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DATE: December 30, 2024

TO: Legislative Reference Library

FROM: Jill E. Schurtz
Executive Director and Chief Investment Officer

SUBJECT: Report on Investment Consultant Activities

The provisions of Minnesota Statutes, Section 11A.27 require the State Board of Investment (SBI) to file with the Legislative Reference Library a report on investment consultant activities.

The SBI contracts with Aon Investments USA Inc. (Aon), Chicago, IL; Meketa Investment Group, LLC (Meketa), Portland, OR; and Albourne America LLC (Albourne), Norwalk, CT. Aon and Meketa serve as SBI's general consultants and the annual contract fees for fiscal year 2024 were $567,000.00 and $502,500.00 respectively. Albourne serves as the SBI's private markets consultant and the annual contract fee for fiscal year 2024 was $1,463,000.00.

As part of their consultant services, Aon and Meketa are available to the Board, staff and Investment Advisory Council (IAC) to provide perspective, counsel and input on relevant investment related issues. Albourne, who is available to the Board and IAC, works primarily with staff to provide back-office support, strategic planning resources, and analysis on private market firms and investments.

During the period July 1, 2023 through June 30, 2024, Aon and Meketa provided the following reports:

- Periodic background information for evaluating SBI investment managers
- Quarterly Capital Market Outlook Reports

Attached is an example of the work product each has provided.

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REPORT

AON Market Environment Report

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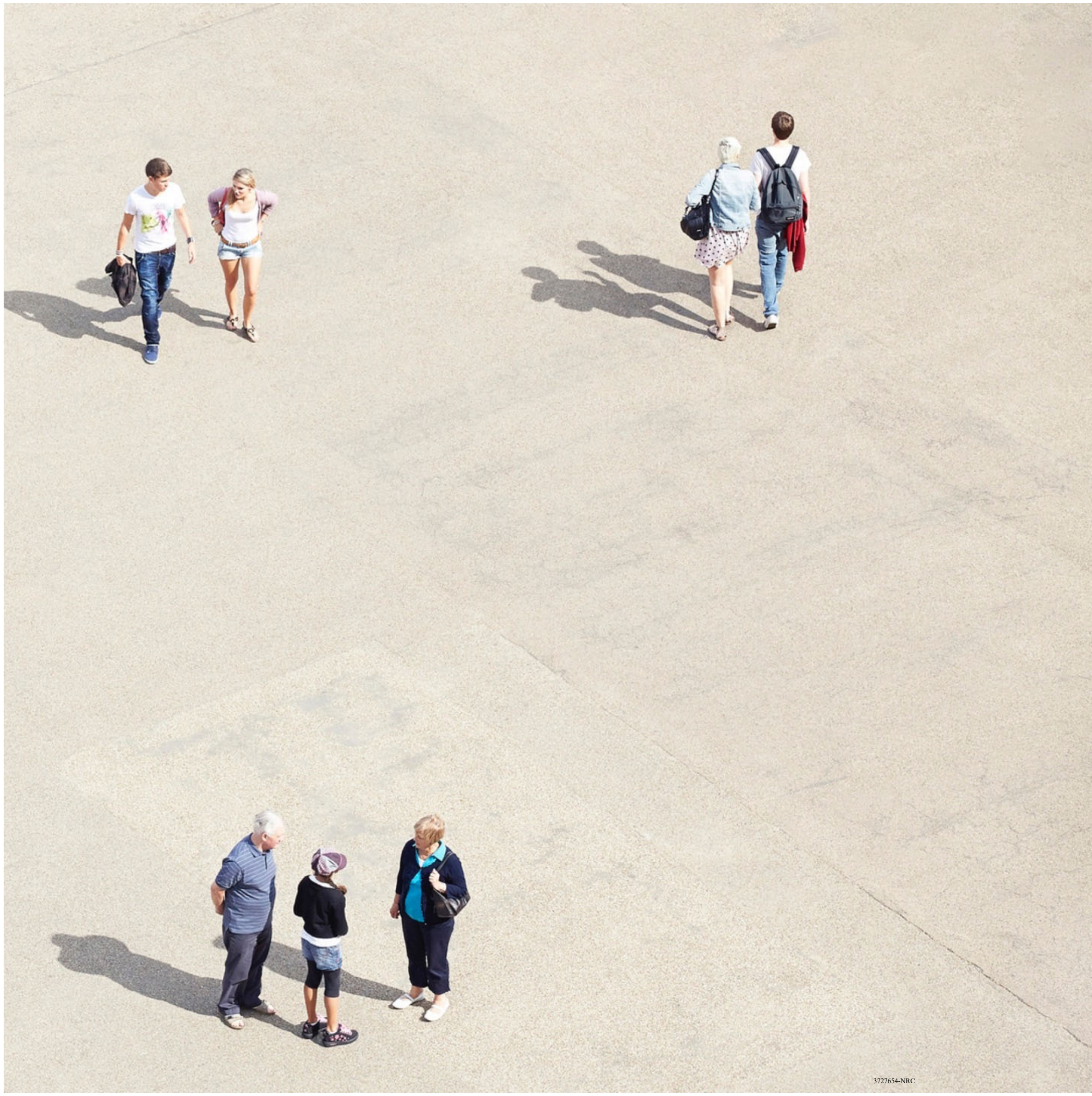
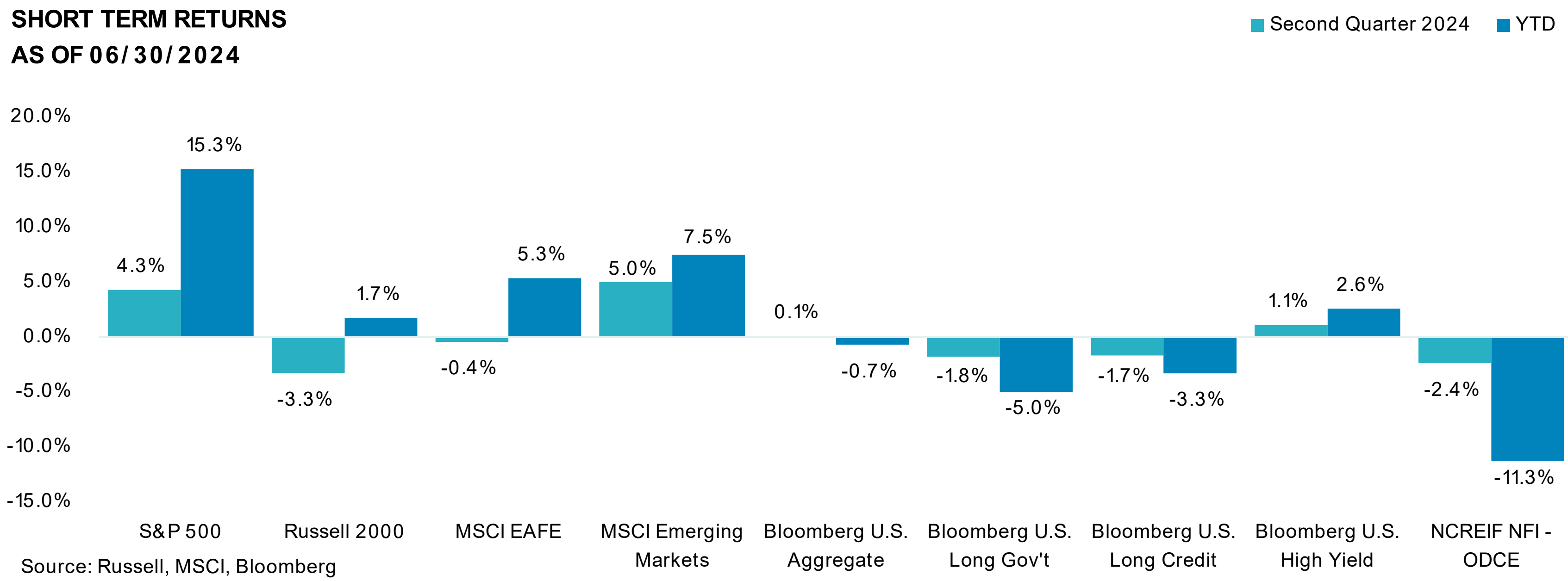
Market Environment

Second Quarter 2024



Market Highlights



Source: Russell, MSCI, Bloomberg

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.

Past performance is no guarantee of future results. Indices cannot be invested in directly. Unmanaged index returns assume reinvestment of any and all distributions and do not reflect fees and expenses. Please see appendix for index definitions and other general disclosures.

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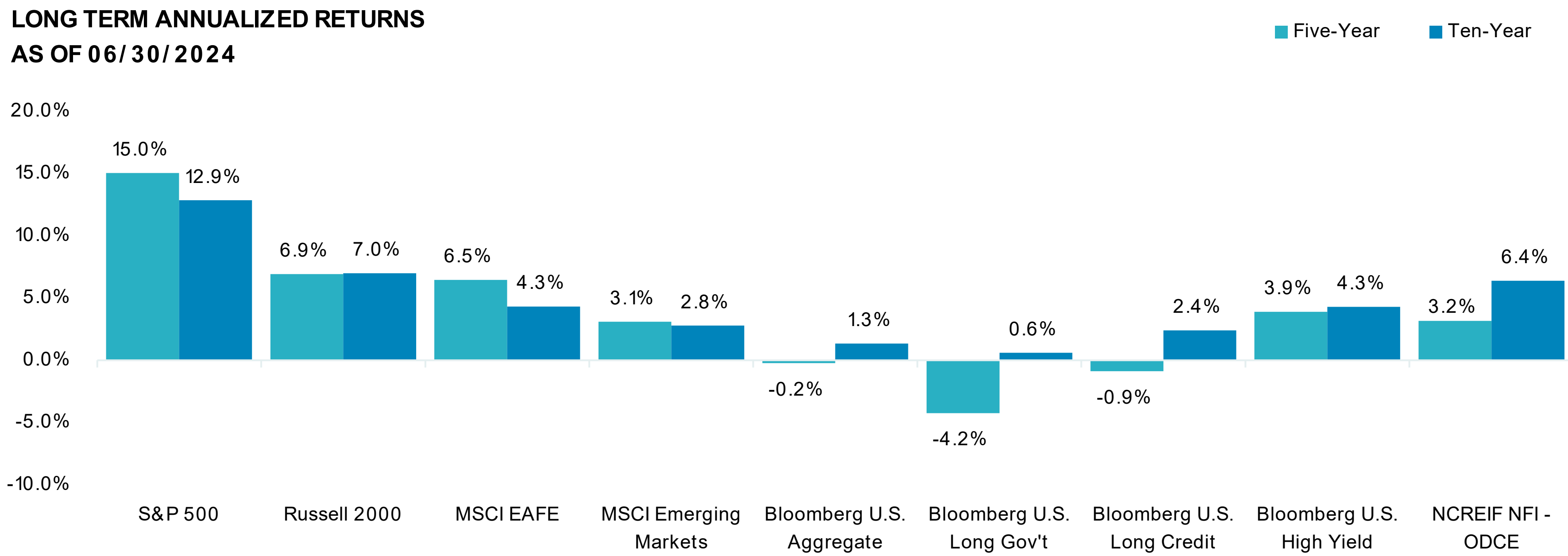
Market Highlights



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Market Highlights

Returns of the Major Capital Markets						
					Period Ending 06/30/2024	
	Second Quarter	YTD	1-Year	3-Year[1]	5-Year[1]	10-Year[1]
Equity						
MSCI All Country World IMI	2.38%	10.28%	18.40%	4.70%	10.36%	8.17%
MSCI All Country World	2.87%	11.30%	19.38%	5.43%	10.76%	8.43%
Dow Jones U.S. Total Stock Market	3.24%	13.61%	23.20%	7.90%	14.04%	12.07%
Russell 3000	3.22%	13.56%	23.13%	8.05%	14.14%	12.15%
S&P 500	4.28%	15.29%	24.56%	10.01%	15.05%	12.86%
Russell 2000	-3.28%	1.73%	10.06%	-2.58%	6.94%	7.00%
MSCI All Country World ex-U.S. IMI	0.92%	5.28%	11.57%	0.19%	5.62%	3.92%
MSCI All Country World ex-U.S.	0.96%	5.69%	11.62%	0.46%	5.55%	3.84%
MSCI EAFE	-0.42%	5.34%	11.54%	2.89%	6.46%	4.33%
MSCI EAFE (Local Currency)	1.00%	11.06%	15.08%	8.10%	8.98%	7.40%
MSCI Emerging Markets	5.00%	7.49%	12.55%	-5.07%	3.10%	2.79%
Equity Factors						
MSCI World Minimum Volatility (USD)	-0.71%	5.05%	9.10%	3.28%	5.43%	7.74%
MSCI World High Dividend Yield	-1.21%	4.51%	10.31%	5.16%	7.22%	6.32%
MSCI World Quality	5.78%	18.16%	29.22%	10.67%	16.57%	13.45%
MSCI World Momentum	5.08%	26.32%	37.48%	7.83%	13.14%	12.41%
MSCI World Enhanced Value	-2.56%	4.29%	12.69%	5.58%	7.83%	5.63%
MSCI World Equal Weighted	-2.00%	3.01%	10.48%	1.24%	6.79%	6.18%
MSCI World Index Growth	6.42%	17.37%	26.63%	7.65%	15.53%	12.47%
MSCI USA Minimum Volatility (USD)	0.79%	8.54%	14.60%	6.20%	8.28%	10.66%
MSCI USA High Dividend Yield	-1.73%	6.27%	12.70%	5.93%	8.08%	9.18%
MSCI USA Quality	5.38%	18.99%	31.43%	11.65%	17.59%	15.38%
MSCI USA Momentum	4.50%	25.71%	37.74%	6.19%	12.19%	13.64%
MSCI USA Enhanced Value	-3.99%	3.54%	13.35%	2.52%	8.08%	7.86%
MSCI USA Equal Weighted	-2.68%	5.33%	13.92%	3.14%	10.11%	9.47%
MSCI USA Growth	9.37%	22.19%	34.11%	10.80%	19.84%	16.45%

Returns of the Major Capital Markets						
					Period Ending 06/30/2024	
	Second Quarter	YTD	1-Year	3-Year[1]	5-Year[1]	10-Year[1]
Fixed Income						
Bloomberg Global Aggregate	-1.10%	-3.16%	0.93%	-5.49%	-2.02%	-0.42%
Bloomberg U.S. Aggregate	0.07%	-0.71%	2.63%	-3.02%	-0.23%	1.35%
Bloomberg U.S. Long Gov't	-1.80%	-4.99%	-5.55%	-10.45%	-4.24%	0.60%
Bloomberg U.S. Long Credit	-1.68%	-3.30%	2.01%	-6.76%	-0.87%	2.40%
Bloomberg U.S. Long Gov't/Credit	-1.73%	-4.10%	-1.58%	-8.51%	-2.22%	1.65%
Bloomberg U.S. TIPS	0.79%	0.70%	2.71%	-1.33%	2.07%	1.91%
Bloomberg U.S. High Yield	1.09%	2.58%	10.44%	1.64%	3.92%	4.31%
Bloomberg Global Treasury ex U.S.	-3.07%	-6.76%	-2.89%	-8.80%	-4.68%	-2.25%
JP Morgan EMBI Global (Emerging Market	0.44%	1.84%	8.35%	-2.22%	0.27%	2.35%
Commodities						
Bloomberg Commodity Index	2.89%	5.14%	5.00%	5.65%	7.25%	-1.29%
Goldman Sachs Commodity Index	0.65%	11.08%	15.01%	12.69%	8.28%	-3.12%
Hedge Funds						
HFRI Fund-Weighted Composite[2]	0.54%	5.01%	9.80%	2.87%	6.67%	4.77%
HFRI Fund of Funds[2]	0.44%	4.63%	8.50%	2.06%	4.78%	3.48%
Real Estate						
NAREIT U.S. Equity REITS	0.06%	-0.13%	7.79%	0.30%	3.90%	5.90%
NCREIF NFI - ODCE	-0.45%	-2.81%	-9.26%	1.89%	3.16%	6.41%
FTSE Global Core Infrastructure Index	-0.12%	1.67%	4.31%	1.89%	3.98%	5.76%
Private Equity						
Burgiss Private iQ Global Private Equity[3]			6.43%	11.01%	15.07%	13.40%

MSCI Indices show net total returns throughout this report. All other indices show gross total returns.
[1] Periods are annualized.
[2] Latest 5 months of HFR data are estimated by HFR and may change in the future.
[3] Burgiss Private iQ Global Private Equity data is as at December 31, 2023

Source: Russell, MSCI, Bloomberg

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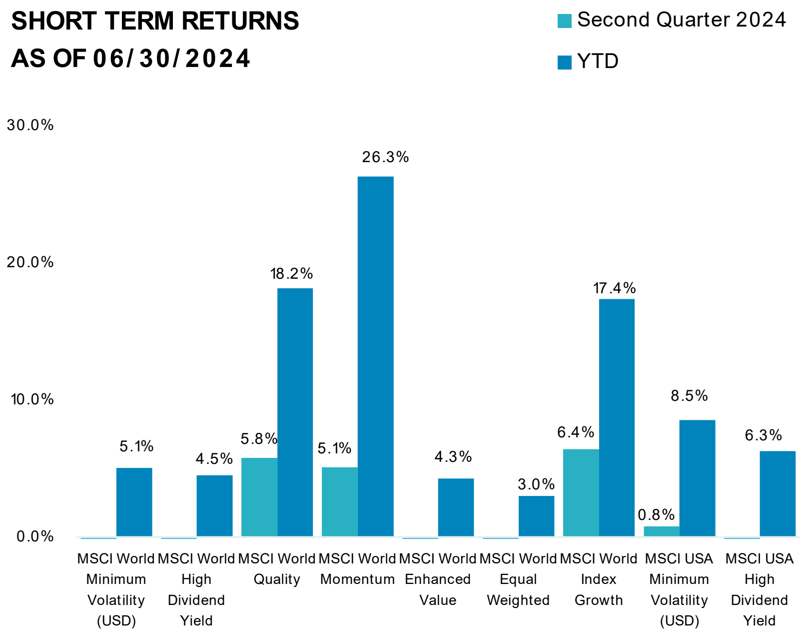
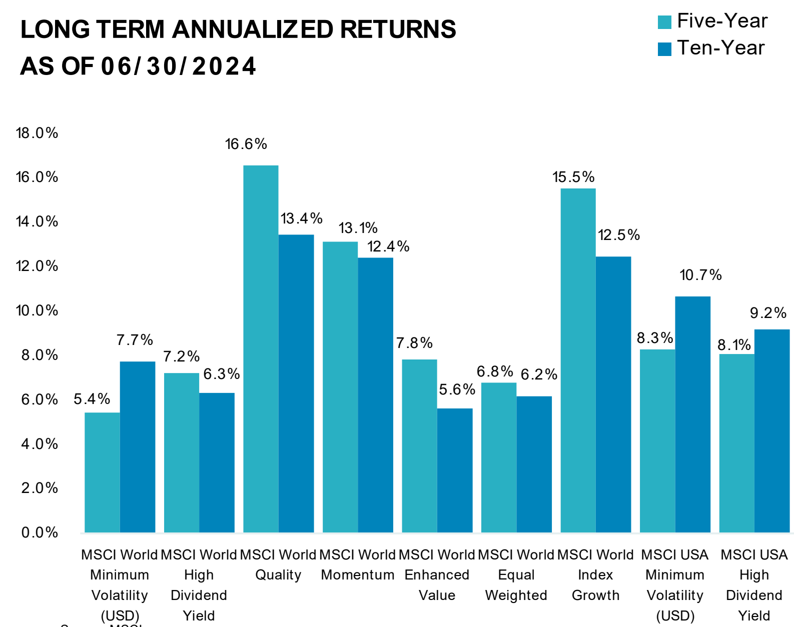
Factor Indices

SHORT TERM RETURNS
AS OF 06/30/2024



Source: MSCI
MSCI Indices show net total returns throughout this report.
All other indices show gross total returns..

LONG TERM ANNUALIZED RETURNS
AS OF 06/30/2024



Source: MSCI
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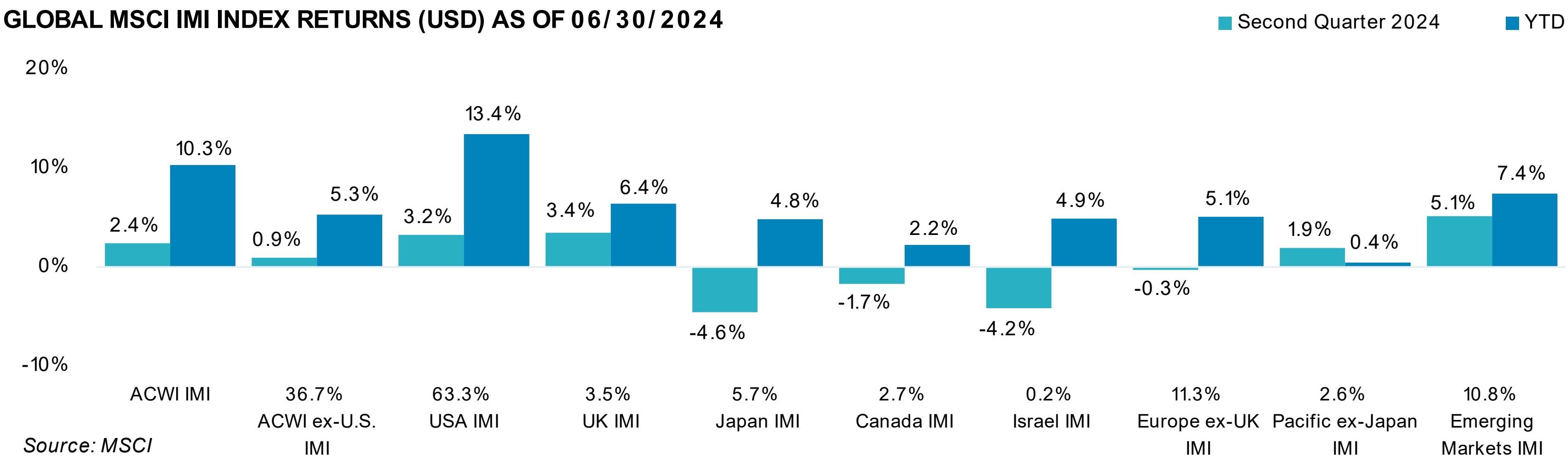
Global Equity Markets

GLOBAL MSCI IMI INDEX RETURNS (USD) AS OF 06/30/2024



Source: MSCI

- In Q2 2024, the global equity markets rose. The S&P 500 Index reached an all-time high, driven by a positive outlook on a solid earnings season, easing inflation data, signs of economic resilience, and rallies from the tech giants. Volatility fell slightly during the quarter as the CBOE Volatility Index (VIX) fell to 12.4 in Q2 from 13 in the previous quarter, staying well below its 20-year average of 19.1.
- Across international markets, all regions had a mixed performance over the quarter. Emerging Markets IMI equities were the best performer over the quarter with major contributions coming from MSCI Taiwan IMI (13.5%) and MSCI India IMI (12.0%).
- Japan IMI was the worst performer with a return of -4.6% over the quarter. Consumer Discretionary (-11.2%) and Materials (-8.5%) weighed over the Japanese equities.

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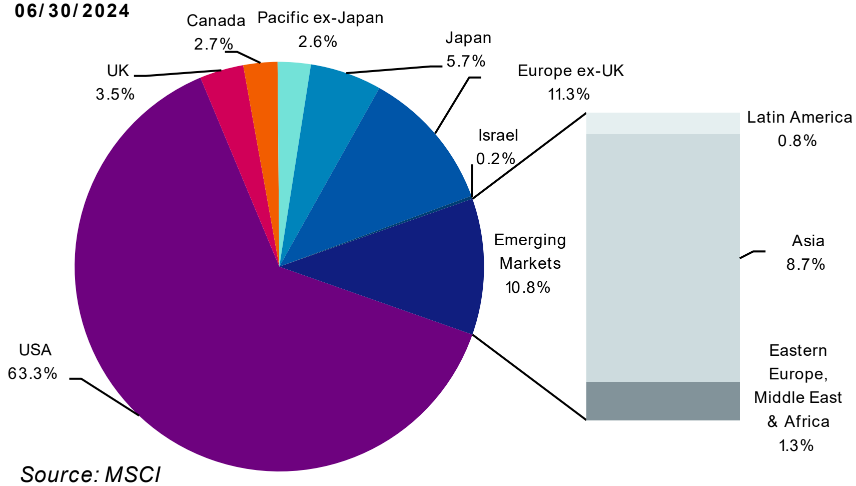
Global Equity Markets

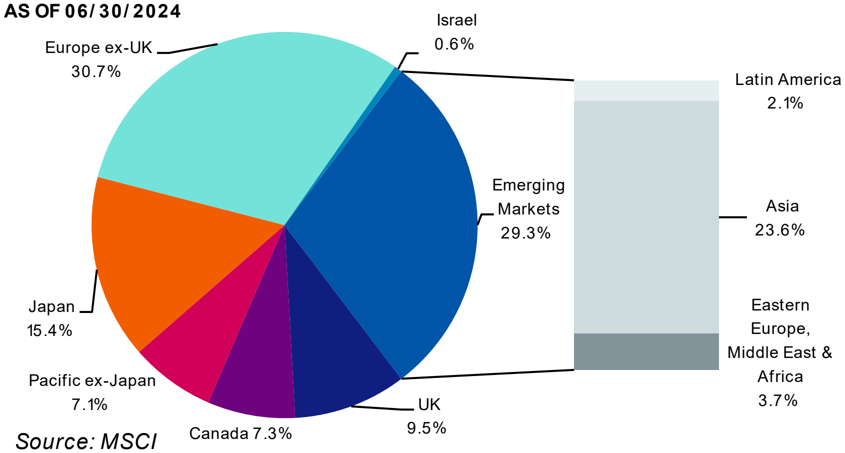
Below is the country/region breakdown of the global and international equity markets as measured by the MSCI All Country World IMI Index and the MSCI All Country World ex-U.S. IMI Index, respectively.

