

# THE BEAT

BONDS | EQUITIES | ALTERNATIVES | TRANSITION

October 2024

Previously known as the Monthly Market Monitor.

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The **BEAT**, previously known as the Monthly Market Monitor, provides connectivity between changing market events and implications for investor portfolios.

Spanning **B**onds, **E**quities, **A**lternatives and **T**ransition\*, this monthly review provides timely information across a broad array of markets and investment topics.

Each edition explores investment ideas, identifies areas of focus and provides a comprehensive outlook on asset allocation — all supported by a concise review of economic and asset class data through clear and impactful charts.

We believe The **BEAT** is a critical desk reference that enables more informed discussion and understanding of financial markets.



If you are viewing this book on your computer or tablet, **click or tap on the section box to jump to the beginning of each section.**

Data provided is for informational use only. See end of report for important additional information.  
\*Transition is an asset allocation view, which refers to cash, cash equivalents or liquid short-duration assets, such as short-dated Treasuries, that can be used to “transition” to other asset classes.

## TOP IDEAS

# Key Themes for October



## Crossing Peak Uncertainty

**October represents peak uncertainty.** Markets have been wrestling with the start of Fed rate cuts and the U.S. election outcomes of both the president and the makeup of Congress. This uncertainty has led to volatility and wild swings in asset prices. But by early November we will know the results and markets may be relieved of this uncertainty, which could enable prices to trade within a more stable range. Of course, there will always be surprises, but asset allocation decisions can be made with more confidence after we cross this peak uncertainty in October.



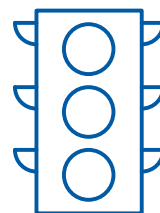
## Why Did the Fed Start with a 50-Basis Point Cut?

**Labor market uncertainty.** There are many reasonable explanations that justify starting with a 50-basis point (bp) cut. They range from a “catch-up” cut, regretting they didn’t start in July, to an insurance cut to solidify a soft-landing outcome. However, we are skeptical and think there is more to it. Specifically, we think the Fed may be worried that the labor market - upon which their policy reaction function hinges - is weaker than the data suggests. Note that labor data since the pandemic has been volatile and consistently revised lower, as immigration is one key source of uncertainty. This is just our theory, but something we will be watching closely.



## U.S. Elections: What Do We Think We Know?

**What candidates say - and how they govern - can be different.** The greatest uncertainty surrounds VP Harris. Academic analysis reveals her voting record in the Senate as very progressive and far left, according to Voteview.com. But she promises to govern as a moderate. There is less uncertainty with Trump because he's been president before. Both candidate's policies may add to the deficit, but both believe their spending will be paid for: Trump through deregulation and tariffs, Harris through progressive redistributive policies. But what may matter most is the makeup of Congress, which could enable their plans. This is what we are watching most closely.



## Is Inflation Really Dead?

**Maybe not dead yet, just sleeping.** The narrative surrounding the recent Fed cut is that the decline in inflation has given them comfort to lower rates. But it may not be that simple. If we look at other central banks, e.g., the Bank of England, ECB and others, they started cutting rates but then had to slow their planned pace of cuts because inflation proved more stubborn, and the labor market/wages remained sticky stronger. The Fed is set to cut interest rates steadily for the remainder of this year into 2025 and finishing 2026 around 3%. If the U.S. experiences the same as other global economies, then planned Fed cuts may encounter challenges. This is a risk to current lofty asset valuations.

## TOP IDEAS

# The Portfolio Solutions Group – Our Top 4 Ideas

### Holding Underweight in Duration

**Rate cuts are well priced.** Despite the Fed's announcement to cut by 50 bps, we remain underweight duration. The reason is that we believe 250 bps of rate cuts are already priced in for Fed policy rates to fall toward 3%. Additionally, we believe the yield curve will continue to steepen as the Fed makes progress toward cutting rates. The longer-term average spread between Fed funds and the U.S. Treasury (UST) 10-year yield is 75 bps. So, even if the Fed cuts to 3%, as priced, then the UST 10-year may end up around 3.75%. This also suggests holding longer duration will not be an optimal hedge.

### Equities: A Potential Shift to Cyclical From Defensives

**A positive inflection in data surprises could reverse a defensive trend in market internals.** The key theme for 2023 was growth resilience with economic data persistently surprising to the upside. This carried through to April 2024, at which point economic data started to soften relative to expectations and continued to soften into August. Consistent with this shift, markets saw defensive sectors outperform cyclicals, and defensive factors outperform (e.g., low vol over high vol). A positive inflection in economic surprise over the last month now bears watching with the potential to drive a more cyclical shift in equity market internals.

### Reducing HY from OW to Neutral, and moving IG up to UW

**Tight spreads, excess returns at risk.** To be sure, we are not negative on High Yield (HY). We still believe in a soft landing and a modest default cycle that would be consistent with that view. Our move to Neutral from OW reflects our desire to take profits, as bond yields have dropped after the Fed cut rates by 50 bps and the subsequent tightening of spreads. This tightening makes us question how much excess return from spread is available compared to returns stemming from duration. Given that we think duration has become a more key element to returns, we prefer to upgrade short duration Investment Grade (IG) with proceeds from reducing HY.

### Exiting French Equity Exposure

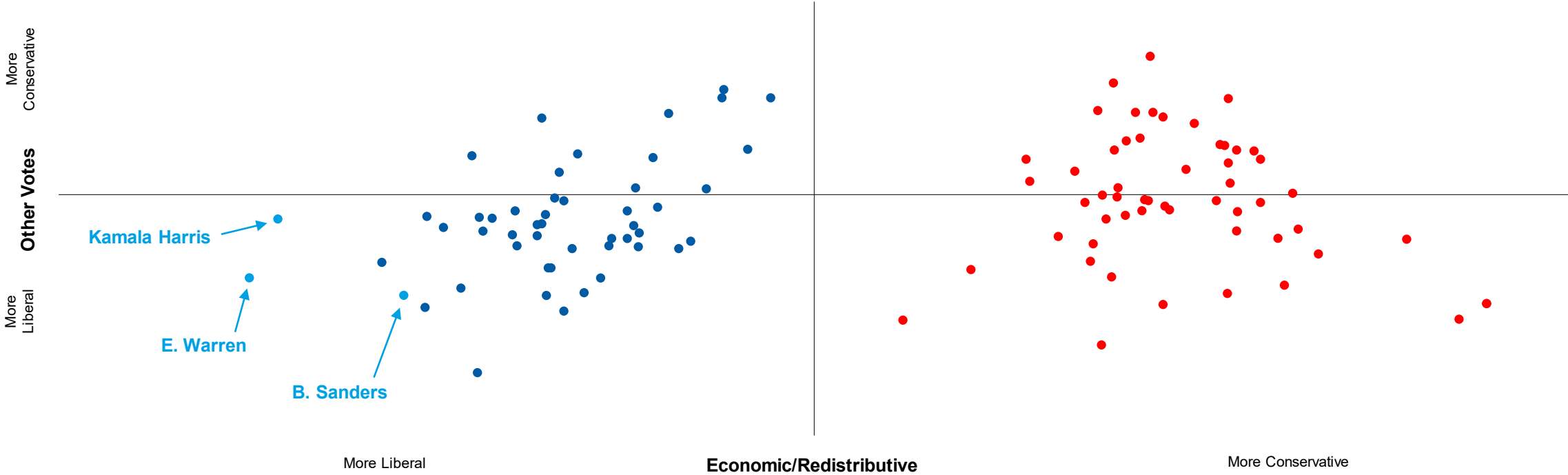
**Muddling through.** We initiated an exposure in French equities at the start of the summer due to political volatility that sharply reduced French asset valuations, including sovereign bond spreads, to levels not seen since the 2012 surrounding fallout from the financial crisis. Given the strong performance across European equities, we viewed this as an opportunity to buy France on the cheap and play for a rebound. France did bounce from the early summer malaise, but sectors were affected less by domestic politics, more by Chinese demand e.g., consumer, luxury have lagged. We think France will muddle through as we are looking to exit our exposure.

TOP IDEAS

# We Know Who Trump Is. But What About Harris: Far Left or Moderate?

What candidates say and how they govern can be different. The greatest uncertainty surrounds VP Harris. Academic analysis reveals her voting record in the Senate as very progressive and far left. Both candidate’s policies may add to the deficit, though the makeup of Congress will ultimately constrain or enable plans.

## Voteview.com Scores Harris’ Voting Record as Far Left 115<sup>th</sup> Congress (2017–2019) - Senate



Source: Voteview.com, MSIM Portfolio Solutions Group. Data as of September 15, 2024. Voteview allows users to view every congressional roll call vote in American history on a map of the United States and on a liberal-conservative ideological map including information about the ideological positions of voting Senators and Representatives. Developed by Poole & Rosenthal, Princeton University, 1993. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

TOP IDEAS

# Economic Stimulus May Come from Trump via Deregulation

Trump reduced regulation substantially in his first term and has pledged to further slash regulations if elected. This is unlikely to materially drive market reactions on election day but may represent one of the more important implications should he win.

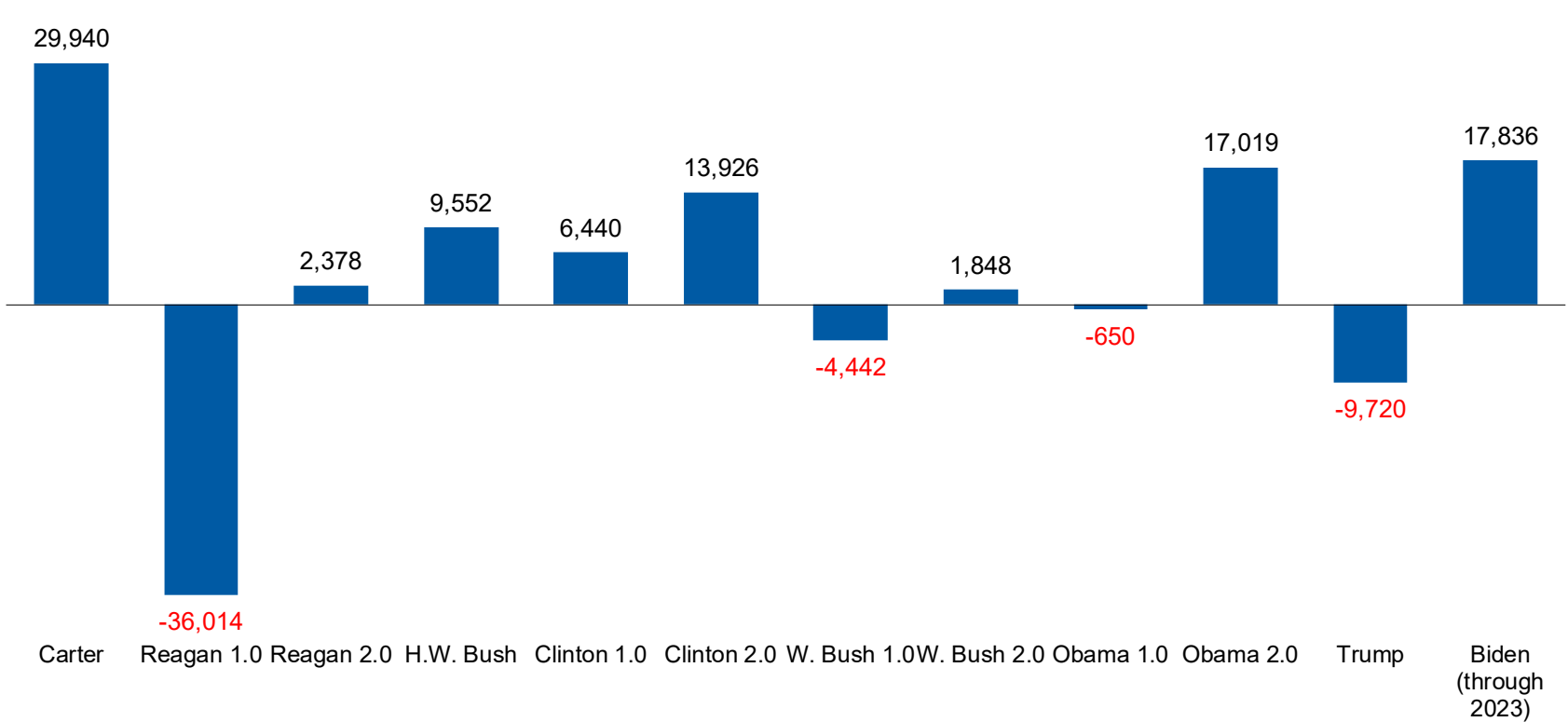
Key Background

The Supreme Court’s recent Chevron ruling may have more impact in regulation than anything the President does.

**Trump:** Broad deregulation, particularly in energy, AI, crypto and housing.

**Harris:** Selective deregulation and re-regulation. Cutting housing and small business, increasing anti-trust, finance and environment.

Change in the Number of Pages in Federal Register by Presidential Term  
*An imperfect way to approximate changes in regulation*



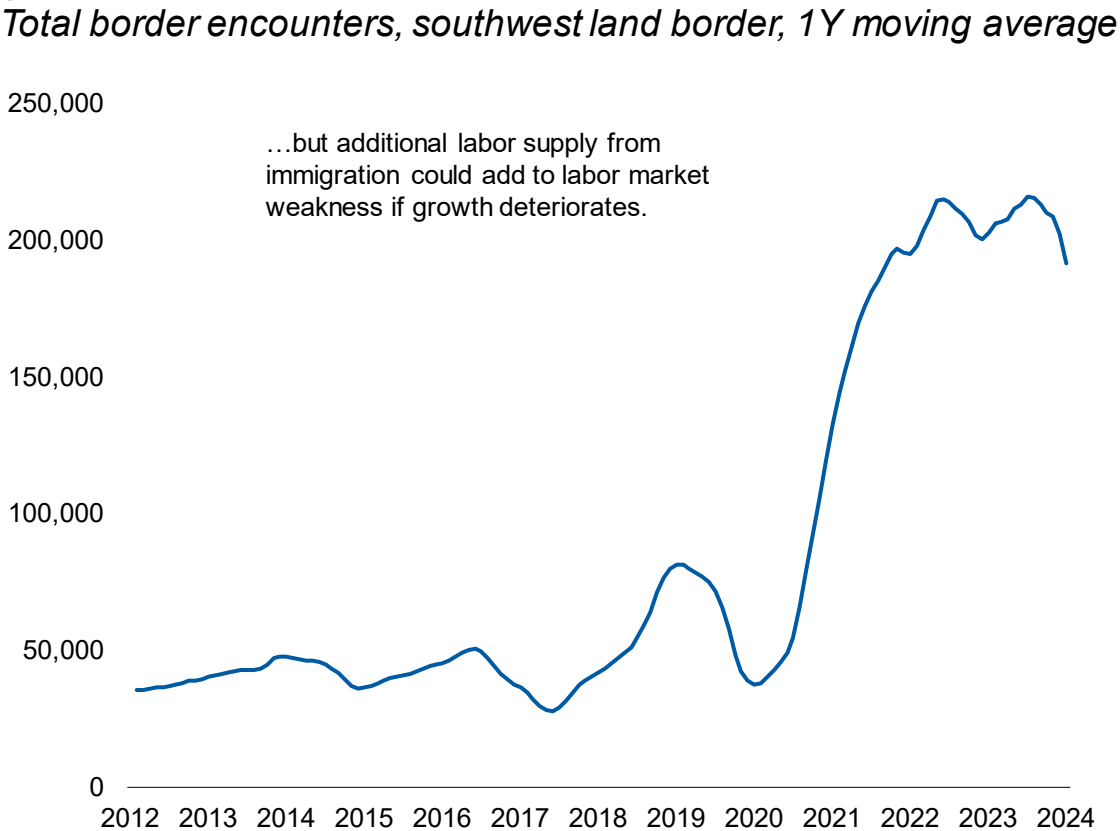
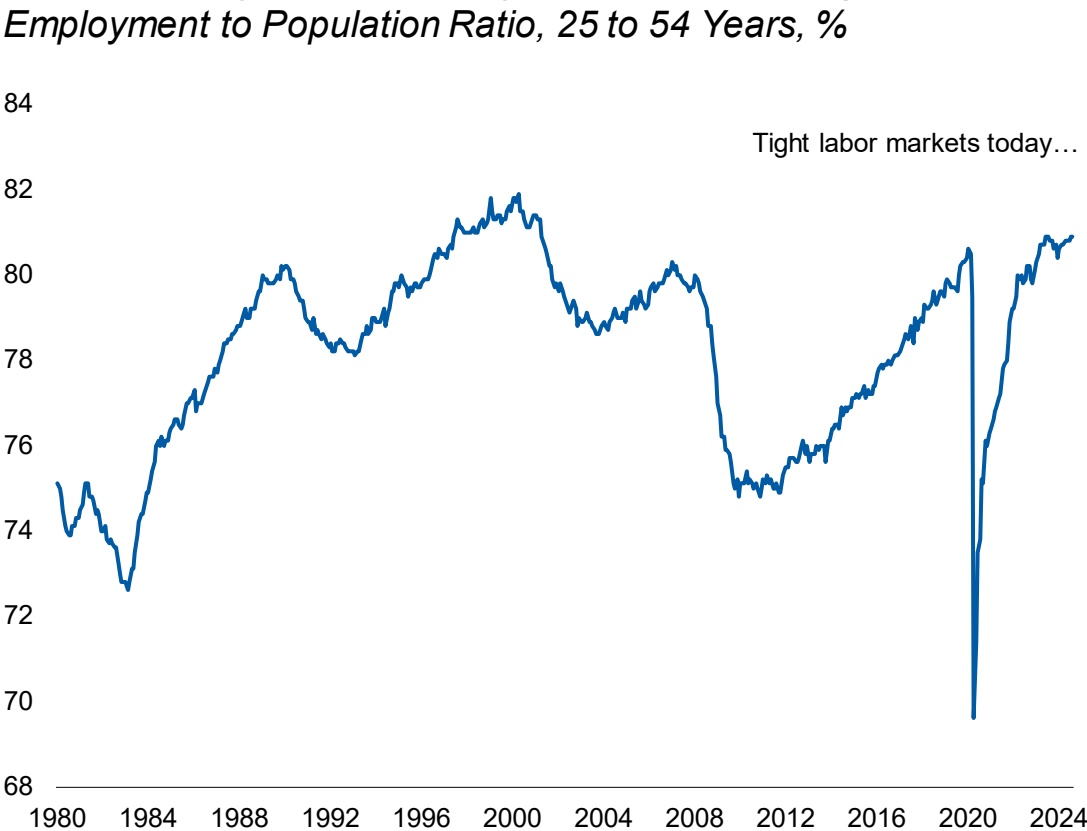
Source: Macrobond, MSIM Calculations. Data as of September 13, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

TOP IDEAS

# Unemployment May Be Higher than Reported

While broad measures such as the employment to population ratio (LHS) continue to show tightness in the labor market, they may not be capturing the impact of immigration. Border encounters in the Southwest (RHS) have increased significantly in recent years. As such, the “true” unemployment rate may be higher than the widely reported figures.

## Broad Employment Data May Not be Accounting for the Impact of Immigration



Source: Macrobond, MSIM. Data as of August 31, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

TOP IDEAS

# If Past Cycle Comparisons Apply, Equities Will Do Well After the Fed Cuts Rates

Looking back at prior cycles, equities have historically performed well following the first Fed rate cut, particularly when a recession is avoided. With valuation elevated and consensus forecasting of EPS acceleration rather than decline, equities upside after the first cut may prove more limited this cycle.

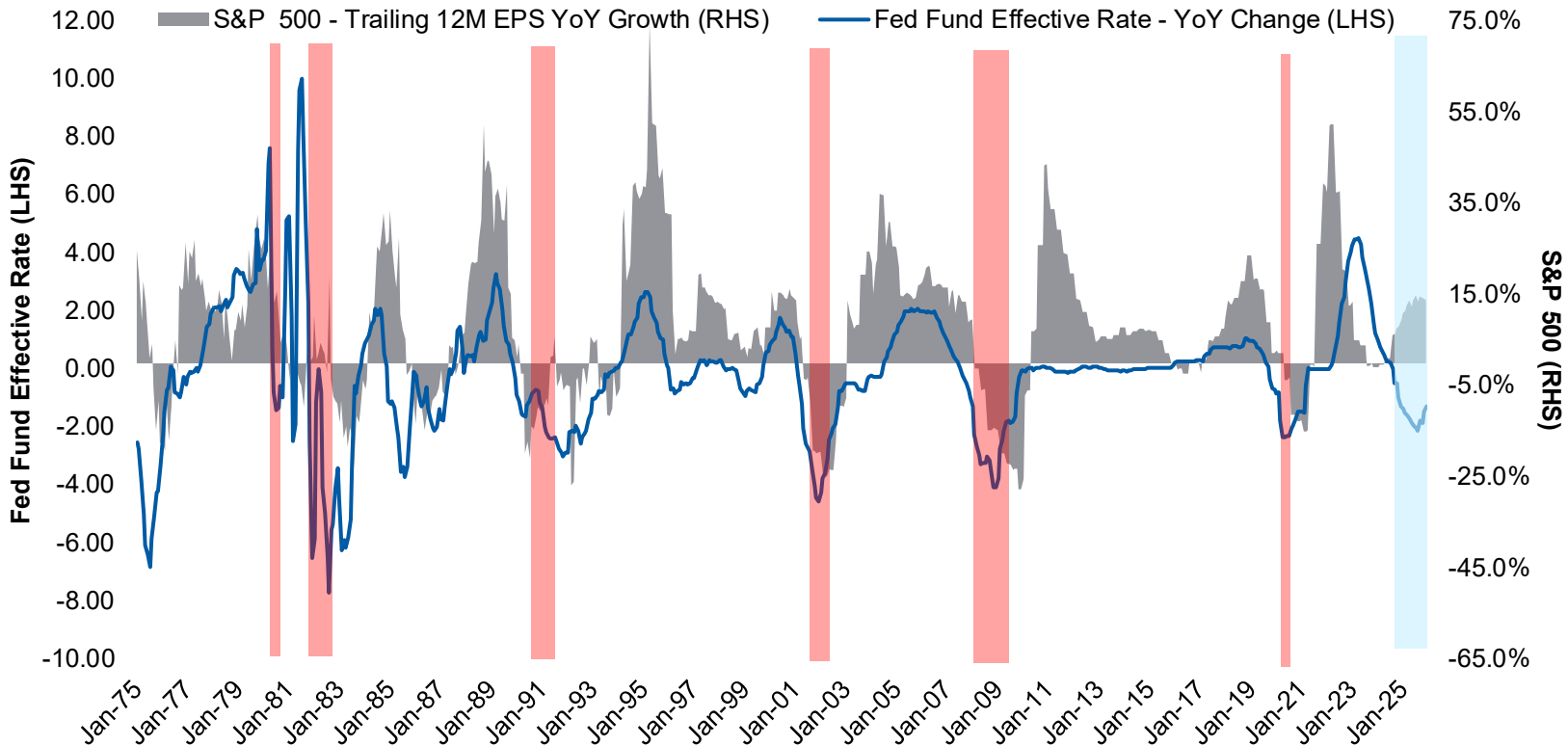
During past Fed easing cycles:

- The average S&P 500 return was 11%.
- In periods where the Fed cut rates and no recession materialized, the average S&P 500 return was 21%.
- Equities outperformed long-term bonds 50% of the time.
- Cyclicals tend to lag defensives after the first cut, regardless of recession.

What is unique about this cycle?

- Historically Fed rate cuts tend to come alongside weaker earnings growth as policy is reacting to weaker growth.
- This cutting cycle is unique in that the consensus forecasts EPS acceleration, even as the Fed cuts. This growth view is plausible if one accepts the Fed is not meaningfully behind the curve.

Consensus Sees S&P EPS Acceleration Even as the Fed Cuts Rates  
Trailing 12-month EPS YoY growth, estimates past 9/2024; Fed fund YoY change



Source: BofA Global Research, Bloomberg, MSIM. Data as of 21 Sept 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.



