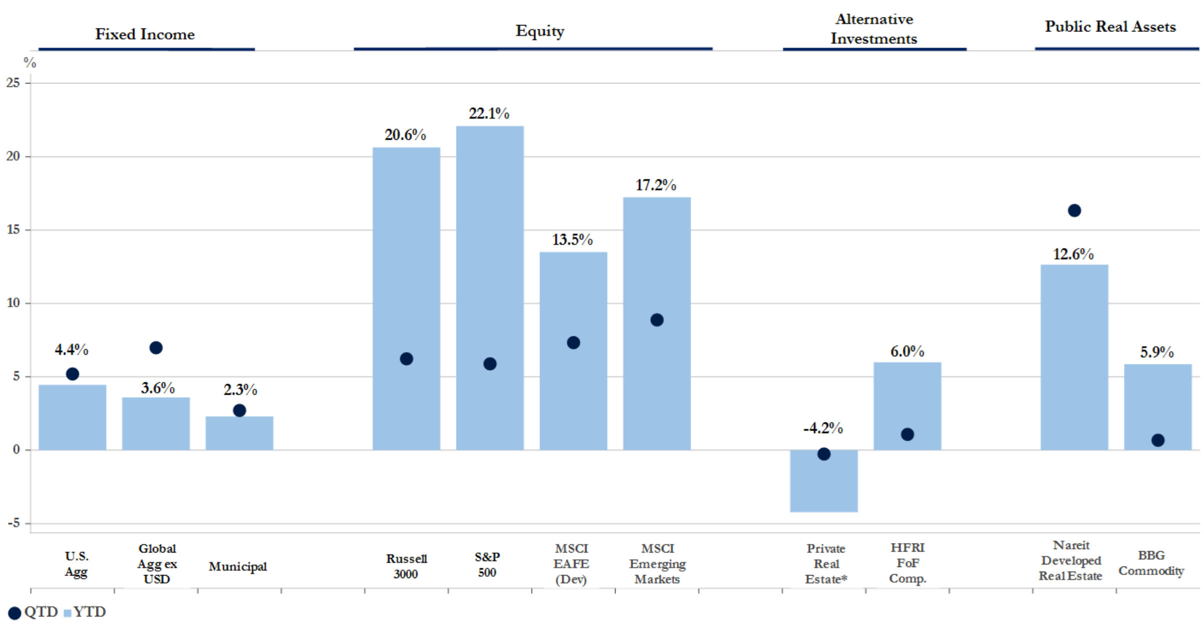
Investment Newsletter

Third Quarter 2024

Key Takeaways

- The U.S. economy continues to demonstrate surprising strength bolstered by a hardy labor market with the unemployment rate hovering around 4%. The consumer was also a bright spot with consumer spending increasing by over 8% during Q2.
- The Fed moved forward with its first rate cut of this cycle, reducing its policy rate by 50 basis points. While on the higher end of the anticipated range, the Fed likely now faces resistance against more extensive easing into a seemingly still robust economy.
- Inflation is still trending lower yet there are several factors that could contribute to cyclical flare-ups, including rising geopolitical uncertainty and rising deficit concerns, natural disasters, and unexpected disruptions to supply chains (ex. dockworkers strike).
- Risk assets welcomed a 'goldilocks' environment with supportive growth, tamer inflation, and incrementally more accommodative monetary policy. Consensus around a 'soft' or 'no landing' leave performance more vulnerable to disappointments going forward.
- The yield curve fell meaningfully over the quarter as lower policy rates became a reality. Fixed income volatility remains elevated as markets search for a new equilibrium factoring in long-term inflation and growth trends.
- Fixed income markets were buoyed by falling rates and a still benign credit environment. Notably, the belly of the curve has risen following the end of Q3 responding to stronger growth and concerns about the potential for reignited inflation.
- Within equity markets, strength broadened to include previously left out value-oriented and lagging sectors. Emerging markets were also a standout, driven by China's sweeping economic support measures, the long-term impact of which is yet to be determined.
- Oil prices, which had been muted due to robust supply paired with the expectation of weakening demand, surged towards the end of September following further escalation in the Middle East and could remain volatile in coming months.
- Core private market asset classes (private equity, credit & real estate) offered stability and income enhancement over the quarter and year-to-date. Real estate valuations (outside of office) may be bottoming while private credit market defaults are still at bay.
- With the U.S. presidential election on the horizon, elevated market volatility is probable in the near-term. In some cases, the candidates are aligned on key issues (expanding the deficit, securing the border) while they disagree strongly on others (tax and foreign policy). Regardless of the outcome, markets historically look through transitions in leadership and focus on long-term fundamentals, such as structural growth and profit trends.
- Despite constant anxiety-inducing headlines, many facets of the economy are supportive. The aftermath of pandemic related disruptions is fading and a new equilibrium is closer to being achieved. In the new normal with the potential for structurally higher inflation, its essential to properly invest assets to ensure purchasing power is maintained.