MSCI ALL COUNTRY WORLD IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2024



Source: MSCI

MSCI ALL COUNTRY WORLD EX-U.S. IMI INDEX GEOGRAPHIC ALLOCATION AS OF 06/30/2024



Source: MSCI

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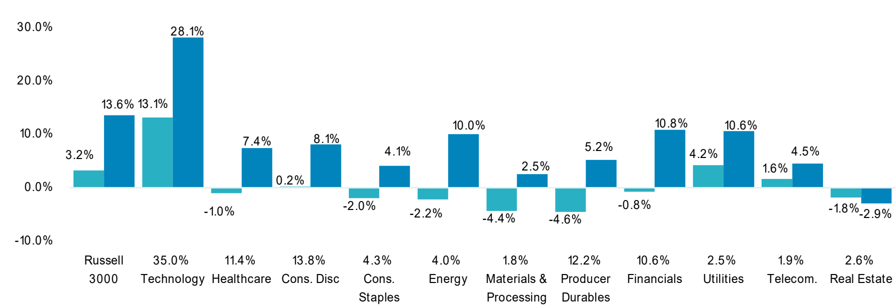
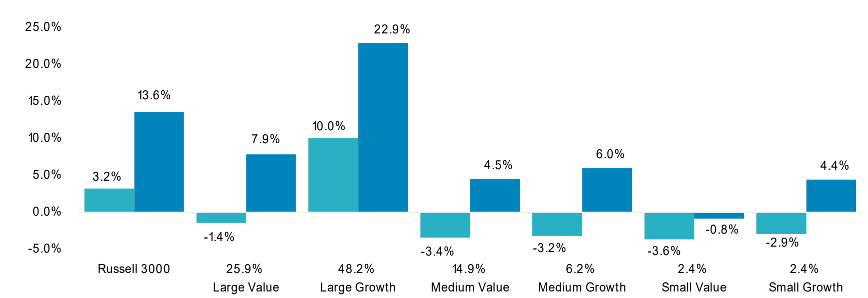
U.S. Equity Markets

- U.S. equities had a positive quarter with the S&P 500 Index rising by 4.3%. The Nasdaq Composite has outperformed over the quarter with a return of 8.5%.
- The United States House of Representatives has approved a military aid package valued at $95 billion. The package comprises $60 billion in military aid for Ukraine, $26 billion for Israel, $8 billion for U.S. allies in the Indo-Pacific region (including Taiwan), and $9 billion in humanitarian assistance for civilians in war zones (such as Gaza). The bill received a majority vote of 311 to 112, with 210 Democrats and 101 Republicans in favor.
- The U.S. economy grew at an annualized rate of 1.4% in the first quarter of 2024, slightly higher than the expected and previous quarter's annualized growth rate of 1.3%.
- The Russell 3000 Index rose 3.2% during the second quarter and 13.6% on a YTD basis. Technology (13.1%) and Utilities (4.2%) were the best performers while Producer Durables (-4.6%) and Materials & Processing (-4.4%) were the worst performers.
- On a style basis, growth outperformed value across market capitalizations over the quarter. Large-cap stocks outperformed Medium and Small-cap stocks in both growth and value styles over the quarter.

RUSSELL SECTOR RETURNS AS OF 06/30/2024



RUSSELL STYLE RETURNS AS OF 06/30/2024



Source: Russell Indexes

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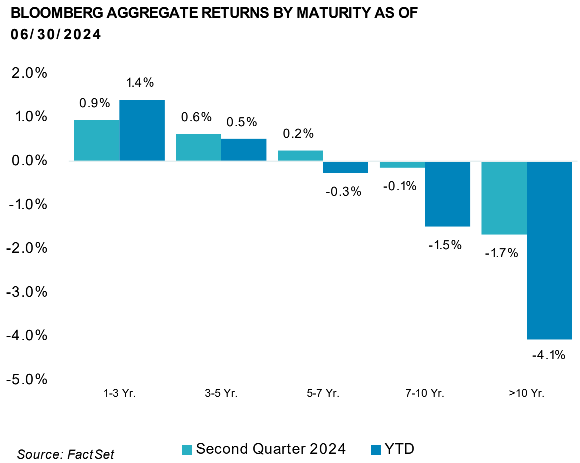
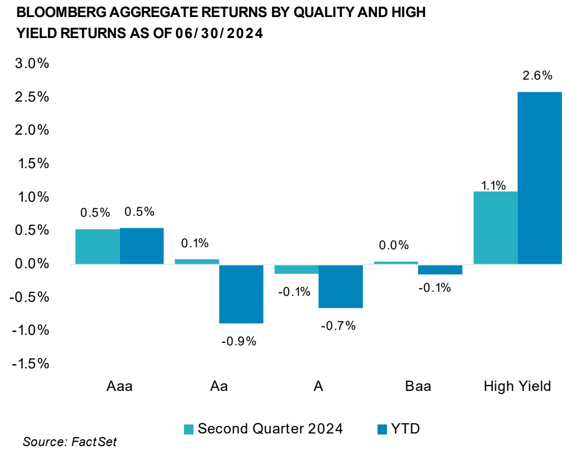
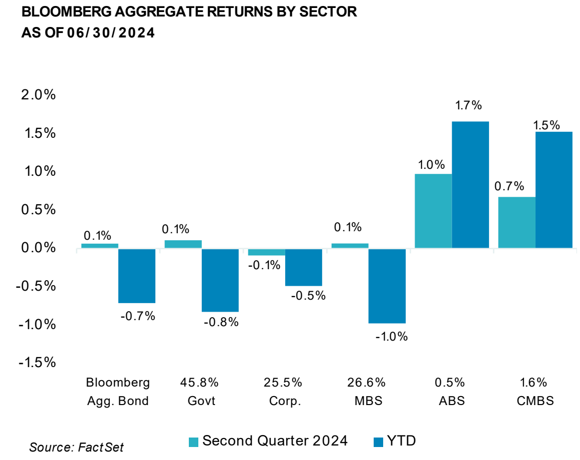
U.S. Fixed Income Markets







- The U.S. Federal Reserve (Fed) kept its interest rate unchanged at 5.25%-5.5%. According to the latest Fed "dot plot," the median FOMC member believes only one quarter-point cut this year is appropriate, compared to three rate cuts projected earlier in March. Meanwhile, the Fed plans to slow its pace of quantitative tightening starting in June, lowering the cap on the amount of treasury rolling off the balance sheet from $60 billion to $25 billion each month.
- The Bloomberg U.S. Aggregate Bond Index was up 0.1% over the quarter but was down 0.7% on a YTD basis.
- Across durations, all maturities (except for 7-10 Yr. and >10 Yr.) finished the quarter in positive territory with shorter maturities rising more.
- Within investment-grade bonds, higher-quality issues generally outperformed lower-quality issues, with Aaa-rated bonds returning 0.5% during the quarter. High-yield bonds rose by 1.1%. On a YTD basis, high-yield bonds outperformed indicating an increase in risk appetite.

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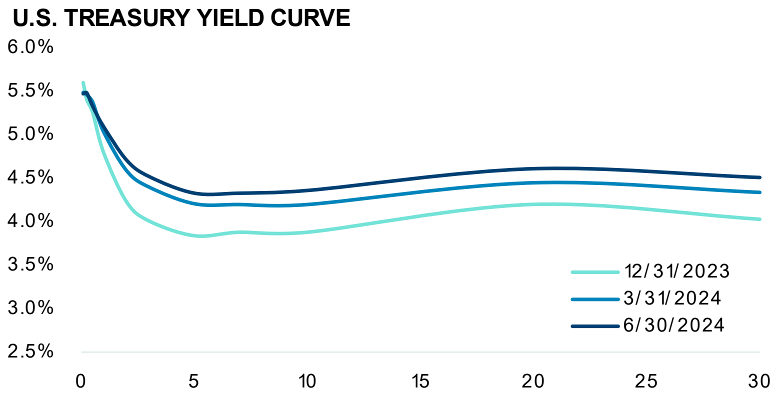
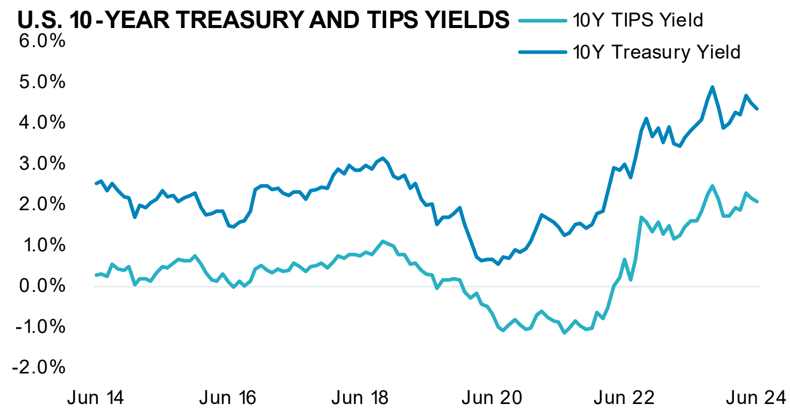
U.S. Fixed Income Markets



Source: U.S. Department of Treasury



Source: U.S. Department of Treasury

- U.S. Treasury yields generally rose across maturities as the yield curve shifted upwards over the quarter. The 10-year Treasury yield rose by 16bps to 4.36%, and the 30-year Treasury yield rose by 17bps to 4.51% over the quarter.
- U.S. headline consumer price inflation slowed to 3.3% year-on-year in May. This was below economists' expectations and the previous month's reading of 3.4%. U.S. core inflation, which excludes energy and food prices, reduced to 3.4% year-on-year in May, down from the previous month's 3.6% and lower than economists' expectations of 3.5%.
- The 10-year TIPS yield rose by 20bps over the quarter to 2.08%.

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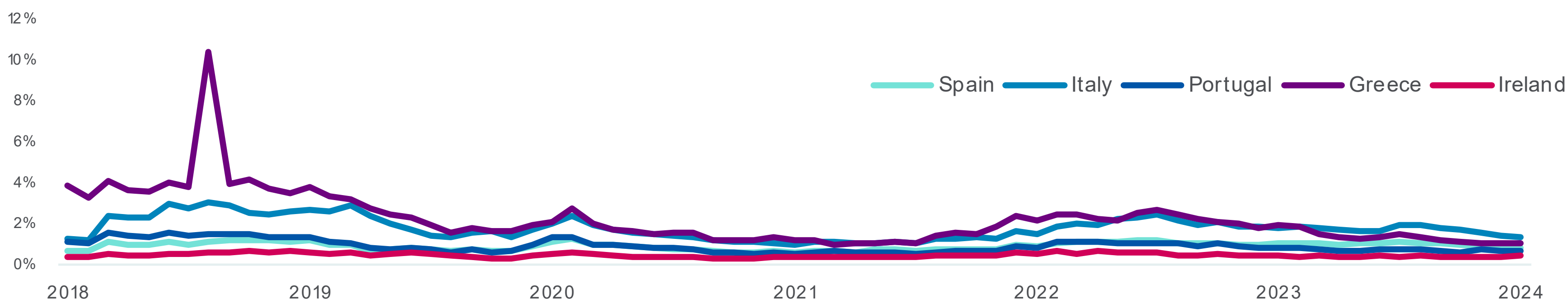
European Fixed Income Markets

EUROZONE PERIPHERAL BOND SPREADS (10 -YEAR SPREADS OVER GERMAN BUNDS)



Source: FactSet

- European government bond spreads over 10-year German bunds widened across the Euro Area. The European Central Bank (ECB) reduced the policy interest rate by 0.25% to 3.75% as a result of lower inflation. ECB president Christine Lagarde emphasized that further rate cuts ‘depend on the data’. According to the Bank’s latest projections, economic growth is expected to pick up to 0.9% in 2024, 1.4% in 2025 and 1.6% in 2026. Headline inflation is expected to rise by 2.5% in 2024, 2.2% in 2025 and 1.9% in 2026.
- Italian and Greek government bond yields rose by 40bps and 37bps to 4.07% and 3.74%, respectively over the quarter while Portugal government bond yields rose by 26bps to 3.24%. Spanish and Irish government bond yields rose by 23bps and 21bps to 3.38% and 2.94%, respectively over the quarter.
- German bund yields rose by 17bps to 2.47% over the quarter.
- Eurozone headline inflation rose by more than expected, as the consumer price index (CPI) increased 2.6% year-on-year in May, higher than the 2.4% increase recorded in April and above economists’ expectations of 2.5%. Core inflation rose 2.9% year-on-year, up from April’s 2.7% and beat economists’ expectations.

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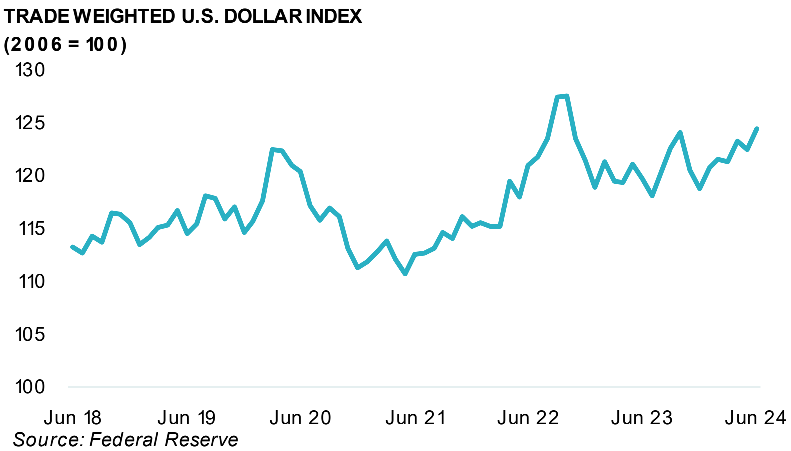
Credit Spreads

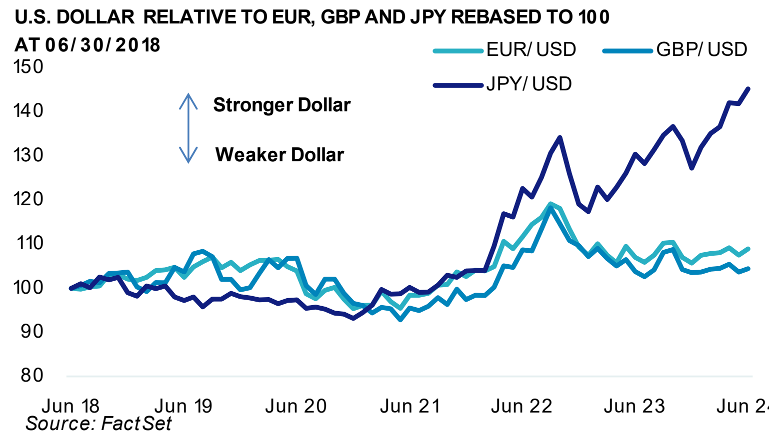
Spread (bps)	6/30/2024	3/31/2024	12/31/2023	Quarterly Change (bps)	YTD
U.S. Aggregate	39	39	42	0	-3
Long Gov't	2	0	2	2	0
Long Credit	115	109	117	6	-2
Long Gov't/Credit	60	57	62	3	-2
MBS	48	49	47	-1	1
CMBS	97	96	126	1	-29
ABS	57	55	68	2	-11
Corporate	94	90	99	4	-5
High Yield	309	299	323	10	-14
Global Emerging Markets	258	260	294	-2	-36

Source: FactSet, Bloomberg

- Credit markets remained flat over the quarter with spreads generally widening.
- High Yield and Long Credit spreads widened by 10bps and 6bps, respectively. Meanwhile, Global Emerging Market spreads narrowed by 2bps.

Currency





- The U.S. Dollar appreciated against major currencies (except for sterling) over the quarter. On a trade-weighted basis, the U.S. dollar appreciated by 2.6%.
- Sterling appreciated by 0.1% against the U.S. dollar. The BoE kept its policy interest rate at 5.25%. The Monetary Policy Committee (MPC) voted 7-2 to maintain the current rate, with two members voting for a 25bps rate cut. The MPC stated that it is ready to adjust monetary policy based on economic data to sustainably return inflation to the 2% target. The BoE governor Andrew Bailey expressed optimism about recent encouraging inflation data, emphasising the need to ensure inflation remains low.
- The U.S. dollar appreciated by 0.8% against the euro and by 6.3% against the yen.

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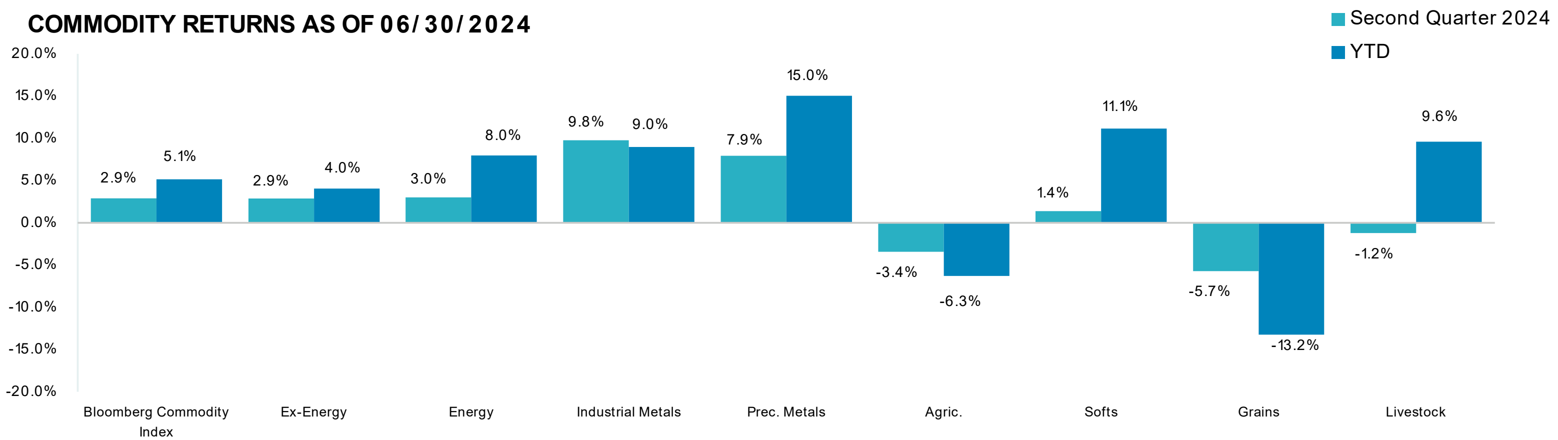
Commodities



Source: Bloomberg Note: Softs and Grains are part of the wider Agriculture sector

- Commodity prices rose over the quarter with the Bloomberg Commodity Index rising by 2.9% for the quarter.
- The Energy sector was up by 3.0% over the quarter and 8.0% on a YTD basis. The price of WTI crude oil fell by 2.0% to U.S.$82/B.
- Industrial Metals rose the most over the quarter at 9.8%.
- The Grains subsector was the worst performer with a return of -5.7% over the quarter.

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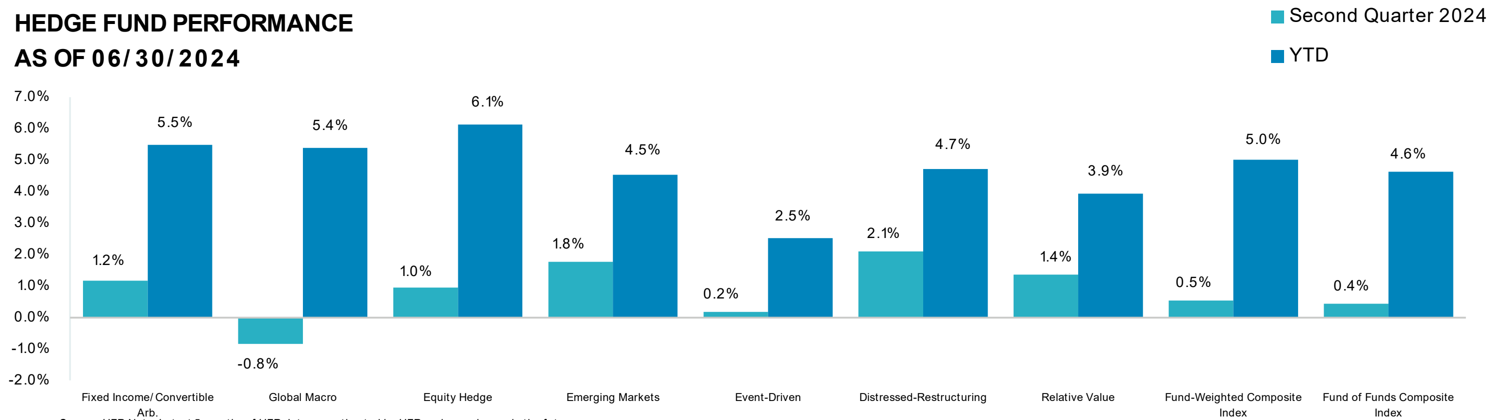
Hedge Funds Market Overview



Source: HFR Note: Latest 5 months of HFR data are estimated by HFR and may change in the future.

- Hedge fund performance was generally positive over the quarter.
- The HFRI Fund-Weighted Composite produced a return of 0.5% and the HFRI Fund of Funds Composite Index produced a return of 0.4% over the quarter.
- Over the quarter, Distressed Restructuring was the best performer with a return of 2.1%.
- Global Macro was the worst performer with a return of -0.8% over the quarter.
- On a YTD basis, Equity Hedge has outperformed all other strategies while Event-Driven has performed the worst.

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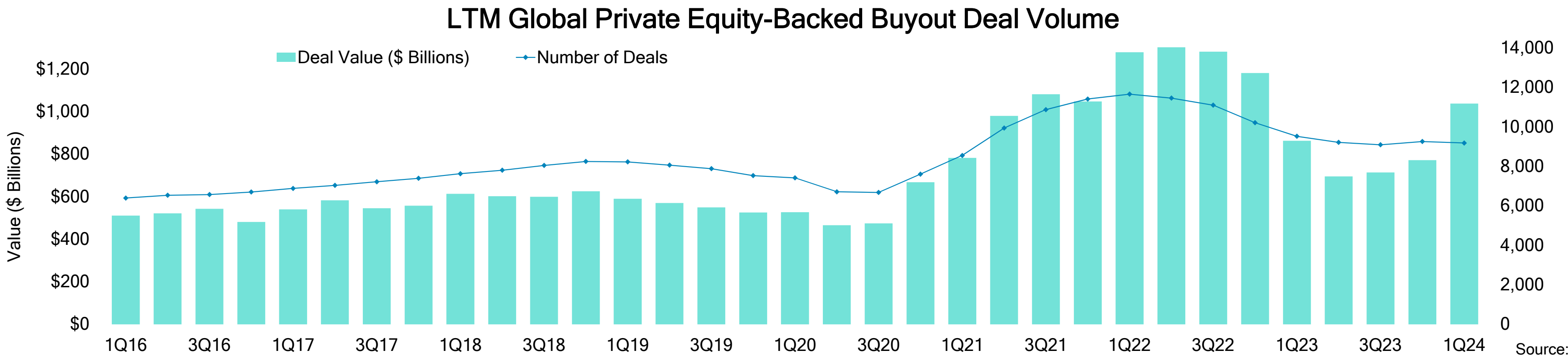
Private Equity Overview
First Quarter 2024



Source: Preqin Pro

- **Fundraising**: In Q1 2024, $244.6 billion was raised by 484 funds, which was a decrease of 30.6% on a capital basis and a decrease of 32.8% by number of funds over the prior quarter. Dry powder stood at $3.2 trillion at the end of the quarter, a slight decrease of 1.0% compared to Q4 2023, but an increase of 23.3% compared the five-year average.[1]
- **Buyout**: Global private equity-backed buyout deals totaled $425.4 billion in Q1 2024, which was an increase on a capital basis of 70.8% compared to Q4 2023 and 102.9% higher than the five-year quarterly average. Deal value was driven by a large PIPE investment in Aramco by Public Investment Fund (estimated at $163.3 billion of the quarter's total deal value).[1] During the quarter, the median purchase price multiple for U.S. private equity buyouts was 14.4x EBITDA, up from 13.3x in FY 2023 and up from the five-year average (12.7x). On a TTM basis, the U.S. median purchase price multiple through Q1 2024 was 13.1x. The median purchase price multiple for European private equity buyouts ended the quarter at 13.6x EBITDA, which compares to 10.2x at the end of 2023 and to the five-year average of 11.7x.2 Globally, buyout exit value totaled $64.8 billion across 537 deals during the quarter, down from $141.8 billion in value from 614 deals during the prior quarter.[1]
- **Venture**: During the quarter, an estimated 3,925 U.S. venture-backed transactions totaling $36.6 billion were completed, which was a decrease on both a capital and deal count basis over the prior quarter, which saw an estimated 4,034 deals completed totaling $40.1 billion. This was also a decrease of 32.4% compared to the five-year quarterly average of $54.1 billion. Total U.S. venture-backed exit value increased during the quarter, totaling approximately $18.4 billion across an estimated 600 completed transactions. This compares to $10.4 billion across 536 exits in Q4 2023. This was meaningfully below the five-year quarterly average of $74.6 billion of exit value from 401 transactions.[3]

Sources: [1] Preqin [2] Pitchbook/LCD [3] PitchBook/NVCA Venture Monitor [4] Fitch Ratings [5] Jefferies
Notes: FY=Fiscal year ended 12/31; YTD=Year to date; LTM=Last 12 months (aka trailing 12 months); PPM=Purchase Price Multiples: Total Purchase Price ÷ EBITDA.

