Morgan Stanley

INVESTMENT MANAGEMENT



August 2024



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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 Bonds, Equities, Alternatives and Transition*, 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.

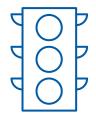


If you are viewing this book on your computer or tablet, click or tap on the section box to jump to the beginning of each section.

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.

Key Themes for August



Labor: Mixed Signals, but Holds the Key to Rate Cuts

At the headline level, the initial announcement of monthly jobs numbers has been stronger than expected. But it has also been subject to steep revisions lower. The Bureau of Labor and Statistics Household survey tells a different story, showing a rising unemployment rate with weakness corroborated by rising weekly jobless claims. A softening in jobs data will lower wage inflation sustainably and provide confidence for the Fed to cut rates.



Inflation: When Does Bad News Become Bad News?

Inflation is falling in the U.S. but also falling in Europe and sticky in Japan. Risky assets have performed well on signs of economic weakness that lowers inflation i.e. bad news is good news. But once the source of falling inflation becomes loss of demand, then bad news becomes bad news. We are seeing early signs that these cracks are forming.



Political Volatility at Large

Despite the surprise victory of the left-wing coalition, we maintain our thesis that policies are required to move toward the center to succeed. UK elections came and went, and the U.S. presidential conventions are unlikely to create discernible investment information. Our mantra: politicians govern differently than they campaign.



China: More of the Same

China's twice-a-decade Third Plenum, which focuses on the long-term trajectory of the economy, has wrapped up with little fanfare. While expectations were low, there was some hope for reforms that would improve growth prospects. We don't have the full picture, but the initial statements maintain a focus on "high-quality development", meaning continued industrial subsidies and exporting excess capacity. The rest of the world seems to be pushing back on this policy.

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. Not to be construed as an investment or research recommendation.

The Portfolio Solutions Group – Our Top 4 Ideas for August

OW High Yield Bonds

This past month has yet again bolstered the case for a soft landing, as inflation data in the U.S. came in below consensus. Consistent with this view is that default risks stay contained. As a result, bond yields, especially lower quality credits such as high yield, may offer competitive returns in 2H24 compared to equities, especially on a risk-adjusted basis.

Moving to OW High Yield Municipals on Attractive Yields and Strong Technicals

High Yield Municipals are very attractive as their yields stand one standard deviation wide to their 5-year average. Adjusting for the top federal tax rate of 37% and the Net Investment Income Tax of 3.8%, that's a 9.5% return on a taxable-equivalent basis (based on the Bloomberg Municipal High Yield Bond Index). Technical underpinnings are supportive as well.

French Equities: Maintaining an OW

The election outcome leaves our thesis intact. While we might see some short-term uncertainty as negotiations to form a new government play out, we ultimately expect a convergence of policies towards the center, rather than to the extremes. Equities might initially be range-bound, but we expect recent underperformance to reverse as investor concerns due to political noise recede.

Equities: Continue to Prefer Large Cap over Small Cap

The window for small cap outperformance is too narrow. Historically small cap outperformance depended primarily on economic growth acceleration. Greater risk exposure to a "higher-for-longer" rate environment has added inverse rate correlation to the mix. While periods of growth acceleration with lower rates are plausible (e.g. end-2023), we see this combination as relatively unlikely in the current inflation environment. The recent decline in interest rates was a tailwind to small cap stocks, but softer economic data likely limits the durability of this trade.

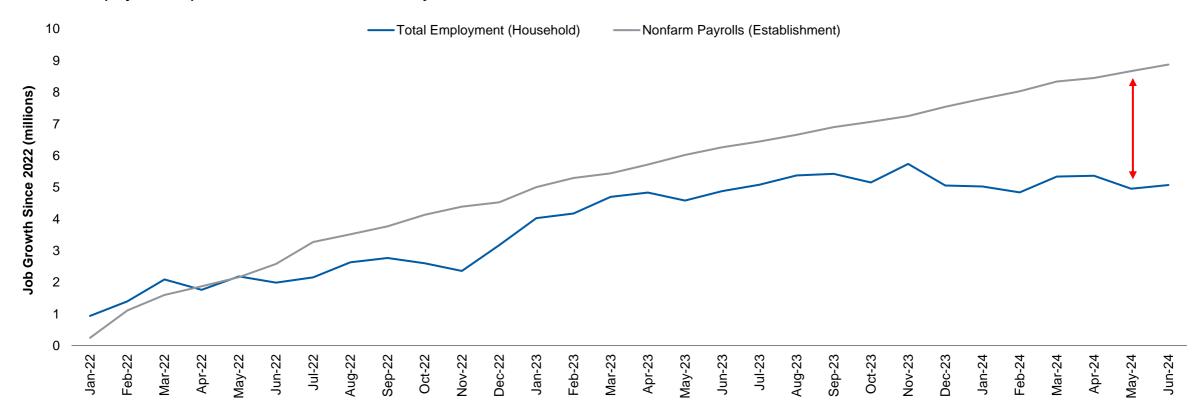
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U.S. Job Growth May Have Been Overstated

Divergence between the two employment surveys used by the Bureau of Labor Statistics (Household and Establishment) are common given sampling methodology differences. The Establishment survey is broader in scope and seen as higher quality, however new data points to the birth/death model adjustment might be slightly overstating job growth.