Asset Class Performance as of 9/30/2024



*QTD as of 6/30/2024, YTD reflects trailing three quarters; Source: Macrobond, Summit Financial, FTS E, Bloomberg, Russell Inv estment Group, S&P Global, HFR, NCREIF

Economy

The Bureau of Economic Analysis released its final estimate of Q2 U.S. GDP growth which came in strong and unchanged from the prior release of 3.0% QoQ. There were, however, significant revisions to other key data points that show the U.S. consumer may not be weakening to the extent that many recent headlines would lead investors to believe.

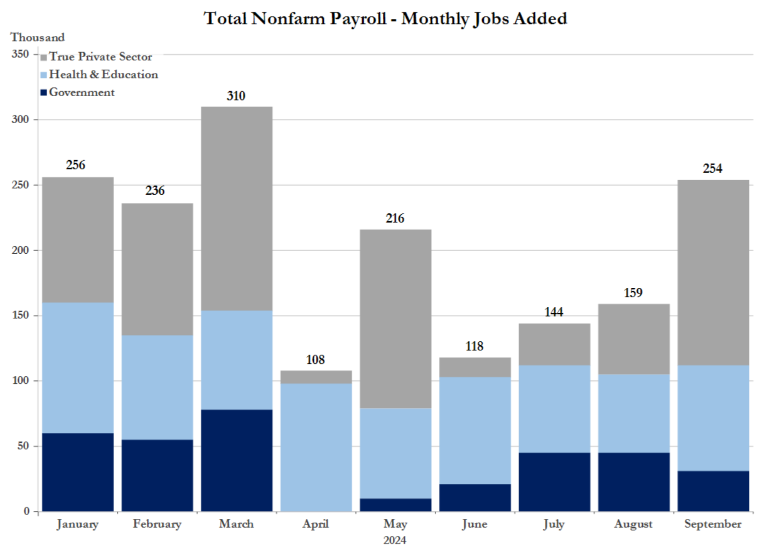
Real gross domestic income (GDI) in Q2, a measure of the incomes earned and costs incurred in the production of gross domestic product, was revised up from a paltry 1.3% to an impressive 3.4%. In dollar terms, the ratio of real GDI to real GDP has now hit parity at 1.0, which is a substantial improvement from before the revision when it was faltering and within the bounds of signaling a potential near-term recession. Personal income through July was also revised up to $900 billion from $704 billion. The initial estimates for personal savings and savings rate were extremely low and seen as being a major threat to future retail sales and personal consumption when initially released at $598 billion and 2.9%, respectively. In the most recent release, those measures jumped to a much more respectable $1.05 trillion and 4.8%. Many pundits have been pointing to a weakening consumer as the main threat to a resilient U.S. economy, but these revisions paint a different picture and add support to those who believe the Fed is on its way to achieving a soft landing.

Despite falling to 4.1% in September from 4.2% in August, the unemployment rate has ticked up over recent months, in contrast to resilient GDP growth. Strong GDP growth with weaker employment suggests labor productivity has been increasing which could bode well for things to come. If productivity remains high, it could lift real wage growth which would provide welcome relief to U.S. households still reeling from recent inflation.

Despite seeing some improvement across the economy, the Conference Board Consumer Confidence Index fell unexpectedly in September, dropping by the most in three years. The recent slowdown in the labor market, along with high costs of living, continues to weigh on consumers and has kept the gauge well below pre-pandemic levels.

