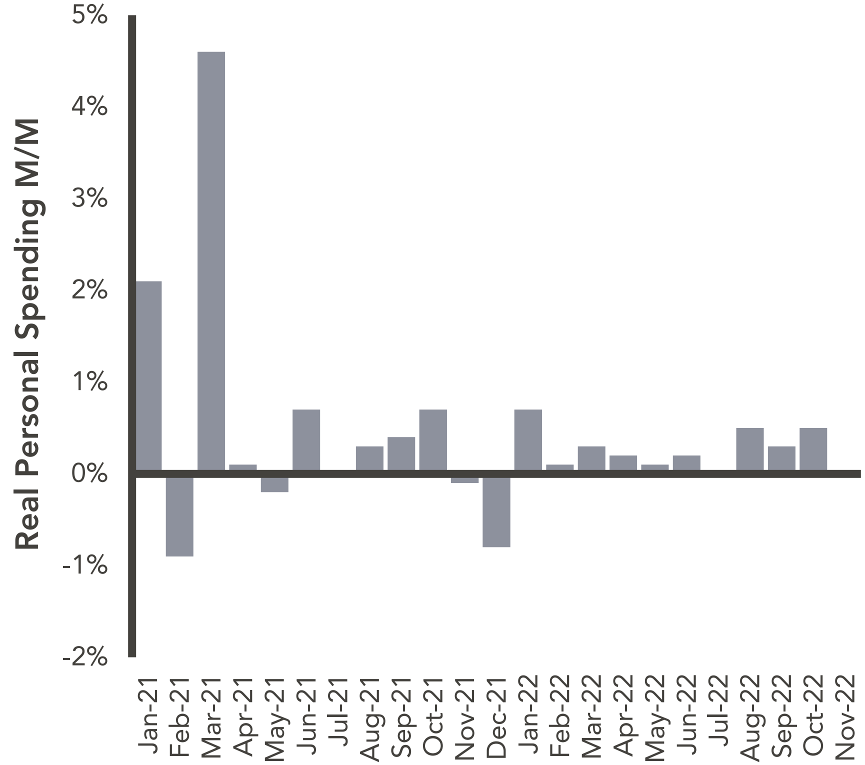


Source: Bloomberg, Bureau of Labor Statistics as of January 12, 2023

Depleting savings to spend

Real consumer spending stalled in November after several months of resilience against higher prices and rates

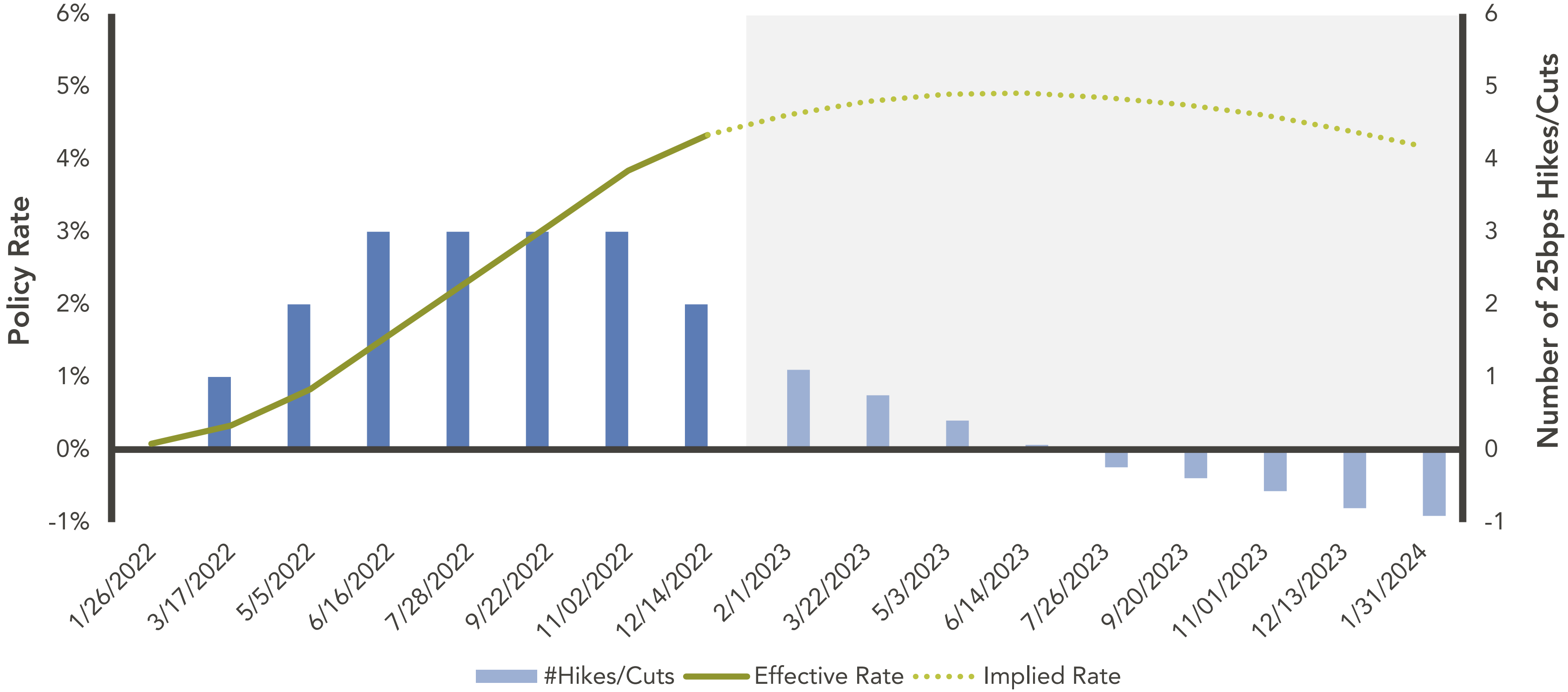




Source: Bloomberg, Bureau of Economic Analysis as of December 31, 2022

Rate hikes expected to continue to slow

The futures market pricing in rate cuts before year-end may prove overly optimistic

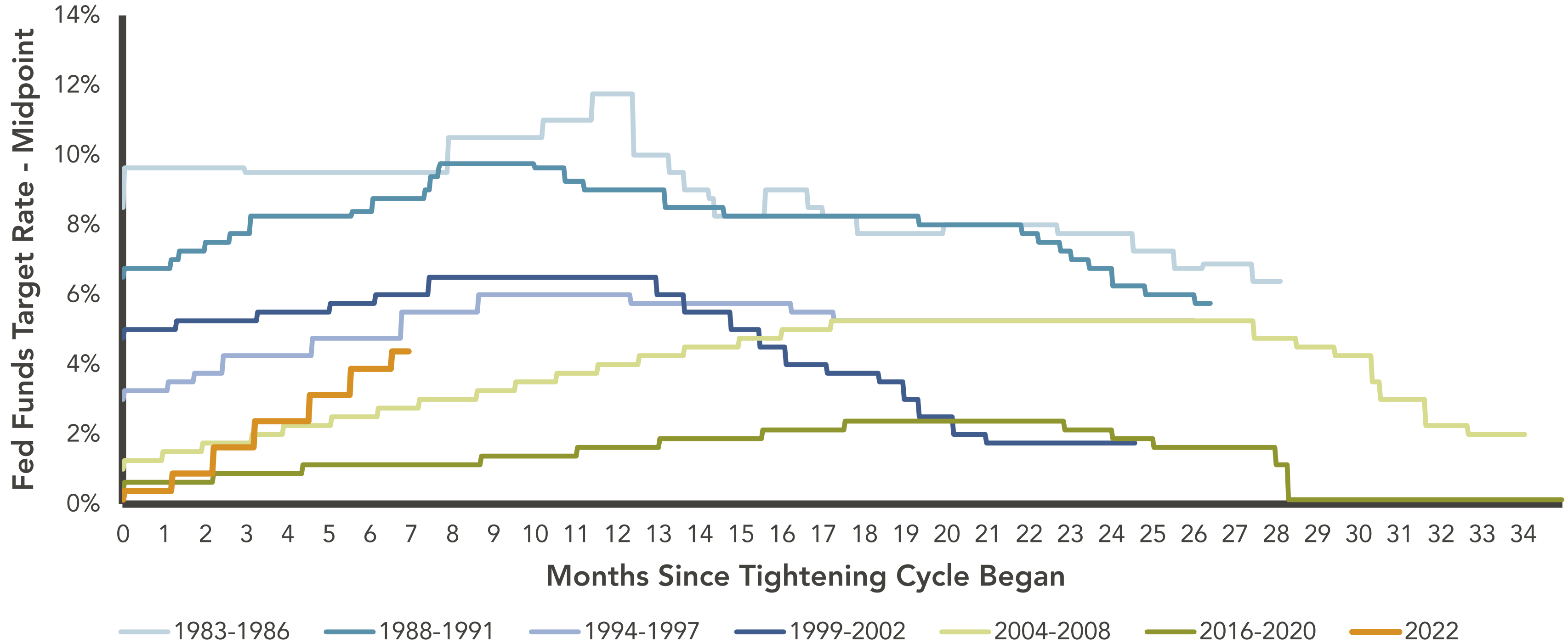


Source: Bloomberg as of January 12, 2023

Historical tightening cycles

A rate-hike pause is expected in 2023, assuming inflation data continues to trend in the right direction

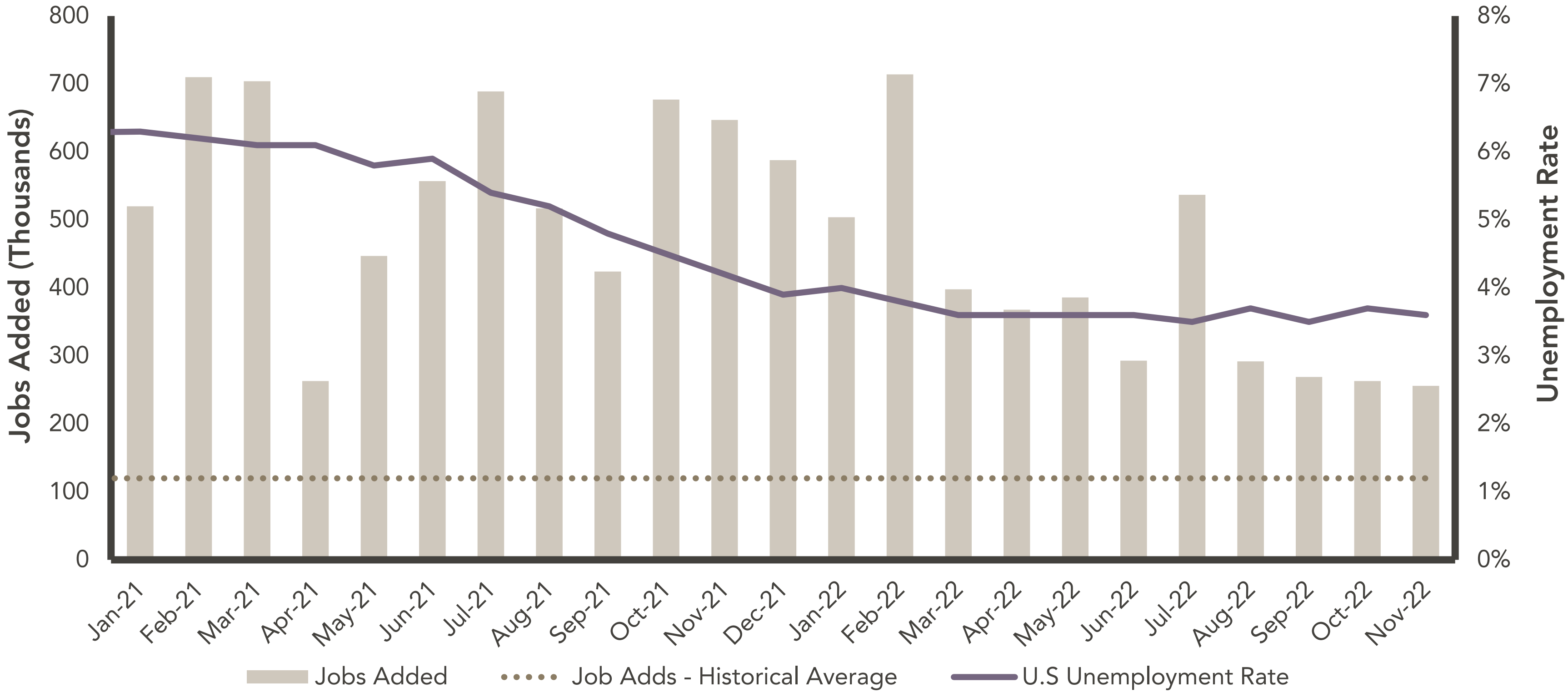
The seven tightening cycles since the 1980s and the two years that followed the peak



Source: Bloomberg, Federal Reserve as of December 31, 2022

Unemployment at multi-decade lows

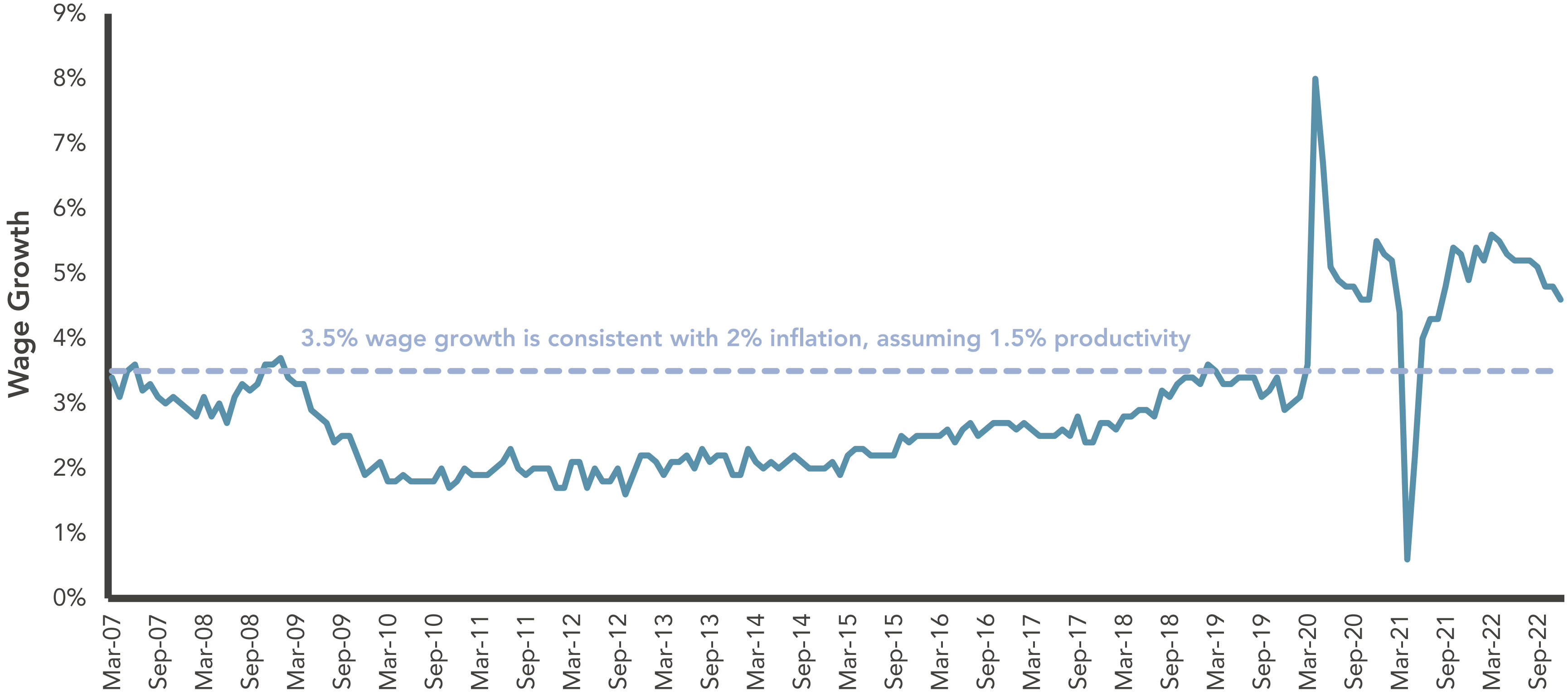
The labor supply/demand imbalance has kept job adds high and unemployment low despite higher interest rates



Source: Bloomberg, Bureau of Labor Statistics as of January 6, 2023. Job Adds – Historical Average represents the 30-year average prior to the onset of COVID-19 (March 1990 – February 2022).

Wage growth ticking down

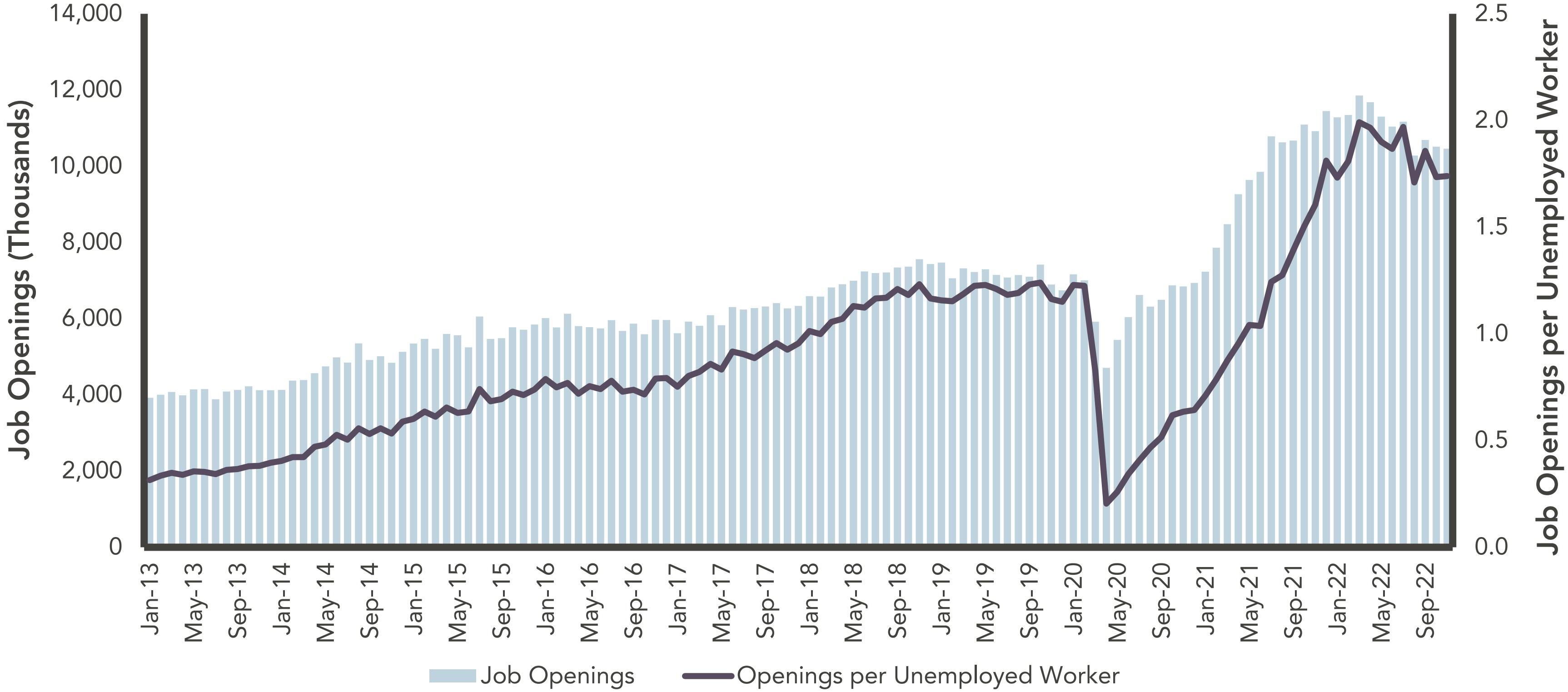
Slowing wage growth in December renewed hopes for a soft landing – slowing inflation without taking unemployment to recessionary levels



Source: Bloomberg, Bureau of Labor Statistics as of January 6, 2023

Job openings remain high

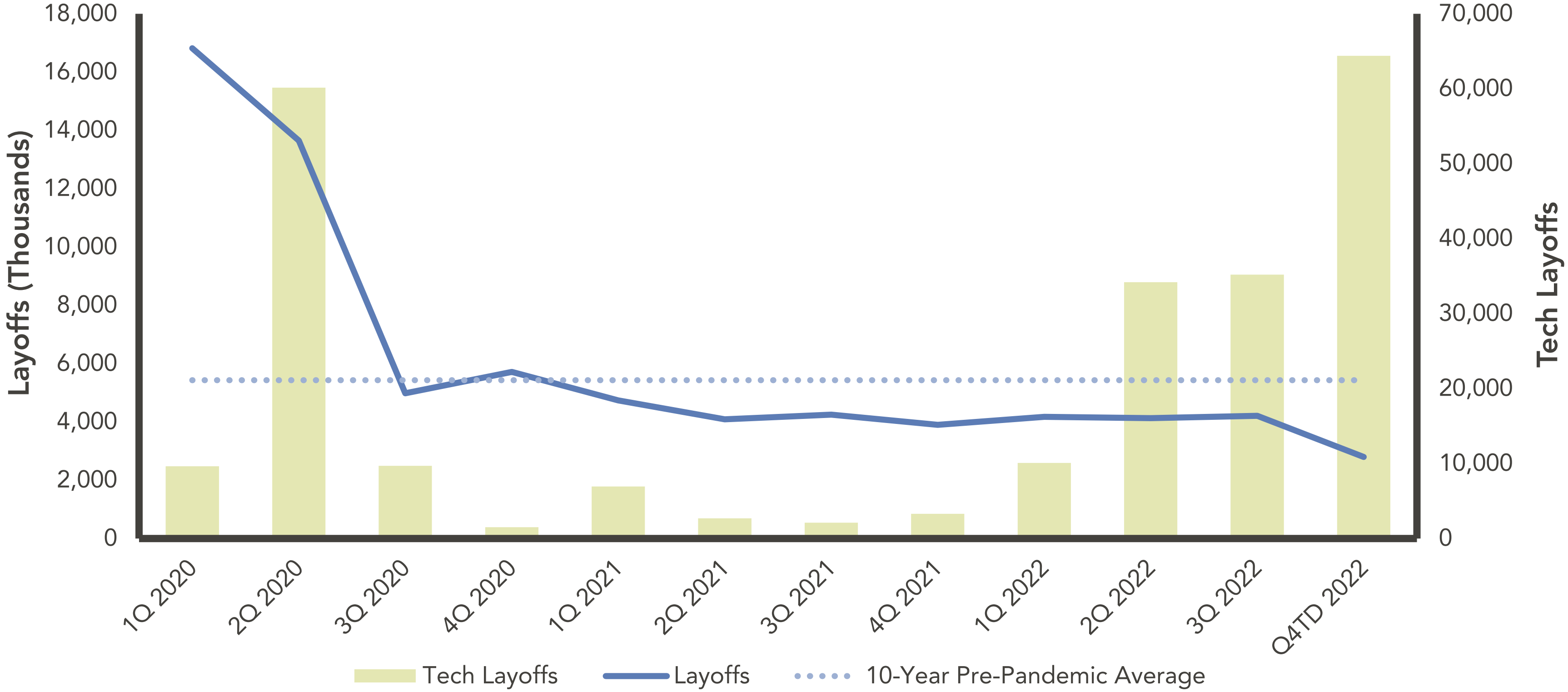
Roughly 1.7 job openings per unemployed worker could keep upward pressure on wages



Source: Bloomberg, Bureau of Labor Statistics as of January 4, 2023

Tech layoffs

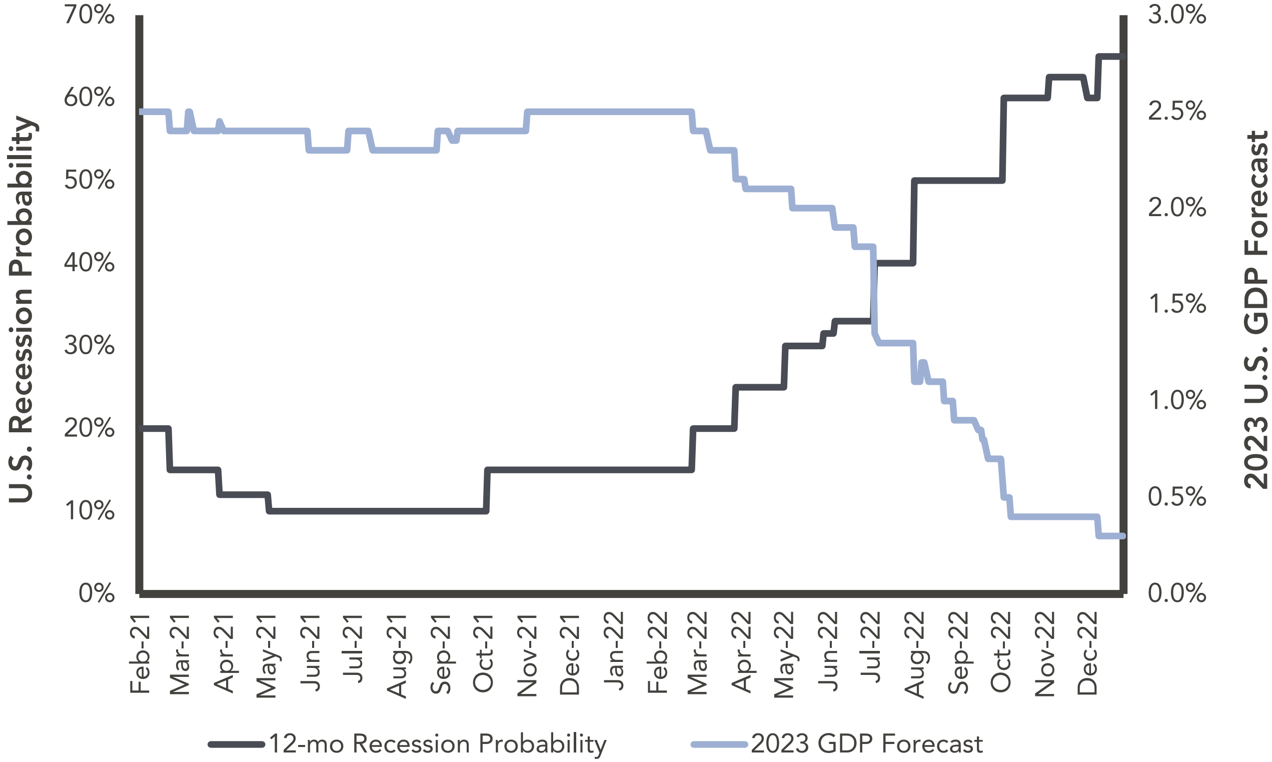
While layoffs in the tech industry have accelerated to the second fastest pace on record, overall layoffs remain below average



Source: Bloomberg, Bureau of Labor Statistics, Layoffs.fyi as of January 4, 2023. 4Q 2022 data through November 30, 2022 – latest available.