The Establishment Survey Shows Steady Job Growth, While the Household Survey Has Tapered Off

Non-farm payrolls reported 3.8 million more new jobs since 2022



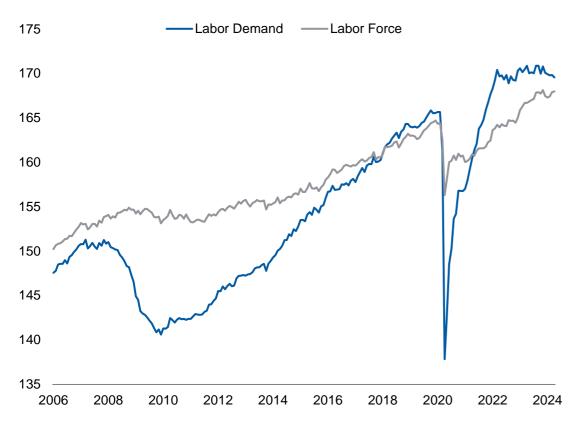
Source: Bloomberg, Macrobond, MSIM. Data as of July 12, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

The U.S. Labor Market Is Reaching a Crossroads

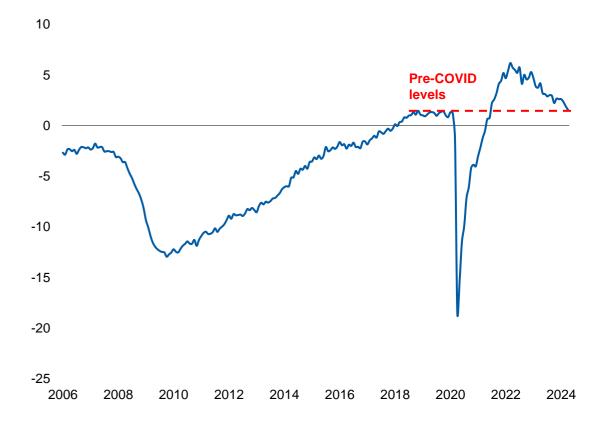
With excess labor demand back at pre-pandemic levels, the labor market — for the first time this year — is vulnerable to a further deceleration in economic activity. This is something we are watching closely.

Labor Demand Has Been Softening YTD

U.S. labor demand (job openings + employed) vs labor force



Labor Market Balance Is Nearly Back to Pre-pandemic Levels U.S. excess labor demand (demand – supply)



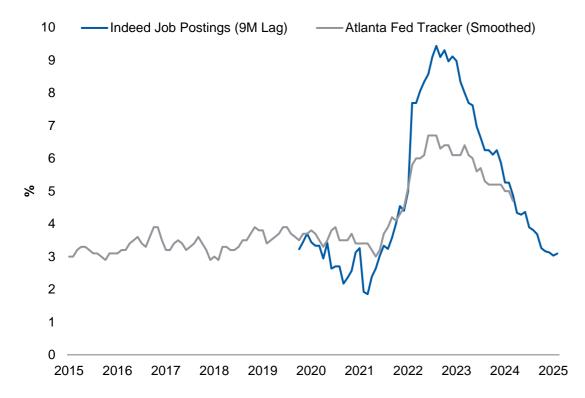
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Less Worry About Inflation, More on Jobs

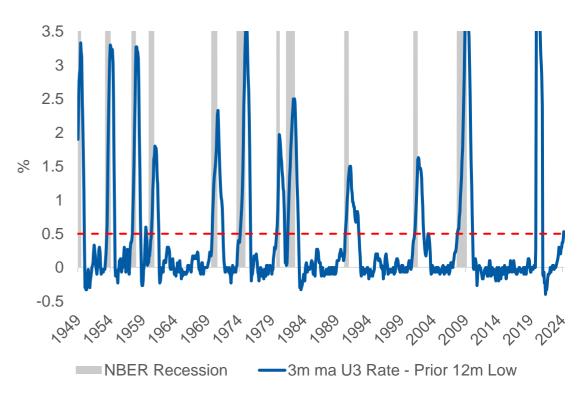
Leading indicators suggest U.S. wage growth should continue to moderate, reducing inflationary pressure. This allows the Fed to shift gears from focusing on inflation to potential cracks in the labor market. Recession indicators such as the Sahm Rule are creeping toward a recessionary threshold based on the rising national unemployment rate.

U.S. Wage Growth Should Moderate Further...

U.S. y-o-y wage growth indicators



...Which Allows the Fed To Shift Focus to the Labor Market Sahm Rule recession indicator

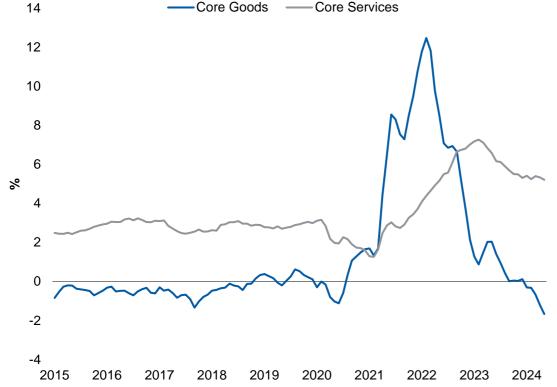


Source: Bloomberg, Macrobond, MSIM. Data as of August 2, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. NBER is the National Bureau of Economic Research. The Sahm Recession Indicator signals the start of a recession when the three-month (3m) moving average (ma) of the national unemployment rate (U3) rises by 0.50 percentage points or more relative to the minimum of the three-month averages from the previous 12 months (12m).

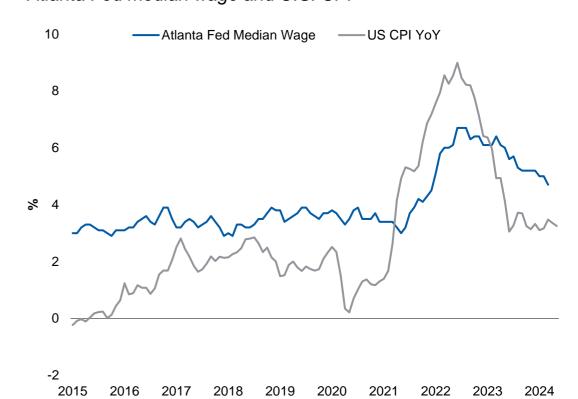
Not All Inflation Is Created Equal

U.S. core goods prices are stuck in deflation, but core services inflation remains stubbornly elevated, driven by positive real wage growth. If the Fed cuts interest rates prematurely, while real wage growth remains positive, there is the risk of a fresh flare-up in inflation.