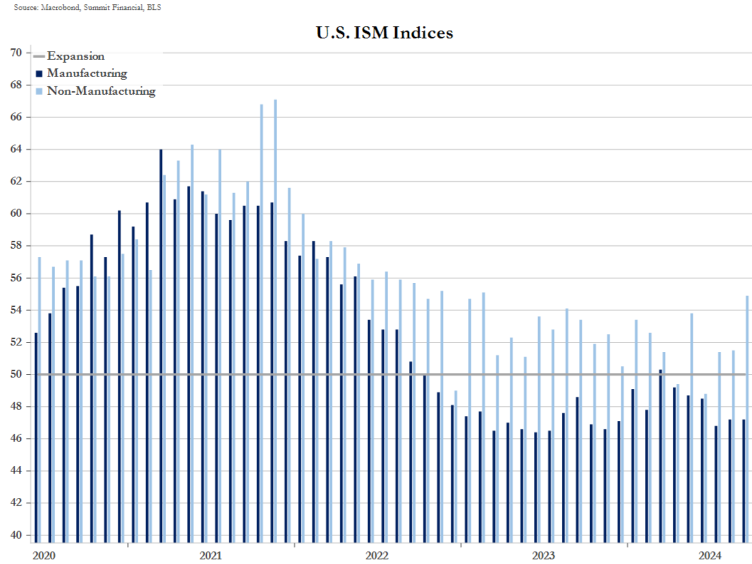
September Jobs Report Suprises to the Upside

- Despite mounting fears, U.S. employers added 254,000 jobs in September which was well above estimates and led the unemployment rate to drop 10bps to 4.1%.
- While recent months were heavily influenced by government and adjacent industries, September showed a meaningful jump in true private sector hiring.
- True private sector jobs, defined as total payroll growth minus government, healthcare and education, averaged a dangerously low 35,000 over the last thee months but reversed trend and added 142,000 jobs in September.
- Equity markets rallied after the release, but a single month of data is hardly enough to quell recession fears and the Fed will continue to closely monitor the labor market to inform future interest rate moves.



Manufacturing Remains in Contraction Territory

- The ISM Manufacturing PMI released another disappointing report for August, marking its 22nd month in contraction out of the previous 23.
- ISM new orders, which is considered a leading economic indicator, has now declined in 24 of the past 27 months and pulled down the overall index as backlogs remain depressed stemming from weaker demand.
- Even though the U.S. economy has largely shifted to services and technology, manufacturing remains a cyclical industry with a strong correlation to the business cycle of the U.S. economy and its lack of progress over the previous two years remains a concern.

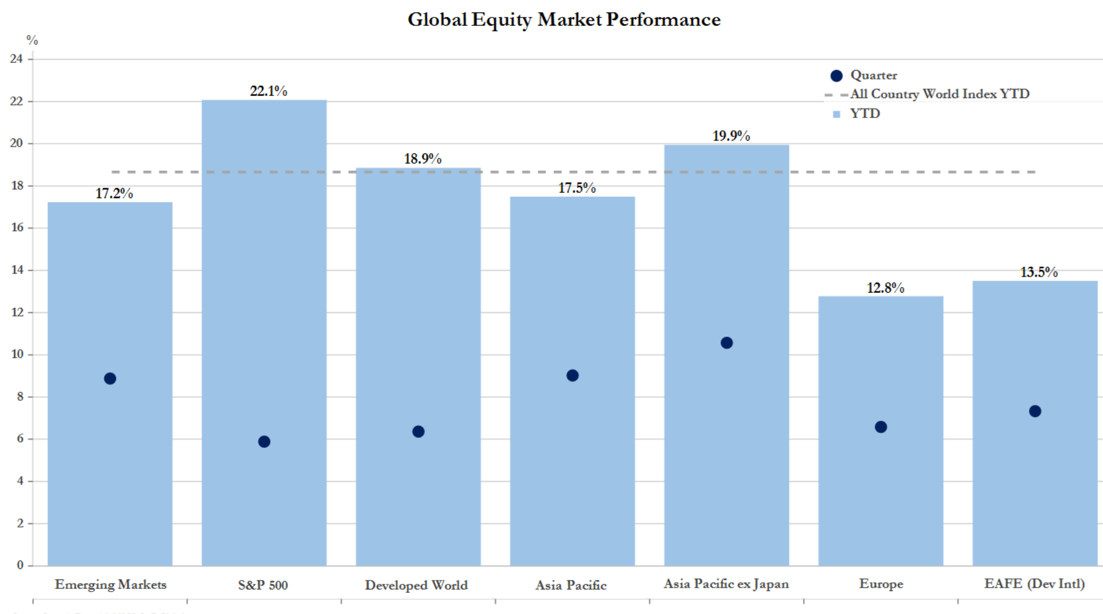


Equity Markets

The S&P 500 rose just under 6% in the third quarter and, for the first time since Q4 2022, the broad index outperformed the Magnificent 7. July saw modest gains, while August and September kicked off with heightened volatility and steep declines although the index was able to grind higher by month end in both cases. Following the 50bp rate cut announced after the September FOMC meeting, stocks surged higher and achieved a positive finish in September which is notable as it has historically been the worst month of the year. Value stocks and rate sensitive sectors like real estate and utilities led the way and should continue to enjoy improving fundamentals if rates continue to decline. Broadly, markets may remain in a seasonally weak period throughout October while the November U.S. election adds additional uncertainty, but a strong September could add momentum to close out the year.