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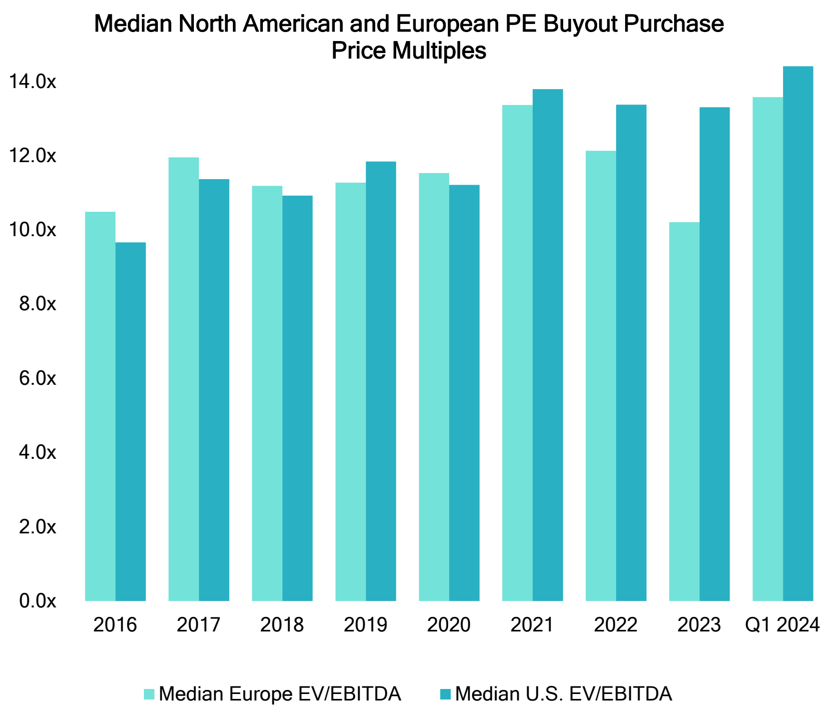
Private Equity Overview



Source: Pitchbook, LCD

- **Mezzanine**: 4 funds closed on $2.1 billion during the quarter. This was an increase from the prior quarter's total of $1.5 billion raised by 7 funds but represented a decrease of 65.9% from the five-year quarterly average of $6.1 billion. Estimated dry powder was $61.7 billion at the end of Q1 2024, down from $65.5 billion at the end of the prior year.[1]
- **Distressed Debt/Special Situations**: The TTM U.S. high-yield default rate was 3.04% as of March 2024, which was up slightly from December 2023's TTM rate of 2.96%.[4] During the quarter, $5.2 billion was raised by 12 funds, down from the $25.0 billion raised by 17 funds during Q4 2023. Dry powder was estimated at $145.2 billion at the end of Q1 2024, which was down 11.5% from Q4 2023. This was down from the five-year average level of $152.7 billion.[1]
- **Secondaries**: 5 funds raised $12.4 billion during Q1 2024, down substantially from the $28.2 billion raised by 10 funds in Q4 2023. This was a slight decrease compared to the five-year quarterly average of $13.9 billion.[1] The average discount rate for LP buyout and venture capital portfolios finished the year at 6.0% and 29.0%, respectively.[5]
- **Infrastructure**: $35.1 billion of capital was raised by 24 funds in Q1 2024 compared to $68.7 billion of capital raised by 31 funds in Q4 2023. The 10 largest funds in market are currently seeking a combined $167.2 billion in capital. Infrastructure managers completed 475 deals for an aggregate deal value of $58.4 billion in Q1 2024, compared to 599 deals totaling $109.2 billion in Q4 2023.[1]
- **Natural Resources**: During Q1 2024, 5 funds closed on $3.0 billion compared to 9 funds closing on $3.5 billion during the prior quarter. 172 energy and utilities deals were completed in Q1 2024 totaling $174.9 billion, an increase, on a capital basis, compared to 829 completed deals totaling $54.6 billion in FY 2023. Energy and utilities deals accounted for the largest percentage of private equity deal value during the quarter.[1]

Sources: [1] Preqin [2] Pitchbook/LCD [3] PitchBook/NVCA Venture Monitor [4] Fitch Ratings [5] Jefferies

Appendix
Index Definitions

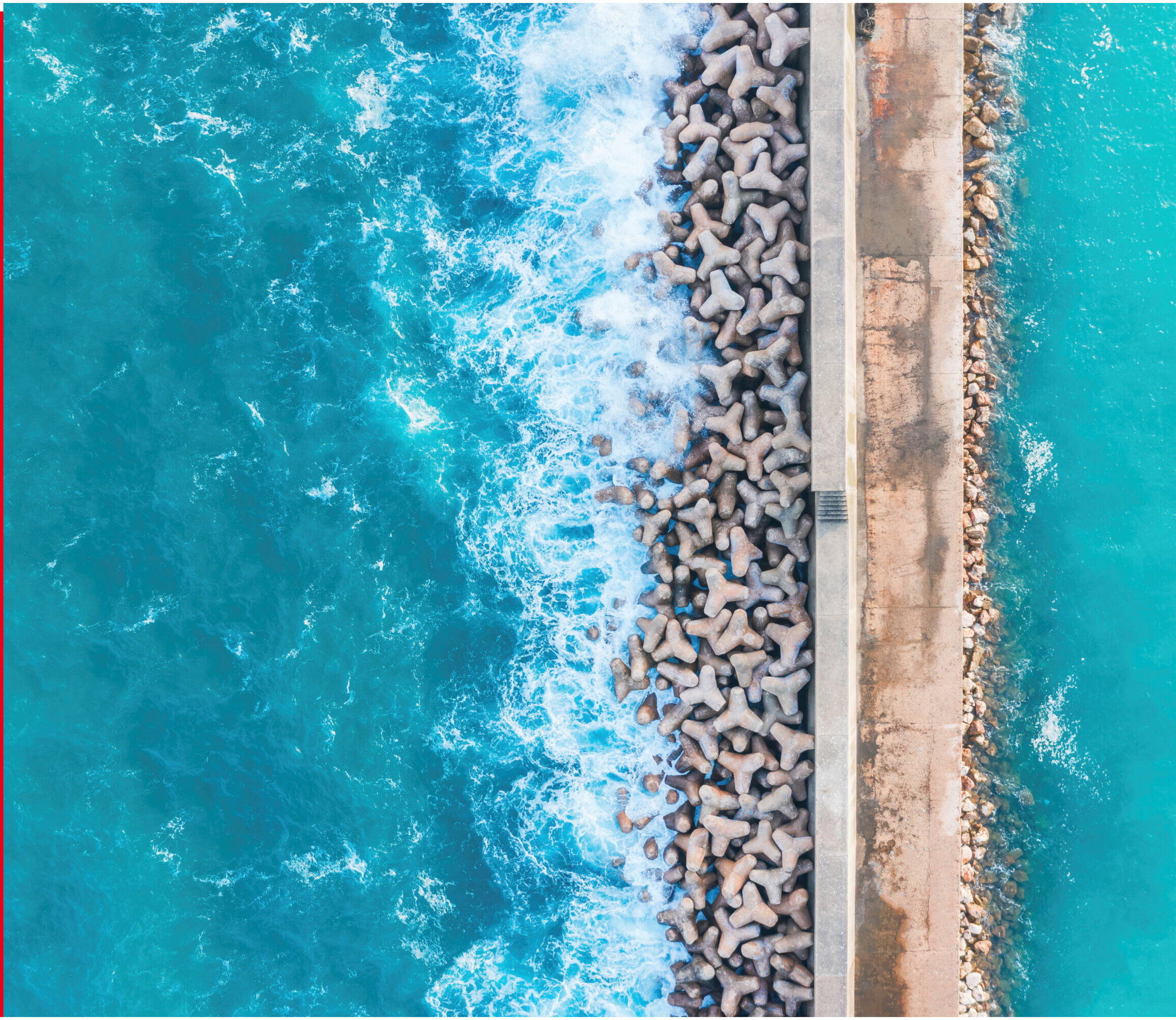
Index	Definition
MSCI AC World Index	The MSCI ACWI Index, MSCI's flagship global equity index, is designed to represent performance of the full opportunity set of large- and mid-cap stocks across 23 developed and 24 emerging markets. As of May 2022, it covers more than 2,933 constituents across 11 sectors and approximately 85% of the free float-adjusted market capitalization in each market.
MSCI All Country World Investable Market Index	A capitalization-weighted index of stocks representing approximately 49 developed and emerging countries, including the U.S. and Canadian markets and covering all investable large-, mid- and small-cap securities.
MSCI World Index	A free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets, representing 24 developed market country indices.
MSCI EAFE	The MSCI EAFE Index is an equity index which captures large and mid-cap representation across 21 Developed Markets countries* around the world, excluding the US and Canada. With 783 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets	The MSCI Emerging Markets Index captures large and mid-cap representation across 24 Emerging Markets (EM) countries. With 1,441 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets Investable Market Index	A capitalization-weighted index of stocks representing approximately 26 emerging countries, and covering all investable large-, mid- and small-cap securities.
MSCI Factor indexes	These are rules-based indexes that capture the returns of systematic factors that have historically earned a persistent premium over long periods of time–such as Value, Low Size, Low Volatility, High Yield, Quality and Momentum and Growth.
MSCI USA Value/Growth	The MSCI USA Value/Growth Index captures U.S. large and mid cap securities exhibiting overall value/growth style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.
Dow Jones U.S. Total Stock Market Index	A capitalization-weighted index of stocks representing all U.S. equity eligible securities.
S&P 500	The S&P 500® is widely regarded as the best single gauge of large-cap U.S. equities and serves as the foundation for a wide range of investment products. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization.
S&P GSCI	A world-production weighted index that is based on the average quantity of production of each commodity in the index.
Russell 3000 Index	The Russell 3000 Index is a market-capitalization-weighted equity index that seeks to track 3000 of the largest U.S.-traded stocks.
Russell 2000 Index	The Russell 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership.

Appendix
Index Definitions

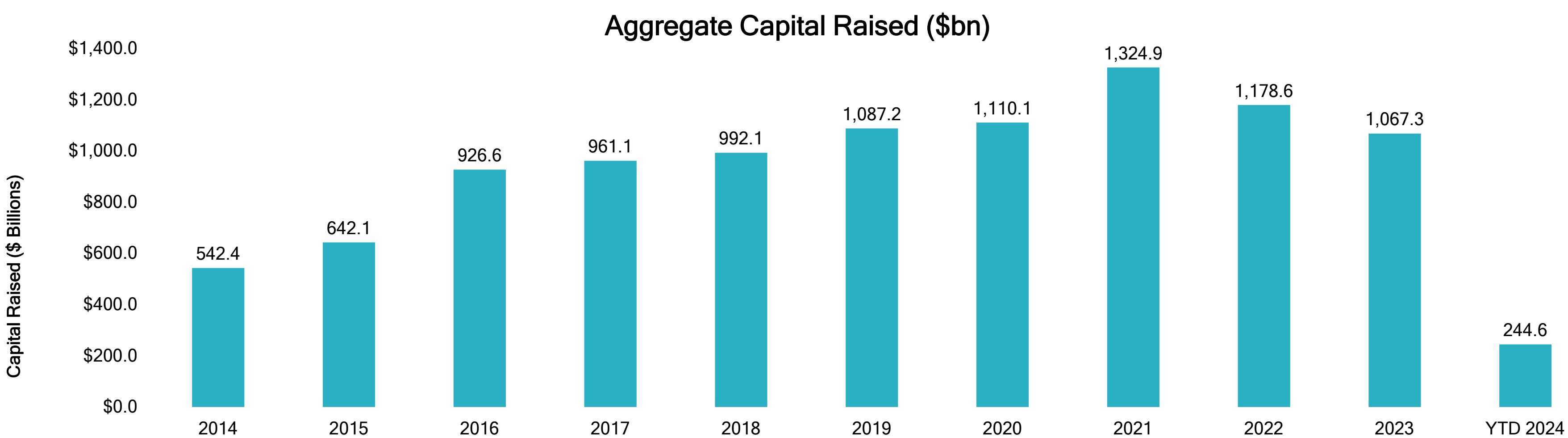
Index	Definition
Bank of America Merrill Lynch U.S. Corporate Index	An unmanaged index considered representative of fixed-income obligations issued by U.S. corporates.
Bank of America Merrill Lynch U.S. High Yield Index	An unmanaged index considered representative of sub-investment grade fixed-income obligations issued by U.S. corporates.
Bloomberg U.S. Government Index	An unmanaged index considered representative of fixed-income obligations issued by the U.S. government.
Bloomberg Long Credit Index	An unmanaged index considered representative of long duration fixed-income obligations issued by U.S. corporates.
Bloomberg Global Aggregate Index	The Bloomberg Global Aggregate Index is a flagship measure of global investment grade debt from twenty-eight local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.
Bloomberg U.S. Aggregate Index	The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, fixed rate agency MBS, ABS and CMBS (agency and non-agency).
Bloomberg U.S. TIPS Index	The Index measures the performance of the U.S. treasury inflation linked bond market.
JP Morgan EMBI Global	The J.P.Morgan Emerging Markets Bond Index Global ("EMBI Global") tracks total returns for traded external debt instruments in the emerging markets and is an expanded version of the JPMorgan EMBI+.
Bloomberg Commodity Index	The Bloomberg Commodity Index is a broadly diversified commodity price index distributed by Bloomberg Index Services Limited.
HFRI Fund Weighted Composite	The HFRI Fund Weighted Composite Index is a global, equal-weighted index of single-manager funds that report to HFR Database. Constituent funds report monthly net of all fees performance in US Dollar and have a minimum of $50 Million under management or $10 Million under management and a twelve (12) month track record of active performance. The HFRI Fund Weighted Composite Index does not include Funds of Hedge Funds.
HFRI Fund of Funds	HFR FOF Indices are comprised of funds that are constituents of the HFRI 500 Index and are designed to synthetically (S) represent the performance of Low, Mid or High volatility fund of funds.
FTSE NARIET	The FTSE Nareit U.S. Real Estate Index Series tracks the performance of the U.S. REIT industry at both an industry-wide level and on a sector-by-sector basis.
NCREIF NFI-ODCE	The NFI-ODCE, like the NCREIF Property Index (NPI) and other stock and bond indices, is a capitalization-weighted index based on each fund's net invested capital, which is defined as beginning market value net assets (BMV), adjusted for weighted cash flows (WCF) during the period.
FTSE Global Core Infrastructure	The FTSE Infrastructure Index Series is a comprehensive set of nine cap-weighted indices, diversified across six FTSE-defined infrastructure sub-sectors, to reflect the performance of infrastructure and infrastructure-related listed securities worldwide.

Q1 2024 Global Private Equity Market Overview

July 2024



Private Equity Overview



Fundraising

- In Q1 2024, $244.6 billion was raised by 484 funds, which was a decrease of 30.6% on a capital basis and a decrease of 32.8% by number of funds over the prior quarter. Compared to Q1 2023, capital raised decreased by 3.9% while the number of closed funds decreased by 30.3%.[1]
  - Q1 2024 fundraising was 15.2% lower, on a capital basis, and 56.1% lower, by number of funds, compared to the five-year quarterly average.
  - The majority of capital was raised by funds located in North America, comprising 50.5% of the quarter's total. This was down significantly from 78.5% during the prior quarter. Capital raised by European managers accounted for 43.8% of capital raised during the quarter, an increase from 15.3% in Q4 2023. The remainder was attributable to managers located in Asia and other parts of the world.
- Dry powder stood at $3.2 trillion at the end of the quarter, a slight decrease of 1.0% compared to Q4 2023, but an increase of 23.3% compared the five-year average.[1]

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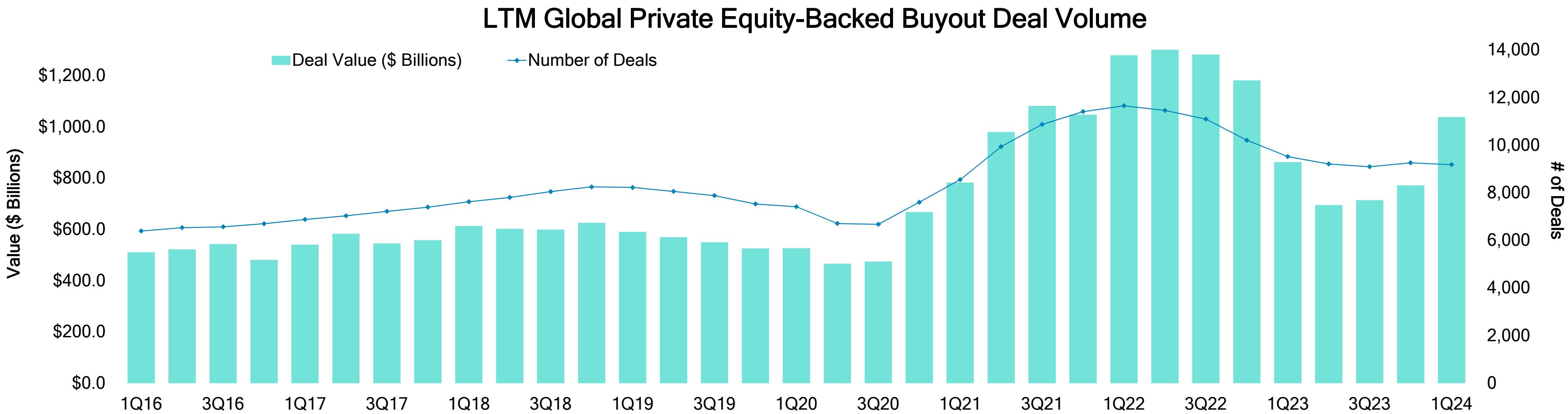
Private Equity Overview (cont.)



Activity

- Global private equity-backed buyout deals totaled $425.4 billion in Q1 2024, which was an increase on a capital basis of 70.8% compared to Q4 2023. However, deal value was impacted by a large PIPE investment in Aramco by Public Investment Fund (estimated at $163.3 billion of the quarter's total deal value). [1]
  - Deal value in Q1 2024 was an increase of 102.9% compared to the five-year quarterly average.
  - Add-on deals comprised the largest amount of completed deals by type, accounting for 46.8% of the quarter's total.
- On an LTM basis, the median purchase price multiple for North American PE buyout transactions was 13.1x EBITDA at the end of Q1 2024, down from 2023's median level of 13.3x and down from the peak level seen in 2021 of 13.8x EBITDA.[3]
  - The median purchase price multiple for all North American PE buyout transactions completed during the quarter ended at 14.4x EBTIDA, an increase of 1.7x (multiple of EBITDA) compared to the five-year average and 2.9x higher than the ten-year average.
- In Europe, the median purchase price multiple ended Q1 2024 at 11.7x EBITDA on an LTM basis, up from 10.2x in 2023 but down from the peak level seen in 2021 of 13.4x EBITDA. This was equal to the five-year average and slightly above the ten-year average of 11.3x EBITDA.[3]
- GPs were able to obtain debt financing but utilized more equity to consummate transactions.
  - For U.S. broadly syndicated loan-funded transactions, debt comprised 45.1% of completed transactions, a slight decrease compared to the prior year's 45.7%.[3]

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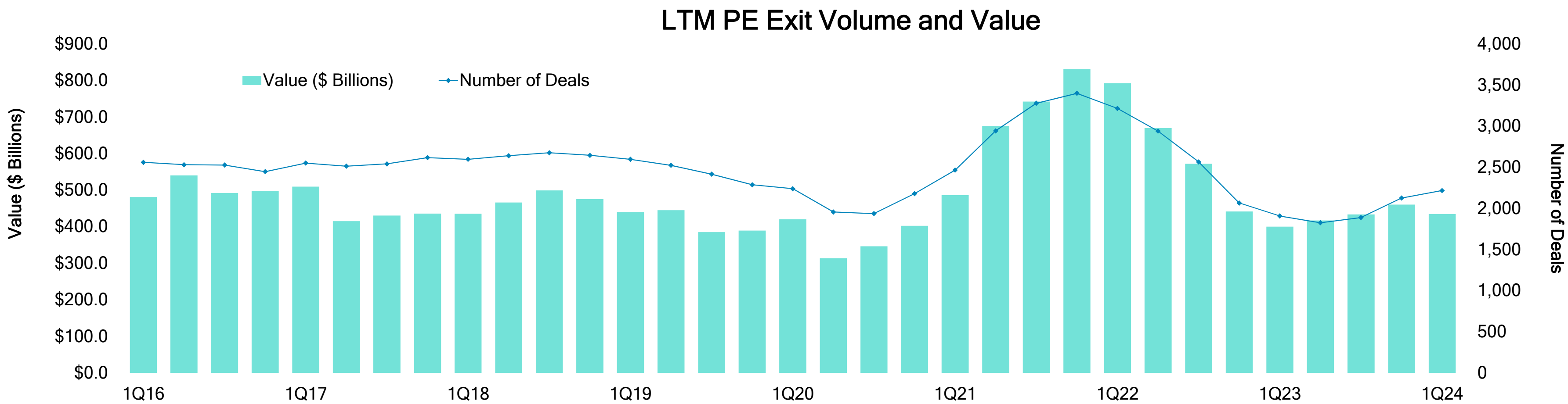
Buyouts / Corporate Finance



Sources: Preqin

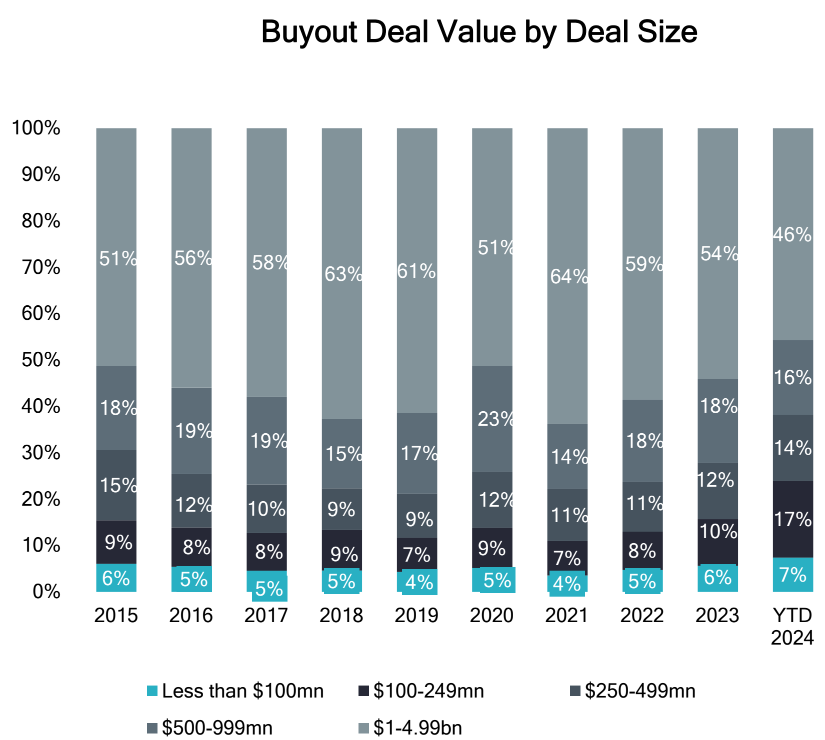
Fundraising

- $149.7 billion was closed on by 137 buyout and growth funds in Q1 2024, compared to $182.6 billion raised by 183 funds in Q4 2023. This represented an increase of 10.0% compared to capital raised in Q1 2023.[1]
  - This was also higher, on a capital basis, than the five-year quarterly average of $136.3 billon raised, but meaningfully lower by the average number of funds raised (249).
  - Capital raised during Q1 2024 represented 24.7% of capital raised in FY 2023.
  - EQT X was the largest fund raised during the quarter, closing on $23.8 billion of commitments.
- Buyout and growth equity dry powder was estimated at $1.4 trillion at the end of Q1 2024, down 1.6% compared to the prior quarter.[1]
  - An estimated 60.5% of buyout dry powder was targeted for North America, while European dry powder comprised 24.0% and Asia/Rest of World accounted for the remainder.