Deflationary Core Goods, but Sticky Core Services... *U.S. CPI*



...Driven by Positive Real Wage Growth Atlanta Fed median wage and U.S. CPI

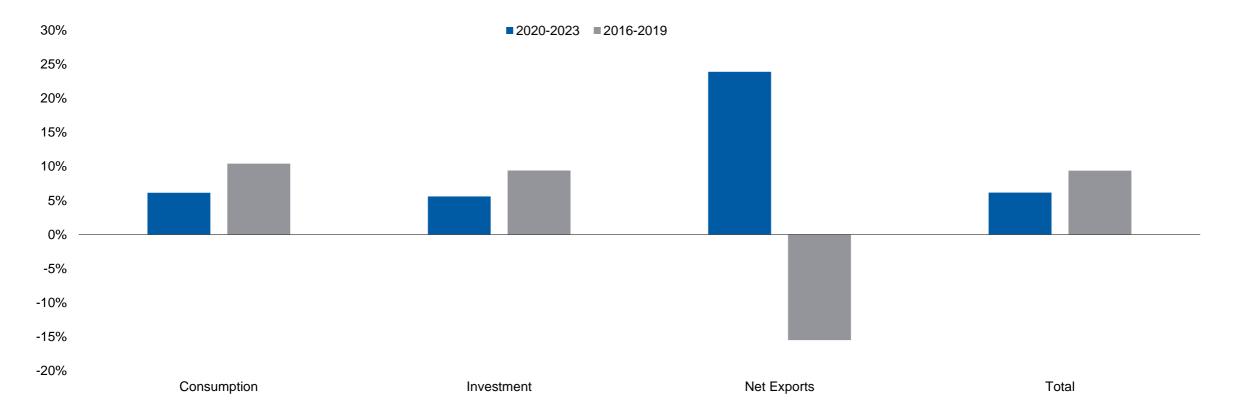


Source: Bloomberg, Macrobond, MSIM. Data as of July 4, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

China: Still Focused on Exports

Since the bursting of China's property bubble, their economy has been highly reliant on exports. Nothing from a recent key economic policy meeting (Third Plenum) would indicate a change in strategy. China continues to export its excess capacity to the world, although many countries recently have started to push back with tariffs.

Growth Has Slowed Overall, but Exports Have Been the One Bright Spot of the Chinese Economy Recently Growth of various segments of China's economy (nominal terms, Chinese Yuan, 4-years annualized)

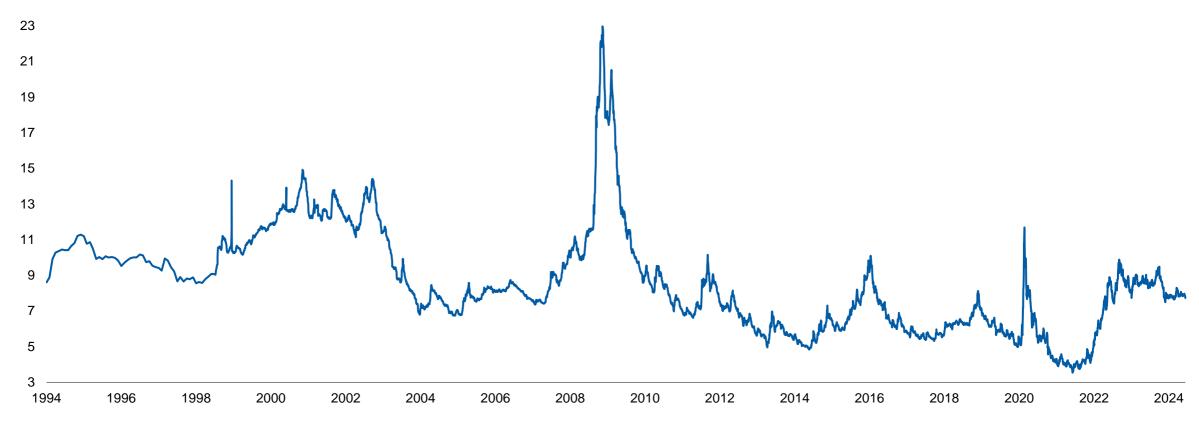


Source: Macrobond, MSIM. Data as of July 19, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

OW High Yield Bonds

This past month's macroeconomic data has supported our soft-landing view, increasing the likelihood that default risks stay contained. As a result, bond yields, especially lower quality credits such as high yield, may offer competitive returns in 2H24 compared to equities.

Despite Tight Spreads, High Yield Still Offers an Attractive Relative Return via Elevated All-in Yields U.S. HY yield-to-worst



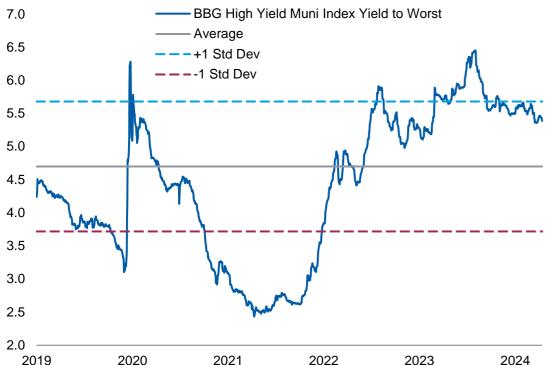
Source: Bloomberg, MSIM. Data as of July 12, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass. **Past performance is no guarantee of future results**.