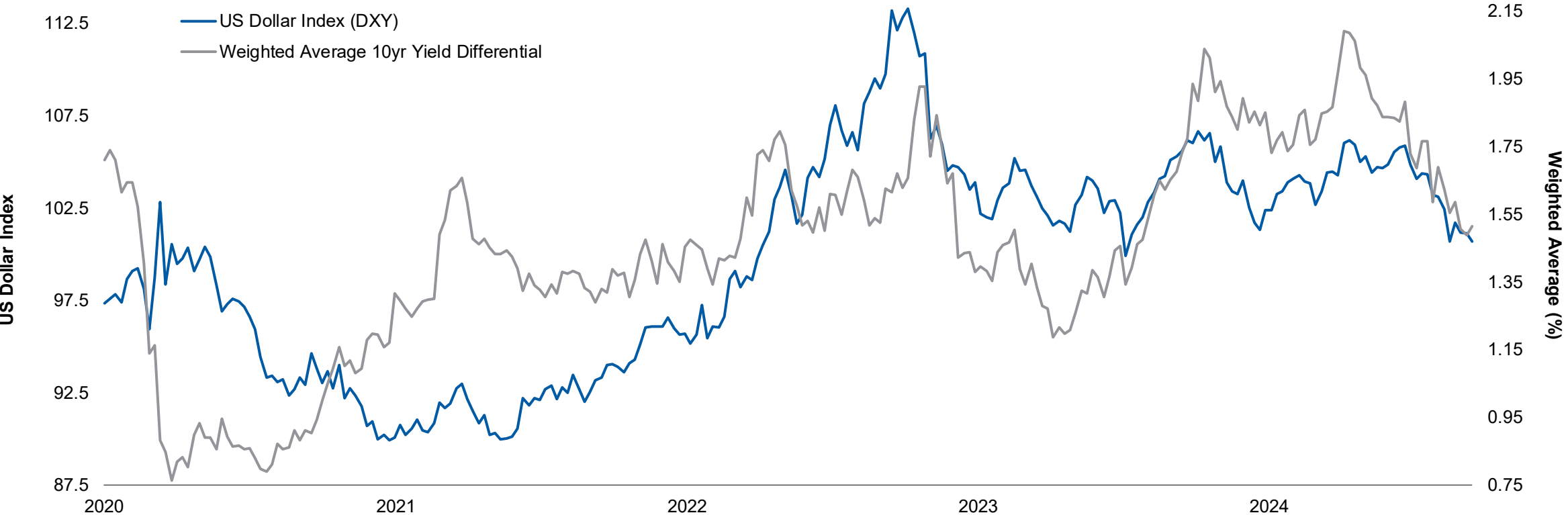
TOP IDEAS

# A Narrowing Rate Differential Is Driving a Weaker Dollar

Yield differentials have largely explained the U.S. dollar's (USD) path since the beginning of the 2022 rate-hiking cycle. In the aftermath of the pandemic, DM growth and inflation dynamics are largely driven by common global drivers even if region-specific nuances are present, leaving higher U.S. rates as the mover for USD divergence vs major currency pairs.

## The U.S. Dollar Index is Moving in Lock Step with Yield Differential

US Dollar Index vs yield differential



Source: Bloomberg, MSIM. Data as of September 16, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. **Past performance is no guarantee of future results.**

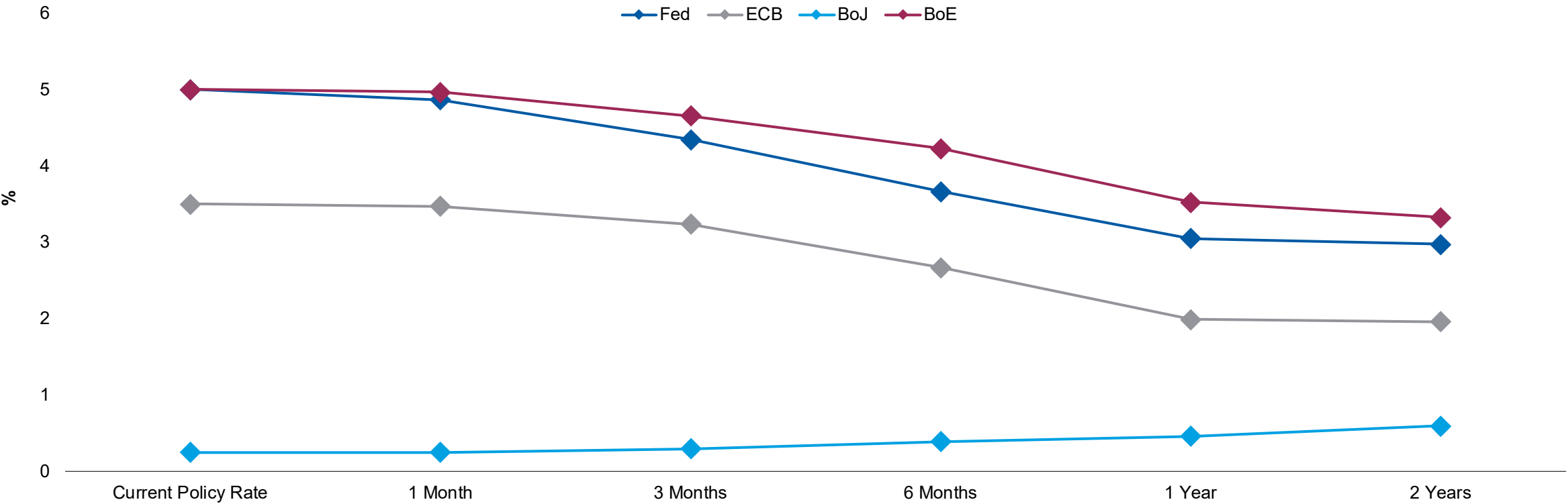
TOP IDEAS

# Holding Duration Underweight

After the initial round of cuts, the market is pricing for another 200 bps of Fed cuts and 150 – 200 bps from the ECB and BoE in the next two years. The BoJ is a clear outlier. With G3 central banks’ rate cuts priced for perfection, the risk is skewed toward a hawkish surprise if inflation proves more stubborn or labor market/wages remain stickier than thought.

## Steep Cutting Path Priced Ahead, Except for the Bank of Japan

*G4 central banks implied policy rates*



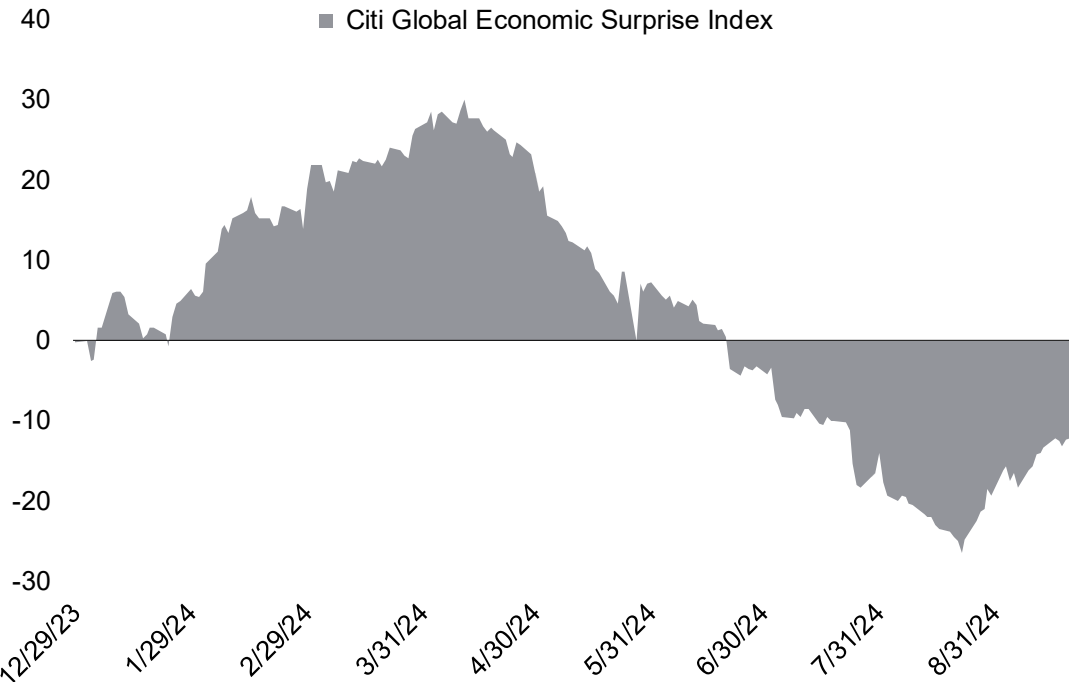
Source: Bloomberg, MSIM. Data as of September 23, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. **Past performance is no guarantee of future results.**

TOP IDEAS

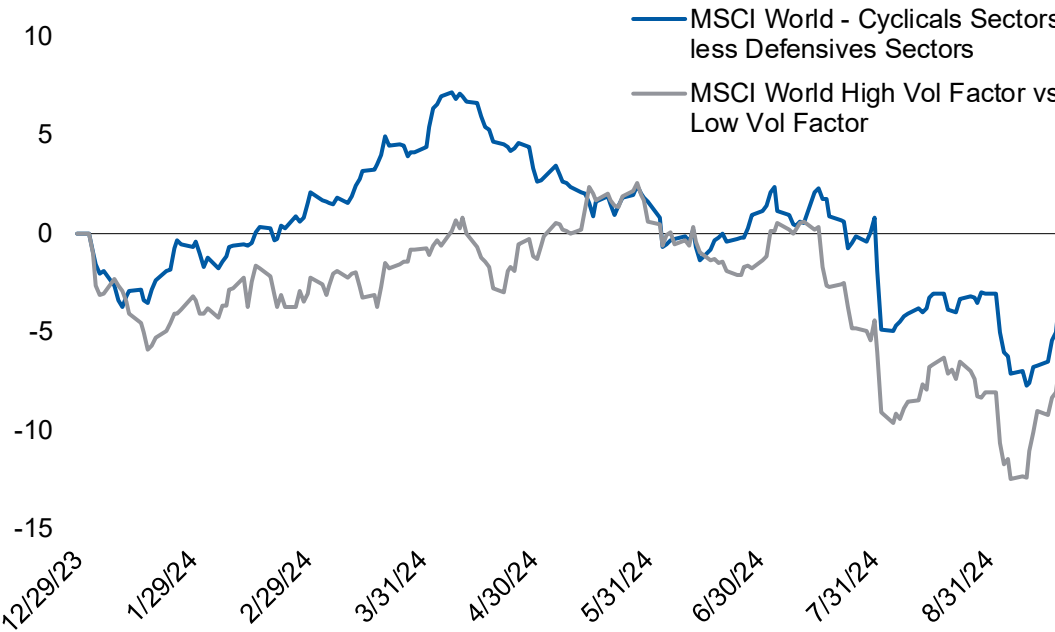
# An Inflection in a Data Surprise Bears Watching, Potentially Driving a Cyclical Shift

Last year’s trend of growth resilience carried through April of this year, but economic surprise softened from April into August. Despite equity markets moving higher most of that time, sector and factor trends skewed defensive, consistent with softer economic growth. With a data surprise now inflecting higher, markets could see a cyclical shift.

**After Moving Lower April to August, Global Economic Surprise Indexes Inflected Higher Over the Last Month**  
*Citi Economic Surprise Index - Global*



**Sectors and Factors Have Trended Defensive Since May, a Trend That Has Reversed Some Since Early September**  
*MSCI World Cyclical vs Defensive, MSCI World High Vol Factor vs Low Vol*



Source: Bloomberg, MSIM. Data as of 21 Sept 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. **Past performance is no guarantee of future results.**

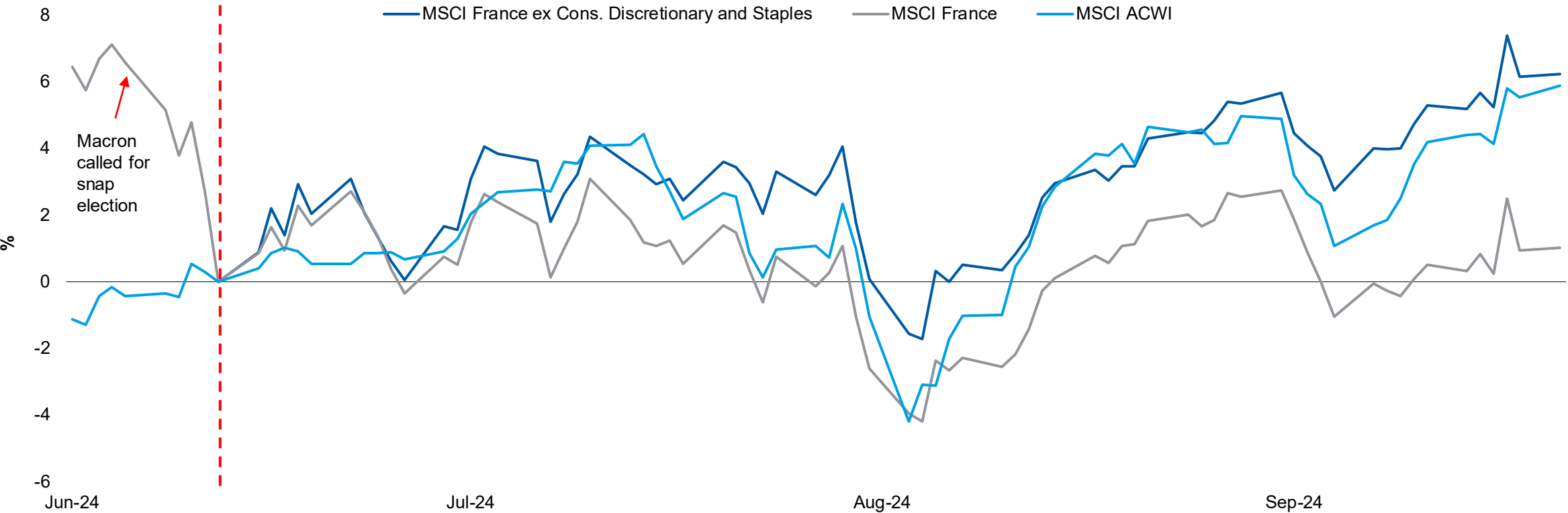
TOP IDEAS

# Exiting French Equity Exposure

We saw an opportunity in France amid volatility induced by political uncertainty in June. France did rebound after the dust settled, but consumer names that are driven less by domestic factors and more by Chinese demand have lagged. Given our medium-term cautious view on China and its implications for France, we are looking to exit our exposure.

## Consumer Sectors Weighed on French Equities

MSCI France vs MSCI AC World Total Return



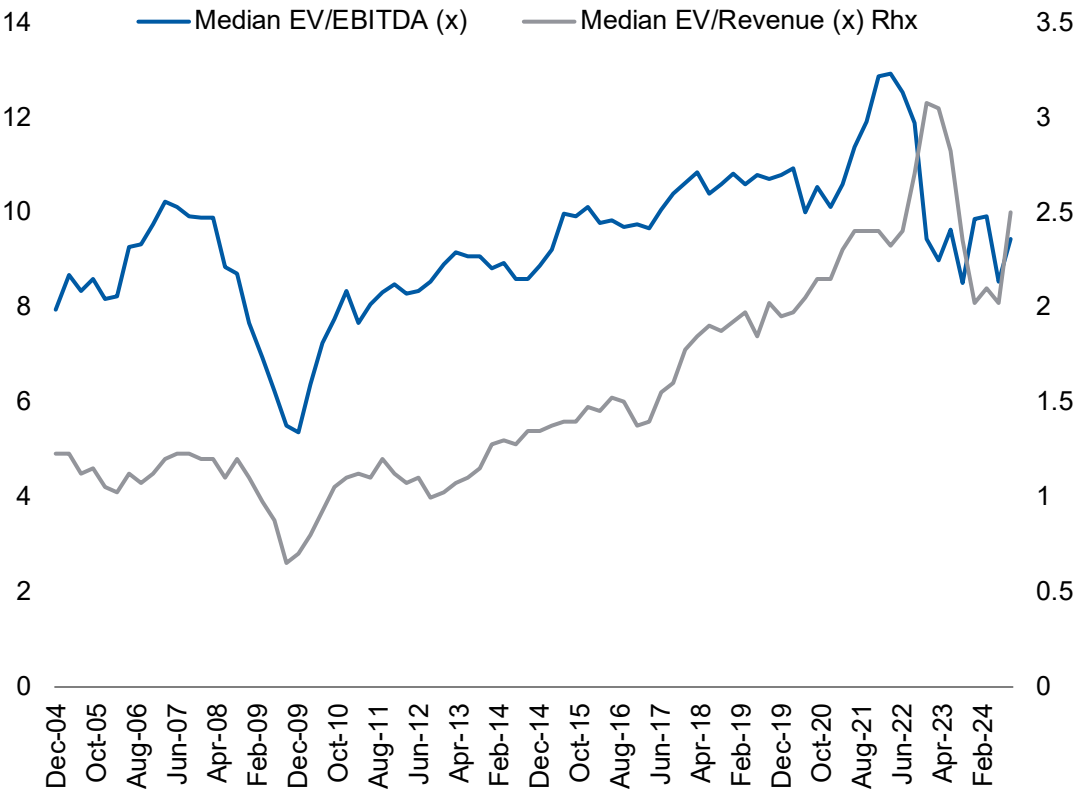
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TOP IDEAS

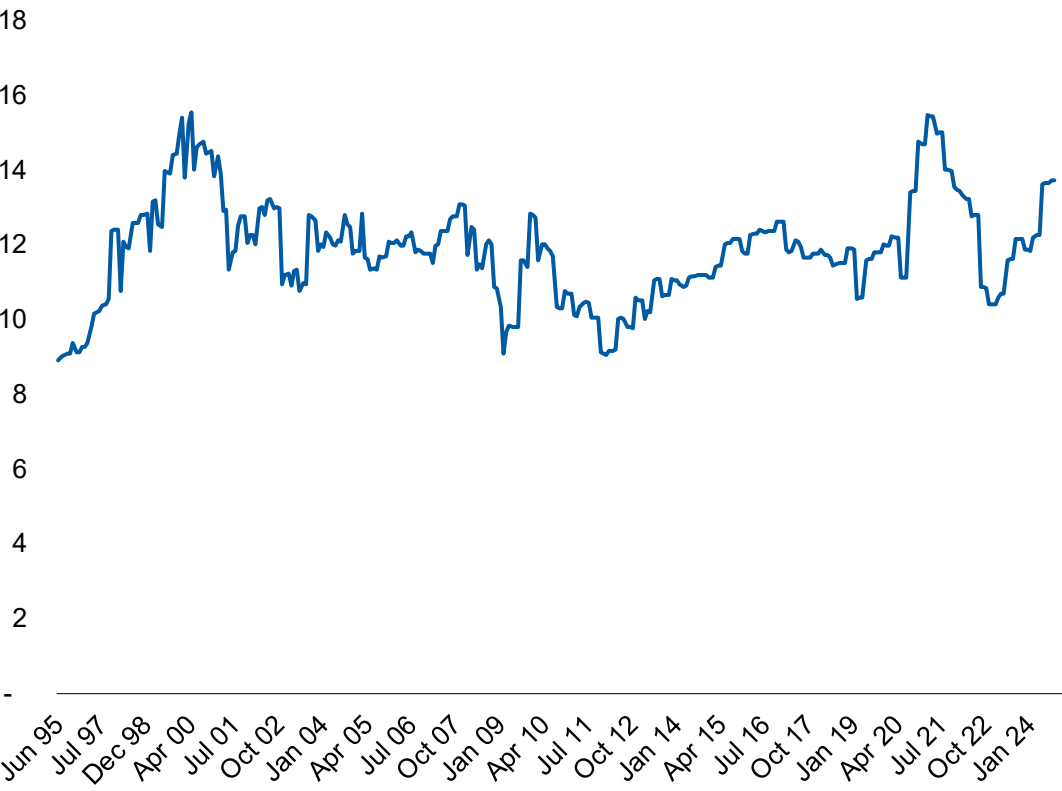
# Private Equity Is at an Attractive Entry Point Relative to Public Markets

PE valuations have normalized at lower levels in 2024, although with volatility in the data. In contrast, public market valuations continue to rally.

Buyout Valuation Multiples



EV/EBITDA MSCI World



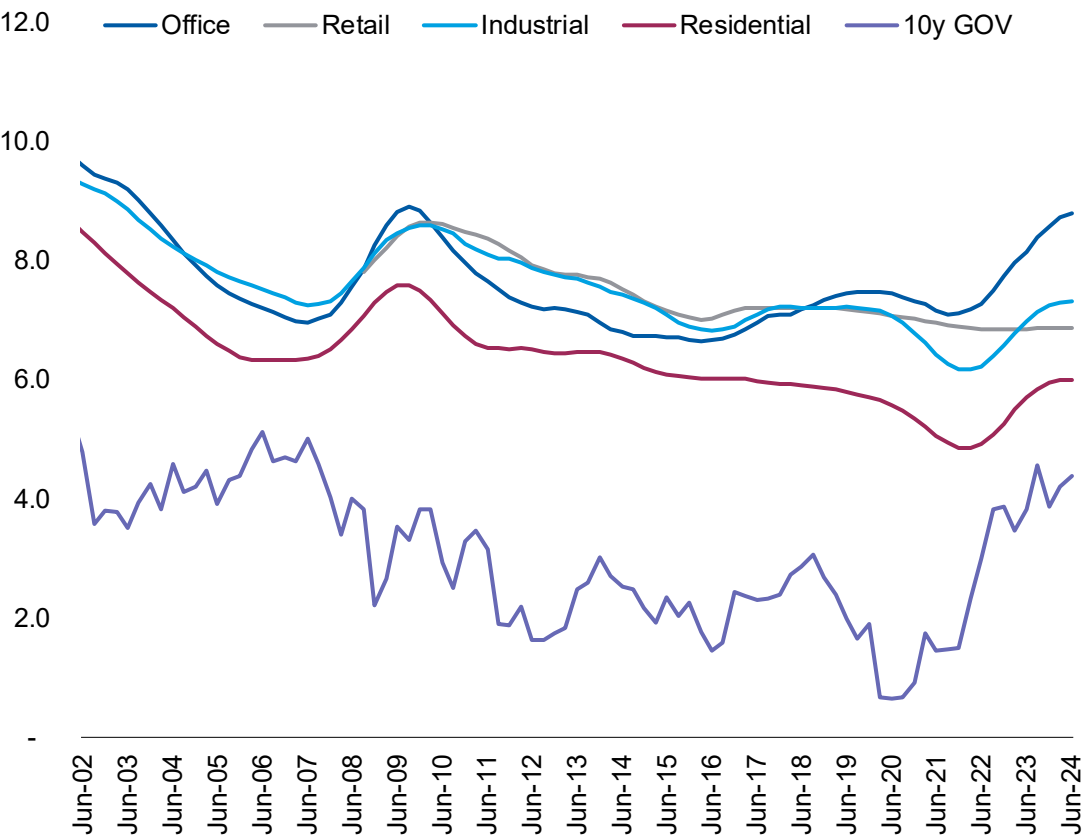
Sources: Bloomberg, Preqin as of September 30, 2024. This information reflects the views of the Portfolio Solutions Group as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. Senior Debt are loans secured by collateral that must be paid off before other debts when a company goes into default. Subordinated Debt are loans which rank after other debts (e.g. Senior Debt) if a company falls into default, and therefore carries more risk for the lender. EBITDA stands for Earnings Before Interest, Taxes, Depreciation and Amortization, a reflection a firm's short-term operational efficiency. A lower debt/EBITDA ratio generally reflects a healthier company from a financial standpoint, representing a higher level of cash from earnings to cover debt payments, viewed as less risky for an investor. **Past performance is no guarantee of future results.**

TOP IDEAS

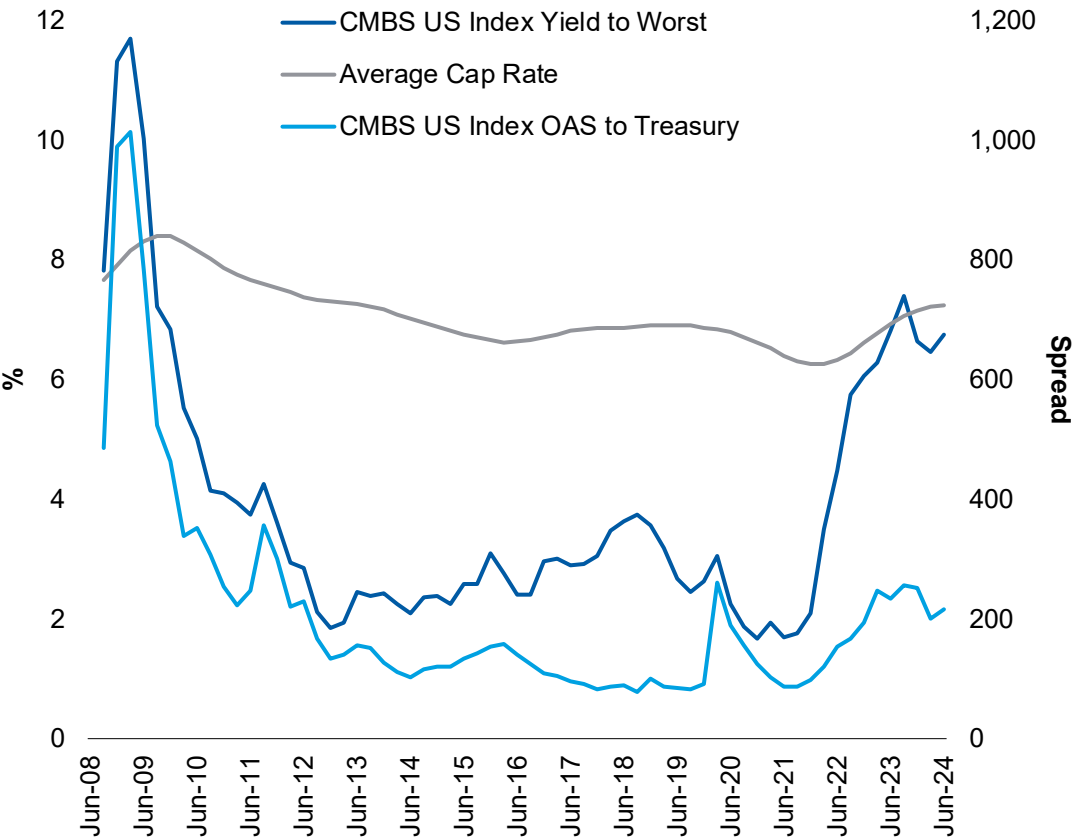
# Emerging Opportunity Set in Commercial Real Estate Equity

Commercial real estate valuations have become more attractive in the face of higher interest rates and elevated supply. We expect volumes to pick up this year due to upcoming debt maturities, reinforcing these lower entry points.