Activity

- Globally, buyout exit value totaled $64.8 billion across 537 deals during the quarter, down from $141.8 billion in value from 614 deals during the prior quarter.[1]

Buyouts / Corporate Finance



Sources: Preqin

Activity

- Global private equity-backed buyout deals totaled $425.4 billion in Q1 2024, which was an increase on a capital basis of 70.8% compared to Q4 2023 and 102.9% higher than the five-year quarterly average. Deal value was driven by a large PIPE investment in Aramco by Public Investment Fund (estimated at $163.3 billion of the quarter's total deal value).[1]
  - By geography, deals in the Middle East accounted for the largest percentage of total deal value at an estimated 49.5% in Q1 2024, followed by North America (27.3%), while energy and utilities deals accounted for the largest percentage by industry at 52.2% of total deal value.
  - Of deals less than $5.0 billion in size, deals valued between $1.0 billion - $4.9 billion accounted for an estimated 45.7% of Q1 2024 deal value compared to 54.1% in 2023. Deals valued between $100.0 million to $249.9 million accounted for the second largest weighting, representing 16.5% of total deal value through Q1 2024.
- On an LTM basis, the median North American PE buyout purchase price multiple ended Q1 2024 at 13.1x EBITDA, compared to 13.3x EBITDA in 2023.[3]
  - This was above the five-year average of 12.7x EBITDA but remained below the peak multiple seen in 2021 (13.8x).
- The median European PE buyout purchase price multiple ended the quarter at 11.7x EBITDA on an LTM basis compared to 10.2x EBITDA in 2023. This was also equal to the five-year average multiple.[3]
- The equity contribution for U.S. broadly-syndicated loan-funded buyout transactions stood at 54.9% through the end of the quarter as transactions were less reliant on debt financing to complete the deals. This was above the five- and ten-year average levels of 50.2% and 46.6%, respectively.[3]

Opportunity[4]

- Mid-market managers targeting growing companies operating within fragmented markets with value-creation expertise across business cycles.
- Managers focused on value-oriented strategies and/or corporate carve-outs.

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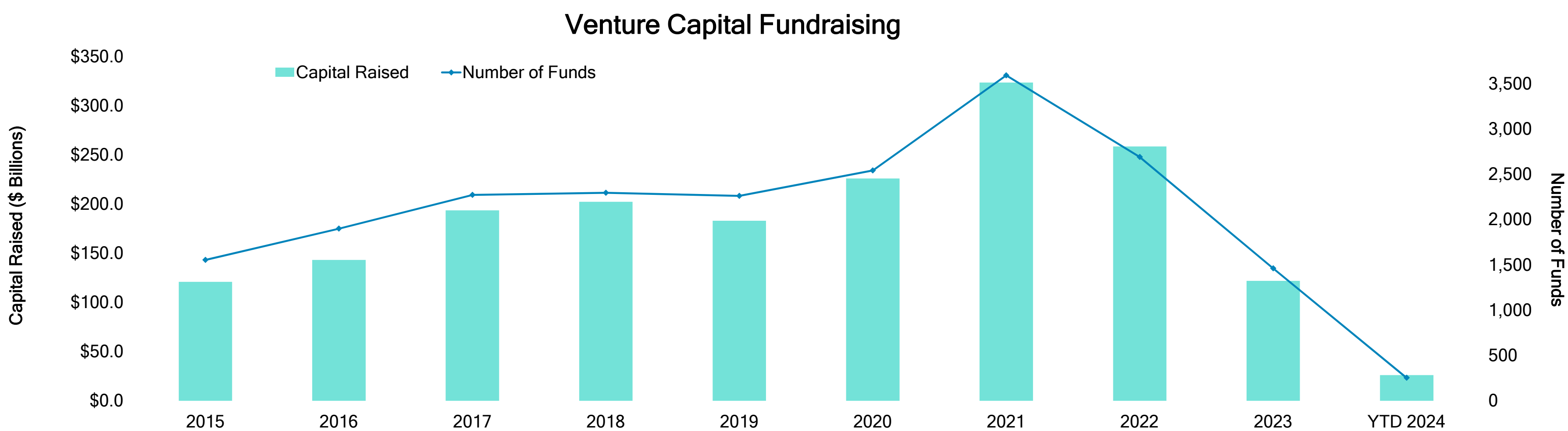
Venture Capital

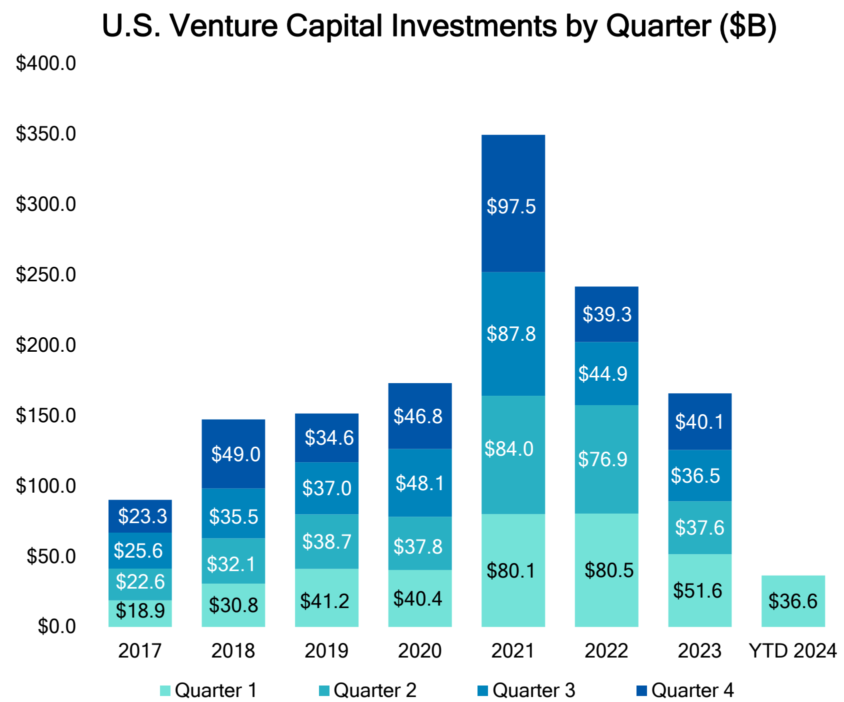


Sources: Preqin

Fundraising

- $26.1 billion of capital was raised by 254 funds in Q1 2024, lower, on both a capital raised and number of funds basis, from the prior quarter's total of $32.9 billion raised by 407 funds. This was also lower than the $32.4 billion of capital raised by 359 funds during Q1 2023.[1]
  - Q1 2024 fundraising was 53.2% lower, on a capital basis, compared to the five-year quarterly average of $55.7 billion.
  - Tiger Global Private Investments Partners XVI was the largest fund raised during the quarter with total commitments of $2.2 billion.
- At the end of Q1 2024, there were an estimated 6,213 funds in market targeting $414.4 billion.[1]
  - A fund being raised by Zhongwan Capital was the largest fund in market, targeting an estimated $14.9 billion.
  - The majority of funds in market are seeking commitments of $200.0 million or less.
- Dry powder was estimated at $563.1 billion at the end of Q1 2024, down from year-end 2023's total of $567.4 billion.[1]

Venture Capital



Source: Pitchbook / NVCA

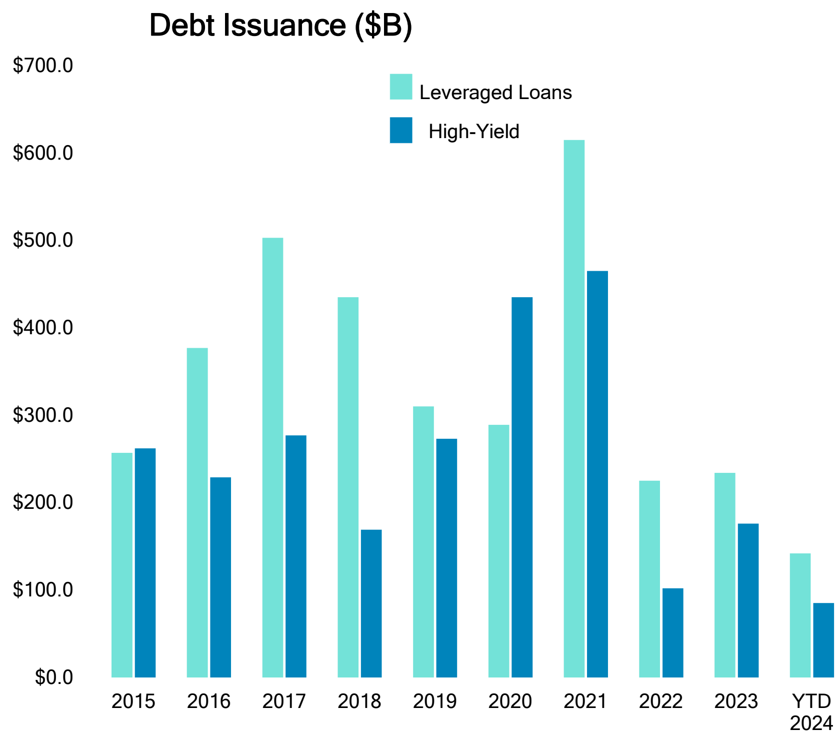
Activity

- During the quarter, an estimated 3,925 U.S. venture-backed transactions totaling $36.6 billion were completed, which was a decrease on both a capital and deal count basis over the prior quarter, which saw an estimated 4,034 deals completed totaling $40.1 billion. This was also a decrease of 32.4% compared to the five-year quarterly average of $54.1 billion.[7]
  - In Q1 2024, there were 56 U.S.-based deals involving unicorn companies, representing roughly $11.5 billion in deal value. This was up by both value and number of deals compared to the prior quarter, which saw 52 unicorn-related deals close at a deal value of $11.3 billion. Deal value was also below the five-year quarterly average of $18.0 billion.[7]
- Most median pre-money valuations increased relative to valuations seen at year-end 2023, with the exception of Series C and Series D and later. Compared to the prior quarter, seed valuations increased from a median pre-money valuation of $12.5 million to $14.1 million, Series A valuations increased from $40.0 million to $80.0 million, and Series B increased from $105.0 million to $157.2 million. Series C median pre-money valuations decreased from $320.0 million to $285.6 million during the quarter, while Series D and later decreased from $585.0 million to $250.0 million.[8]
- Total U.S. venture-backed exit value increased during the quarter, totaling approximately $18.4 billion across an estimated 600 completed transactions. This compares to $10.4 billion across 536 exits in Q4 2023. This was meaningfully below the five-year quarterly average of $74.6 billion of exit value from 401 transactions.[7]
  - The number of U.S. venture-backed initial public offerings increased slightly over the prior quarter, with 22 IPOs completed in Q1 2024 at a value of $13.3 billion. 149 exits occurred by acquisition, marking an increase over the prior quarter's 145 acquisitions, and accounted for $4.5 billion in exit value.[7]

Opportunity[4]

- Early stage continues to be attractive, although we continue to monitor valuations
- Smaller end of growth equity
- Technology sector, with emerging AI, digital health, and potential for new energy & climate-related innovation

Leveraged Loans & Mezzanine



Sources: UBS

Leveraged Loans

Fundraising

- New U.S. CLO issuance totaled $46.9 billion in Q1 2024, representing 38.8% of FY 2023's issuance total of $120.7 billion.[2]
- High-yield debt issuance totaled $85.2 billion in Q1 2024, compared to $40.3 billion in Q1 2023 (+111.4%). Q1 2024's issuance accounted for 48.4% of 2023's total.[2]
- In Q1 2024, leveraged loan mutual fund net flows ended at a net inflow of $2.9 billion, compared to a net outflow of $14.0 billion during 2023.[2]

Activity

- U.S. institutional leveraged loan primary volume totaled $141.9 billion in Q1 2024, compared to $52.4 billion in Q1 2023 (+171.0%). Q1 2024's volume accounted for 60.6% of 2023's total.[2]
  - Loan issuance for M&A activity is expected to pickup throughout 2024 in addition to continued activity related to repricing and managing loan maturities.
- European institutional leveraged loan issuance totaled €22.7 billion during Q1 2024 compared to €32.5 billion during FY 2022. This total was more than double compared to Q1 2023.[3]

Opportunity [4]

- Funds with the ability to source deals directly and the capacity to scale for large transactions (both sponsored and non-sponsored)
- Funds with an extensive track record, experience through prior credit cycles, and staff with workout experience

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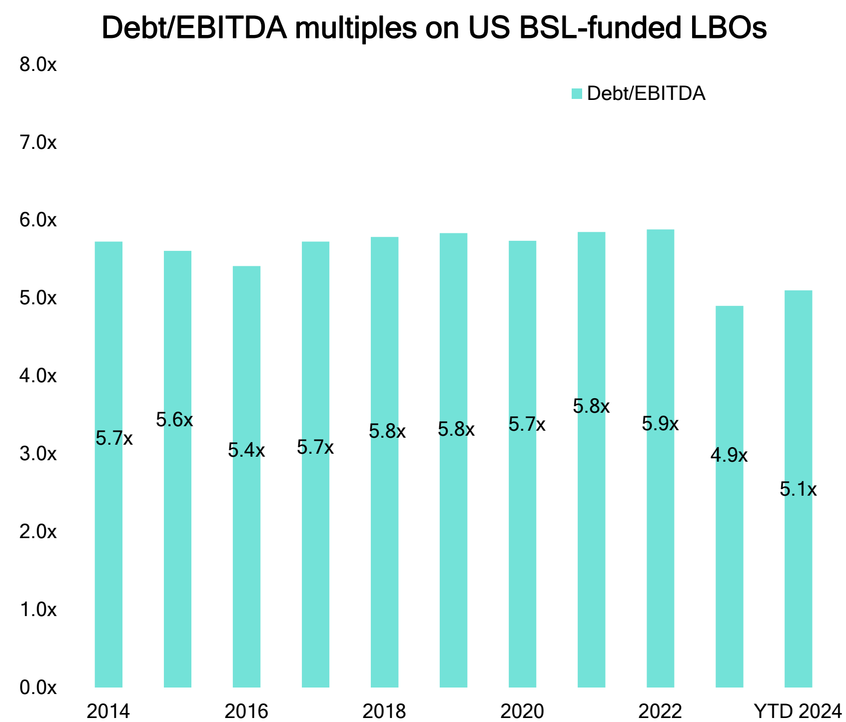
Leveraged Loans & Mezzanine



Sources: Pitchbook / LCD

Activity

- For U.S. broadly syndicated loan-funded transactions, debt comprised 45.1% of completed transactions, a slight decrease compared to the prior year's total of 45.7%. This compared to the five and ten-year averages of 50.2% and 46.6%, respectively.[3]
- UBS predicts junior capital to re-emerge as part of financing packages for M&A/LBO transactions, particularly if interest rates begin to compress in late 2024.[2]

Mezzanine

Fundraising

- 4 funds closed on $2.1 billion during the quarter. This was an increase from the prior quarter's total of $1.5 billion raised by 7 funds, but represented a decrease of 65.9% from the five-year quarterly average of $6.1 billion.[1]
- Estimated dry powder was $61.7 billion at the end of Q1 2024, down from $65.5 billion at the end of the prior year.[1]
- An estimated 110 funds were in market targeting $27.1 billion of commitments. ICG North American Credit Partners Fund III and North Haven Credit Partners IV were the largest funds in market targeting commitments of $2.0 billion each.[1]

Opportunity[4]

- Funds with the capacity to scale for large sponsored deals

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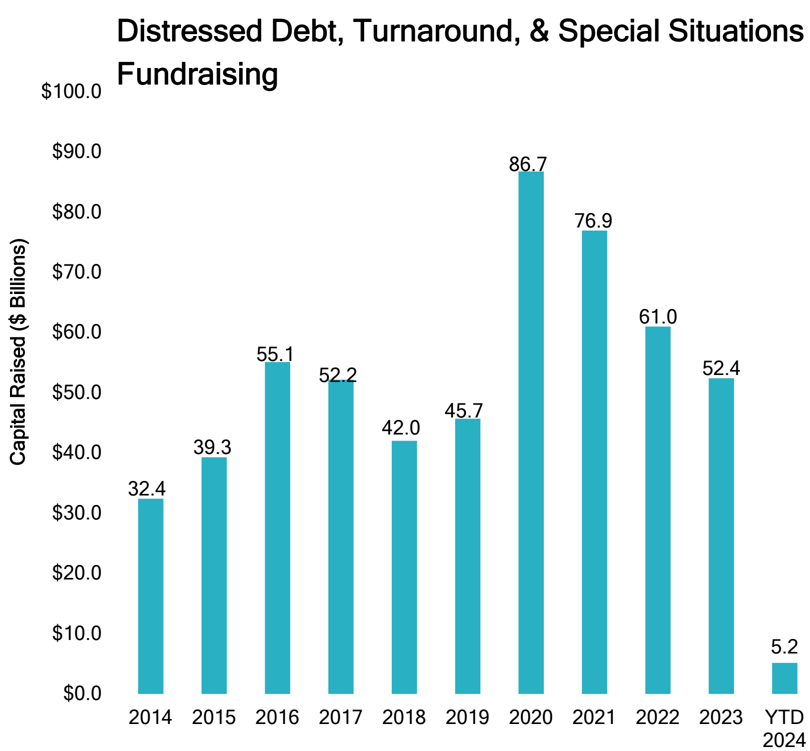
Distressed Private Markets

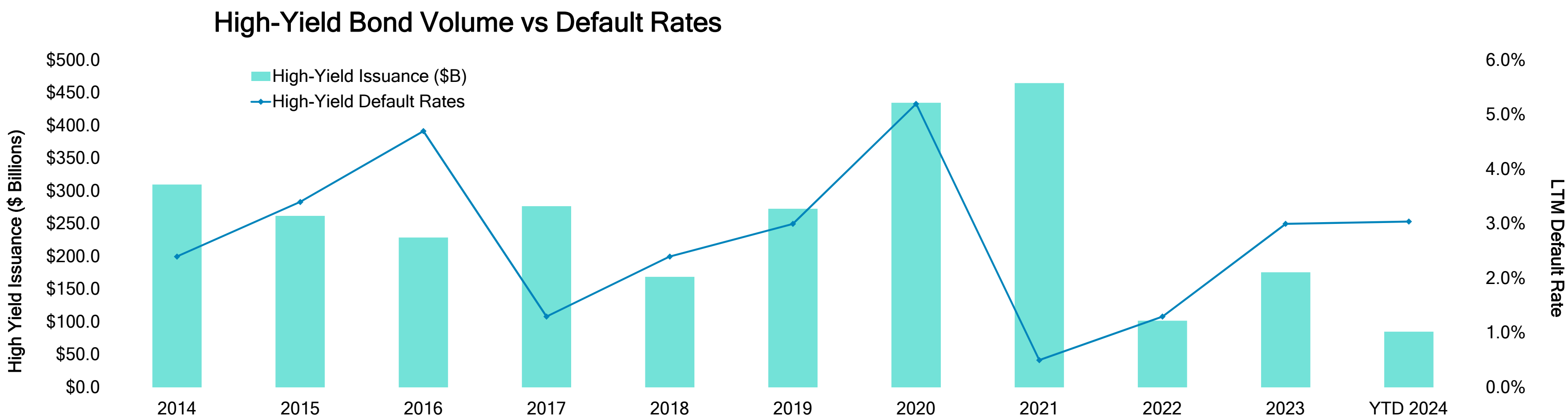


Source: Preqin

Fundraising

- During the quarter, $5.2 billion was raised by 12 funds, down from the $25.0 billion raised by 17 funds during Q4 2023.[1]
  - Capital raised in Q1 2024 decreased compared to Q1 2023's total of $12.1 billion and was the lowest quarterly total since Q1 2022.
  - Q1 2024's fundraising was 68.1% lower than the five-year quarterly average of $16.1 billion.
  - The average closed fund size was $644.0 million in Q1 2024, a decrease of 18.6% compared to the five-year quarterly average of $790.8 million.
  - Atlantic Park Strategic Capital Fund II was the largest fund closed during the quarter with $2.7 billion in commitments.
- Dry powder was estimated at $145.2 billion at the end of Q1 2024, which was down 11.5% from Q4 2023. This was down from the five-year average level of $152.7 billion.[1]
- Roughly 255 funds were in the market at the end of Q1 2024 seeking $132.5 billion in capital commitments.[1]
  - Special situations managers were targeting the most capital, seeking $74.8 billion in commitments, followed by distressed debt managers seeking $55.8 billion.
  - Oaktree Opportunities Fund XII was the largest fund in market with a target fund size of $18.0 billion.

Distressed Private Markets



Sources: UBS / Fitch Ratings

Activity

- The TTM U.S. high-yield default rate was 3.04% as of March 2024, which was up slightly from December 2023's TTM rate of 2.96%. Fitch expected the high-yield default rate to continue trending higher through 2024, with forecasted default rates of 5.0% to 5.5%.[6]
- Continued market dislocations caused by macroeconomic factors may supply additional distressed opportunities in the next several months, notably if the default rate continues to move higher.

Opportunity [4]

- Funds capable of performing operational turnarounds
- Funds with the flexibility to invest globally

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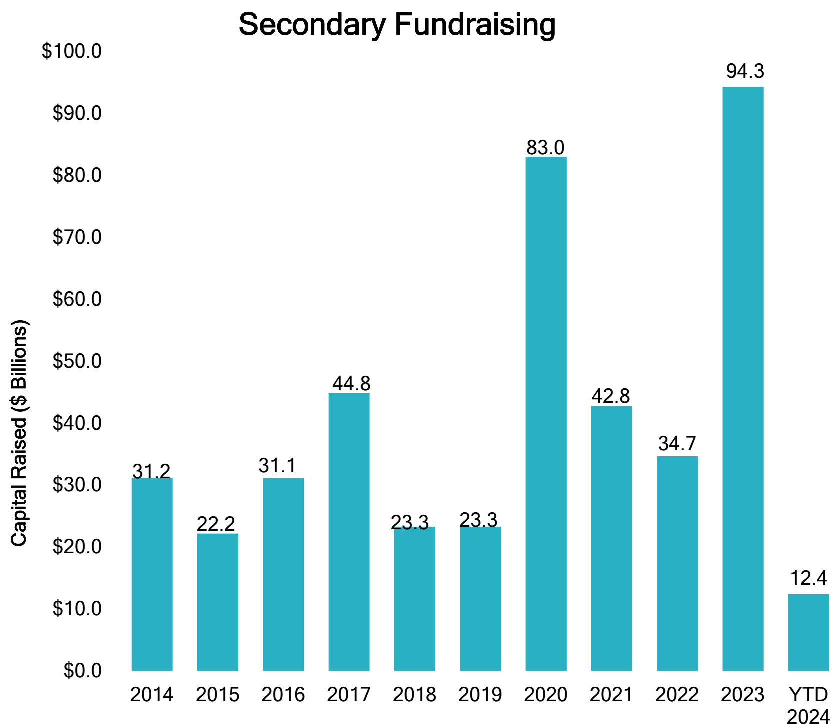
Secondaries



Source: Preqin

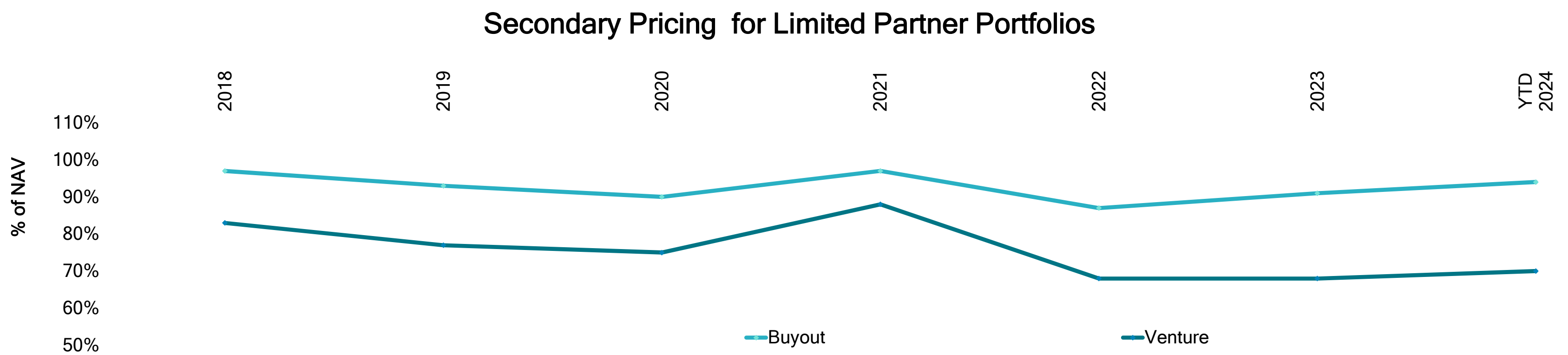
Fundraising

- 5 funds raised $12.4 billion during Q1 2024, down substantially from the $28.2 billion raised by 10 funds in Q4 2023. This was a slight decrease compared to the five-year quarterly average of $13.9 billion.[1]
  - Crown Global Secondaries VI was the largest fund closed during the quarter with total commitments of $4.4 billion.
- At the end of Q1 2024, there were an estimated 182 secondary and direct secondary funds in market targeting roughly $130.9 billion. The majority of secondary funds are targeting North American investments.[1]
  - ASF IX is the largest fund being raised, seeking $25.0 billion in commitments. There are currently five funds in market seeking $10.0 billion or more in capital commitments.