U.S. recession probability

While slower December wage growth fueled goldilocks hopes, consensus remains for a mild U.S. recession in 2023

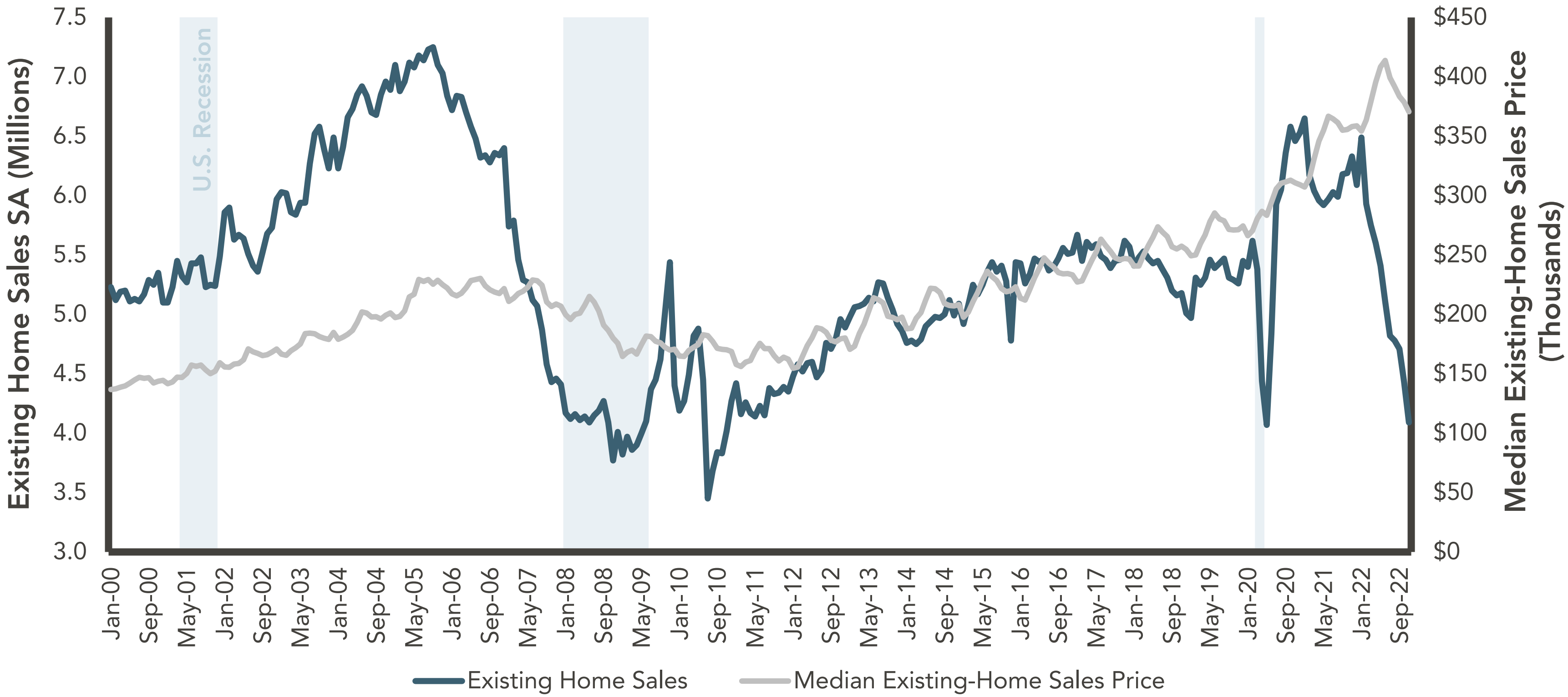


Real GDP (Y/Y %) Consensus Forecast	
4Q 2022	0.4%
1Q 2023	0.8%
2Q 2023	0.6%
3Q 2023	-0.1%
4Q 2023	-0.1%
1Q 2024	0.6%
2Q 2024	1.3%

Source: Bloomberg as of January 9, 2023

Rate-sensitive housing market rolling over

Home prices are down amid soaring mortgage rates and a pullback in transactions; private-sector rent indices are also retreating



Source: Bloomberg, National Association of Realtors, Federal Reserve Bank of St. Louis as of December 31, 2022

Fixed Income

Fixed income performance

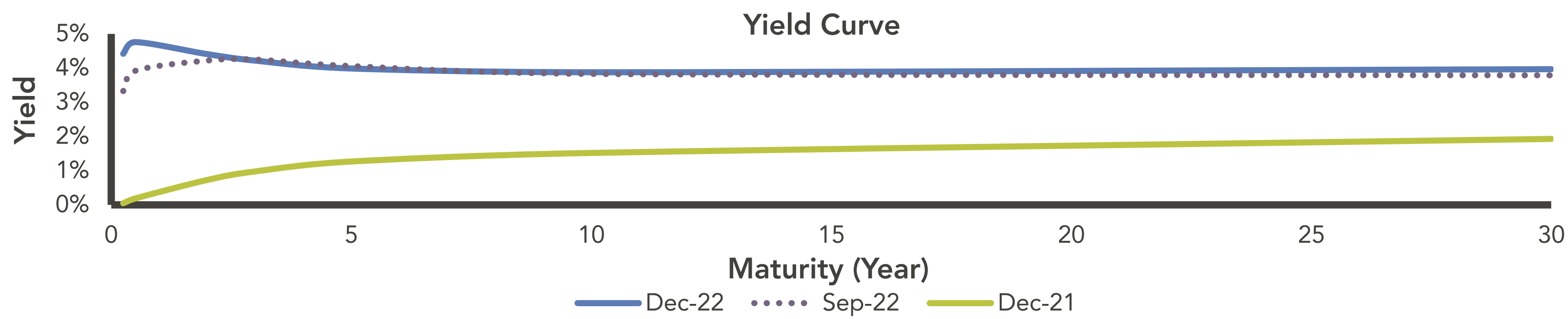
Fixed income indices suffered one of the worst years on record as interest rates rose sharply

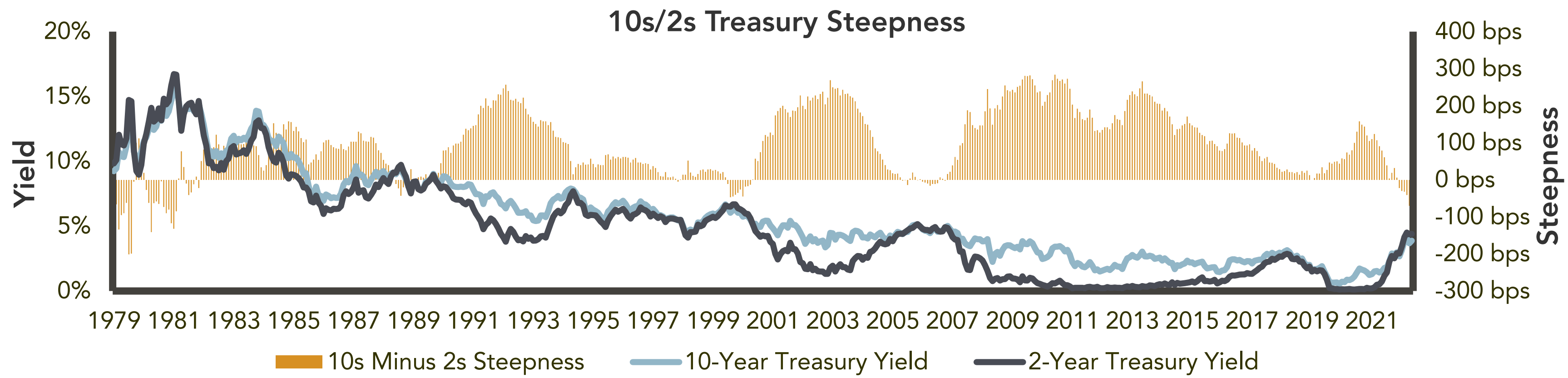
		MTD (%)	QTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Broad Market Index	Blm Aggregate	-0.5	1.9	-13.0	-2.7	0.0	1.1
Intermediate Index	Blm Int. Gov./Credit	-0.2	1.5	-8.2	-1.3	0.7	1.1
Government Only Indices	Blm Long Gov.	-1.7	-0.6	-29.2	-7.4	-2.2	0.6
	Blm Int. Gov.	-0.2	1.0	-7.7	-1.4	0.5	0.7
	Blm 1-3 Year Gov.	0.2	0.7	-3.8	-0.5	0.7	0.7
	Blm U.S. TIPS	-1.0	2.0	-11.8	1.2	2.1	1.1
Credit Indices	Blm U.S. Long Credit	-1.1	5.3	-25.3	-5.8	-0.8	2.1
	Blm High Yield	-0.6	4.2	-11.2	0.0	2.3	4.0
	CS Leveraged Loan Index	0.4	2.3	-1.1	2.3	3.2	3.8
Securitized Bond Indices	Blm MBS	-0.4	2.1	-11.8	-3.2	-0.5	0.7
	Blm ABS	0.7	0.8	-4.3	-0.1	1.2	1.2
	Blm CMBS	0.0	1.0	-10.9	-1.7	0.8	1.6
Non-U.S. Indices	Blm Global Aggregate Hedged	-1.2	1.0	-11.2	-2.6	0.4	1.7
	JPM EMBI Global Diversified	0.3	8.1	-17.8	-5.3	-1.3	1.6
	JPM GBI-EM Global Diversified	2.2	8.5	-11.7	-6.0	-2.5	-2.0
Municipal Indices	Blm Municipal 5 Year	0.5	3.0	-5.3	-0.3	1.2	1.5
	Blm HY Municipal	-0.2	3.5	-13.1	-0.6	2.6	3.5

Source: Bloomberg Barclays, Credit Suisse, JPMorgan as of December 31, 2022. The local currency GBI index is hedged and denominated in U.S. dollars.

U.S. Treasury yield curve and steepness

The inversion of the yield curve between 2- and 10-year Treasuries, while easing slightly in December, ended 2022 at multi-decade extremes

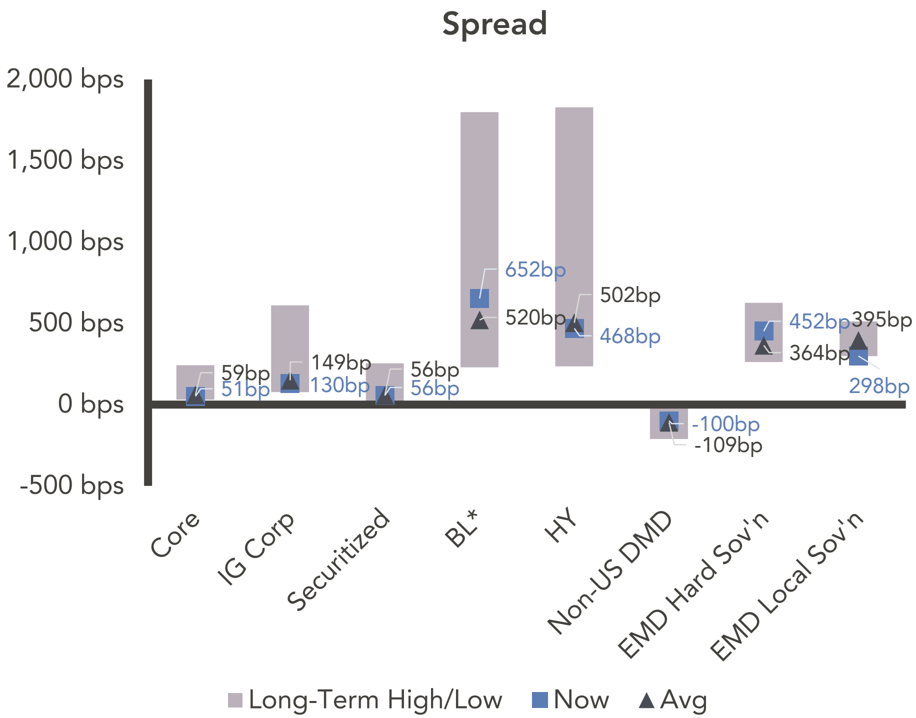


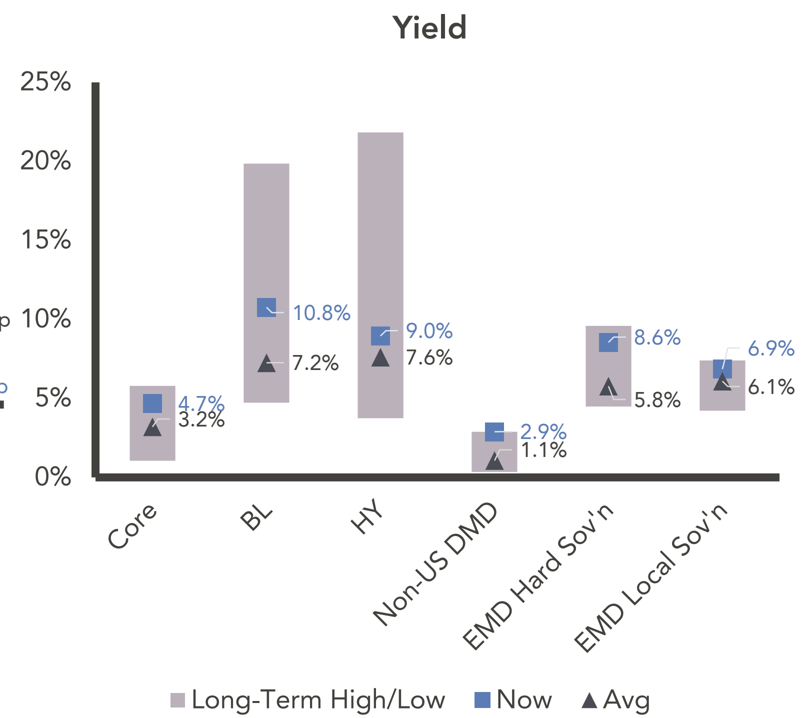


Source: Federal Reserve as of December 31, 2022

Fixed income spreads and yields

Spreads across fixed income tightened and are closer to long-term averages; yields finished lower as rates rallied during the month

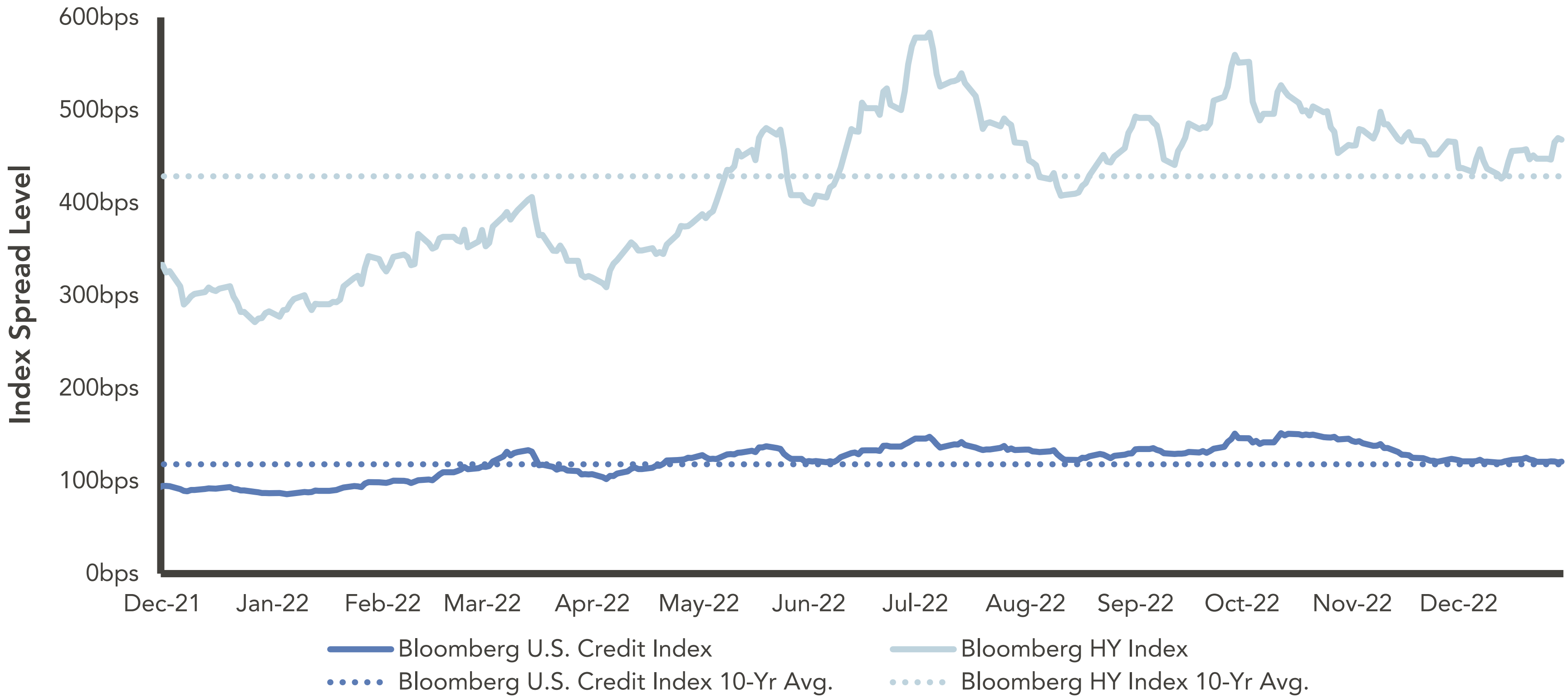




*BL spread over LIBOR, not over Treasuries.
Source: Bloomberg, Credit Suisse, Deutsche, JPMorgan as of December 31, 2022. Long-term high, low, and average based on longest available data for each index.

U.S. credit spreads vs. historical averages

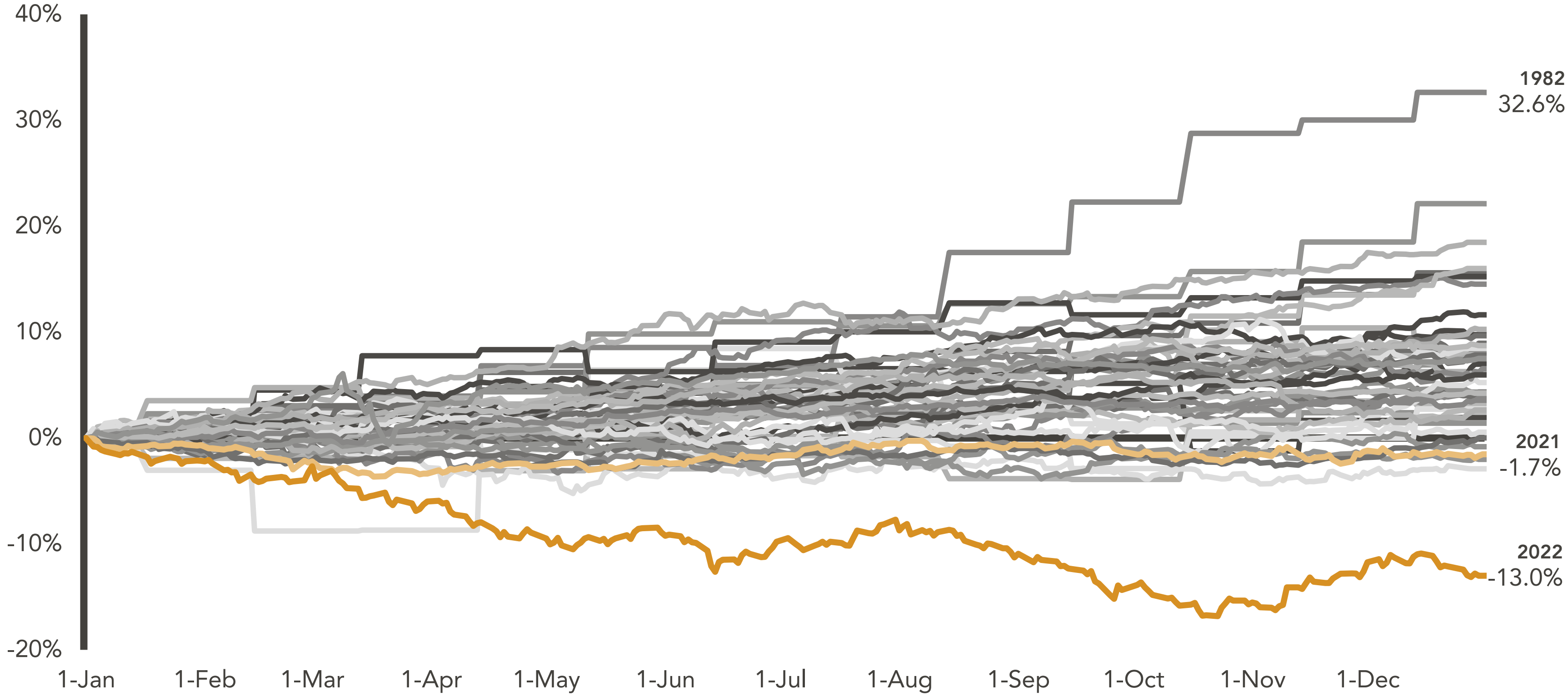
U.S. investment grade credit spreads finished the year in line with the longer-term average while high yield spreads finished slightly above



Source: Bloomberg as of December 31, 2022

Aggregate index yearly returns

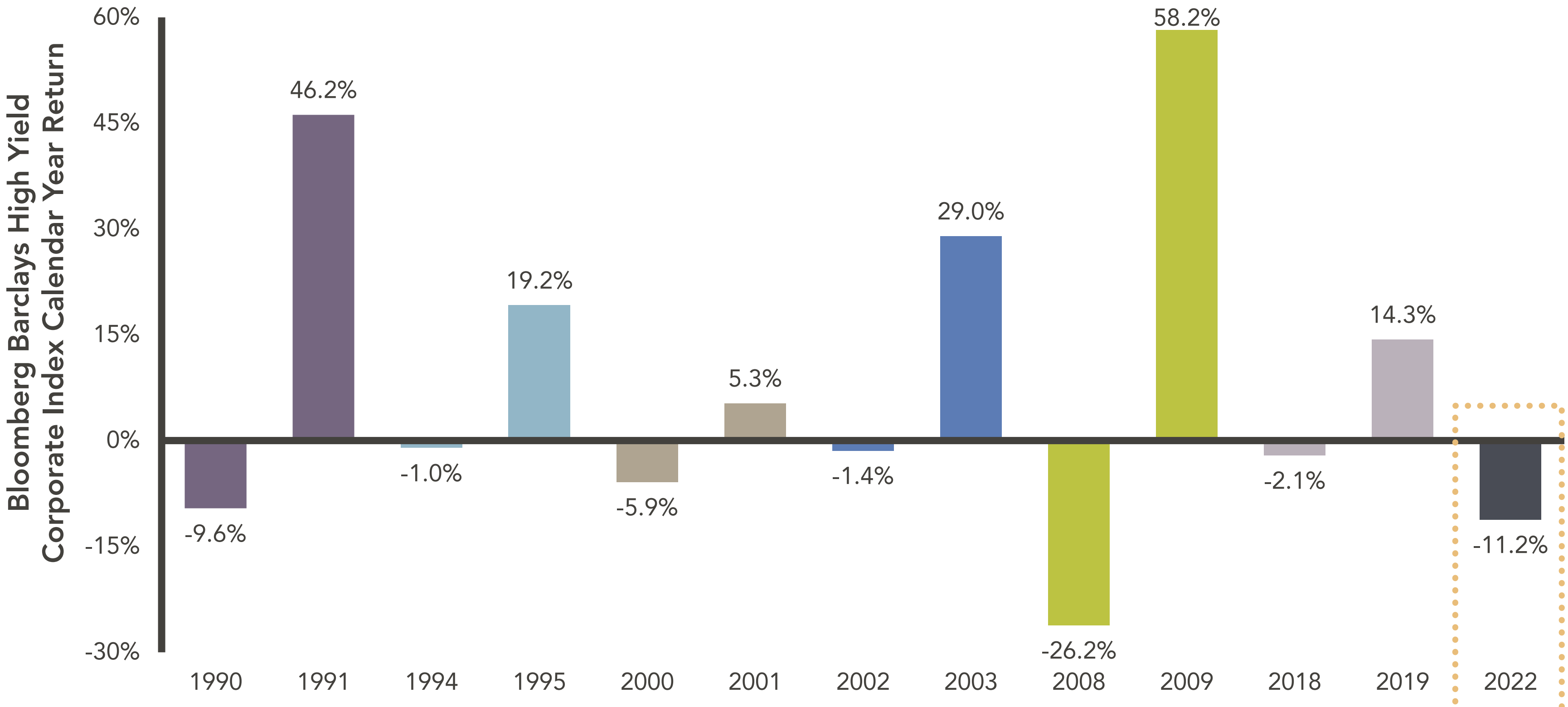
2022 was the worst year in history for the U.S. Aggregate and marked the first time the index had back-to-back years of negative returns



Source: Bloomberg as of December 31, 2022

High yield performance

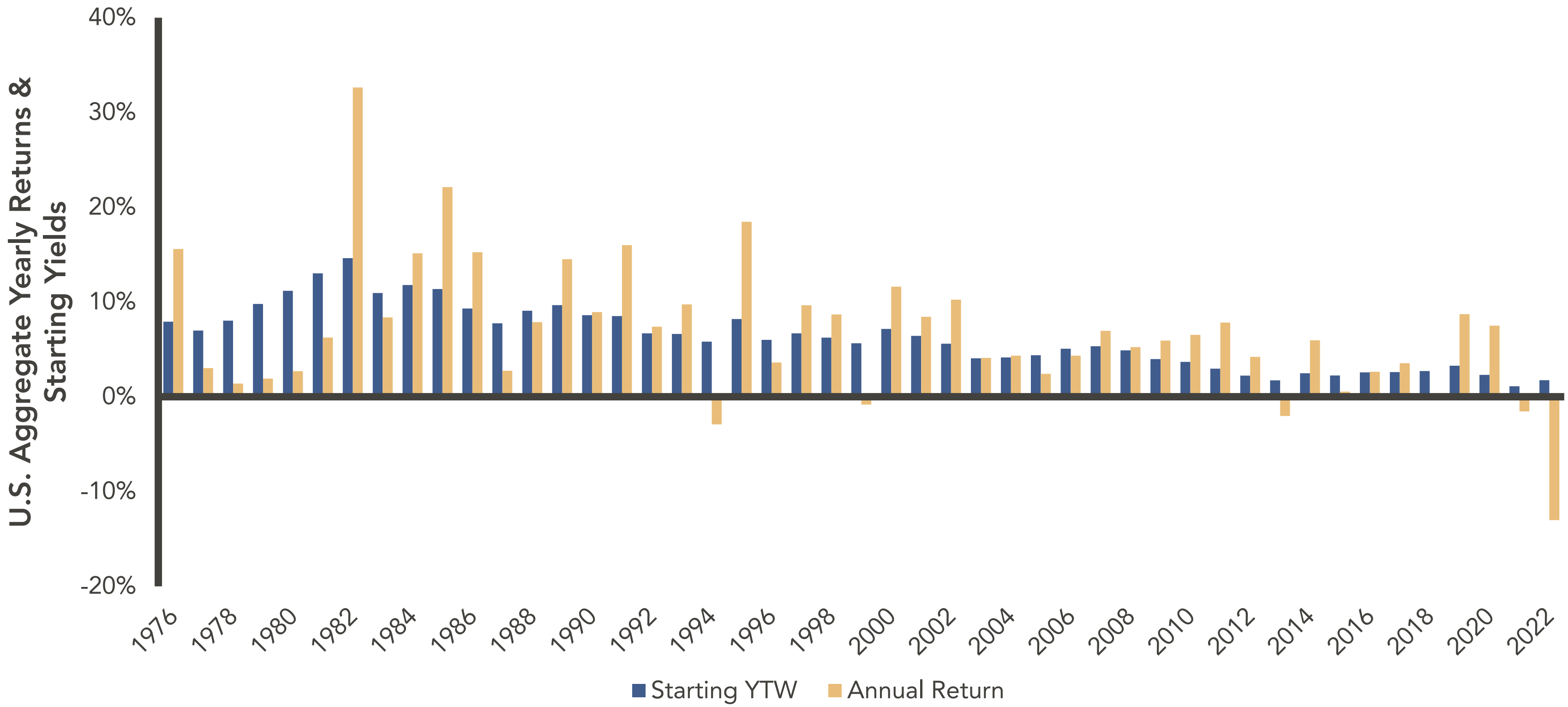
The high yield index has had six negative calendar year returns in history; each time, the following year was positive



Source: Bloomberg as of December 31, 2022

Relationship between return and yield

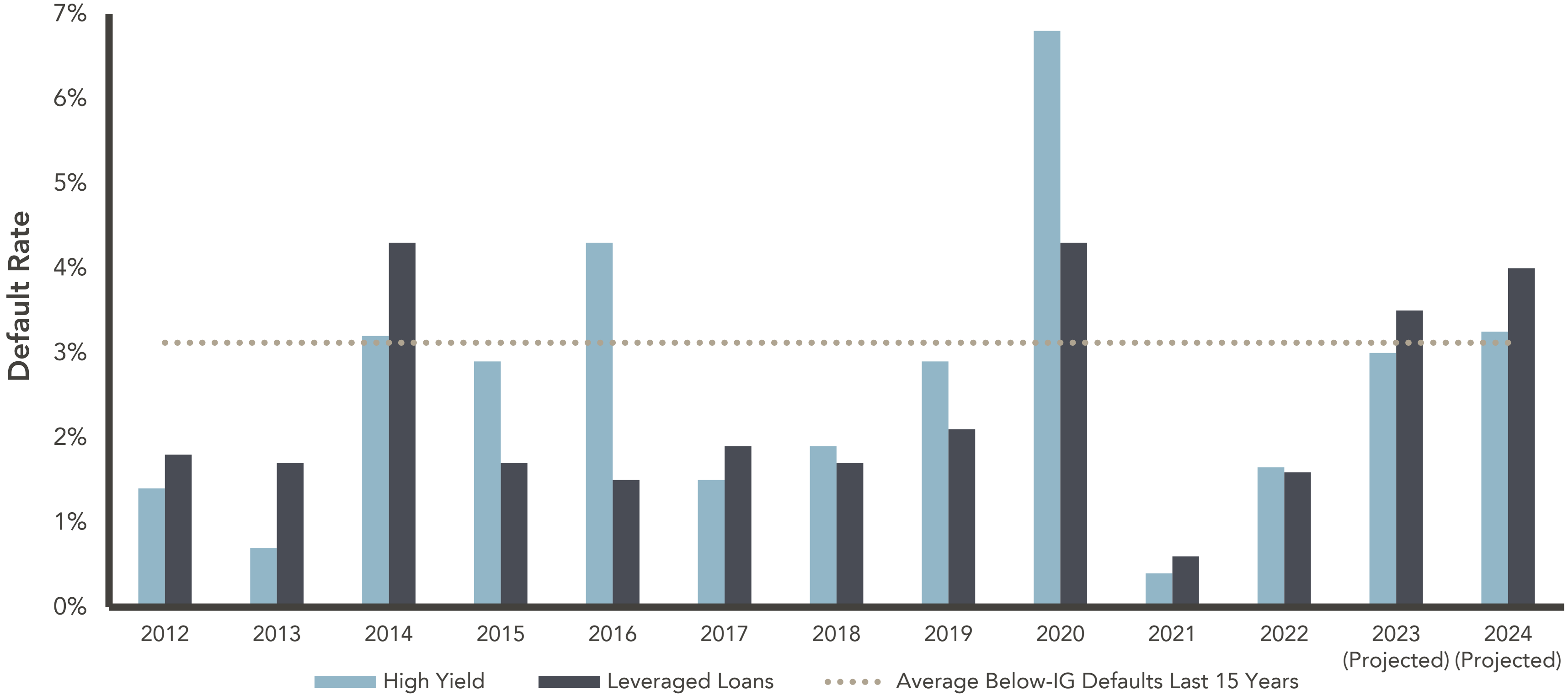
While yields are a starting point for go-forward fixed income returns, changes in interest rates are usually the biggest driver of performance