## Cap Rates



## Cap Rates vs. Cost of Debt



Sources: CoStar, Bloomberg. As of June 30, 2024. This information reflects the views of the Portfolio Solutions Group as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. Not to be construed as an investment or research recommendation. **Past performance is no guarantee of future results.**

TOP IDEAS

Capital Markets Investment Framework

Representative Allocations from the Portfolio Solutions Group

Capital Markets Investment Framework						Current allocation	Change from previous	--	-	=	+	++	High conviction underweight	
Representative Allocations from the Portfolio Solutions Group													Underweight	
Asset Allocation						Our View								Commentary
						--	-	=	+	++				
Bonds														With the repricing of further rate cuts and downward move in longer term yields, we shifted to a more firmly UW duration position last month. In the U.S., we believe the 8 rate cuts priced in over the next year are too many given our view that the economic backdrop is normalizing rather than collapsing, and yields across the curve have room to rise. The picture in Europe is not too different. Our preferred overweight expression continues to be within global credit: we are overweight EM Debt and ABS.
Duration														
Credit														
Equities														A soft landing is ultimately a constructive backdrop for risk assets, but our optimism is constrained to a degree by the absence of excess risk premium in equities. Within this environment, we look to be opportunistic, taking advantage of overshoots on both the upside and downside.
Risk Level														
Alternatives														We believe moderating asset prices and low transaction activity in equity private markets reached their turning points mid-2024. We expect investor cash flows to recover because of increasing market activity, and asset pricing to offer an attractive entry point. In private credit, loan pricing and terms are now in line with the long-term average, but elevated rates and muted defaults are keeping total return expectations elevated.  Hedge funds are benefiting from a constructive market environment for skill-based managers. We maintain a preference for market neutral, relative value equity and macro strategies.  We are neutral on key commodity markets: geopolitical upside risks are balanced by high spare capacity in markets such as crude, which limit upside absent physical disruptions.
Private Markets														
Hedge Funds														
Commodities														
Transition														We have increased our short duration weight and are using a barbell approach with other segments of the credit market to create a higher yielding strategy.
Cash/Short Duration														

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TOP IDEAS

Global Fixed Income

Representative Positioning from Portfolio Solutions Group

Current allocation

Change from previous

--

High conviction underweight

-

Underweight

=

Neutral

+

Overweight

++

High conviction overweight

Fixed Income	Our View					Commentary
	--	-	=	+	++	
Bonds						
U.S. Treasuries						The U.S. rates market is pricing a much more dire economic scenario than credit or equities. Our view lies much closer to credit and equities, even if some of those markets seem overly optimistic.
Inflation Linked Bonds						We see some value in TIPS relative to nominal treasuries over the medium term.
Eurozone Govt. Bonds						Like the U.S., eurozone bonds have also rallied substantially. At the same time, consensus growth forecasts for 2025 and 2026 appear higher than estimates of long-run potential GDP growth.
EM Hard Currency Govt. Bonds						We expect EM growth to slow in 2H24; rates vol is at risk of trending higher. However, a minor deterioration in both factors should result in only limited spread widening i.e., positive excess returns.
EM Local Currency Govt. Bonds						The rally in U.S. yields and a weaker USD has led to a strong rally in EM Local, with the GBI index up over 8% since end of June. Over the near term we question how long this environment can continue. If the Fed surprises on the dovish side, it may be for reasons that trigger a flight to quality in the USD.
Public Credit						
Municipal Bonds						Our previous downgrade of Munis appears to have been well timed as the asset class has cheapened relative to USTs. We now believe Munis offer compelling value for taxable investors.
Investment Grade						We are reducing our UW investment grade corporate bonds slightly as our HY OW is reapportioned into short-term IG. Spreads are near historical tights, excess return over USTs should be minimal, and IG remains sensitive to left-tail outcomes.
MBS/ABS						High conviction in asset backed securities (ABS) and yield per unit of credit quality remains attractive. U.S. 30-year fixed mortgage rates are higher than BB Corporate yields, a rare occurrence in 25 years.
High Yield						The tightening of spreads makes us question how much excess return from spread is available relative to duration related returns.
Bank Loans						Once adjusted for the forward curve and ratings differentials, bank loans look slightly less attractive than HY. Furthermore, bank loans often see outflows during rate cutting cycles.

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TOP IDEAS

Global Equity

Representative Positioning from Portfolio Solutions Group

		Our View					Commentary	
Equity		--	-	=	+	++		
Regional								
Developed Markets								
U.S.								
Eurozone								
Japan								
Emerging Markets								
Style								
Growth vs. Value								
Quality								
Large Cap vs. Small Cap								
Dividend								

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TOP IDEAS

Alternatives

Representative Positioning from Portfolio Solutions Group

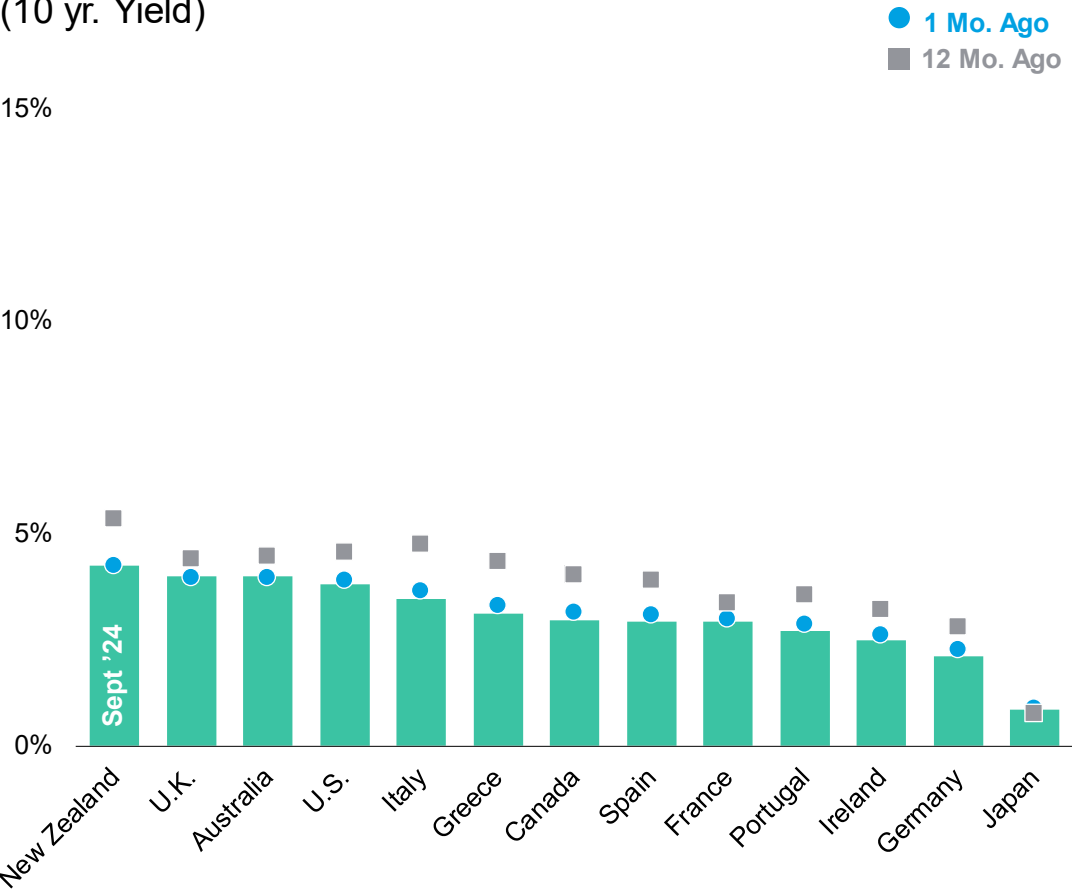
Alternative Assets	Commentary
Private Markets	
Private Equity	While it is hard to generalize private markets, we believe moderating asset prices and low transaction activity in <b>private equity</b> reached their much-anticipated turning points mid-2024. We expect investor cash flows to recover because of increasing market activity, and asset pricing to offer an attractive entry point for strategies that possess the tool kit to pursue value creation within an environment of higher debt service costs and lower leverage multiples. We continue to focus on strategies with compelling opportunities and expertise across revenue growth initiatives, margin expansion and capital structure optimization, and we believe the middle market is particularly well-placed to deliver attractive returns in this environment.
Private Real Assets	<b>Commercial real estate</b> has continued to reprice lower, with the core real estate benchmark negative for a seventh consecutive quarter. This has been driven by higher debt costs and pockets of elevated supply. A significant amount of commercial real estate debt matures this year, which is expected to drive higher transaction volumes with attractive entry valuations. Long-term demand tailwinds in key sectors remain in place while supply issues are starting to subside. We expect these dynamics to lead to further improved pricing and represent a compelling opportunity. <b>Private infrastructure</b> is benefiting from the tailwinds of several mega trends, including the digitization of society and economies, and the energy transition. Within the two segments, we have started to see a divergence in performance and valuations based on the underlying operating business structures. For example, lower energy prices have positioned renewable energy generation businesses with high merchant exposure in a difficult spot. Owners who are forced to sell could obtain lower than expected valuations for these businesses, thus leading to idiosyncratic opportunities. Within digital, significant capital has been deployed in the hyperscale space, increasingly more so during the past twelve months as AI has garnered additional attention. Smaller opportunities, such as colocation data centers, have seen less upward pressure on valuations. Opportunities with high-quality enterprise customers could present an interesting data center diversifier.
Private Credit	<b>Private loan pricing</b> and terms are now in line with their long-term averages, but elevated rates and muted defaults are keeping total return expectations elevated. As corporates continue to seek ways to manage cashflow, custom solution providers can capitalize on favorable pricing / terms for opportunities that fall in the white space between more rigid mandates.
Liquid Alternatives	
Hedge Funds	<b>Hedge funds</b> are benefiting from a constructive market environment for skill-based managers. We maintain a preference for market neutral, relative value equity and macro strategies. Within macro strategies, we favor discretionary strategies that are tactically oriented given supportive levels of market and fundamental economic dispersion. Within equity strategies, we continue to have conviction in fundamental long/short equity, but also have increasing confidence in quantitative equity strategies that are benefiting from the reduction in asset price correlation at the stock level.
Commodities	We are neutral on key <b>commodity markets</b> . While a rebound in manufacturing activity is supportive of commodity demand, high OPEC spare capacity and generally healthy supply from non-OPEC countries should keep oil prices capped for the time being.

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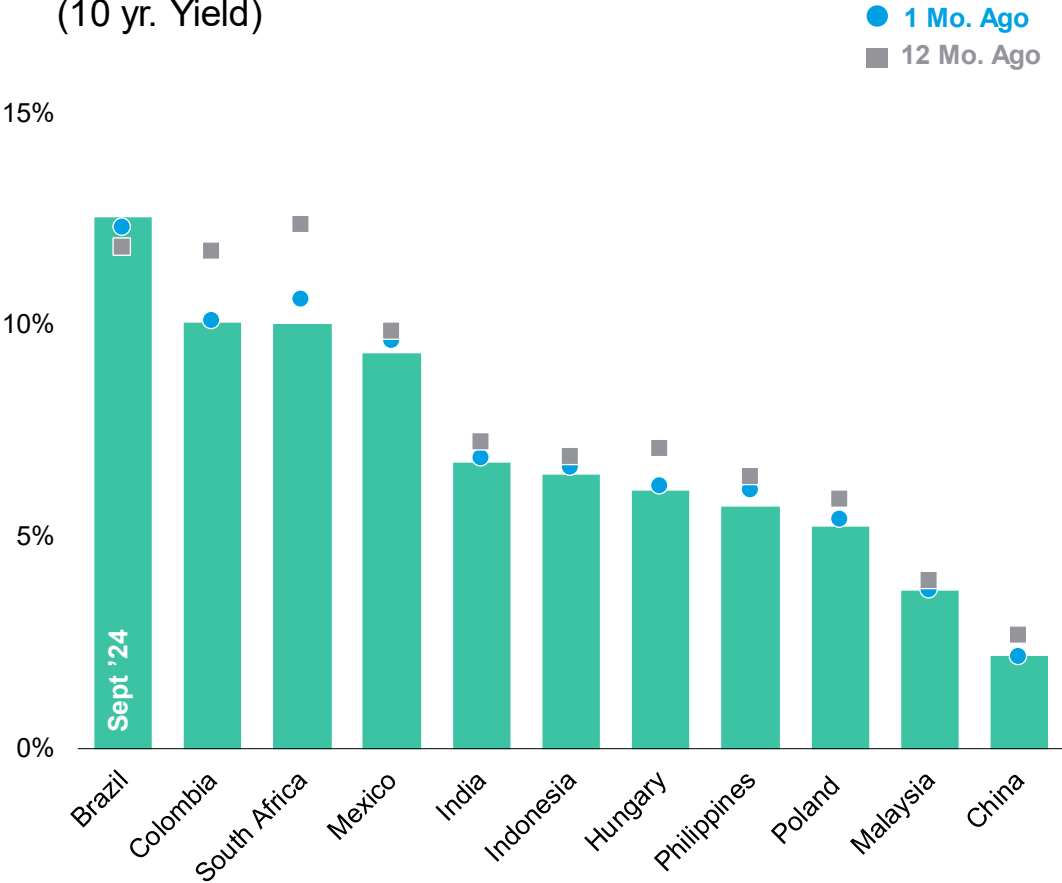
BONDS

Sovereign Bond Yields

Developed Markets  
(10 yr. Yield)



Emerging Markets  
(10 yr. Yield)



Past performance is no guarantee of future results.  
It is not possible to invest directly in an index. Source: Factset as of 9/30/24. Data provided is for informational use only. See end of report for important additional information.

BONDS

Key Rates (%)

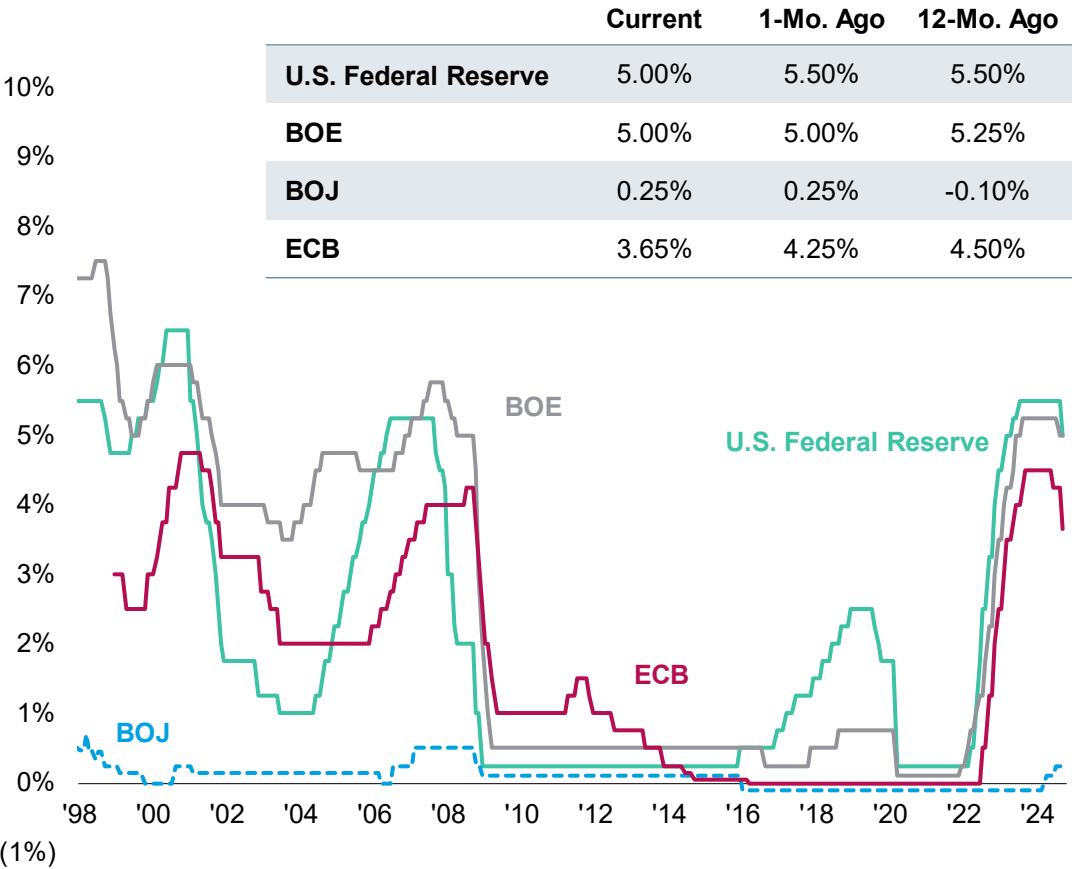
Security	Current	12-Mo. Ago	Average	Minimum	Maximum
1-Week SIFMA	3.15	3.98	3.46	1.90	4.55
Secured Overnight Financing Rate	4.96	5.31	5.31	4.82	5.40
1-Mo LIBOR	4.96	5.43	5.42	4.96	5.48
3-Mo LIBOR	4.85	5.66	5.54	4.85	5.69
2-Yr Treasury	3.64	5.04	4.55	3.54	5.21
5-Yr Treasury	3.56	4.61	4.21	3.41	4.96
10-Yr Treasury	3.79	4.57	4.25	3.62	4.99
30-Yr Treasury	4.13	4.70	4.43	3.93	5.11
2-Yr Japan	0.38	0.05	0.21	0.01	0.47
10-Yr Japan	0.86	0.76	0.83	0.56	1.10
2-Yr German Bund	2.07	3.21	2.76	2.07	3.25
10-Yr German Bund	2.12	2.82	2.41	1.91	2.98
2-Yr UK Gilt	3.97	4.60	4.27	3.53	5.00
10-Yr UK Gilt	3.99	4.40	4.09	3.46	4.69
Bloomberg US Agg	4.23	5.39	4.89	4.10	5.74
Bloomberg Global Agg	3.33	4.22	3.80	3.26	4.42
Bloomberg US Corporate	4.72	6.04	5.41	4.64	6.43
Bloomberg US Long Corporate	5.18	6.14	5.62	5.07	6.60
Bloomberg US Municipal	3.32	4.32	3.63	3.21	4.50
Bloomberg US Long Municipal	4.00	4.97	4.30	3.94	5.18
US High Yield	6.98	8.90	8.01	6.98	9.53
US Loans	9.54	10.30	9.97	9.54	10.60

Past performance is no guarantee of future results.  
It is not possible to invest directly in an index. Source: Bloomberg, Leveraged Commentary & Data (LCD), and Factset as of 9/30/24. Current represents most recent month. Average, minimum, and maximum measure a 12-month period ending most recent month. Data provided is for informational use only. US High Yield is represented by ICE BofA US High Yield Index. US Loans is represented by Morningstar LSTA U.S. Leveraged Loan Index. Bloomberg indices and ICE BofA US HY index using yield to worst. Morningstar LSTA U.S. Leveraged Loan Index using yield to maturity. See end of report for important additional information.