Activity

- Limited Partner transactions continue to have participation from a broad base of buyers and sellers with selling activity spread across LP seller types. Given liquidity needs of Limited Partners, and the effects of slower distributions and longer hold periods, Jefferies expects continued adoption of secondaries transactions by Limited Partners.[16]
- Given the substantial amount of dry powder raised by the largest secondary buyers over the last 18 months, firms are writing larger checks to purchase sizable, diversified LP portfolios.[14]
- Jefferies noted continued demand for secondary transactions involving new vintage year exposure with well-regarded managers. Demand for transactions involving middle-market continues to be a highly sought after space.[16]

Secondaries



Source: Jefferies

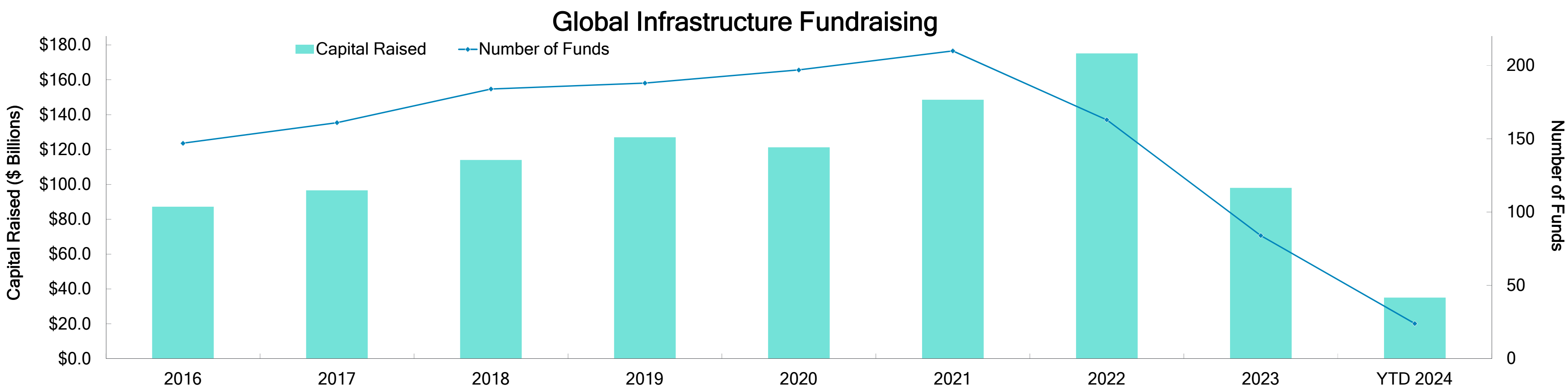
Activity

- Limited partner portfolio pricing has improved relative to the lows seen in H2 2022 given public market price momentum and more aggressive buyer activity. The average discount rate for LP buyout and venture capital portfolios finished the quarter at 6.0% and 29.0%, respectively.[17]
    - Jefferies expects pricing to improve as demand increases and markets stabilize. This, coupled with secondary dry powder available to invest, is expected to drive strong transaction volume in 2024.[17]
- Payment deferrals and structured equity solutions, notably mosaic structures, continue to be prevalent in the LP portfolio market and are used as a means to improve pricing and deal returns in an increasingly competitive environment.[16]
- GP-led volume is expected to increase in 2024, according to Jefferies, and may reach north of $65.0 billion in transaction volume. Numerous factors support a healthy GP-led market including Limited Partner's desire for increased liquidity, an increase in investment strategies and capital targeting GP-led transactions, and a growing universe of potential syndicate investors.
- Campbell Lutyens suggests GP-led secondaries pricing may improve given the robust fundraising environment, causing increased competition in transactions completed in 2024.[14]

Opportunity[4]

- Funds that are able to execute complex and structured transactions
- Niche strategies

Infrastructure

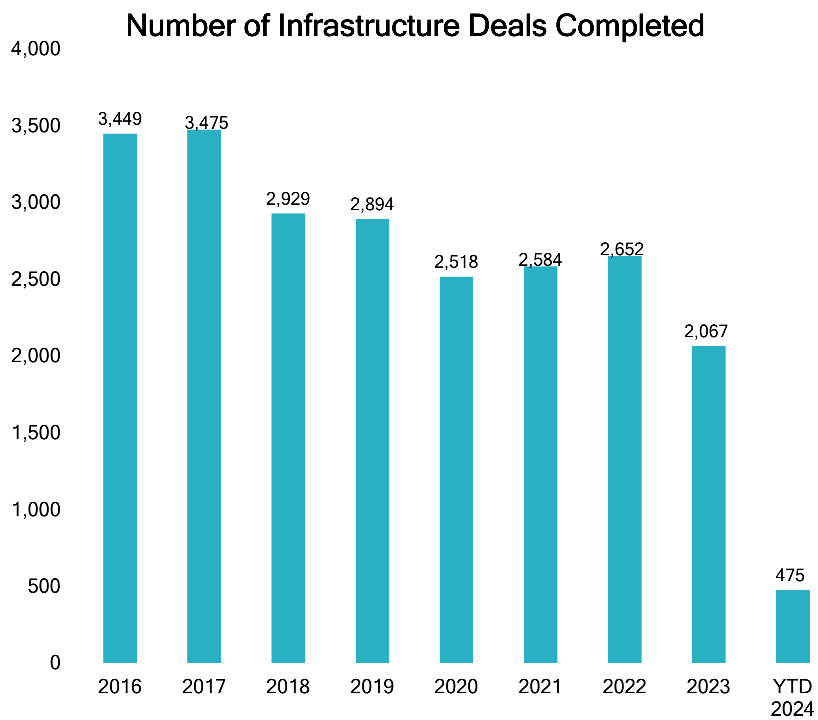


Fundraising

Source: Preqin

- $35.1 billion of capital was raised by 24 funds in Q1 2024 compared to $68.7 billion of capital raised by 31 funds in Q4 2023. This was an increase of 4.5% compared to the five-year quarterly average of $33.6 billion. By primary region focus, approximately 70.8% of funds closed in Q1 2024 were targeting Europe.[1]
  - KKR Asia Pacific Infrastructure Investors II was the largest fund closed with $6.4 billion of commitments.
- As of the end of Q1 2024, there were an estimated 409 funds in the market seeking roughly $525.5 billion.[1]
  - The largest funds in market, Global Infrastructure Partners V and ALTÉRRA Acceleration, each had target fund sizes of $25.0 billion.
  - The 10 largest funds in market are currently seeking a combined $167.2 billion in capital.
- Concerns surrounding the relative availability and pricing of assets remain. Although fundraising has slowed it remains competitive given the number of funds and aggregate target level of funds in market. Investor appetite for the asset class persists despite the strong levels of dry powder and increased investment activity from strategic and corporate buyers as well as institutional investors.

Infrastructure



Source: Preqin

Activity

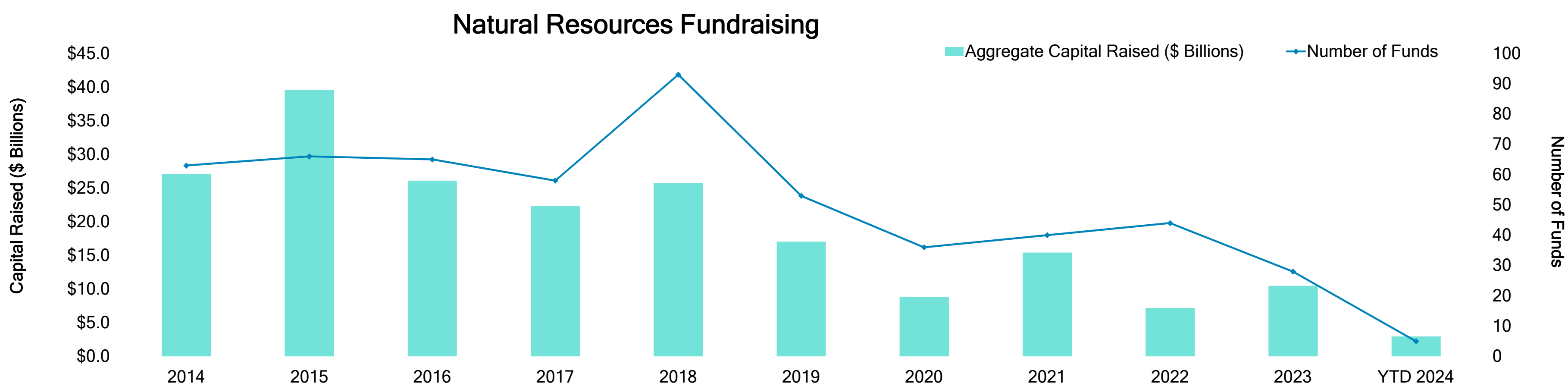
- Infrastructure managers completed 475 deals for an aggregate deal value of $58.4 billion in Q1 2024, compared to 599 deals totaling $109.2 billion in Q4 2023. Q1 2024's total was significantly lower than the five-year quarterly average of $106.0 billion in deal value.[1]
  - By region, Europe saw the largest number of deals, with 42.9% of deals being completed in the region, followed by North America at 31.5%. APAC amassed 12.1% of activity through the end of Q1 2024.

Opportunity[4]

- Mid-market core+ and value-add infrastructure as well as a platform investing approach continue to offer the best relative value.
- Assess funds with pre-specified assets with caution due to possible lag in and uncertainty around valuation impact.
- Blind-pool funds may be better positioned to take advantage of the market dislocation in certain sub-sectors, however careful review of such strategies is required.
- Build-to-core greenfield strategies particularly in the social / PPP infrastructure space offer a premium for investors willing to take on construction / development risk.

34

Natural Resources



Source: Preqin

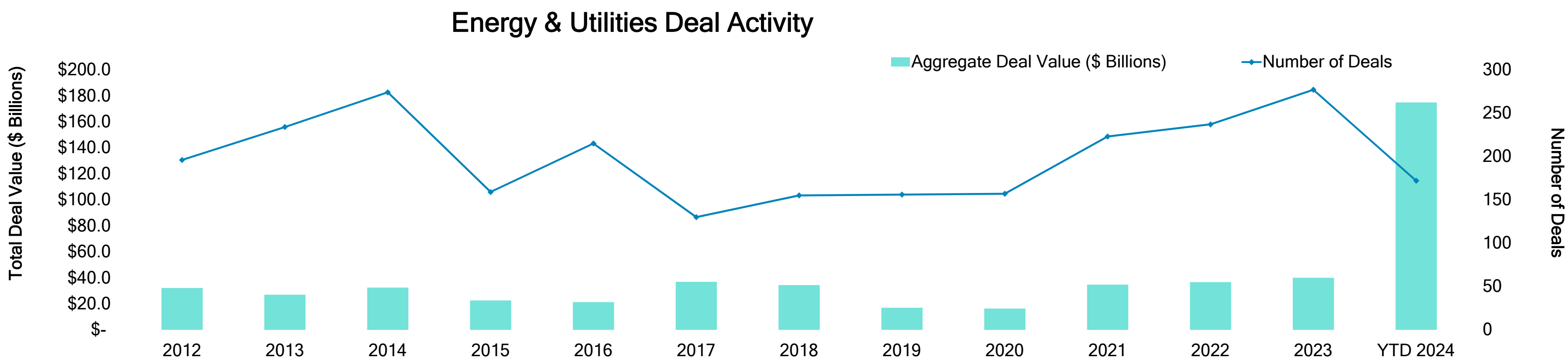
Fundraising

- During Q1 2024, 5 funds closed on $2.9 billion compared to 9 funds closing on $3.5 billion during the prior quarter. This was equal to the five-year quarterly average of $2.9 billion.[1]
- Dry powder stood at roughly $35.6 billion at the end of Q1 2024, which was slightly lower than Q4 2023's level of $35.9 billion. This was also lower than the five-year average of $38.2 billion.[1]

Activity

- Crude oil prices increased during the quarter, while natural gas prices decreased.
  - WTI crude oil prices increased 13.0% during the quarter to $81.28 per bbl. This was also an increase of 10.9% compared to Q1 2023.[10]
  - Brent crude oil prices ended the quarter at $85.41/bbl, up 10.0% compared to the prior year. This was also an increase of 8.9% from Q1 2023.[10]
  - Natural gas prices (Henry Hub) finished Q1 2024 at $1.49 per MMBtu, which was down 40.9% compared to the prior quarter and down 35.5% from Q1 2023.[10]

Natural Resources



Source: Preqin

Activity

- 172 energy and utilities deals were completed in Q1 2024 totaling $174.9 billion, an increase, on a capital basis, compared to 829 completed deals totaling $54.6 billion in FY 2023. Energy and utilities deals accounted for the largest percentage of private equity deal value during the quarter. The quarter's total was materially impacted by Public Investment Fund's investment into Aramco, which was valued at approximately $163.6 billion.[1]
- A total of 621 crude oil and natural gas rotary rigs were in operation in the U.S. at the end of the quarter. This was down by 0.2% from the prior quarter and down 17.7% over Q1 2023.[13]
  - Crude oil rigs represented 81.5% of the total rigs in operation. 61.3% of the 506 active oil rigs were in the Permian basin.
  - At the end of Q1 2024, 32.1% and 25.9% of natural gas rigs were operating in the Haynesville and Marcellus basins, respectively.
- The price of iron ore (Tianjin Port) ended the quarter at $109.79 per dry metric ton, down from $137.05 at the end of Q4 2023.[10]

Opportunity[4]

- Acquire and exploit existing oil and gas strategies over early-stage exploration in core U.S. and Canadian basins
- Select midstream opportunities

Notes

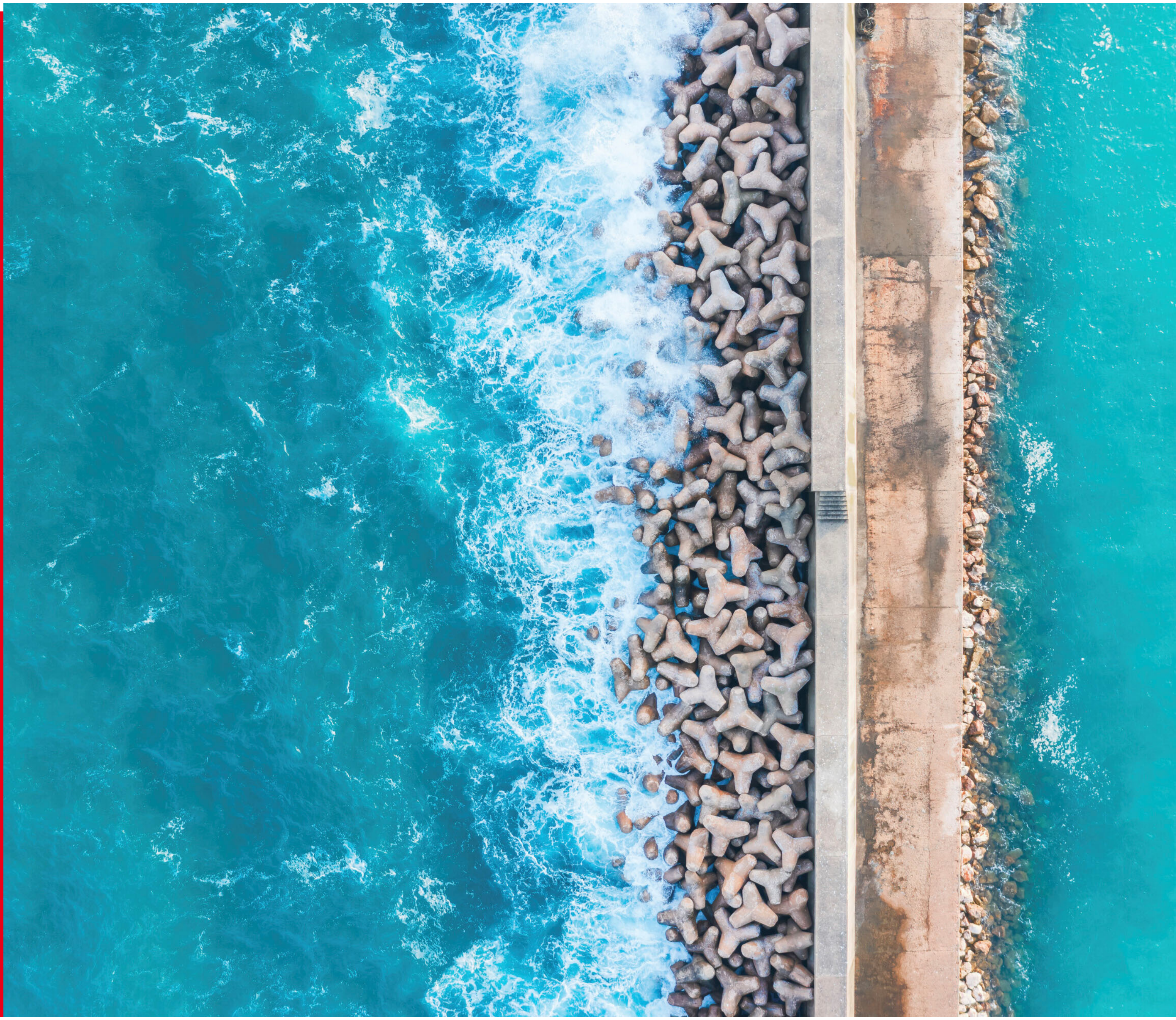
1. Preqin
2. UBS
3. Pitchbook / LCD
4. Aon Investments USA Inc.
5. Moody's
6. Fitch Ratings
7. PitchBook/National Venture Capital Association Venture Monitor
8. Cooley Venture Financing Report
9. U.S. Energy Information Administration
10. Bloomberg
11. Setter Capital Volume Report: Secondary Market
12. KPMG and CB Insights
13. Baker Hughes
14. Evercore
15. Campbell Lutyens
16. PJT Partners
17. Jefferies

Notes:
FY: Fiscal year ended 12/31
YTD: Year to date
YE: Year end
LTM: Last twelve months (aka trailing twelve months or TTM)
PPM: Purchase Price Multiples: Total Purchase Price / EBITDA
/bbl: Price per barrel
MMBtu: Price per million British thermal units

AON

Q1 2024 Real Estate Market Overview

July 2024



United States Real Estate Market Update (1Q24)

General

- The economy remained fast paced in the first quarter, leading the Fed to indicate its intentions to maintain a steady pace, keeping interest rates within the 5.25%-5.00% target. The S&P 500 continued along with a strong first quarter coming in at 10.5%, its greatest first quarter return since 2019. The MSCI US REIT index fell off its fourth quarter highs and returned a relatively flat -0.3% during the first quarter of 2024.
- During the first quarter, GDP increased at an annualized rate of 1.3%, coming down from 3.4% in the fourth quarter. This growth was primarily due to increases in consumer spending, residential and nonresidential fixed investments, as well as state and local spending which was partially offset by a decrease in private inventory investment. The Fed continues to fight inflation, maintaining its target and announcing a plan involving quantitative tightening to reduce its balance sheet.
- 10-year treasury bond yields continued to increase, ending the quarter at 4.2%. As economists expected, rates moved significantly higher throughout 2023, but have since plateaued after the Fed paused its dramatic rate increases spanning from early 2022 until mid 2023.

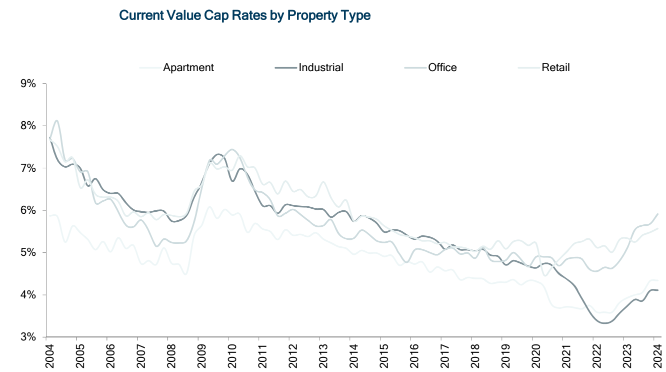
Commercial Real Estate

- First quarter 2024 CRE transaction activity continued to decline, falling to -24% YoY. The apartment sector transaction volumes continued to lead the plummeting of transactions in the U.S., largely due to the sizeable amount of transaction volume during and post-pandemic. Although apartment fundamentals remain intact, the increase in cost of debt has contributed to a YoY decrease in transaction volume by 49% YoY.

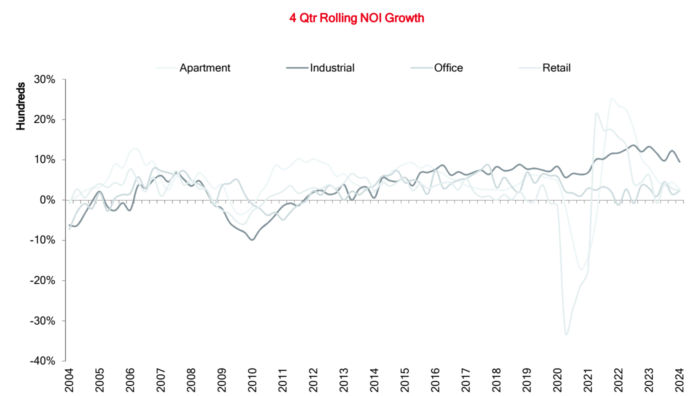
- Transaction cap rates (6.3%) expanded, moving out 58 bps during the quarter. This increase continues the upward trend on cap rates beginning in 4Q21. Current valuation cap rates expanded for all major property sectors, led by office (+23 bps), and followed by retail (+9 bps), industrial (+1 bps), and apartment (+1 bps).

- NOI growth has continued to diverge between property sectors. The industrial sector continues to outperform the compared to the other three main categories of commercial real estate. Industrial outperformance is largely due to high demand for quality products and efficient logistics centers, driving rents upwards. Industrial NOI continued to expand (9.5%) YoY with the continued investments into direct-to-customer distribution by companies.

- Commercial Real Estate fundraising activity has remained steady after seeing a slow year. In the first quarter, the number of funds in the market decreased (40%) although there was a (1%) increase in aggregate capital raised over the previous quarter.



Source: NCREIF



Source: NCREIF

Sources: Bureau of Economic Analysis, U.S. Census Bureau, St. Louis Fed, NCREIF, Real Capital Analytics, Bloomberg LP., Preqin.

United States Property Matrix (1Q24)

INDUSTRIAL

- In 1Q24, industrial properties returned 0.13% and outperformed the NPI by 111 bps.
- Transaction volumes decreased to $17 billion in the first quarter of the year, resulting in an 19% decrease year-over-year. Individual asset sales decreased 70% year-over-year, while portfolio purchases turned in a year-over-year volume decrease of 1%. At $17 billion, the industrial sector decreased by $5 billion quarter-over-quarter.
- The industrial sector turned in NOI growth of 9.5% over the past year. NOI continues to reach all time highs for the sector.
- Vacancy increased by 113 bps year-over-year to 2.6%. Vacancy in the sector increased 32 bps from the prior quarter. E-commerce continues to drive demand across the sector.
- Industrial cap rates expanded approximately 50 bps from a year ago, to 4.0%. Industrial overall fundamentals still top all property sectors.

MULTIFAMILY

- The apartment sector delivered a -0.97% return during the quarter, outperforming the NPI by 1 bps.
- Transaction volume in the first quarter of 2024 decreased to $21 billion, resulting in a decrease of 30% year-over-year. Transaction volume for the sector decreased from the fourth quarter by $6 billion. This volume continues to make multifamily the most actively traded sector for the twenty fourth straight quarter.
- Cap rates increased to 4.2% quarter-over-quarter, increasing 45 bps year-over-year. Multifamily cap rates remain at low levels relative to prior years, driven by continued increases in valuation.
- The multifamily sector saw increasing vacancy rates throughout the entirety of 2020 due to the global pandemic. Throughout 2021 and 2022, the sector appeared to have shaken that trend although vacancy rates remained steady. Vacancy rates slightly decreased quarter over quarter to 6.4% as of the first quarter of 2024. The aging millennials have begun shifting their desires to suburban living, but continued home price appreciation has deterred the full effect of this migratory trend.