Source: Bloomberg as of December 31, 2022

Below investment grade defaults

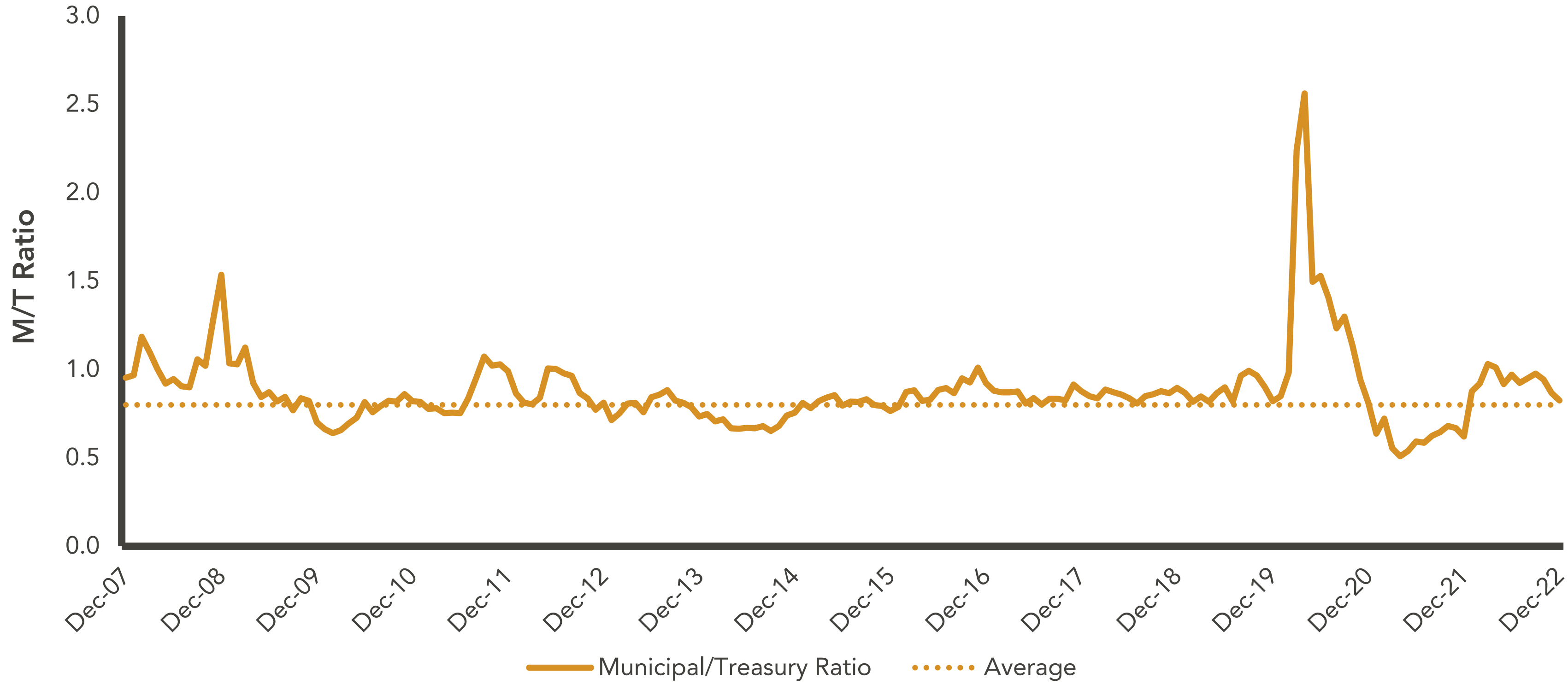
High yield and loan defaults increased in 2022 off record lows and are projected higher from here



Source: JP Morgan as of December 31, 2022

Municipal-to-Treasury ratio

The Municipal-to-Treasury ratio finished 2022 in line with long-term averages



Source: Bloomberg Barclays, Federal Reserve as of December 31, 2022. Municipal/Treasury ratio defined as the Barclays AAA Municipal Bond Index YTW divided by the 10-year Treasury Bond yield

Municipal-to-Treasury ratios

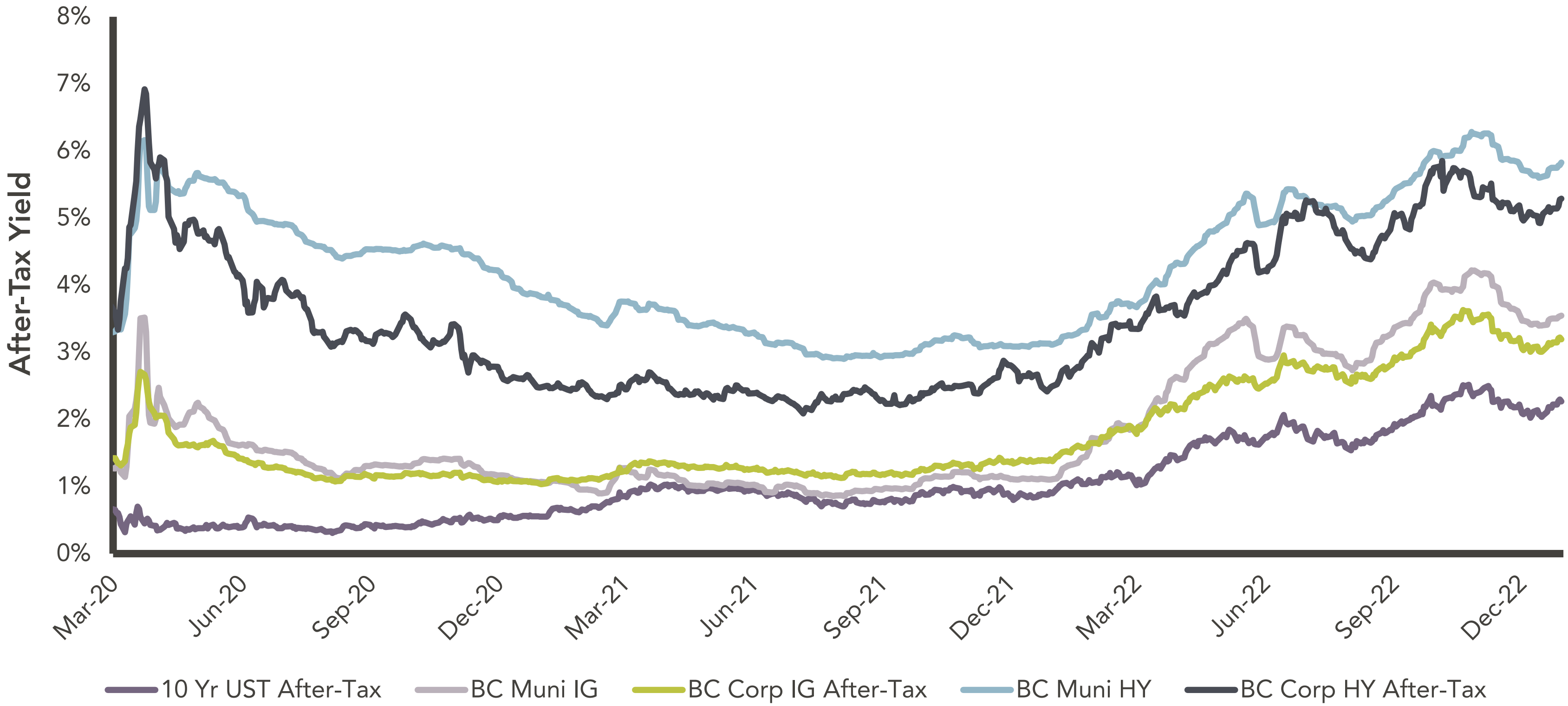
Muni/Treasury ratios are showing higher go-forward yields compared to the end of 2021

	MUN	TSY	Ratio (12/31/22)	Ratio (12/31/21)	Ratio (12/31/20)	Ratio (12/31/19)
1Y	2.80	4.73	0.59	0.43	1.08	0.65
3Y	2.56	4.22	0.61	0.33	0.74	0.65
5Y	2.53	3.99	0.64	0.45	0.52	0.66
7Y	2.54	3.96	0.64	0.59	0.56	0.68
10Y	2.62	3.88	0.68	0.68	0.72	0.76
30Y	3.57	3.97	0.90	0.78	0.85	0.88

Source: Bloomberg BVAL Muni AAA Curve (Callable), U.S. Treasury as of December 31, 2022

Municipal vs. corporate after-tax yields

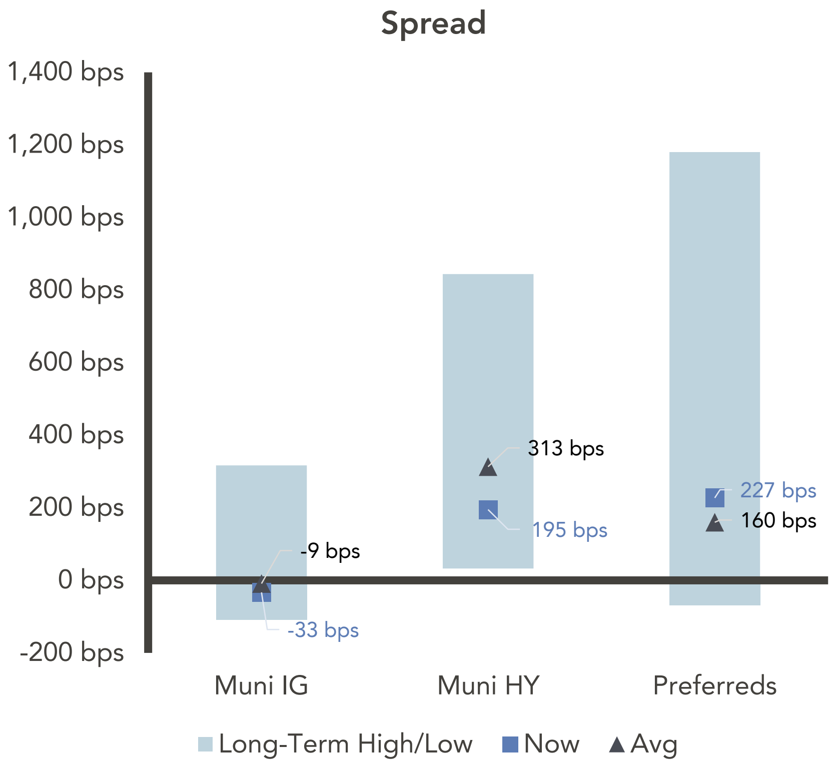
Yields finished slightly higher quarter-over-quarter, with municipals showing higher yields than corporates on an after-tax basis

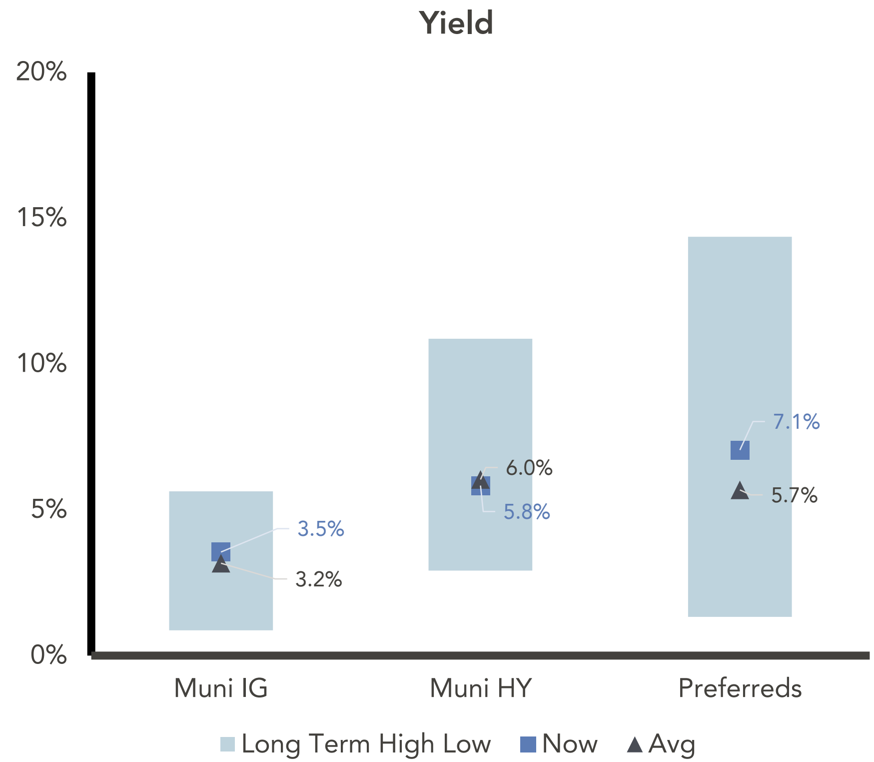


Source: Bloomberg as of December 31, 2022, based on 37 highest tax bracket and 3.8 net investment income tax

Municipal spreads and yields

Municipal spreads finished the year inside long-term averages while yields sit in-line; preferred spreads and yields remain above average





Source: Bloomberg as of December 31, 2022

Opportunities and risks in fixed income

Opportunities

Bonds are back
After years of ultra-low interest rates, bonds are finally offering attractive levels of yields and are back to fulfilling their income generating role in portfolios. Yields are above long-term averages in nearly every sector.

Fundamentals remain strong
Credit metrics are slowing but remain strong. Defaults may increase off record low levels but are not anticipated to increase meaningfully. Investment grade and high yield companies are in a good position to service their debt.

Agency MBS are becoming interesting
As the Fed allows mortgages to roll off its balance sheet, spreads on Agency mortgages have widened to compelling levels for the first time in years. Higher rates should slow prepayments.

Risks

Aggressive Fed policy
The Fed has signaled the possibility of fewer rate increases in 2023. However, fixed income performance will continue to be challenged if higher-than-expected rates are required to cool inflation or the labor market.

Quality of the loan market
Floating rate loans were a strong relative performer in 2022 as rates rose sharply. However, the overall quality of this market has deteriorated as lower rated issues have come to dominate. Along with shifting capital structures and diminished covenant packages, there has been a reduction in structural protections for these assets.

Credit valuations under pressure
With most credit spreads near long-term averages, spreads could widen and weigh on performance if economic conditions deteriorate.

U.S. Equities

U.S. equity performance

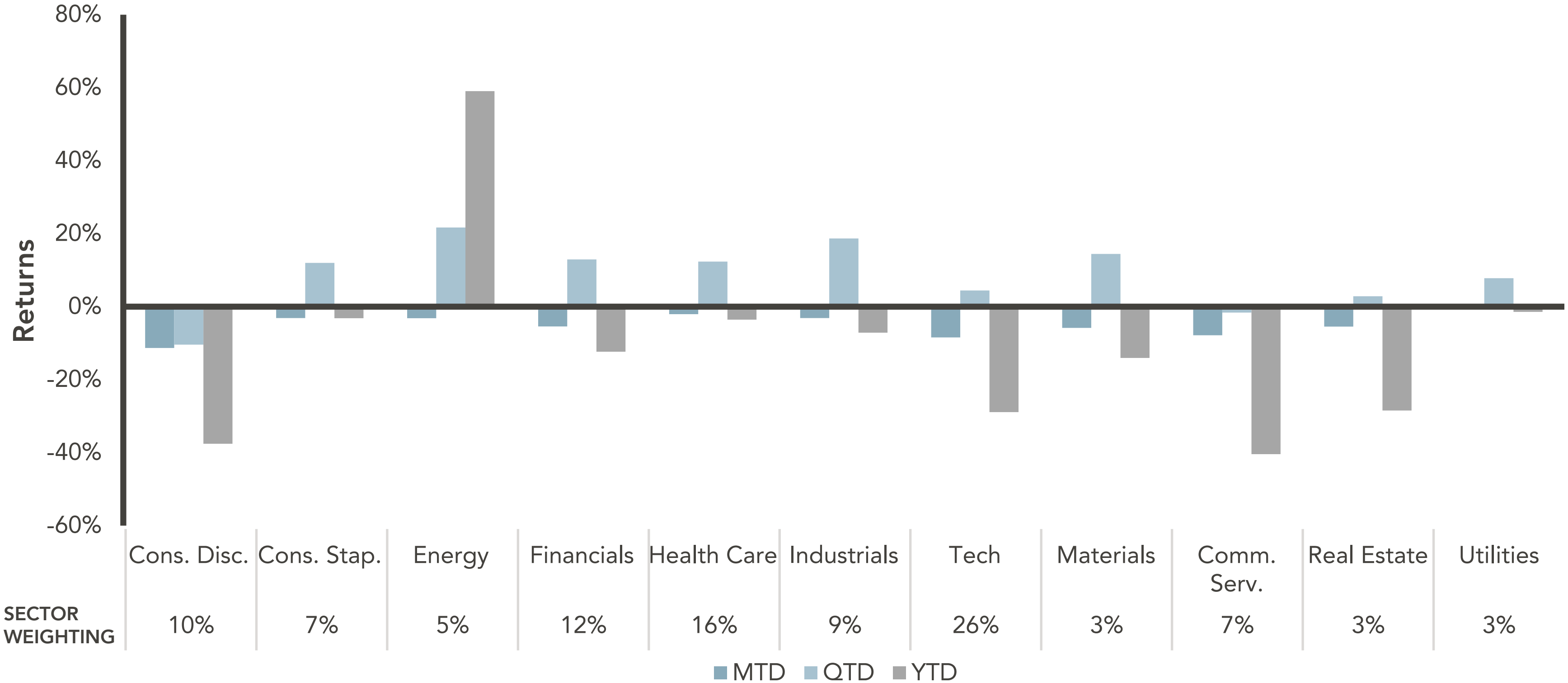
Despite losses in December, all major domestic equity indices posted gains in the fourth quarter

		MTD (%)	QTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Broad Market Indices	Dow Jones	-4.1	16.0	-6.9	7.3	8.4	12.3
	Wilshire 5000	-5.9	7.1	-19.0	7.4	9.0	12.3
	Russell 3000	-5.9	7.2	-19.2	7.1	8.8	12.1
Large-Cap Market Indices	S&P 500	-5.8	7.6	-18.1	7.7	9.4	12.6
	Russell 1000	-5.8	7.2	-19.1	7.3	9.1	12.4
	Russell 1000 Value	-4.0	12.4	-7.5	6.0	6.7	10.3
	Russell 1000 Growth	-7.7	2.2	-29.1	7.8	11.0	14.1
Mid-Cap Market Indices	Russell Mid-Cap	-5.4	9.2	-17.3	5.9	7.1	11.0
	Russell Mid-Cap Value	-5.1	10.5	-12.0	5.8	5.7	10.1
	Russell Mid-Cap Growth	-6.0	6.9	-26.7	3.9	7.6	11.4
Small-Cap Market Indices	Russell 2000	-6.5	6.2	-20.4	3.1	4.1	9.0
	Russell 2000 Value	-6.6	8.4	-14.5	4.7	4.1	8.5
	Russell 2000 Growth	-6.4	4.1	-26.4	0.6	3.5	9.2

Source: Bloomberg as of December 31, 2022

S&P 500 sector performance

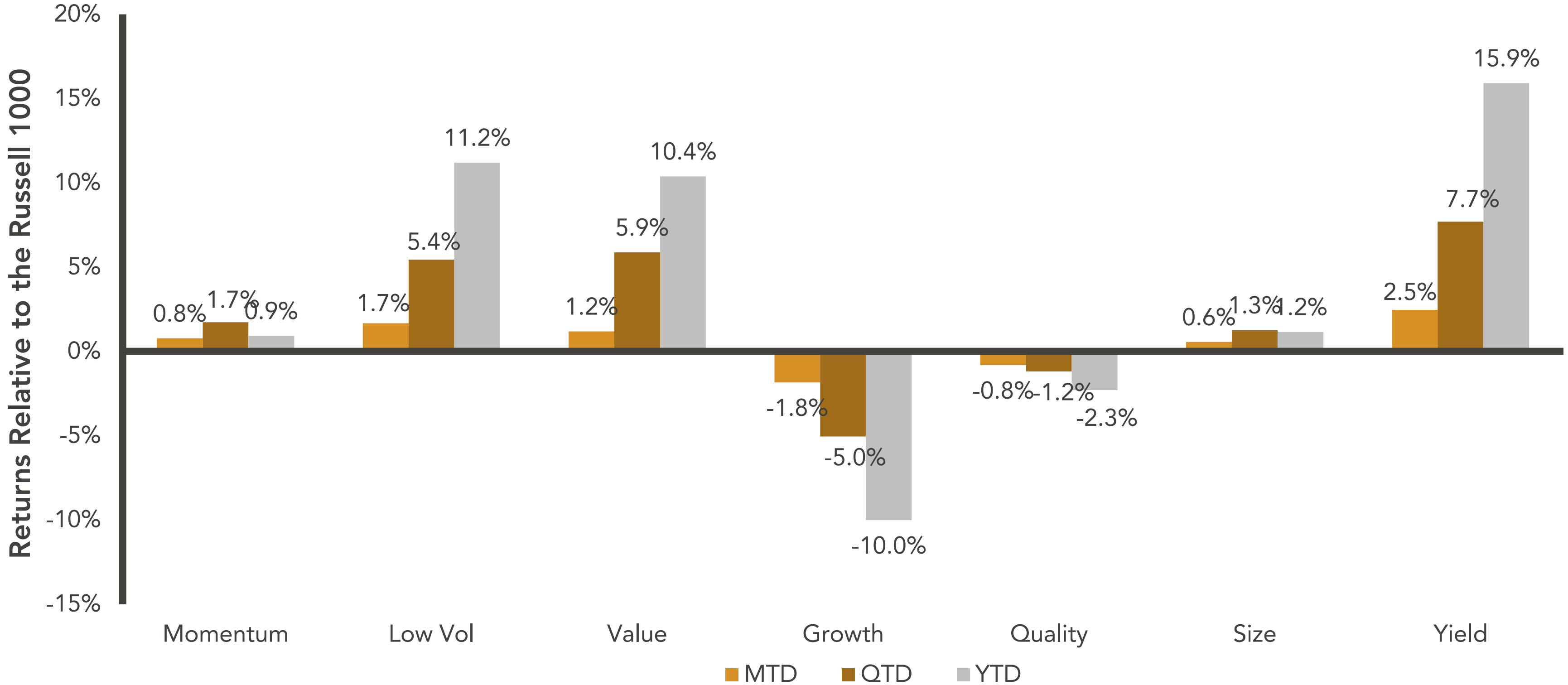
Most segments of the S&P 500 were positive in the fourth quarter; energy was the lone positive sector for the full year



Source: Bloomberg as of December 31, 2022

Russell 1000 factor performance

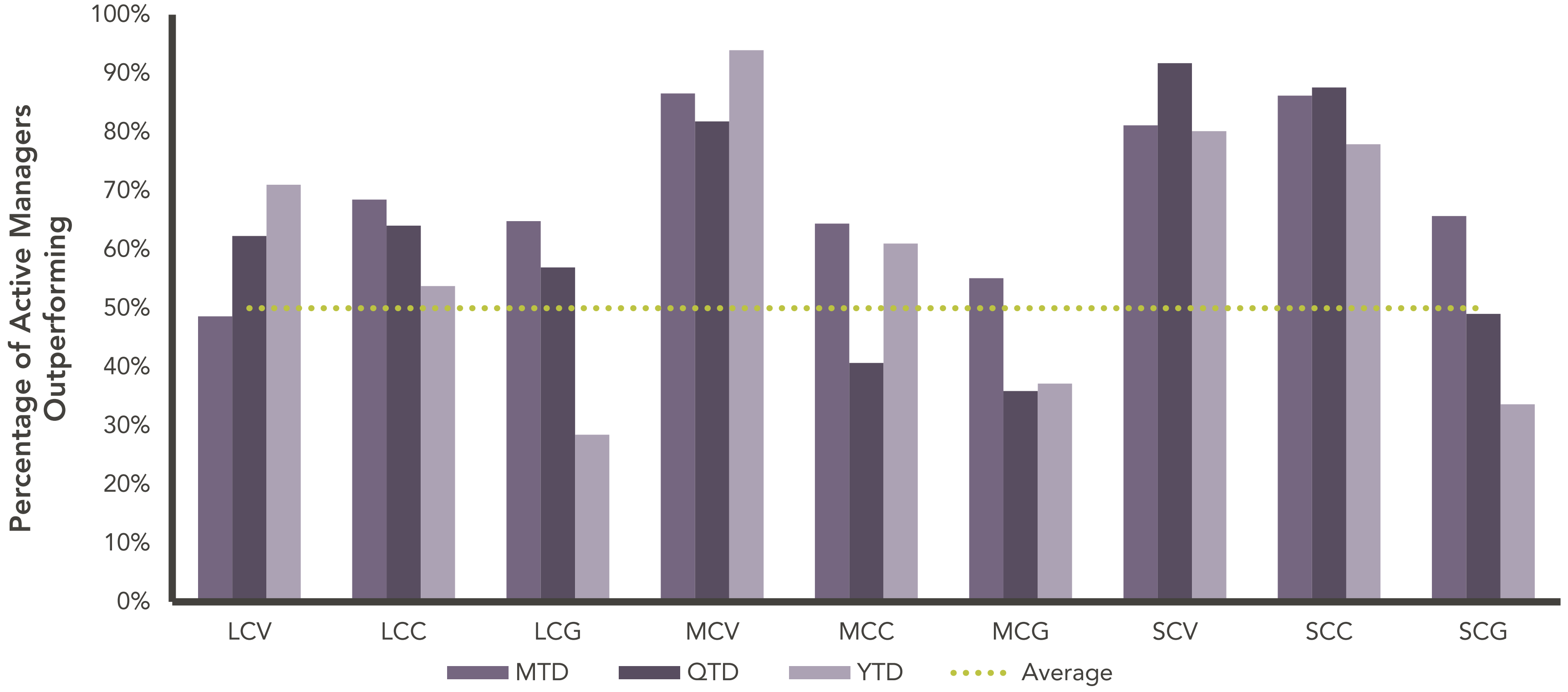
Higher yielding, lower volatility, and value-oriented securities led in 2022



Source: Bloomberg as of December 31, 2022

Active manager performance

Active managers outperformed across most asset classes in December; overall, growth-focused active managers struggled in 2022



Source: Morningstar Direct as of December 31, 2022

U.S. equity valuations

Earnings-based multiples have normalized relative to historical ranges; small-cap stocks look particularly attractive

Valuation Metrics	S&P 500		Russell 1000		Russell Mid Cap		Russell 2000	
	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)
P/E	18.1	47	17.7	43	15.8	11	11.7	2
Forward P/E	16.4	68	16.5	66	15.7	58	12.0	6
P/B	3.9	81	3.7	84	2.9	89	2.2	56
P/S	2.3	89	2.1	85	1.5	77	1.1	58
P/CF	12.9	60	13.0	62	12.6	79	11.4	24
EV/EBITDA	12.9	76	13.1	78	12.8	71	12.6	57
Average		**70**		**70**		**64**		**34**

