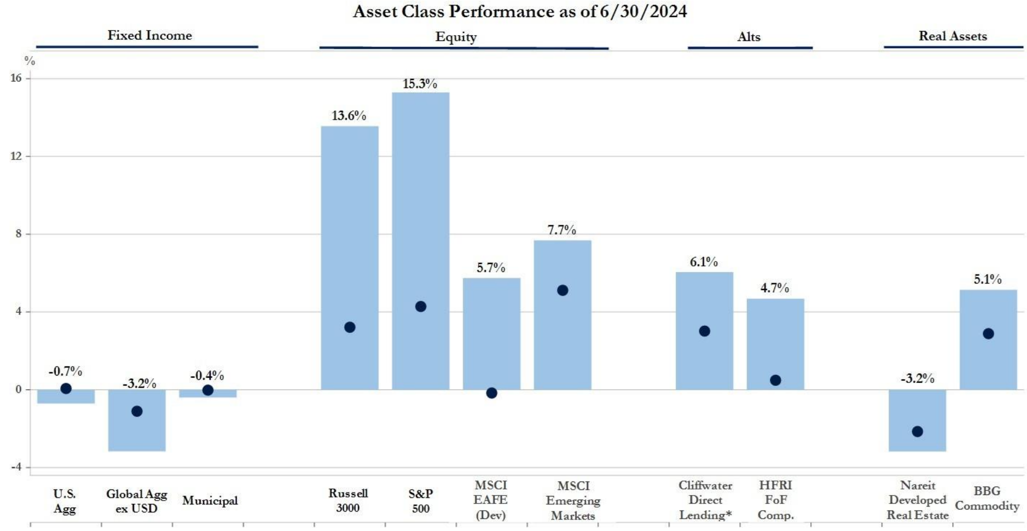
Investment Newsletter

Second Quarter 2024

Key Takeaways

- Higher growth and inflation held policy rates and bond yields at elevated levels stemming from recent hiking schedules. As growth estimates were marked up, expectations for Fed cuts declined although some form of cut(s) is still expected this year.
- The global economy finds itself at an inflection point where growth is cooling along with inflation. Powerful fiscal and monetary policy powered above average growth over the past two years but left a debt overhang with uncertain implications.
- The top 10 stocks in the S&P 500 now account for well over a third of the index, among the highest levels in history. While hard to refute the dominance and scope of top businesses, market leadership has historically been cyclical and often consolidates following extreme periods.
- Corporate fundamentals remained positive with much of U.S. EPS growth coming from a recovery in profit margins, versus revenue growth in prior years. Positive results outside of the top portion of the market could power additional breadth.
- International equities relative valuations are at historical lows relative to U.S. stocks. Starting valuations are only part of the equation for anticipated forward returns but paired with the potential for future dollar weakness may present tailwinds for non-U.S. stocks.
- Higher base rates offer support for higher future returns from high-quality fixed income asset classes. Credit spreads remain tight offering less incentive to go outside of investment-grade, although specialty areas (ex. securitized, private credit) present more opportunity.
- After a slow start, municipals recovered lost ground over the quarter yet continue to present compelling tax-equivalent yields. Summer technicals should help with near-term tailwinds while fundamentals are supportive.
- The ground is starting to thaw within the private real estate space as cap rates have stabilized and key sub-sectors have supply constraints (ex. grocery-anchored retail, single family housing). Transaction activity could lead to renewed price discovery and the potential for capital appreciation, in addition to income.
- The first half of 2024 has shaped up to be supportive for investment assets. With election and geopolitical uncertainty on the rise, the back half could offer additional volatility to which the best defense is diversification and ensuring your investment portfolio is properly aligned to your long-term financial goals.

Asset Class Performance as of 6/30/2024



*QTD as of 3/31/2024, YTD reflects trailing two quarters; Source: Macrobond, Summit Financial, FTSE, Bloomberg Russell Invest ment Group, S&P Global, HFR, Cliffwater

Economy

According to the most recent Bureau of Economic Analysis estimate, real Q1 2024 GDP growth was revised up 0.1% to 1.4% driven by upward revisions to fixed investment and government spending. One notable downward revision that partially offset those increases was in consumer spending, as the health of the overall consumer has recently come into question. Since reaching a high of 4.2% in mid-May, the GDPNow growth estimate for Q2 has been significantly cut by the Atlanta Fed and currently sits at 2.0%. Reduced personal consumption estimates helped drive the negative revision, further supporting concerns of a deteriorating consumer.

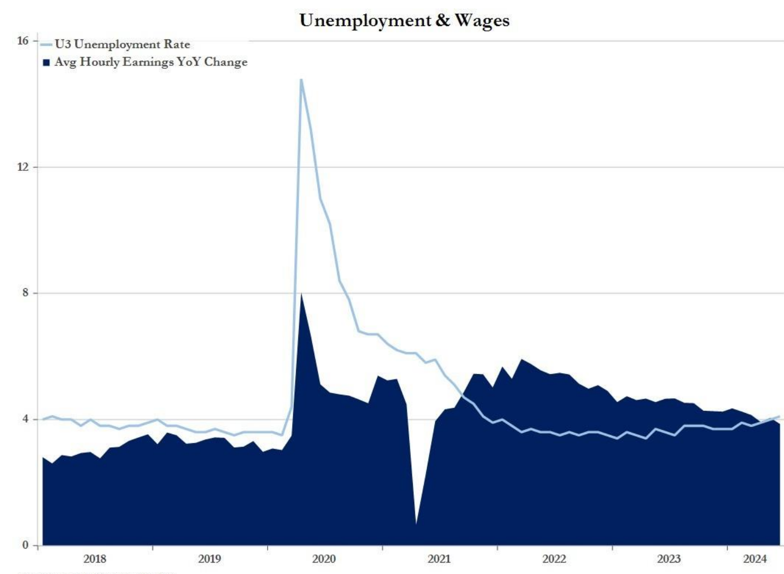
May retail sales growth came in below consensus at 0.1%, but remains in range at 2.0% YOY. However, real personal consumption has continued to outpace real personal income for three consecutive years, fueled by excess personal savings built up during the pandemic, which is not a sustainable source of growth. Credit card and auto loan delinquencies are also hitting the highest levels in 10+ years.