Moving to OW High Yield Municipals on Attractive Yields and Strong Technicals

High Yield Municipals make a compelling case. They are an asset class with 1) yields well above their average over the last several years, 2) a very strong technical picture with limited supply and inflows returning to the space, 3) strong underlying credit fundamentals and 4) a duration profile that should benefit from a more dovish Fed.

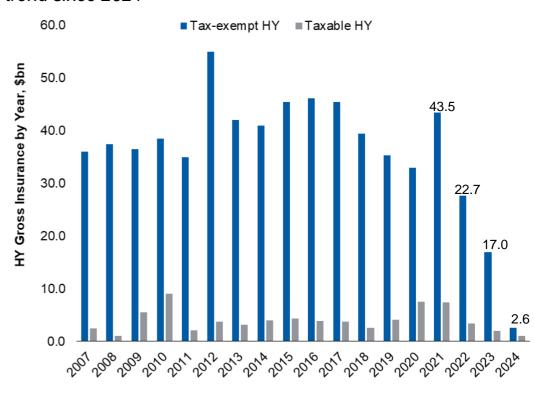
High Yield Municipal Yields Are Elevated vs. History BBG High Yield Muni Index yield to worst

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Limited Supply

Supply of high yield municipals has been on a steady downward trend since 2021



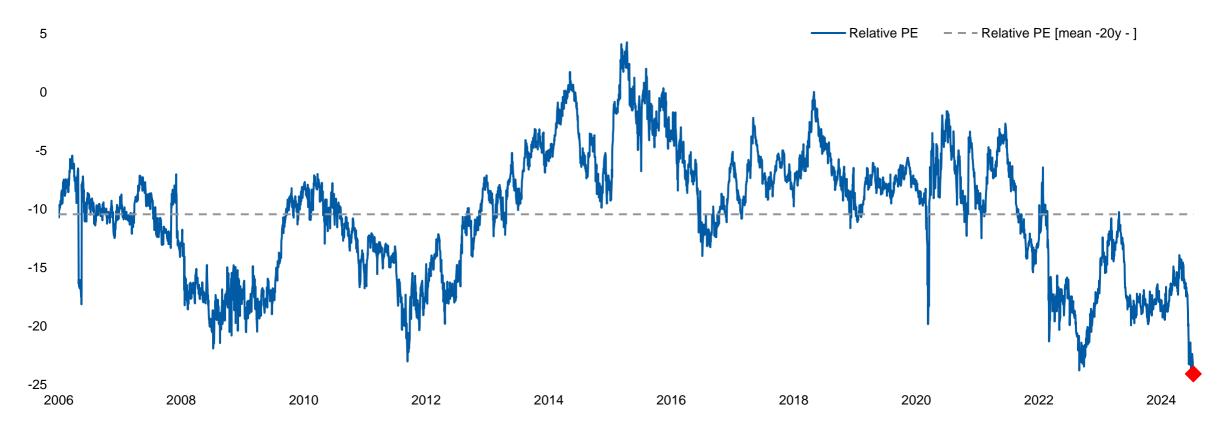
Source: Bloomberg, JP Morgan, MSIM. Data as of July 12, 2024. The view those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.**

French Equities: Maintaining an Overweight

Despite the surprise victory by the left-wing coalition, we maintain that we expect the recent underperformance of French equities to reverse; revenues for key names and sectors are mostly non-domestic and should broadly be unaffected by the outcome of current government coalition negotiations. Moreover, current valuations still offer an attractive entry point.

French Equities Are Trading at a Historically Low Discount vs. Global Equities

MSCI France 12-month forward P/E vs MSCI ACWI

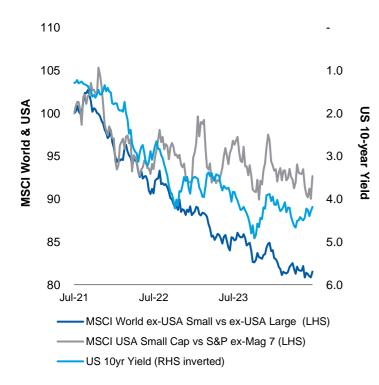


Source: Bloomberg, MSIM PSG. Data as of July 12, 2024. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. Past performance is no guarantee of future results.

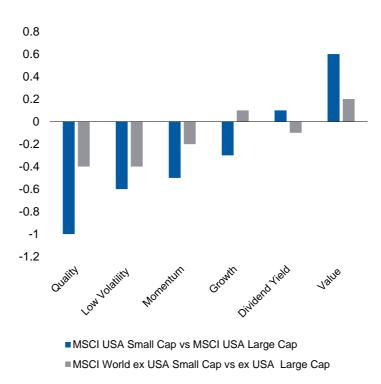
Window for Small Cap Outperformance Is Too Narrow – We Prefer Large Cap

Small caps are lower in quality, more volatile and carry greater exposure to cyclical sectors relative to large cap. Outperformance requires economic growth acceleration with lower interest rates. While recent inflation data and the resulting decline in rates was a lift to small cap, softer economic data may constrain its continued outperformance.

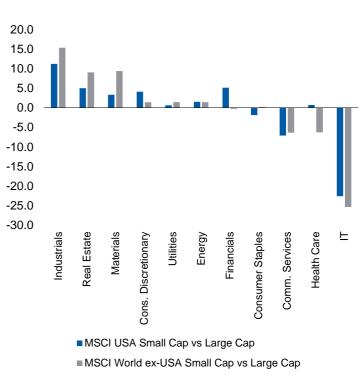
Small Caps Currently Driven by Rates Relative index returns Small vs Large (U.S. Large excludes Mag 7*); U.S. 10-year yield



Small Caps: Lower Quality, Higher Volatility Defined by Bloomberg's MAC3 Factor Model. Quality is profitability, leverage, variability.