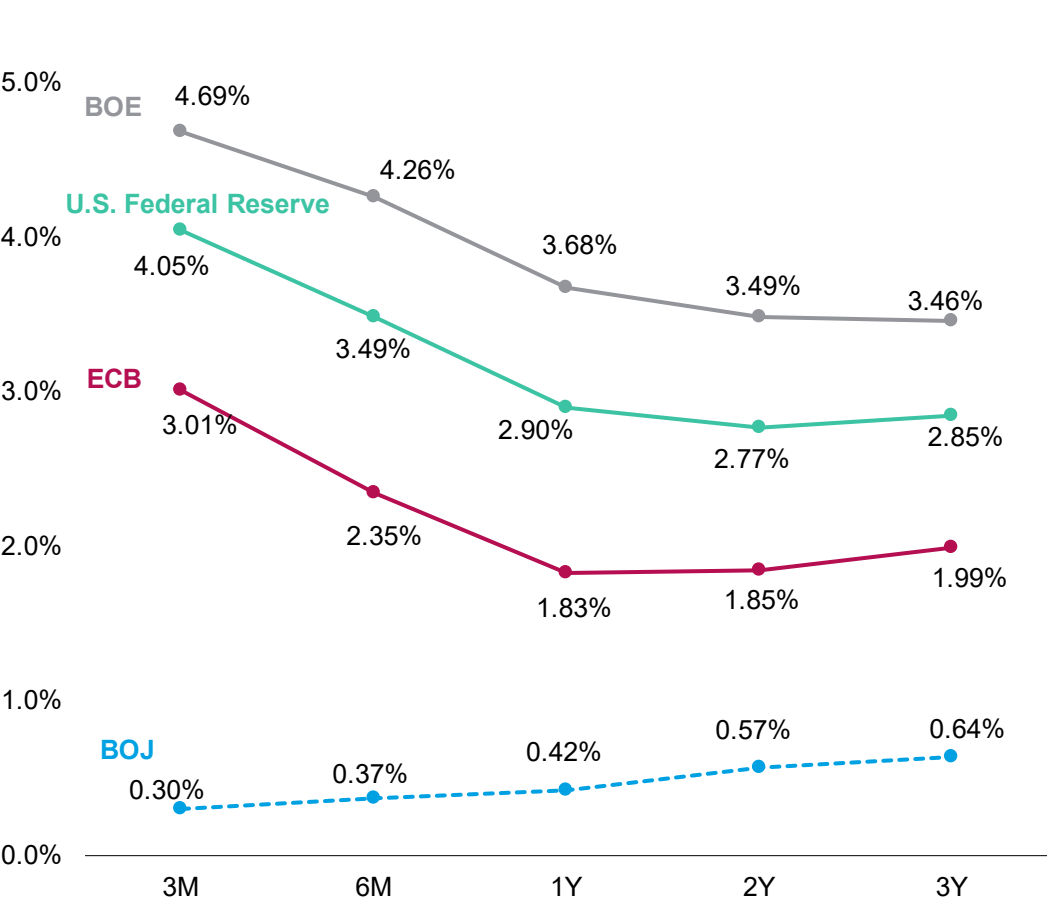
BONDS

Monetary Policy

Central Bank Policy Rates



Market Expectations for Future Central Bank Rates

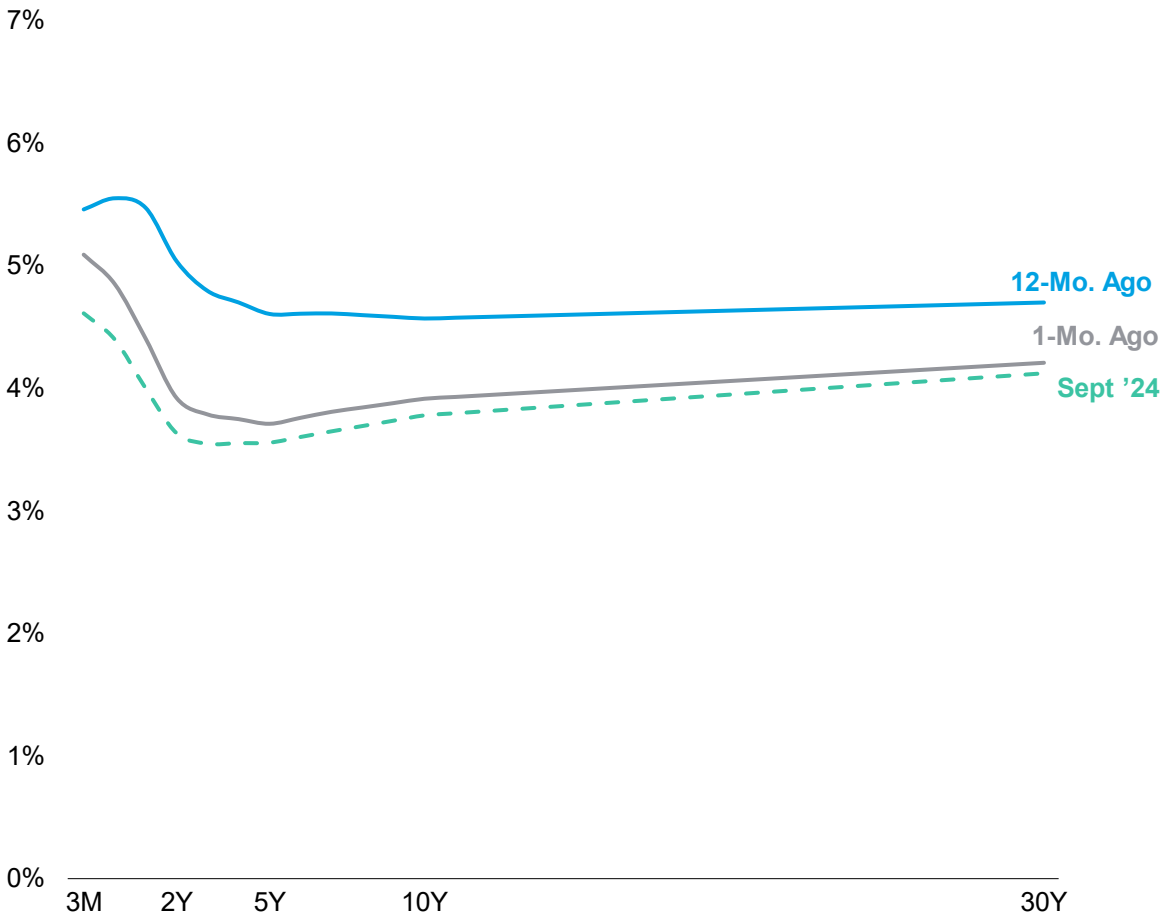


Source: Bloomberg, Factset as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

BONDS

U.S. Treasury Yields

U.S. Treasury Yield Curves



Security	Yields & Performance				
	Yield (%)			Total Return (%)	
	Current	1-Mo. Ago	12-Mo. Ago	1-Mo.	12-Mo.
3-mo. Treasury	4.61	5.09	5.46	0.43	5.46
6-mo. Treasury	4.40	4.85	5.55	0.52	5.73
2-yr. Treasury	3.64	3.92	5.04	0.79	6.48
3-yr. Treasury	3.56	3.79	4.80	0.88	7.34
5-yr. Treasury	3.56	3.71	4.61	1.03	8.64
10-yr. Treasury	3.79	3.92	4.57	1.37	10.56
30-yr. Treasury	4.13	4.21	4.70	1.78	14.14

Source: Factset, Morningstar as of 9/30/24. Data provided is for informational use only. Past Performance is not a reliable indicator of future results. See end of report for important additional information.

BONDS

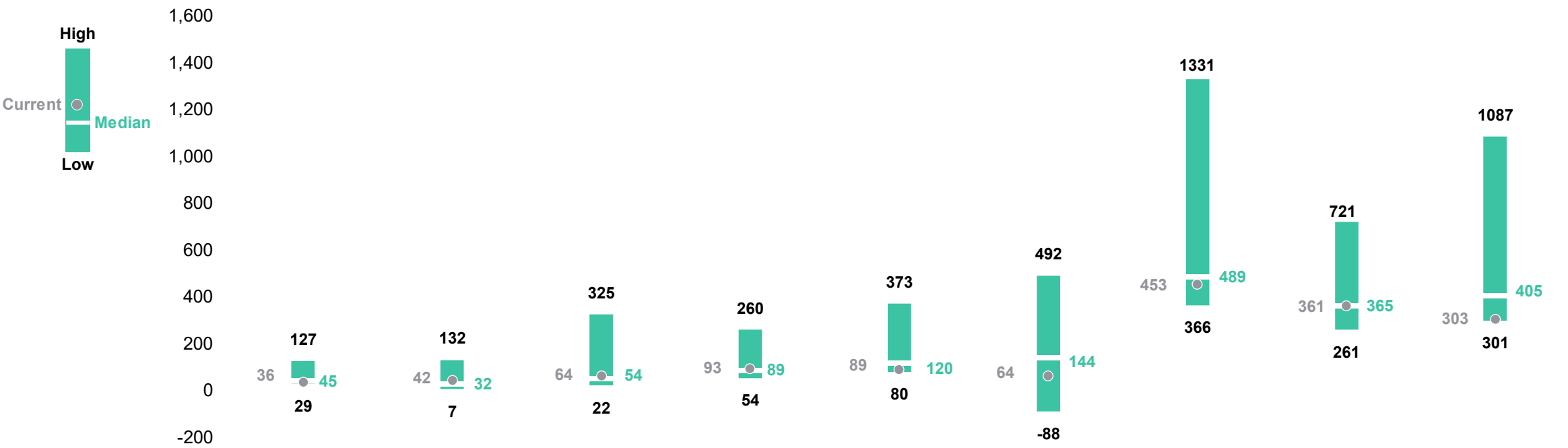
Characteristics and Performance Analysis

Index	Averages						Total Returns (%)						
	Coupon (%)	Price (\$)	Yield to Worst (%)	Spread (bps)	Maturity (yrs.)	Duration (yrs.)	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
U.S. High Grade													
Bloomberg U.S. Aggregate Index	3.37	94.0	4.23	36	8.4	6.2	1.34	5.20	4.45	11.57	-1.39	0.33	1.84
U.S. Treasury	2.90	94.1	3.76	-	7.9	6.1	1.20	4.74	3.84	9.72	-1.78	-0.20	1.34
U.S. Mortgage Backed Securities	3.27	91.7	4.53	42	7.0	5.7	1.19	5.53	4.50	12.32	-1.20	0.04	1.41
U.S. Asset Backed Securities	4.81	100.8	4.36	64	3.8	2.8	0.98	3.35	5.07	8.73	1.81	2.10	2.18
U.S. Commercial Mortgage Backed Securities	3.28	94.7	4.59	93	4.7	4.2	1.30	4.65	6.25	11.83	-0.28	1.22	2.44
U.S. Corp. Investment Grade	4.25	95.8	4.72	89	10.9	7.2	1.77	5.84	5.32	14.28	-1.18	1.16	2.93
Bloomberg Municipal Bond Index	4.57	103.7	3.32	-	13.6	6.1	0.99	2.71	2.30	10.37	0.09	1.39	2.52
Bloomberg Taxable Municipal Bond Index	4.35	95.7	4.61	-	14.5	7.9	1.46	5.42	5.33	13.64	-1.94	0.74	3.34
ICE BofA US Inflation-Linked Treasury Index	0.99	95.0	1.63	-	7.7	4.8	1.50	4.16	5.11	9.84	-0.79	2.55	2.56
ICE BofA Preferred Index (Fixed Rate)	5.31	95.4	5.29	64	-	5.0	2.51	5.73	10.37	17.67	1.28	2.99	4.80
U.S. High Yield													
ICE BofA US High Yield Index	6.33	96.7	6.98	303	4.8	3.0	1.63	5.28	8.03	15.66	3.08	4.55	4.95
Morningstar LSTA U.S. Leveraged Loan Index	S+3.51	96.7	9.54	453	4.4	-	0.71	2.04	6.54	9.59	6.47	5.74	4.86
Emerging Markets													
J.P. Morgan EM Bond Index (EMBI) Global Diversified	5.42	87.8	7.49	361	-	6.9	1.85	6.15	8.64	18.60	-0.40	0.87	3.28
J.P. Morgan Corp. EM Bond Index (CEMBI) Broad Diversified	5.12	96.4	5.92	214	-	4.4	1.23	4.48	8.50	14.49	1.06	2.79	3.99
J.P. Morgan Govt. Bond Index-EM (GBI-EM) Global Diversified	5.55	-	6.11	-	-	5.3	3.39	8.99	4.95	13.42	0.60	0.59	0.57
Global Developed Markets													
Bloomberg Global Aggregate Ex-U.S. Index	2.26	96.9	2.56	35	8.6	7.1	2.00	8.52	2.81	12.28	-4.42	-1.86	-0.50
FTSE World Government Bond Index	2.45	-	3.18	-	-	7.2	1.64	6.95	2.72	11.02	-4.41	-2.05	-0.15
ICE BofA European Union Government Bond Index	2.09	95.3	2.62	52	8.9	7.3	2.12	8.28	3.01	15.22	-5.18	-2.03	-0.69
ICE BofA Developed Mkts HY Ex-Sub Fincl Index (USD Hedged)	6.06	96.6	6.75	341	3.7	3.0	1.52	4.94	7.96	15.29	3.33	4.56	5.06
Bloomberg Euro-Aggregate Corporates (EUR)	2.42	96.8	3.22	117	5.1	4.5	1.23	3.27	3.83	9.56	-1.23	-0.36	1.16
Bloomberg Pan-European High Yield Euro (EUR)	4.63	96.8	5.94	345	3.7	3.1	0.91	3.35	6.27	12.10	2.03	2.77	3.66

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Bloomberg, J.P. Morgan, ICE BofA Data Indices, LLC, Factset, and Leveraged Commentary & Data (LCD), as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Yield to maturity is shown for the Morningstar LSTA U.S. Leveraged Loan Index and the FTSE World Government Bond Index. S+ refers to SOFR (Secured Overnight Financing Rate) as the base rate. Loan Index spread represents the three-year discounted spread over SOFR. Returns of the ICE BofA Developed Mkts HY Ex-Sub Financial Index are USD Hedged. The averages for the index are unhedged. Returns and averages for the Bloomberg Euro-Agg Corps and Bloomberg Pan-Euro HY indices are in EUR (unhedged).

BONDS

Spread Analysis (bps)



	Aggregate	MBS	ABS	CMBS	Corporate	Preferred	Floating-Rate Loans	Emerging Markets (USD)	High Yield
Max Spread Date	3/20/2020	3/19/2020	3/26/2020	3/25/2020	3/23/2020	3/23/2020	3/20/2020	3/23/2020	3/23/2020
Min Spread Date	4/14/2021	4/14/2021	6/21/2021	6/21/2021	6/30/2021	12/6/2017	4/20/2018	2/01/2018	12/28/2021
Spread on 12/31/23	42	47	68	126	99	148	490	384	339
Spread on 12/31/22	51	51	76	120	130	227	645	452	479
Spread on 12/31/21	36	31	38	68	92	113	428	369	310

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Factset and Leveraged Commentary & Data (LCD) as of 9/30/24. Spread history measures past 10 years. Data provided is for informational use only. See end of report for important additional information. All fixed-income spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries using daily data. Aggregate represented by Bloomberg US Aggregate Index. MBS represented by Bloomberg U.S. Mortgage Backed Securities (MBS) Index. ABS represented by Bloomberg U.S. Asset Backed Securities (ABS) Index. CMBS represented by Bloomberg U.S. CMBS Investment Grade Index. Corporate represented by Bloomberg U.S. Corporate Investment Grade Index. Preferred represented by ICE BofA Fixed Rate Preferred Securities Index. Floating-Rate Loans represented by Morningstar LSTA U.S. Leveraged Loan Index. Loan Index spread represents the three-year discounted spread over SOFR (Secured Overnight Financing Rate). Emerging Markets(USD) represented by J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified. High Yield represented by ICE BofA US High Yield Index.



BONDS

Corporate Bond Market Update

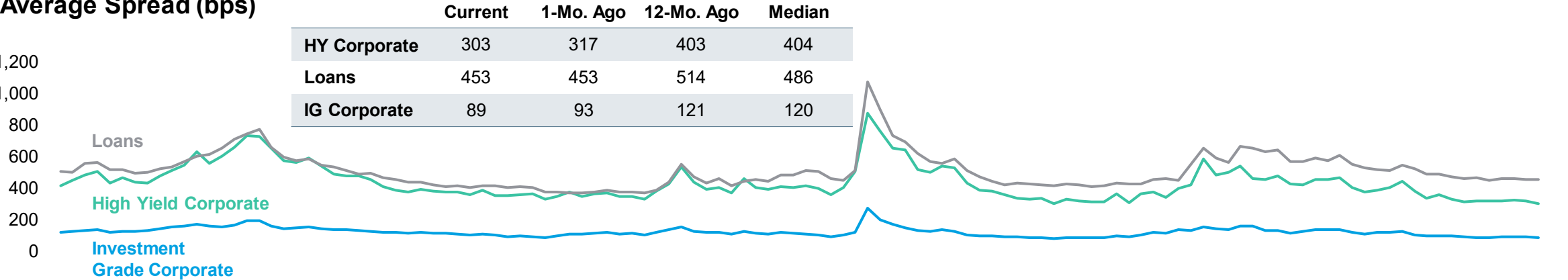
	Averages						Total Returns (%)						
	Coupon (%)	Price (\$)	Yield to Worst (%)	Spread (bps)	Maturity (yrs.)	Duration (yrs.)	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
U.S. High Grade													
Bloomberg U.S. Corp. Investment Grade Index	4.25	95.8	4.72	89	10.9	7.2	1.77	5.84	5.32	14.28	-1.18	1.16	2.93
AAA Index	3.30	87.7	4.29	31	17.7	10.7	2.00	6.93	3.76	13.89	-3.66	-0.63	2.36
AA Index	3.59	92.4	4.36	46	13.4	8.4	1.75	6.06	4.34	12.99	-2.42	-0.12	1.98
A Index	4.11	96.2	4.56	73	10.7	7.1	1.81	5.86	5.11	13.75	-1.27	0.90	2.70
BBB Index	4.50	96.2	4.94	111	10.6	6.9	1.73	5.76	5.70	14.98	-0.82	1.65	3.27
U.S. High Yield													
ICE BofA U.S. High Yield Index	6.33	96.7	6.98	303	4.8	3.0	1.63	5.28	8.03	15.66	3.08	4.55	4.95
BB Index	5.75	98.8	5.84	189	5.1	3.3	1.09	4.28	6.82	14.66	2.35	4.35	5.14
B Index	6.89	98.6	7.00	299	4.6	2.7	1.18	4.54	7.19	14.45	3.27	4.08	4.54
CCC Index	7.20	84.5	11.80	802	4.3	2.9	5.20	11.55	15.35	22.96	5.06	6.29	5.36
Morningstar LSTA U.S. Leveraged Loan Index	S+3.51	96.7	9.54	453	4.4	-	0.71	2.04	6.54	9.59	6.47	5.74	4.86
BBB Index	S+2.01	100.0	7.16	200	4.8	-	0.46	1.80	5.63	7.92	5.95	4.47	4.17
BB Index	S+2.70	99.6	7.97	283	4.8	-	0.48	1.90	5.81	8.68	6.47	4.77	4.44
B Index	S+3.80	97.8	9.67	463	4.4	-	0.70	2.20	6.87	10.24	6.92	6.21	5.17
CCC Index	S+4.63	84.8	16.67	1143	3.5	-	2.15	2.07	8.68	11.06	3.92	5.92	6.13
D Index	-	37.5	-	-	-	-	0.29	-9.45	-20.30	-25.92	-29.73	-28.64	-19.37

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Bloomberg, J.P. Morgan, ICE BofA Data Indices, LLC, Factset, and Leveraged Commentary & Data (LCD), as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Yield to maturity is shown for the Morningstar LSTA U.S. Leveraged Loan Index. S+ refers to SOFR (Secured Overnight Financing Rate) as the base rate. Loan Index spread represents the three-year discounted spread over SOFR.

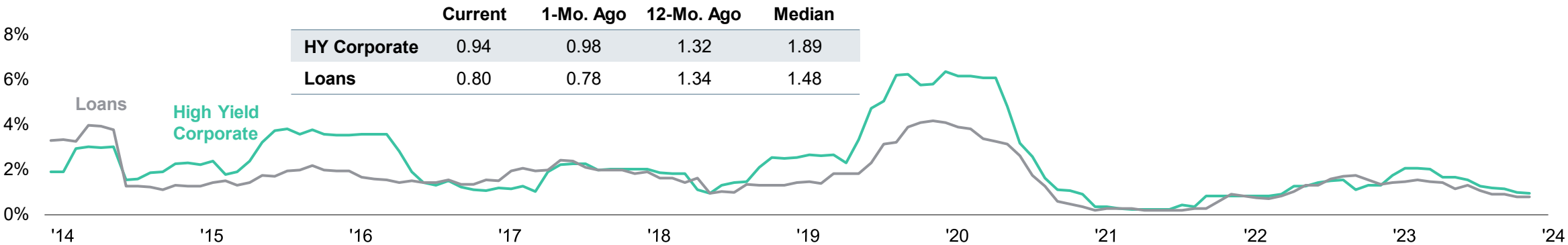
BONDS

Corporate Bond Market Update

Average Spread (bps)



Annual Default Rate



Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: J.P. Morgan and Leveraged Commentary & Data (LCD), as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Corporate spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries. Loan Index spread represents the three-year discounted spread over SOFR (Secured Overnight Financing Rate).

BONDS

Municipal Bond Market Update

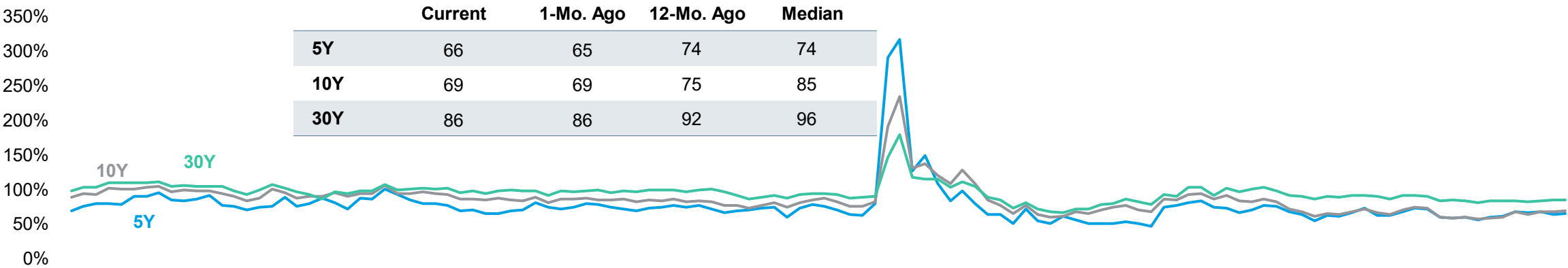
	Averages					Total Returns (%)						
	Coupon (%)	Price (\$)	Yield To Worst (%)	Maturity (yrs.)	Duration (yrs.)	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
Bloomberg Municipal Bond Index	4.57	103.7	3.32	13.6	6.1	0.99	2.71	2.30	10.37	0.09	1.39	2.52
AAA Index	4.50	104.5	3.17	13.2	6.4	1.01	2.79	1.67	10.16	-0.05	1.13	2.04
AA Index	4.60	104.7	3.18	13.2	6.0	0.97	2.69	1.99	9.76	0.03	1.24	2.30
A Index	4.55	101.8	3.56	14.0	6.0	1.01	2.67	3.01	11.20	0.41	1.74	2.96
BBB Index	4.57	98.8	4.08	17.3	7.0	0.99	2.91	4.24	13.82	0.37	2.13	3.65
5-Year Index	4.71	106.9	2.78	5.0	3.6	0.70	3.04	2.23	7.56	0.35	1.33	1.79
10-Year Index	4.57	106.8	3.07	9.9	5.6	0.90	2.64	1.02	8.57	0.13	1.42	2.60
22+ Year Index	4.58	100.1	4.00	26.6	9.7	1.38	3.03	3.11	15.08	-1.12	0.96	3.03
Bloomberg High Yield Municipal Bond Index	4.64	66.1	5.20	19.9	6.5	0.90	3.21	7.48	17.38	1.05	3.07	4.52
Hospital	5.26	76.8	5.57	20.4	5.7	1.49	4.90	11.72	20.98	0.63	1.75	4.02
IDR/PCR	4.14	37.3	5.63	20.3	6.7	0.36	1.95	5.33	15.02	0.24	3.01	5.82
Tobacco	2.32	19.2	6.15	28.3	10.1	0.02	0.58	1.75	18.97	-1.13	3.40	7.44
Puerto Rico	3.57	56.6	4.51	19.4	7.0	0.92	2.70	5.15	17.28	1.63	4.53	4.42

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Bloomberg, Morningstar as of 9/30/24. Coupon and Yield To Worst figures are based on average market prices while Price is based on an average of par value. Data provided is for informational use only. See end of report for important additional information.

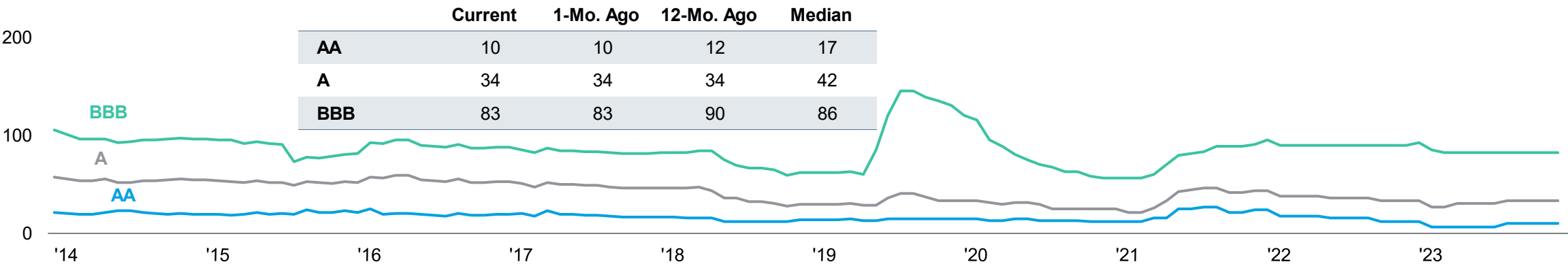
BONDS

# Municipal Bond Market Update

## AAA Muni-to-Treasury Yield Ratios



## Credit Quality Spreads vs. AAA (bps)



Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Bloomberg as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. All spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries.