OFFICE

- The office sector returned -3.80% in 1Q24, 282 bps below the NPI return over the period.
- Transaction volumes increased by 25% year-over-year in the first quarter. Transaction volume equated to $15 billion for the quarter, slightly increasing quarter-over-quarter. Office transaction levels have regressed since 4Q21 and are at levels seen during the COVID-19 pandemic.
- Office sector vacancy rates have expanded since the beginning of the pandemic due to work from home orders and uncertainty revolving around the future of office space. Office continues to be the highest vacancy property type at 14.3%, increasing by 5 bps from last quarter.
- NOI growth in the office sector increased quarter-over-quarter by 430 bps to 2.3% and is still experiencing volatility given the current market environment.
- Office cap rates expanded from a year ago, sitting at approximately 5.7%. Office-using job growth was stunted significantly through out 2020 due to work from home orders. Though we are observing a slow but steady flow back to in-office work, there is still uncertainty in the sector.

RETAIL

- As of 1Q24, the retail sector delivered a quarterly return of 0.64%, outperforming 162 bps compared to the NPI.
- Transaction volumes totaled $16 billion in the first quarter, decreasing 14% year-over-year. Single asset transactions accounted for just over 60% of all sales volume for the quarter.
- Cap rates have remained fairly steady within the sector over the last year at 5.4%. Current valuation cap rates expanded quarter-over-quarter by 6 bps due to valuation adjustments made across the sector in general.
- NOI growth decreased from the prior quarter to 1.0% as of the first quarter. Retail has begun its slow recovery but has continued to experience volatility due to the current market environment.
- Retail vacancy rates remained steady over the quarter at 7.9%, up 6 bps over the past year. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth. Paired with the global economic crisis, which has had a significant negative impact on this sector.

Sources: Real Capital Analytics, Green Street, NCREIF

Global Real Estate Market Update (1Q24)

- The global real estate market has endured its seventh consecutive quarter of negative deal volume. This is an irreverent shift from the previous cycle characterized as buoyant with lower interest rates. While at a reduced rate of decline, deal volume and participants are mirroring levels seen in 2011. The pronounced illiquidity is multifaceted with price uncertainty with elevated interest rates, structural headwinds in certain sectors , and pending wave of debt maturities accumulated during the previous cycle of cheaper financing.
- US markets produced $60B in deal volume in the first quarter, showing to be the slowest quarter since late 2020. Outside of continued lagging demand in office, Industrial pricing has increased 5.7% year over year with positive dynamics in the occupier market outweigh the negative impact of higher yields.

Global Total Commercial Real Estate Volume - 2023 - 2024

$ US Billions	Q1 2024	Q1 2023	% Change Q1 24 - Q1 23	2024	2023	% Change Full Year
Americas	68	85	-20%	317	587	-46%
EMEA	37	47	-22%	175	278	-37%
Asia Pacific	91	106	-14%	686	817	-16%
Total	196	238	-18%	1178	1681	-30%

Source: Real Capital Analytics, Inc., Q1' 24 `

- Higher borrowing costs, wide bid-ask spreads and persistent global headwinds remain major factors hindering investment sentiment in the Asia. Japan emerged as the top performing market in the Asia Pacific this quarter, benefiting from its central bank's monetary policy, ending negative interest rates and yield curve control which provides more clarity for pricing. India saw a spike in transactions with industrial and logistics investment. Office holdings in China still face headwinds, while an uptick in consumer spending in the region presented a surge in hotel and retail growth.

- European markets are expected to remain close to recession levels in the first half of 2024 as investors await rate cuts from the European Central Bank (ECB). The UK was the leader in transaction activity, doubling the volume of Germany and tripling that of France. As the fastest major global market to reprice assets during this down cycle, the resilience in deal making points to an assumed end to price correction. In contrast, Germany and France have been slower to react as office sales were at their lowest on record.

- All three global regions registered moderating industrial fundamentals during the first quarter, with a recovery in demand anticipated to begin in the second half of 2024. While absorption figures fell sharply over the quarter in the U.S. and Asia Pacific regions, both noted an increase in inquiries. Rental growth in all three regions remained positive, albeit at a slowing pace. Supply chains will continue to pivot in the post-pandemic world as occupiers aim for more localized distribution networks. All three regions will feel the impacts of shipping routes under stress by both geopolitical tensions and climate-related hurdles.

- Global housing markets showed tentative signs of improvement as spring leasing momentum and large-scale M&A deals in the multifamily space have driven renewed investor conviction. Investors went forward to begin the year with business plans as the significant undersupply of housing and constrained affordability globally acted as incentives for investment. Asia Pacific housing transactions rose 10% year over year as European investment is slowly rebounding , although at reduced levels compared to the last 5-10 years.

Global Outlook - GDP (Real) Growth % pa, 2024-2026

	2024	2025	2026
Global	**3.0**	**3.0**	**3.0**
Asia Pacific	**4.3**	**4.1**	**3.9**
Australia	1.3	2.2	2.5
China	4.9	4.5	4.2
India	7.8	6.8	6.5
Japan	0.4	1.1	0.9
North America	**2.3**	**1.8**	**2.0**
US	2.4	1.8	2.0
Middle East	**2.3**	**3.8**	**4.0**
European Union	**1.0**	**1.7**	**1.8**
France	0.9	1.3	1.5
Germany	0.2	1.2	1.3
UK	0.6	1.2	1.4

Source: Bloomberg

Sources: Jones Lang LaSalle Research, Cushman & Wakefield, Real Capital Analytics, Inc., CBRE, Avison Young

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REPORT

Meketa Capital Markets Outlook & Risk Metrics

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Capital Markets Outlook & Risk Metrics

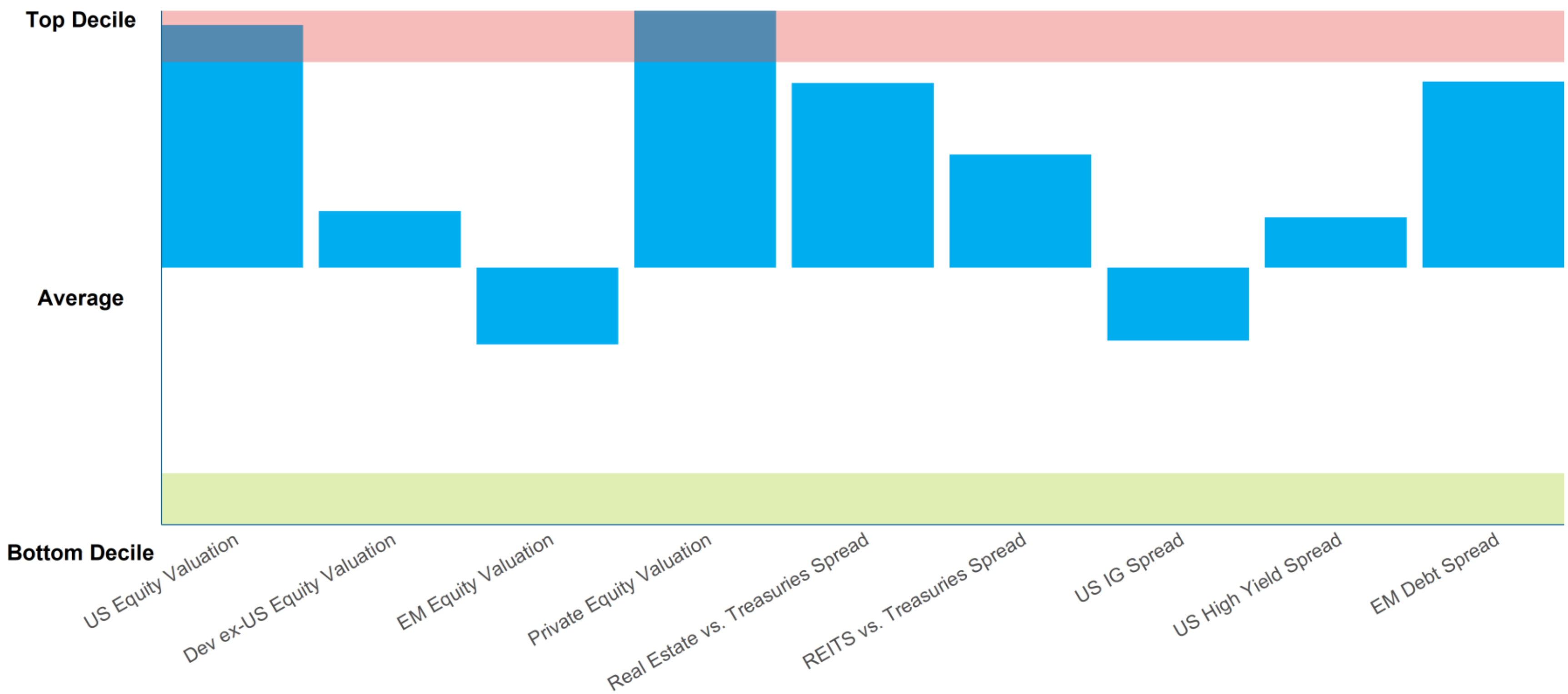
As of June 30, 2024

Capital Markets Outlook

- → In June, the Fed held policy rates steady at 5.25%. Inflation continued to moderate, albeit at a slow pace, and the US economy showed some signs of slowing.
- → Global growth and inflation dynamics continued to diverge, as has central bank policy. In China, the PBoC continued to ease to support the economy and the troubled real estate market. The European Central Bank cut its policy rate but warned of possible inflation pressures ahead. The Bank of Japan reduced the amount of its asset purchases but has stepped in to support a weakening yen.
- → US large cap and growth stocks outperformed small cap and value stocks, as the Russell 3000 gained 3.1%. Large cap growth stocks were the best performing stocks for the first half of 2024, powered by a select number of technology-related companies, especially Nvidia.
- → Outside the US, emerging market equities outperformed developed market equities despite the underperformance of China's stocks in June. The strengthening dollar continued to negatively impact the returns of US-based investors.
- → After several strong months, Chinese equities reversed course in June. There is a substantial year-to-date gap between onshore and offshore Chinese stocks, with Hong Kong listed stocks up over 17% while on-shore markets are down 3.3% for the first half of the year.
- → Bonds generally produced modest gains in June as cooling inflation and the potential for future rate cuts supported performance.
- → Public real estate enjoyed positive returns, while commodities, infrastructure, and natural resource stocks sold off on the prospect of slowing growth, particularly in China.

Risk Overview/Dashboard (1)

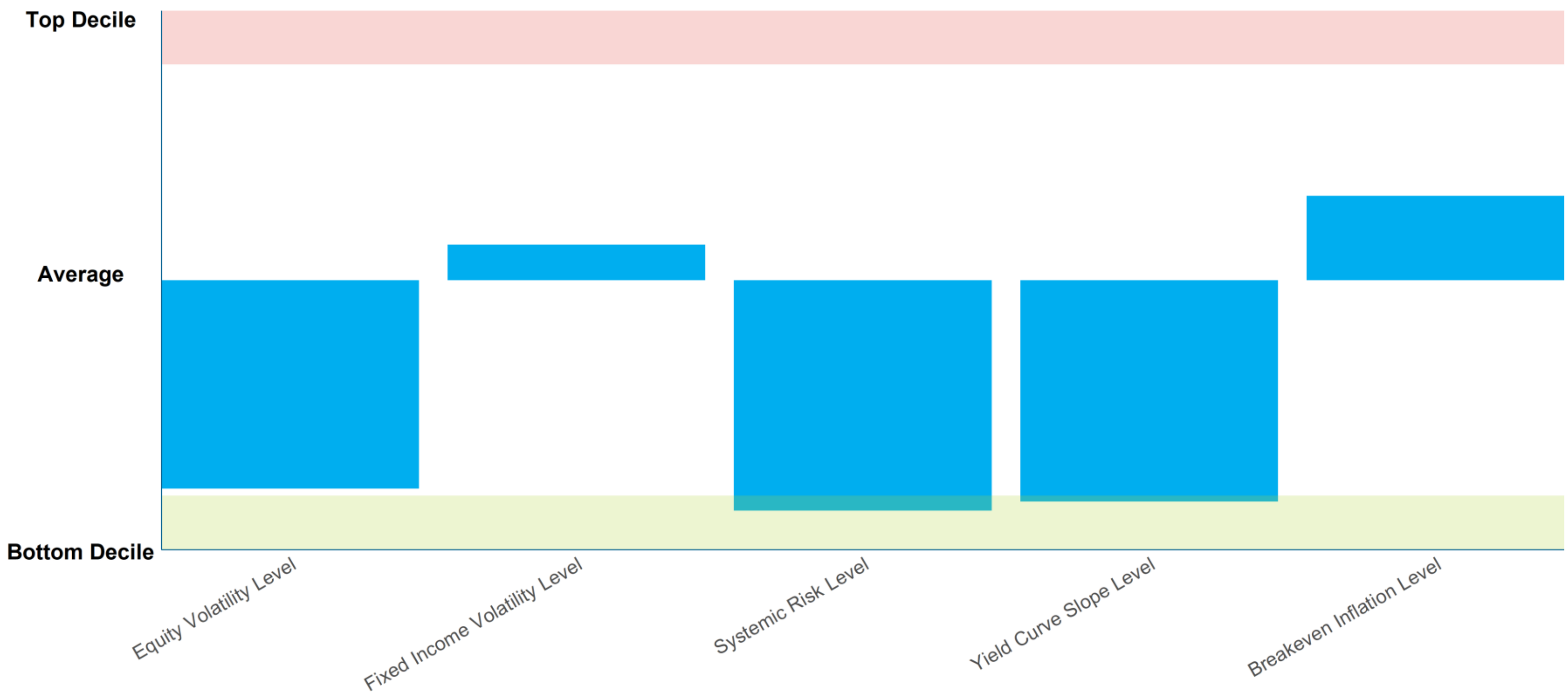
(As of June 30, 2024)[1]



→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

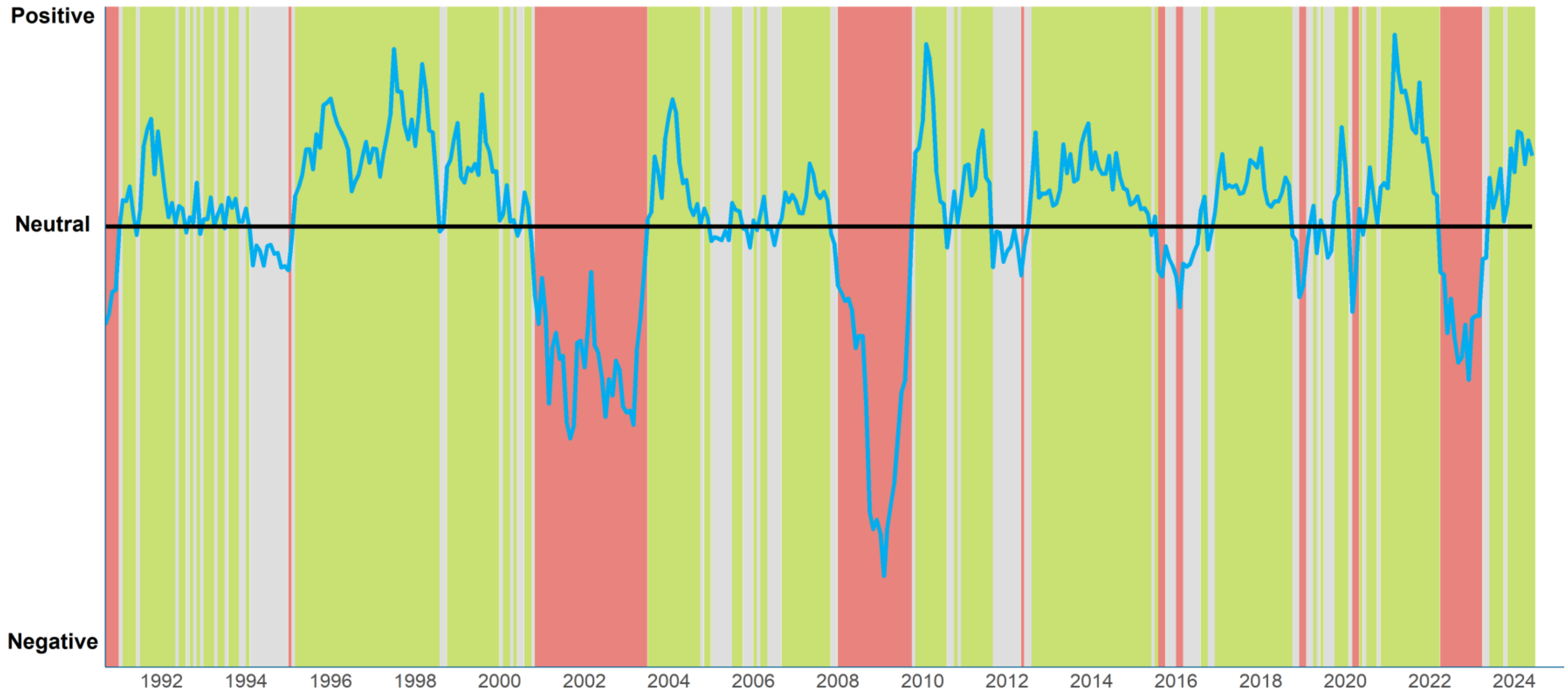
[1] With the exception of Private Equity Valuation, that is YTD as of December 30, 2023.

Risk Overview/Dashboard (2)
(As of June 30, 2024)

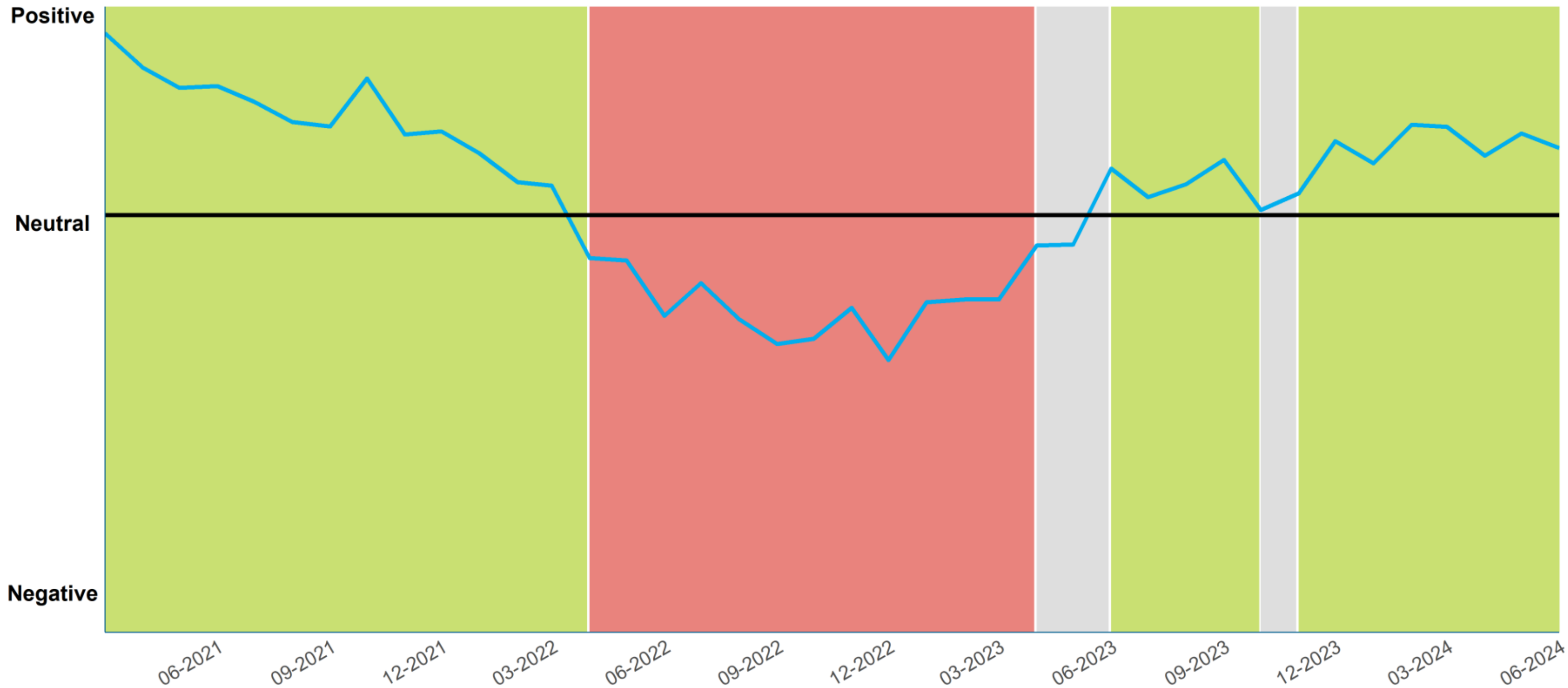


→ Dashboard (2) shows how the current level of each indicator compares to its respective history.

Market Sentiment Indicator (All History)
(As of June 30, 2024)

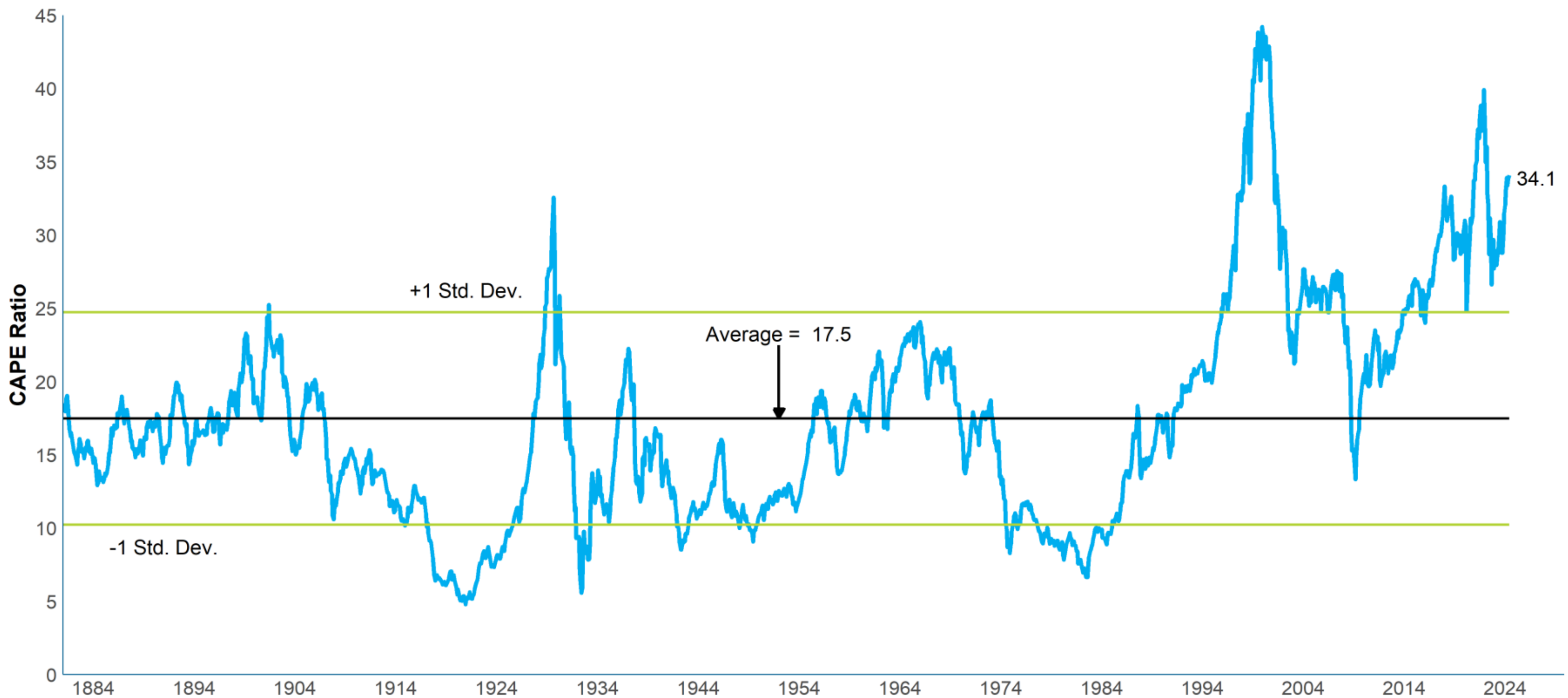


Market Sentiment Indicator (Last Three Years)
(As of June 30, 2024)



US Equity Cyclically Adjusted P/E[1]

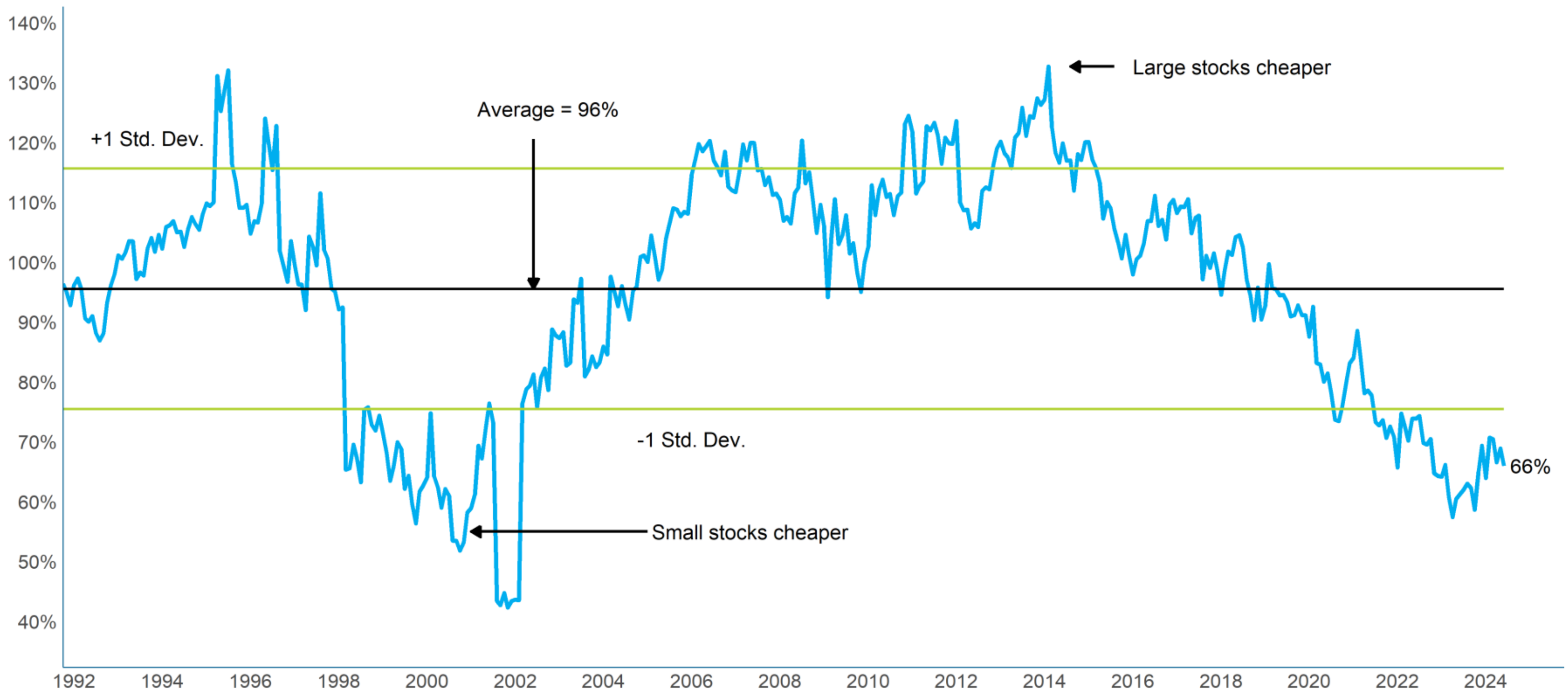
(As of June 30, 2024)



→ This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.