Source: Bloomberg. TTM P/E is adjusted for negative earnings. Small-cap forward P/E is adjusted for negative earnings. Percentiles are based on data Jan. 1995 – Dec. 2022

U.S. equity valuations by factor

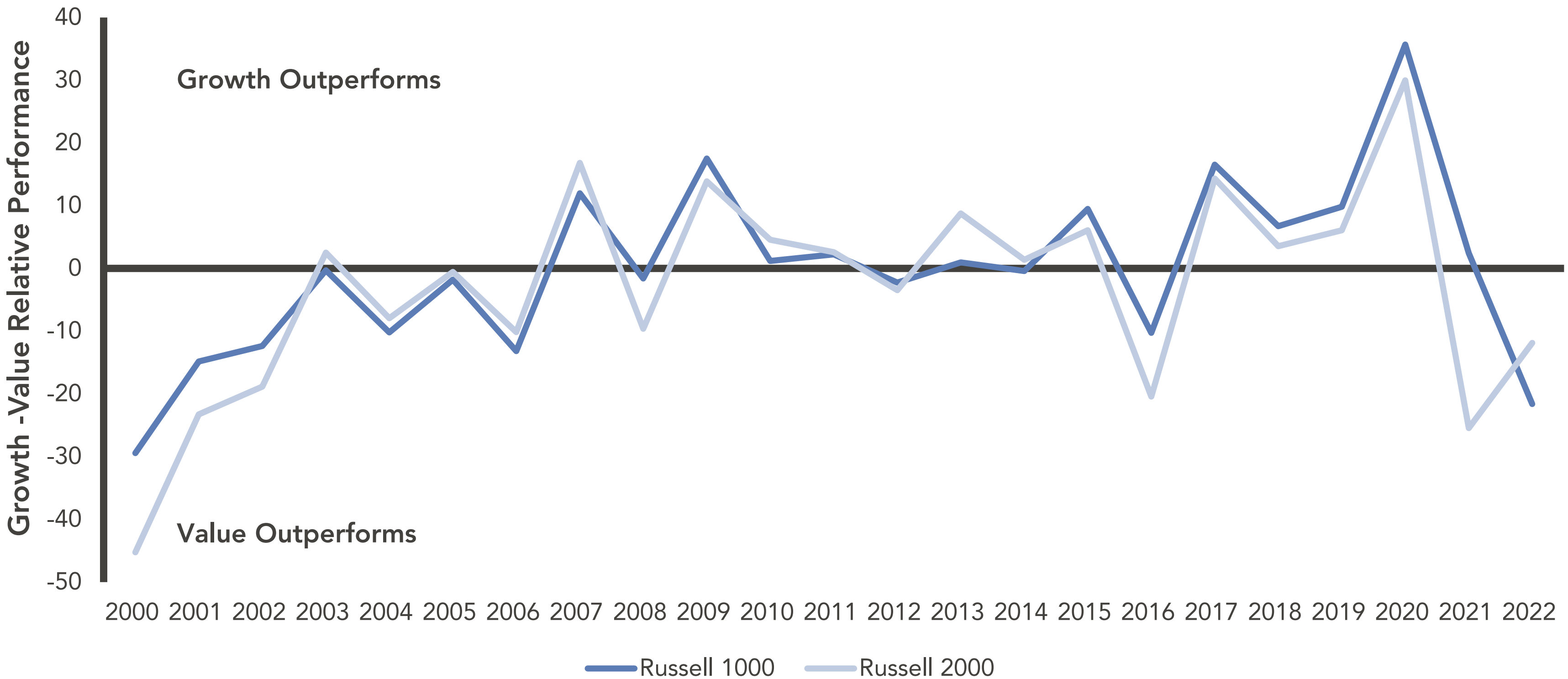
Value index valuations appear attractive relative to history

Valuation Metrics	Russell 1000 Value		Russell 1000 Growth		Russell Mid Cap Value		Russell Mid Cap Growth		Russell 2000 Value		Russell 2000 Growth	
	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)
P/E	14.4	35	23.5	68	13.7	16	22.4	46	10.1	2	14.2	6
Forward P/E	14.1	66	20.3	81	14.0	42	20.7	72	10.7	9	13.9	9
P/B	2.4	86	9.1	89	2.2	91	7.0	89	1.3	27	5.6	96
P/S	1.6	82	3.2	81	1.3	72	2.2	73	0.9	64	1.3	30
P/CF	10.3	58	18.3	81	10.7	87	18.6	78	11.0	71	11.7	8
EV/EBITDA	11.1	67	16.5	77	11.2	59	17.7	81	18.3	89	9.2	6
Average		**66**		**79**		**61**		**73**		**44**		**26**

Source: Bloomberg. TTM P/E is adjusted for negative earnings. Small-cap forward P/E is adjusted for negative earnings. Percentiles are based on data June 2000 – Dec. 2022.

Growth vs. value relative performance

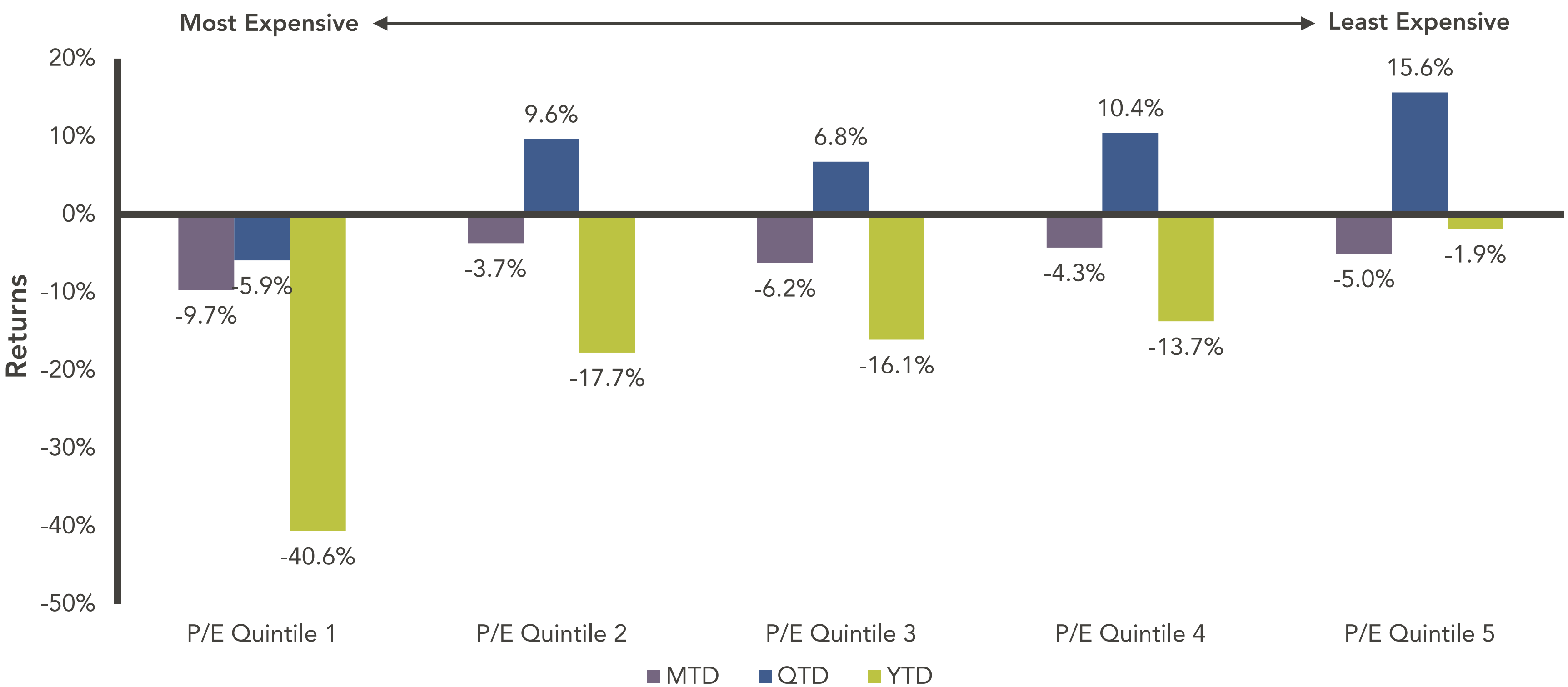
Large-cap Value posted the strongest relative outperformance over Growth in two decades



Source: Morningstar as of December 31, 2022

Low-multiple stocks held up better

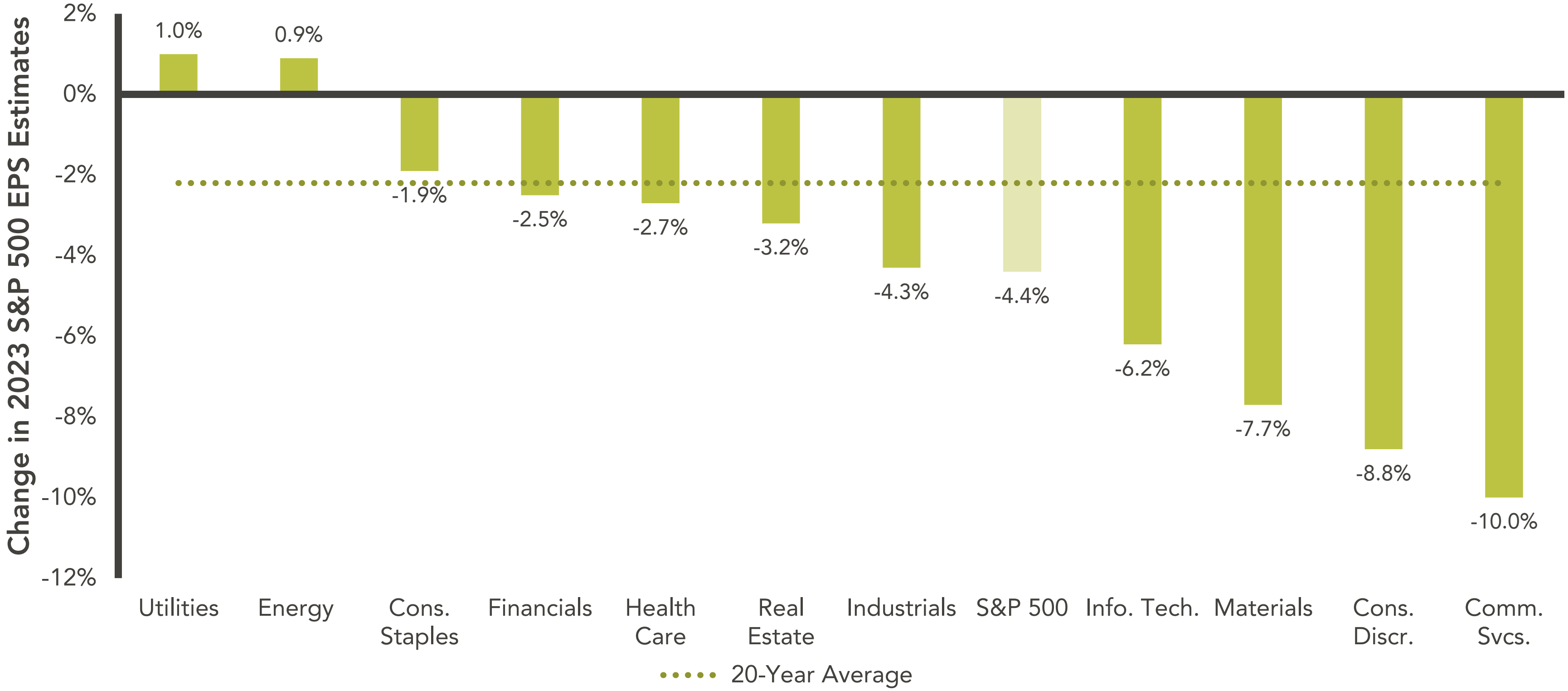
The least expensive quintile of stocks held up relatively well in 2022; the highest multiple stocks experienced significant repricing



Source: FactSet as of December 31, 2022; SPY ETF used as a proxy for the S&P 500

Earnings estimates under pressure

Next year earnings estimates were revised lower in the fourth quarter than they typically are



Source: FactSet as of January 6, 2023

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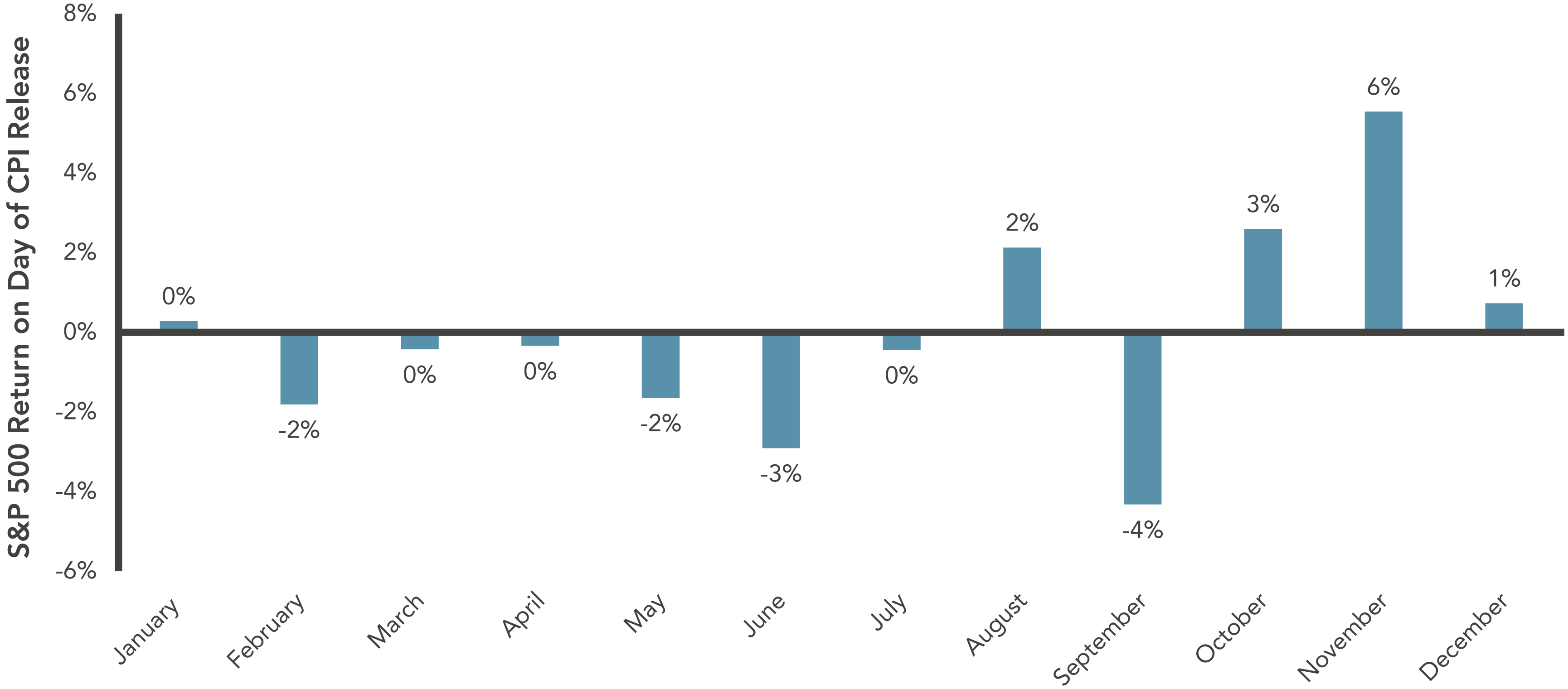
CPI impact on S&P 500 returns

The CPI release led to the largest single day moves in the S&P 500 in September (negative) and November (positive) 2022



Source: S&P as of December 31, 2002

Returns following peak inflation

Historically market returns have been strongly positive following peak inflation

Inflation Peak	CPI (%)	Next 12 Month Return (%)		Next 36 Month Return (%)	
		S&P 500	Russell 2000	S&P 500	Russell 2000
Jan-70	6.2	17.0		14.6	
Dec-74	12.3	37.2		16.4	
Mar-80	14.8	40.1	72.1	20.7	33.5
Nov-90	6.3	20.3	40.6	16.2	27.4
Jun-22*	9.1	2.3	3.9		

Source: Bloomberg, Bureau of Labor Statistics as of December 31, 2022. *Returns July 1, 2022 through December 31, 2022.

Recovery after a negative year

Markets tend to recover the year after a negative calendar year; small caps have never seen consecutive negative years

S&P 500

	Calendar Year Return (%)	Next Year Return (%)
1981	-4.9	21.5
1990	-3.1	30.5
2000	-9.1	-11.9
2001	-11.9	-22.1
2002	-22.1	28.7
2008	-37.0	26.5
2018	-4.4	31.5
2022	-18.1	
	Average	**15.0**

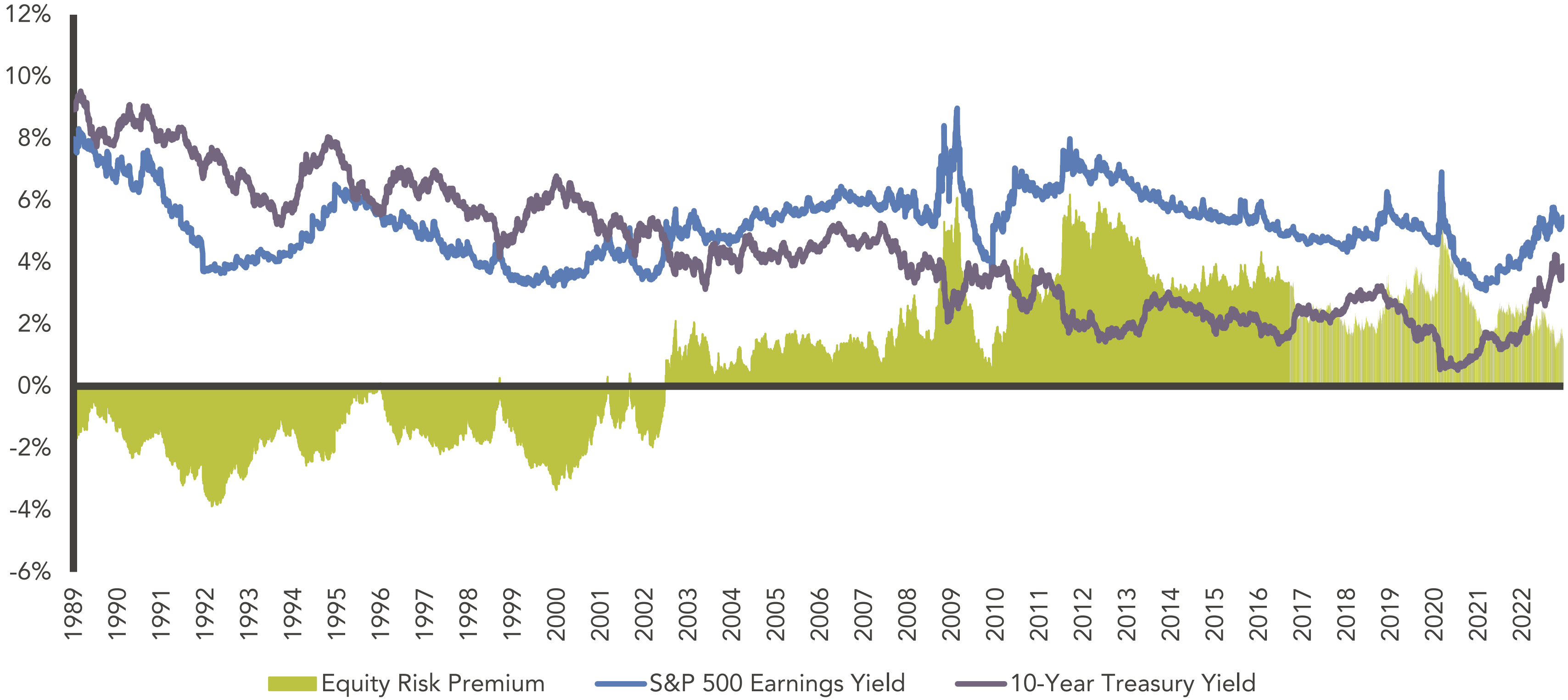
RUSSELL 2000

	Calendar Year Return (%)	Next Year Return (%)
1984	-7.3	31.0
1987	-8.8	25.0
1990	-19.5	46.0
2000	-3.0	2.5
2002	-20.5	47.3
2008	-33.8	27.2
2011	-4.2	16.3
2015	-4.4	21.3
2018	-11.0	25.5
2022	-20.4	
	Average	**26.9**

Source: Bloomberg as of December 31, 2022. Includes years with returns less than -3%.

Equity risk premium

The equity risk premium has compressed to levels not seen in over a decade, but remains positive



Source: Bloomberg as of December 31, 2022. The equity risk premium is the earnings yield of the S&P 500 minus the yield on the 10-year Treasury bond

Opportunities and risks in U.S. equities

Opportunities

Valuations below long-term averages
The Russell 2000 forward price-to-earnings ratio is below its long-term average, which may set investors up for better returns as the interest rate environment stabilizes. Value indices, across the market cap spectrum, are also attractive relative to historical ranges.

Gains may follow large market declines
Historically, on average, U.S. markets have recovered following peak inflation and negative calendar year returns.

Don’t count U.S. equities out
Pressure from interest rate increases and downward earnings revisions has seen the equity risk premium come under pressure. U.S. equities may still be positioned for a strong recovery as interest rate hikes slow.

Risks

Hawkish Fed
Fed Chair Jerome Powell continues to reinforce a steadfast stance to combat inflation and slow the economy.

Lower earnings growth environment
Year-over-year S&P 500 earnings growth rate is estimated to be 5% in 2023, notably below its 10-year average of 9%. Although positive earnings growth is expected in 8 of 11 sectors, risks may be to the downside.

Geopolitical strife
Ongoing instability in Europe and elsewhere could have negative impacts on U.S. companies that derive a significant portion of revenues overseas. OPEC’s plan to cut oil production by 2 million barrels per day could further exacerbate global inflation.

Non-U.S. Equities

Global equity performance

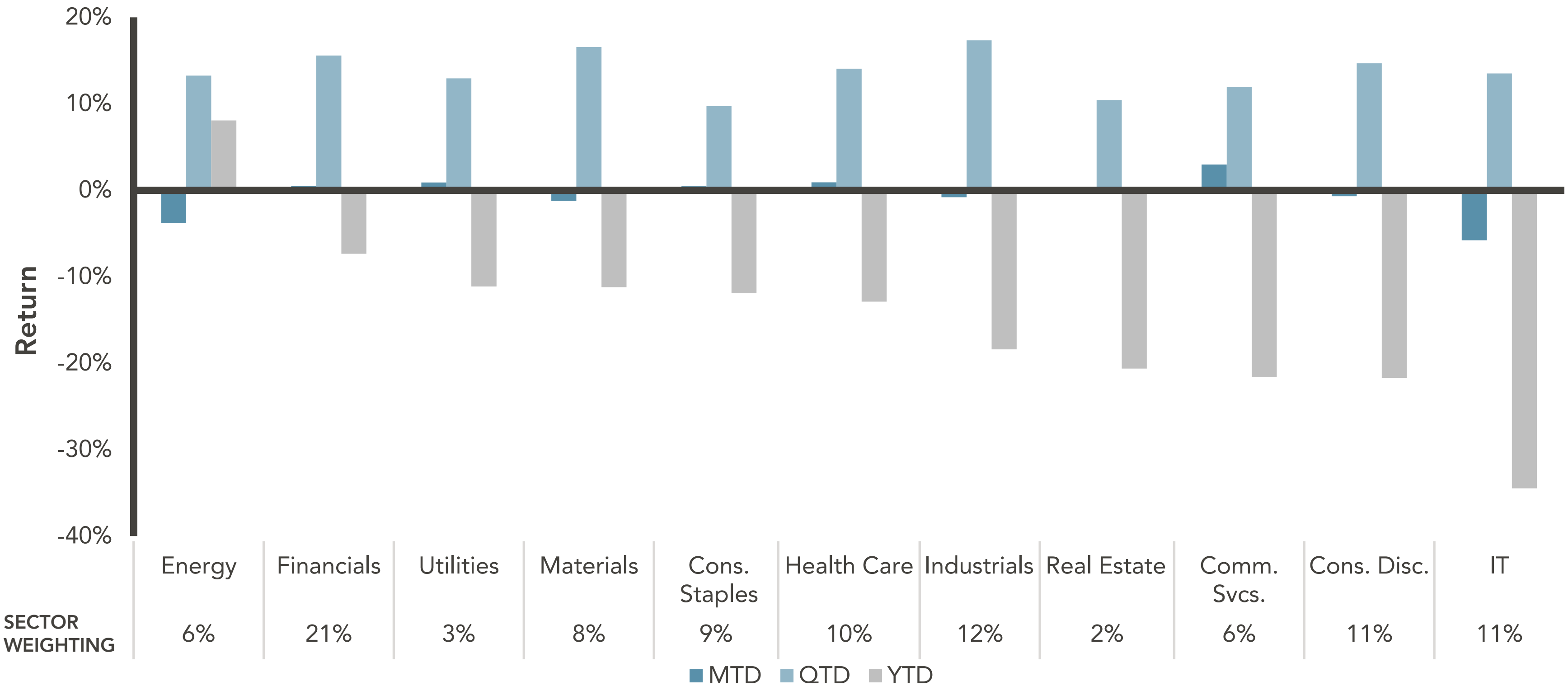
Non-U.S. equities ended a tough year with a strong fourth quarter

		MTD (%)	QTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Global Equity Market Indices	MSCI ACWI	-3.9	9.8	-18.4	4.0	5.2	8.0
	MSCI ACWI ex. U.S.	-0.7	14.3	-16.0	0.1	0.9	3.8
Developed Markets Indices	MSCI EAFE	0.1	17.3	-14.5	0.9	1.5	4.7
	MSCI EAFE Local	-3.0	8.7	-7.0	3.6	3.8	7.6
Emerging Markets Indicies	MSCI Emerging Markets	-1.4	9.7	-20.1	-2.7	-1.4	1.4
	MSCI EM Local	-2.0	6.6	-15.5	0.1	1.3	4.6
Small-Cap Market Indices	MSCI EAFE Small-Cap	1.1	15.8	-21.4	-0.9	0.0	6.2
	MSCI EM Small-Cap	-1.0	8.2	-18.0	5.1	1.1	3.2
Frontier Markets Index	MSCI Frontier	-1.5	-0.8	-26.3	-3.7	-2.5	3.2

Source: Bloomberg as of December 31, 2022

MSCI ACWI ex-U.S. sector performance

All sectors produced positive returns in the fourth quarter; IT was the worst performer in 2022



Source: Bloomberg as of December 31, 2022

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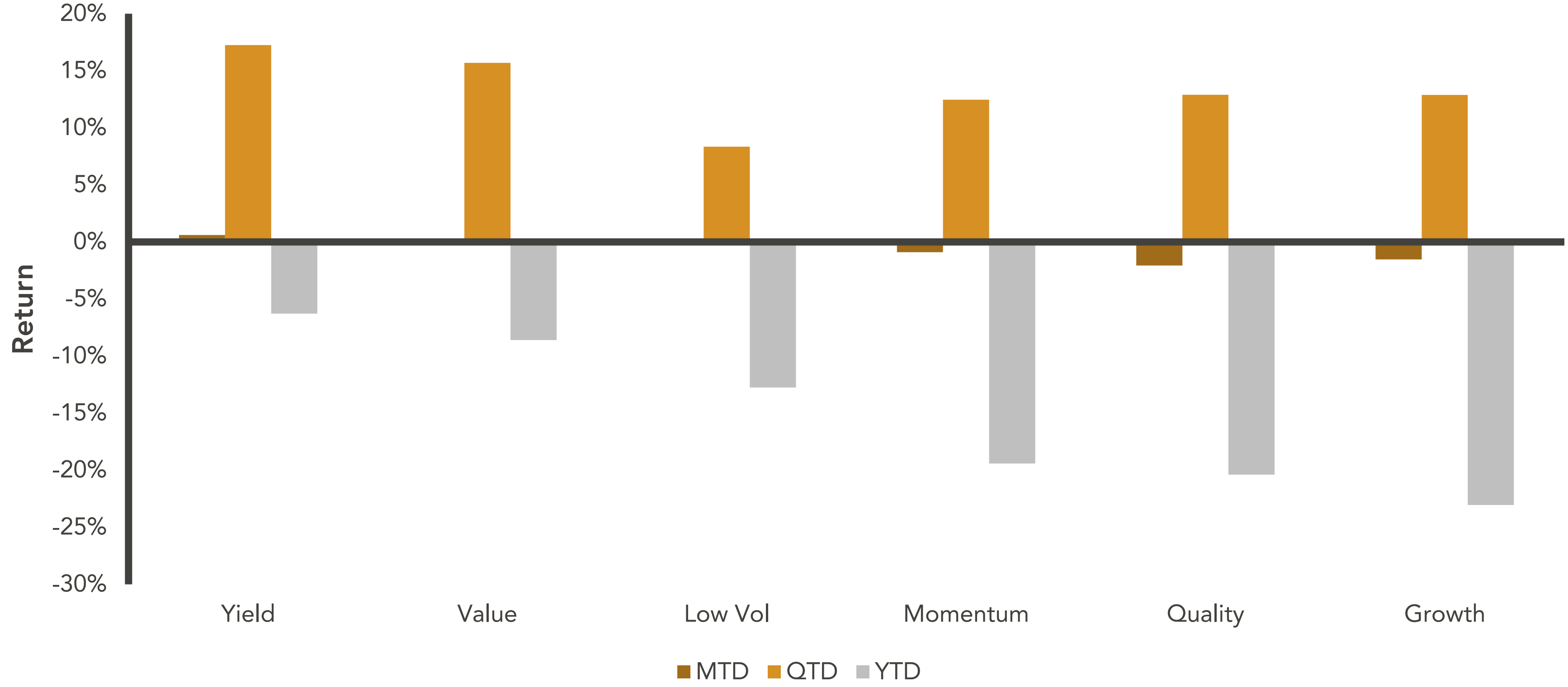
MSCI ACWI ex-U.S. factor performance

