MarquetteAssociates

October 26, 2022

# 2022 Investment Update




Presented by

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Managing Partner

Evan Frazier, CFA, CAIA
Senior Research Analyst

*This presentation is furnished on a confidential basis to the recipient for informational purposes only. For disclosure information, please refer to the end of this presentation.*

# Introductions



**Chris Caparelli, CFA**
Managing Partner

- An owner of the firm
- Focus on non-profit funds
- 14 years of investment experience
- Member, Traditional Manager Search committee
- B.S., Marquette University
- M.B.A., Northwestern University's Kellogg School of Management
- CFA® Charterholder
- Member, CFA Society of Chicago



**Evan Frazier, CFA, CAIA**
Senior Research Analyst

- Five years of investment experience
- Responsible for reviewing and conducting due diligence on U.S. equities strategies
- Member, Traditional Manager Search Committee
- B.A., Kenyon College
- CFA® Charterholder
- Member, CFA Society of Chicago
- CAIA Charterholder
- Member, CAIA® Association

# Marquette at a glance

**$349B+**
assets under advisement

**36th**
year in business

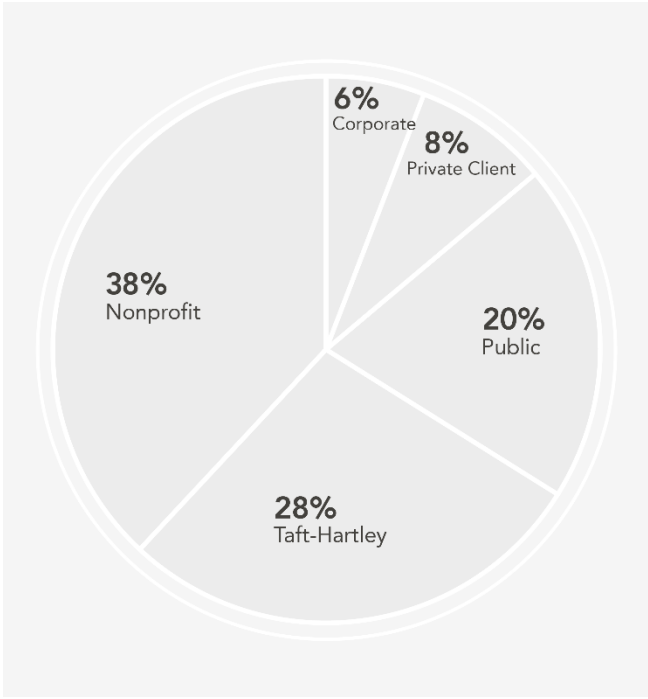
**100%**
employee-owned

**130+**
employees

**99%**
client retention[1]

**5**
office locations in Chicago, Baltimore, Milwaukee, Philadelphia, and St. Louis

CLIENT BREAKDOWN BY QUANTITY




Data as of June 30, 2022. [1]See disclosure at the end of presentation.

# Nonprofit experience

**153**
nonprofit clients

**$60B+**
nonprofit AUA

**10 years**
nonprofit average client tenure

**$102M+**
median nonprofit portfolio size

REPRESENTATIVE CLIENT LIST




Data as of June 30, 2022. It is not known whether these clients approve or disapprove of Marquette's services. These clients were selected upon the basis of objective criteria, namely client classification, geography, and size.

# Working with an independent consultant

**We are exclusively focused on customizing investment portfolios for our clients**

| | |
|---|---|
| ✓ | No broker/dealer |
| ✓ | No soft dollars |
| ✓ | No cross-selling |
| ✓ | No investment products |
| ✓ | No investment management database fees |
| ✓ | No investment manager conference fees |
| ✓ | No insurance, actuarial, or benefit consulting fees |

**WE ARE 100% INDEPENDENT**

# Alignment of Mission




"Partner with individuals, families, businesses and nonprofits to help them achieve their charitable goals"




"Enable institutions to become more effective investment stewards"

# Three-point investment approach

## Risk

Investment Policy
Asset Allocation
Client Education

## Quality

Portfolio Monitoring
Manager Due Diligence
Experienced Team

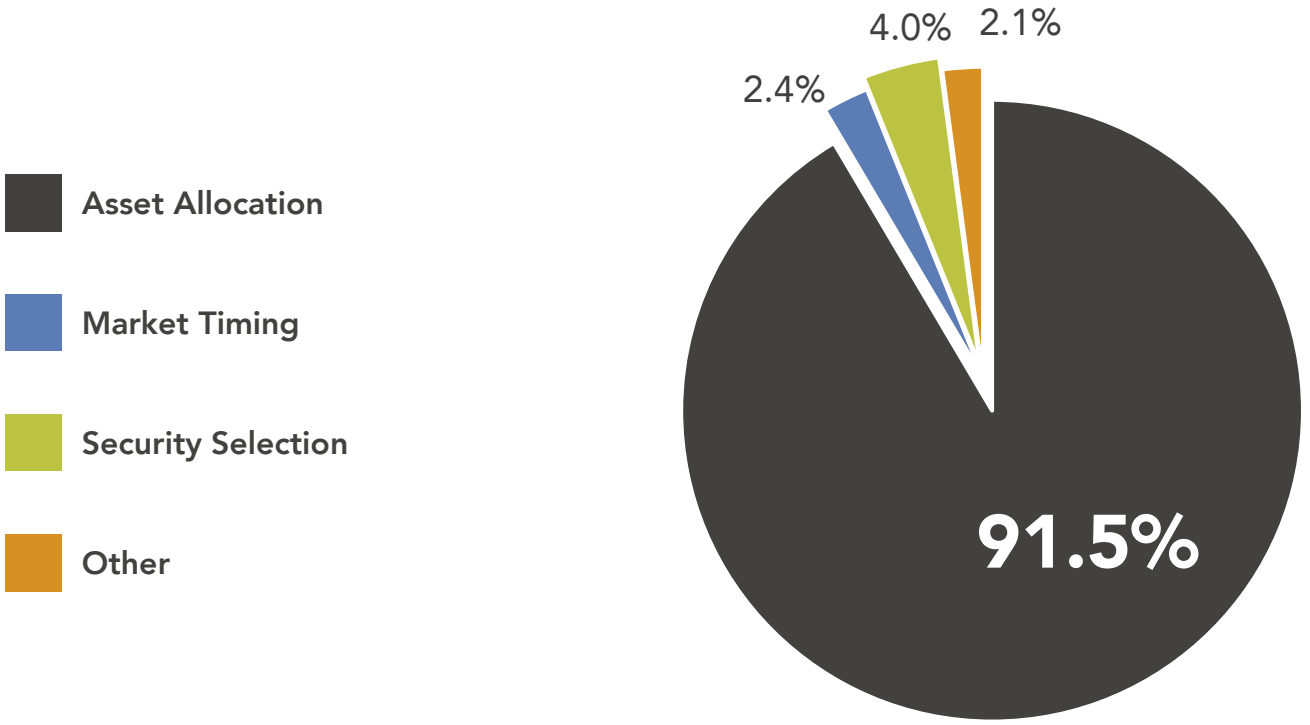
## Cost

Efficient Portfolio Structure
Fee Negotiation
Transition Oversight

# Portfolio Construction Process & Review

# Asset allocation controls portfolio risk

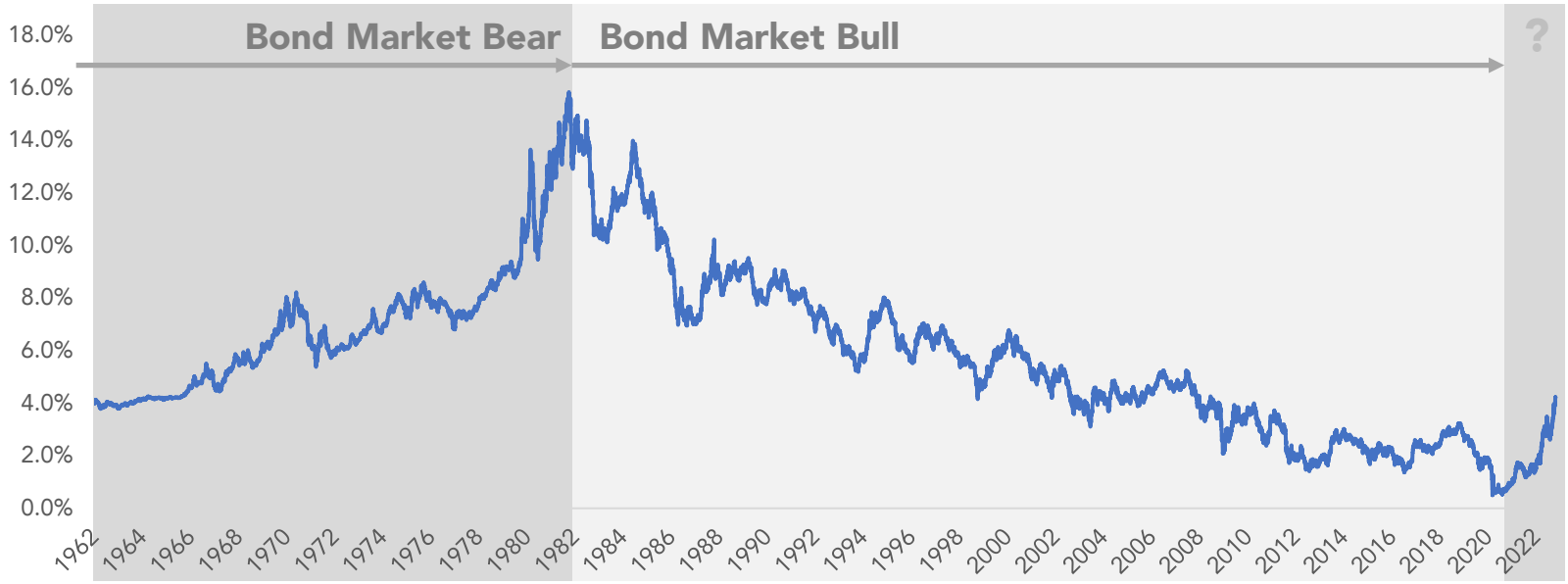
## Portfolio return variability (%)




Source: Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower, "Determinants of Portfolio Performance," Financial Analysts Journal, July/August 1986. Gary P. Brinson, Brian D. Singer, and Gilbert L. Beebower, "Determinants of Portfolio Performance II: An Update," Financial Analysts Journal, May/June 1991.

# Interest Rate Environment

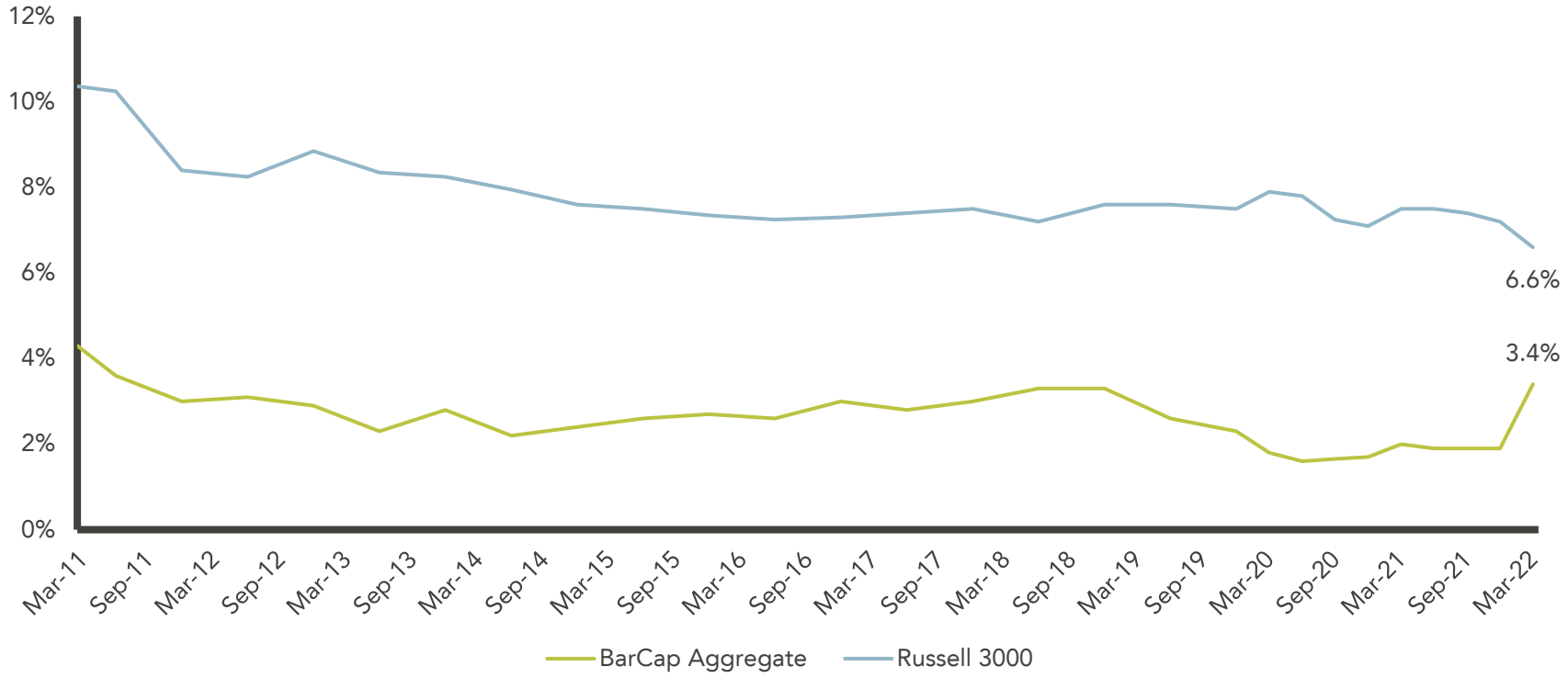
**After nearly 40 years of falling interest rates, a sharp rise this year has wreaked havoc in the bond market**