BONDS

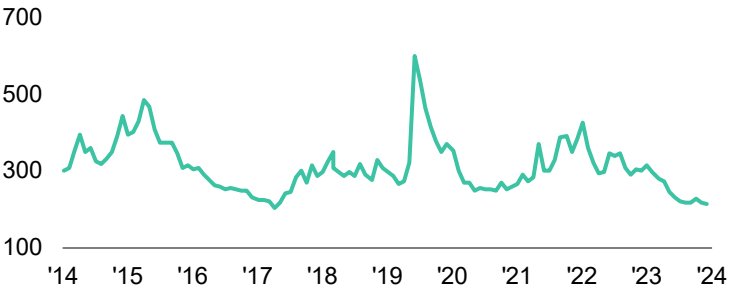
Emerging Markets Bond Market Update

Sovereign EMD Spreads (USD)  
bps



Avg. Spread (bps)	
Current	361
1-Mo. Ago	388
12-Mo. Ago	430
Median	368

Corporate EMD Spreads (USD)  
bps



Avg. Spread (bps)	
Current	214
1-Mo. Ago	219
12-Mo. Ago	301
Median	301

Local EMD Yields (%)  
bps



Avg. Yield (%)	
Current	6.11
1-Mo. Ago	6.26
12-Mo. Ago	6.76
Median	6.28

	Averages				Total Returns (%)						
	Coupon (%)	Price (\$)	Yield (%)	Duration	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
JPMorgan Emerging Markets Bond Index (EMBI) Global Diversified	5.42	87.8	7.49	6.9	1.85	6.15	8.64	18.60	-0.40	0.87	3.28
JPMorgan Corporate Emerging Markets Bond Index (CEMBI) Broad Diversified	5.12	96.4	5.92	4.4	1.23	4.48	8.50	14.49	1.06	2.79	3.99
JPMorgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified	5.55	–	6.11	5.3	3.39	8.99	4.95	13.42	0.60	0.59	0.57

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BONDS

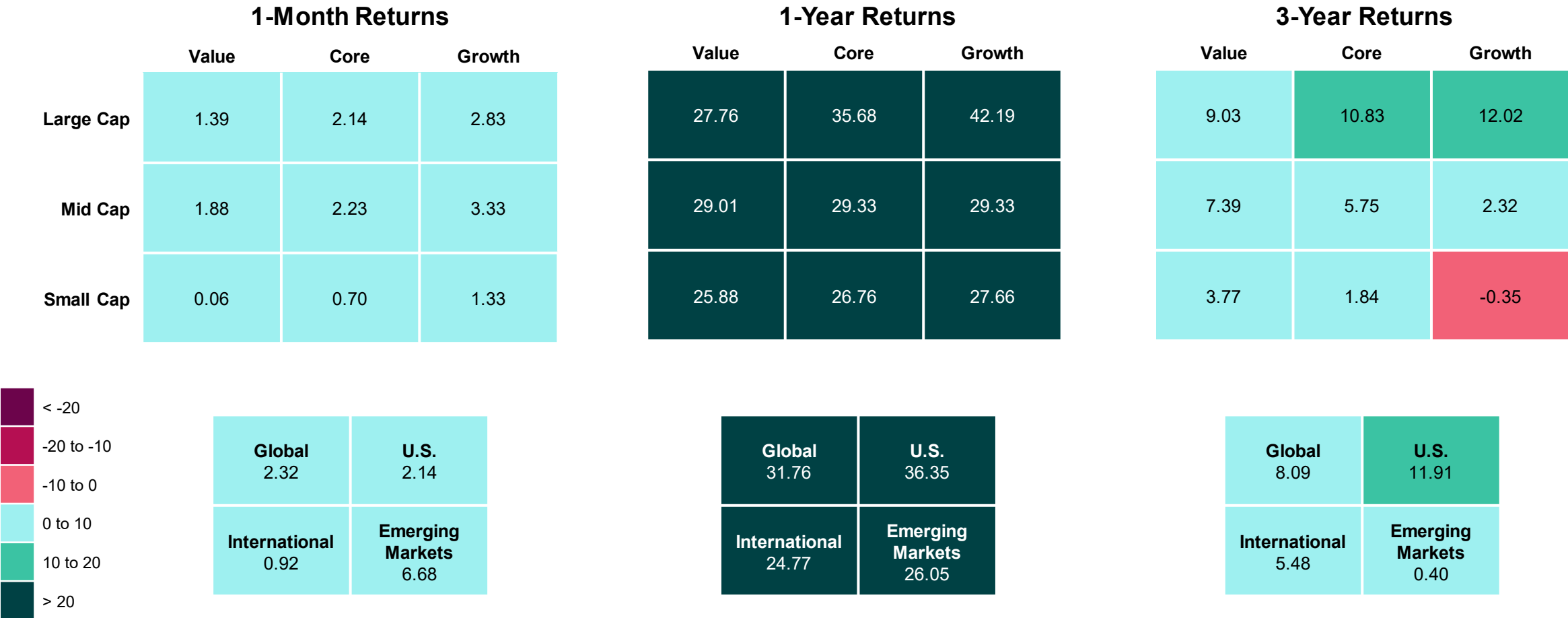
Asset Class Return Analysis (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
<div>Higher</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>Lower</div>	Municipal 9.05	Municipal 3.30	High Yield 17.49	EMD (Local Currency) 15.21	Municipal 1.28	Investment Grade 14.54	Global Agg Ex-U.S. 10.11	High Yield 5.36	Bank Loan -0.77	High Yield 13.46	EMD (Hard Currency) 8.64
	Investment Grade 7.46	MBS 1.51	EMD (Hard Currency) 10.19	Global Agg Ex-U.S. 10.51	MBS 0.99	EMD (Hard Currency) 14.42	Investment Grade 9.89	Bank Loan 5.20	Municipal -8.53	Bank Loan 13.32	EMD (Corp. Bonds) 8.50
	MBS 6.08	EMD (Corp. Bonds) 1.30	Bank Loan 10.16	EMD (Hard Currency) 9.32	Treasury 0.86	High Yield 14.41	Treasury 8.00	Municipal 1.52	High Yield -11.22	EMD (Local Currency) 12.70	High Yield 8.03
	EMD (Hard Currency) 5.53	EMD (Hard Currency) 1.23	EMD (Local Currency) 9.94	EMD (Corp. Bonds) 7.96	Bank Loan 0.44	EMD (Local Currency) 13.47	EMD (Corp. Bonds) 7.13	EMD (Corp. Bonds) 0.91	EMD (Local Currency) -11.69	EMD (Hard Currency) 10.45	Bank Loan 6.54
	Treasury 5.05	Treasury 0.84	EMD (Corp. Bonds) 9.65	High Yield 7.48	EMD (Corp. Bonds) -1.65	EMD (Corp. Bonds) 13.09	High Yield 6.17	Investment Grade -1.04	MBS -11.81	EMD (Corp. Bonds) 9.08	Investment Grade 5.32
	EMD (Corp. Bonds) 4.96	Investment Grade -0.68	Investment Grade 6.11	Investment Grade 6.42	Global Agg Ex-U.S. -2.15	Bank Loan 8.64	EMD (Hard Currency) 5.88	MBS -1.04	EMD (Corp. Bonds) -12.26	Investment Grade 8.52	EMD (Local Currency) 4.95
	High Yield 2.50	Bank Loan -0.69	MBS 1.67	Municipal 5.45	High Yield -2.26	Municipal 7.54	Municipal 5.21	EMD (Hard Currency) -1.51	Treasury -12.46	Municipal 6.40	MBS 4.50
	Bank Loan 1.60	High Yield -4.64	Global Agg Ex-U.S. 1.49	Bank Loan 4.12	Investment Grade -2.51	Treasury 6.86	MBS 3.87	Treasury -2.32	Investment Grade -15.76	Global Agg Ex-U.S. 5.72	Treasury 3.84
	Global Agg Ex-U.S. -3.08	Global Agg Ex-U.S. -6.02	Treasury 1.04	MBS 2.47	EMD (Hard Currency) -4.61	MBS 6.35	Bank Loan 3.12	Global Agg Ex-U.S. -7.05	EMD (Hard Currency) -16.45	MBS 5.05	Global Agg Ex-U.S. 2.81
	EMD (Local Currency) -5.72	EMD (Local Currency) -14.92	Municipal 0.25	Treasury 2.31	EMD (Local Currency) -6.21	Global Agg Ex-U.S. 5.09	EMD (Local Currency) 2.69	EMD (Local Currency) -8.75	Global Agg Ex-U.S. -18.70	Treasury 4.05	Municipal 2.30

Past performance is no guarantee of future results. It is not possible to invest directly in an index. In general, fixed income investments are subject to credit and interest rate risks. High yield investments may have a higher degree of credit and liquidity risk. Foreign securities are subject to currency, political, economic and market risks. Investors should carefully review the risks of each asset class prior to investing. Source: Morningstar as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Investment Grade represented by Bloomberg U.S. Corporate Index. MBS represented by Bloomberg U.S. Mortgage Backed Securities (MBS) Index. Treasury represented by Bloomberg U.S. Treasury Index. High Yield represented by ICE BofA US High Yield Index. Municipal represented by Bloomberg Municipal Bond Index. Bank Loan represented by Morningstar LSTA U.S. Leveraged Loan Index. Global Agg Ex-U.S. represented by Bloomberg Global Aggregate Ex-USD Index. EMD (Local Currency) represented by J.P. Morgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified. EMD (Hard Currency) represented by J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified. EMD (Corp. Bonds) represented by J.P. Morgan Corporate Emerging Market Bond Index (CEMBI) Broad Diversified.

EQUITIES

Performance: Market Barometer (%)

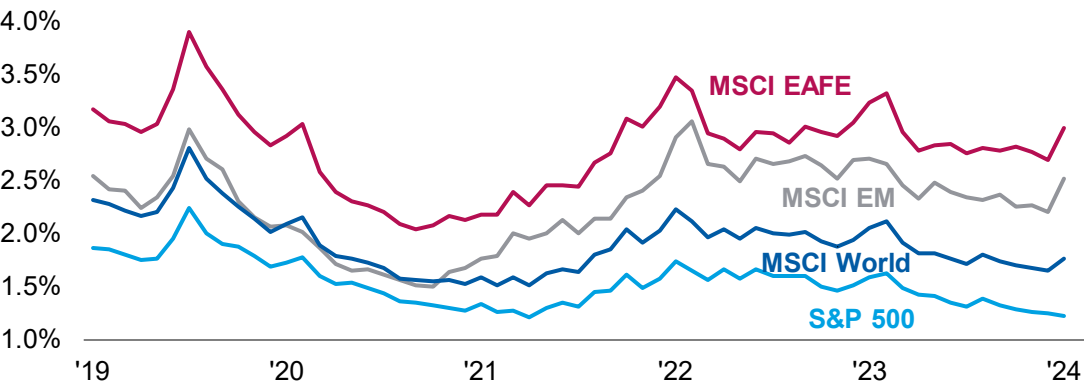


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It is not possible to invest directly in an index. Source: Morningstar as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Returns over 1 year are annualized. Large Cap Value represented by Russell 1000 Value Index. Large Cap Core represented by Russell 1000 Index. Large Cap Growth represented by Russell 1000 Growth Index. Mid Cap Value represented by Russell Mid Cap Value Index. Mid Cap Core represented by Russell Mid Cap Index. Mid Cap Growth represented by Russell Mid Cap Growth Index. Small Cap Value represented by Russell 2000 Value Index. Small Cap Core represented by Russell 2000 Index. Small Cap Growth represented by Russell 2000 Growth Index. Global represented by MSCI ACWI Index. US represented by S&P 500 Index. International represented by MSCI EAFE Index. Emerging Markets represented by MSCI Emerging Markets Index.

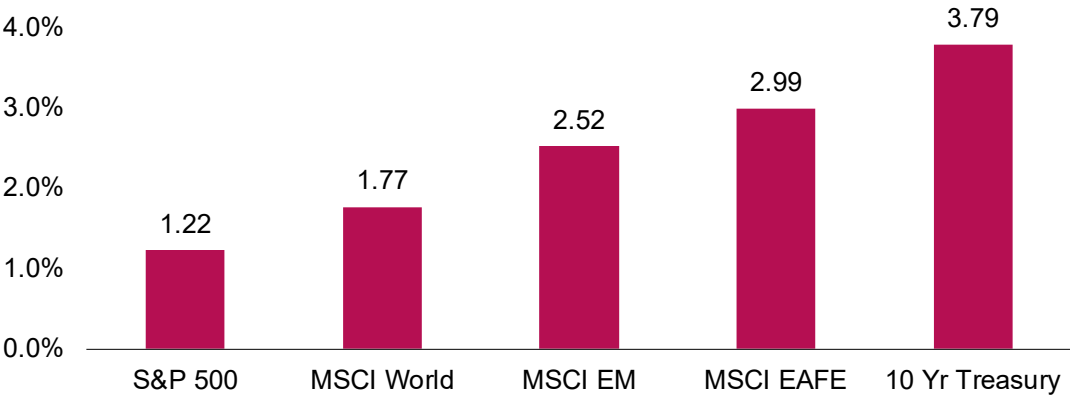
EQUITIES

Dividend Yields and Volatility Analysis

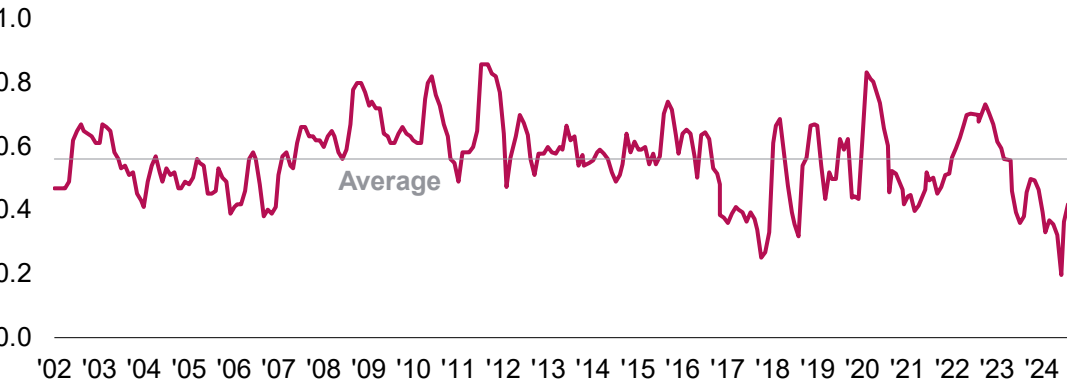
Historical Yields



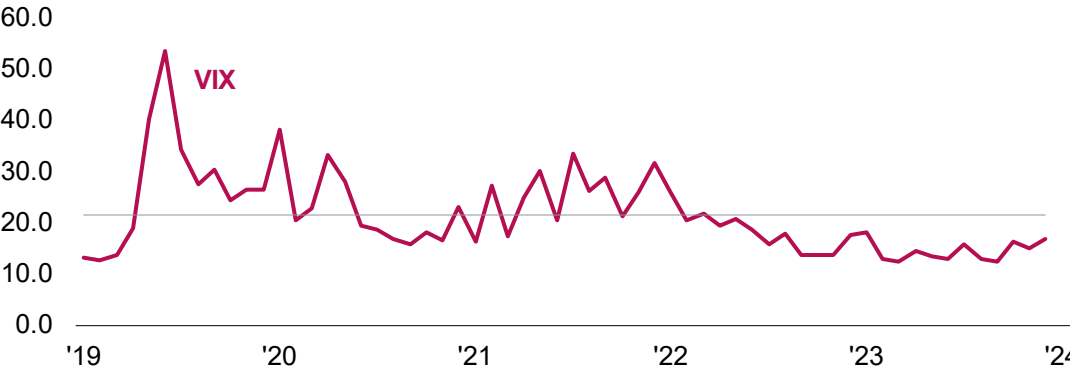
Current Yields



Correlation of S&P 500 Stocks



CBOE Market Volatility Index (VIX)



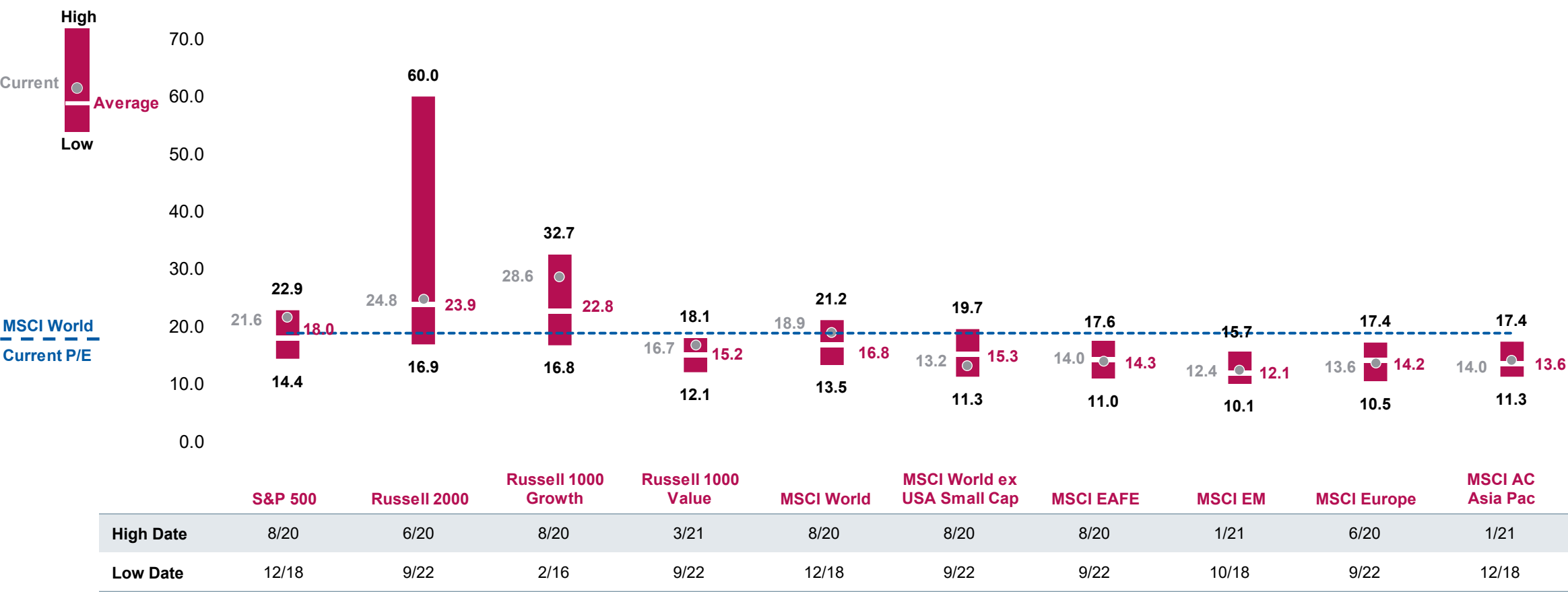
Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: FactSet and Ned Davis Research as of 9/30/24. Correlation of S&P 500 Stocks is measured by the median 63-day rolling correlation of one day returns data provided is for informational use only. See end of report for important additional information.



EQUITIES

Valuation Analysis

Regions/Styles: Current NTM P/E vs. 10-Year High, Low, Average

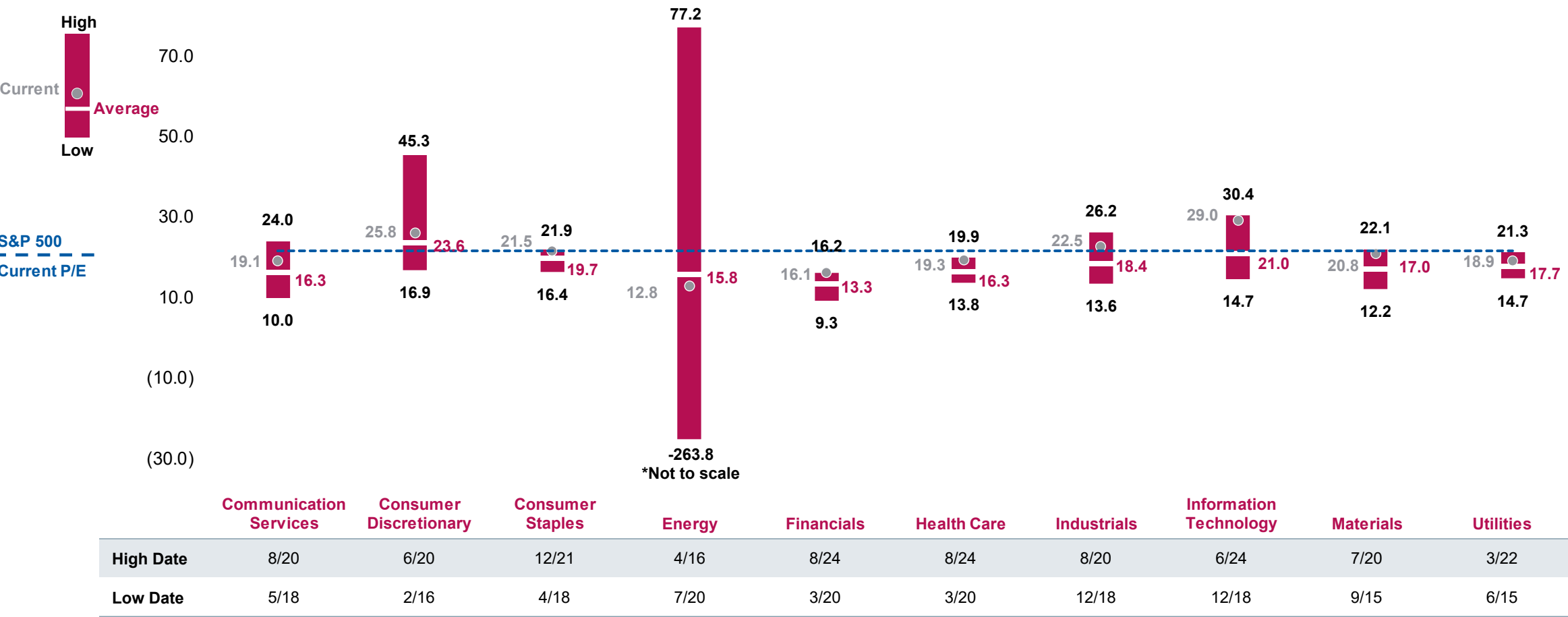


Source: FactSet as of 9/30/24. NTM P/E is market price per share divided by expected earnings per share over the next twelve months. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

EQUITIES

Valuation Analysis

S&P 500 Sectors: Current NTM P/E vs. 10-Year High, Low, Average



Source: FactSet as of 9/30/24. NTM P/E is market price per share divided by expected earnings per share over the next twelve months. The Real Estate sector is excluded from this 10-year chart since the sector was created on August 31, 2016. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

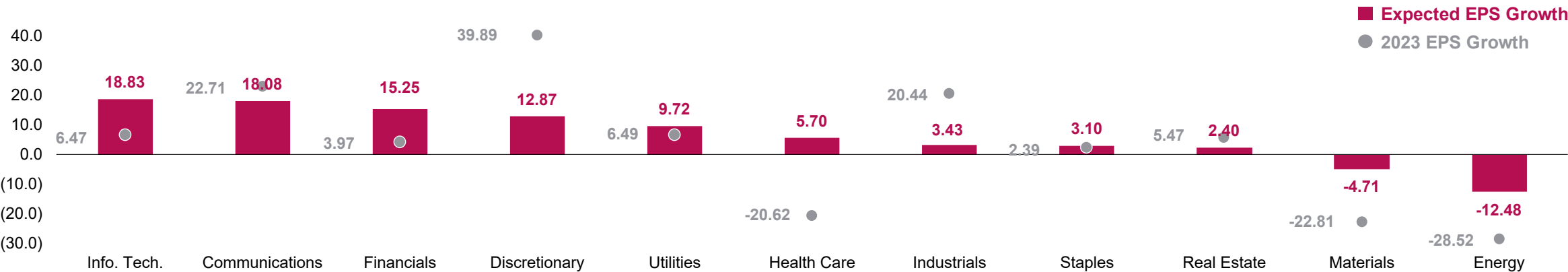
EQUITIES

Corporate Earnings Growth

Regions/Styles



S&P 500 Sectors

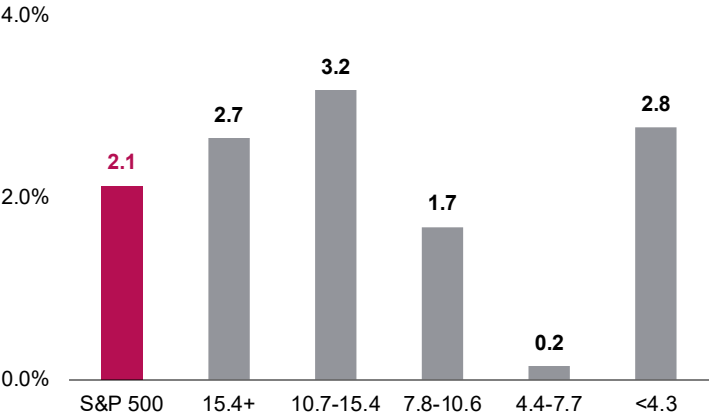


Source: FactSet as of 9/30/24. Expected EPS Growth is defined as the expected % change in the EPS growth from the beginning of the current calendar year though the end of the calendar year. 2023 EPS Growth is defined as the % change in EPS from the beginning of the year through the end of the year. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