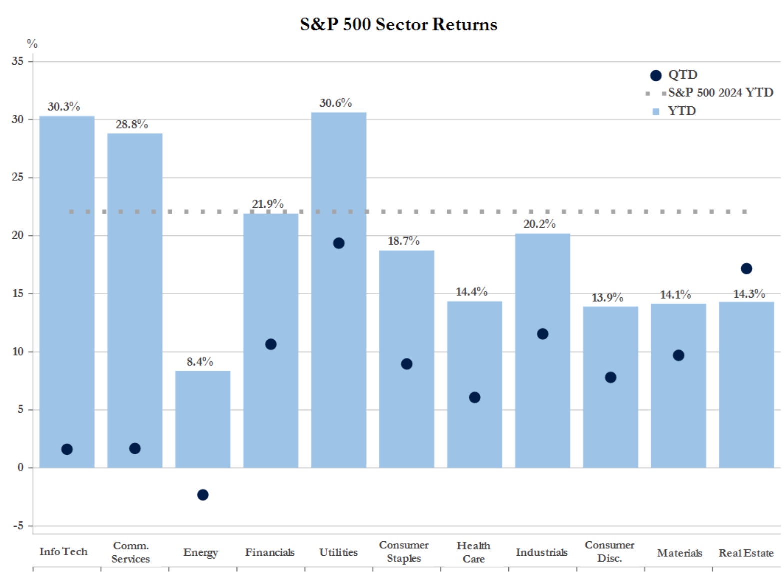
The biggest story internationally has been China's recent announcement of a series of monetary and fiscal policy support measures meant to foster growth in its stagnant economy. The measures include interest rate cuts, a decrease in the required reserve ratio for banks, a cut in mortgage borrowing costs, and liquidity injections aimed at bolstering stocks. The announcement sent Hong Kong's Hang Seng Index flying higher over subsequent weeks and made it one of the highest performing major markets this year. The index, however, has recently pared gains as economists and investors agree that more is needed to stabilize the world's second largest economy.

After a negative Q2, developed international markets had a bounce back quarter posting a 7.4% gain driven by easing monetary policy and a weaker U.S. dollar.



Market Breadth Expanding

- Throughout 2023 and into 2024, the Magnificent 7 and their outsized returns led the S&P 500 to reach its most concentrated level in decades.
- So far this year, it has been a much different story as only Nvidia and Meta have outperformed the index.
- Driven by strong Q3 performance, Utilities edged out Info Tech to become the best performing sector YTD.
- Utilities and Consumer staples performing well could be interpreted as a defensive rotation, but Financials, Industrials, and Consumer Discretionary also being at or near all time highs are characteristic of a healthy bull market with widening breadth.
- Lower rates also drove a bounce back quarter for public REITS, which are now positive for the year.