Source: Bloomberg

# The future looks...brighter?

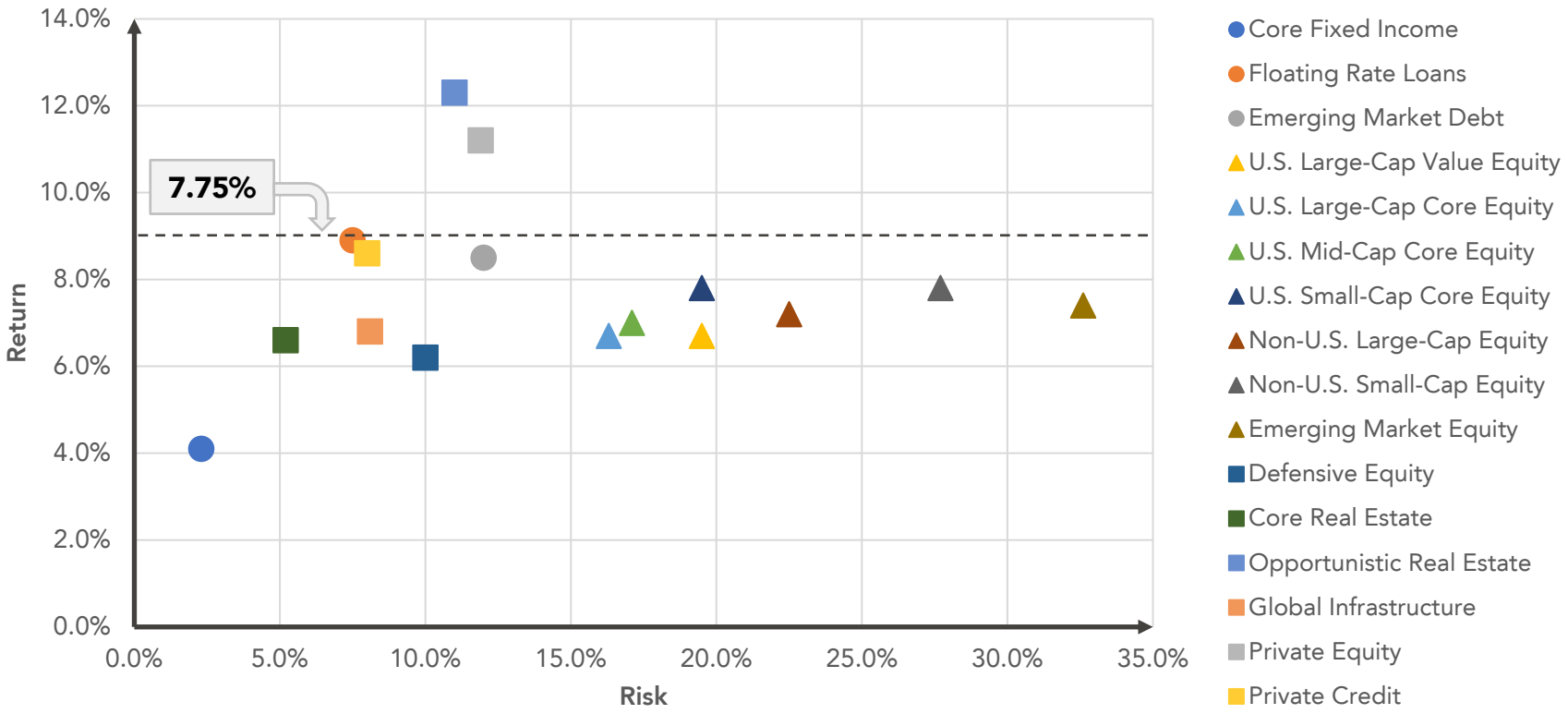
## Marquette's capital markets are recalibrated quarterly to current market conditions




Source: Marquette Associates Asset Allocation Software. See disclosure at the end of the presentation

# Portfolio Building Blocks

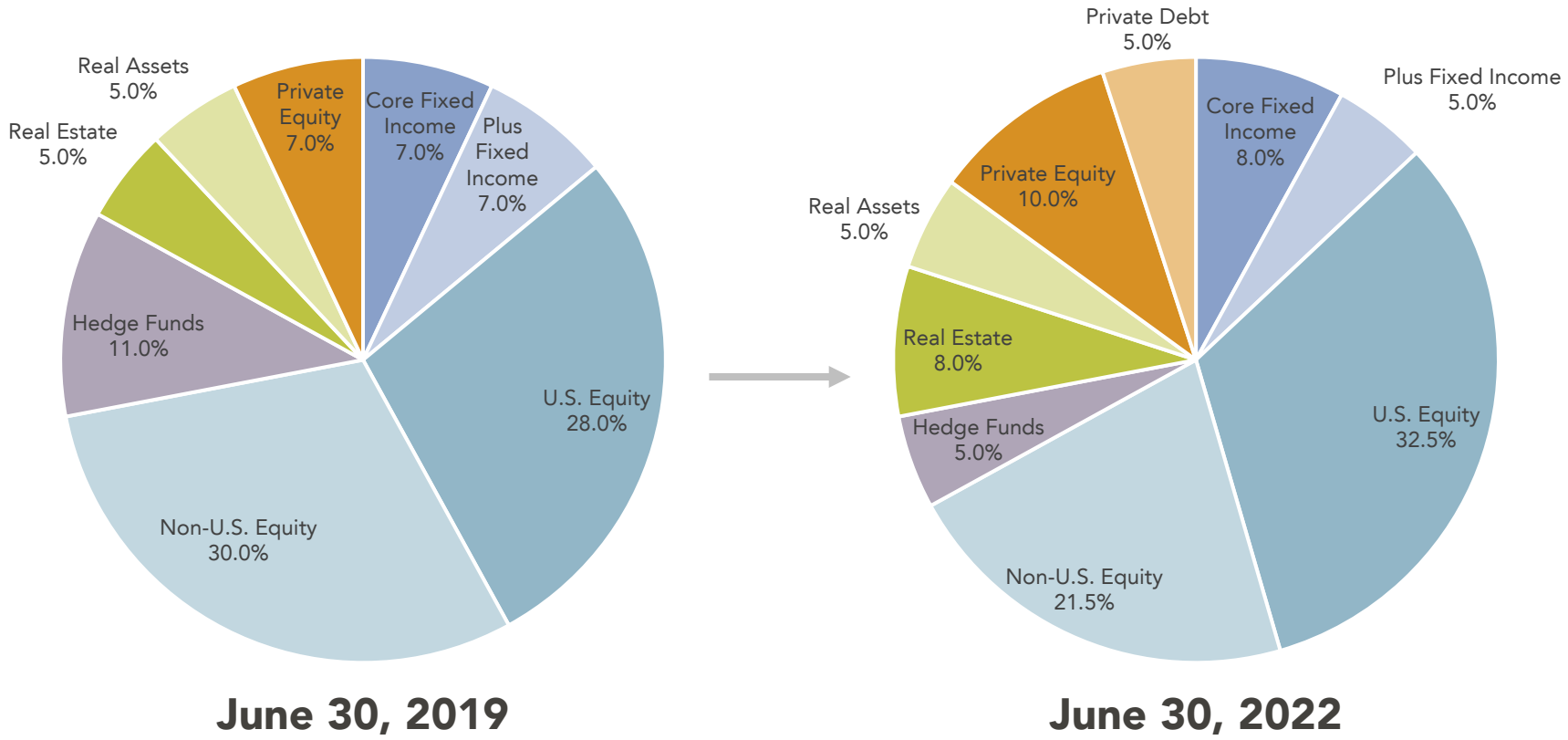
## The higher interest rate environment has improved the long-term return outlook for portfolios




Source: Marquette Asset Allocation Study

# Portfolio Asset Allocation Targets

## Less public equity market exposure, more diversification, more illiquidity




**June 30, 2019** **June 30, 2022**

# Investment Policy Statement

## The primary source for controlling portfolio risk

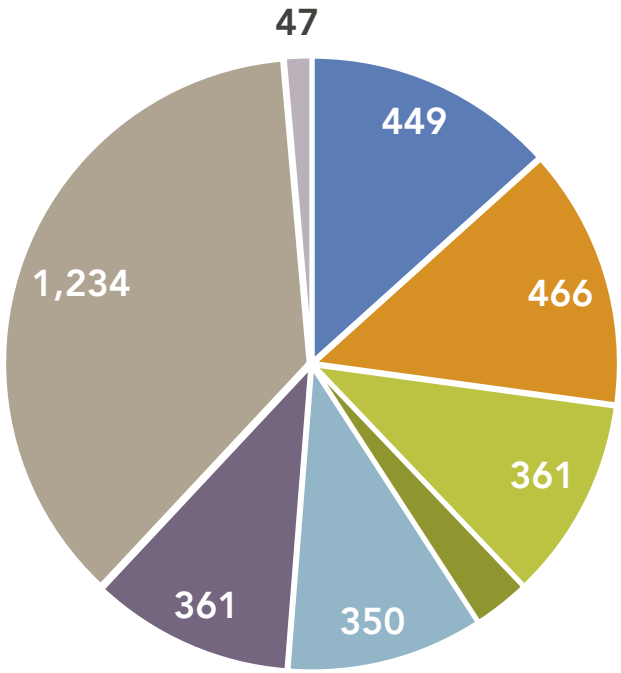
| ASSET CLASS | TARGET | MINIMUM | MAXIMUM |
|---|---|---|---|
| Core Fixed Income | 8.0% | 4.0% | 15.0% |
| Bank Loans | 2.0% | 0.0% | 6.0% |
| Emerging Market Debt | 3.0% | 0.0% | 6.0% |
| **Total Fixed Income** | **13.0%** | **6.0%** | **20.0%** |
| | | | |
| US Large-Cap Equity | 20.5% | 15.5% | 25.5% |
| US Mid-Cap Equity | 6.0% | 3.0% | 9.0% |
| US Small-Cap Equity | 6.0% | 3.0% | 9.0% |
| **Total U.S. Equity** | **32.5%** | **27.5%** | **37.5%** |
| | | | |
| Non-US Developed Equity | 14.0% | 9.0% | 19.0% |
| Non-US Developed Small-Cap Equity | 2.5% | 0.0% | 5.0% |
| Non-US Emerging Equity | 5.0% | 2.0% | 8.0% |
| **Total Non-U.S. Equity** | **21.5%** | **16.5%** | **26.5%** |
| | | | |
| Defensive Equity | 5.0% | 0.0% | 10.0% |
| **Total Alternative Investments** | **5.0%** | **0.0%** | **10.0%** |
| | | | |
| Real Estate | 8.0% | 0.0% | 13.0% |
| Infrastructure | 5.0% | 0.0% | 10.0% |
| **Total Real Assets** | **13.0%** | **0.0%** | **20.0%** |
| | | | |
| Private Equity | 10.0% | 0.0% | 15.0% |
| Private Debt | 5.0% | 0.0% | 10.0% |
| **Total Private Market Investments** | **15.0%** | **0.0%** | **25.0%** |
| | | | |
| **TOTAL** | **100.0%** | | |

# Thorough manager search process

| PHASE ONE | PHASE TWO | PHASE THREE | PHASE FOUR |
|---|---|---|---|
| **Initial Evaluation** | **Quantitative Review** | **Document Review** | **Full Firm Evaluation** |
| Introductory meeting | Returns based multi-factor regression | Formal RFI review | On-site visit |
| Review investment process & philosophy | Detailed attribution analysis | Regulatory checks | Verification of key internal processes and external service providers |

# Manager meetings by asset class

## Average of 10 meetings per business day




| 2021 Totals | |
|---|---|
| 449 | Fixed Income |
| 466 | U.S. Equity |
| 361 | Non-U.S. Equity |
| 100 | Global Equity |
| 350 | Hedge Fund |
| 361 | Real Assets |
| 1,234 | Private Equity & Debt |
| 47 | Miscellaneous |
| **Total** | **3,368** |

Manager meetings based on 2021 product meetings documented in Marquette's proprietary manager database. Meetings typically last 30–90 minutes and multiple products may be discussed during a meeting. Product meetings include in-person meetings, on-site visits, annual meeting attendance, and phone calls.