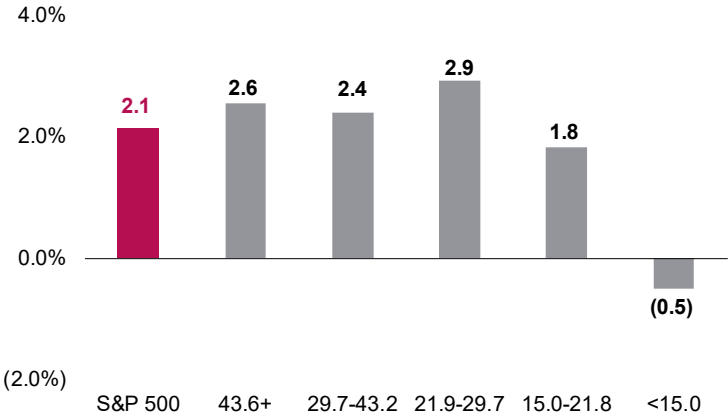
EQUITIES

S&P 500 Index: 1-Month Return Analysis

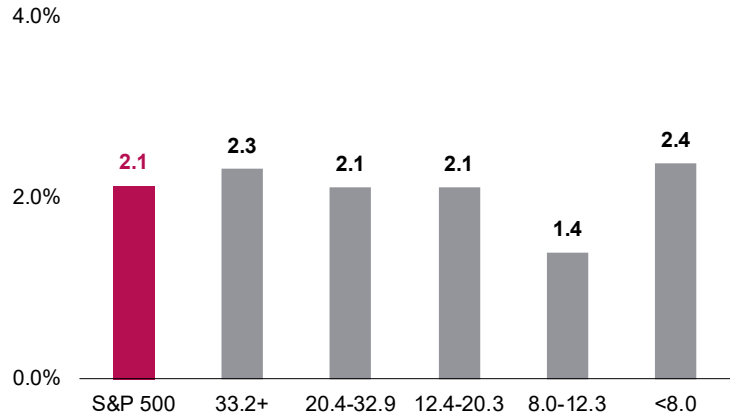
3-5 Year Earnings Growth



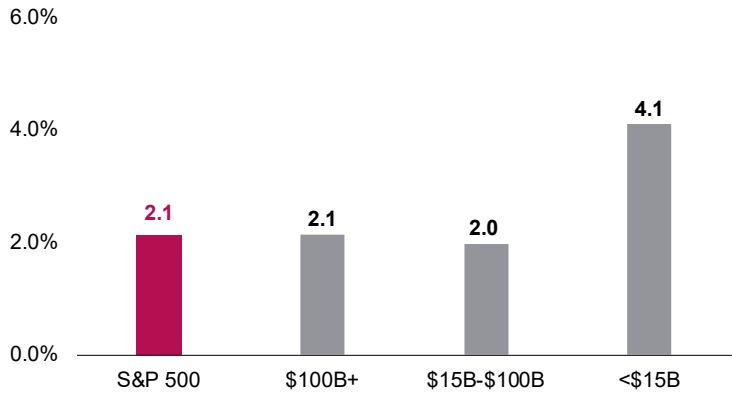
Trailing 12 Month P/E



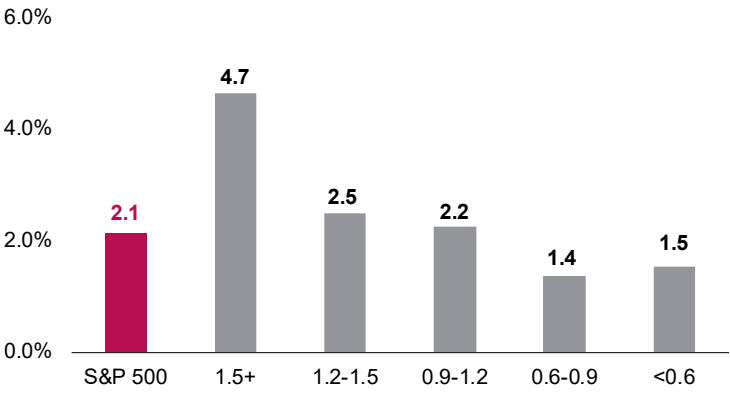
Return On Equity



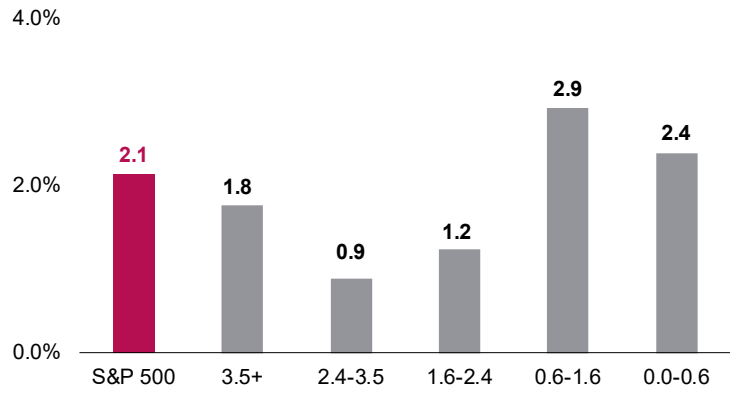
Market Cap



Beta



Dividend Yield

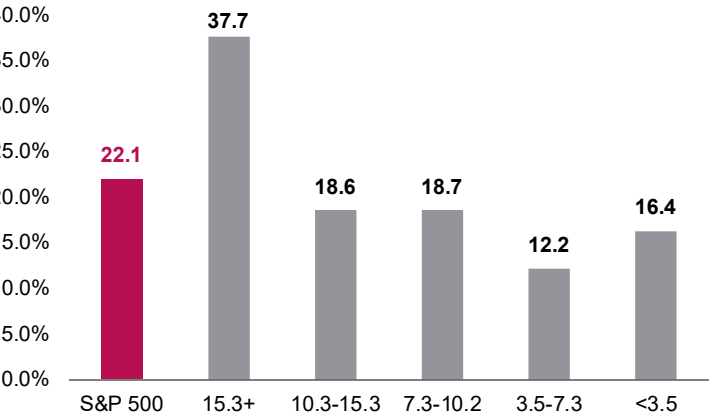


Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: FactSet as of 9/30/24. Data provided is for informational use only. See end of report for important additional information.

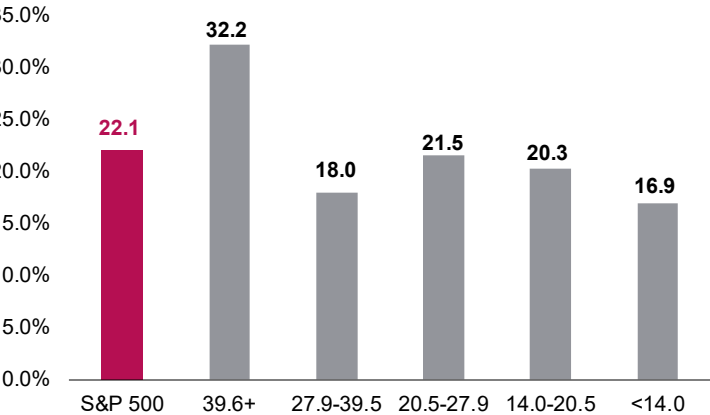
EQUITIES

S&P 500 Index: YTD Analysis

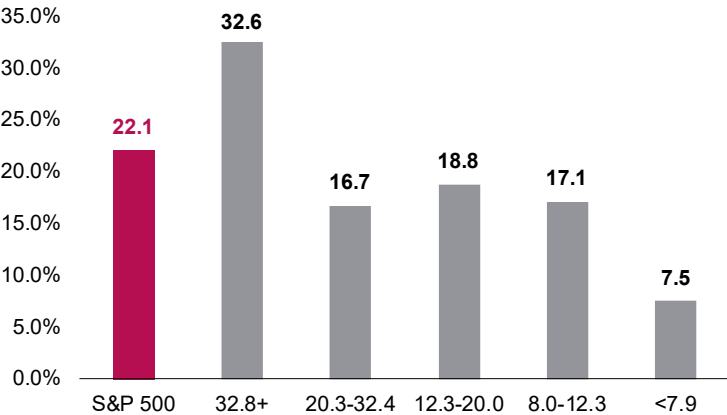
3-5 Year Earnings Growth



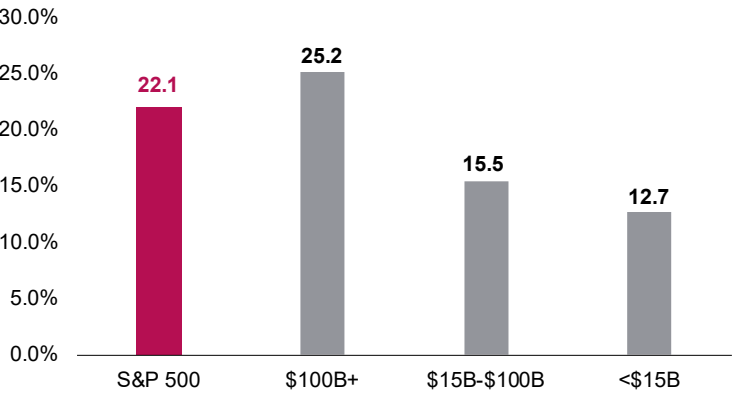
Trailing 12 Month P/E



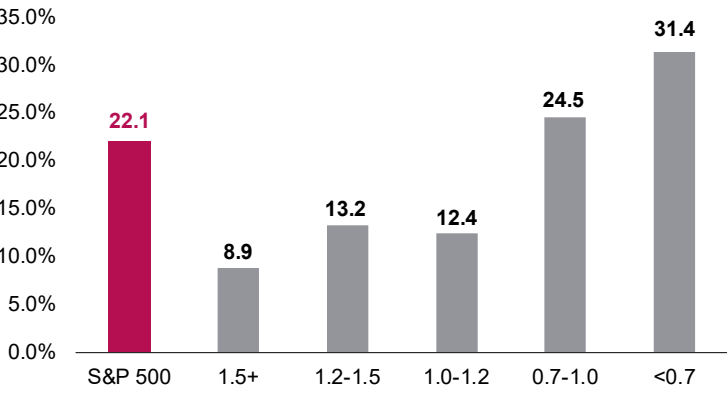
Return On Equity



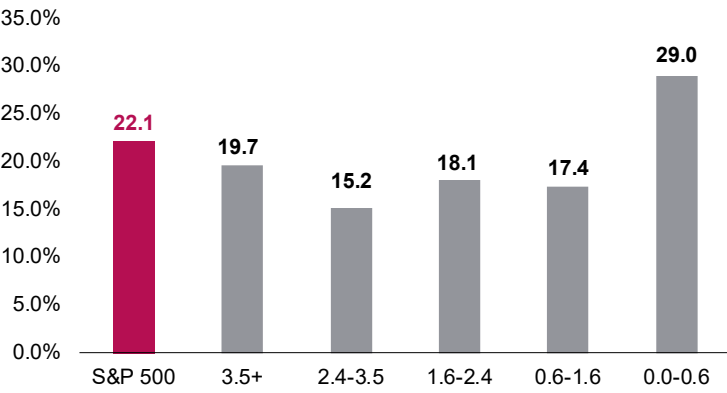
Market Cap



Beta



Dividend Yield



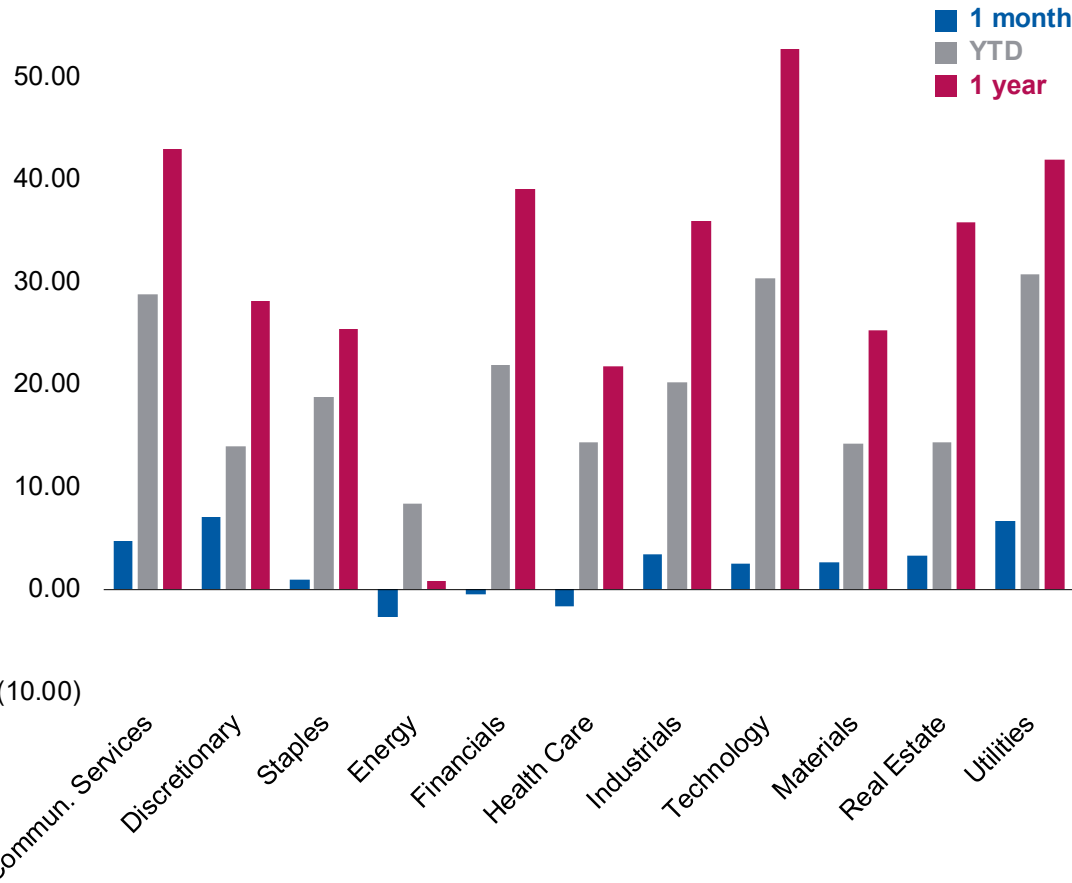
Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: FactSet as of 9/30/24. Data provided is for informational use only. See end of report for important additional information.

EQUITIES

Index Sectors: Return Analysis

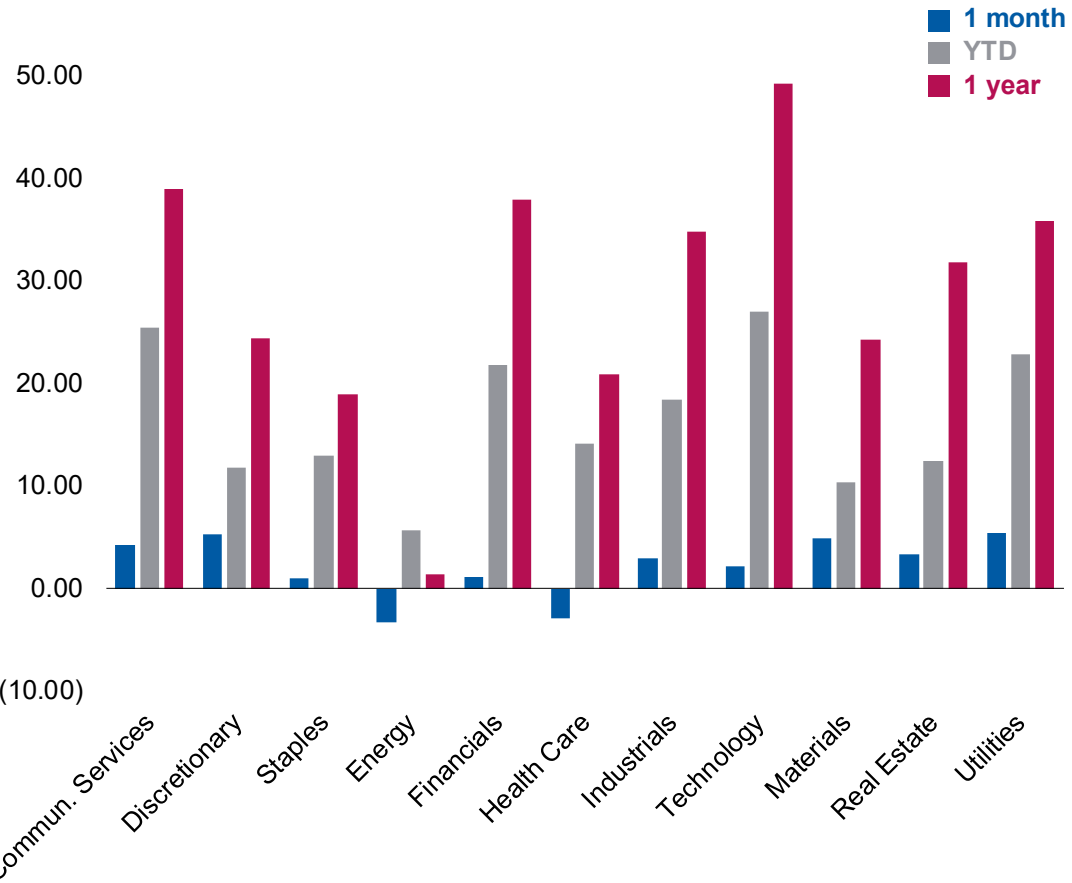
S&P 500

Return %



MSCI World

Return %

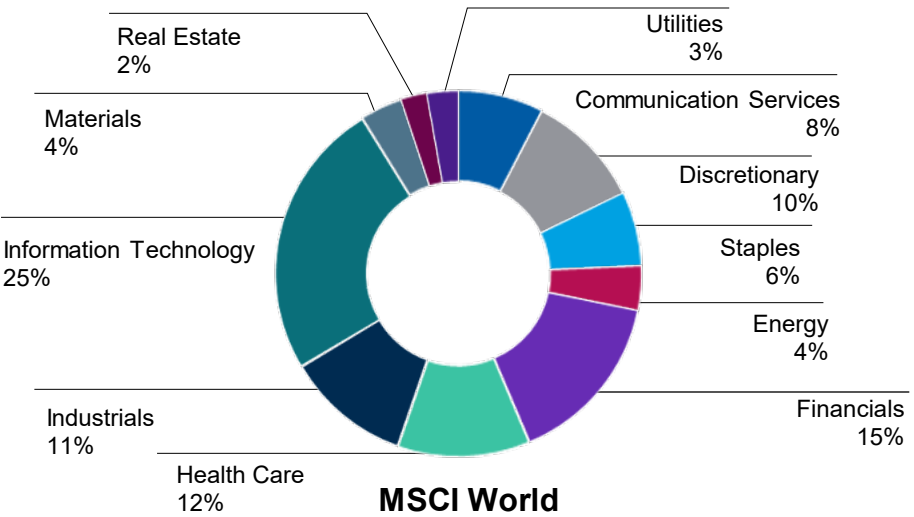
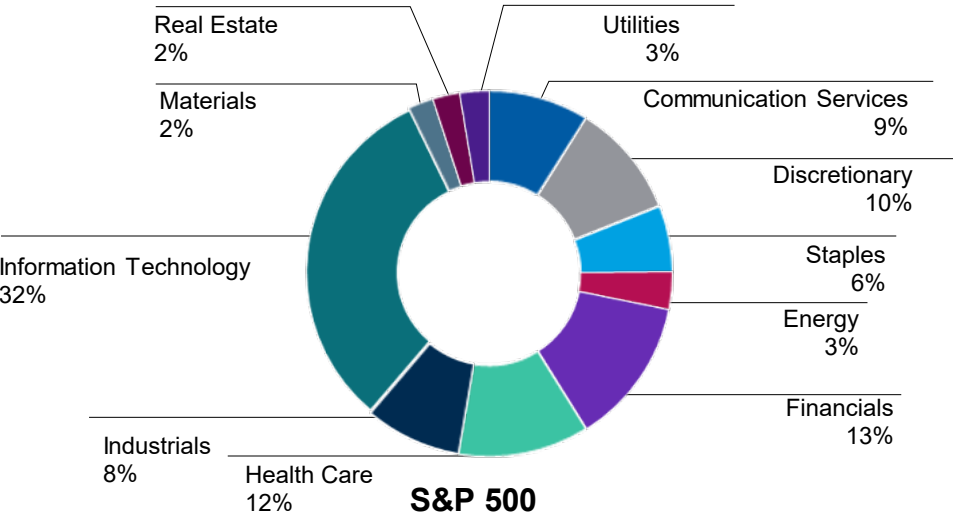


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EQUITIES

Current Characteristics and Sector Weights

	S&P 500	R2000	R1000G	R1000V	MSCI World	MSCI World ex USA Small Cap	MSCI EAFE	MSCI EM	MSCI Europe	MSCI Asia Pac
Number of Holdings	504	1977	394	872	1410	2309	732	1277	415	1330
Maximum Market Cap	\$3,542.56B	\$15.87B	\$3,542.56B	\$992.32B	\$3,394.20B	\$10.24B	\$379.37B	\$745.03B	\$379.37B	\$745.03B
Minimum Market Cap	\$4.94B	\$0.01B	\$0.81B	\$0.30B	\$2.05B	\$0.03B	\$2.05B	\$0.14B	\$2.05B	\$0.14B
Dividend Yield	1.22	1.29	0.54	1.96	1.77	2.93	2.99	2.52	3.14	2.38
NTM PE	21.60	24.75	28.65	16.73	18.92	13.15	13.96	12.42	13.55	14.02
Price to Book	5.04	2.10	13.40	2.80	3.53	1.46	1.99	2.01	2.22	1.86
Price to Cash Flow	17.93	14.50	26.99	12.63	15.41	9.43	11.37	9.32	10.17	12.18
Price to Sales	3.02	1.30	5.71	1.84	2.33	0.95	1.45	1.56	1.44	1.54
Est 3-5 Yr EPS Growth	14.53	13.93	18.47	10.22	13.86	12.59	11.46	15.61	12.01	13.36
5Yr. Div Growth Rate	4.44	6.16	5.40	1.16	2.60	4.84	0.40	2.62	-0.24	0.55



Source: FactSet as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

EQUITIES

Asset Class Return Analysis (%)

	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y	2023	2022	2021	2020	2019	
U.S. Equities	S&P 500	2.14	5.89	22.08	36.35	11.91	15.98	13.38	26.29	-18.11	28.71	18.40	31.49
	Russell 1000 Defensive	1.31	6.51	18.41	30.39	9.79	12.83	12.40	20.23	-16.43	26.93	13.93	30.47
	Russell 1000 Dynamic	2.99	5.65	23.95	41.15	11.79	18.28	13.62	33.34	-21.94	25.57	27.69	32.35
	Russell 2500	1.49	8.75	11.30	26.17	3.47	10.43	9.50	17.42	-18.37	18.18	19.99	27.77
	Russell 1000 Growth	2.83	3.19	24.55	42.19	12.02	19.74	16.52	42.68	-29.14	27.60	38.49	36.39
	Russell 1000 Value	1.39	9.43	16.68	27.76	9.03	10.69	9.23	11.46	-7.54	25.16	2.80	26.54
	Russell Mid Cap	2.23	9.21	14.63	29.33	5.75	11.30	10.19	17.23	-17.32	22.58	17.10	30.54
	Russell 2000	0.70	9.27	11.17	26.76	1.84	9.39	8.78	16.93	-20.44	14.82	19.96	25.52
	CBOE S&P 500 Buywrite BXM	1.40	5.54	13.55	18.31	6.39	6.59	6.25	11.82	-11.37	20.47	-2.75	15.68
Global Equities	MSCI World	1.83	6.36	18.86	32.43	9.08	13.04	10.07	23.79	-18.14	21.82	15.90	27.67
	MSCI EAFE	0.92	7.26	12.99	24.77	5.48	8.20	5.71	18.24	-14.45	11.26	7.82	22.01
	MSCI EM	6.68	8.72	16.86	26.05	0.40	5.75	4.02	9.83	-20.09	-2.54	18.31	18.44
	MSCI AC Asia Pac	5.09	9.02	17.50	26.85	2.09	6.95	5.83	11.45	-17.22	-1.46	19.71	19.36
	MSCI ACWI	2.32	6.61	18.66	31.76	8.09	12.19	9.39	22.20	-18.36	18.54	16.25	26.60
	MSCI Europe	0.39	6.58	12.77	25.23	6.66	8.90	5.59	19.89	-15.06	16.30	5.38	23.77
	MSCI World Small Cap	1.87	9.39	11.02	24.87	2.20	9.00	7.99	15.76	-18.76	15.75	15.96	26.19
	MSCI World Ex USA Small Cap	2.71	10.45	11.53	23.36	0.05	6.85	5.99	12.62	-20.59	11.14	12.78	25.41
	FTSE 100	0.49	8.05	15.59	23.51	8.96	7.77	4.22	14.38	-7.01	17.36	-8.73	22.03
	FTSE All Small	2.04	10.30	16.85	29.73	0.77	10.02	5.94	12.57	-23.06	22.15	10.77	22.63
	STOXX Europe 600	1.65	8.11	14.18	27.13	6.60	9.24	5.86	19.87	-16.14	16.09	6.83	24.53
	Nikkei 225 Average	0.40	8.36	13.13	25.96	1.78	7.30	7.69	22.05	-19.49	-4.69	23.99	21.35
Sectors	S&P 500 Comm. Services	4.63	1.68	28.81	42.91	6.45	14.59	9.78	55.80	-39.89	21.57	23.61	32.69
	S&P 500 Cons Disc	7.09	7.80	13.91	28.06	4.85	12.10	13.06	42.41	-37.03	24.43	33.30	27.94
	S&P 500 Cons Staples	0.90	8.96	18.74	25.32	10.36	10.04	9.65	0.52	-0.62	18.63	10.75	27.61
	S&P 500 Energy	-2.68	-2.32	8.36	0.85	24.14	13.90	3.99	-1.33	65.72	54.64	-33.68	11.81
	S&P 500 Financials	-0.54	10.66	21.91	39.01	8.55	12.40	11.45	12.15	-10.53	35.04	-1.69	32.13
	S&P 500 Health Care	-1.68	6.07	14.35	21.69	8.35	13.37	11.14	2.06	-1.95	26.13	13.45	20.82
	S&P 500 Industrials	3.39	11.55	20.20	35.89	13.40	13.76	11.73	18.13	-5.48	21.12	11.06	29.37
	S&P 500 Info Tech	2.49	1.61	30.31	52.68	19.89	26.74	22.40	57.84	-28.19	34.53	43.89	50.29
	S&P 500 Materials	2.64	9.70	14.14	25.20	9.09	13.00	9.12	12.55	-12.27	27.28	20.73	24.58
	S&P 500 Real Estate	3.31	17.17	14.31	35.83	3.70	6.18	8.86	12.36	-26.13	46.19	-2.17	29.01
	S&P 500 Utilities	6.60	19.37	30.63	41.82	11.66	7.99	10.41	-7.08	1.57	17.67	0.48	26.35