The ISM Manufacturing PMI, which measures month to month changes in production levels across the U.S. economy, has remained in contraction territory in all but one month since October 2022. After breaking into expansion territory with a reading of 50.3 in March, the index has fallen in each of the last three months and now sits at 48.5.

Core CPI and core PCE continue to ease steadily providing some relief to consumers while also bolstering the case for rate cuts in 2024. There does, however, continue to be a wide dispersion in inflation rates between durable goods and services. Durable goods entered deflation in December 2023 and have continued to trend downward since, while services bottomed in the same month only to tick back up and remain in the 3.4% range since. Headline CPI also remains stubbornly high as food and energy prices continue to squeeze households.

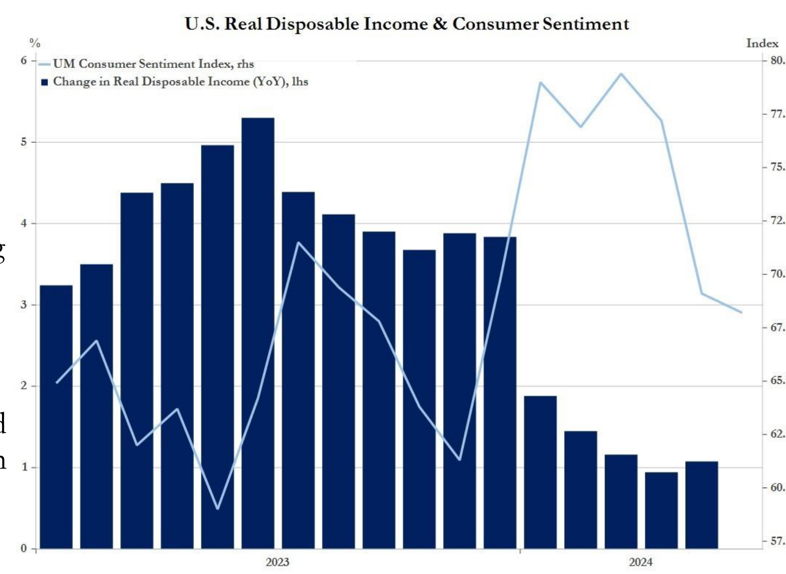
Labor Market Starting to Show Cracks

- The unemployment rate ticked up each month in Q2, reaching its highest level since November 2021 in June.
- While this trend may have some workers on edge, it has been welcomed by investors hoping for at least one rate cut in 2024.
- At 4.1%, the June unemployment rate came in above consensus estimates and is noticeably up from the June 2023 rate of 3.6%, but remains within its normal range.
- While the economy added 206,000 jobs in June, topping estimates of 190,000, April and May job growth estimates were lowered by a total of 111,000, indicating a weaker employment picture overall.



Consumer Sentiment Trending Downward

- After hitting a recent index high over 79 in March, consumer sentiment fell sharply in subsequent months and now sits just above 68.
- The drop coincides with real disposable income declining in each of the first four months of the year.
- In May, however, real disposable income ticked up as inflation continued to show signs of cooling.
- If the trend continues, it may drive sentiment higher and spur a rebound in spending, which is critical to growth in the consumer-driven U.S. economy.