Small Cap P/E vs. Large Cap P/E[1]
(As of June 30, 2024)



→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

[1] Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments and Bloomberg. Prior months unavailable on Bloomberg are backfilled with last reported earnings. Earnings figures represent 12-month "as reported" earnings.

Growth P/E vs. Value P/E[1]
(As of June 30, 2024)

→ This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

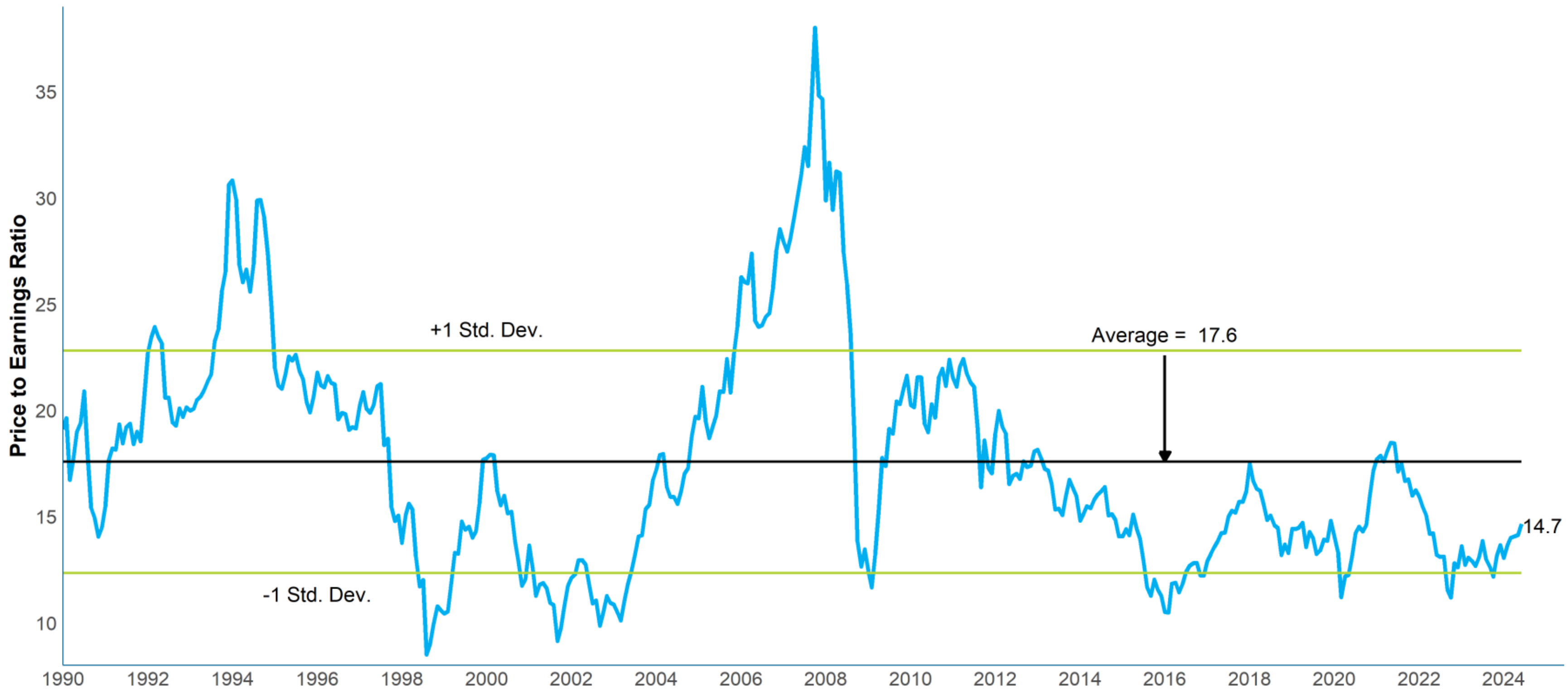
[1] Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

Developed International Equity Cyclically Adjusted P/E[1]
(As of June 30, 2024)

→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

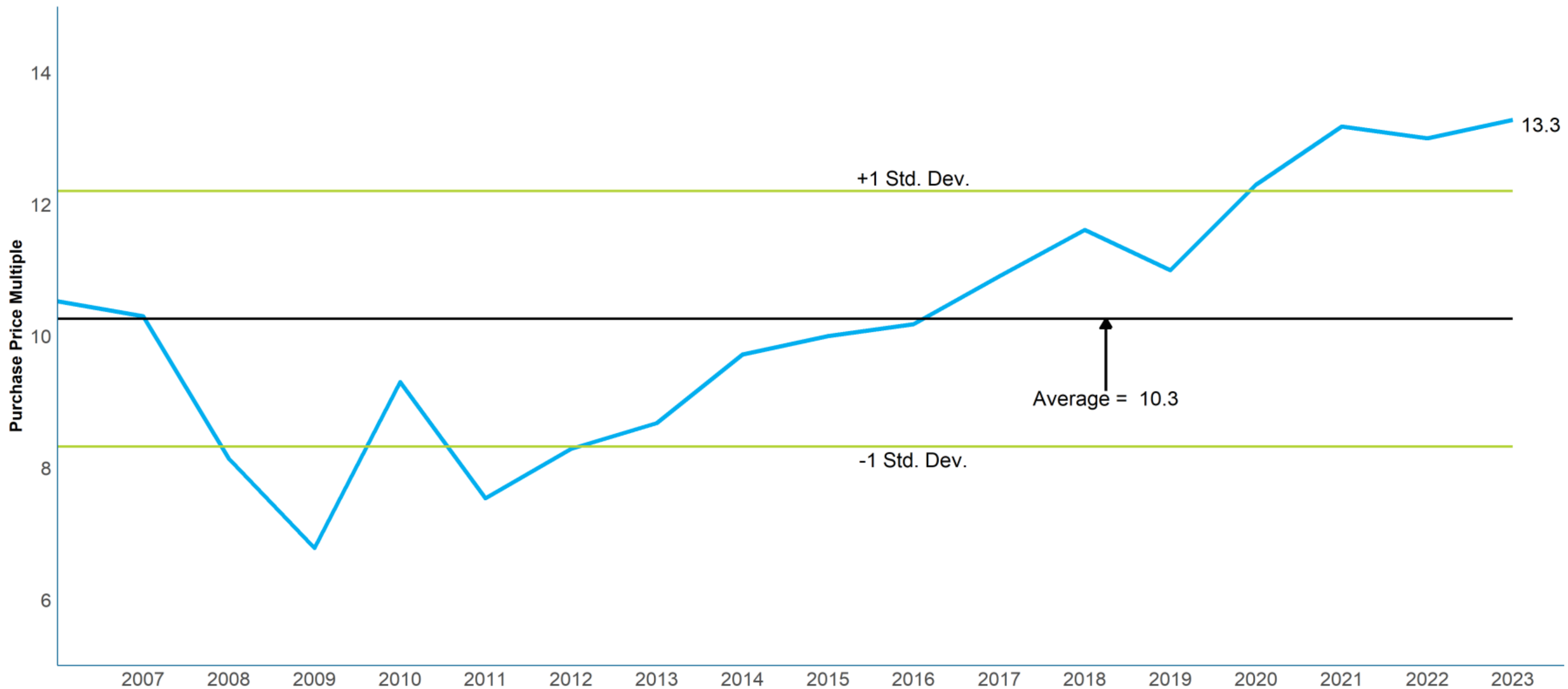
Emerging Market Equity Cyclically Adjusted P/E[1]
(As of June 30, 2024)



→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

Private Equity Multiples[1]
(As of December 31, 2023)

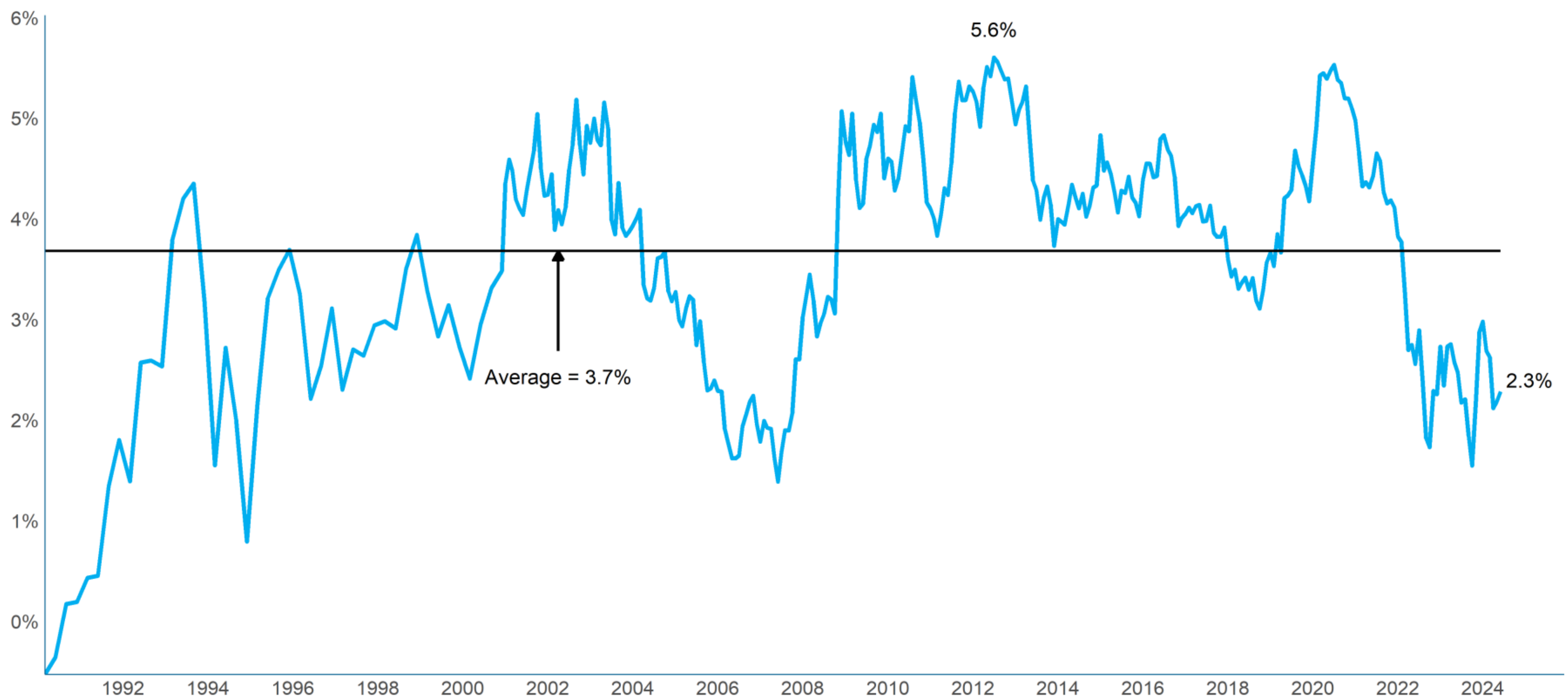


→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

[1] Private Equity Multiples – Source: Preqin Median EBITDA Multiples Paid in All LBOs. Accessed July 1, 2023.

Core Real Estate Spread vs. Ten-Year Treasury[1]

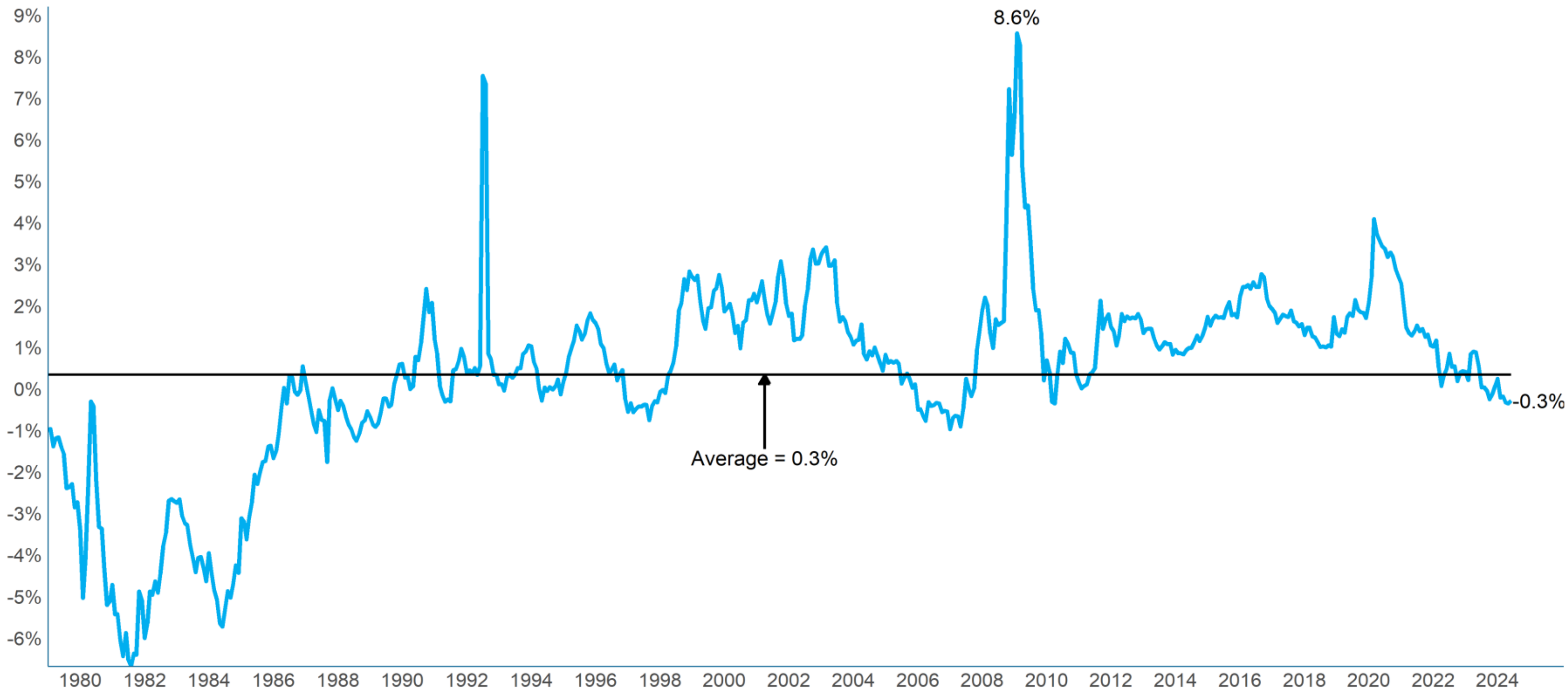
(As of June 30, 2024)



→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, FRED, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

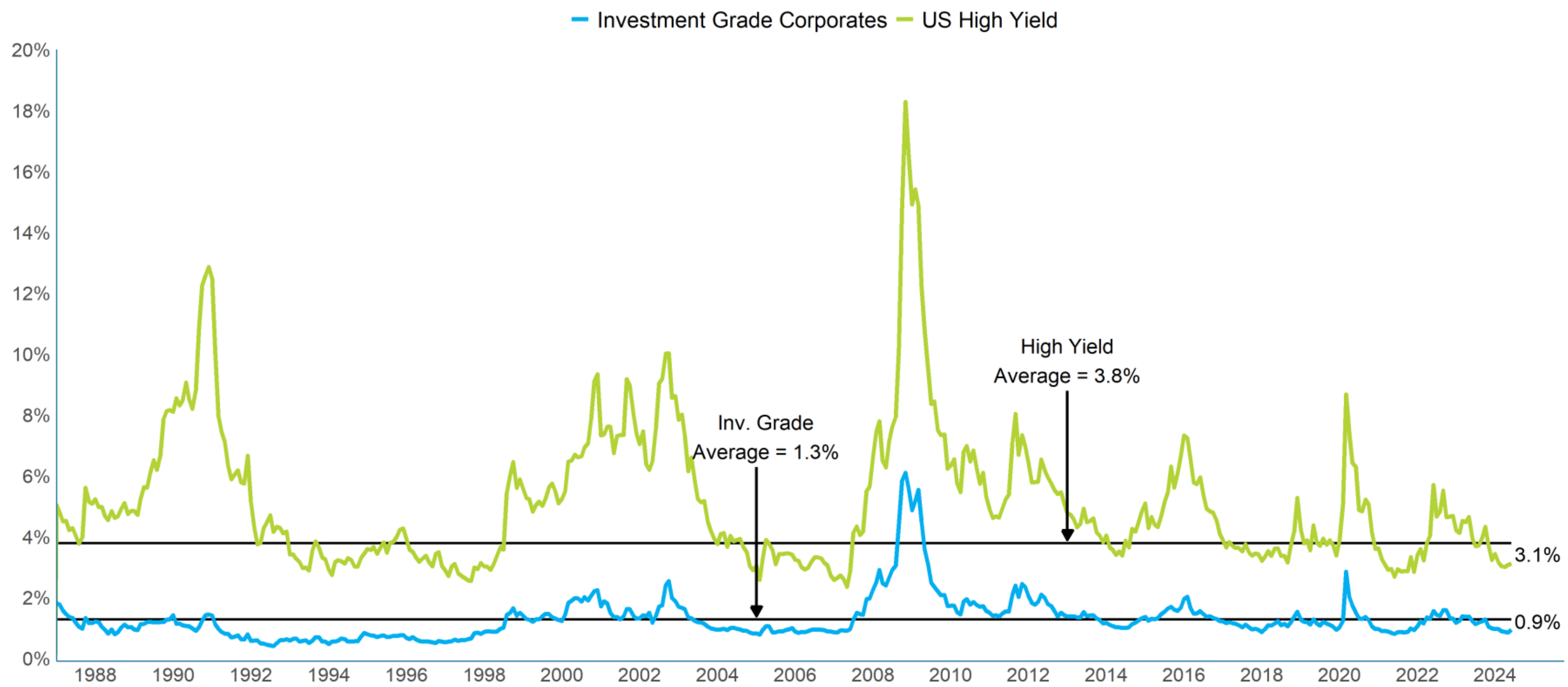
REITs Dividend Yield Spread vs. Ten-Year Treasury[1]
(As of June 30, 2024)



→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

[1] REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, Bloomberg, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

Credit Spreads[1]
(As of June 30, 2024)



→ This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

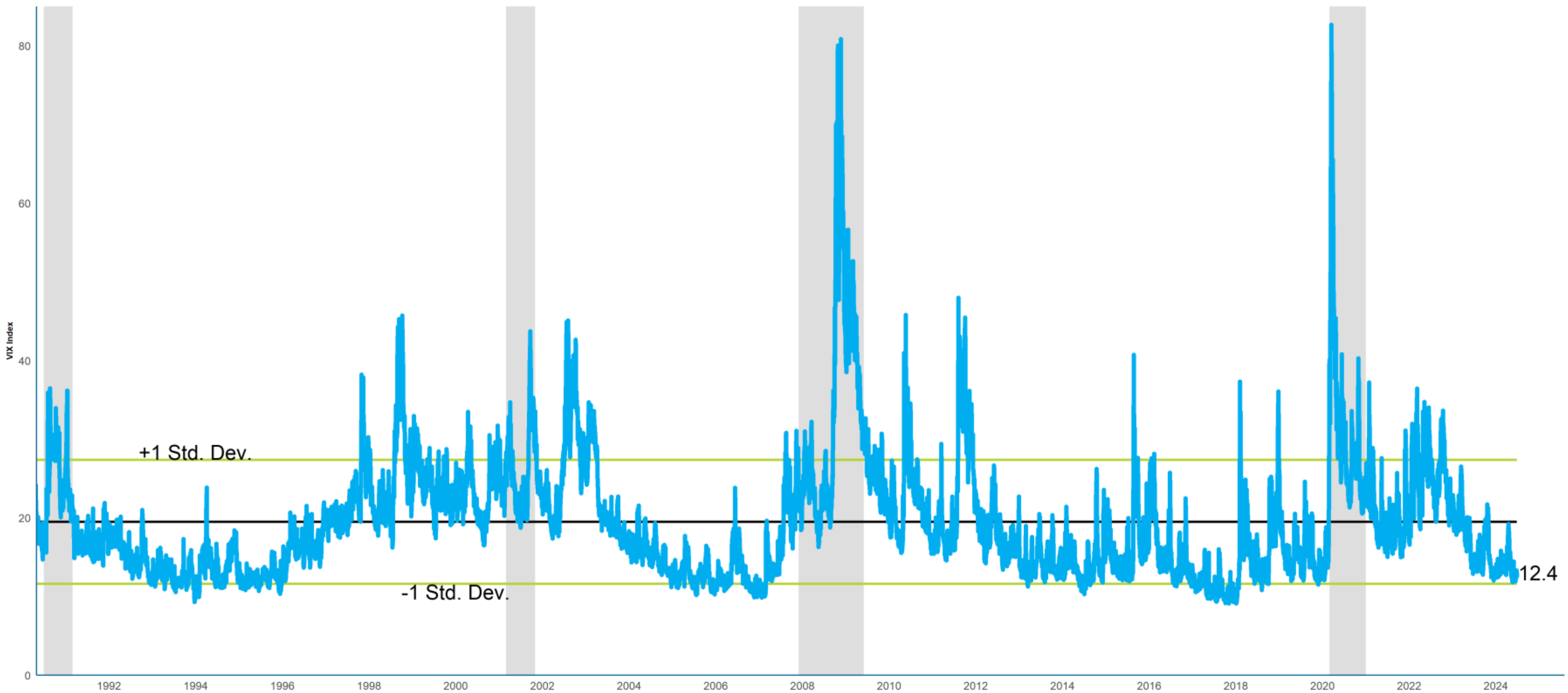
[1] Credit Spreads – Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.

Emerging Market Debt Spreads[1]
(As of June 30, 2024)

→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

[1] EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.