Small Caps: More Exposed to Cyclicals Relative exposure to sectors, small vs large, according to the indexes noted.

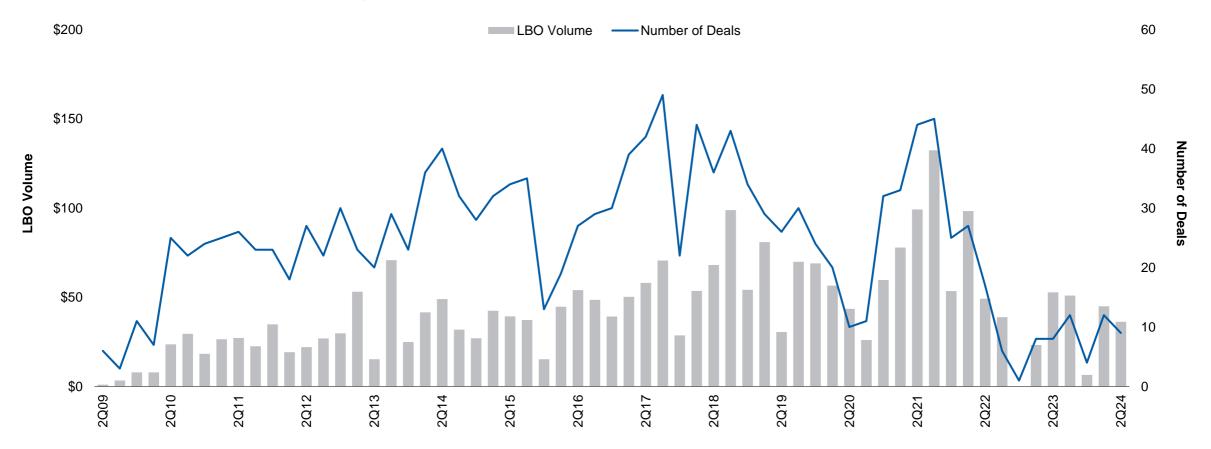


Source: Bloomberg, MSIM. Data as of July 12, 2024. *Magnificent 7 = Nvidia, Alphabet, Amazon, Microsoft, Apple, Meta, Tesla. The views and opinions expressed are those of the Portfolio Solutions Group at the time of writing/of this presentation and are subject to change at any time due to market, economic, or other conditions, and may not necessarily come to pass. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.**.

Private Equity Shows Signs of Recovering Activity

Transaction volumes in private equity are very low but increasing from the recent trough, as the gap between the expectations of buyers and sellers narrows.

Purchase Price Multiples — All Leveraged Buyouts

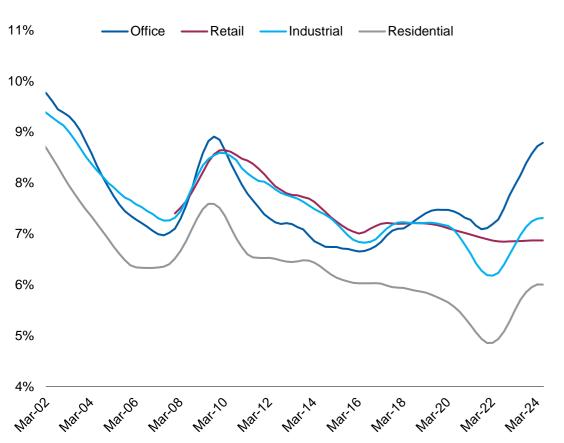


Sources: Pitchbook, Preqin. As of June 30, 2024. This information reflects the views of the Portfolio Solutions Group as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. LBO stands for Leveraged Buyout.

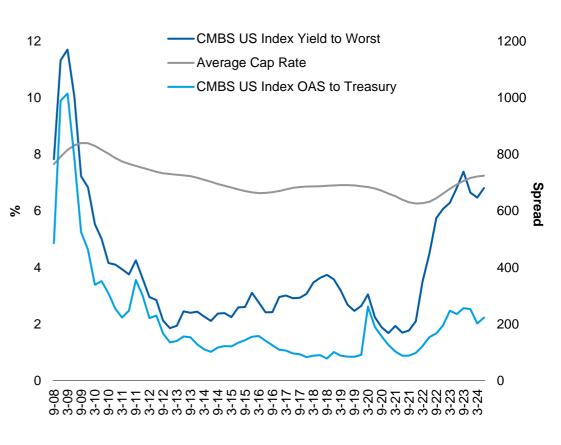
Emerging Opportunity Set in Commercial Real Estate Equity