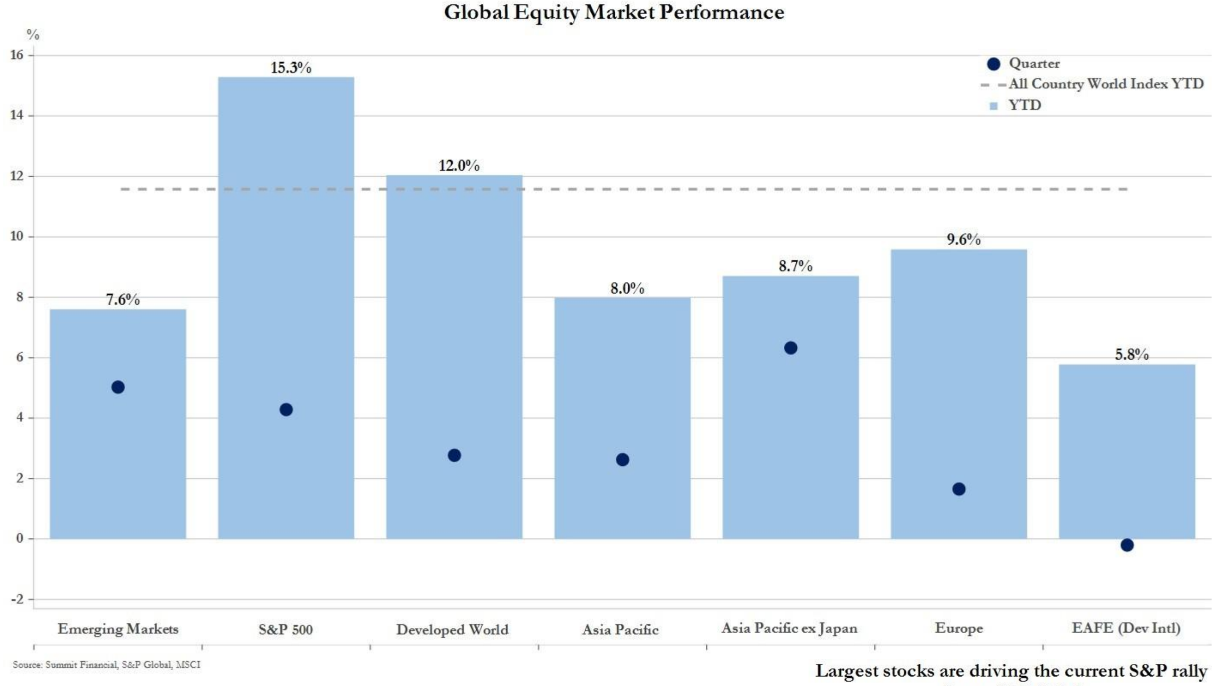
Equity Markets

The S&P 500 gained a solid 4.3% in Q2, once again led by the information technology and communication services sectors. The higher-for-longer rate environment continued to weigh on the real estate sector which dropped an additional 1.9% in Q2 to finish at -2.4% YTD. A negative quarter in energy, financials, healthcare, industrials, and materials partially eroded solid Q1 gains. Stylistically, growth continues to outperform value in the U.S. as companies with exposure to artificial intelligence drive the index higher. 78% of S&P 500 companies beat earnings expectations in Q1, well above the long-term average of 67%, and the broad index is tracking a year-over-year earnings growth rate of 5.4% according to FactSet, which is the highest since Q2 2022. The VIX, which measures the implied expected volatility of the U.S. stock market, rose early in the quarter but declined quickly to well below average levels. Volatility continues to be low in the market showing a perceived low risk environment for investors.

Despite weakness in Latin America, the MSCI Emerging Markets Index had a strong showing in Q2 and posted a 5.0% gain, driven by the outperformance of its Asian constituents. Moves made by Chinese authorities to bolster the real estate sector provided meaningful support to the broader equity markets, while Taiwan's exposure to artificial intelligence also added to the region's outperformance.

After a solid 6.0% return in Q1, developed international markets lost ground in Q2 with the MSCI EAFE Index dropping 0.20%. The decline was in large part due to underperformance in France, where the announcement of a snap election by President Macron rattled investor confidence and drove the FR40 Index to a 6.4% monthly decline in June.

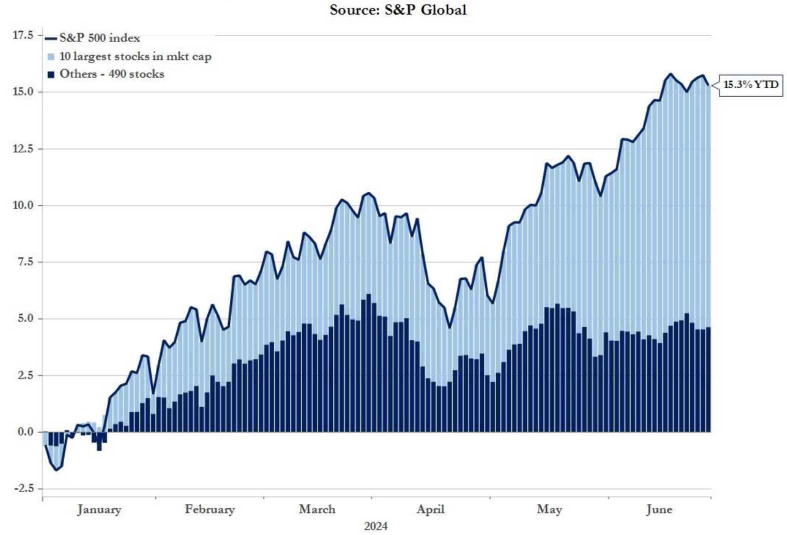
Global Equity Market Performance



Market Breadth Remains Narrow, AI-focused

- A limited number of stocks are powering the S&P 500 rally as investors continue to pour money into companies focused on AI.
- Nvidia continues to lead the charge in this space with estimates of the company's share of the AI-driven chip market ranging from 70% to over 90% on the high side.
- Microsoft, Alphabet, Meta, and Apple are also continuing to invest heavily in AI and, along with Nvidia, these top five stocks are responsible for around 60% of the S&P 500's YTD returns.
- Of the 10 largest stocks by market cap, only two, Eli Lilly and Berkshire Hathaway, are not big tech names.

Largest stocks are driving the current S&P rally
Source: S&P Global



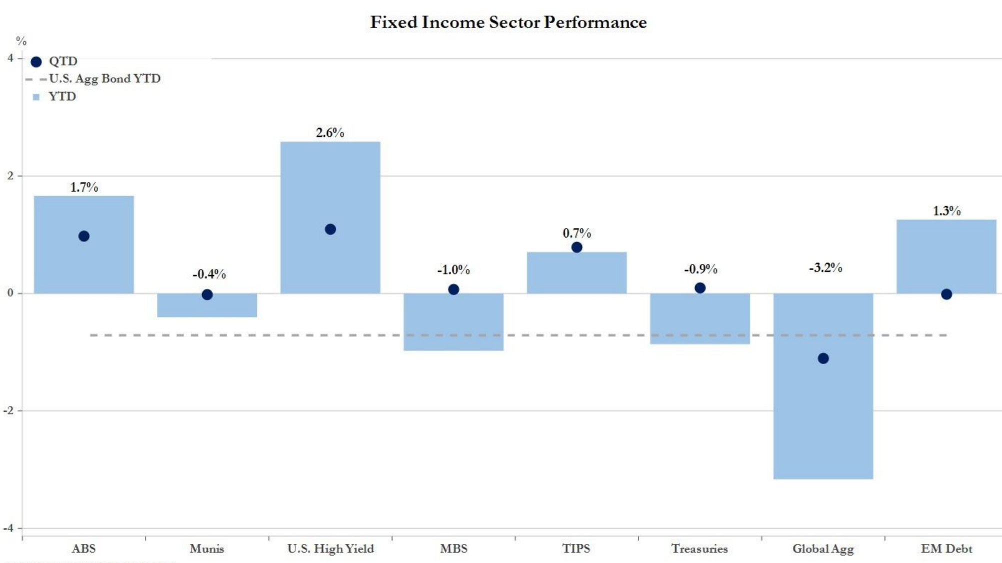
Fixed Income Markets

Fixed income markets broadly struggled to gain traction in Q2 with the Bloomberg Global Aggregate Index falling an additional 1.1%, marking a YTD drop of -3.2%. The Bloomberg U.S. Aggregate Index finished the quarter in positive territory (+0.07%) thanks to a 0.95% June gain but remains negative for the year, while ABS and U.S. high yield continue to be bright spots. Investment grade corporate spreads tightened another 2 bps in Q2 and remain historically tight.