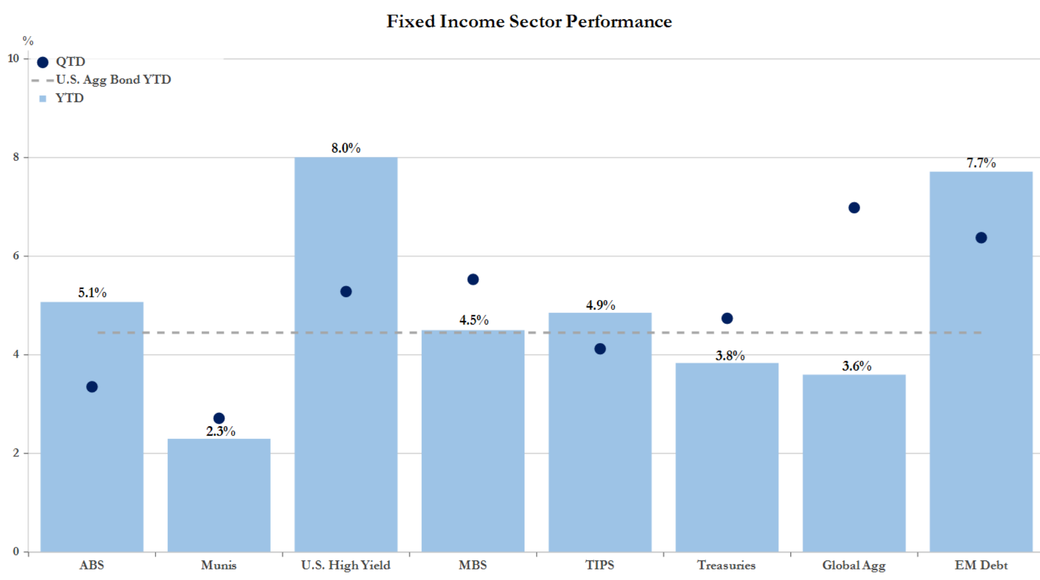
Fixed Income Markets

Since the Federal Reserve's last interest rate hike in July 2023, markets and investors have been eagerly waiting for the Fed to reverse course and begin cutting rates. As inflation moderated and the labor market showed signs of weakening for much of the year, a September rate cut became inevitable and the debate shifted from when the first cut would occur to whether it would be 25 or 50bps. The Fed kicked off the easing cycle with a 50bp cut and markets reacted positively, despite some concern that the larger cut would signal a deteriorating economy and spook investors.

Driven by the rate cut, the U.S. Aggregate Index returned 1.3% in September and 5.2% in Q3, its second largest quarterly return over the past 25 years. Among investment grade sectors, Agency RMBS and IG Corporates led the way while U.S. High Yield and Emerging Market debt led all sectors in excess return over similar duration U.S. Treasuries for the month and quarter. At times throughout Q3, credit sectors saw some spread widening but quickly rebounded as the Fed cut rates and hopes for a soft landing remained intact.

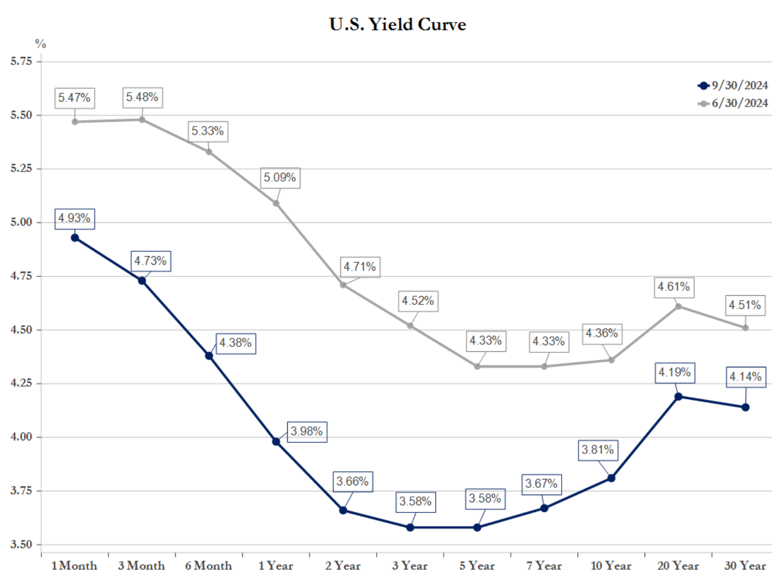
Within municipals, a positive third quarter marked by falling yields turned YTD results positive while long-term maturities outperformed the shorter end of the curve as duration risk was rewarded. There was little divergence in performance between sectors as all posted similar, positive results, but lower-quality bonds slightly outpaced higher-quality issues and added to their outperformance YTD.

In regard to expectations for the remainder of 2024, Fed Chairman Powell continues to reiterate that the path and scope of future moves will be data dependent. With inflation continuing to moderate towards its 2% target, the FOMC's focus has shifted to the labor market and a stronger than expected September jobs report has led many to believe a 50bp November cut is off the table and a 25bp cut is the most markets should expect.



Yield Curve Un-inverts After Record 26-Months

- The yield on U.S. Treasury 2-year notes dropped by 105bps in Q3 while the 10-year fell only 55bps, effectively ending the curve's longest inversion on record.
- Historically, imminent recessions have driven aggressive Fed rate cuts that led the curve to un-invert with short-term yields falling faster than longer ones.
- The current situation has been different, with cuts starting despite the economy remaining in good shape overall.
- Whether the Fed can stick a soft-landing and the U.S. will avoid slipping into recession remains top of mind for investors, but recent market dynamics suggest some optimism may be warranted.