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

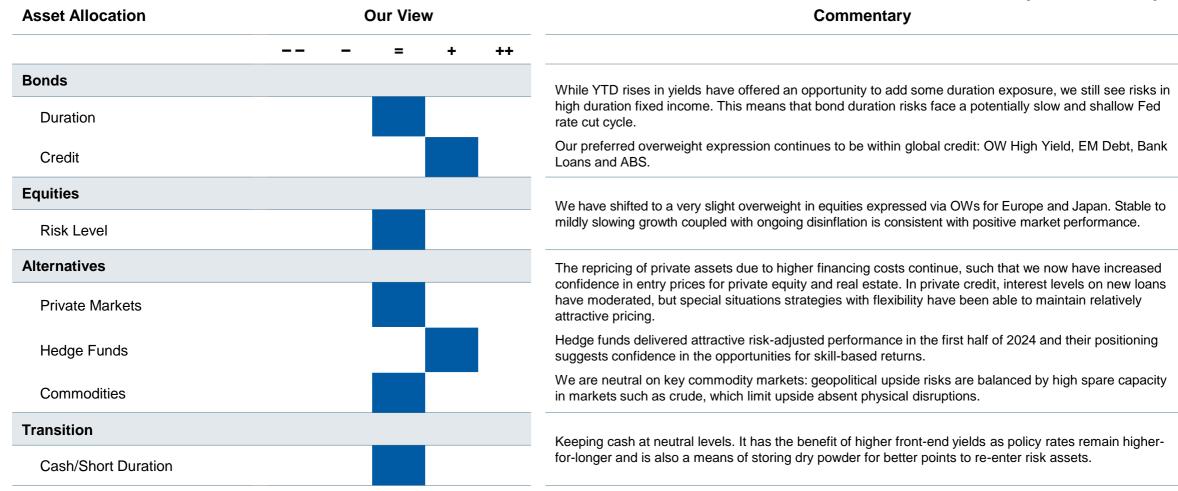


Sources: CoStar, Bloomberg. Cap Rates data range from March 31, 2001 – April 30, 2024. The data range for Cap Rates vs. Cost of Debt is Jun 30, 2008 – April 30, 2024. This information reflects the views of the Portfolio Solutions Group as of the date hereof and not of any future date and are subject to change without notice in response to changing circumstances and market conditions. Not to be construed as an investment or research recommendation. The index performance is provided for illustrative purposes only and is not meant to depict the performance of a specific investment. **Past performance is no guarantee of future results.**

Capital Markets Investment Framework



- -- High conviction underweight
- Underweight
- = Neutral
- + Overweight
- ++ High conviction overweight



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Global Fixed Income



- **– –** High conviction underweight
- Underweight
- = Neutral
- + Overweight
- ++ High conviction overweight

Fixed Income Our View ++ **Bonds U.S.-Treasuries** Inflation Linked Bonds Eurozone Govt. Bonds EM Hard Currency Govt. Bonds EM Local Currency Govt. Bonds **Public Credit** Municipal Bonds Investment Grade MBS/ABS High Yield **Bank Loans**

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We remain UW benchmark duration (i.e., broadly neutral). We expect progress on DM inflation to continue, yet we don't expect a meaningful adjustment in rate cut expectations.

Commentary

Real yields have stabilized above 2% since March. While inflation is gradually adjusting lower, we expect 10-vear inflation breakevens to remain above 2.2%.

Lingering wage growth makes the risk/reward on eurozone duration balanced, although on a relative basis we see more risk of deeper cuts by the ECB due to a more convincing disinflation trend.

We expect EM growth to slow in 2H24; rates volatility 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.

Lower EM local yields vs. U.S. credit will limit inflows. EM FX is under pressure amidst a hawkish Fed and policy risks within EM. The key risk for the asset class is of further hawkish Fed surprises.

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.

UW IG corporate bonds, as spreads are at historic tights. Excess return over USTs should be minimal and IG remains sensitive to left-tail outcomes leading to a highly asymmetrical return profile.

High conviction in asset backed securities and yield per unit of credit quality remain attractive. Consumer cash flows are strong due to tight labor markets.

As macroeconomic data reinforces a soft-landing thesis, bond yields, especially lower quality credits such as high yield, may offer competitive returns in 2H24 compared to equities.

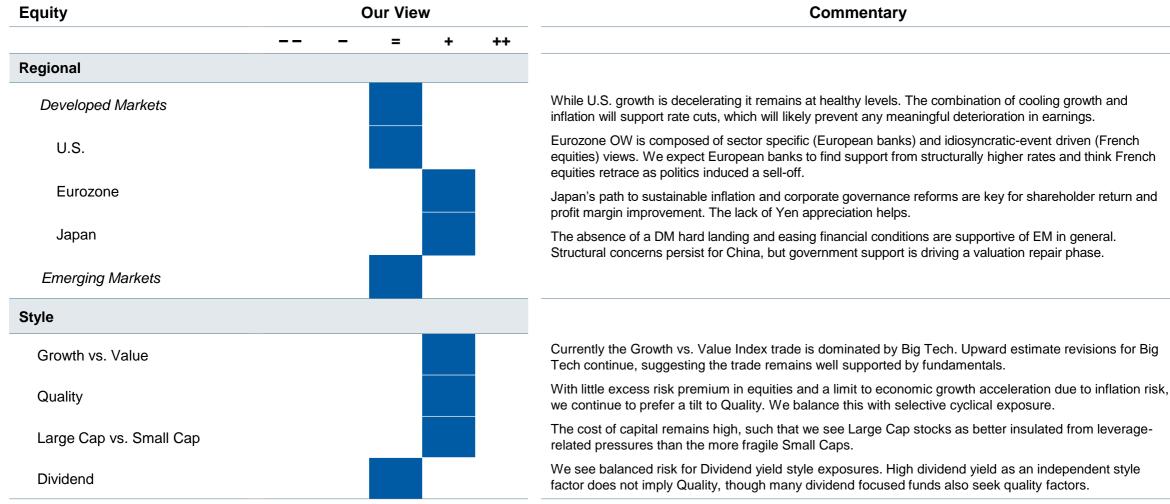
Bank Loans have outperformed most segments of the fixed income market due to their high carry, a story that has not changed. Spreads look a little tight, but not worryingly so.