Yield on the 10-year Treasury, which started the quarter at 4.2%, peaked at 4.7% in late April largely driven by robust job creation and sticky inflation data. By mid-June, however, it retreated back to its 4.2% starting level, before ultimately marking a 20 bps increase and ending at 4.4%. The yield curve remained inverted throughout the quarter for what is now a record 24-months, although the magnitude of inversion, measured as the 10-year Treasury yield minus the 3-month Treasury yield, did narrow from –1.26% to –0.96%.

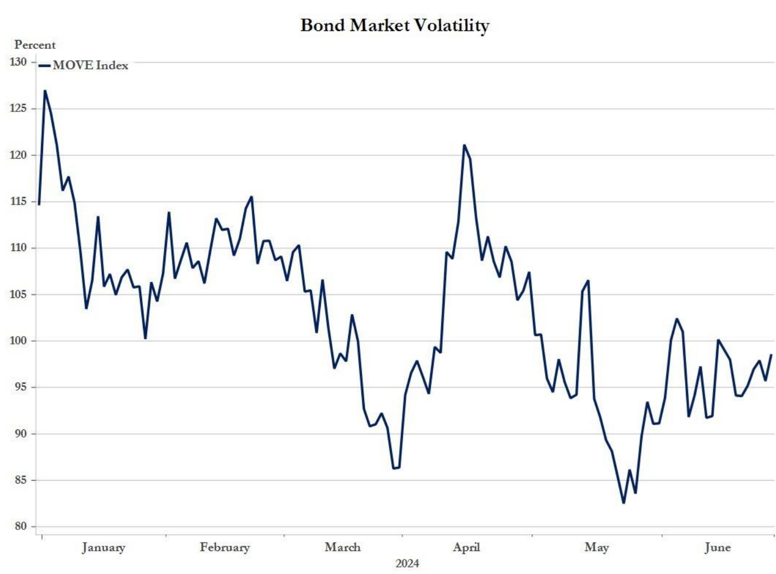
On the municipal side, tax-exempt yields retreated across the curve in June but finished higher for the quarter due to increases in both April and May. Heavy supply helped push yields higher with issuance the strongest it has been in ten years and ~40% higher than 1H23, but demand was equally as robust and flows remain positive for the quarter and year. The June decline in yields improved YTD returns, but the municipal index remains negative for the year.

With inflation declining and some central banks starting to cut rates, confidence that defaults will remain contained is growing and the case for a soft landing continues to build momentum. As a result, many portfolio managers believe current bond yields offer attractive risk-adjusted returns versus equities in the second half of 2024, although tight spreads offer little incentive to go outside of high-quality issues.



Bond Market Volatility Continues Downward Trend

- Volatility in the U.S. Treasury market spiked in mid-April as higher than expected inflation data diminished 2024 rate cut expectations.
- Since then, inflation readings have cooled and bond market volatility has fallen to ~98 as measured by the MOVE index, down from a Q2 high of 121.
- A lower MOVE index suggests growing investor confidence in fixed income markets and economic conditions, as well as clearer monetary policy expectations.
- Historically, a lower index value has also been an indication of favorable conditions for equity investors.



Real Assets

Precious and industrial metals both had strong quarters led by gold, silver, and copper. Gold gained 4% in Q2 after hitting an all time high in March. Copper, which is widely used in industrial production and seen as a leading indicator for the health of the global economy, boomed more than 25% before ending the quarter up ~8%.

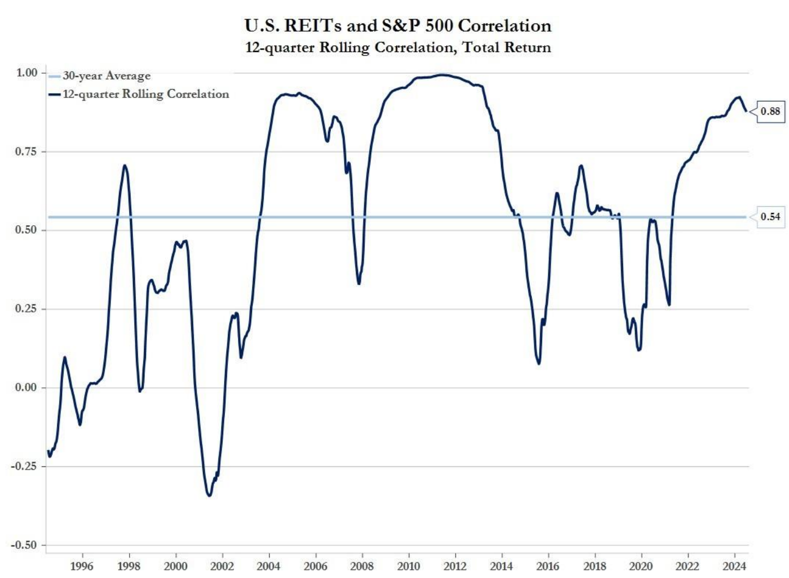
Oil lost steam after posting strong Q1 results, with Brent spot prices falling 2.3% in Q2, driven by growing global inventories and weakening demand from China which is the world's largest oil importer. Gas prices followed suit which provided some relief to households while also helping to moderate inflation.