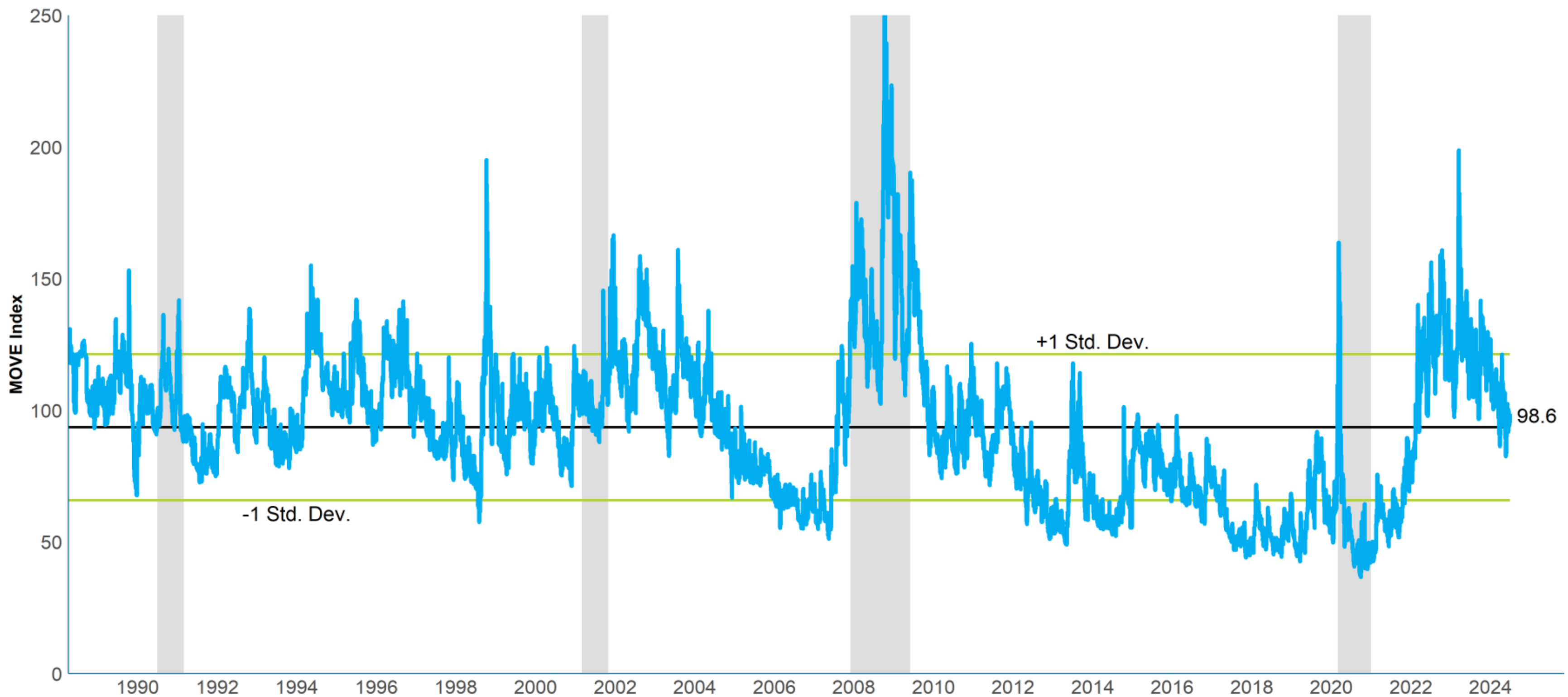
Equity Volatility[1]
(As of June 30, 2024)



→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Equity Volatility – Source: FRED, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
[2] Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

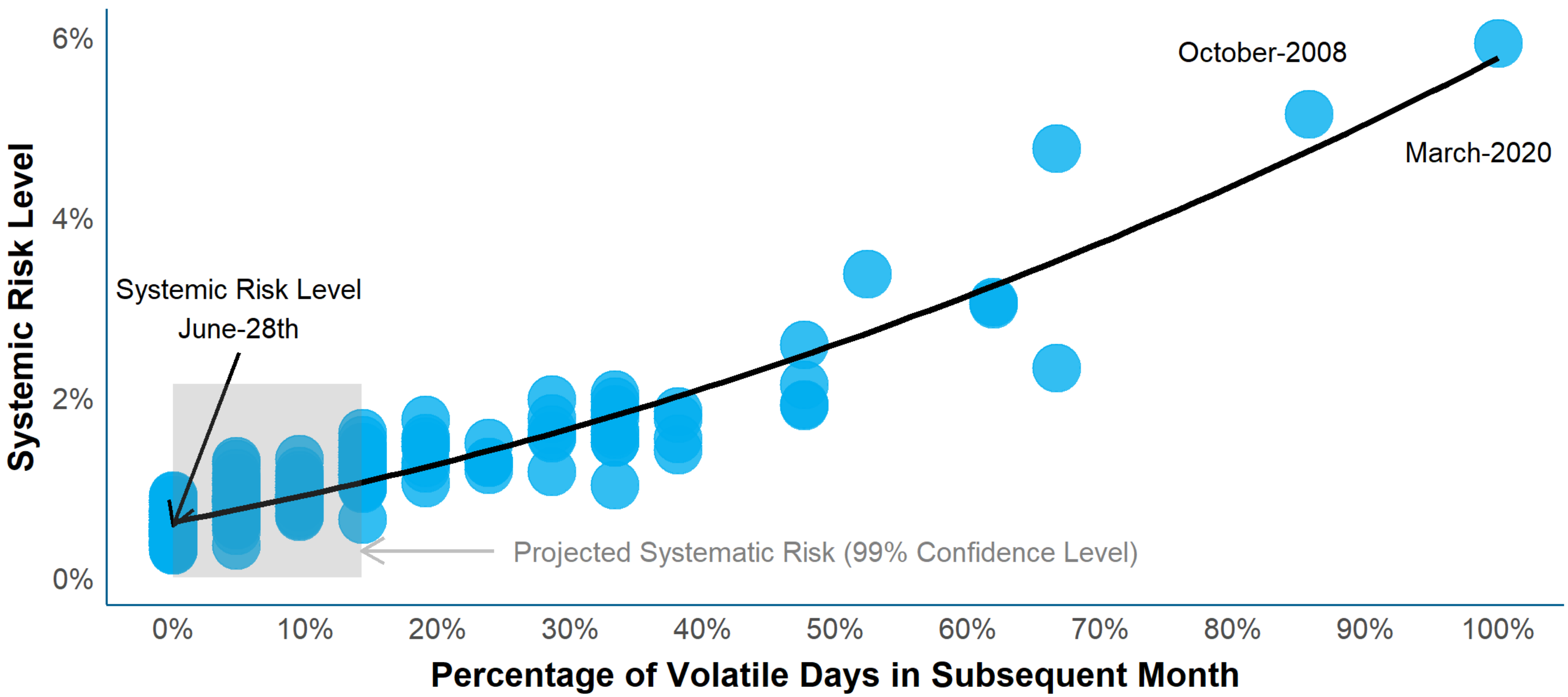
Fixed Income Volatility[1]
(As of June 30, 2024)



→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

[1] Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

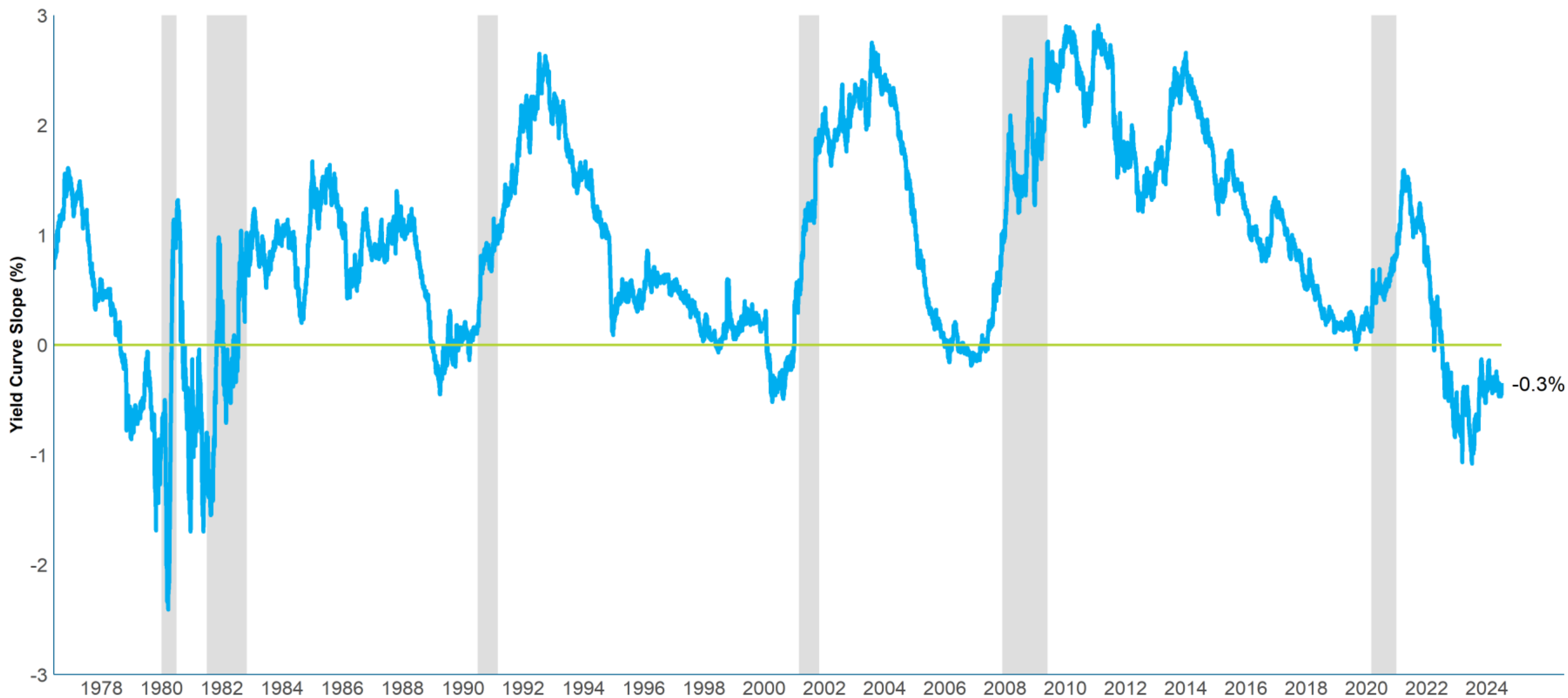
Systemic Risk and Volatile Market Days[1]
(As of June 30, 2024)



→ Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

[1] Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

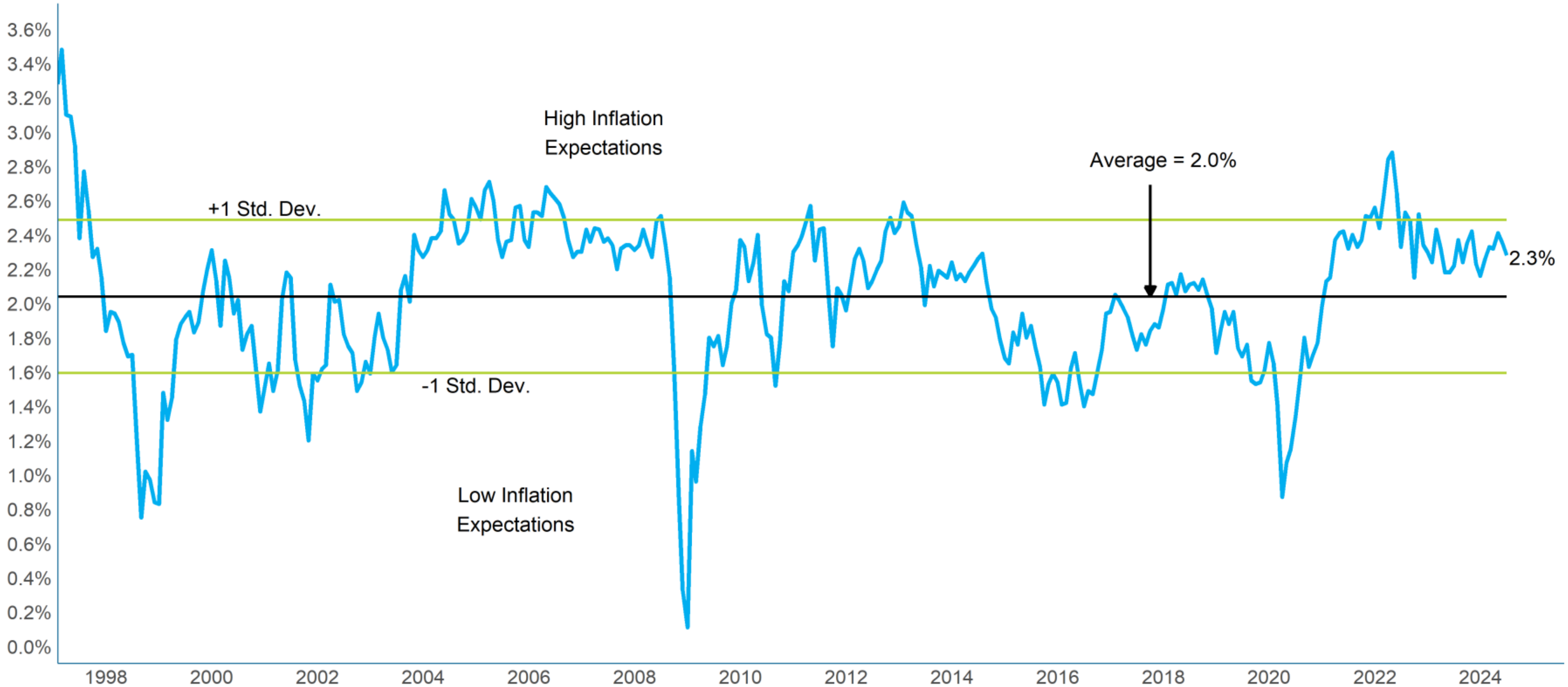
Yield Curve Slope (Ten Minus Two)[1]
(As of June 30, 2024)



→ This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

[1] Yield Curve Slope (Ten Minus Two) – Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

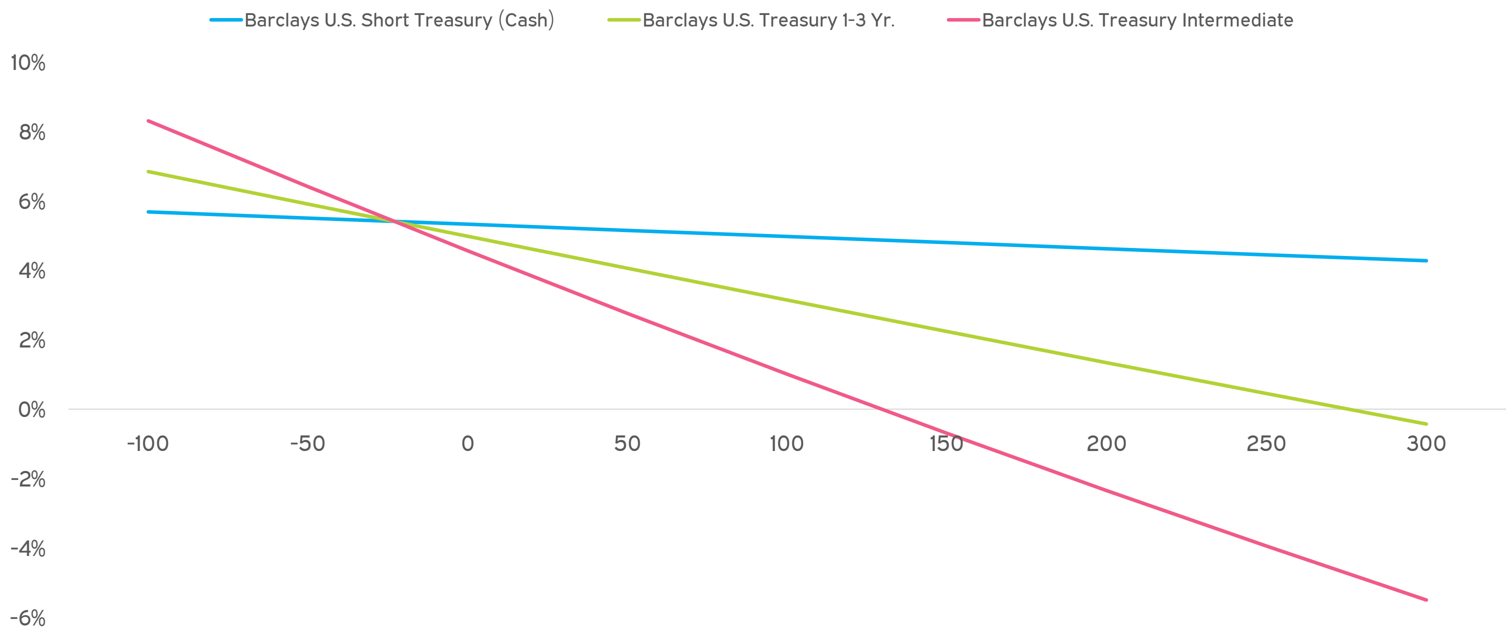
Ten-Year Breakeven Inflation[1]
(As of June 30, 2024)



→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

[1] Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

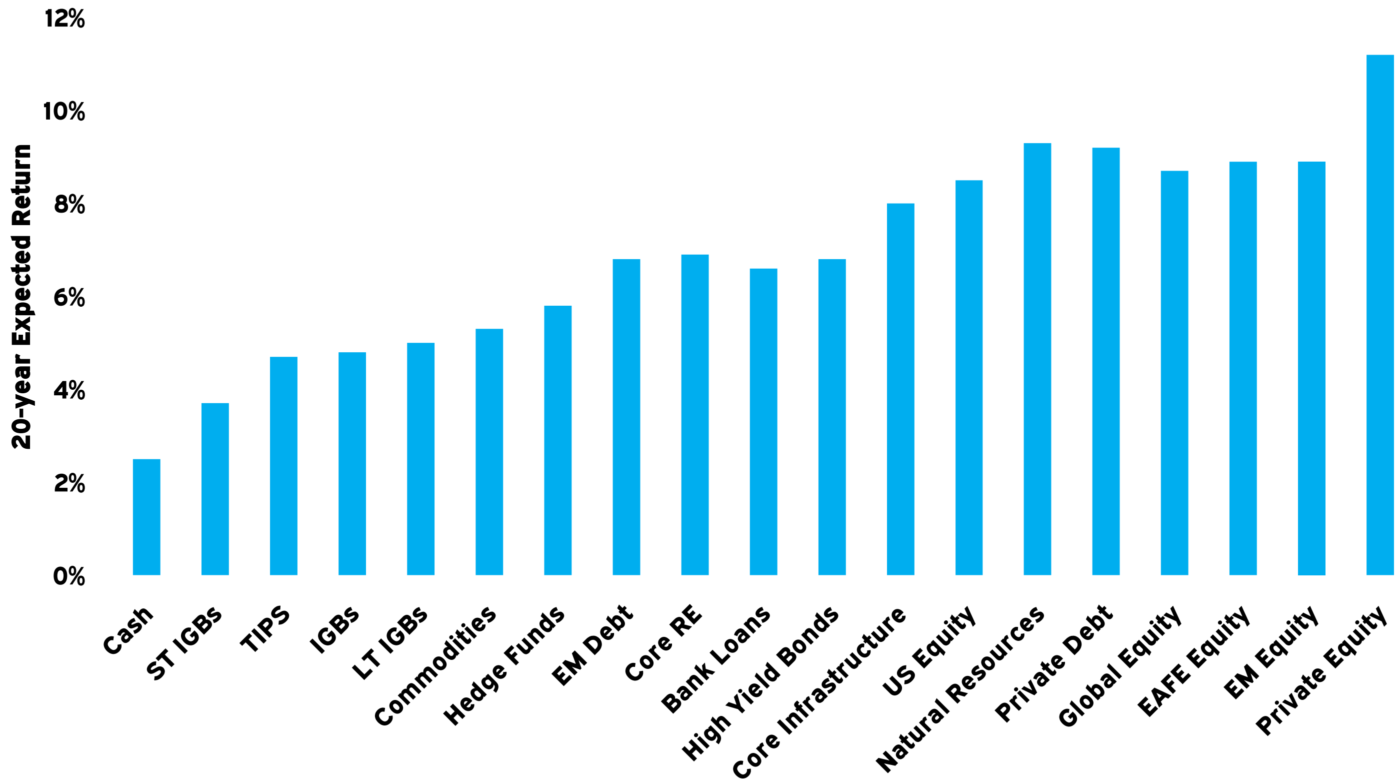
Total Return Given Changes in Interest Rates (bps)[1]
(As June 30, 2024)



	Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW
Barclays US Short Treasury (Cash)	5.7%	5.5%	5.3%	5.2%	5.0%	4.8%	4.6%	4.5%	4.3%	0.36	5.33%
Barclays US Treasury 1-3 Yr.	6.8%	5.9%	5.0%	4.1%	3.1%	2.2%	1.3%	0.5%	-0.4%	1.85	4.98%
Barclays US Treasury Intermediate	8.3%	6.4%	4.6%	2.8%	1.0%	-0.7%	-2.3%	-3.9%	-5.5%	3.65	4.56%
Barclays US Treasury Long	21.2%	12.5%	4.6%	-2.5%	-8.9%	-14.6%	-19.5%	-23.6%	-27.0%	15.07	4.61%

[1] Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.

Long-Term Outlook – 20-Year Annualized Expected Returns[1]



→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

[1] Source: Meketa Investment Group's 2024 Asset Study.

Appendix

Data Sources and Explanations[1]

→ US Equity Cyclically Adjusted P/E on S&P 500 Index – Source: Robert Shiller and Yale University.

→ Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.

→ Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.

→ Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

→ Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.

→ Private Equity Multiples – Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.

→ Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

[1] All Data as of June 30, 2024, unless otherwise noted.

Appendix

Data Sources and Explanations[1]

→ REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.

→ Credit Spreads – Source: Bloomberg High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index.

- Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year Treasury Yield.

→ EM Debt Spreads – Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.

→ Equity Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.

→ Fixed Income Volatility – Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.

→ Systemic Risk and Volatile Market Days – Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.

→ Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

[1] All Data as of June 30, 2024, unless otherwise noted.

Appendix

Data Sources and Explanations[1]

→ Yield Curve Slope (Ten Minus Two) – Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.

→ Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

[1] All Data as of June 30, 2024, unless otherwise noted.

Meketa Market Sentiment Indicator

Explanation, Construction and Q&A

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to complement our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

This appendix explores:

→ What is the Meketa Market Sentiment Indicator?

→ How do I read the indicator graph?

→ How is the Meketa Market Sentiment Indicator constructed?

→ What do changes in the indicator mean?

Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

→ Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market correction take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation-based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

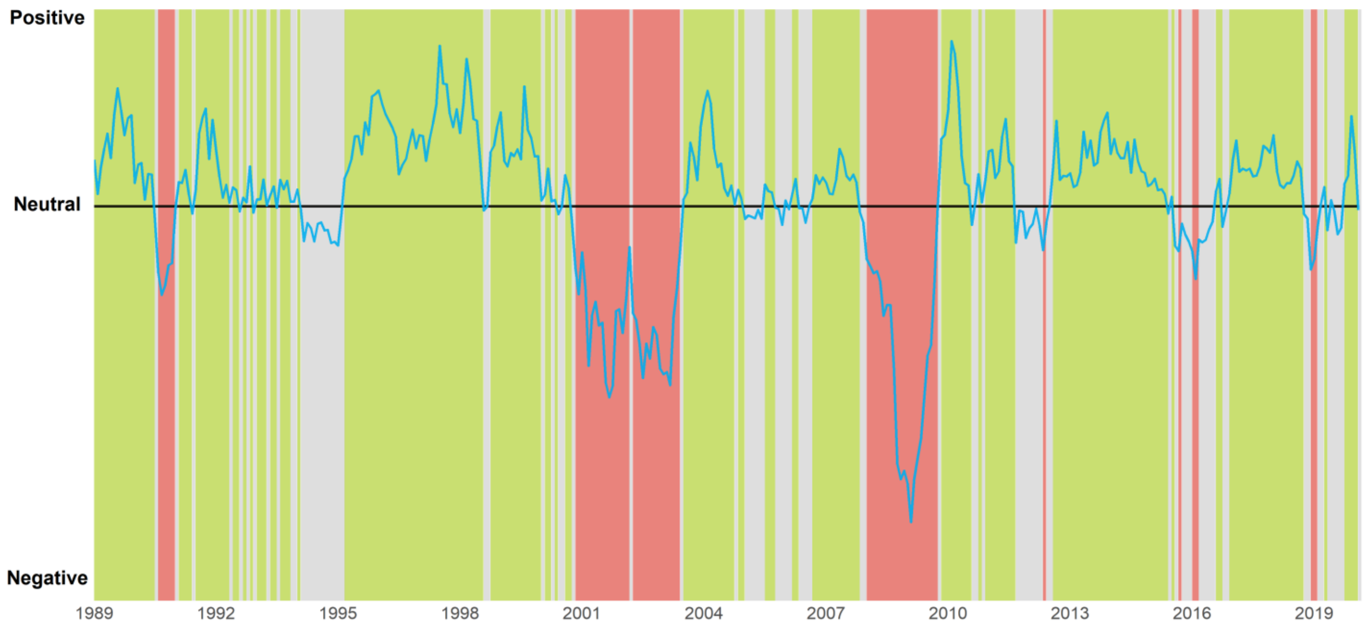
What is the Meketa Market Sentiment Indicator (MIG-MSI)?

→ The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).

How do I read the Meketa Market Sentiment Indicator graph?

→ Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication of the signal's current strength.

→ Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.



How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

→ The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:

- Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
- Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
- Both measures are converted to Z-scores and then combined to get an "apples to apples" comparison without the need of re-scaling.

→ The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure[1]. The color reading on the graph is determined as follows:

- If both stock return momentum and bond spread momentum are positive = GREEN (positive).
- If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
- If both stock return momentum and bond spread momentum are negative = RED (negative).

[1] Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.
"Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010. *http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf*

What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

→ There is strong evidence that time series momentum is significant and persistent. Across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.

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