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EQUITIES

Asset Class Return Analysis (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
Higher	S&P 500 13.69	Growth 5.67	Small-Cap 21.31	Emerging Markets 37.28	Growth -1.51	Growth 36.39	Growth 38.49	S&P 500 28.71	Value -7.54	Growth 42.68	Growth 24.55
	Value 13.45	International Small-Cap 5.46	Value 17.34	International Small-Cap 31.04	S&P 500 -4.38	S&P 500 31.49	Small-Cap 19.96	Growth 27.60	International -14.45	S&P 500 26.29	S&P 500 22.08
	Mid-Cap 13.22	S&P 500 1.38	Mid-Cap 13.80	Growth 30.21	Value -8.27	Mid-Cap 30.54	S&P 500 18.40	Value 25.16	Mid-Cap -17.32	Global 22.20	Global 18.66
	Growth 13.05	International -0.81	S&P 500 11.96	International 25.03	Mid-Cap -9.06	Global 26.60	Emerging Markets 18.31	Mid-Cap 22.58	S&P 500 -18.11	International 18.24	Emerging Markets 16.86
	Small-Cap 4.89	Global -2.36	Emerging Markets 11.19	Global 23.97	Global -9.42	Value 26.54	Mid-Cap 17.10	Global 18.54	Global -18.36	Mid-Cap 17.23	Value 16.68
	Global 4.16	Mid-Cap -2.44	Global 7.86	S&P 500 21.83	Small-Cap -11.01	Small-Cap 25.52	Global 16.25	Small-Cap 14.82	Emerging Markets -20.09	Small-Cap 16.93	Mid-Cap 14.63
	Emerging Markets -2.19	Value -3.83	Growth 7.08	Mid-Cap 18.52	International -13.79	International Small-Cap 25.41	International Small-Cap 12.78	International 11.26	Small-Cap -20.44	International Small-Cap 12.62	International 12.99
	International -4.90	Small-Cap -4.41	International Small-Cap 4.32	Small-Cap 14.65	Emerging Markets -14.58	International 22.01	International 7.82	International Small-Cap 11.14	International Small-Cap -20.59	Value 11.46	International Small-Cap 11.53
Lower	International Small-Cap -5.34	Emerging Markets -14.92	International 1.00	Value 13.66	International Small-Cap -18.07	Emerging Markets 18.42	Value 2.80	Emerging Markets -2.54	Growth -29.14	Emerging Markets 9.83	Small-Cap 11.17

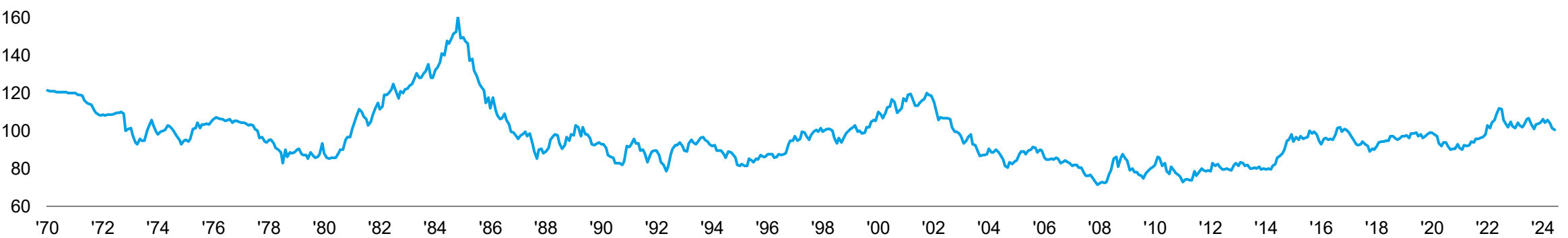
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ALTERNATIVES

Developed Market Currency Performance and Yields

Currency	Spot Returns vs. USD (%)					Spot Returns vs. EUR (%)					Local Interest Rates (%)
	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
U.S. Dollar (USD)	-	-	-	-	-	-0.82	-1.02	-5.13	1.27	-0.47	3.95
Euro (EUR) *	0.83	1.03	5.41	-1.25	0.47	-	-	-	-	-	2.42
British Pound (GBP)	2.06	5.22	9.90	-0.17	1.71	1.23	4.15	4.25	1.09	1.23	4.36
Japanese Yen (JPY)	1.79	-1.44	4.32	-7.95	-5.45	0.96	-2.45	-1.03	-6.78	-5.89	0.35
Australian Dollar (AUD)	2.25	1.67	7.49	-1.34	0.57	1.41	0.63	1.97	-0.09	0.10	3.78
Canadian Dollar (CAD)	-0.24	-2.39	0.08	-2.12	-0.40	-1.05	-3.39	-5.06	-0.88	-0.87	3.29
New Zealand Dollar (NZD)	1.69	0.49	5.89	-2.66	0.29	0.86	-0.54	0.45	-1.43	-0.18	3.95
Norwegian Krone (NOK)	0.57	-3.58	1.03	-6.07	-2.91	-0.26	-4.56	-4.16	-4.88	-3.37	4.06
Swedish Krona (SEK)	1.03	-0.58	7.18	-4.79	-0.61	0.20	-1.60	1.68	-3.59	-1.07	2.16
Danish Krone (DKK)	0.88	1.03	5.45	-1.33	0.50	0.06	0.00	0.03	-0.08	0.03	2.05
Swiss Franc (CHF)	0.58	-0.23	8.45	3.41	3.40	-0.24	-1.24	2.88	4.72	2.92	0.55

U.S. Dollar Index



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ALTERNATIVES

Emerging Market Currency Performance and Yields

Currency	Spot Returns vs. USD (%)					Spot Returns vs. EUR (%)					Local Interest Rates (%)
	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
Asia, excluding Japan											
Chinese Renminbi (CNY)	1.03	1.08	4.10	-2.70	0.35	0.20	0.05	-1.24	-1.47	-0.12	1.34
Malaysian Ringgit (MYR)	4.83	11.43	13.87	0.51	0.31	3.97	10.30	8.02	1.78	-0.16	3.14
Indian Rupee (INR)	0.08	-0.70	-0.91	-3.96	-3.30	-0.74	-1.72	-5.99	-2.75	-3.75	6.63
Indonesian Rupiah (IDR)	2.08	1.70	2.08	-1.86	-1.28	1.24	0.66	-3.16	-0.61	-1.74	6.06
Philippine Peso (PHP)	0.20	-1.18	0.96	-3.08	-1.55	-0.62	-2.19	-4.22	-1.86	-2.01	5.48
Singapore Dollar (SGD)	1.67	2.89	6.47	1.93	1.53	0.84	1.84	1.00	3.22	1.05	2.98
South Korean Won (KRW)	2.15	-1.51	3.19	-3.26	-1.77	1.32	-2.52	-2.11	-2.03	-2.23	2.81
Taiwanese Dollar (TWD)	1.09	-3.02	2.00	-4.16	-0.40	0.26	-4.01	-3.23	-2.95	-0.86	1.35
Thai Baht (THB)	5.18	6.08	13.16	1.69	-1.01	4.32	4.99	7.35	2.97	-1.47	2.15
Latin America											
Brazilian Real (BRL)	3.99	-10.80	-8.09	0.02	-5.22	3.14	-11.71	-12.81	1.28	-5.66	11.42
Chilean Peso (CLP)	2.12	-2.74	-0.51	-3.29	-4.10	1.28	-3.73	-5.61	-2.06	-4.55	4.97
Colombian Peso (COP)	-0.24	-7.19	-3.07	-2.98	-3.58	-1.06	-8.14	-8.04	-1.75	-4.03	8.12
Mexican Peso (MXN)	0.22	-13.61	-11.34	1.58	0.14	-0.60	-14.49	-15.90	2.86	-0.32	10.11
Peruvian New Sol (PEN)	0.81	-0.45	1.95	3.59	-1.87	-0.01	-1.47	-3.29	4.90	-2.33	4.43

Past performance is no guarantee of future results.

It is not possible to invest directly in an index. Source: Factset, Bloomberg as of 9/30/24. Data provided is for informational use only. See end of report for important additional information..

ALTERNATIVES

Emerging Market Currency Performance and Yields

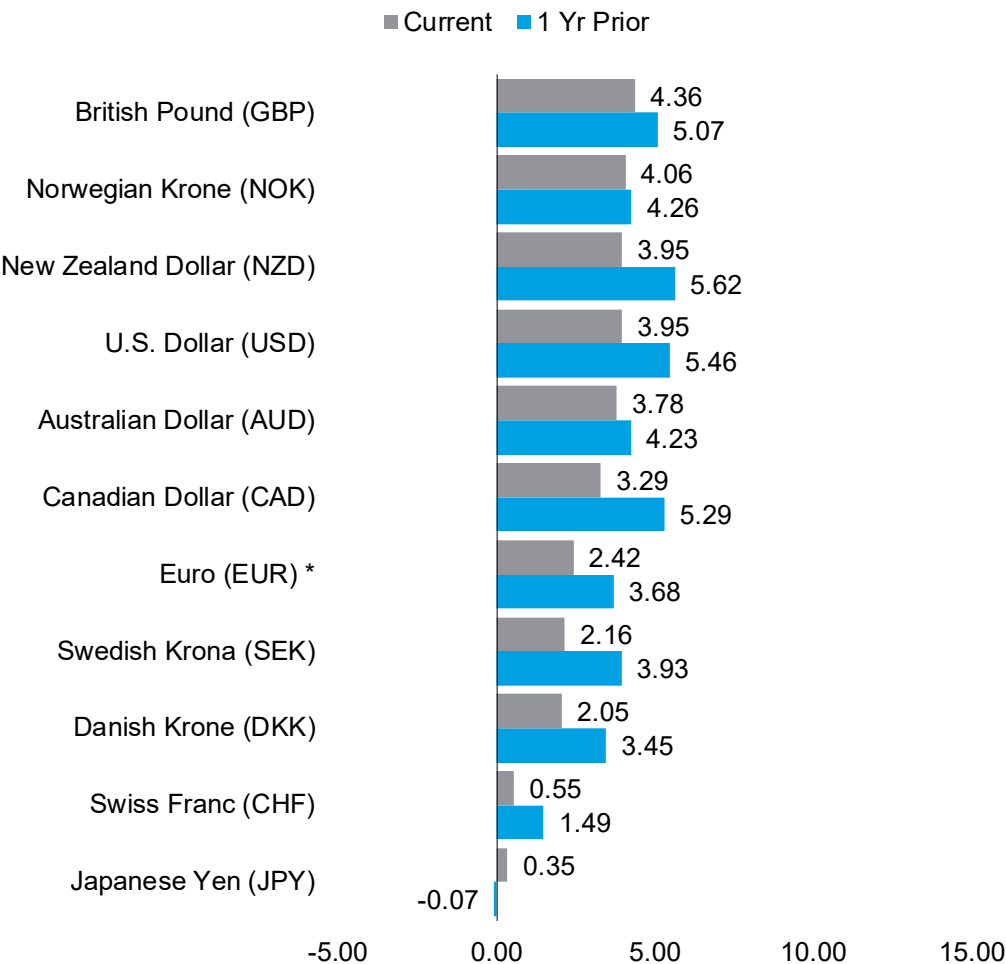
Currency	Spot Returns vs. USD (%)					Spot Returns vs. EUR (%)					Local Interest Rates (%)
	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
Europe											
Czech Koruna (CZK)	0.08	-1.08	1.81	-1.08	0.94	-0.74	-2.09	-3.41	0.17	0.47	3.14
Hungarian Forint (HUF)	-0.34	-2.77	3.07	-4.50	-2.89	-1.16	-3.76	-2.22	-3.29	-3.35	5.27
Polish Zloty (PLN)	0.67	2.50	13.78	1.16	0.89	-0.15	1.45	7.94	2.44	0.41	4.35
Romanian Leu (RON)	0.84	1.01	5.37	-1.42	-0.49	0.01	-0.02	-0.04	-0.18	-0.95	5.49
Russian Ruble (RUB)	-2.66	-4.00	4.81	-7.89	-6.97	-3.46	-4.98	-0.58	-6.72	-7.41	--
Turkish New Lira (TRY)	-0.35	-13.61	-19.81	-36.19	-30.24	-1.16	-14.49	-23.93	-35.38	-30.57	40.42
Middle East and Africa											
Ghanaian Cedi (GHS)	-0.95	-24.59	-26.93	-27.54	-19.32	-1.76	-25.36	-30.68	-26.63	-19.70	17.90
Israeli Shekel (ILS)	-2.48	-3.19	2.35	-4.63	-1.35	-3.28	-4.18	-2.91	-3.43	-1.81	4.22
Kenyan Shilling (KES)	-0.19	21.71	14.88	-5.03	-4.24	-1.01	20.46	8.99	-3.83	-4.69	16.80
Moroccan Dirham (MAD)	0.48	1.62	5.82	-2.27	0.07	-0.34	0.58	0.39	-1.03	-0.39	2.74
Nigerian Naira (NGN)	-4.04	-46.26	-52.19	-37.19	-26.37	-4.83	-46.81	-54.64	-36.40	-26.71	20.80
South African Rand (ZAR)	3.03	6.12	9.32	-4.42	-2.53	2.19	5.04	3.71	-3.21	-2.98	8.05
Ugandan Shilling (UGX)	0.95	2.52	1.98	-1.21	-0.02	0.12	1.48	-3.26	0.04	-0.49	14.50
Zambian Kwacha (ZMK)	-0.85	-2.70	-20.81	-14.10	-13.09	-1.66	-3.70	-24.88	-13.01	-13.50	19.00

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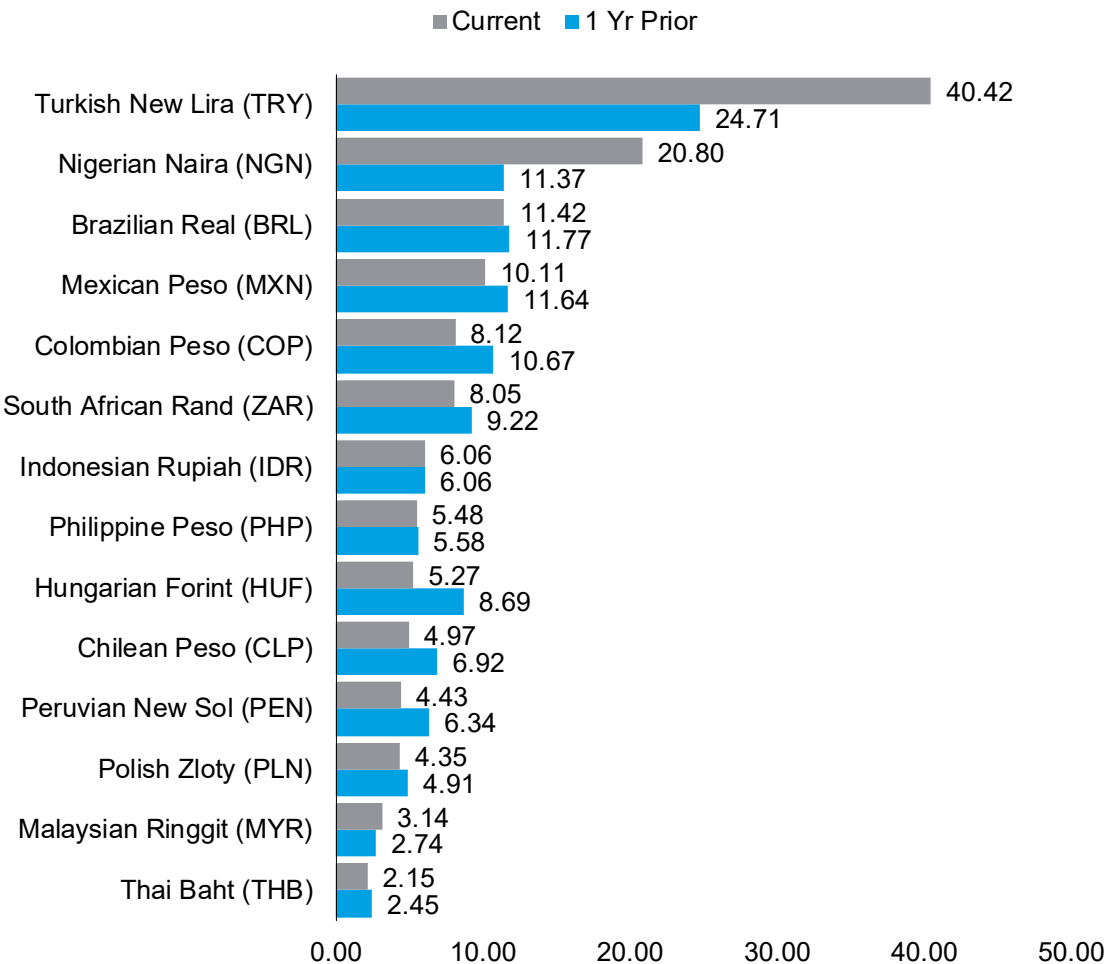
ALTERNATIVES

Local Sovereign Currency Yields

Developed Market Local Interest Rates % (1 Year)



Emerging Market Local Interest Rates % (1 Year)



Past performance is no guarantee of future results. It is not possible to invest directly in an index. \*German Rate. Source: Bloomberg as 9/30/24. Data provided is for informational use only. See end of report for important additional information.

ALTERNATIVES

Commodities Return Analysis (%)

Index	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y
Bloomberg Commodity Index	4.86	0.68	5.86	0.96	3.66	7.79
Bloomberg Sub Agriculture	7.63	3.74	-2.78	-3.08	4.48	11.15
Coffee	11.19	22.78	56.19	108.11	20.66	23.08
Corn	6.36	0.78	-16.11	-18.52	-2.59	4.82
Cotton	5.61	2.61	-7.69	-15.81	-1.46	8.69
Soybean	6.14	-2.98	-14.63	-14.39	5.64	10.51
Soybean Oil	3.52	0.22	-9.16	-19.49	-1.97	15.05
Sugar	14.39	10.20	17.22	-7.66	13.38	17.82
Wheat	6.33	-1.13	-12.95	-1.84	-13.30	-2.54
Bloomberg Sub Energy	0.48	-11.19	-4.10	-21.50	-3.80	-1.15
Brent Crude	-5.61	-12.12	2.90	-10.52	14.16	13.74
Heating Oil	-5.68	-15.40	-6.65	-22.81	21.08	13.52
Natural Gas	17.50	-10.19	-27.09	-45.04	-43.37	-28.58
Unleaded Gas	-5.42	-11.52	0.62	-9.55	19.27	16.43
WTI Crude Oil	-5.77	-11.82	5.01	-13.35	9.49	3.13

Index	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y
Bloomberg Sub Industrial Metals	6.83	2.97	12.22	12.39	2.62	8.52
Aluminum	6.84	3.12	8.24	8.96	-3.80	6.62
Copper	8.56	4.08	19.37	24.55	5.75	12.93
Nickel	4.43	1.07	5.10	-6.70	-0.07	0.60
Zinc	6.99	5.33	15.81	16.88	5.19	7.21
Bloomberg Sub Precious Metals	6.31	11.28	28.00	41.35	13.59	11.44
Gold	5.65	12.93	27.22	41.70	13.99	11.26
Platinum	5.67	-1.97	-1.21	9.45	2.63	2.58
Silver	8.39	6.31	30.02	39.33	12.04	11.78
Bloomberg Sub Livestock	1.93	4.70	14.75	4.39	7.19	0.15
Lean Hogs	-1.25	14.20	17.46	7.53	-1.82	-5.46
Live Cattle	3.71	0.17	15.28	4.70	12.64	3.63

Past performance is no guarantee of future results.  
It is not possible to invest directly in an index. Source: Morningstar as of 9/30/24. Data provided is for informational use only. See end of report for important additional information. Commodity represented by Bloomberg Commodity Index. Agriculture represented by Bloomberg Agriculture Subindex. Energy represented by Bloomberg Energy Subindex. Grains represented by Bloomberg Grains Subindex. Industrial Metals represented by Bloomberg Industrial Metals Subindex. Livestock represented by Bloomberg Livestock Subindex. Precious Metals represented by Bloomberg Precious Metals Subindex.