Public REITs dropped 2.2% in Q2, as cap rates increased slightly and inflation persisted. The industrial sector lagged the most as demand for space has cooled since the end of the Covid-19 pandemic. Healthcare REITs were among the top performing sectors after having a small negative return in Q1, highlighting the need for diversification within the asset class. Implied cap rates remain high relative to historical levels and although rate cut forecasts have declined, the potential for lower cap rates in the future could prove to be a tailwind for the space.

Listed infrastructure continues its slow but steady return profile as the steady income streams supported the asset class's 2.6% return. The defensive characteristic of infrastructure remains a positive in the current environment as inflation persists above trend with slower global growth.

Public REITs Highly Correlated to S&P 500

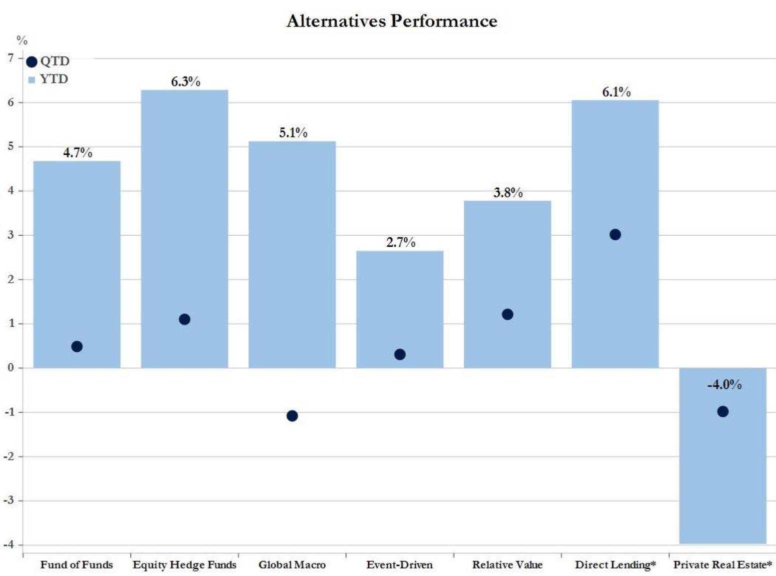
- The 3-year correlation between U.S. Public REITs and the S&P 500 was 0.88 at the end of Q2, more than 60% higher than its 30-year average of 0.54.
- This increase in correlation highlights that public REITs have lost some of their diversifying powers as of late.
- Implied cap rates remain elevated for listed REITs compared to their Private Real Estate counterparts, coinciding with the marked-to-market nature of listed REITs.
- The implied cap rate for listed REITs was over 100 basis points higher than that of private real estate in 2024 Q1 according to NAREIT, making public real estate attractively valued on a relative basis.
- As the Fed inches closer to rate cuts, REITs are well positioned, as the asset class broadly has strong balance sheets and fundamentals.

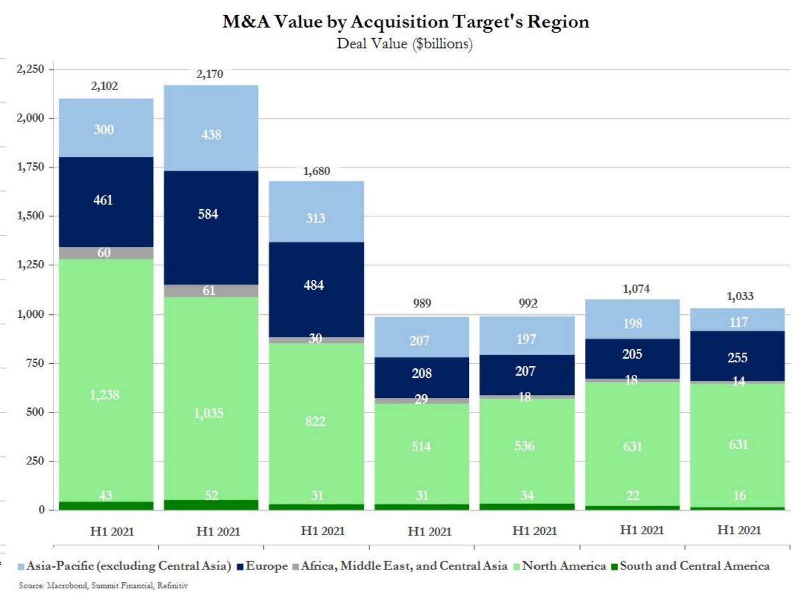


Private equity is benefiting from strong earnings growth and a modest increase in deal activity. Although the dominance of the largest U.S. stocks has recently made it difficult for private equity to provide a return premium, private companies have stronger operating results and more attractive valuations than public stocks in aggregate. Valuations have held up better than expected in the face of higher interest rates and performance overall has been healthy. Fund raising activity has been slow leading to expanded co-investment opportunities in specific deals alongside GPs with no fund level fees. Add-on investments in which a smaller company is acquired and combined with a larger company in the same industry have also come to dominate, accounting for almost 60% of recent deal activity. Secondary investments are increasing in volume and discounts on high quality companies in the 10% to 15% range are still available.

Increased competition and tighter public bond spreads have narrowed credit spreads for private loans. However, elevated base interest rates have supported yields and total return. Credit losses remain below average although there has been an increase in workout situations where borrowers under stress and lenders work together to amend the terms of a loan. Revenue growth for middle market companies remains healthy and default rates have been lower than expected. Real estate valuations outside the office sector have stabilized, in some cases creating buying opportunities to acquire properties below replacement cost. Much of the office sector remains stressed although rents seem to have stabilized. The strong consumer, adapted use for service businesses, and limited new construction continues to support the retail sector. A post-COVID wave of supply is hampering residential properties, but supply/demand is expected to become more balanced next year. Discounts on real estate secondaries continue to hover around 30%.