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Global Equity



- -- High conviction underweight
- Underweight
- = Neutral
- + Overweight
- ++ High conviction overweight



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Alternatives

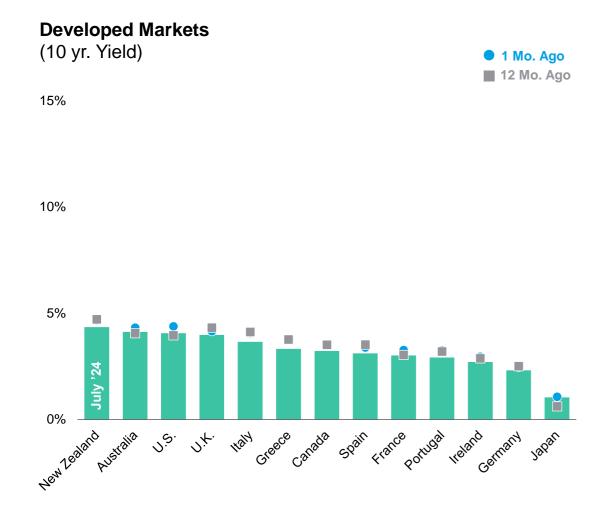
Alternative Assets

Alternative Assets	Commentary
Private Markets	
Private Equity	The industry level repricing represents a potentially compelling entry point into private equity . However, the operating environment suggests that lower valuations are necessary but not sufficient for attractive forward-looking returns. Private equity sponsors also need a competitive tool kit to pursue revenue growth initiatives, margin expansion and suitable capital structures, potentially with organic growth playing a larger roll relative to inorganic growth within an environment of higher debt service costs and lower leverage multiples. We believe high quality small and middle market managers with operational expertise will be well-placed to deliver attractive returns under these conditions.
Private Real Assets	Commercial real estate has continued to reprice meaningfully, with the core real estate benchmark experiencing its sixth consecutive negative quarter. This has been driven by higher debt costs and pockets of elevated supply. A significant amount of commercial real estate debt is expected to mature this year, expected to drive higher transaction volumes with attractive entry valuations. Long-term demand tailwinds in key sectors remain and are expected to combine with improved pricing to represent a compelling opportunity. Private infrastructure is benefiting from the tailwinds of two mega trends; digitization of society and economies, and the energy transition. Investment opportunities are expanding and accelerating due to the developments in generative AI, as the power market is currently inadequate to satisfy the volume and density requirements of generative AI, but also the low tolerance for intermittency that is increasing as renewables grow as a proportion of the overall power mix.
Private Credit	Private loan pricing , terms and defaults are generally now in line with long-term averages, allowing private credit to contribute to overall portfolio construction with return expectations aligned with historical levels. As corporations continue to adjust to higher interest rate expense, the supply of performing but non-conforming opportunities for special situations lenders is growing and offers attractive pricing.
Liquid Alternatives	
Hedge Funds	Bottom-up fundamental security selection and trend following are both benefiting from higher return dispersion and lower cross correlations in asset performance, as well as benefitting from higher cash returns. Hedge funds have relatively high conviction in the current opportunities for skill-based returns.
Commodities	We are neutral on key Commodity Markets : 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.

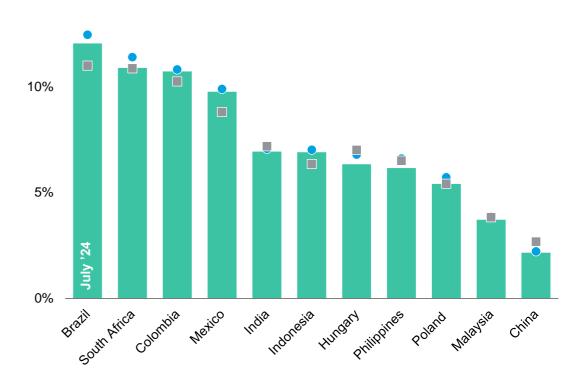
Commentary

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Sovereign Bond Yields







Past performance is no guarantee of future results.

It is not possible to invest directly in an index. Source: Factset as of 7/31/24. Data provided is for informational use only. See end of report for important additional information.

The **BEAT** | August 2024

15%

Key Rates (%)

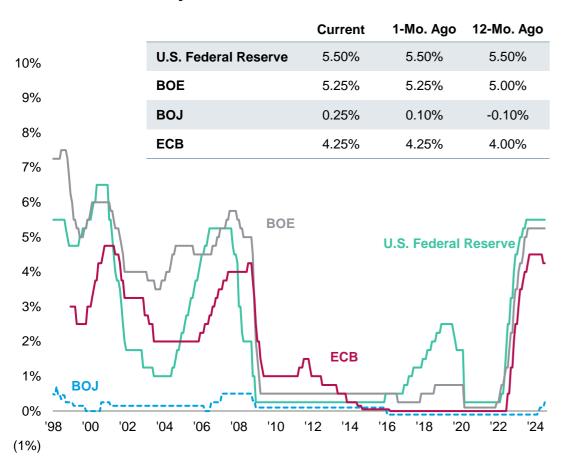
Security	Current	12-Mo. Ago	Average	Minimum	Maximum
1-Week SIFMA	3.51	3.98	3.51	1.90	4.55
Secured Overnight Financing Rate	5.38	5.31	5.32	5.30	5.40
1-Mo LIBOR	5.46	5.43	5.44	5.42	5.48
3-Mo LIBOR	5.50	5.63	5.61	5.50	5.69
2-Yr Treasury	4.26	4.86	4.75	4.17	5.21
5-Yr Treasury	3.92	4.19	4.34	3.79	4.96
10-Yr Treasury	4.05	3.95	4.33	3.79	4.99
30-Yr Treasury	4.34	4.02	4.48	3.95	5.11
2-Yr Japan	0.45	0.00	0.16	-0.01	0.45
10-Yr Japan	1.03	0.61	0.80	0.56	1.10
2-Yr German Bund	2.52	3.04	2.89	2.38	3.29
10-Yr German Bund	2.31	2.49	2.48	1.91	2.98
2-Yr UK Gilt	3.80	4.94	4.46	3.80	5.25
10-Yr UK Gilt	3.97	4.32	4.18	3.46	4.74
Bloomberg US Agg	4.64	4.85	5.02	4.49	5.74
Bloomberg Global Agg	3.62	3.85	3.91	3.48	4.42
Bloomberg US Corporate	5.14	5.45	5.56	5.02	6.43
Bloomberg US Long Corporate	5.49	5.49	5.72	5.16	6.60
Bloomberg US Municipal	3.58	3.50	3.71	3.21	4.50
Bloomberg US Long Municipal	4.16	4.22	4.38	4.01	5.18
US High Yield	7.61	8.36	8.22	7.57	9.53
US Loans	9.78	10.33	10.08	9.68	10.60

Past performance is no guarantee of future results.