ALTERNATIVES

Asset Class Return Analysis (%)

Higher

Lower

2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
Managed Futures 18.37	Multi-Strategy 3.84	MLP 18.31	Long/Short Equity 13.41	Fixed Income Arbitrage 1.10	Long/Short Equity 12.17	Convertible Arbitrage 10.25	MLP 40.17	MLP 30.92	MLP 26.56	MLP 18.90
Multi-Strategy 6.09	Long/Short Equity 3.55	Commodity 11.77	Currency 11.54	Global Macro -0.11	Global Macro 10.38	Long/Short Equity 7.86	Commodity 27.11	Managed Futures 19.12	Long/Short Equity 10.93	Long/Short Equity 12.27
Long/Short Equity 5.55	Equity Market Neutral 1.69	Convertible Arbitrage 6.60	Equity Market Neutral 8.45	Multi-Strategy -1.05	Managed Futures 9.01	Event Driven 6.95	Event Driven 12.92	Commodity 16.09	Event Driven 9.30	Equity Market Neutral 8.08
MLP 4.80	Convertible Arbitrage 0.81	Multi-Strategy 4.41	Multi-Strategy 6.83	Convertible Arbitrage -2.26	Event Driven 8.22	Global Macro 6.53	Global Macro 9.60	Global Macro 15.89	Currency 8.44	Event Driven 7.94
Fixed Income Arbitrage 4.37	Fixed Income Arbitrage 0.59	Fixed Income Arbitrage 4.29	Fixed Income Arbitrage 6.52	Currency -3.33	Convertible Arbitrage 8.15	Multi-Strategy 5.60	Long/Short Equity 8.35	Equity Market Neutral 1.71	Multi-Strategy 8.04	Multi-Strategy 6.76
Global Macro 3.11	Global Macro 0.18	Global Macro 3.58	Event Driven 6.30	Event Driven -3.95	Commodity 7.69	Fixed Income Arbitrage 3.64	Managed Futures 8.19	Multi-Strategy 1.27	Fixed Income Arbitrage 7.71	Convertible Arbitrage 4.55
Event Driven 1.57	Managed Futures -0.93	Currency 3.54	Convertible Arbitrage 5.01	Long/Short Equity -4.62	Multi-Strategy 7.25	Managed Futures 1.86	Multi-Strategy 6.97	Fixed Income Arbitrage -0.97	Equity Market Neutral 6.73	Global Macro 2.52
Equity Market Neutral -1.19	Event Driven -6.29	Event Driven 2.68	Managed Futures 3.29	Equity Market Neutral -5.00	MLP 6.56	Currency 1.73	Convertible Arbitrage 6.33	Convertible Arbitrage -3.32	Convertible Arbitrage 4.04	Currency 1.77
Convertible Arbitrage -1.68	Currency -7.61	Long/Short Equity -3.43	Global Macro 2.14	Managed Futures -6.67	Fixed Income Arbitrage 6.10	Equity Market Neutral 1.69	Equity Market Neutral 6.16	Long/Short Equity -5.77	Managed Futures -2.78	Commodity 0.95
Currency -7.03	Commodity -24.66	Equity Market Neutral -4.58	Commodity 1.70	Commodity -11.25	Currency 5.20	Commodity -3.12	Fixed Income Arbitrage 5.22	Event Driven -6.80	Global Macro -5.19	Managed Futures 0.75
Commodity -17.01	MLP -32.59	Managed Futures -6.84	MLP -6.52	MLP -12.42	Equity Market Neutral 1.58	MLP -28.69	Currency -3.09	Currency -7.14	Commodity -7.91	Fixed Income Arbitrage -0.94

**Past performance is no guarantee of future results.** It is not possible to invest directly in an index. Source: Morningstar as of 8/31/24. \*Data is on a 1-month lag. Data provided is for informational use only. Alternative investments often are speculative and include a high degree of risk. See end of report for important additional information. Global Macro represented by Credit Suisse Global Macro Index. MLP represented by Alerian MLP Index. Event Driven represented by Credit Suisse Event Driven Index. Multi-Strategy represented by Credit Suisse Multi-Strategy Index. Long/Short Equity represented by Credit Suisse Long/Short Equity Index. Convertible Arbitrage represented by Credit Suisse Convertible Arbitrage Index. Currency represented by J.P. Morgan EMLH Index. Equity Market Neutral represented by Credit Suisse Equity Market Neutral Index. Fixed Income Arbitrage represented by Credit Suisse Fixed Income Arbitrage Index. Managed Futures represented by Credit Suisse Managed Futures Index. Commodity represented by Bloomberg Commodity Index.

TRANSITION

Major Asset Classes Correlation Table

	S&P 500	International	Emerging Markets	Small Cap	U.S. Aggregate	Municipal	High Yield	Bank Loan	Commodities
S&P 500	1.00	0.87	0.69	0.86	0.37	0.38	0.79	0.60	0.40
International	0.89	1.00	0.79	0.77	0.40	0.45	0.81	0.61	0.45
Emerging Markets	0.71	0.79	1.00	0.63	0.38	0.43	0.71	0.57	0.50
Small Cap	0.86	0.84	0.71	1.00	0.28	0.30	0.77	0.64	0.37
U.S. Aggregate	0.55	0.58	0.54	0.46	1.00	0.85	0.49	0.16	-0.08
Municipal	0.57	0.64	0.62	0.51	0.85	1.00	0.54	0.28	0.02
High Yield	0.83	0.83	0.72	0.83	0.60	0.69	1.00	0.80	0.50
Bank Loan	0.62	0.62	0.62	0.68	0.23	0.38	0.81	1.00	0.50
Commodities	0.41	0.47	0.48	0.39	-0.03	0.09	0.48	0.49	1.00

5 Years ended September 30, 2024  10 Years ended September 30, 2024

**Past performance is no guarantee of future results.**  
It is not possible to invest directly in an index. Source: Morningstar as of 9/30/24. The table above shows the return correlation between various asset classes (represented by market indices as defined in this disclosure) over the past five and ten years. Data provided is for informational use only. See end of report for important additional information. S&P 500 is represented by the S&P 500 Index. International is represented by MSCI EAFE Index. Emerging Markets is represented by MSCI Emerging Markets Index. Small-Cap is represented by Russell 2000 Index. US Aggregate is represented by the Bloomberg Barclays Capital US Aggregate Bond Index. Municipal is represented by Bloomberg Barclays Municipal Bond Index. High Yield is represented by ICE BofA US High Yield Index. Bank Loan is represented by Morningstar LSTA U.S. Leveraged Loan Index. Commodities is represented by Bloomberg Commodity Index.



TRANSITION

Fund and ETF Flows by Category

Top 10 Open-End Mutual Fund Categories by Monthly Flows (\$MM)

	1 Mo.	3 Mo.	12 Mo.
Multisector Bond	5,017	9,351	29,967
Intermediate Core-Plus Bond	2,210	2,124	15,890
High Yield Muni	1,999	4,349	6,154
Muni National Long	1,223	1,819	2,642
High Yield Bond	1,069	5,838	10,475
Inflation-Protected Bond	971	-505	-6,209
Nontraditional Bond	857	2,534	5,253
Muni National Interm	835	2,644	4,860
Foreign Large Blend	761	3,046	1,016
Options Trading	459	293	1,635

Bottom 10 Open-End Mutual Fund Categories by Monthly Flows (\$MM)

	1 Mo.	3 Mo.	12 Mo.
Small Blend	-1,762	-3,164	-7,868
Mid-Cap Blend	-1,903	-2,713	-8,665
Bank Loan	-2,346	-2,418	-2,477
Small Growth	-2,382	-4,278	-14,889
Foreign Large Growth	-2,532	-4,445	-21,177
Large Blend	-2,632	-29,871	-75,040
Moderate Allocation	-2,887	-10,789	-35,117
Mid-Cap Growth	-2,897	-8,591	-29,472
Large Value	-8,840	-14,941	-65,762
Large Growth	-9,160	-30,324	-109,692

Top 10 Exchange-Traded Fund Categories by Monthly Flows (\$MM)

	1 Mo.	3 Mo.	12 Mo.
Large Blend	18,151	71,554	294,358
Long Government	7,396	15,535	36,015
Intermediate Core Bond	5,865	12,380	50,358
Large Value	4,738	11,158	26,401
Large Growth	4,733	23,452	87,855
Ultrashort Bond	4,408	13,372	37,320
Foreign Large Blend	3,567	15,350	52,751
Intermediate Government	3,364	9,272	31,072
Intermediate Core-Plus Bond	2,755	5,579	23,425
Technology	2,658	9,026	26,099

Bottom 10 Exchange-Traded Fund Categories by Monthly Flows (\$MM)

	1 Mo.	3 Mo.	12 Mo.
Communications	-685	-1,309	-1,048
Consumer Cyclical	-710	-944	-644
Miscellaneous Region	-785	-1,808	-2,026
Europe Stock	-800	-1,875	-1,309
Natural Resources	-816	-1,687	-3,606
Japan Stock	-997	-1,316	3,239
Health	-1,096	-396	-9,019
China Region	-1,223	-3,966	-4,968
Equity Energy	-2,432	-3,494	-3,628
Bank Loan	-2,636	-638	7,577

Source: Morningstar as of 8/31/24. Flow data is on a one-month lag. Data provided is for informational use only. See end of report for important additional information.

TRANSITION

Major Asset Class Return Analysis (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
Higher	S&P 500 13.69	Municipal 3.30	Small-Cap 21.31	Emerging Markets 37.28	Municipal 1.28	S&P 500 31.49	Small-Cap 19.96	S&P 500 28.71	Commodities 16.09	S&P 500 26.29	S&P 500 22.08
	Municipal 9.05	S&P 500 1.38	High Yield 17.49	International 25.03	Bank Loan 0.44	Small-Cap 25.52	S&P 500 18.40	Commodities 27.11	Bank Loan -0.77	International 18.24	Emerging Markets 16.86
	US Agg 5.97	US Agg 0.55	S&P 500 11.96	S&P 500 21.83	US Agg 0.01	International 22.01	Emerging Markets 18.31	Small-Cap 14.82	Municipal -8.53	Small-Cap 16.93	International 12.99
	Small-Cap 4.89	Bank Loan -0.69	Commodities 11.77	Small-Cap 14.65	High Yield -2.26	Asset Allocation 18.70	Asset Allocation 11.95	Asset Allocation 11.43	High Yield -11.22	Asset Allocation 14.09	Asset Allocation 11.66
	Asset Allocation 4.28	International -0.81	Emerging Markets 11.19	Asset Allocation 14.02	S&P 500 -4.38	Emerging Markets 18.42	International 7.82	International 11.26	US Agg -13.01	High Yield 13.46	Small-Cap 11.17
	High Yield 2.50	Asset Allocation -2.03	Bank Loan 10.16	High Yield 7.48	Asset Allocation -5.40	High Yield 14.41	US Agg 7.51	High Yield 5.36	Asset Allocation -13.04	Bank Loan 13.32	High Yield 8.03
	Bank Loan 1.60	Small-Cap -4.41	Asset Allocation 8.61	Municipal 5.45	Small-Cap -11.01	US Agg 8.72	High Yield 6.17	Bank Loan 5.20	International -14.45	Emerging Markets 9.83	Bank Loan 6.54
	Emerging Markets -2.19	High Yield -4.64	US Agg 2.65	Bank Loan 4.12	Commodities -11.25	Bank Loan 8.64	Municipal 5.21	Municipal 1.52	S&P 500 -18.11	Municipal 6.40	Commodities 5.86
	International -4.90	Emerging Markets -14.92	International 1.00	US Agg 3.54	International -13.79	Commodities 7.69	Bank Loan 3.12	US Agg -1.54	Emerging Markets -20.09	US Agg 5.53	US Agg 4.45
Lower	Commodities -17.01	Commodities -24.66	Municipal 0.25	Commodities 1.70	Emerging Markets -14.57	Municipal 7.54	Commodities -3.12	Emerging Markets -2.54	Small-Cap -20.44	Commodities -7.91	Municipal 2.30

**Past performance is no guarantee of future results.** It is not possible to invest directly in an index. Source: Morningstar as of 9/30/24. Data provided is for informational use only. Investing involves risks including the possible loss of principal. Investors should carefully review the risks of each asset class prior to investing. See end of report for important additional information. S&P 500 represented by the S&P 500 Index. International represented by MSCI EAFE Index. Emerging Markets represented by MSCI Emerging Markets Index. Small-Cap represented by Russell 2000 Index. US Aggregate represented by the Bloomberg Capital US Aggregate Bond Index. Municipal represented by Bloomberg Municipal Bond Index. High Yield represented by ICE BofA US High Yield Index. Bank Loan represented by Morningstar LSTA U.S. Leveraged Loan Index. Commodity represented by Bloomberg Commodity Index. The Asset Allocation portfolio assumes the following weights: 25% in the S&P 500 Index, 15% in the MSCI EAFE Index, 5% in the MSCI Emerging Markets Index, 10% in the Russell 2000 Index, 25% in the Bloomberg Capital US Aggregate Bond Index, 5% in the Bloomberg Municipal Bond Index, 5% in the Bloomberg US Corporate High Yield Index, 5% in the Morningstar LSTA U.S. Leveraged Loan Index, and 5% in the Bloomberg Commodity Index.

# Portfolio Solutions Group

The Portfolio Solutions Group provides top-down, macro analysis of equity, fixed income and alternative assets, designed to help clients capitalize on evolving economic dynamics and market dislocations globally. The team builds custom multi-asset investment solutions across a range of broadly-diversified to hyper-focused portfolios.



**JIM CARON**  
*Chief Investment  
Officer  
Managing Director*



**EWA TUREK  
SEMELROTH**  
*Executive Director*



**ERIC ZHANG**  
*Executive Director*



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**GREG  
WATERMAN**  
*Vice President*



**UMAR MALIK**  
*Vice President*



**CHRIS CHIA**  
*Vice President*



**SACHIN  
RAGHAVAN**  
*Vice President*

# Asset Allocation Committee

The Asset Allocation Committee is an independent group of senior investment professionals across various disciplines within MSIM and Eaton Vance. The Portfolio Solutions Group presents multi-sector research and investment ideas to the Committee, who is responsible for vetting and challenging these ideas to insure they meet their rigorous standards and can then be included in representative asset allocation recommendations.

<b>MARK BAVOSO</b> <i>Senior Portfolio Manager, Global Multi-Asset team</i>	<b>JITANIA KANDHARI</b> <i>Deputy CIO, Solutions &amp; Multi Asset Group; Head of Macro &amp; Thematic Research, Emerging Markets Portfolio Manager</i>
<b>JUSTIN BOURGETTE</b> <i>Portfolio Manager Head of Investment Strategy for the High Yield team</i>	<b>VISHAL KHANDUJA</b> <i>Portfolio Manager Co-Head of the Broad Markets Fixed Income team</i>
<b>CRAIG BRANDON</b> <i>Portfolio Manager Co-Head of the Municipals team</i>	<b>KYLE LEE</b> <i>Portfolio Manager Co-Head of the Emerging Markets team</i>
<b>JIM CARON</b> <i>Chief Investment Officer, Portfolio Solutions Group</i>	<b>SCOTT R. NORBY</b> <i>Private Credit and Equity</i>
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<b>BRAD GODFREY</b> <i>Co-Head of the Emerging Markets team</i>	<b>STEVEN TURNER</b> <i>Head of Investment Selection, Portfolio Solutions Group</i>
<b>KATIE HERR</b> <i>Head of Fixed Income Product Strategy</i>	<b>MARK VAN DER ZWAN</b> <i>Chief Investment Officer and Head of the AIP Hedge Fund Team</i>
<b>LAUREN HOCHFELDER</b> <i>Co-Chief Executive Officer of MSREI Head of MSREI Americas</i>	

# Glossary of Terms

## Index Definitions

**Bloomberg Commodity Index** is a broadly diversified index tracking futures contracts on physical commodities.

**Bloomberg Euro-Aggregate Corporates Index** consists of bonds issued in the euro or the legacy currencies of the 16 sovereign countries participating in the European Monetary Union (EMU)

**Bloomberg Global Aggregate Ex-USD Index** is a broad-based measure of global Investment Grade fixed-rate debt investments, excluding USD-denominated debt.

**Bloomberg High Yield Municipal Bond Index** is an unmanaged index of non-Investment Grade Municipal bonds traded in the U.S.

**Bloomberg Municipal Bond Index** is an unmanaged index of Municipal bonds traded in the U.S.

**Bloomberg Pan-European High Yield Index** covers the universe of fixed-rate, sub-investment-grade debt denominated in euros or other European currencies (except Swiss francs).

**Bloomberg Taxable Municipal Bond Index** is an unmanaged index of Taxable Municipal bonds traded in the U.S.

**Bloomberg U.S. Agency Index** measures agency securities issued by U.S. government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. government.

**Bloomberg U.S. Aggregate Index** is an unmanaged index of domestic investment-grade bonds, including corporate, government and mortgage-backed securities.

**Bloomberg U.S. Asset Backed Securities (ABS) Index** measures ABS with the following collateral type: credit and charge card, auto, and utility loans.

**Bloomberg U.S. CMBS Index** measures the market of conduit and fusion CMBS deals with a minimum current deal size of \$300mn.

**Bloomberg U.S. Corporate Investment Grade Index** is an unmanaged index that measures the performance of investment-grade corporate securities within the Barclays U.S. Aggregate Index.

**Bloomberg U.S. Mortgage Backed Securities (MBS) Index** measures agency mortgage-backed pass-through securities issued by GNMA, FNMA, and FHLMC.

**Bloomberg U.S. Treasury Index** measures public debt instruments issued by the U.S. Treasury.

**CBOE Volatility Index (VIX)** tracks the implied volatilities of a wide range of S&P 500 Index options.

**CBOE S&P 500 BuyWrite Index** measures the performance of a hypothetical buy-write strategy on the S&P 500 Index.

**ICE BofA US Inflation-Linked Treasury Index** tracks the performance of USD denominated inflation linked sovereign debt publicly issued by the US government.

**ICE BofA Fixed Rate Preferred Securities Index** is an unmanaged index of fixed-rate, preferred securities issued in the U.S.

**ICE BofA European Union Government Bond Index** tracks the performance of sovereign debt publicly issued by countries that are members of the European Union.

**ICE BofA U.S. High Yield Index** is an unmanaged index of below-investment grade U.S. corporate bonds.

**ICE BofA Developed Markets High Yield Ex-Subordinated Financial Index (Hedged)** is an unmanaged index of global developed market below investment grade corporate bonds, USD hedged.

**FTSE 100 Index** is an unmanaged market-capitalization weighted index representing the performance of the 100 largest UK listed blue chip companies, which pass screening for size and liquidity.

**FTSE All Small Index** consists of all the companies in the FTSE SmallCap and FTSE Fledgling indices.

**FTSE World Government Bond Index (WGBI)** measures the performance of fixed-rate, local currency, investment-grade sovereign bonds.

**J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI) Broad Diversified** is an unmanaged index of USD-denominated emerging market corporate bonds.

**J.P. Morgan Emerging Markets Bond Index (EMBI) Global Diversified** is an unmanaged index of USD-denominated bonds with maturities of more than one year issued by emerging markets governments.

**J.P. Morgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified** is an unmanaged index of local-currency bonds with maturities of more than one year issued by emerging market governments.

**Morgan Stanley Capital International (MSCI) Emerging Markets Index** is an unmanaged index of emerging markets common stocks

**MSCI EMU Index (European Economic and Monetary Union)** captures large and mid cap representation across the 10 Developed Markets countries in the EMU. With 229 constituents, the index covers approximately 85% of the free float-adjusted market capitalization of the EMU.

**Morgan Stanley Capital International All Country Asia Pacific Index (MSCI AC Asia Pac)** is an unmanaged total return, capitalization-weighted index that measures the performance of stock markets in 15 Pacific region countries, including Australia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan and Thailand.

**Morgan Stanley Capital International (MSCI) Japan Index** is an unmanaged index designed to measure the performance of the large and mid cap segments of the Japan market.

**Morgan Stanley Capital International (MSCI) World Index** is an unmanaged index of equity securities in the developed markets.

**Morgan Stanley Capital International (MSCI) World ex USA Small Cap Index** is an unmanaged index of small-cap equity securities in the developed markets, excluding the United States.

**Morgan Stanley Capital International All Country World (MSCI AC World) Index** is an unmanaged free float-adjusted market-capitalization-weighted index designed to measure the equity market performance of developed and emerging markets.

**Morgan Stanley Capital International Europe (MSCI Europe) Index** is an unmanaged free float-adjusted market-capitalization-weighted index designed to measure the equity market performance of the developed markets in Europe.



## ADDITIONAL INFORMATION

# Glossary of Terms and About Risk

## Index Definitions (cont.)

**Morgan Stanley Capital International Europe, Australasia, Far East (MSCI EAFE) Index** is an unmanaged index of equities in the developed markets, excluding the U.S. and Canada.

**MSCI USA Index** is designed to measure the performance of the large and mid cap segments of the US market. With 625 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the US.

**Morningstar LSTA U.S. Leveraged Loan Index** is an unmanaged index of the institutional leveraged loan market. Prior to August 29, 2022 the index name was S&P/LSTA Leveraged Loan Index.

**Nikkei 225 Stock Average Index** is unmanaged price-weighted index of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

**Russell 1000 Index** is an unmanaged index of 1,000 U.S. large-cap stocks.

**Russell 1000 Growth Index** is an unmanaged index of 1,000 U.S. large-cap growth stocks.

**Russell 1000 Value Index** is an unmanaged index of 1,000 U.S. large-cap value stocks.

**Russell 2000 Index** is an unmanaged index of 2,000 U.S. small-cap stocks.

**Russell 2500 Index** is an unmanaged index of approximately 2,500 U.S. small- and mid-cap U.S. stocks.

**Russell Midcap Index** is an unmanaged index of U.S. mid-cap stocks.

**Standard & Poor's 500 Index** is an unmanaged index of large-cap stocks commonly used as a measure of U.S. stock market performance.

**STOXX Europe 600 Index** is a fixed component number index designed to provide a broad yet liquid representation of large, mid and small capitalization companies in Europe.

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## Terms

**Municipal-to-Treasury Yield Ratios** are relative value indicators that measure the richness or cheapness of Municipal bond yields to comparable maturity Treasury bond yields.

**Yield to Worst** is a measure which reflects the lowest potential yield earned on a bond without the issuer defaulting. The yield to worst is calculated by making worst-case scenario assumptions by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

## About Risk

**Bank Loans** – There can be no assurance that the liquidation of collateral securing an investment will satisfy the issuer's obligation in the event of non-payment or that collateral can be readily liquidated. The ability to realize the benefits of any collateral may be delayed or limited. **Commodities** – The value of commodities investments will generally be affected by overall market movements and factors specific to a particular industry or commodity including weather, embargoes, tariffs, or health, political, international and regulatory developments. **Credit** – Investments in income securities may be affected by changes in the creditworthiness of the issuer and are subject to the risk of non-payment of principal and interest. The value of income securities also may decline because of real or perceived concerns about the issuer's ability to make principal and interest payments. **Duration** – Securities with longer durations tend to be more sensitive to interest rate changes than securities with shorter durations. Equity – Equity investment values are sensitive to stock market volatility. **Foreign** – Investments in foreign instruments or currencies can involve greater risk and volatility than U.S. investments because of adverse market, economic, political, regulatory, geopolitical, or other conditions. In emerging countries, these risks may be more significant. **Gov't Agency** – While certain U.S. Government-sponsored agencies may be chartered or sponsored by acts of Congress, their securities are neither issued nor guaranteed by the U.S. Treasury. **Income Market** – An imbalance in supply and demand in the income market may result in valuation uncertainties and greater volatility, less liquidity, widening credit spreads and a lack of price transparency in the market. There generally is limited public information about Municipal issuers. **Inflation-Linked** – Interest payments on inflation-linked securities may vary widely and will fluctuate as principal and interest are adjusted for inflation. Investments in inflation-linked securities may lose value in the event that the actual rate of inflation is different than the rate of the inflation index. **Interest Rate** – As interest rates rise, the value of certain income investments is likely to decline. The London Interbank Offered Rate or LIBOR, is used throughout global banking and financial industries to determine interest rates for a variety of financial instruments (such as debt instruments and derivatives) and borrowing arrangements. The ICE Benchmark Administration Limited, the administrator of LIBOR, is expected to cease publishing certain LIBOR settings on December 31, 2021, and the remaining LIBOR settings on June 30, 2023. The transition process may involve, among other things, increased volatility or illiquidity in markets for instruments that currently rely on LIBOR, such as floating-rate debt obligations. **Lower-Rated** – Investments rated below Investment Grade (typically referred to as "junk") are generally subject to greater price volatility and illiquidity than higher rated investments. **Maturity** – Longer-term bonds typically are more sensitive to interest rate changes than shorter-term bonds. **Preferred Stocks** – When interest rates rise, the value of preferred stocks will generally decline. **Prepayment - MBS** – Mortgage-backed securities are subject to prepayment risk. **Prepayment - Bank Loan** – Bank Loans are subject to prepayment risk. **Real Estate** – Changes in real estate values or economic downturns can have a significant negative effect on issuers in the real estate industry, including REITs.

## ADDITIONAL INFORMATION

### Risk Considerations

Diversification does not eliminate the risk of loss.

In general, equity securities' values also fluctuate in response to activities specific to a company. Investments in foreign markets entail special risks such as currency, political, economic, and market risks. The risks of investing in emerging market countries are greater than risks associated with investments in foreign developed countries. Fixed income securities are subject to the ability of an issuer to make timely principal and interest payments (credit risk), changes in interest rates (interest-rate risk), the creditworthiness of the issuer and general market liquidity (market risk). In a rising interest-rate environment, bond prices may fall and may result in periods of volatility and increased portfolio redemptions. In a declining interest-rate environment, the portfolio may generate less income. Longer-term securities may be more sensitive to interest rate changes. Alternative investments are speculative, involve a high degree of risk, are highly illiquid, typically have higher fees than other investments, and may engage in the use of leverage, short sales, and derivatives, which may increase the risk of investment loss. These investments are designed for investors who understand and are willing to accept these risks. Performance may be volatile, and an investor could lose all or a substantial portion of its investment.

There is no guarantee that any investment strategy will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market.

**A separately managed account may not be appropriate for all investors. Separate accounts managed according to the Strategy include a number of securities and will not necessarily track the performance of any index. Please consider the investment objectives, risks and fees of the Strategy carefully before investing. A minimum asset level is required.**

**For important information about the investment managers, please refer to Form ADV Part 2.**

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RO 3891689 Exp 10/31/2025