Hedge funds exhibited mixed performance during the quarter, influenced by global election risk, macroeconomic factors, and public market trends. Global Macro, despite a strong start to the quarter, declined as global rate and commodity trends became harder to navigate. Event-driven was dragged down by negative returns from activist funds. Arbitrage and relative value fixed income strategies that were able to exploit differentials across global rates did well. Equity hedge generated a modest positive return largely due to market neutral and technology sector funds.





Private Credit Dominates Alternative Strategies

- Private credit continues to yield 10%+, rivaling equity returns and providing stability as higher interest rates lower public bond prices.
- Hedge funds had a mixed quarter, hampered by Global Macro and Event-driven strategies. Technology focused funds, mirroring trends in the public stock market, had the highest returns.
- Real estate valuations, outside of the office sector, are stabilizing. A surge in supply has weighed on valuations in some sectors but is expected to dissipate by next year.

M&A Activity a Tailwind for Alternative Strategies

- M&A has been volatile during the COVID recovery. A surge in pent-up activity was followed by a slowdown as higher interest rates resulted in lower valuations and elevated financing costs.
- M&A has stabilized in the U.S. and Europe and the prospect for lower interest rates and more attractive valuations bodes well for the future.
- Increased M&A helps drive deal flow for private equity and credit and is a positive for event-driven hedge fund strategies.

Growth	6/30/2024	3/31/2024
GDP Grwoth	2.0% (Q2)*	1.4% (Q1)
U.S. Leading Economic Indicator (YoY%)**	-5.3%	-5.6%
Unemployment Rate (%)	4.1%	3.8%
Initial Claims (Weekly as of 6/28/24, thousands)	238.0	222.0
Industrial Production (YoY%)**	0.1%	-0.3%
Consumer Sentiment	68.2	79.4
ISM Manufacturing Index	48.5	50.3
ISM Non-Manufacturing Index	48.8	51.4
Retail Sales (YoY%)**	2.3%	3.6%
Building Permits (mil)**	1.39	1.49

Inflation	6/30/2024	3/31/2024
Headline CPI (YoY)	3.3%	3.5%
Core CPI (YoY)	3.4%	3.8%
Core PCE (YoY)*	2.6%	2.8%
Forward Breakeven Inflation Expectation (5-year)	2.3%	2.2%

*GDP Now estimate as of 7/10/2024
**As of 5/31/2024
Source: Bloomberg and Federal Reserve Bank of Atlanta

Market Sentiment	6/30/2024	3/31/2024
MOVE Index	98.6	86.4
VIX	12.4	13.0
National Financial Conditions Index (NFCI)	-0.50	-0.48

Rates & Credit Conditions	6/30/2024	3/31/2024	10-Year Average
3-M U.S. Treasury	5.4%	5.5%	1.6%
10-YR U.S. Treasury	4.4%	4.2%	2.4%
Spreads over 10-YR U.S. Treasuries (bps)			
U.S. Corporate Investment Grade	108	110	116
U.S. Corporate High Yield	351	346	417
U.S. Municipal	-68	-71	-6

Federal Reserve Economic Projections	2024	2025	2026
Real GDP (YoY%)	2.1%	2.0%	2.0%
PCE Price Index (YoY%)	2.6%	2.3%	2.0%
Core PCE (YoY%)	2.8%	2.3%	2.0%
Unemployment %	4.0%	4.2%	4.1%