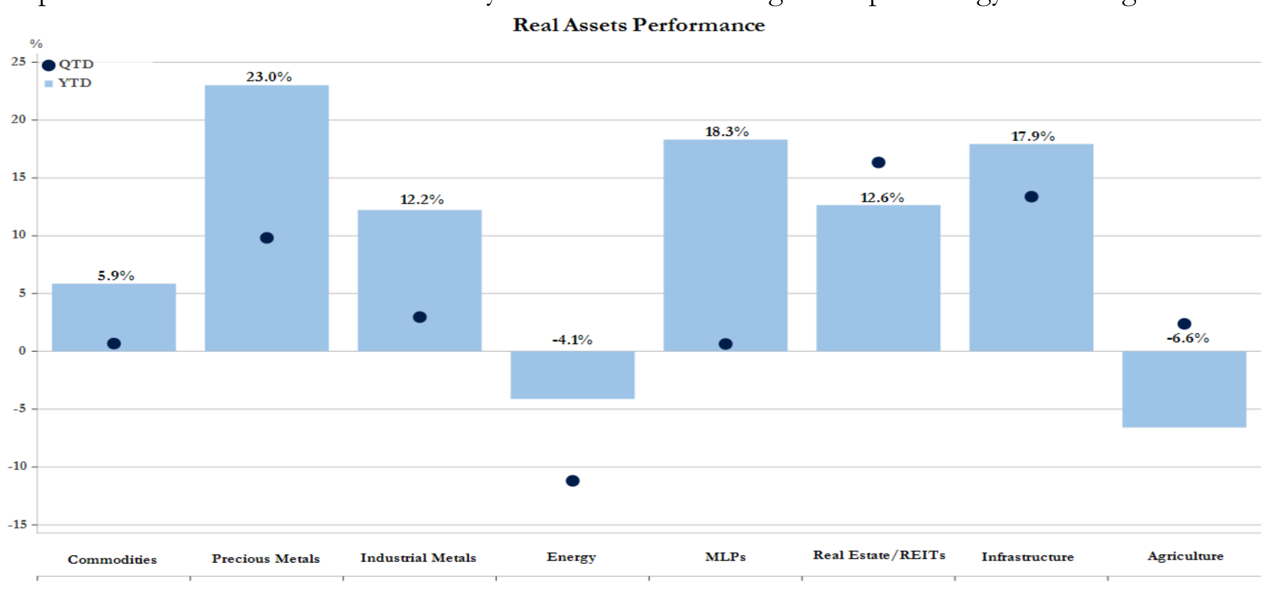
Real Assets

Real assets were mostly additive in the third quarter, led by public real estate which advanced 16.3% and moved into positive territory for the year. The sector has been weighed down by several headwinds, notably the higher rate environment and office vacancies, but started to climb higher as a weakening labor market and moderating inflation turned hope for a September rate cut into reality. The 50bp cut also had a substantial impact on long-duration infrastructure assets which surged 13.4% in Q3. The backdrop for the sector remains strong as structural growth drivers, such as energy transition, decarbonization, and digitalization, should persist in the medium to long-term.

Precious and industrial metals added to their strong year to date performance in Q3, returning 9.8% and 3.0% respectively. Surging gold and silver demand were the key drivers within precious metals, while industrial metals have held up well despite slowing global growth. Copper, in particular, is expected to see increasing demand in coming years due to being a key component of energy transition technologies. Supply challenges, particularly in the U.S., have also contributed to the story as the need to scale supply to meet future demand has caught the attention of investors.

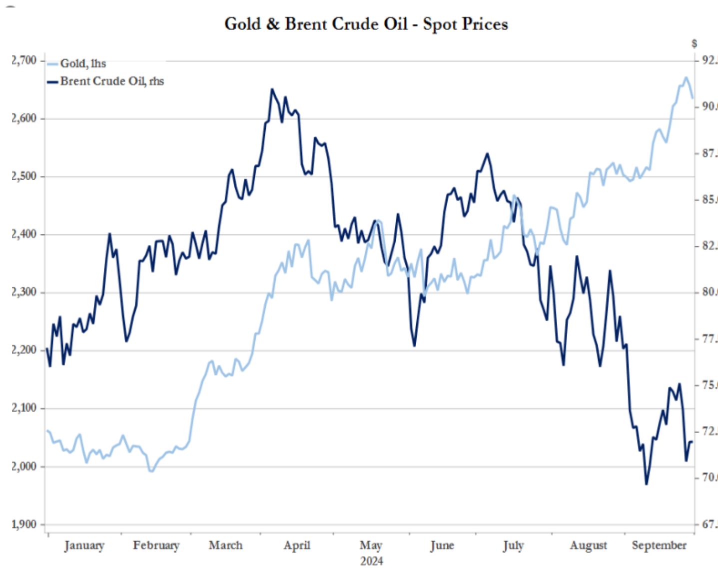
Oil, on the other hand, tested multi-year lows after falling ~17% in Q3, driven by OPEC cutting its demand forecasts for the remainder of 2024 and 2025. Rising tension in the Middle East, however, sent prices higher to kick off Q4 and volatility will most likely remain elevated in the short-term. The broader energy sector turned negative for the year after a disappointing 11.2% quarterly decline.