Quality and growth underperformed while yield and value outperformed



Source: Bloomberg as of December 31, 2022

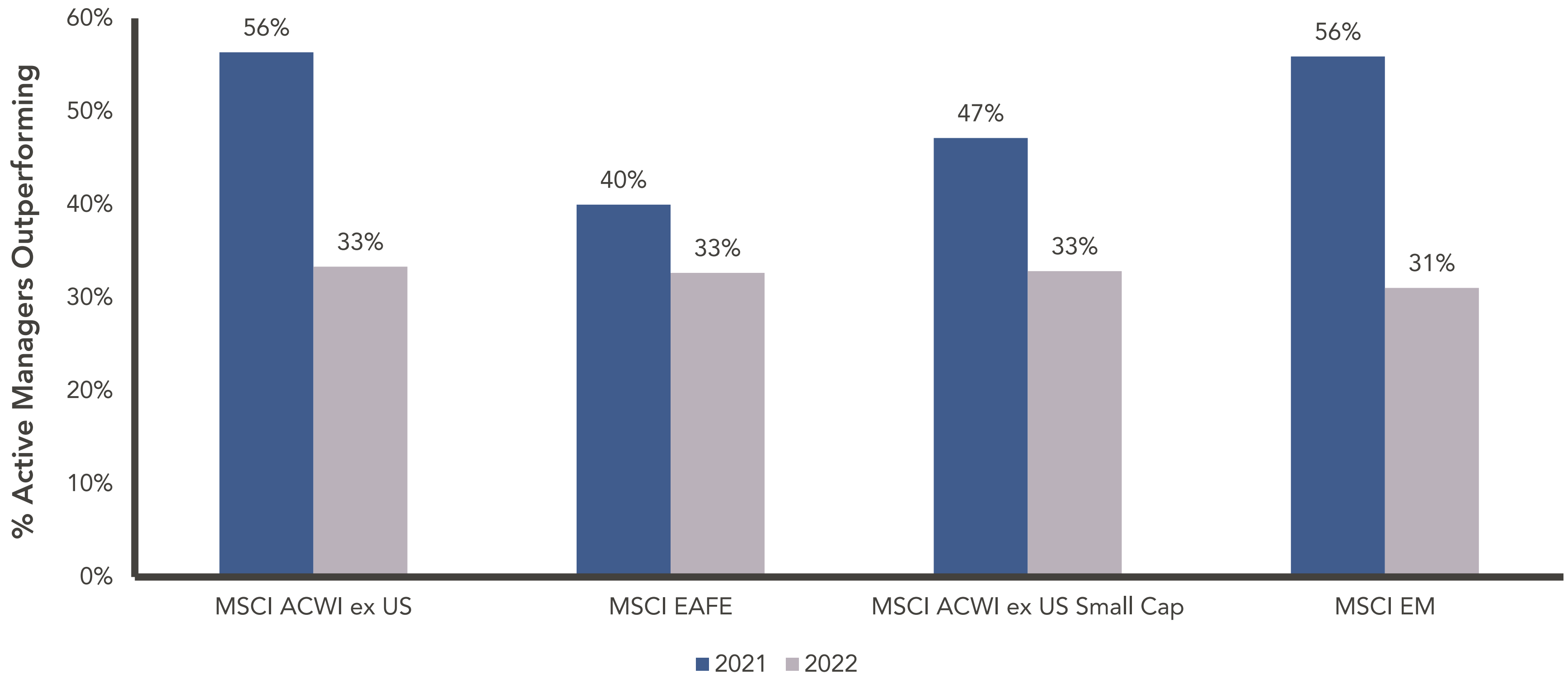
Country performance

Most countries rebounded in the fourth quarter, though still posted full year losses

Source: Bloomberg as of December 31, 2022. Returns based on individual MSCI country indices, country weights based on the MSCI ACWI ex-U.S. Index.

Active manager performance

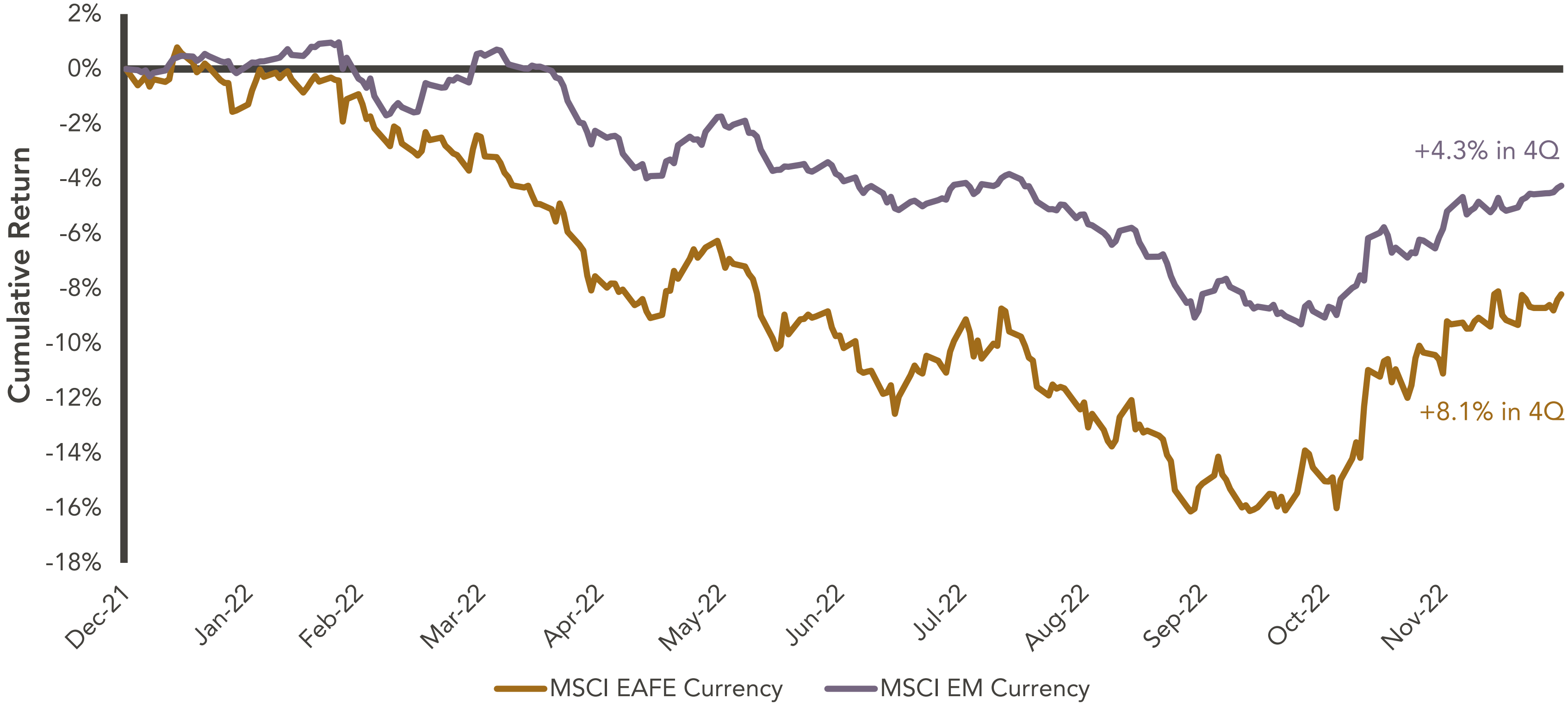
Active managers struggled in 2022 with markets driven by macroeconomic factors



Source: Morningstar as of December 31, 2022. Data pulled actively managed mutual funds on January 9, 2023.

Currency performance

Currencies rebounded in the fourth quarter, though still ended the year in negative territory



Source: Bloomberg as of December 31, 2022

Global equity valuations

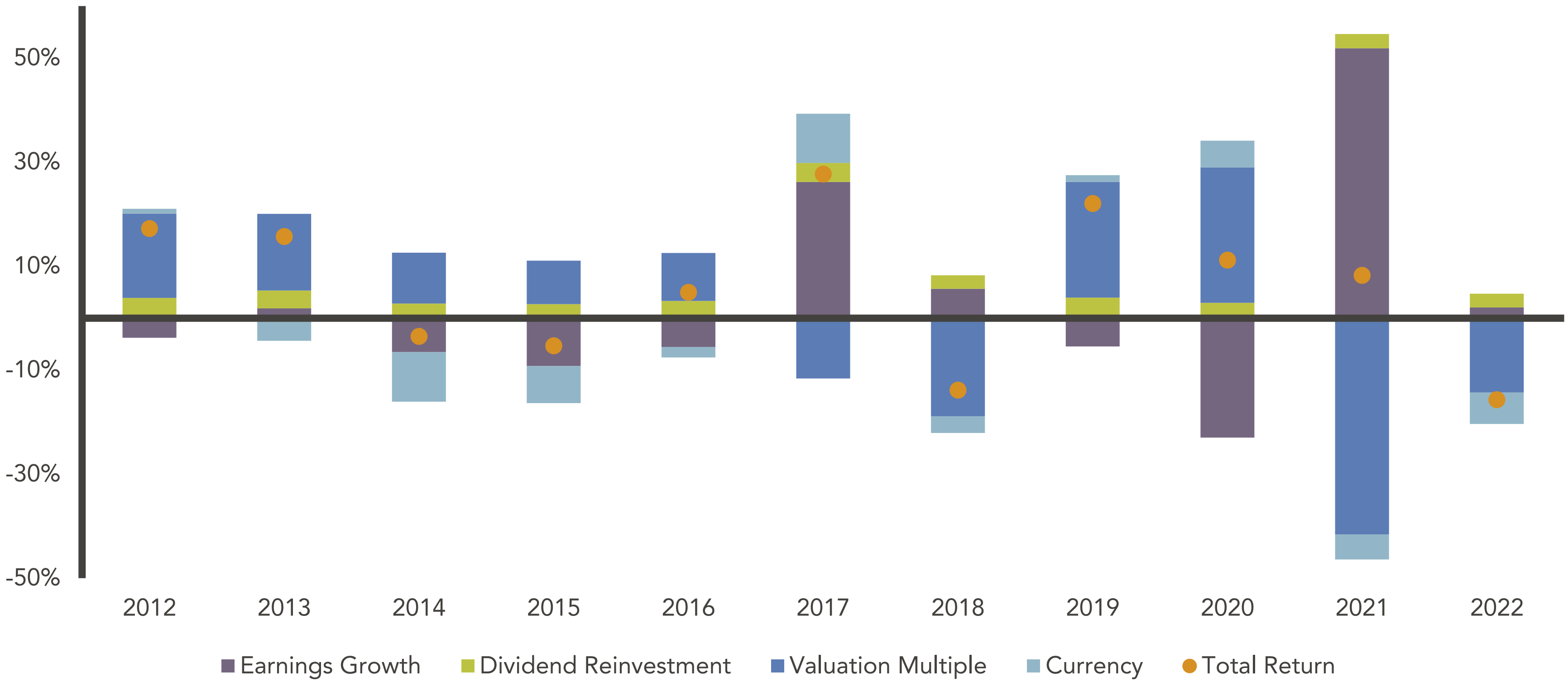
Non-U.S. markets are meaningfully cheaper than the S&P 500

Valuation Metrics	S&P 500		MSCI EAFE		MSCI EM		MSCI EAFE SC	
	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)	Current	Historical Percentile (%)
P/E	18.1	49	12.2	10	9.6	11	10.1	10
Forward P/E	16.4	77	12.0	31	11.4	71	12.3	28
P/B	3.9	86	1.7	51	1.5	32	1.2	28
P/S	2.3	87	1.3	87	1.1	40	0.8	62
P/CF	12.9	62	7.3	28	8.3	55	10.8	75
EV/EBITDA	12.8	74	7.9	9	7.9	50	8.5	5
Average		**73**		**36**		**43**		**35**

Source: Bloomberg as of December 31, 2022, data pulled on January 5, 2023. P/E is adjusted for negative earnings; percentiles are based on data going back to 1999 except for FP/E which goes back to 2005.

Valuation compression

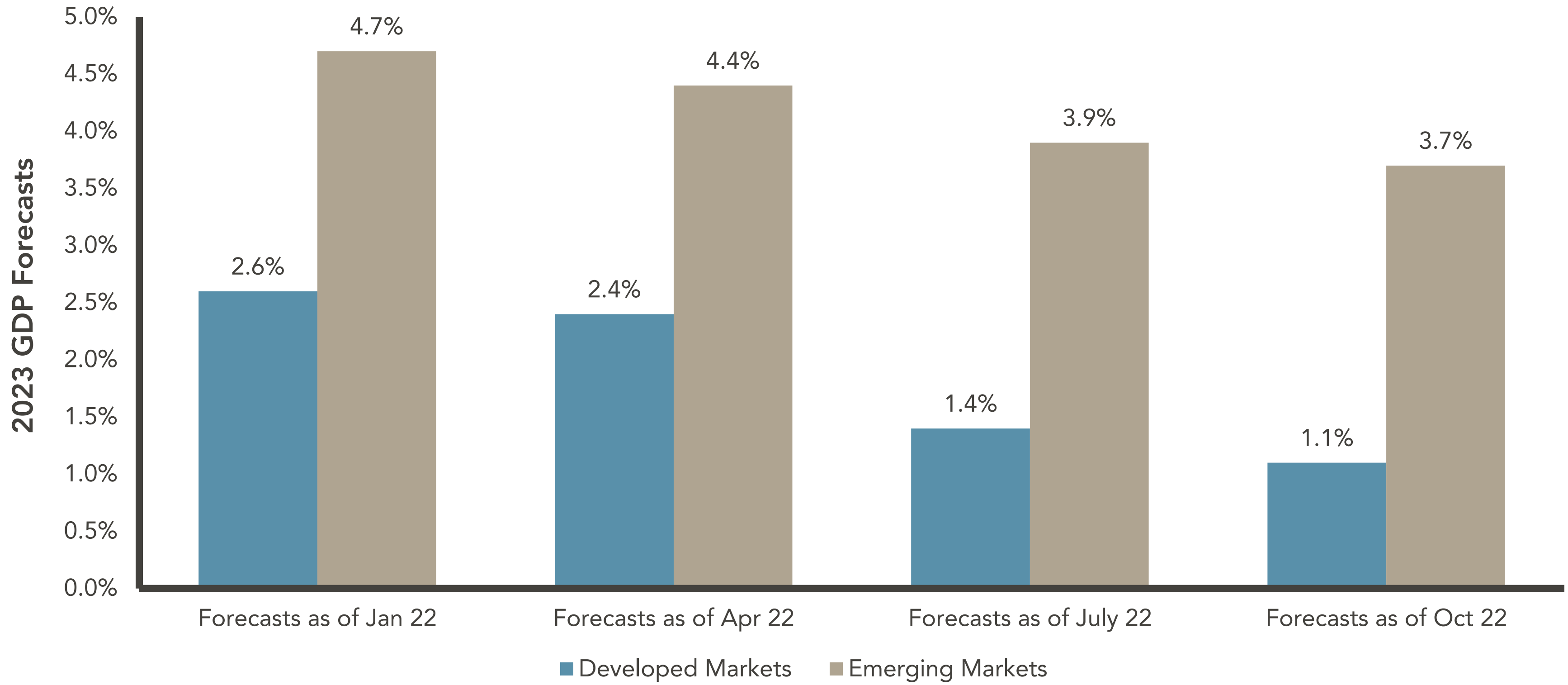
2022 saw a continuation of multiple contraction for the MSCI ACWI ex-U.S. index, which drove its negative return for the year



Source: Bloomberg as of December 31, 2022; currency component calculated using the difference between returns the MSCI ACWI ex-US Local and MSCI ACWI ex-US indices

GDP forecasts continue to fall

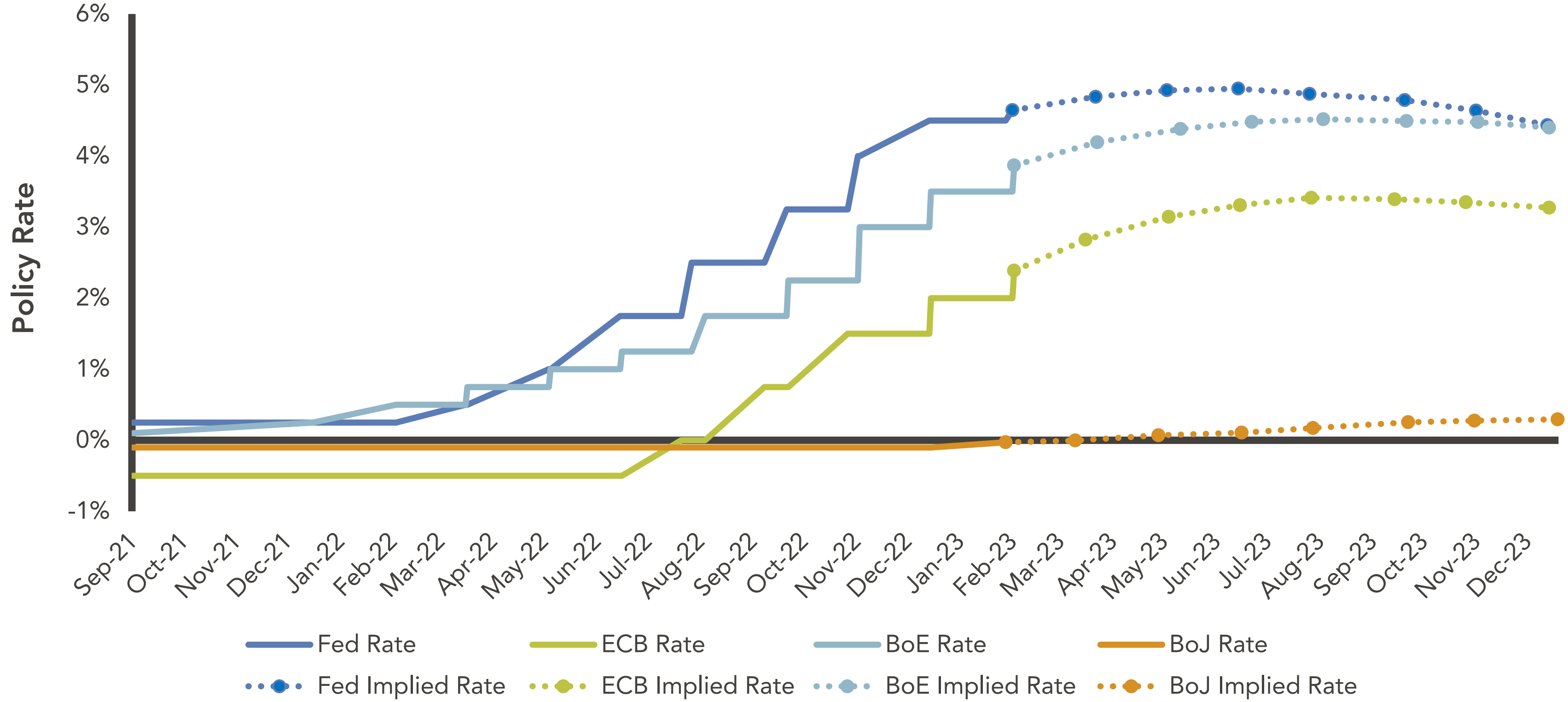
Global economic activity is expected to slow in 2023; growth forecasts have been revised downward over the last year



Source: IMF

Projected rate hikes in 2023

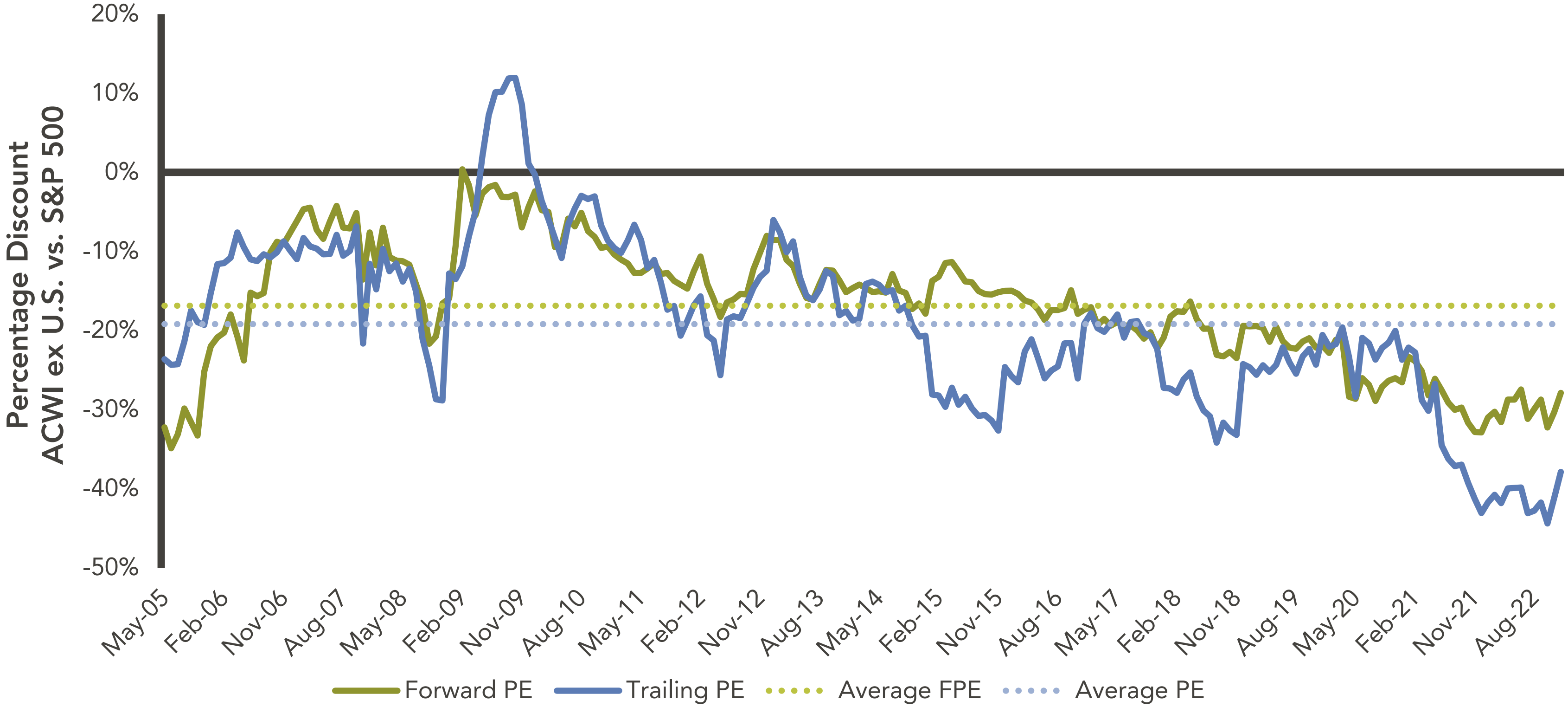
Non-U.S. central banks are catching up as the Fed starts to slow both the frequency and size of rate hikes



Source: Bloomberg as of December 31, 2022. Data pulled on January 10, 2023.

Non-U.S. trading at a historical discount

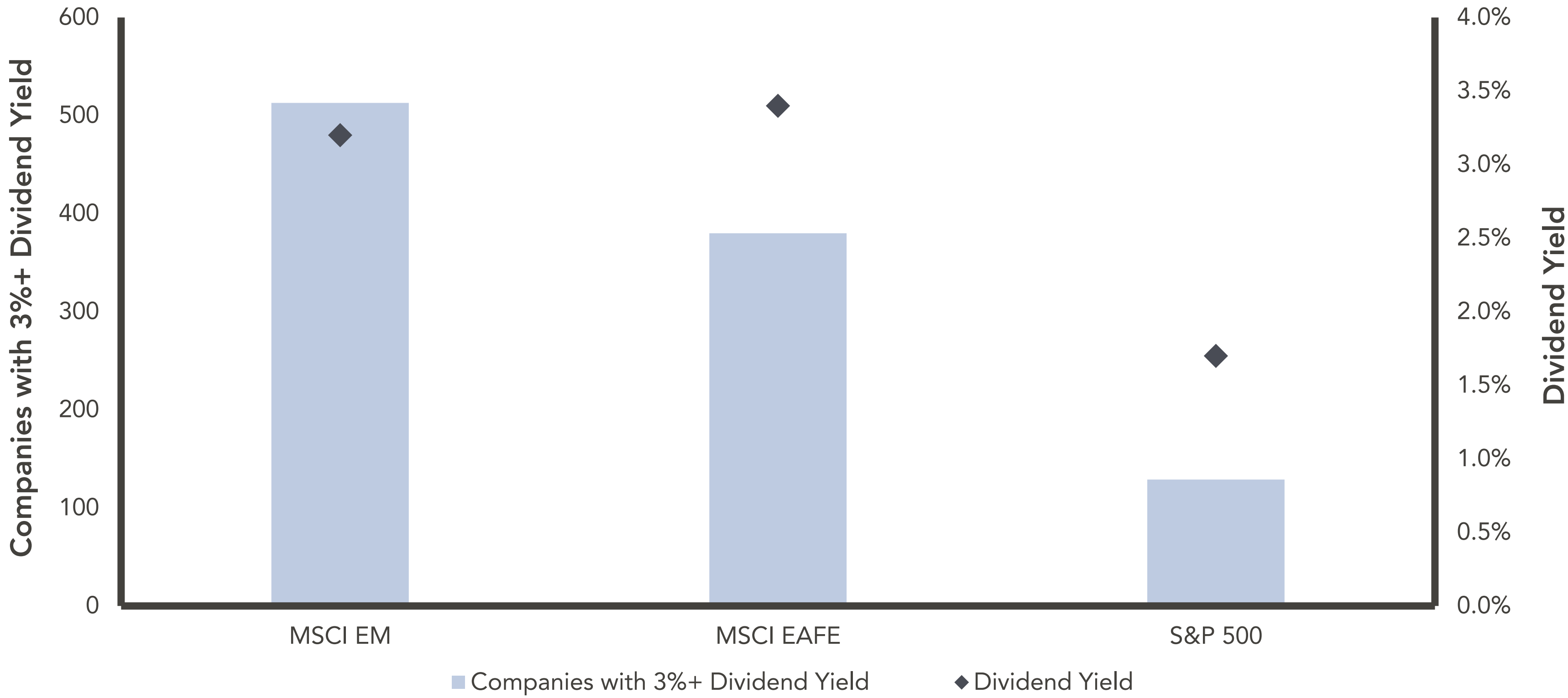
The current discount for non-U.S. equities vs. the S&P 500 is at or near 18-year lows



Source: Bloomberg as of December 31, 2022. Data pulled on January 9, 2023.

Dividend payers more prominent in non-U.S. markets

Dividends may become a more significant and stable contributor to total returns going forward, which could serve as a tailwind for non-U.S. equities



Source: Bloomberg as of December 31, 2022

Opportunities and risks in non-U.S. equities

Opportunities

Historically cheap valuations
The MSCI ACWI ex-US index is trading at a historically low valuation, serving as a potential tailwind for the asset class.

Potential currency correction
Dollar strength may abate as the Fed nears a pause in its rate hike cycle; dollar weakness due to more favorable interest rate differentials should benefit non-U.S. currencies.

Higher dividend yields
The MSCI ACWI ex-US index had a dividend yield of more than 3.3% at the beginning of 2023, compared to roughly 1.7% for the S&P 500 index.