Definitions

Term	Definition
CBOE Volatility Index (VIX)	The CBOE Volatility Index (VIX) reflects the market's real-time expectation of 30-day forward-looking volatility. It is created by the Chicago Board of Options Exchange (CBOE).
Chicago Fed National Financial Conditions Index (NFCI)	The Chicago Fed's National Financial Conditions Index (NFCI) provides a comprehensive weekly update on U.S. financial conditions in money markets, debt and equity markets, and the traditional and "shadow" banking systems
Consumer Confidence Index	The Consumer Confidence Index is a measure based on a survey administered by The Conference Board that reflects prevailing business conditions and likely developments for the months ahead. This monthly report details consumer attitude, buying intentions, vacation plans, and consumer expectations for inflation, stock prices, and interest rates.
Consumer Price Index	The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.
Core Inflation	Core Inflation is a measure of economic inflation that excludes food and energy
Headline Inflation	Headline Inflation is a measure of the total economic inflation that includes food and energy prices
ISM Manufacturing Index	The ISM Manufacturing Index, also known as the purchasing managers' index (PMI), is a monthly indicator of U.S. economic activity based on a survey of executives covering all North American Industry Classification System's businesses in the manufacturing sector.
ISM Non-Manufacturing Index	The ISM Non-Manufacturing Index is a monthly indicator of U.S. economic activity based on a survey of executives covering all North American Industry Classification System's businesses in the services (or non-manufacturing) sector.
Leading economic indicators (LEI)	Leading economic indicators (LEI) are statistics that precede economic events. They predict the next phase of the business cycle;
Merrill Lynch Option Volatility Estimate Index (MOVE Index)	The MOVE index, or Merrill Lynch Option Volatility Estimate Index, is a gauge of interest rate volatility in the U.S. Treasury market. It is calculated from options prices, which reflect the collective expectations of market participants about future volatility. The index measures the implied volatility of U.S. Treasury options across various maturities
OECD Composite leading indicators (CLIs)	The OECD Composite leading indicators (CLIs), designed to anticipate turning points in economic activity relative to trend
Personal Consumption Expendi-tures Price Index (PCE)	Personal Consumption Expenditures Price Index (PCE) is a measure of the prices that people living in the United States, or those buying on their behalf, pay for goods and services. The PCE price index is known for capturing inflation (or deflation) across a wide range of consumer expenses and reflecting changes in consumer behavior
S&P 500 12-Month Forward P/E ratio	S&P 500 12-Month Forward P/E ratio uses the forecasted earnings per share of the company over the next 12 months for calculating the price-earnings ratio. It is calculated by dividing the price per share by forecasted earnings per share over the next 12 months
S&P Case-Shiller Home Price Index	The S&P Case-Shiller Home Price Index measures the value of single-family housing within the U.S. The index is a composite of single-family home price indices for the nine U.S. Census divisions.
The Federal Funds Rate	The Federal Funds Rate is the target interest rate range at which commercial banks borrow and lend their excess reserves to each other overnight, which is set by the Federal Open Market Committee (FOMC)
Treasury Bill (T-Bill)	A Treasury Bill (T-Bill) is a short-term U.S. government debt obligation backed by the Treasury Department with a maturity of one year or less;
U-3 unemployment rate	The U-3 unemployment rate is the most commonly reported rate in the United States, representing the number of unemployed people actively seeking a job
United States Industrial Production	United States Industrial production refers to the output of industrial establishments and covers sectors such as mining, manufacturing, electricity, gas and steam and air-conditioning. This indicator is measured in an index based on a reference period that expresses change in the volume of production output;
National Financial Conditions Index (NFCI)	The National Financial Conditions Index (NFCI) is a weighted average of a large number of variables (105 measures of financial activity) each expressed relative to their sample averages and scaled by their sample standard deviations.
Short Interest Ratio	The short interest ratio is a mathematical indicator of the average number of days it takes for short sellers to repurchase borrowed securities in the open market. The ratio is calculated by dividing the total number of shorted shares of a stock by the average daily trading volume.
Consumer Sentiment	Consumer Sentiment is represented by The University of Michigan Consumer Sentiment Index which rates the relative level of current and future economic conditions.
Building Permits	Building Permits measures the change in the number of new building permits issued by the government. Building permits are a key indicator of demand in the housing market.
Retail Sales	Retail sales are an economic metric that tracks consumer demand for finished goods. This figure is a very important data set as it is a key monthly market-moving event. Retail sales are reported each month by the U.S. Census Bureau and indicate the direction of the economy.
Industrial Production	Industrial production refers to the output of industrial establishments and covers sectors such as mining, manufacturing, electricity, gas and steam and air-conditioning. This indicator is measured in an index based on a reference period that expresses change in the volume of production output.
Initial Claims	Initial claims refers to the government report on the number of workers applying for unemployment benefits for the first time following job loss.