# Representative Asset Manager Roster







































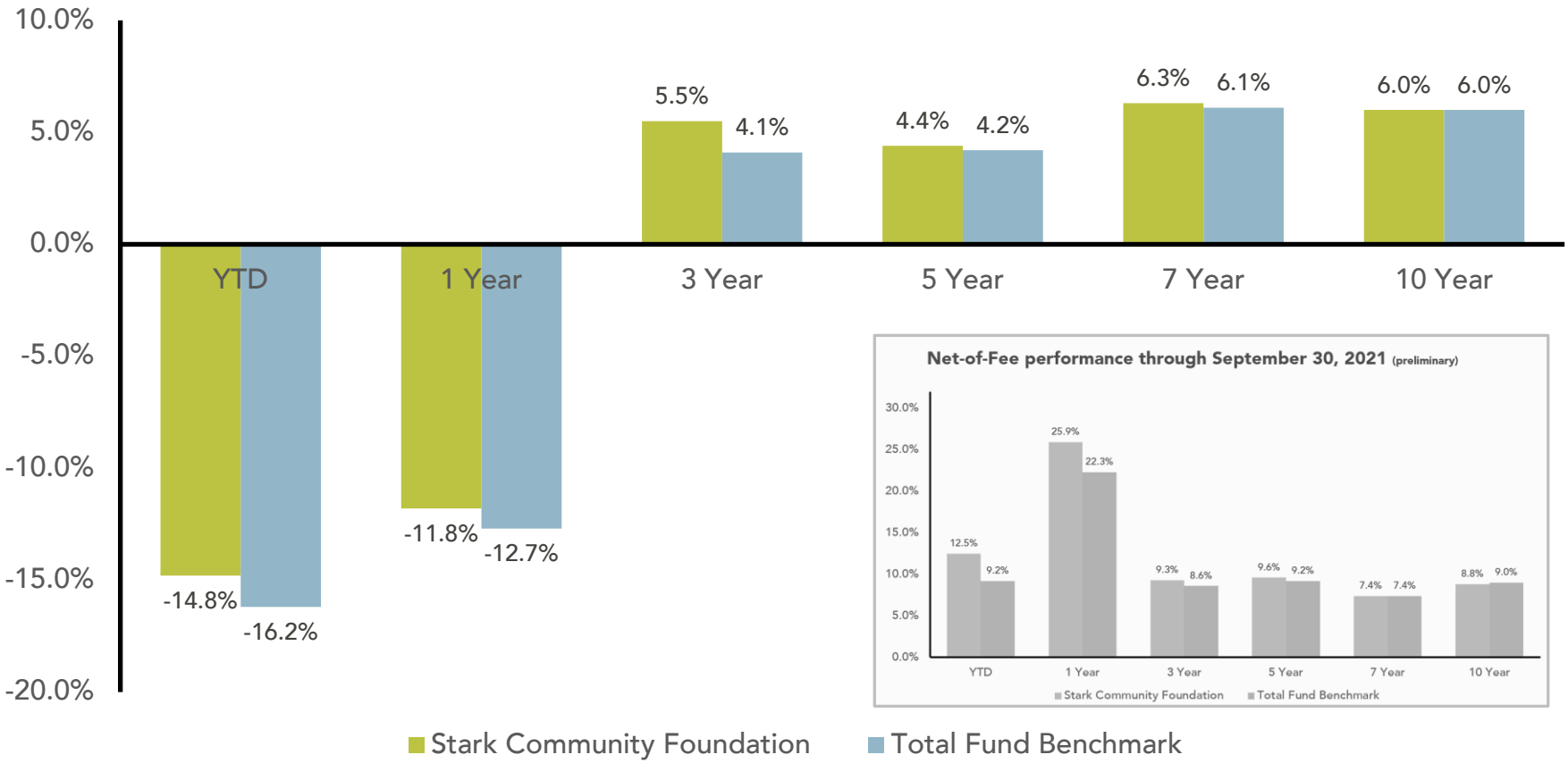






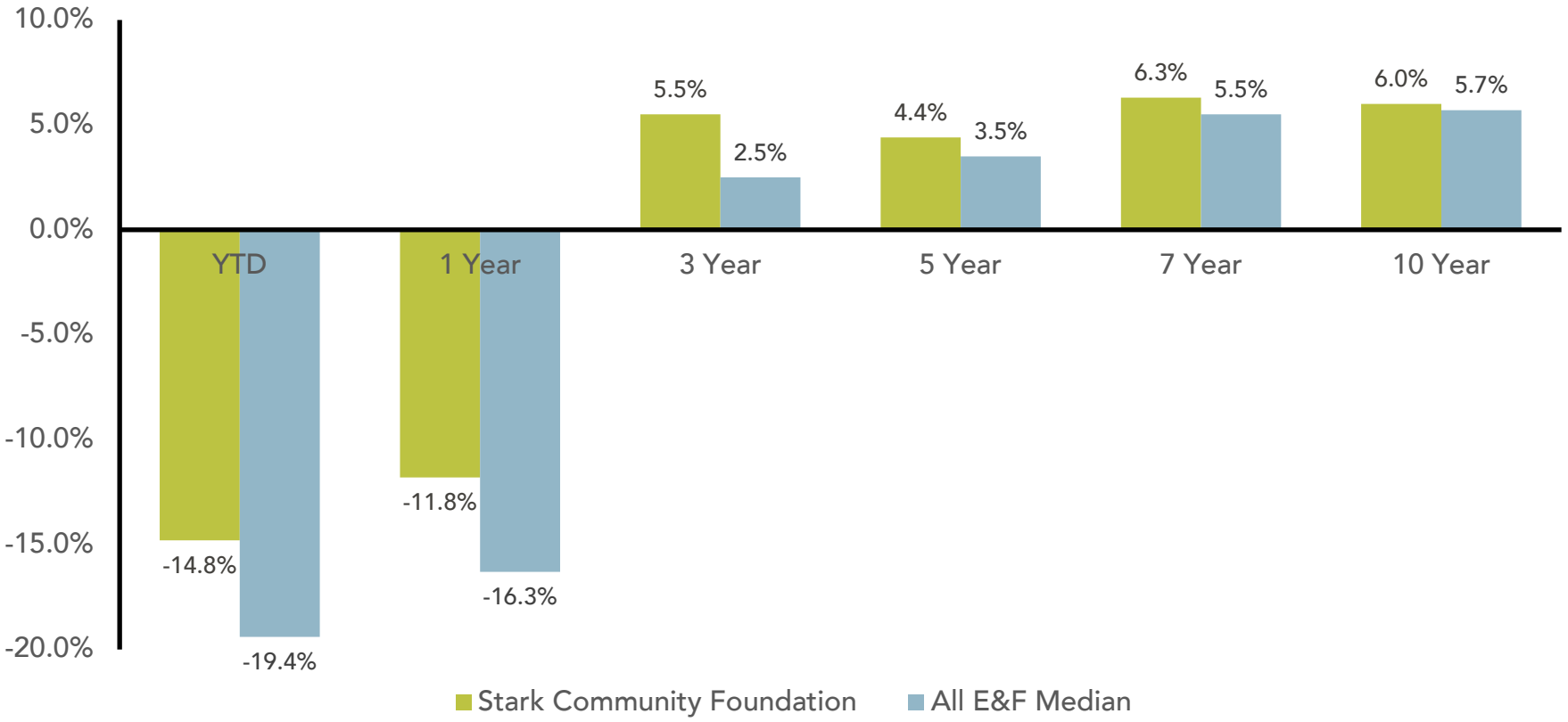
# Foundation Performance

## Net-of-Fee performance through September 30, 2022 (preliminary)



# Performance Comparison

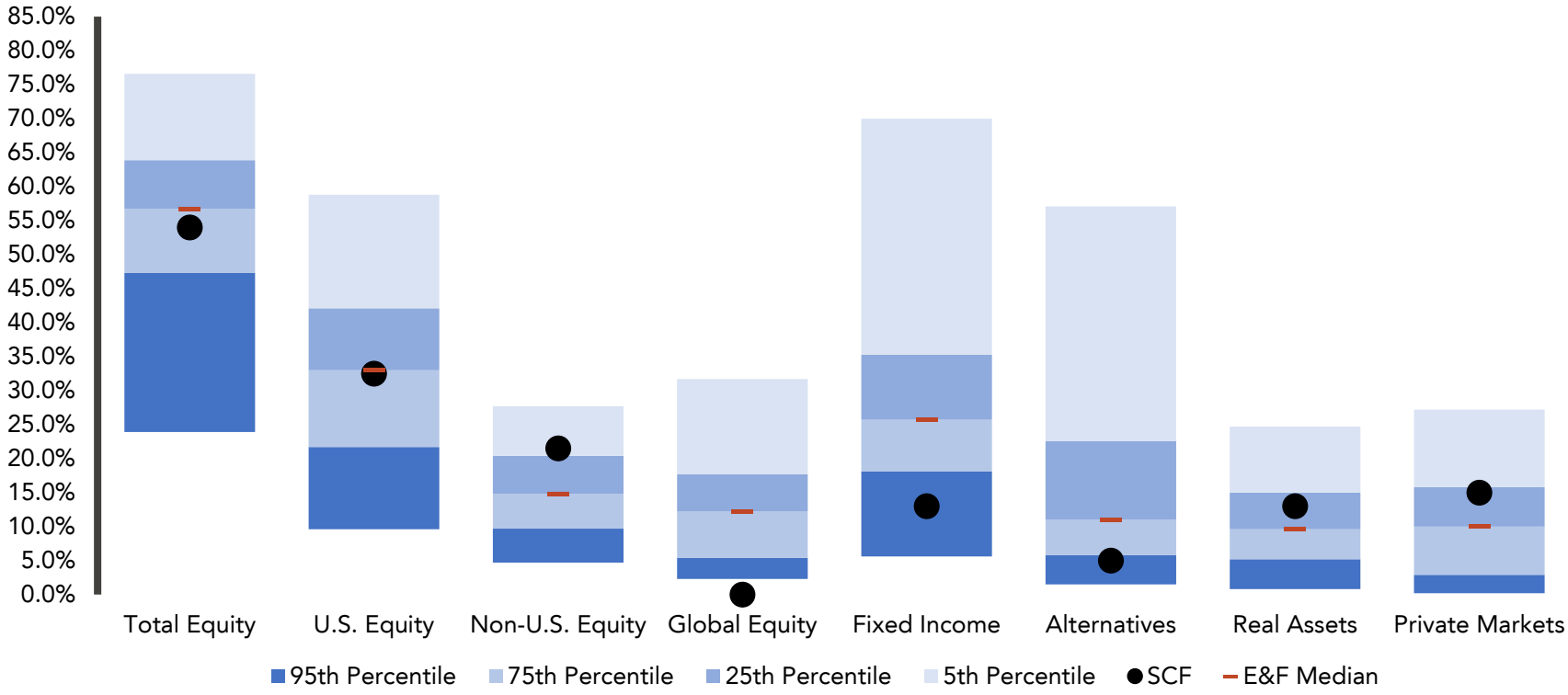
## Net-of-Fee performance through September 30, 2021




Source: InvestmentMetrics

# Asset Allocation Comparison

## SCF's target allocation is underweight equities, fixed income and alternatives, and overweight real assets and private markets




Source: Investment Metrics

# Market Environment

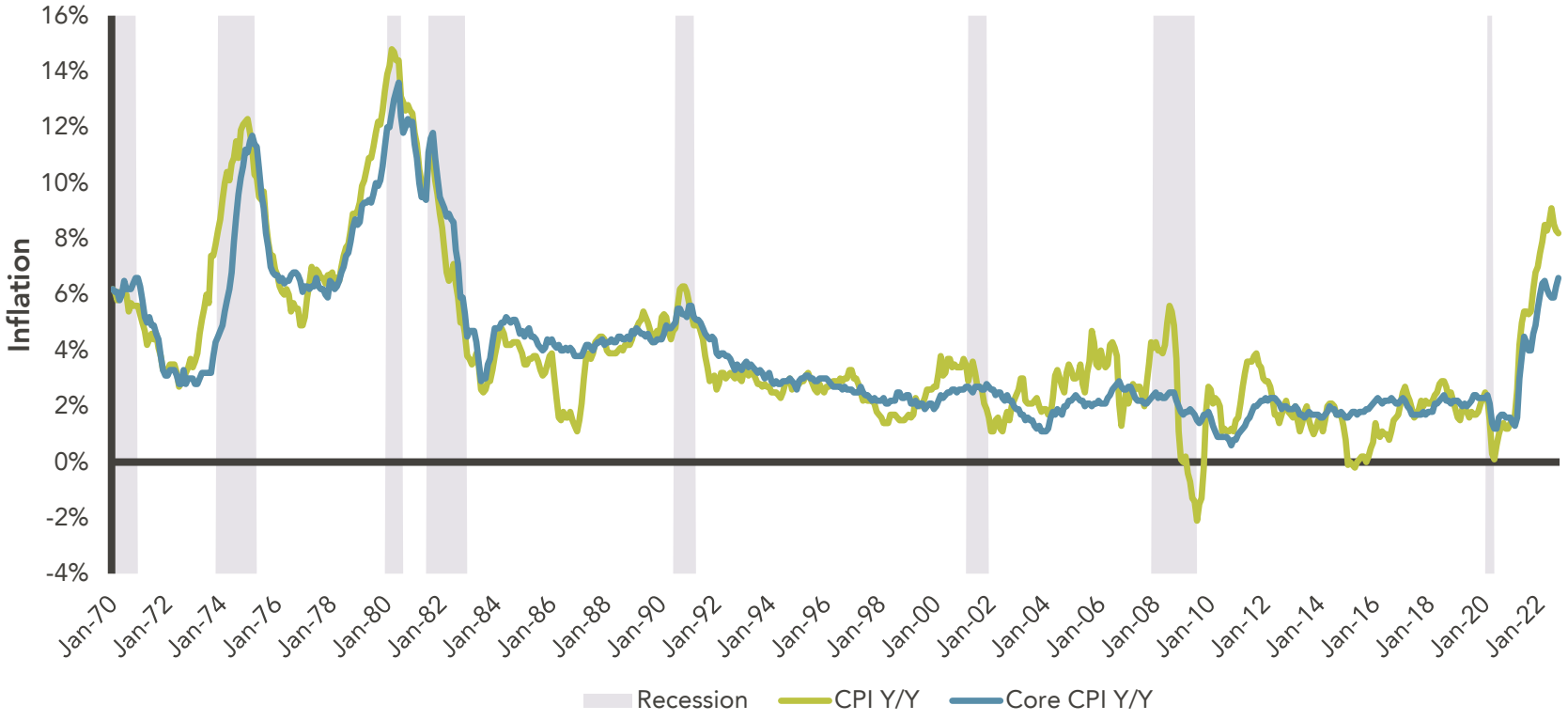
# Year-to-date returns

| 2022 YTD | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 5yr | 10yr |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Commodities 21.8% | 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 9.7% | Large Cap 12.0% |
| Real Estate 12.0% | 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 9.1% | Broad U.S. Equities 11.7% |
| Bank Loans -3.3% | 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 8.9% | Mid Cap 10.5% |
| Hedge Funds -6.2% | 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% | Commodities 8.5% | Real Estate 9.7% |
| Core Bond -14.6% | 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% | Mid Cap 7.1% | Small Cap 8.9% |
| High Yield -14.7% | 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 5.1% | Intl Small Cap 5.8% |
| Large Cap -23.9% | 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 4.8% | Hedge Funds 5.0% |
| Mid Cap -24.3% | 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 3.1% | High Yield 4.1% |
| Broad U.S. Equities -24.6% | 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 1.8% | Intl Large Cap 4.0% |
| Small Cap -25.1% | 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 -0.4% | Bank Loans 3.8% |
| Broad Intl Equities -26.5% | 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% | Core Bond -0.4% | Broad Intl Equities 3.4% |
| Intl Large Cap -27.1% | 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% | Broad Intl Equities -0.5% | Emerging Markets 1.6% |
| Emerging Markets -27.2% | 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 -1.2% | Core Bond 0.9% |
| Intl Small Cap -32.1% | 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 -1.9% | Commodities -4.1% |