China reopening
Chinese authorities are rolling back the zero-COVID policies that have stymied economic activity over the past three years.

Risks

High inflation and low growth
Though on a recent downtrend, inflation remains elevated through much of the developed world. Any upside surprises would likely weigh on equity returns. Economic activity is expected to slow with several indicators pointing towards a recession.

Geopolitical tension
The Russia-Ukraine conflict continues to pose threats to supply chains (energy, food, and retail) and add to global inflationary pressures. Sentiment on U.S.–China relations improved to end 2022 but remains a risk in markets.

China reopening
While the country's reopening is viewed as a positive for economic activity, it could also lead to price pressure with an increase in demand.

Hedge Funds

Hedge fund performance

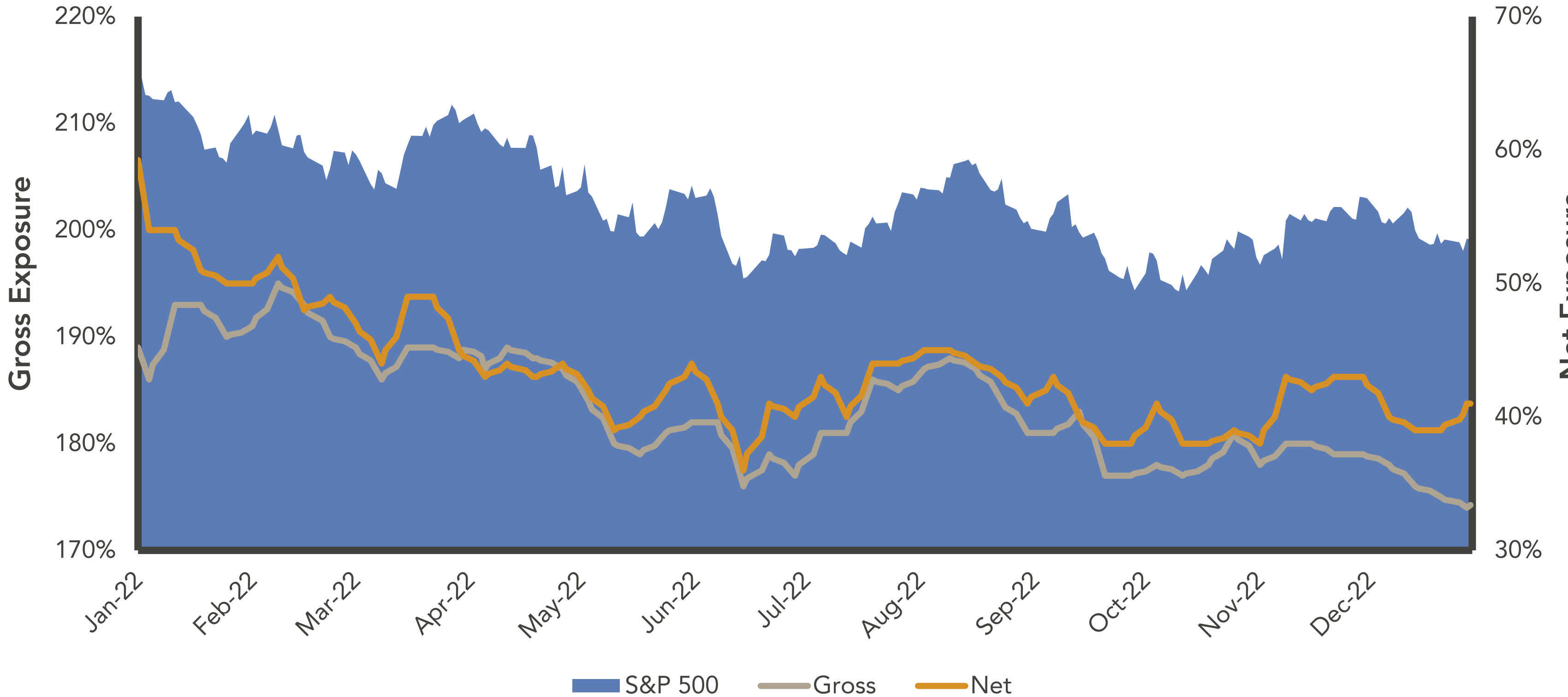
Hedge funds both participated in the market rally early in the fourth quarter and provided protection in the risk-off reversal in December

	MTD (%)	QTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
HFRX Global	-0.1	0.2	-4.4	1.9	1.4	1.8
HFRX Equity Hedge	-0.1	1.7	-3.2	4.3	2.6	3.3
HFRI Composite	-0.4	2.2	-4.3	5.7	4.4	4.7
HFRI Fund of Funds	0.9	2.4	-4.7	3.9	3.2	3.6
HFRI Convertible Arbitrage	1.1	3.0	-1.2	6.3	5.1	5.1
HFRI Equity Hedge	-0.9	4.0	-10.4	5.7	4.5	5.5
HFRI Event-Driven	-0.5	2.9	-5.0	5.3	4.2	4.8
HFRI Macro	0.5	-1.0	9.3	7.5	4.9	3.1
HFRI Merger Arbitrage	0.5	2.2	2.5	6.1	5.7	4.6
HFRI Relative Value	0.0	1.2	-0.9	3.3	3.3	4.0
CBOE S&P 500 PutWrite	-0.4	6.9	-7.7	4.7	4.2	6.4

Source: Bloomberg, Hedge Fund Research, CBOE as of December 31, 2022

Hedge fund leverage

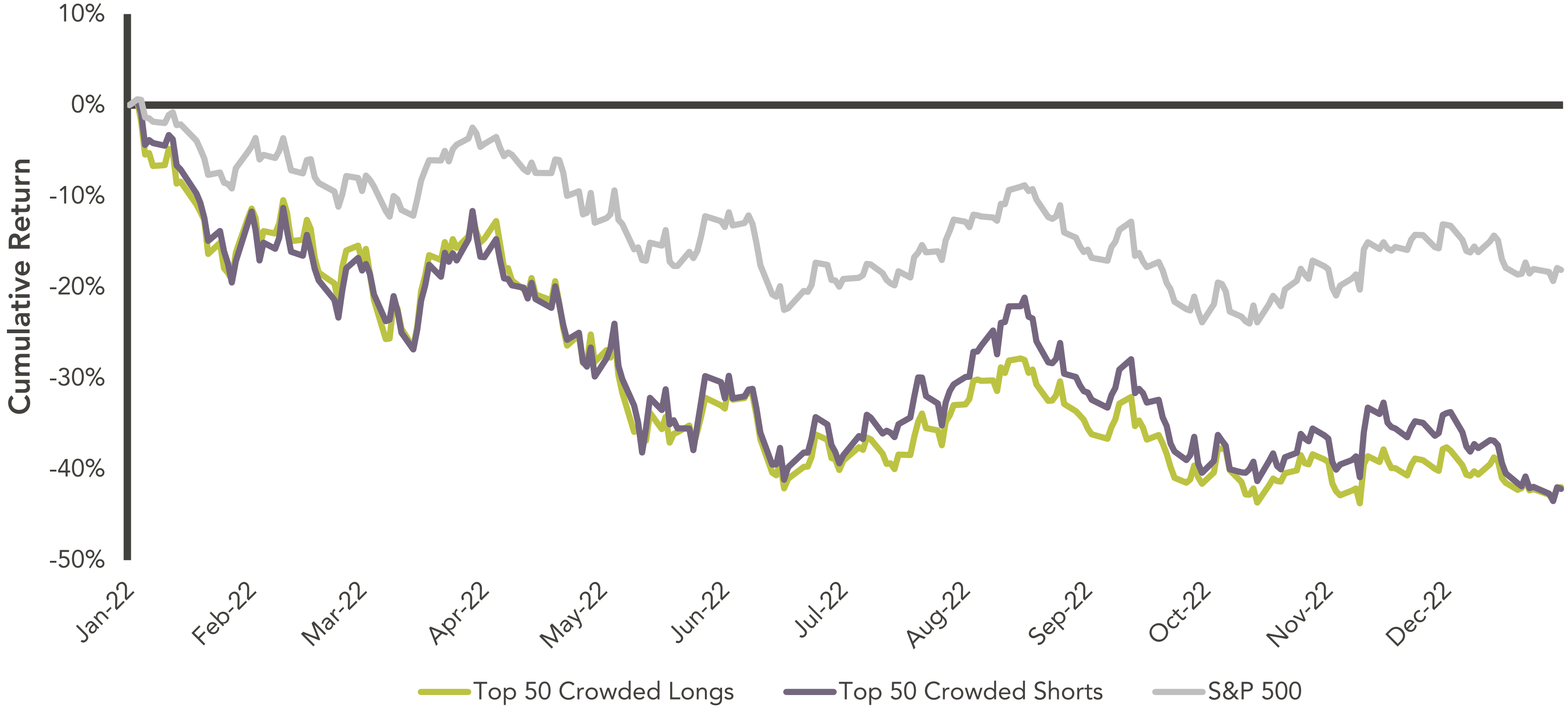
Gross and net leverage remains conservatively positioned; gross exposure is near multi-year lows



Source: Bloomberg, Morgan Stanley Prime Brokerage as of December 31, 2022

Long/short spread

Shorts generated strong alpha in December while longs lagged broader equity indices

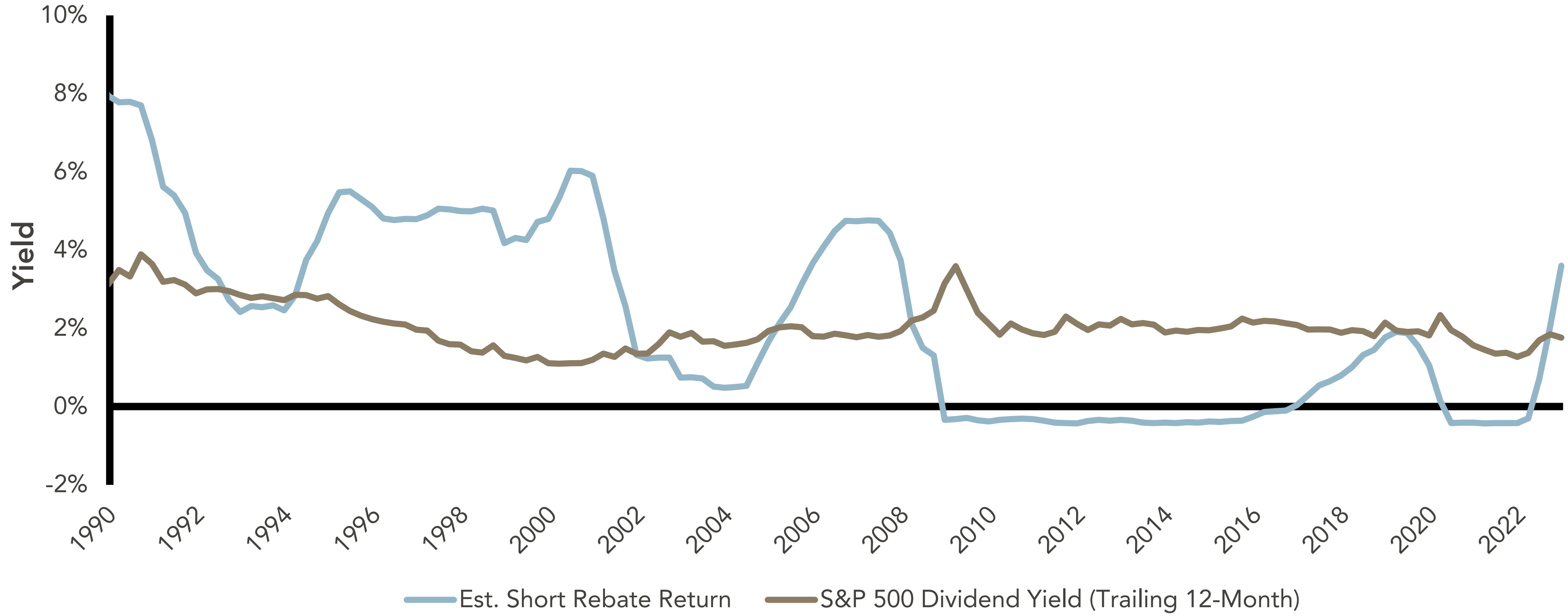


Source: Bloomberg, Morgan Stanley Prime Brokerage as of December 31, 2022

Positive short rebates

Short rebates exceed equity dividend yields for the first time in 15 years, reducing the cost burden to short in equity hedge portfolios

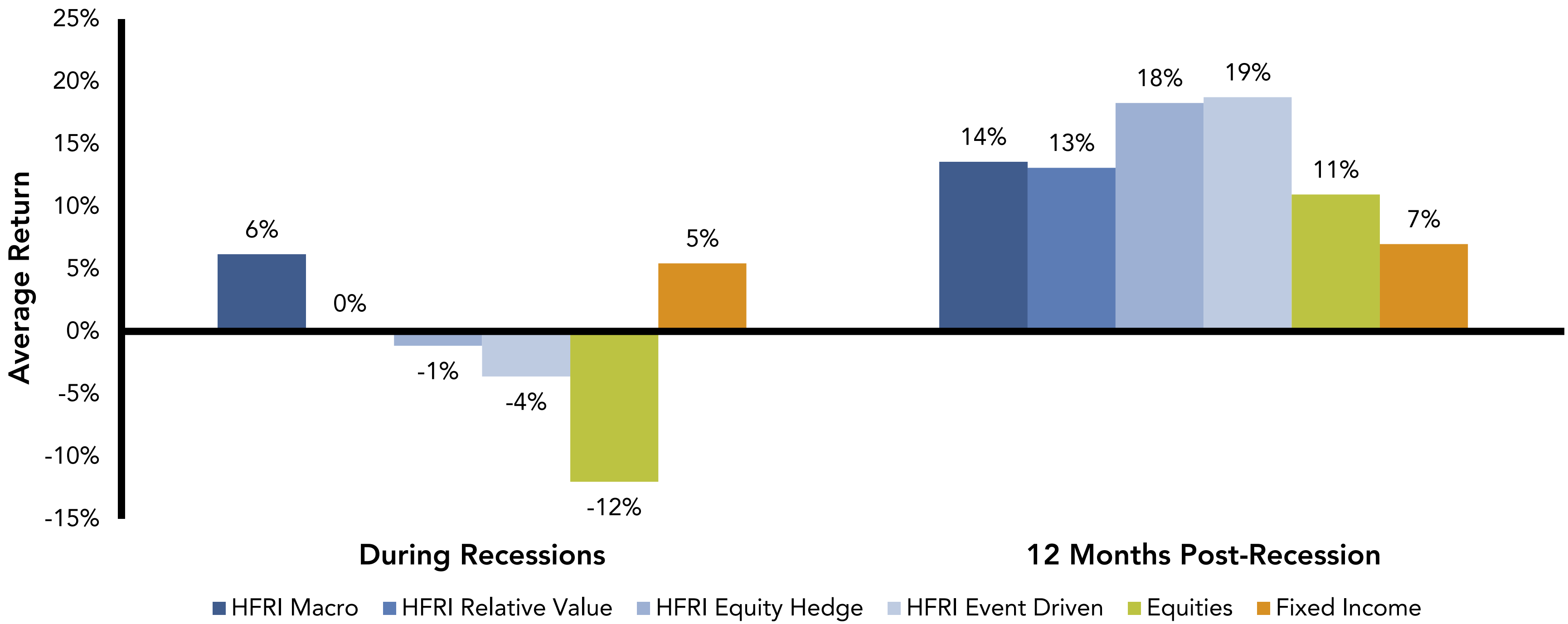
- A stock loan rebate, or short rebate, represents the interest earned on collateral (less a fee) required to borrow stocks in order to sell short



Source: Federal Reserve, Bloomberg; data from January 1,1990 to December 31, 2022. The estimated short rebate represents the effective federal funds rate less a 50bp spread.

Hedge funds during and post recessions

Hedge funds have historically protected capital in recessions but have also significantly outperformed traditional assets post-recession



Source: HFRI, eVestment as of December 31, 2022. Recessions determined by National Bureau of Economic Research's defined recession indicator: July 1990 to March 1991, March 2001 to November 2001, December 2007 to June 2009, February 2020 to April 2020. Equities are represented by MSCI ACWI (Gross Total Return) from January 1990 to January 1999 and MSCI ACWI (Net Total Return) from January 1999 to December 2022. Fixed income is represented by the Bloomberg US Aggregate Total Return Index.

Opportunities and risks in hedge funds

Opportunities

Capital preservation
Hedge funds typically provide downside protection in market drawdowns, particularly in recessions, via the use of variable gross and net exposure, short books, and idiosyncratic investments.

Credit
Credit managers with flexible mandates are well positioned to take advantage of challenging financing conditions, attractive yields, and improving idiosyncratic opportunities in stressed/distressed credit.

Improved alpha outlook for long/short funds
Market volatility and dispersion and an evolving capital market landscape improves the opportunity set for long/short managers across both equity and credit.

Positive returns on collateral
Short rebates in excess of dividend yields reduce the cost burden to short and increase return expectations.

Risks

Macro-driven market
Elevated market volatility and macro concerns may pose continued challenges for funds that focus on bottoms-up fundamentals.

Conservative positioning
Reduced gross and net exposures have helped hedge funds protect against the downside but may limit upside participation in a swift equity market rally absent a pivot in positioning.

Concentrated investor flows
Investor flows have been increasingly concentrated in the largest managers as investors chase performance. Larger funds outperformed in 2022, but smaller funds tend to be more nimble and outperform over time. Poor performance from larger funds could lead to accelerated outflows.

Style drift
Generally, markets that are challenging to navigate increase the risk of active management style drift. With more flexibility, hedge funds are at particular risk.

Real Estate

Real estate performance

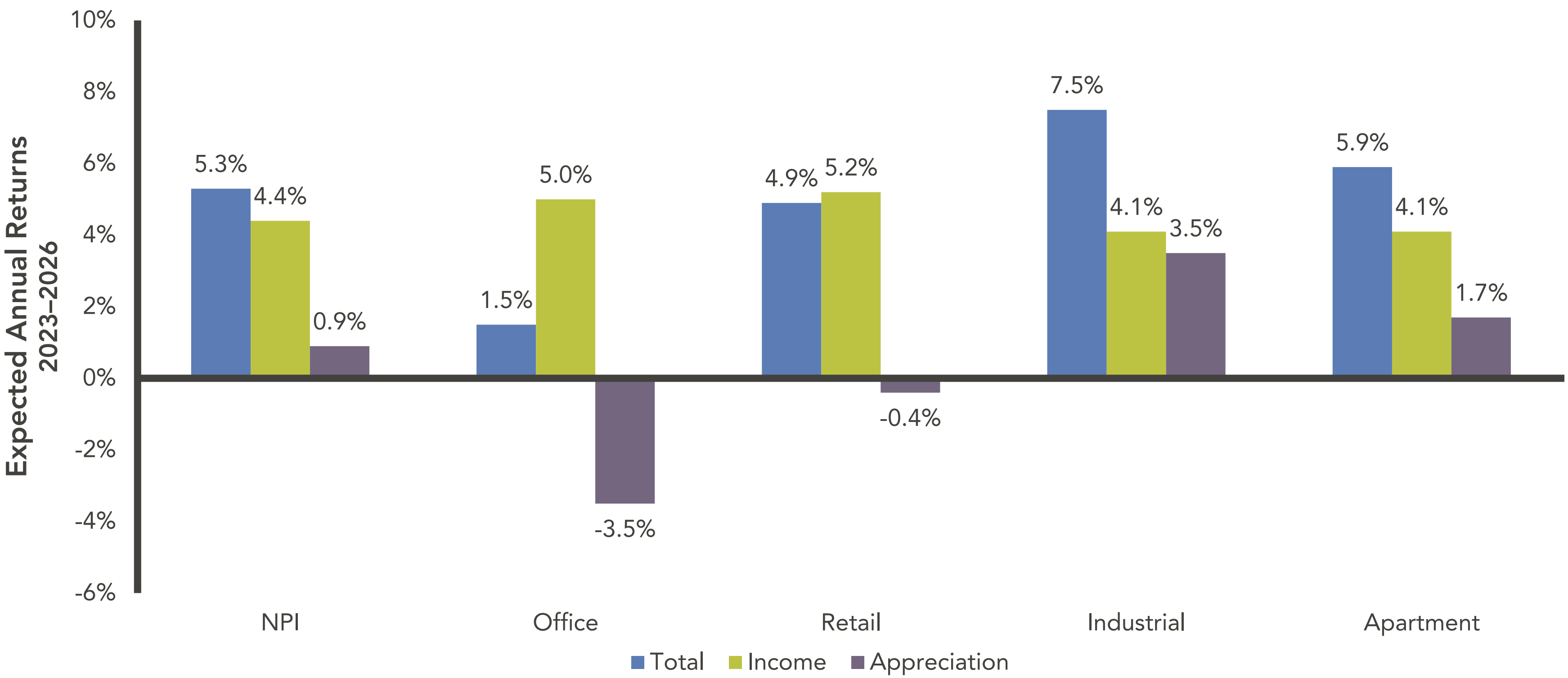
Real estate returns began to slow in the third quarter, driven by declines in capital value growth and slowed transaction activity

Indices	3Q22 (%)	YTD (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
NPI	**0.6**	**9.4**	**16.1**	**9.9**	**8.6**	**9.5**
Income	0.9	2.9	4.0	4.2	4.3	4.7
Appreciation	-0.4	6.3	11.8	5.6	4.2	4.6
NFI-ODCE*	**0.5**	**13.1**	**22.1**	**12.4**	**10.2**	**10.9**
Income	0.8	2.6	3.6	3.9	4.0	4.4
Appreciation	-0.3	10.3	18.0	8.3	6.1	6.3
FTSE NAREIT All Eq. REITs	**-10.8**	**-27.9**	**-16.3**	**-1.1**	**4.1**	**7.0**
Property Type						
NPI Apartment	1.2	10.6	18.2	11.1	9.0	9.2
NPI Office	-0.7	1.5	3.2	3.6	4.8	7.1
NPI Industrial	1.1	18.8	34.6	25.2	20.6	16.7
NPI Retail	0.4	4.4	6.7	0.2	1.2	6.2
NPI Hotel	2.7	6.4	11.3	-5.8	-1.3	3.5
Geographic Sectors						
NPI East	0.3	6.3	11.3	7.4	6.4	7.4
NPI Midwest	0.2	5.7	9.8	5.6	5.0	7.2
NPI South	1.1	11.3	19.1	11.0	9.4	10.2
NPI West	0.6	11.2	19.2	12.1	10.7	11.3

Source: NCREIF as of September 30, 2022

Returns by property type

Rent growth, rather than capital value appreciation, is expected to drive returns across core sectors through 2026

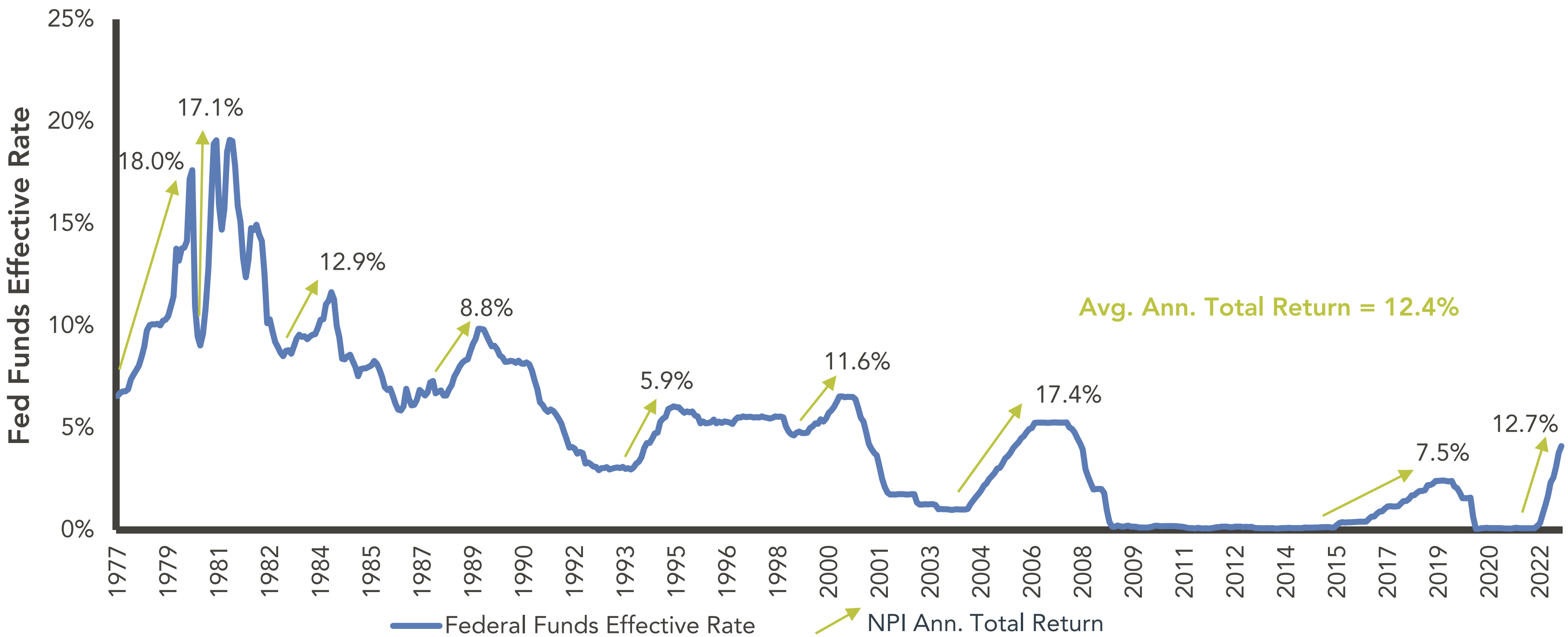


Source: PREA Consensus Survey, AEW as of December 31, 2022

Performance amid higher interest rates

Dating back to the late 1970s, during stretches of interest rate increases, core real estate has consistently earned positive returns

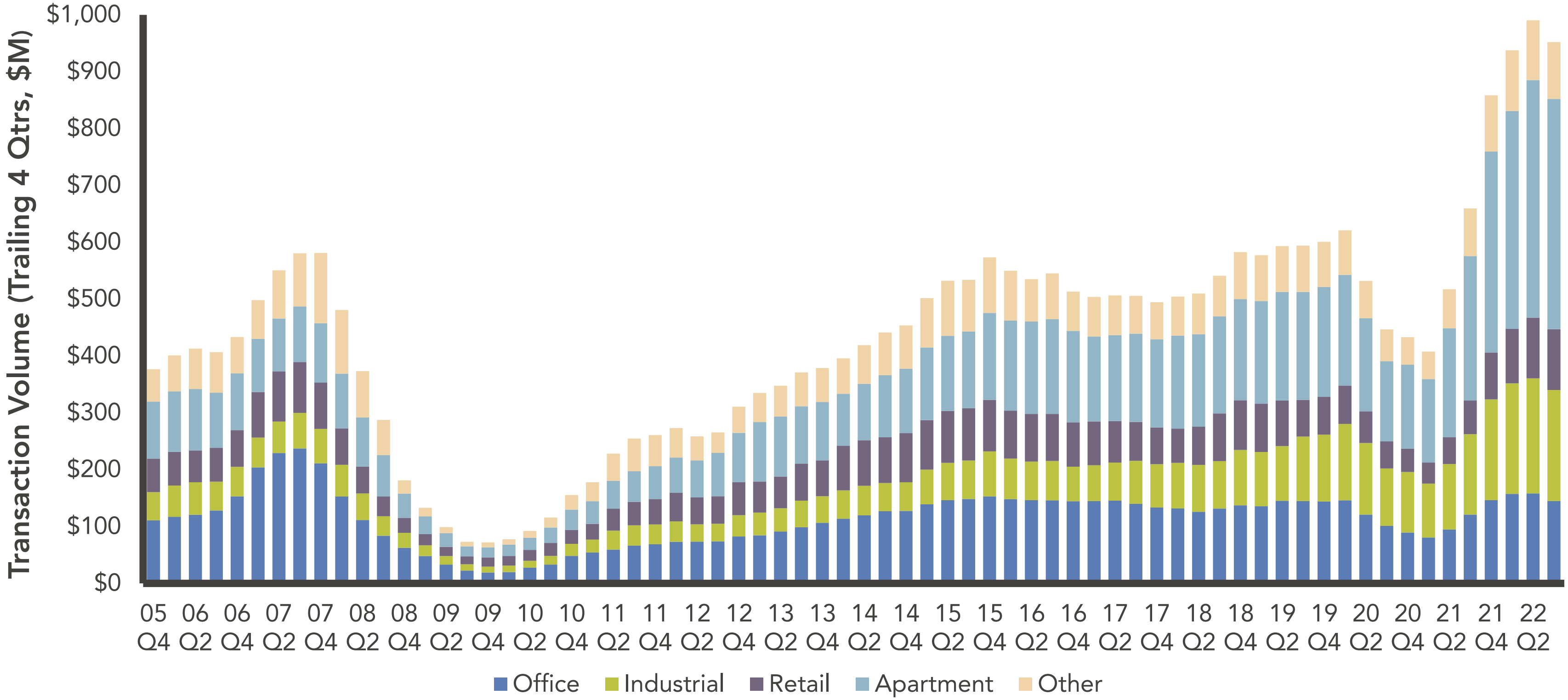
NPI Total Returns During Periods of Fed Rate Hikes