The performance of commodities in Q3 was muted relative to Q2 as slowing growth in China and Europe put downward pressure on prices. Broad commodities ultimately finished with a small gain despite energy's meaningful decline.



Gold Continues to Climb Higher

- Recent volatility spikes, a weaker dollar, and falling rates have all contributed to a banner year for gold as it continues to test all-time highs.
- Central bank buying has also added to demand as they continue to be net buyers with some seeking to reduce over-concentrations in global reserve currencies like the U.S. dollar and euro.
- China's appetite for gold has shown no signs of slowing, as a vulnerable property market, weakening exports, and restrictive regulatory environment have contributed to fears of currency depreciation and economic uncertainty.
- Additionally, heightened geopolitical tensions remain top of mind and have attracted flows from risk averse investors seeking a safe haven asset.



Alternatives

Private Equity continues to show signs of resurgence with deal activity and exits on the rise although volume remains below peak levels. Pressure on GPs to increase distributions to shareholders faced with longer than expected holding periods has been eased by the uptick in M&A, particularly in larger strategic deals, IPO activity as well as the growing secondary market. As has happened during prior challenging periods, fundraising has been concentrated in a small group of large brand name managers. Earnings growth rates overall remain healthy with many GPs focused on adding value through organic business growth and operational improvements but in recent quarters the dispersion across company performance has widened.

Private Real Estate has recently endured the most challenging period since the Global Financial Crisis. Higher cap rates and costly financing weighed on valuations. However, other than the office sector operating income has held up and is now growing. Debt financing from banks and private investors is more plentiful and after the strong surge in public real estate, private and public valuations are more in line. Infrastructure funds have seen investor demand pick up after a slowdown last year and deal flow has improved notably in the digital and energy sectors.

Direct Lending generated low double-digit yields in the third quarter, but tighter credit spreads and falling base rates as the Fed loosens monetary policy are headwinds. New issue yields on average are down 100 basis points. The potential for higher default rates is also a concern. Default rates have moderated since the beginning of the year, but the number of loan amendments has increased, dominated by pricing changes that will lower future interest payments. Increased competition from new managers and the rebound in bank lending may also put pressure on yields. However, the overall level of stress amongst corporate borrowers remains modest and lower interest rates should be positive for credit quality. Loan demand remains robust and both yields and risk-adjusted returns are attractive relative to other credit-sensitive investments.

Event-driven hedge funds led third-quarter performance, buoyed by attractive deal spreads and the upswing in corporate activity as financial conditions improved. Credit and convertible arbitrage strategies also did well, benefiting from repricing and healthy demand. Equity hedge strategies navigated a sharp stock market correction in August to remain the top performing strategy year-to-date. After several months of losses, Global Macro strategies turned positive in September.

Alternatives Performance

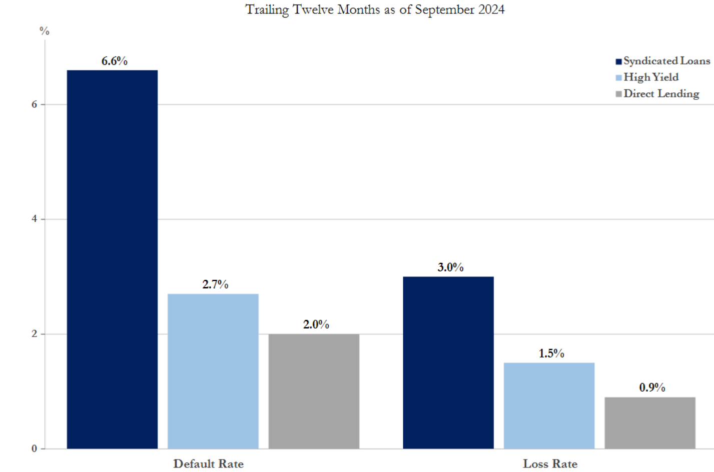
*QTD as of 6/30/2024, YTD reflects trailing three quarters; Source: Macrobond, Summit Financial, HFR , NCREIF

Corporate Credit Losses Remain Subdued

- Credit losses from defaults, after declining year-to-date, are expected to rise but remain below average.
- Direct Lending has fewer defaults and higher recovery rates than bank loans and high yield corporate bonds, resulting in lower loss rates. The flexibility to work with lenders to amend terms can be a structural advantage for private loans.
- Lower short-term interest rates should ease pressure on borrowers but the potential for slowing growth or other profitability challenges are risks.