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

# CPI

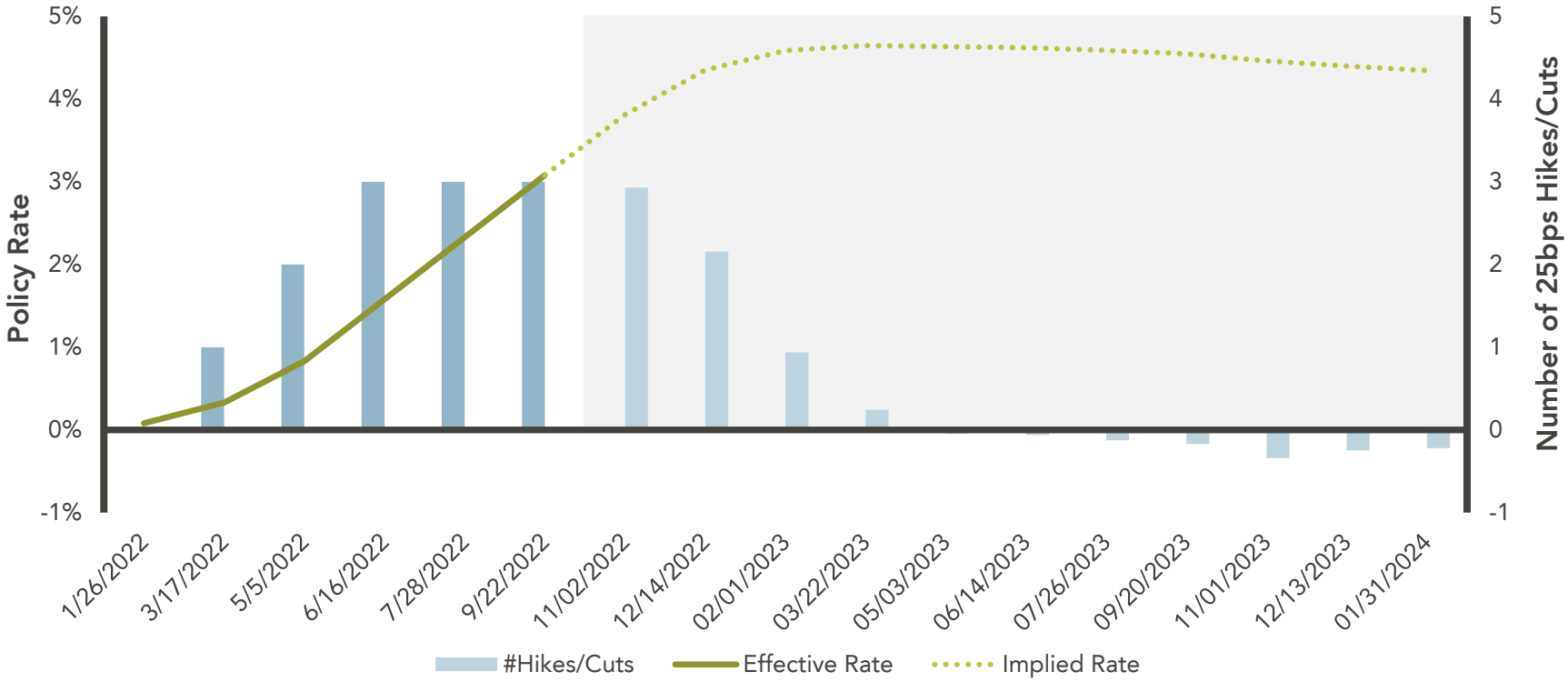
## Year-over-year headline CPI ticked down in September to 8.2%; core inflation reaccelerated to 6.6% amid broad-based price pressures




Source: Bloomberg, Bureau of Labor Statistics as of September 30, 2022

# Fed funds rate

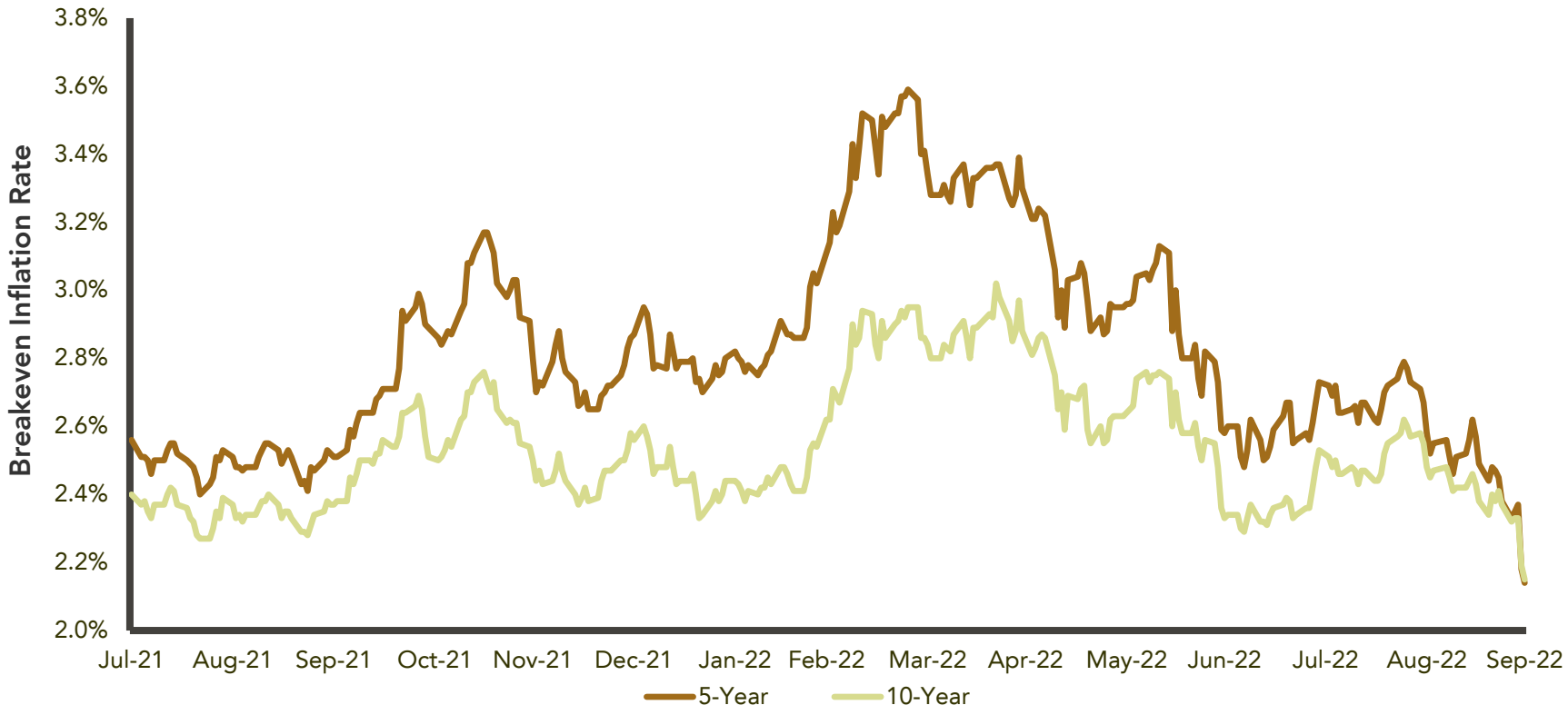
## The market, via fed funds futures, is pricing in additional rate hikes following worse-than-expected August CPI




Source: Bloomberg as of October 7, 2022

# Outyear inflation expectations

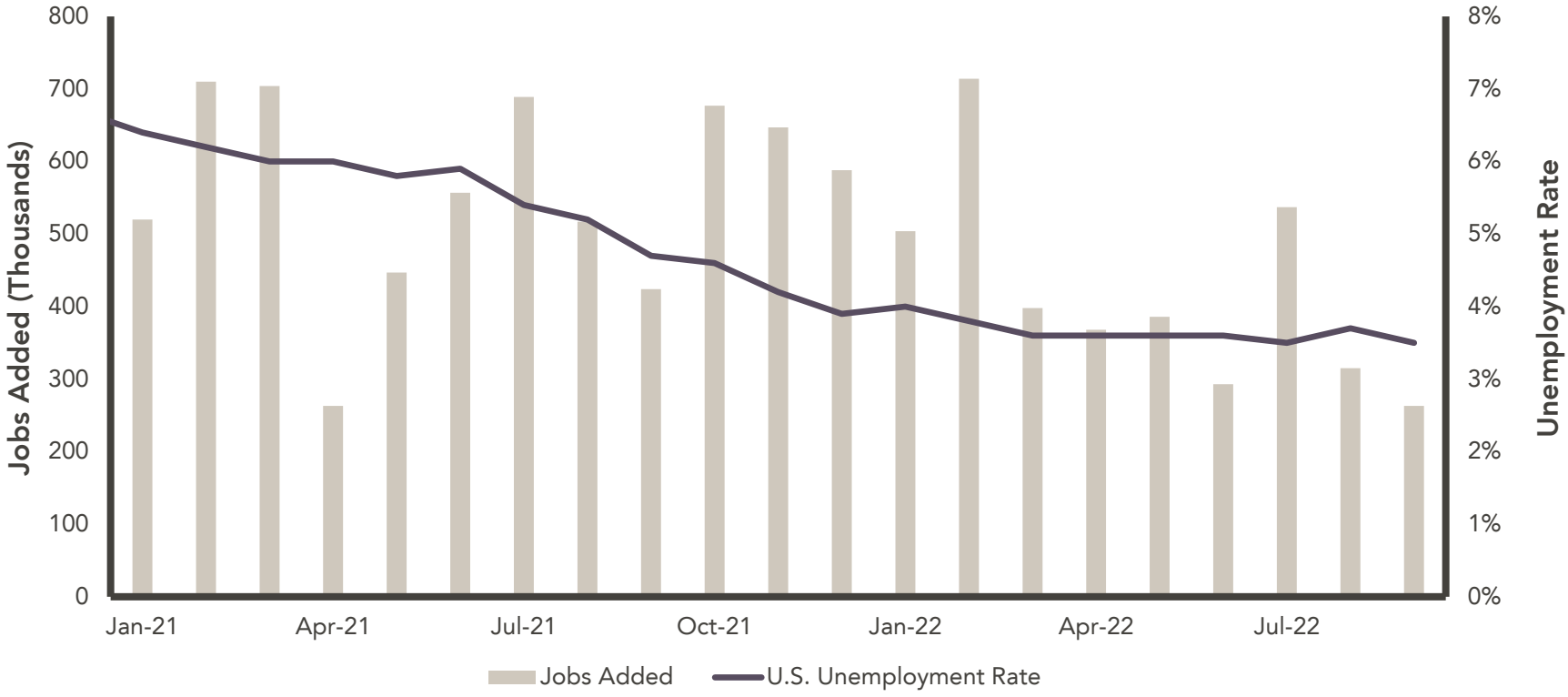
## 5- and 10-year inflation estimates have corrected to nearly 2%




Source: Federal Reserve Bank of St. Louis as of September 30, 2022

# Labor market resilience

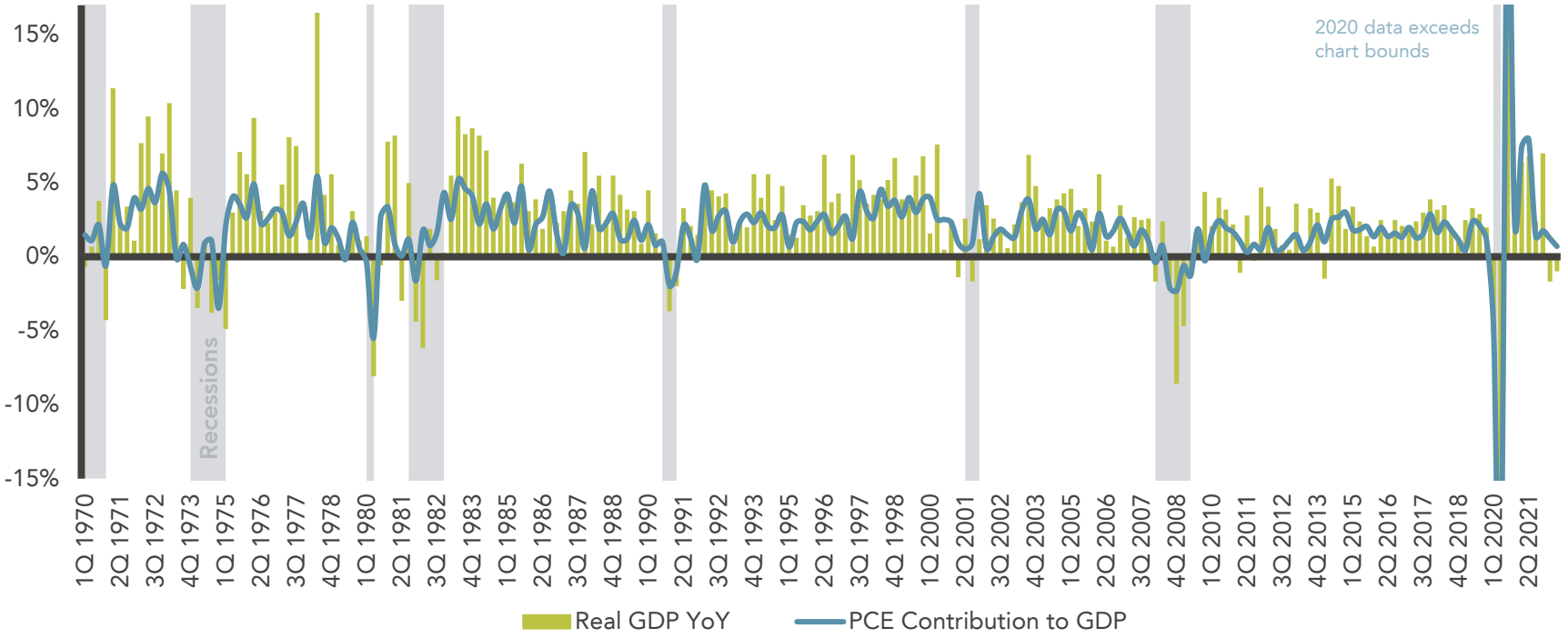
## The Fed is looking for a cooling in the labor market; September's jobs report showed slight progress but missed expectations




Source: Bloomberg, Bureau of Labor Statistics as of October 7, 2022

# Technical recession

## Two negative GDP prints is typically considered a recession; consumer spending – 70% of GDP – remains positive and reaccelerated in 2Q




Source: U.S. Bureau of Economic Analysis as of September 30, 2022. Personal consumption expenditures (PCE) measures the value of the goods and services purchased by, or on the behalf of, U.S. residents.