Source: NCREIF, Federal Reserve, Moody's Analytics, Clarion Partners Investment Research as of December 31, 2022

U.S. transaction activity

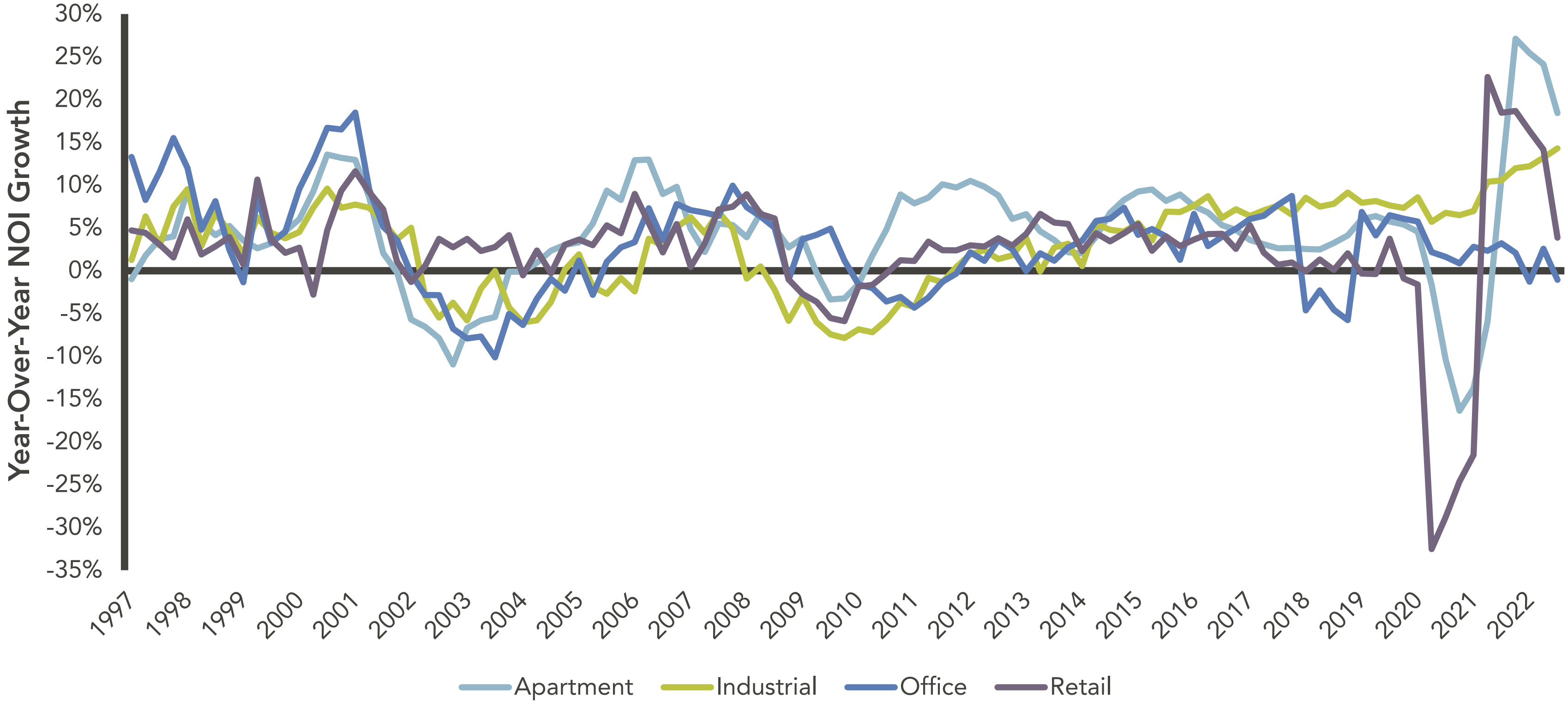
Despite record sales volume, the complex economic environment and increasing costs of capital have negatively impacted deal flow



Source: RCA, MSCI, AEW as of December 31, 2022

NOI declines

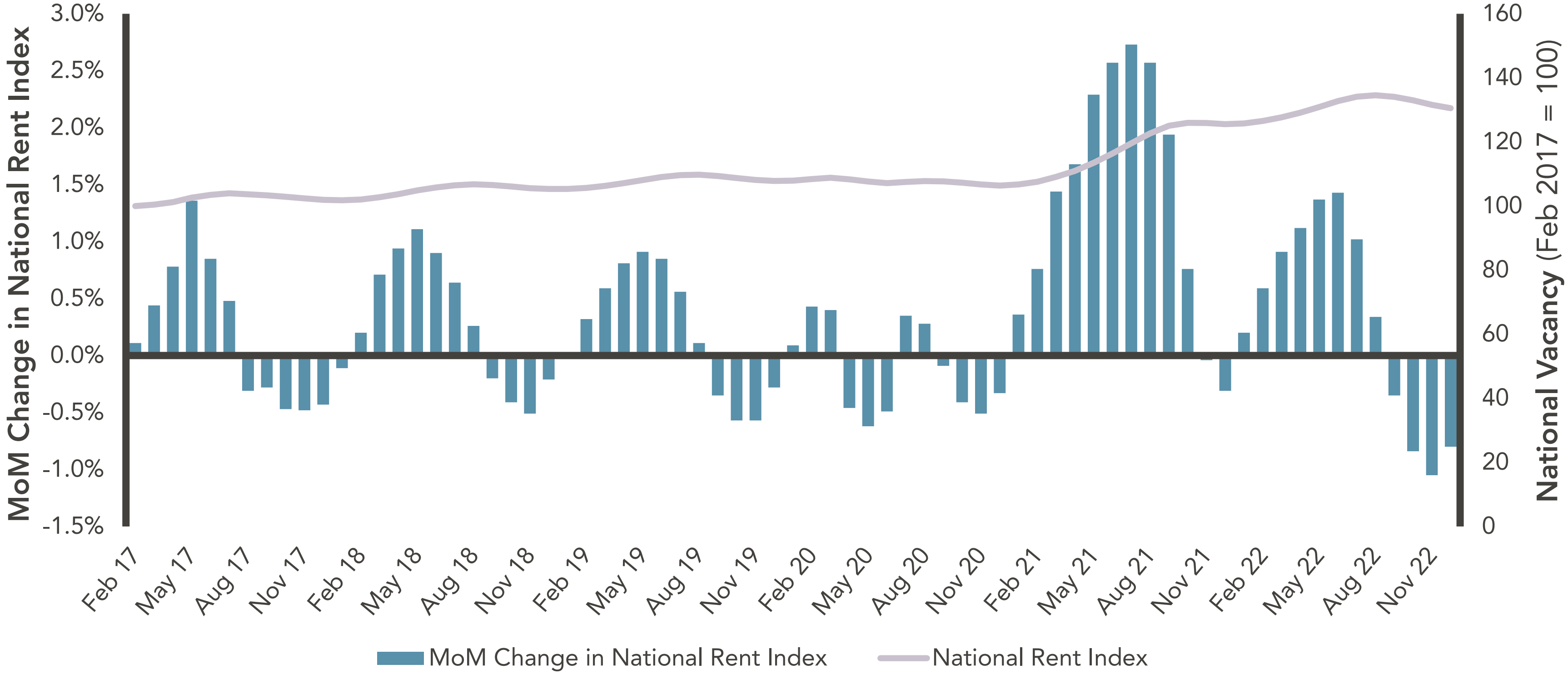
Despite resilient demographic drivers in U.S. markets, net operating income growth has started to wane in three of the four core sectors



Source: NCREIF, AEW as of December 31, 2022

Apartment rent growth moderating

Multifamily rents declined in December for the fourth consecutive month; lease income is still up 4% year-over-year



Source: Apartment List as of December 31, 2022. Vacancy Index is calculated as the ratio of vacant units to total units among a representative sample of listed multifamily properties across U.S. markets.

MarquetteAssociates

Opportunities and risks in real estate

Opportunities

Hedge against inflation and debt costs
Shorter duration lease structures in multifamily and hospitality allow for the ability to reset rents and pass-through incremental maintenance, construction and debt costs to existing and new tenants.

Strong multifamily and single-family fundamentals
Persistent housing shortages and financing challenges have continued to present home purchasing obstacles for the Millennial and Gen Z population. Against this backdrop, apartment and single-family rentals have provided yield-starved investors with an inflation hedge with assets in markets with high population and job growth.

Targeted deal flow offers favorable entry points
Value-add and opportunistic managers are well positioned to drive excess returns via targeted sourcing, return-enhancing renovations and changes in existing property uses at the deal level. Real estate investors have the opportunity to enter distressed, debt and secondary market deal flow at unlevered, discounted price points.

Risks

Valuation expectations in a new rate environment
Commercial real estate is in a price discovery phase for the next 6–12 months. Cap rates have started to increase across sectors and markets amid rising rates, negatively impacting price growth. Incremental income at the property level could help offset diminishing returns from cap rate movements.

Continued devaluations and liquidity challenges
The hawkish Fed, decelerating rent growth, and global uncertainty are affecting asset price marks. Broader questions about a 2023 recession and constrained credit markets are starting to negatively impact underwriting, fundraising and realizations, but could also magnify the "denominator effect" and redemption queues.

Rising financing costs and slowing development
Higher construction and borrowing costs could shift real estate investors to a "risk-off" position regarding new commercial development. Investors may question whether real estate has the pricing power to be an adequate inflation hedge, as the ceiling to reset rents to market levels may be limited from a negative leverage environment.

Infrastructure

Infrastructure performance

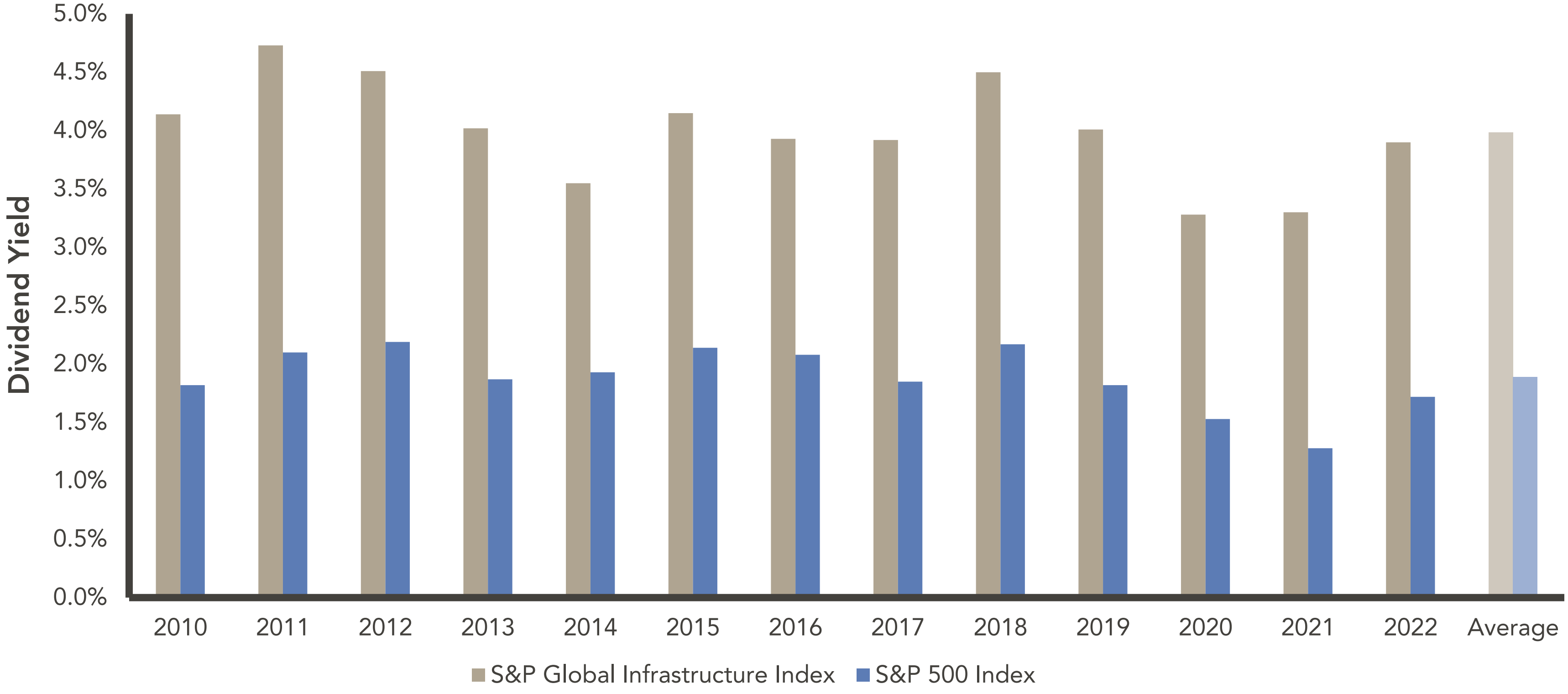
Infrastructure posted negative returns in 2Q for the second consecutive quarter, though is still outperforming public markets

	2Q22 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
EDHEC infra300 Index (Private)	-1.3	4.8	5.4	7.2	13.0
DJB Global Infrastructure Index	-7.1	2.1	4.4	5.6	7.6
Bloomberg Aggregate	-4.7	-10.3	-0.9	0.9	1.5
CPI + 5%	7.6	12.7	10.0	8.9	7.6
S&P 500	-16.1	-10.6	10.6	11.3	13.0
DJ Industrial Average	-10.8	-9.1	7.2	10.0	11.7

Source: Bloomberg, EDHEC as of June 30, 2022

Infrastructure yield

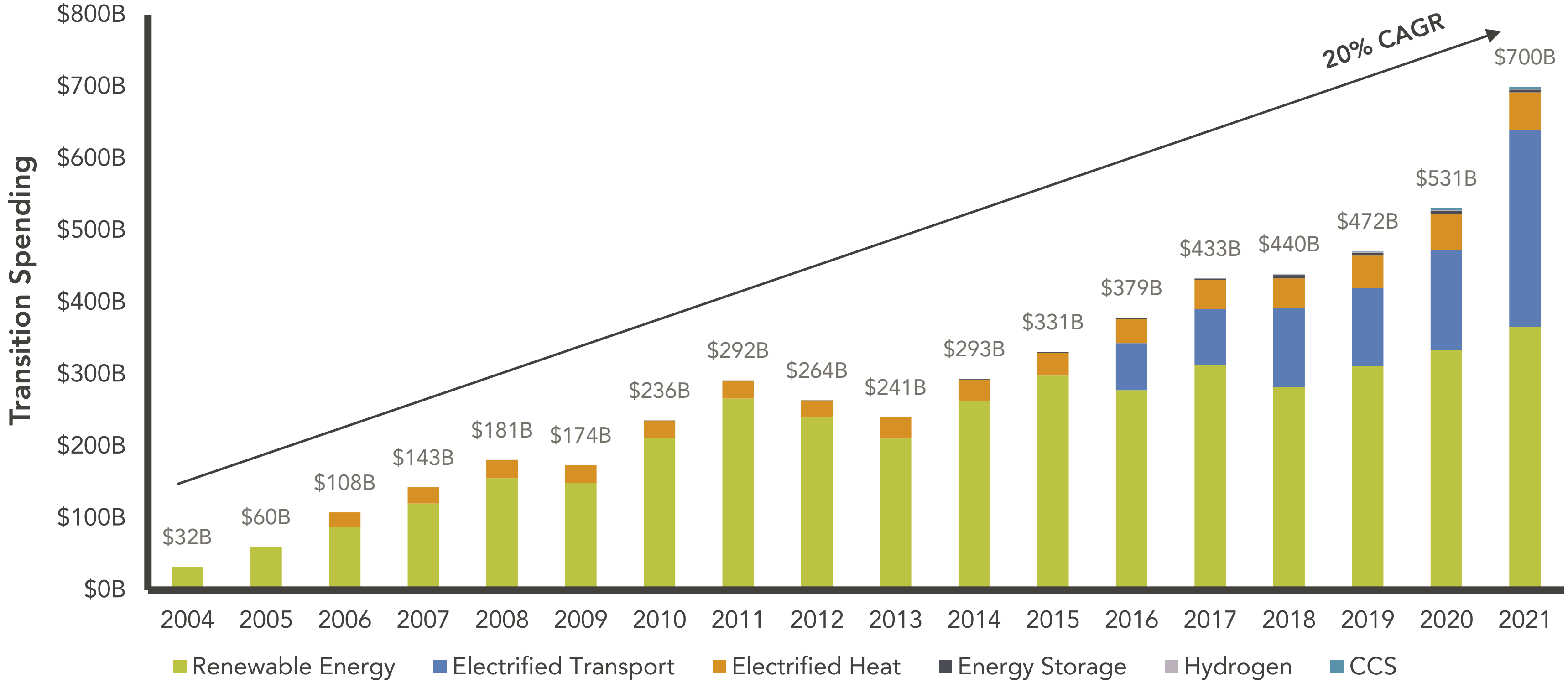
Stable income growth of underlying infrastructure interests has fostered attractive yields relative to equities



Source: Bloomberg, Carlyle as of December 31, 2022

Global energy transition

Renewable energy projects are driving accelerated capital deployment to support carbon capture and ESG-friendly initiatives



Source: Wood Mackenzie, Bloomberg, Carlyle as of December 31, 2022

Opportunities and risks in infrastructure

Opportunities

Energy transition and demand for clean energy
Traditional energy companies are increasingly focused on achieving a pathway to net-zero emissions by 2050. Transportation and logistics assets are positioned to leverage accelerated fleet electrification, new forms of mobility and alternative fuels over the medium term.

Supportive regulation driving infrastructure
The Inflation Reduction Act and Biden Infrastructure Bill creates significant upside potential for infrastructure and transforms the U.S. environmental policy landscape. As global decarbonization efforts over the next three decades will require a $100 trillion investment, these regulatory measures are expected to have a positive impact on renewables, clean infrastructure, broadband and communications infrastructure.

Emergence of new sectors
The acceleration of the energy transition is expected to drive capital deployment to a wide range of non-traditional infrastructure sectors and should generate investment opportunities across electrification, hydrogen, alternative fuels, and carbon capture. Fiber, data centers and mobile infrastructure are expected to become "essential infrastructure" in more developed economies.

Risks

Global macro uncertainty
The deterioration of the macroeconomic climate over the past year makes infrastructure assets more susceptible to market volatility and systematic headwinds.

Slowed transition to net zero
Global infrastructure investment in cleaner energy initiatives is lagging the pace necessary to achieve net zero. An estimated $23 trillion investment is required to meet the Sustainable Development Goals by 2030 and stay on the trajectory to net zero by 2050.

Conservative fundraising in the short term
Recessionary fears and market fluctuations are impacting private infrastructure fundraising. Given the current strength of the U.S dollar, international capital may struggle to find its way to domestic markets and investors, introducing a potential headwind to fundraising for infrastructure managers.

Private Equity

Private equity performance

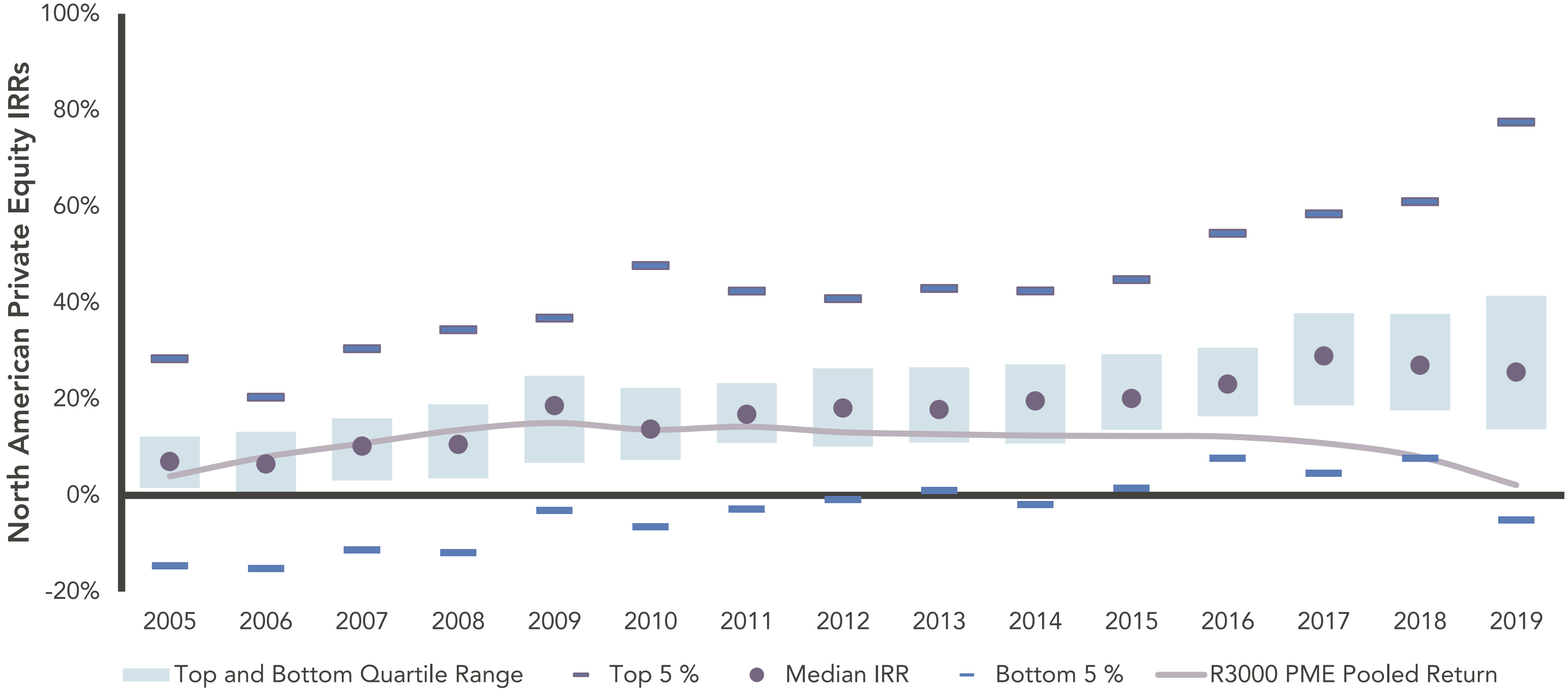
Performance turned negative across private equity markets, though has held up better than most public markets

	3Q22 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Global Private Equity	-1.8	-0.5	20.1	17.5	15.6
North America Private Equity	-3.2	3.9	23.2	20.2	17.5
Europe Private Equity	-5.9	-7.7	16.1	14.0	13.3
Rest of World Private Equity	-2.3	-5.5	11.7	10.3	11.2
Global VC	-1.9	-5.9	27.0	23.3	18.9
North America VC	-1.2	-6.1	31.8	26.2	19.9
Europe VC	-5.0	-11.3	23.6	20.1	14.9
Rest of World VC	-3.2	-2.6	19.3	19.8	19.9
MSCI All Country World Index	-6.8	-20.7	3.7	4.4	7.3
S&P 500	-4.9	-15.5	8.2	9.2	11.7
Russell 3000	-4.5	-17.6	7.7	8.6	11.4
Russell 2000 Growth	0.2	-29.3	2.9	3.6	8.8

Source: Burgiss, eVestment as of September 30, 2022

U.S. private equity vintage performance

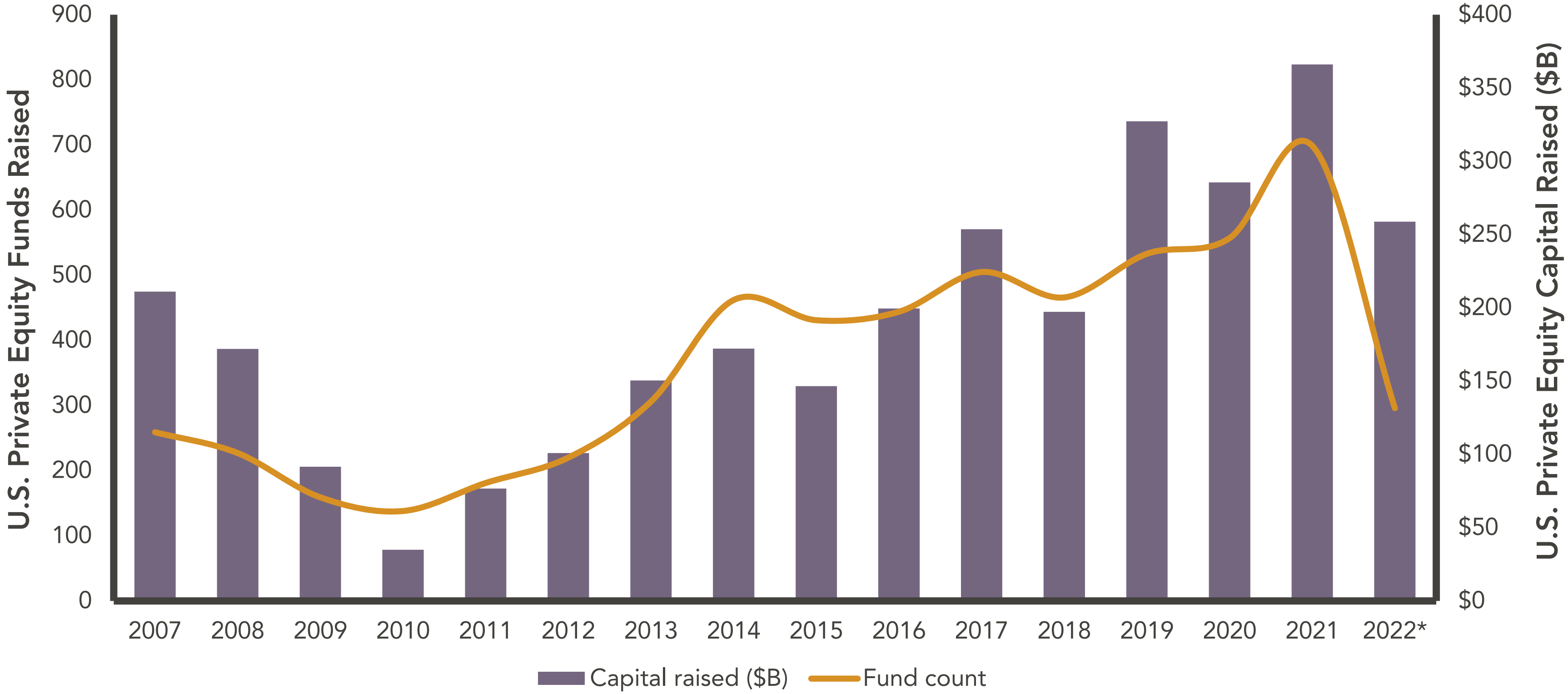
Private equity performance continues to be strong with industry median performance exceeding public market equivalents



Source: Burgiss North American All Private Equity Public Market Equivalent, Pooled Returns as of September 30, 2022