Disclaimer

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Label	Index	Index Description
U.S. Agg	Bloomberg U.S. Aggregate Bond Index	The Bloomberg U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate pass-throughs), ABS, and CMBS (agency and non-agency).
Global Agg ex USD	Bloomberg Global Aggregate Index	The Bloomberg Global Aggregate Index is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes Treasury, government-related, corporate, and securitized fixed-rate bonds from both developed and emerging markets issuers.
Municipal	Bloomberg Municipal Bond Index	The Bloomberg Municipal Bond Index covers the U.S. dollar-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.
Russell 3000	Russell 3000 Index	The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market. It is constructed to provide a comprehensive, unbiased, and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are included.
S&P 500	S&P 500 Index	The S&P 500 Index is a market capitalization-weighted index of 500 widely held stocks often used as a proxy for the stock market. It measures the movement of the largest issues. Standard and Poor's chooses the member companies for the 500 based on market size, liquidity, and industry group representation. Included are the stocks of eleven different sectors.
MSCI EAFE (Dev)	MSCI EAFE Index	The MSCI EAFE Index (Europe, Australasia, Far East) captures large- and mid-cap representation across developed markets countries around the world, excluding the U.S. and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country.
MSCI Emerging Markets	MSCI Emerging Markets Index	The MSCI Emerging Markets Index captures large- and mid-cap representation across emerging markets countries across the world. The index covers approximately 85% of the free float-adjusted market capitalization in each country.
Fund of Funds	HFRI Fund of Funds Composite Index	The HFRI Fund of Funds Composite Index is an equally weighted hedge fund of funds benchmark composed of global constituent funds. The underlying constituents are typically diversified among multiple managers and styles to provide a comprehensive representation of the hedge fund of funds investment space.
Nareit Developed Real Estate	FTSE EPRA/NAREIT Developed Index	The FTSE EPRA/NAREIT Developed Index is designed to track the performance of listed real estate companies and REITS worldwide. Index constituents are free float-adjusted, subject to liquidity, size, and revenue screening for inclusion.
BBG Commodity	Bloomberg Commodity Index	The Bloomberg Commodity Index reflects commodity futures price movements and is calculated on an excess return basis. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production, and weight-caps are applied at the commodity, sector, and group level for diversification. The roll period typically occurs from the 6th-10th business day based on the roll schedule.
Developed World	MSCI World Index	The MSCI World Index captures large- and mid-cap representation across developed markets countries. The index covers approximately 85% of the free float-adjusted market capitalization in each country.
Asia Pacific	MSCI AC Asia Pacific Index	The MSCI AC Asia Pacific Index captures large and mid cap representation across 5 Developed Markets countries and 8 Emerging Markets countries in the Asia Pacific region. With 1,537 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country
Asia Pacific ex Japan	MSCI AC Asia Pac ex. Japan	The MSCI AC Asia Pacific ex Japan Index captures large and mid cap representation across 4 of 5 Developed Markets countries (excluding Japan) and 9 Emerging Markets countries in the Asia Pacific region. With 1,312 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.
Europe	MSCI Europe Index	The MSCI Europe Index captures large- and mid-cap representation across developed markets countries in Europe. The index covers approximately 85% of the free float-adjusted market capitalization across the European developed markets equity universe.
ABS	Bloomberg US Asset-Backed Securities Index	The Bloomberg US ABS Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index only includes ABS securities.
U.S. High Yield	Bloomberg U.S. Corporate High-Yield Index	The Bloomberg U.S. Corporate High-Yield Index measures the U.S. dollar-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Barclays EM country definition, are excluded.
MBS	Bloomberg U.S. Mortgage-Backed Securities Index	The Bloomberg Mortgage-Backed Securities Index tracks fixed-rate agency mortgage-backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon, and vintage.
TIPS	Bloomberg U.S. Treasury Inflation Notes 1-10 Year Index	The Bloomberg U.S. Treasury Inflation Notes 1-10 Year Index measures the performance of the U.S. Treasury Inflation-Protected Securities (TIPS) market with less than 10 years to maturity. TIPS are inflation-protected bonds (IPBs) that are issued by the U.S. Treasury. Their face value is pegged to the CPI and adjusted in step with changes in the rate of inflation.
Treasuries	Bloomberg U.S. Treasury Index	The Bloomberg U.S. Treasury Index measures U.S. dollar-denominated, fixed-rate, nominal debt issued by the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index. STRIPS are excluded from the index because their inclusion would result in double-counting.
EM Debt	Bloomberg Emerging Markets Tradeable Debt Index: Total Return	This index measures the performance of emerging market debt on a total return basis
Precious Metals	Bloomberg Precious Metals Subindex	Formerly known as Dow Jones-UBS Precious Metals Subindex (DJUBSPR), the index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on gold and silver. It reflects the return of underlying commodity futures price movements only and is quoted in USD.
Industrial Metals	Bloomberg Industrial Metals Subindex	Formerly known as Dow Jones-UBS Industrial Metals Subindex (DJUBSIN), the index is composed of futures contracts on aluminum, copper, nickel and zinc. It reflects the return of underlyying commodity futures price movements only. It is quoted in USD.
Energy	Bloomberg Energy Subindex	Formerly known as Dow Jones-UBS Energy Subindex (DJUBSEN), the index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on crude oil, heating oil, unleaded gasoline and natural gas. It reflects the return of underlying commodity futures price movements only and is quoted in USD.
MLPs	Alerian MLP Index	The Alerian MLP Index is a float-adjusted, capitalization-weighted index whose constituents earn most of their cash flow from midstream activities involving energy commodities. It tracks energy infrastructure Master Limited Partnerships (MLPs).
Real Estate/REITs	S&P 500 Real Estate Index	The S&P 500® Real Estate comprises those companies included in the S&P 500 that are classified as members of the GICS® Real Estate sector.
Infrastructure	S&P Global Infrastructure Index	The S&P Global Infrastructure Index is designed to track 75 companies from around the world chosen to represent the listed infrastructure industry while maintaining liquidity and tradability. To create diversified exposure, the index includes three distinct infrastructure clusters: energy, transportation, and utilities.
Agriculture	Bloomberg Agriculture Subindex	Formerly known as Dow Jones-UBS Agriculture Subindex (DJUBSAG), the index is a commodity group subindex of the Bloomberg CI. It is composed of futures contracts on coffee, corn, cotton, soybeans, soybean oil, soybean meal, sugar and wheat. It reflects the return of underlying commodity futures price movements only and is quoted in USD.
HFRX Global HF	HFRX Global Hedge Fund Index	The HFRX Global Hedge Fund Index is comprised of funds representing the overall hedge fund universe. Constituent funds include but are not limited to convertible arbitrage, distressed securities, equity hedge, equity market neutral, event-driven, macro, merger arbitrage, and relative value arbitrage. The underlying strategies are asset-weighted based on the distribution of assets in the hedge fund industry.
Equity Hedge Funds	HFRI Equity Hedge Index	The HFRI Equity Hedge Index is an equally weighted hedge fund benchmark composed of investment managers who maintain both long and short positions, primarily in equity and equity derivative securities. Equity hedge managers typically maintain at least 50% exposure to, and may in some cases be entirely invested in, equities, both long and short.
Global Macro	HFRI Macro Index	The HFRI Macro Index is an equally weighted hedge fund benchmark composed of investment managers which trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches, and long- and short-term holding periods.
Event-Driven	HFRI Event-Driven Index	The HFRI Event-Driven Index is an equally weighted hedge fund benchmark composed of investment managers who maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including but not limited to mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Event-driven exposure includes a combination of sensitivities to equity markets, credit markets, and idiosyncratic, company-specific developments.
Relative Value	HFRI Relative Value Index	The HFRI Relative Value Index is an equally weighted hedge fund benchmark composed of investment managers who maintain positions in which the investment thesis is predicated on the realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types can range broadly across equity, fixed income, derivative, or other security types.
Direct Lending	Cliffwater Direct Lending Index	The Cliffwater Direct Lending Index seeks to measure the unlevered, gross of fee performance of U.S. middle-market corporate loans, as represented by the asset-weighted performance of the underlying assets of Business Development Companies (BDCs), including both exchange-traded and unlisted BDCs, subject to certain eligibility requirements. Private Credit Investments (Direct Lending) involve a high degree of risk, including the loss of the entire investment. International investments carry additional risks, which include differences in financial reporting standards, currency exchange rates, political risks unique to a specific country, foreign taxes and regulations, and the potential for illiquid markets. Investing in emerging markets may accentuate these risks.
Private Real Estate	NCREIF Property Index	The NCREIF Property Index is a quarterly, unleveraged composite total return for private commercial real estate properties held for investment purposes only. Constituents include operating apartment, hotel, industrial, office, and retail properties.