# Fixed income performance

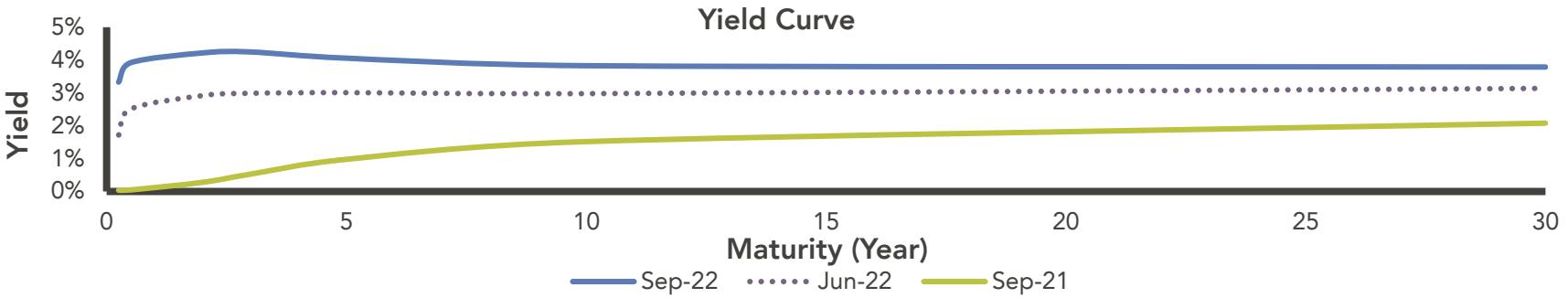
## After a brief rally in July, fixed income's dismal performance for the year continued in the third quarter as rates moved higher

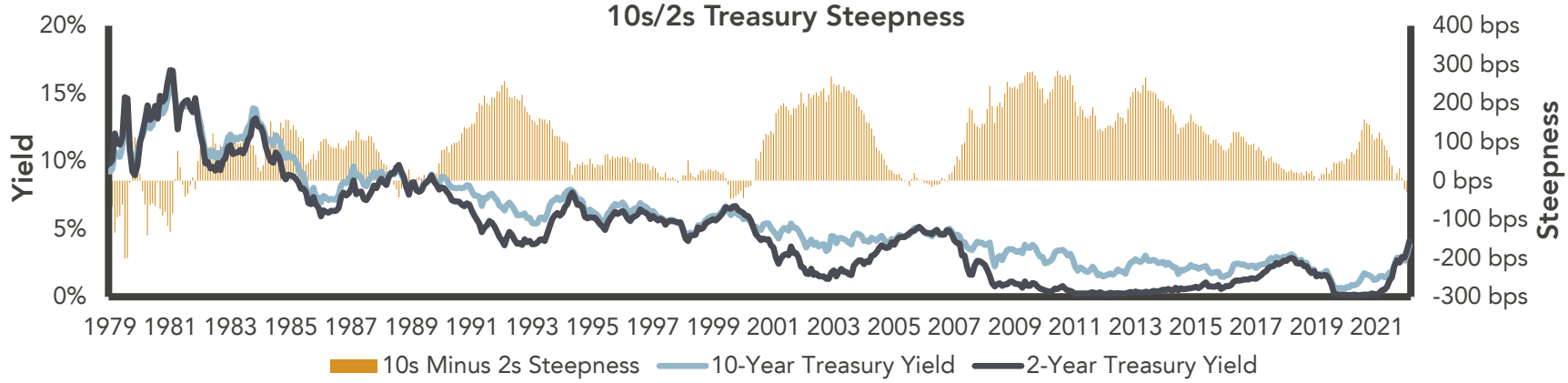
| | | MTD (%) | QTD (%) | YTD (%) | 1 Yr (%) | 3 Yr (%) | 5 Yr (%) | 10 Yr (%) |
|---|---|---|---|---|---|---|---|---|
| **Broad Market Index** | Blm Aggregate | -4.3 | -4.8 | -14.6 | -14.6 | -3.3 | -0.3 | 0.9 |
| **Intermediate Index** | Blm Int. Gov./Credit | -2.7 | -3.1 | -9.6 | -10.1 | -1.6 | 0.4 | 1.0 |
| **Government Only Indices** | Blm Long Gov. | -7.9 | -9.6 | -28.8 | -26.6 | -8.5 | -1.6 | 0.6 |
| | Blm Int. Gov. | -2.4 | -3.1 | -8.6 | -9.2 | -1.7 | 0.2 | 0.6 |
| | Blm 1-3 Year Gov. | -1.2 | -1.5 | -4.5 | -5.1 | -0.5 | 0.5 | 0.6 |
| | Blm U.S. TIPS | -6.6 | -5.1 | -13.6 | -11.6 | 0.8 | 2.0 | 1.0 |
| **Credit Indices** | Blm U.S. Long Credit | -8.6 | -8.6 | -29.1 | -28.0 | -7.0 | -1.2 | 1.7 |
| | Blm High Yield | -4.0 | -0.6 | -14.7 | -14.1 | -0.5 | 1.6 | 3.9 |
| | CS Leveraged Loan Index | -2.2 | 1.2 | -3.3 | -2.6 | 2.1 | 3.0 | 3.7 |
| **Securitized Bond Indices** | Blm MBS | -5.1 | -5.3 | -13.7 | -14.0 | -3.7 | -0.9 | 0.5 |
| | Blm ABS | -1.2 | -1.3 | -5.1 | -5.6 | -0.2 | 1.0 | 1.2 |
| | Blm CMBS | -3.1 | -3.8 | -11.8 | -12.4 | -2.1 | 0.7 | 1.6 |
| **Non-U.S. Indices** | Blm Global Aggregate Hedged | -3.2 | -3.3 | -12.1 | -12.1 | -3.1 | 0.3 | 1.7 |
| | JPM EMBI Global Diversified | -6.4 | -4.6 | -23.9 | -24.3 | -7.2 | -2.6 | 1.1 |
| | JPM GBI-EM Global Diversified | -4.9 | -4.7 | -18.6 | -20.6 | -7.1 | -3.9 | -2.4 |
| **Municipal Indices** | Blm Municipal 5 Year | -2.8 | -2.7 | -8.1 | -8.0 | -0.9 | 0.5 | 1.2 |
| | Blm HY Municipal | -6.2 | -4.8 | -16.0 | -15.1 | -1.4 | 2.3 | 3.5 |

Source: Bloomberg, Credit Suisse, JPMorgan as of September 30, 2022. The local currency GBI index is hedged and denominated in U.S. dollars.

# U.S. Treasury yield curve and steepness

## Yields are higher across the board, with front-end rates moving higher as a result of aggressive Fed policy




Source: Federal Reserve as of September 30, 2022

# U.S. equity performance

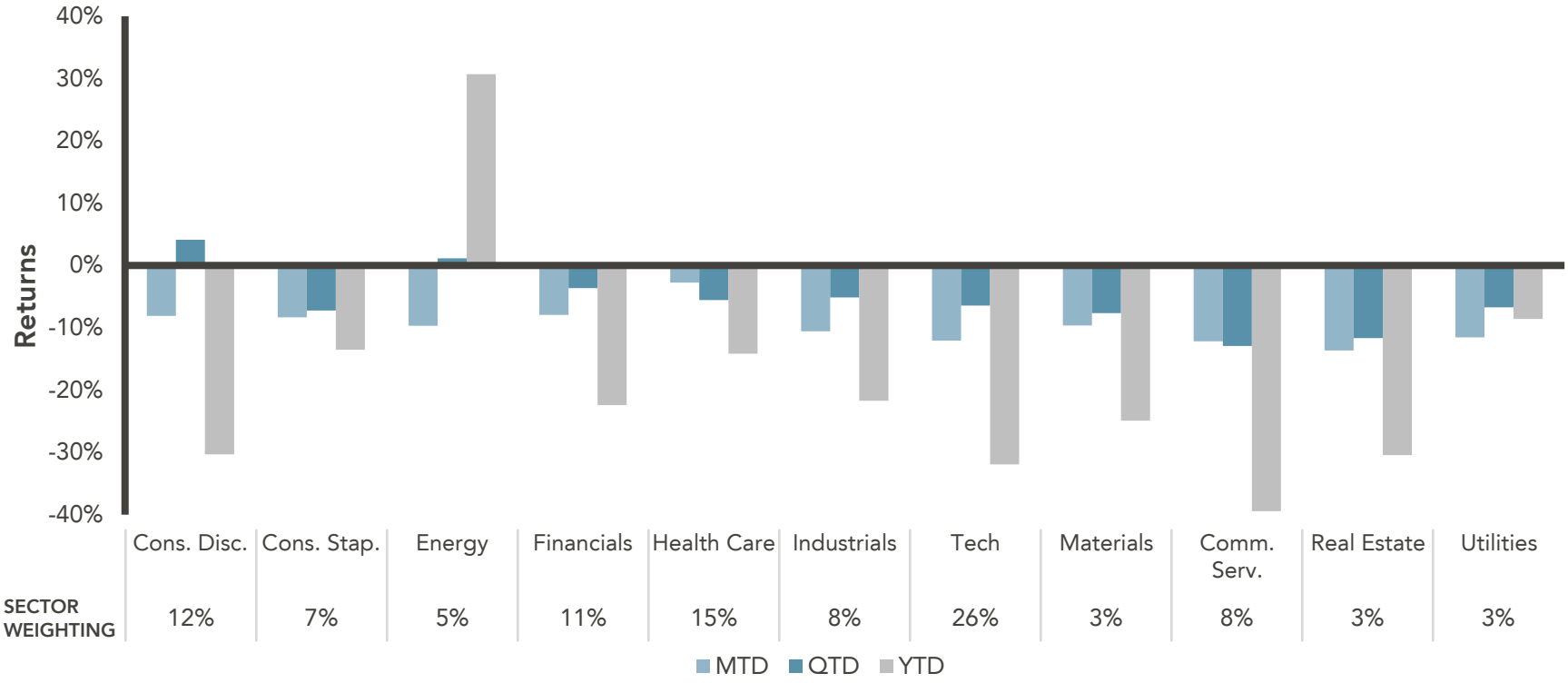
## Most major domestic equity indices closed third quarter with losses following a tough September

| | | MTD (%) | QTD (%) | YTD (%) | 1 Yr (%) | 3 Yr (%) | 5 Yr (%) | 10 Yr (%) |
|---|---|---|---|---|---|---|---|---|
| **Broad Market Indices** | Dow Jones | -8.8 | -6.2 | -19.7 | -13.4 | 4.4 | 7.4 | 10.5 |
| | Wilshire 5000 | -9.3 | -4.4 | -24.4 | -17.2 | 8.1 | 8.8 | 11.5 |
| | Russell 3000 | -9.3 | -4.5 | -24.6 | -17.6 | 7.7 | 8.6 | 11.4 |
| **Large-Cap Market Indices** | S&P 500 | -9.2 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 11.7 |
| | Russell 1000 | -9.3 | -4.6 | -24.6 | -17.2 | 7.9 | 9.0 | 11.6 |
| | Russell 1000 Value | -8.8 | -5.6 | -17.8 | -11.4 | 4.4 | 5.3 | 9.2 |
| | Russell 1000 Growth | -9.7 | -3.6 | -30.7 | -22.6 | 10.7 | 12.2 | 13.7 |
| **Mid-Cap Market Indices** | Russell Mid-Cap | -9.3 | -3.4 | -24.3 | -19.4 | 5.2 | 6.5 | 10.3 |
| | Russell Mid-Cap Value | -9.7 | -4.9 | -20.4 | -13.6 | 4.5 | 4.8 | 9.4 |
| | Russell Mid-Cap Growth | -8.5 | -0.7 | -31.5 | -29.5 | 4.3 | 7.6 | 10.9 |
| **Small-Cap Market Indices** | Russell 2000 | -9.6 | -2.2 | -25.1 | -23.5 | 4.3 | 3.6 | 8.6 |
| | Russell 2000 Value | -10.2 | -4.6 | -21.1 | -17.7 | 4.7 | 2.9 | 7.9 |
| | Russell 2000 Growth | -9.0 | 0.2 | -29.3 | -29.3 | 2.9 | 3.6 | 8.8 |