Default & Loss Rates

Trailing Twelve Months as of September 2024



Source: Summit Financial, KBRA DLD Direct Lending Default Report dated 9/23/2024

Growth	9/30/2024	6/30/2024
GDP Growth	3.2%*	3.0%
U.S. Leading Economic Indicator (YoY%)	-5%**	-4.9%
Unemployment Rate (%)	4.1%	4.1%
Initial Claims (Weekly as of 9/27/24, thousands)	225.0	239.0
Industrial Production (YoY%)	0.4%**	0.9%
Consumer Sentiment	70.1	68.2
ISM Manufacturing Index	47.2	48.5
ISM Non-Manufacturing Index	54.9	48.8
Retail Sales (YoY%)	2.1%**	2.0%
Building Permits (mil)	1.47**	1.45

Inflation	9/30/2024	6/30/2024
Headline CPI (YoY)	2.4%	3.0%
Core CPI (YoY)	3.3%	3.3%
Core PCE (YoY)	2.7%**	2.6%
Forward Breakeven Inflation Expectation (5-year)	2.1%	2.3%

*GDP Now estimate as of 10/9/2024
**As of 8/31/2024
Source: Bloomberg and Federal Reserve Bank of Atlanta

Market Sentiment	9/30/2024	6/30/2024
MOVE Index	94.6	98.6
VIX Index	16.7	12.4
National Financial Conditions Index (NFCI)	-0.55	-0.52

Rates & Credit Conditions	9/30/2024	6/30/2024	10-Year Average
3-M U.S. Treasury	4.6%	5.4%	1.7%
10-YR U.S. Treasury	3.8%	4.4%	2.4%
Spreads over 10-YR U.S. Treasuries (bps)			
U.S. Corporate Investment Grade	94	108	117
U.S. Corporate High Yield	321	351	418
U.S. Municipal	-46	-68	-7

Federal Reserve Economic Projections	2024	2025	2026
Real GDP (YoY%)	2.0%	2.0%	2.0%
PCE Price Index (YoY%)	2.3%	2.1%	2.0%
Core PCE (YoY%)	2.6%	2.2%	2.0%
Unemployment %	4.4%	4.4%	4.3%

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).
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 Expenditures 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
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;
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.
HFRI FoF Comp.	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.
Comm. Services	S&P 500 Communication Services	The S&P 500® Communication Services comprises those companies included in the S&P 500 that are classified as members of the GICS® communication services sector.
Info Tech	S&P 500 Information Technology	The S&P 500® Information Technology comprises those companies included in the S&P 500 that are classified as members of the GICS® information technology sector.
Consumer Disc.	S&P 500 Consumer Discretionary	The S&P 500® Consumer Discretionary comprises those companies included in the S&P 500 that are classified as members of the GICS® Consumer Discretionary sector.
Industrials	S&P 500 Industrials	The S&P 500® Industrials comprises those companies included in the S&P 500 that are classified as members of the GICS® industrials sector.
Materials	S&P 500 Materials	The S&P 500® Materials comprises those companies included in the S&P 500 that are classified as members of the GICS® materials sector.
Energy	S&P 500 Energy	The S&P 500® Energy comprises those companies included in the S&P 500 that are classified as members of the GICS® energy sector.
Real Estate	S&P 500 Real Estate	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.
Financials	S&P 500 Financials	The S&P 500® Financials comprises those companies included in the S&P 500 that are classified as members of the GICS® financials sector.
Consumer Staples	S&P 500 Consumer Staples	The S&P 500® Consumer Staples comprises those companies included in the S&P 500 that are classified as members of the GICS® consumer staples sector.
Health Care	S&P 500 Health Care	The S&P 500® Health Care comprises those companies included in the S&P 500 that are classified as members of the GICS® health care sector.
Utilities	S&P 500 Utilities	The S&P 500® Utilities comprises those companies included in the S&P 500 that are classified as members of the GICS® utilities sector.
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

Label	Index	Index Description
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 underlying 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	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.
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.
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.
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.
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.