Fundraising levels have held up amid uncertainty

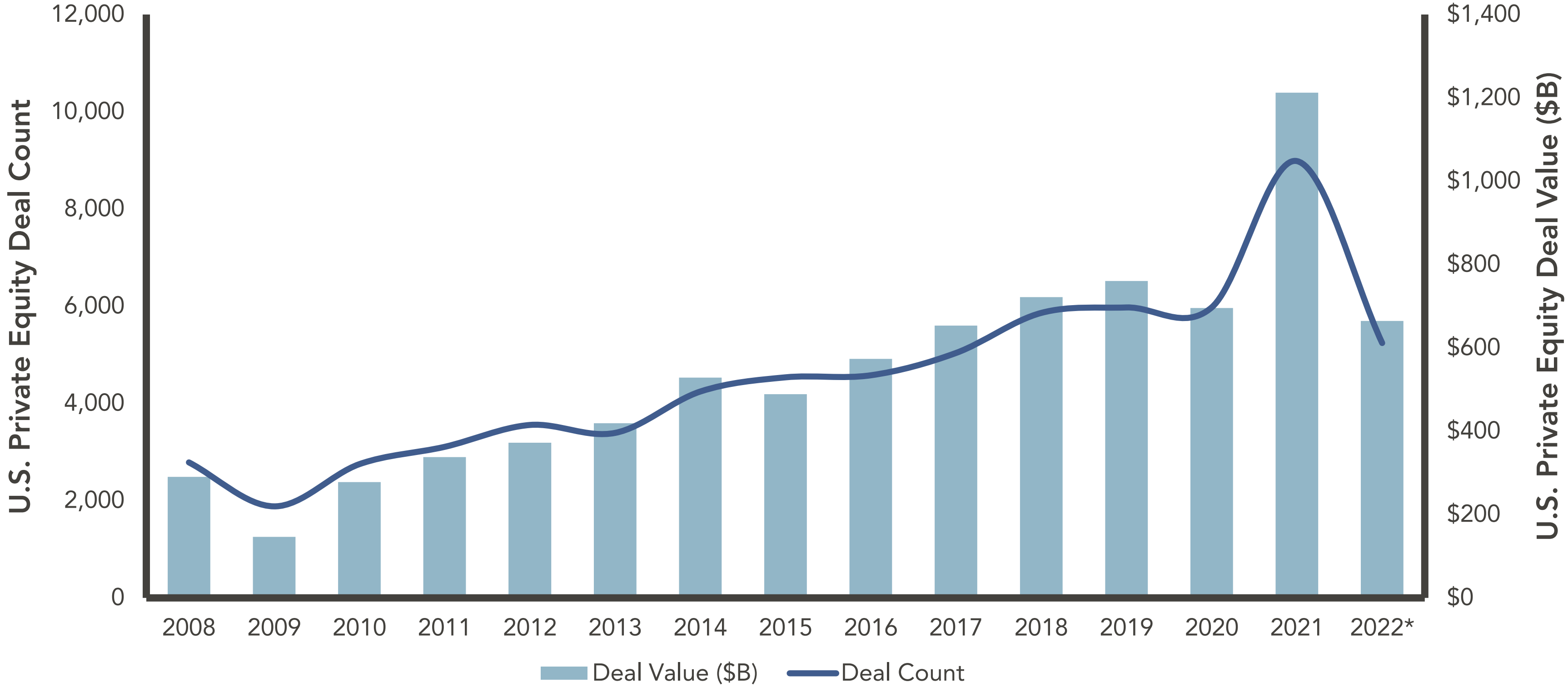
Fundraising held up throughout the third quarter, though we expect momentum to soften beginning in 4Q and into 2023



Source: Pitchbook as of September 30, 2022

Private equity deployment

Higher interest rates have caused deal activity to slow compared to 2021 highs; activity is consistent with historical levels

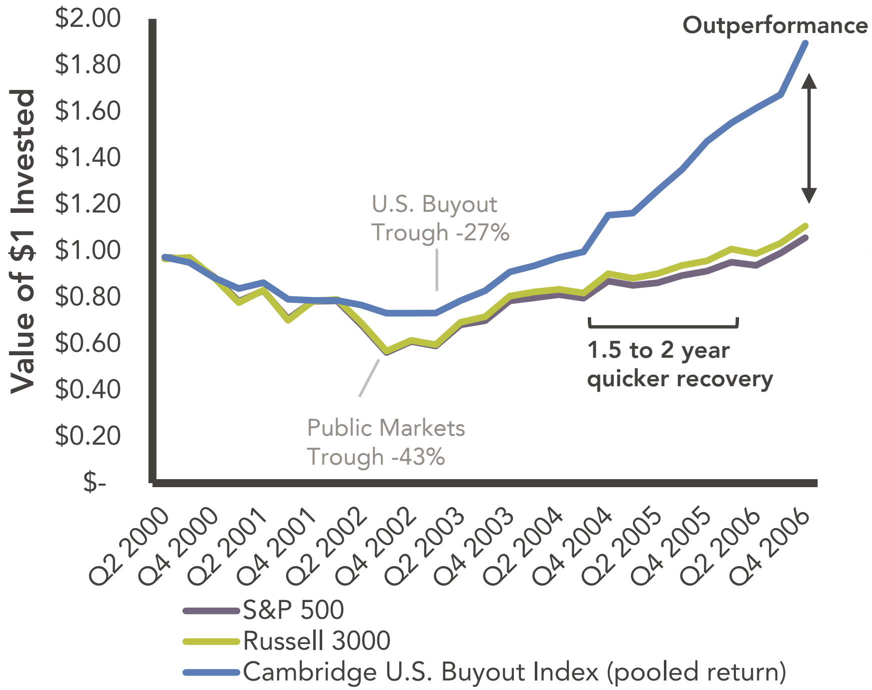


Source: Pitchbook as of September 30, 2022

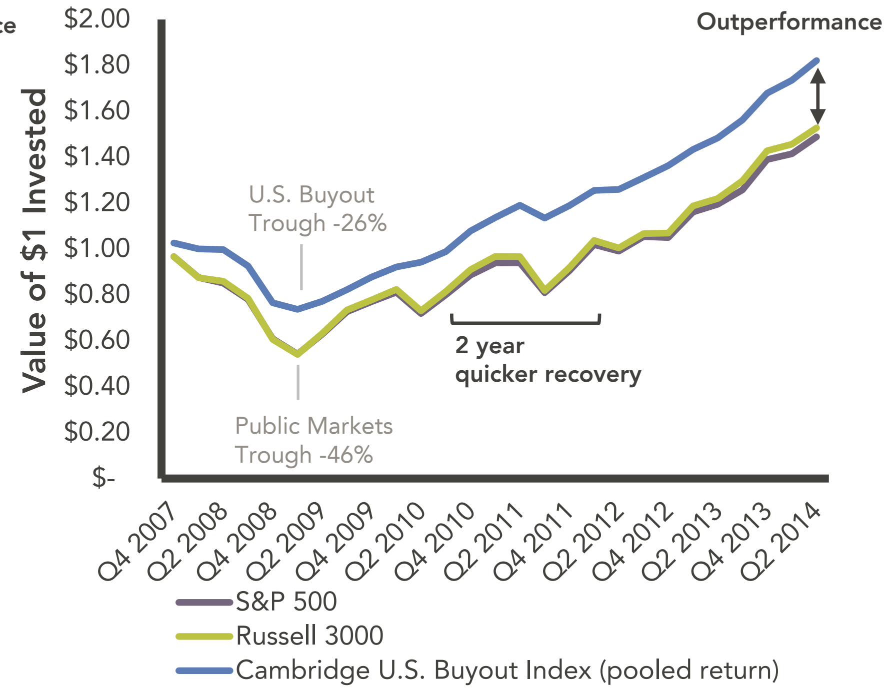
Private equity is resilient during downturns

Private equity has experienced lagged and less significant pullbacks with quicker recoveries relative to public market downturns

Return Analysis: Dot-Com Crisis



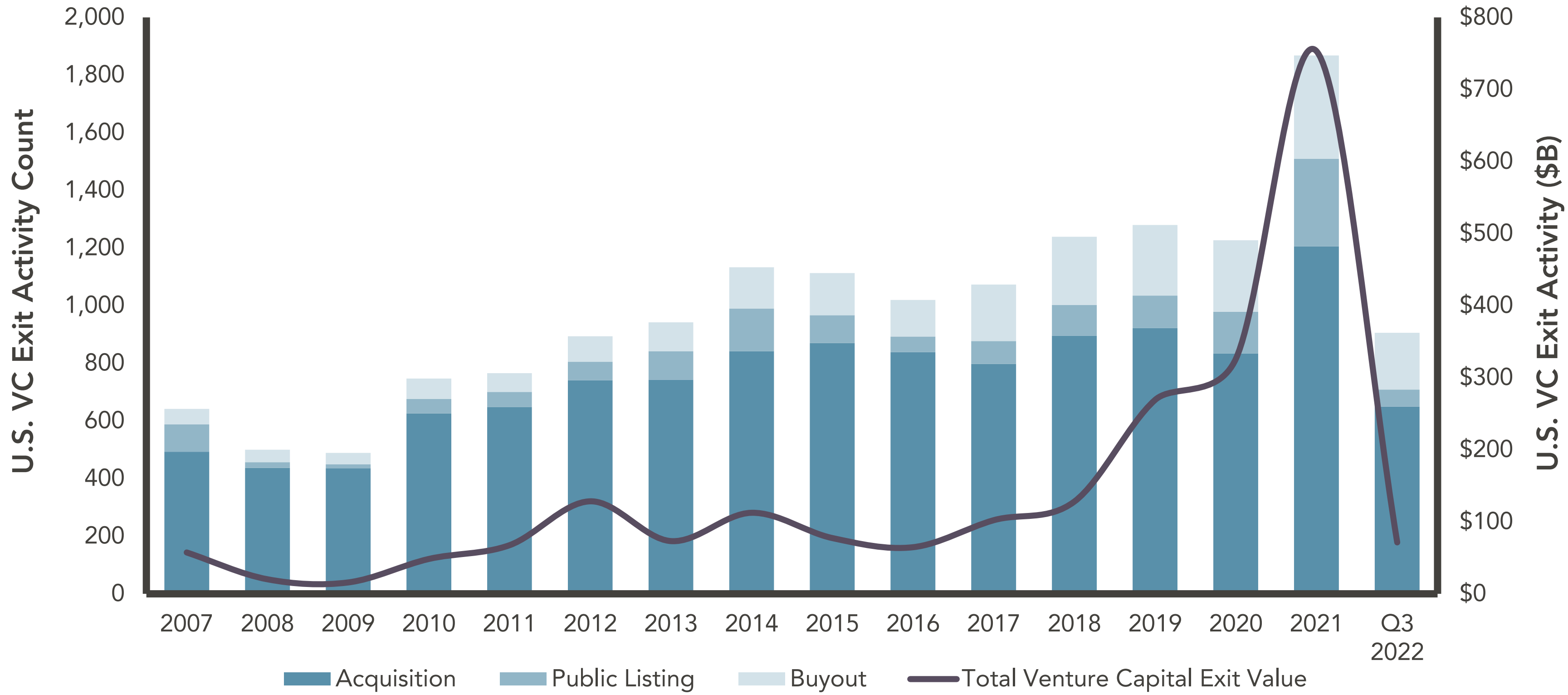
Return Analysis: Global Financial Crisis



Source: Bloomberg, Cambridge Associates, Neuberger Berman

Venture capital exit activity

Venture capital exit activity and total exit value is down significantly from peak 2021 values



Source: Pitchbook as of September 30, 2022

Opportunities and risks in private equity

Opportunities

Relative value opportunity
Private equity transactions continue to occur at lower valuations than public equity valuations, though the spread has narrowed with the public market pullback.

Small buyouts remain attractive
Small buyouts continue to benefit from inefficiencies and growing demand from capital raised by larger funds, creating a strong exit environment.

Early-stage venture also remains attractive
Large amounts of late-stage capital and a less attractive IPO market mean early-stage venture-backed businesses can remain private for longer and have more options for exit.

Risks

Valuation pressures at upper end of market
Large private equity and late-stage venture valuations are most aligned with declining public market valuations. We expect valuations to continue to decline for the next 3–6 quarters, creating buying opportunities for those with dry powder to invest.

Traditional lending becoming scarce
As interest rates continue to rise and traditional lenders work through their overhang of leveraged buyout debt, private equity managers are being forced to pivot to more creative capital structures or to over-equitize their buyout deals in the short term, hoping for a future refinancing opportunity, potentially dampening returns.

Private Credit

Private credit performance

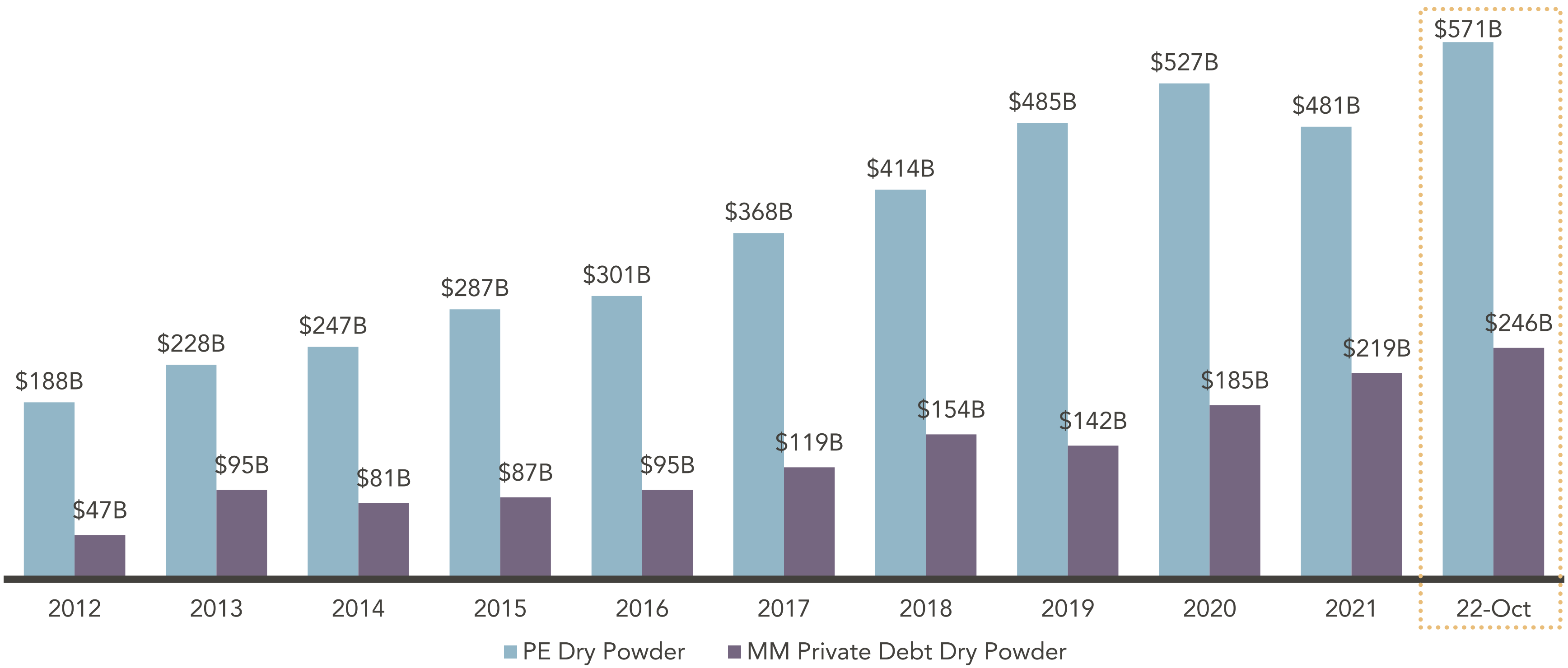
Private credit performance was strong in 3Q 2022 and is up more than 5% over the trailing 1-year period

	3Q22 (%)	1 Yr (%)	3 Yr (%)	5 Yr (%)	10 Yr (%)
Private Credit	1.0	5.8	9.3	8.5	9.2
Credit Suisse Leveraged Loan	1.2	-2.6	2.1	3.0	3.7
Bloomberg High Yield	-0.6	-14.1	-0.5	1.6	3.9
Bloomberg Aggregate	-4.8	-14.6	-3.3	-0.3	0.9
DJ Industrial Average	-6.2	-13.4	4.4	7.4	10.5
S&P 500	-4.9	-15.5	8.2	9.2	11.7
Russell 2000	-2.2	-23.5	4.3	3.6	8.6

Source: Burgiss as of September 30, 2022

PE fundraising outpacing private credit

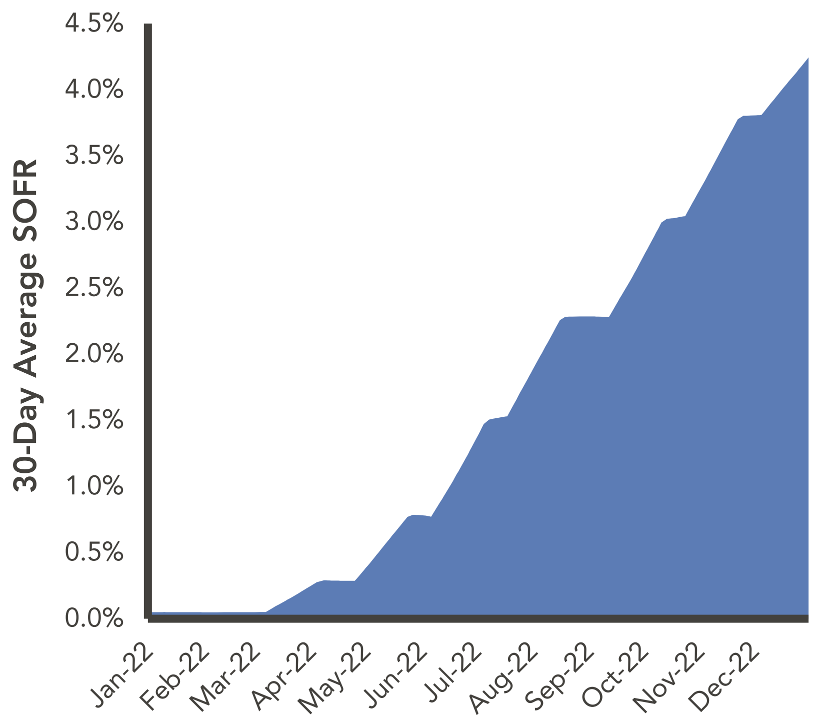
A historic amount of fundraising by middle market private equity is fueling private credit deal flow

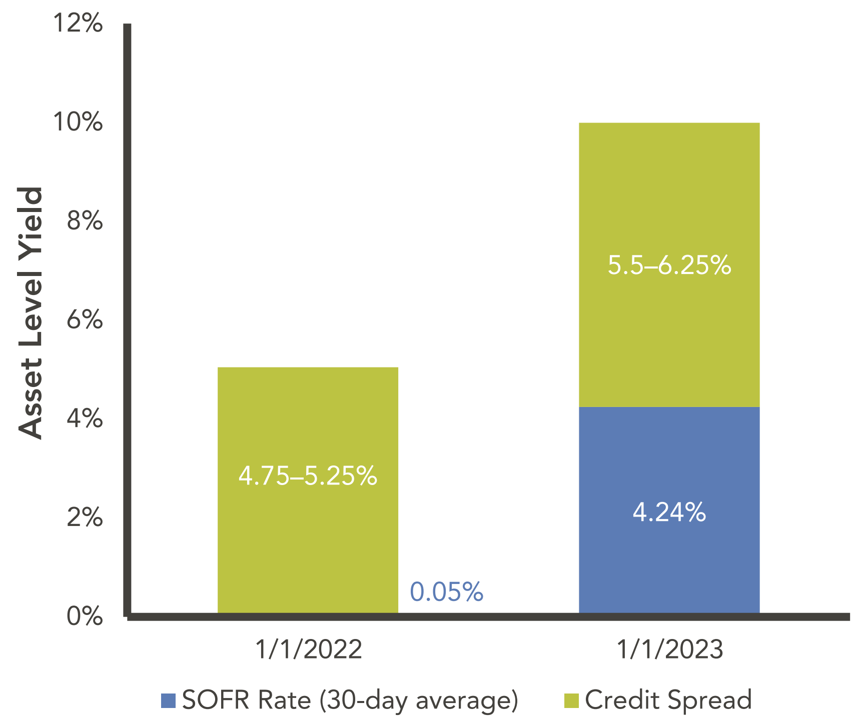


Source: Prequin – North America Only

Rising rates driving attractive pricing

An increase in base rates along with widening credit spreads is driving incremental yield pickup for first lien/unitranche direct lending deals

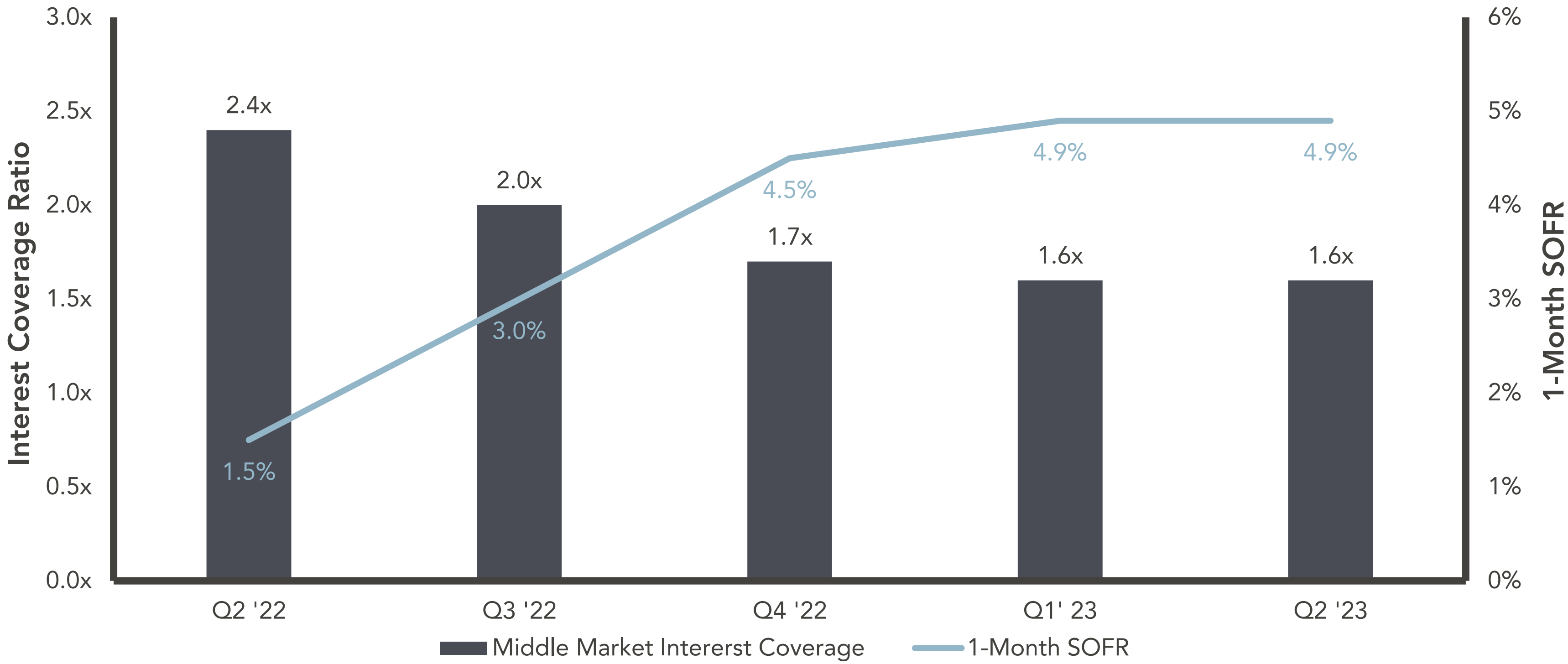




Source: Federal Reserve Bank of New York, credit spreads based on sample of representative deals closed

Greater interest burden

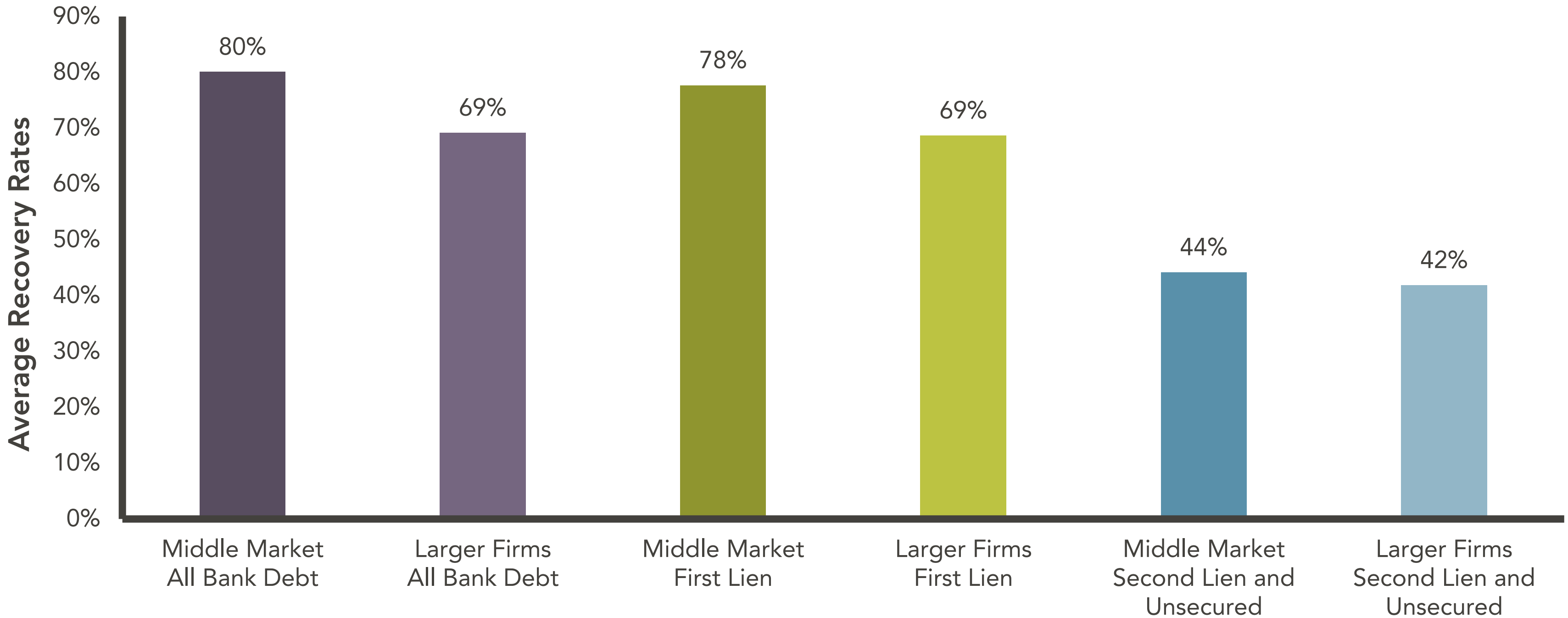
Lower interest and fixed charge coverage ratios for borrowers could lead to an uptick in default rates from historic lows



Source: Chatham Financial via Monroe as of October 21, 2022

Recovery rates

Middle market companies have historically exhibited higher recoveries in the event of default relative to larger peers



Source: S&P Ratings Direct, Will Middle-Market Recoveries Falter When the Cycle Turns: Ultimate recovery rate from 1987–June 2018. Middle Market Loans defined as firms with $350 million or less in total debt outstanding at the time of default. Bonds are indicative of Larger Firm bonds. Ultimate recovery is the non-discounted dollar-weighted recovery weight following the emergence from three types of default: bankruptcy filings, distressed exchanges, and non-bankruptcy restructurings. The above represents historical data and is not necessarily indicative of the performance of any fund or account.

Opportunities and risks in private credit

Opportunities

Rising interest rates
Clients continue to search for alternatives in a rising interest rate environment. Private credit offers enhanced yield, diversification, and strong downside protection.

Inflation
The Fed raising interest rates to help combat inflation is a tailwind for private credit as most loans have floating yields, acting as a hedge. Private credit real returns remain positive.

Expansion
Driven by the evolving marketplace and investor demand, attractive investment opportunities in alternative and esoteric credit asset classes, such as intellectual property and health care lending, are emerging.

Risks

Increased competition
With more managers and capital coming into the private credit market, deals may be more competitive, which may force lenders to lower pricing and utilize less restrictive credit agreements, eroding the current premiums relative to HY, IG, and Treasuries.

Inflation & Libor
High inflation but flat Libor rates would leave private credit yields unchanged — diminishing investors' real return.

Market correction
Market volatility and the potential for a hard landing on the back of higher rates and QT could cause a slowdown in the overall economy and limit company access to the capital markets.

Purpose:

Empower our clients to meet their investment objectives

Vision
Be a trusted partner to our clients through effective investment programs

Mission
Provide independent and thoughtful investment guidance

Why Marquette?
✓ Our people
✓ Independent expertise
✓ Focused client service
✓ Careful research

Periodic table benchmarks

Core Bond	Barclays Aggregate
High Yield	Barclays High Yield
Bank Loans	CS Leverage Loan
Broad U.S. Equities	Russell 3000
Large Cap	S&P 500
Mid Cap	Russell Mid Cap
Small Cap	Russell 2000
Broad Intl Equities	ACWI ex-U.S.
Intl Large Cap	EAFE
Intl Small Cap	EAFE Small Cap
Emerging Markets	MSCI EM
Commodities	S&P GSCI
Hedge Funds	HFRI Fund Weighted Composite
Real Estate	NCREIF

Based on quarterly returns for real estate and monthly returns for the rest

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