Source: Bloomberg as of September 30, 2022

# S&P 500 sector performance

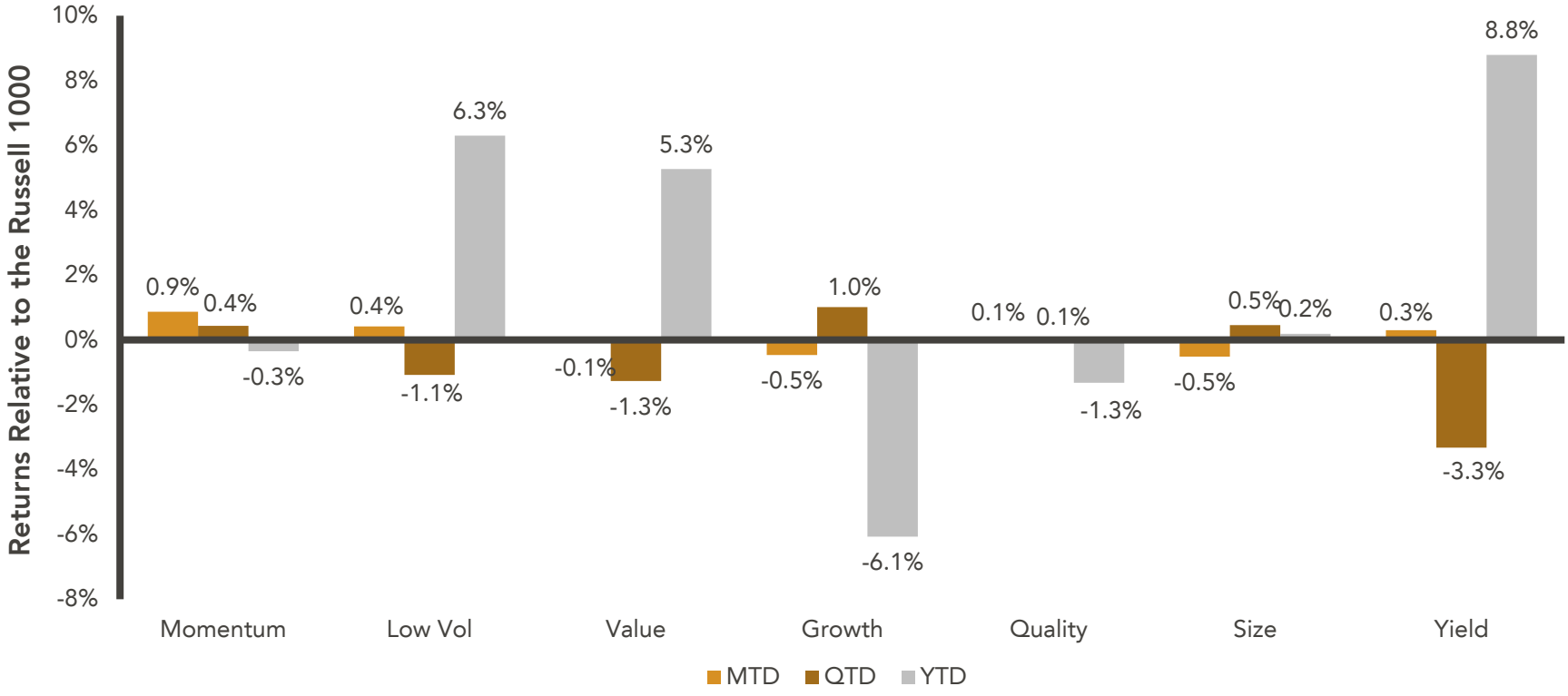
## Most sectors were negative in the third quarter; energy is now the lone positive sector year-to-date




Source: Bloomberg as of September 30, 2022

# S&P 500 factor performance

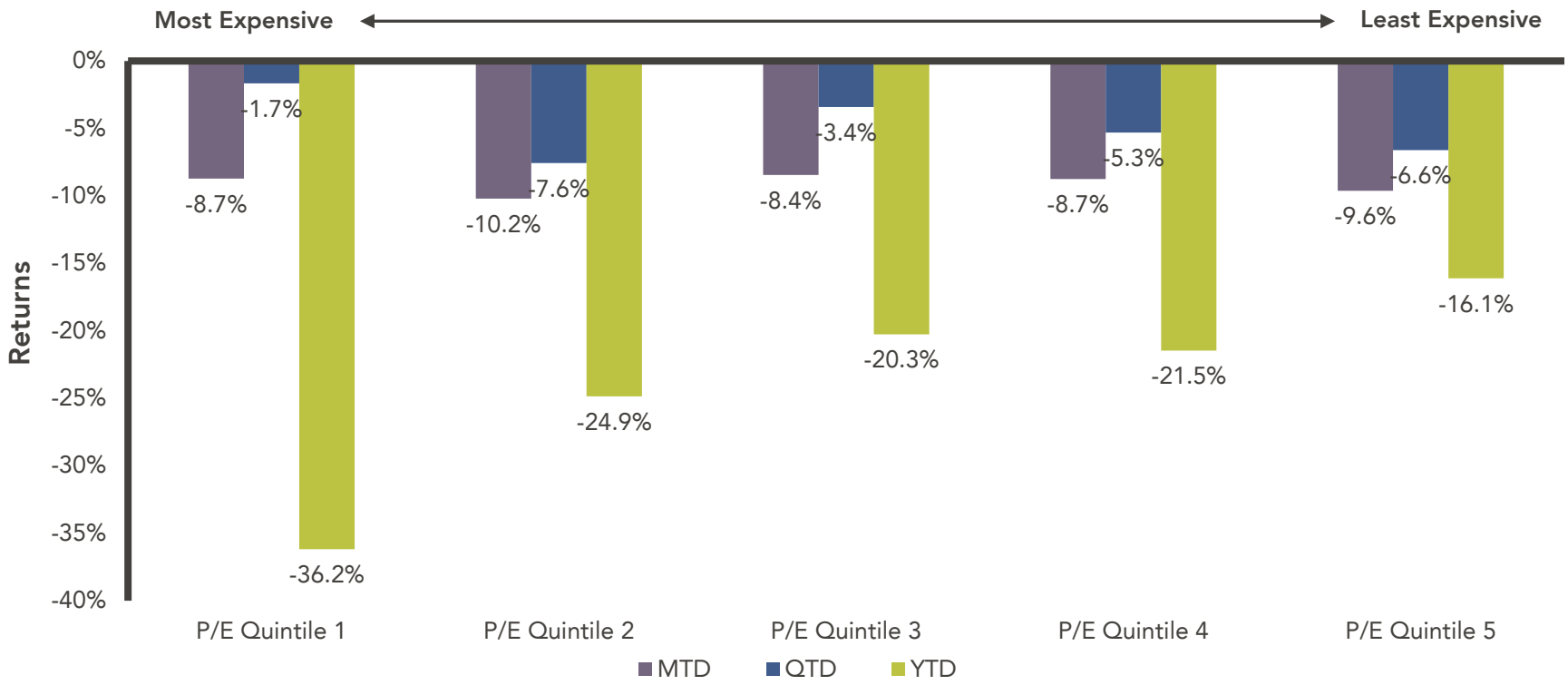
## Despite struggling in the third quarter, higher-yielding, lower-volatility, and value-oriented securities continue to lead year-to-date




Source: Bloomberg as of September 30, 2022

# U.S. equity valuations

## After underperforming in the first half of the year, the most expensive stocks in the S&P 500 actually held up better than peers in 3Q




Source: FactSet as of September 30, 2022. SPY ETF used as a proxy for the S&P 500.

# U.S. equity valuations by factor

## Reduction in the multiples of growth-oriented indices; multiples of value-style indices 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 | 13.0 | 15 | 23.5 | 68 | 12.7 | 6 | 21.9 | 36 | 9.2 | 1 | 14.4 | 7 |
| Forward P/E | 12.1 | 23 | 19.2 | 76 | 12.0 | 10 | 18.5 | 45 | 9.0 | 1 | 12.2 | 2 |
| P/B | 2.1 | 70 | 9.0 | 89 | 2.0 | 76 | 6.5 | 87 | 1.2 | 14 | 5.7 | 96 |
| P/S | 1.5 | 71 | 3.2 | 82 | 1.2 | 67 | 2.2 | 73 | 0.9 | 58 | 1.3 | 25 |
| P/CF | 9.4 | 48 | 18.9 | 83 | 10.4 | 85 | 19.0 | 80 | 11.9 | 82 | 12.3 | 9 |
| EV/EBITDA | 10.1 | 40 | 16.5 | 78 | 10.7 | 57 | 17.4 | 81 | 16.9 | 87 | 8.8 | 6 |
| **Average** | | **45** | | **79** | | **50** | | **67** | | **40** | | **24** |

Source: Bloomberg as of September 30, 2022. 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 – September 2022.

# Global equity performance

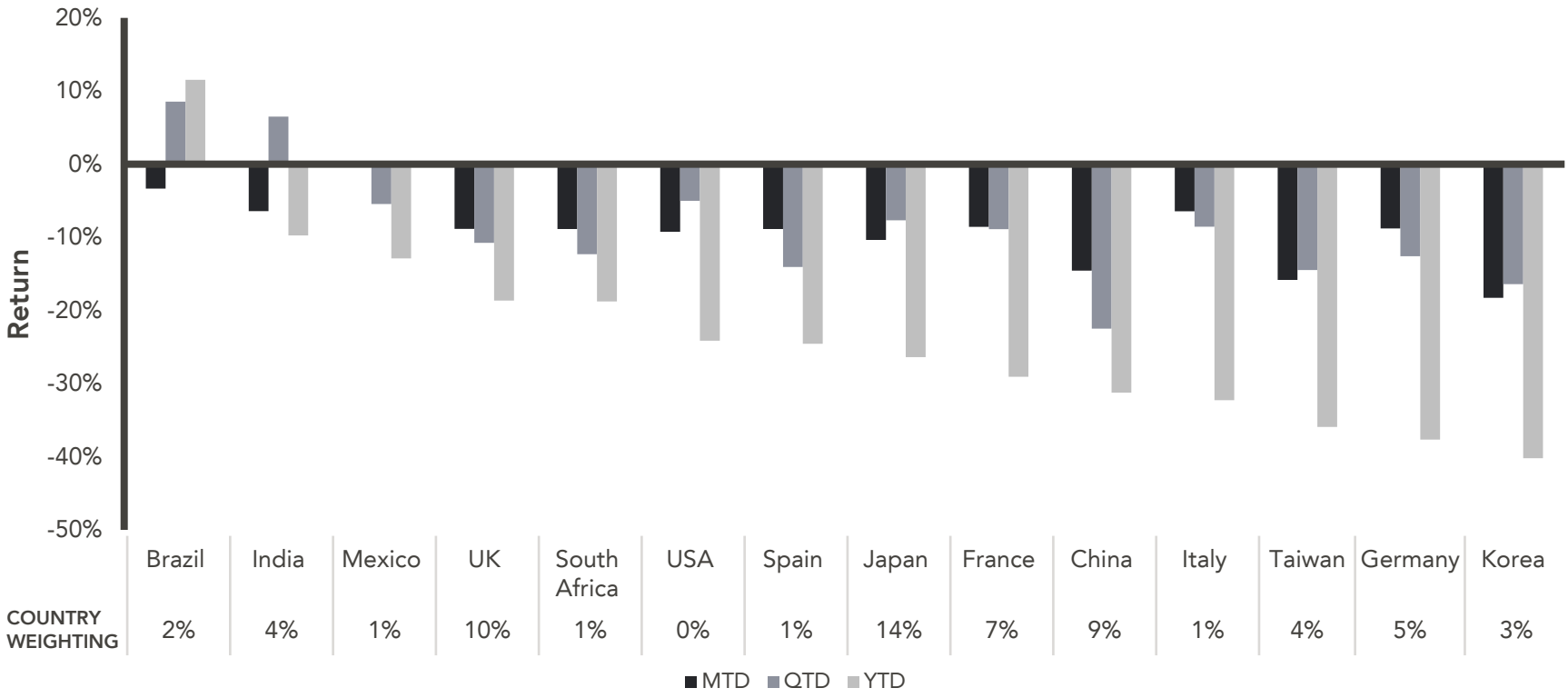
## Non-U.S. equities posted sizeable losses in the third quarter

| | | MTD (%) | QTD (%) | YTD (%) | 1 Yr (%) | 3 Yr (%) | 5 Yr (%) | 10 Yr (%) |
|---|---|---|---|---|---|---|---|---|
| **Global Equity Market Indices** | MSCI ACWI | -9.6 | -6.8 | -25.6 | -20.7 | 3.7 | 4.4 | 7.3 |
| | MSCI ACWI ex. U.S. | -10.0 | -9.9 | -26.5 | -25.2 | -1.5 | -0.8 | 3.0 |
| **Developed Markets Indices** | MSCI EAFE | -9.4 | -9.4 | -27.1 | -25.1 | -1.8 | -0.8 | 3.7 |
| | MSCI EAFE Local | -6.2 | -3.6 | -14.5 | -11.1 | 2.5 | 2.8 | 7.4 |
| **Emerging Markets Indicies** | MSCI Emerging Markets | -11.7 | -11.6 | -27.2 | -28.1 | -2.1 | -1.8 | 1.0 |
| | MSCI EM Local | -9.4 | -8.2 | -20.8 | -21.5 | 1.1 | 1.1 | 4.5 |
| **Small-Cap Market Indices** | MSCI EAFE Small-Cap | -11.5 | -9.8 | -32.1 | -32.1 | -2.2 | -1.8 | 5.3 |
| | MSCI EM Small-Cap | -10.0 | -5.3 | -24.2 | -23.2 | 5.5 | 1.3 | 2.9 |
| **Frontier Markets Index** | MSCI Frontier | -9.3 | -6.5 | -25.7 | -25.2 | -1.3 | -1.2 | 3.6 |

Source: Bloomberg as of September 30, 2022

# Country performance

## No place to hide; most equity markets are down double digits YTD

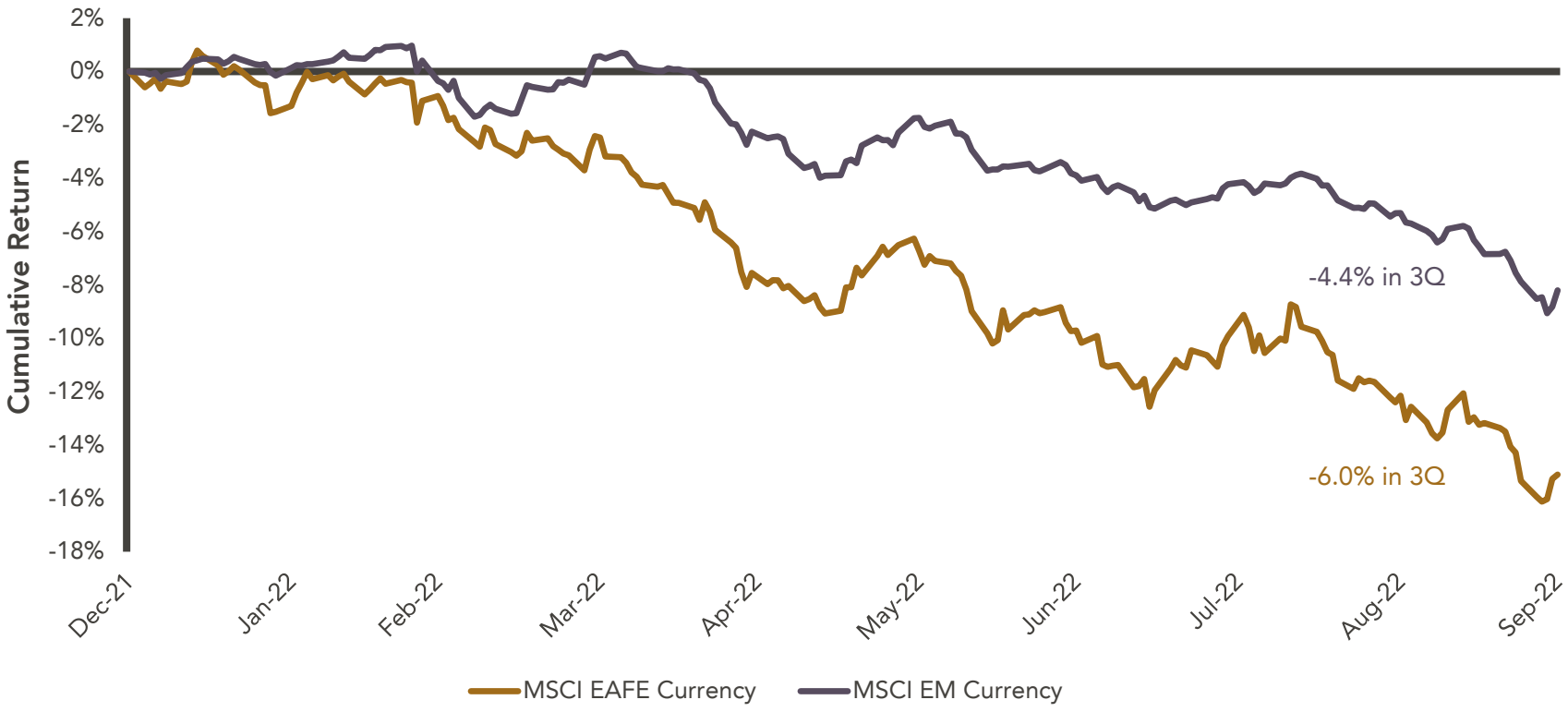



| | Brazil | India | Mexico | UK | South Africa | USA | Spain | Japan | France | China | Italy | Taiwan | Germany | Korea |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COUNTRY WEIGHTING | 2% | 4% | 1% | 10% | 1% | 0% | 1% | 14% | 7% | 9% | 1% | 4% | 5% | 3% |

Source: eVestment as of September 30, 2022. Country weighting as a percentage of the MSCI ACWI ex U.S. Index.

# Currency performance

## Developed currencies have detracted 15% year-to-date




Source: Bloomberg as of September 30, 2022

# Global equity valuations

## Non-U.S. markets now trade in the cheapest quartile of their history

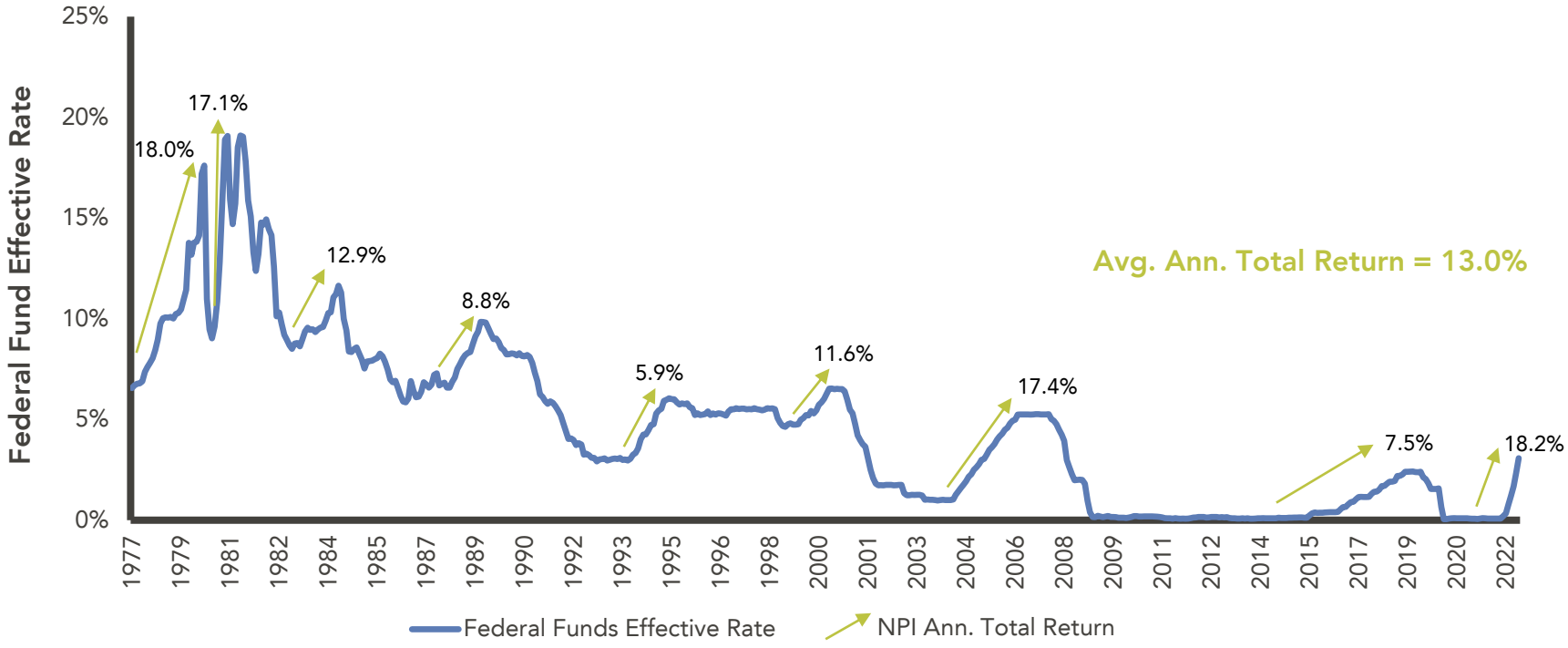
| Valuation Metrics | S&P 500 | | MSCI EAFE | | MSCI EM | | MSCI EAFE SC | |
|---|---|---|---|---|---|---|---|---|
| | Current | Historical Percentile (%) | Current | Historical Percentile (%) | Current | Historical Percentile (%) | Current | Historical Percentile (%) |
| P/E | 17.1 | 39 | 10.1 | 3 | 8.8 | 6 | 8.4 | 1 |
| Forward P/E | 14.8 | 51 | 10.7 | 17 | 10.2 | 35 | 10.8 | 12 |
| P/B | 3.6 | 83 | 1.4 | 10 | 1.3 | 8 | 1.1 | 6 |
| P/S | 2.2 | 82 | 1.1 | 53 | 1.0 | 25 | 0.7 | 55 |
| P/CF | 12.4 | 56 | 5.5 | 6 | 6.7 | 23 | 6.8 | 18 |
| EV/EBITDA | 12.2 | 60 | 7.0 | 2 | 7.4 | 37 | 7.9 | 3 |
| **Average** | | **62** | | **15** | | **22** | | **16** |

Source: Bloomberg as of September 30, 2022, data pulled on October 4, 2022. 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.

# Performance amid higher interest rates

## Historically, core U.S. real estate values have reacted positively in rising rate environments

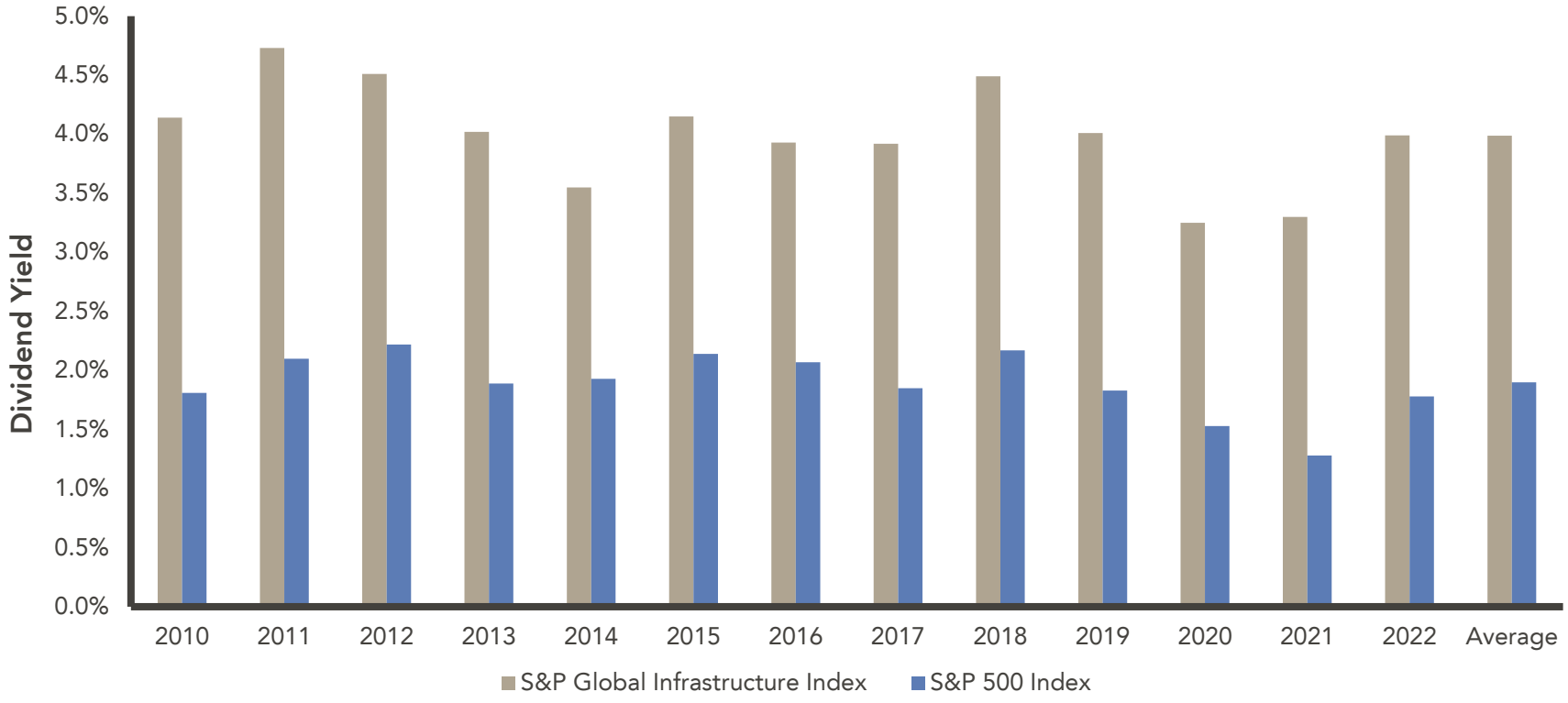
NPI Total Returns During Periods of Fed Rate Hikes




Source: NCREIF, Federal Reserve, Moody's Analytics, Clarion Partners Investment Research as of September 30, 2022

# Infrastructure yield

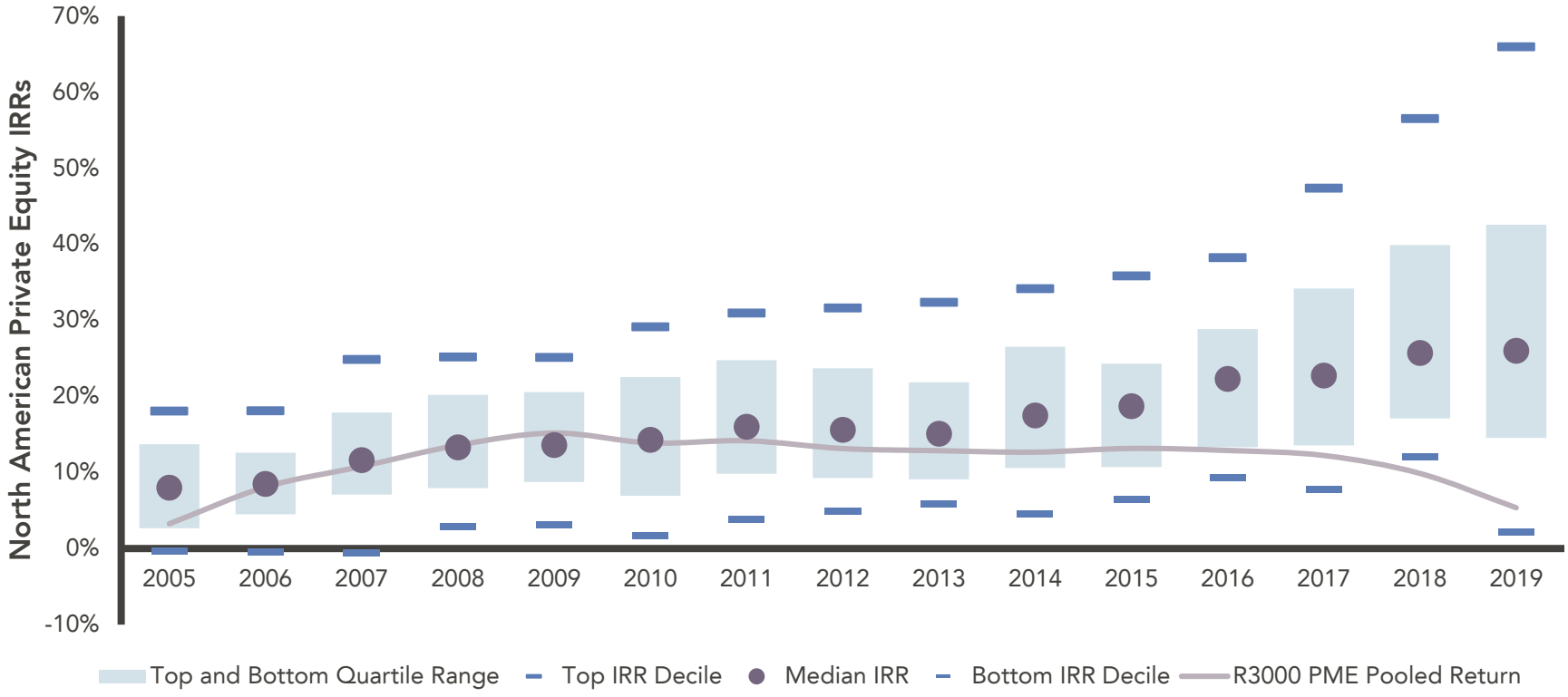
## Consistent EBITDA growth of underlying infrastructure interests has fostered attractive yields for institutional investors




Source: Bloomberg, Carlyle, as of September 30, 2022

# U.S. private equity vintage performance

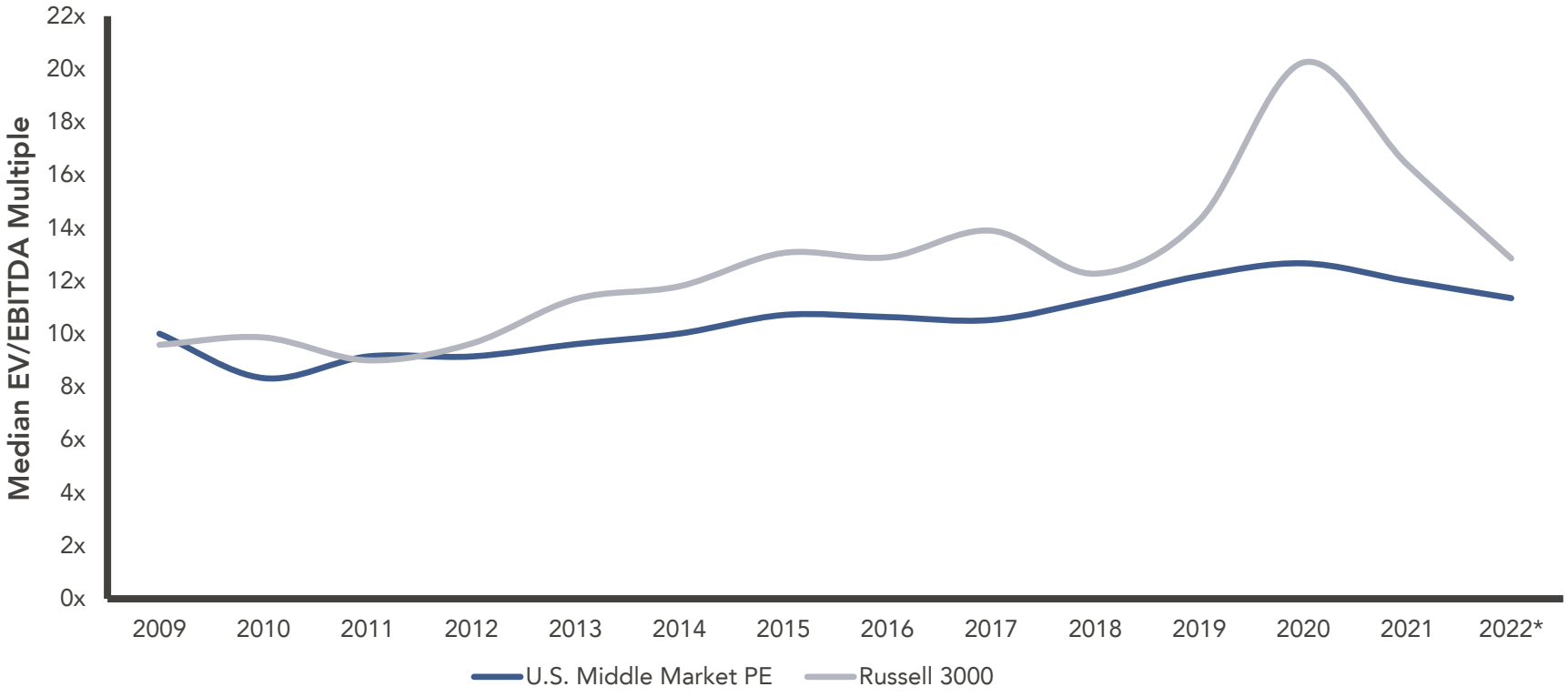
## Private equity performance continues to be strong with industry median performance exceeding public market equivalents




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

# Private equity relative value

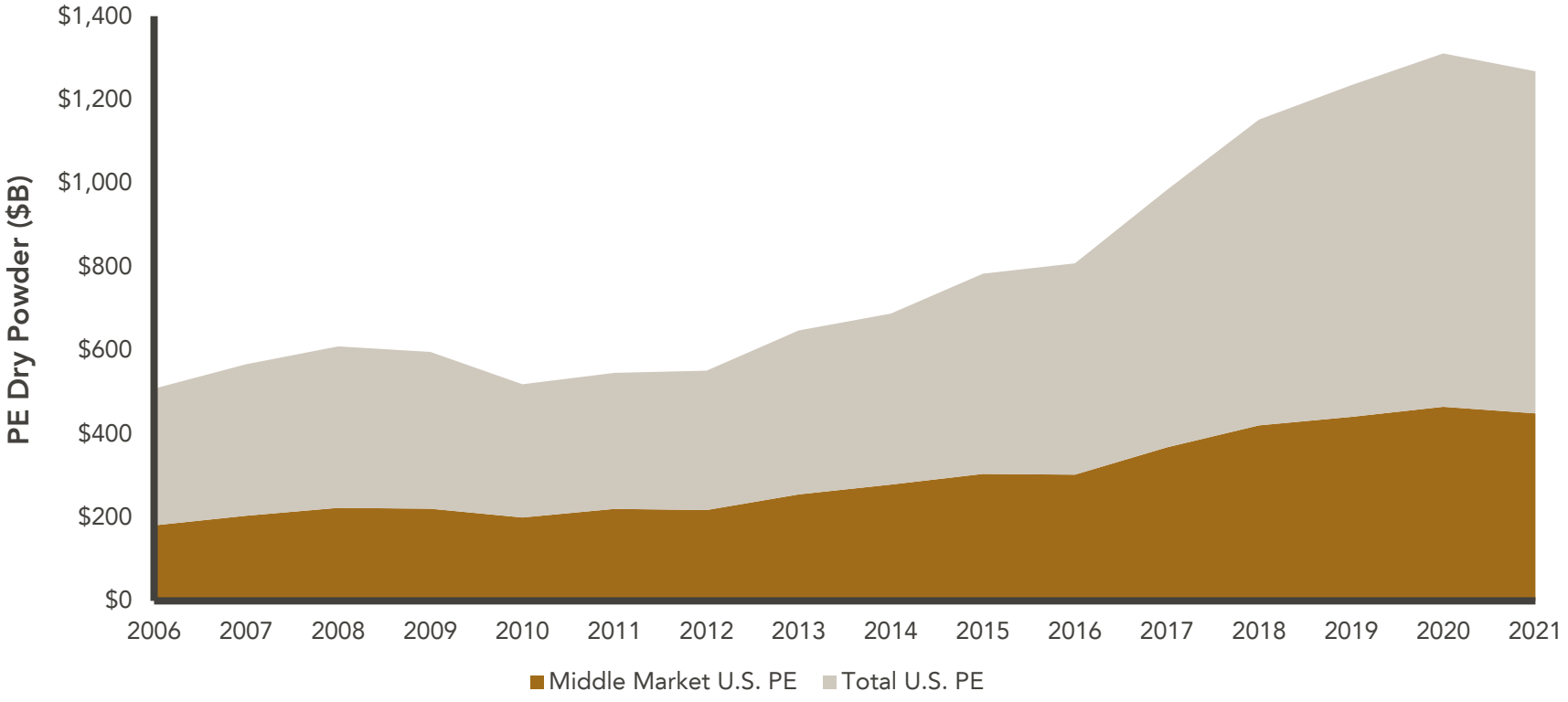
## The valuation delta, though still present, has compressed relative to 2020 highs of nearly 60%




Source: Pitchbook, Bloomberg as of June 30, 2022

# Private equity dry powder

## While dry powder is off highs, cash available for investment remains healthy by historic standards and should continue to drive activity

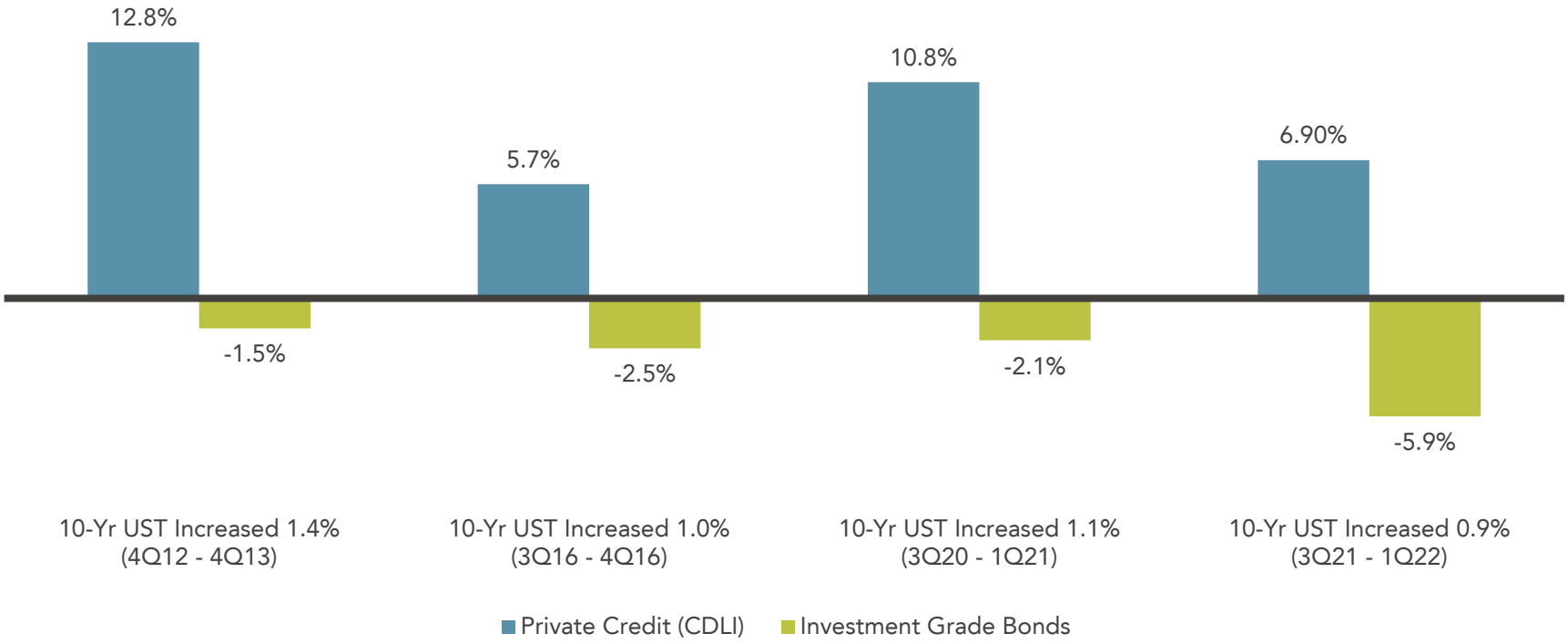



Source: Pitchbook as of June 30, 2022

# Outperformance in periods of monetary tightening

## Private credit has historically performed well during periods of monetary tightening, with average outperformance of ~1,200bps

Historical returns when rates have increased by 75bps+




Source: Blackstone, Morningstar, Cliffwater Direct Lending Index as of March 31, 2022. Data over the prior 10 years.

# 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**: Higher rates have pushed the yield on the Bloomberg Aggregate higher and core bonds are providing attractive starting yield. Recession probabilities continue to tick up and core fixed income can provide protection in down markets if interest rates fall. Spread sectors remain volatile, with attractive valuations.
- ↘ **U.S.**: Risk assets remain sensitive to macro headwinds, as the Fed focuses on combatting inflation. More defensive equities and high-quality growers with stable cash flows may be poised for relative outperformance. Recent compression has led to more attractive valuation multiples across U.S. equity indices, with Value indices at historic lows. With the rising probability of recession, however, deep cyclicals may be more impacted. Earnings expectations signal the potential for the lowest earnings growth rate in two years against a backdrop of higher rates and currency movements.
- ↘ **Non-U.S.**: Recession probabilities continue to climb, especially for Europe. Developed central bank monetary policy will weigh on growth as the focus remains on inflation. The short-term outlook is negative, but valuations are very attractive, setting up for strong performance potential 3–5 years out.
- ↘ **Real Assets**: Higher interest rates, inflationary pressures, and elevated costs of capital will exert downward pressure on near-term real estate pricing. Energy transition initiatives and recent legislative measures should drive demand for infrastructure.
- ↘ **Hedge Funds**: Hedge funds should continue to help protect capital against a volatile macro backdrop. In Credit, spreads have widened to attractive levels and defaults are expected to rise, expanding the opportunity set for stressed and distressed managers.
- ↘ **Private Equity:** Profitability pressure has persisted due to continued wage increases, supply chain challenges, and the rising cost of debt. Public market volatility and valuation compression is likely to continue, which may create opportunities for those with dry powder. Continued capital in-flows into larger private market funds should remain additive to the exit environment for the small buyout, lower-middle market, and early-stage venture funds.
- ↘ **Private Credit**: Direct lending is attractive against the backdrop of increased inflation and rising rates, given a majority of 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 September 30, 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.

Purpose:

# Guide institutional investment programs

**Mission**
Enable institutions to become more effective investment stewards

**Vision**
Leading investment consultant of risk-adjusted returns & client services

**Principles**

- ✓ Real-world pragmatism
- ✓ Independent expertise
- ✓ Focused client service
- ✓ Careful research

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