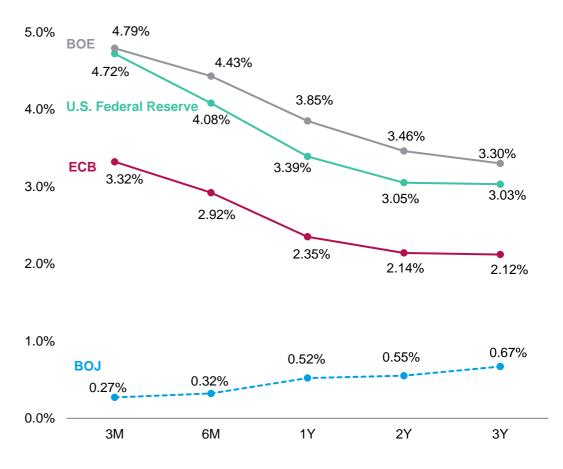
It is not possible to invest directly in an index. Source: Bloomberg, Leveraged Commentary & Data (LCD), and Factset as of 7/31/24. Current represents most recent month. Average, minimum, and maximum measure a 12-month period ending most recent month. Data provided is for informational use only. US High 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.

Monetary Policy

Central Bank Policy Rates



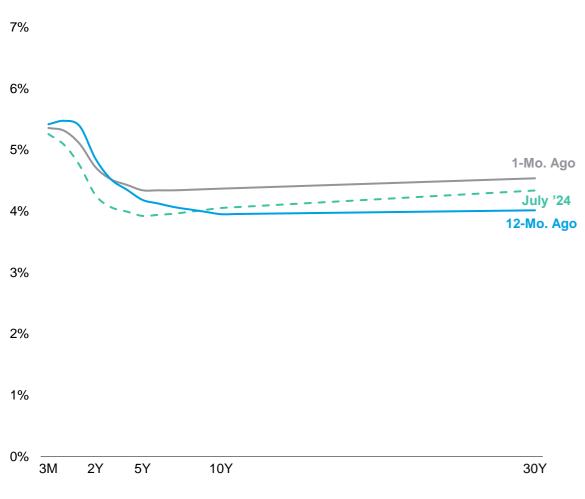
Market Expectations for Future Central Bank Rates



Source: Bloomberg, Factset as of 7/31/24. 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.

U.S. Treasury Yields

U.S. Treasury Yield Curves



Yields & Performance

Co overite e		Yield (%)	Total Return (%)			
Security	Current	1-Mo. Ago	12-Mo. Ago	1-Mo.	12-Mo.	
3-mo. Treasury	5.26	5.36	5.42	0.45	5.45	
6-mo. Treasury	5.08	5.32	5.48	0.53	5.58	
2-yr. Treasury	4.26	4.72	4.86	1.15	4.99	
3-yr. Treasury	4.07	4.52	4.52	1.59	5.07	
5-yr. Treasury	3.92	4.34	4.19	2.16	4.90	
10-yr. Treasury	4.05	4.37	3.95	2.88	2.85	
30-yr. Treasury	4.34	4.54	4.02	3.65	-2.04	

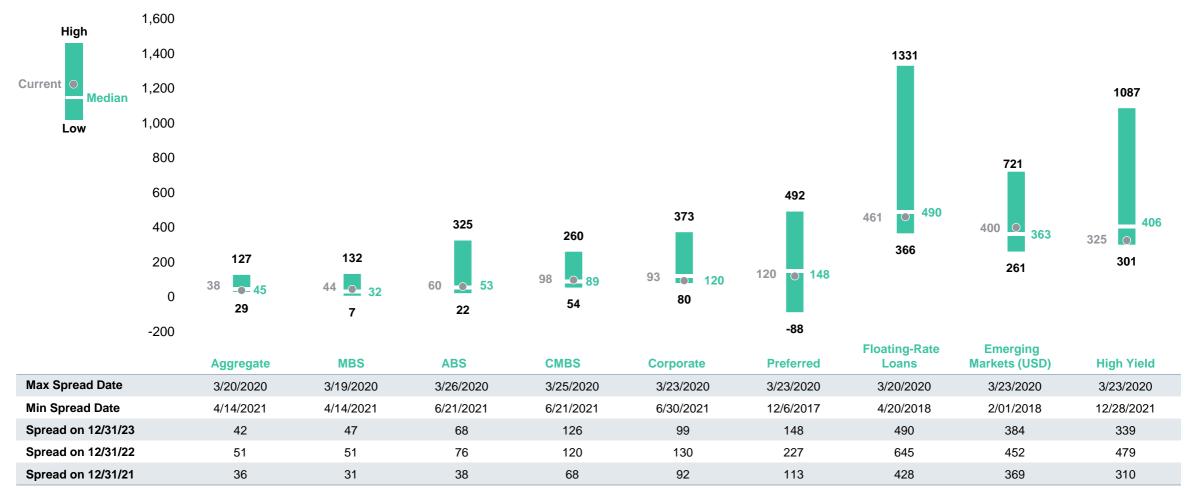
Source: Factset, Morningstar as of 7/31/24. Data provided is for informational use only. Past Performance is not a reliable indicator of future results. See end of report for important additional information.

Characteristics and Performance Analysis

	Averages						Total Returns (%)						
Index	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	3.32	91.9	4.64	38	8.4	6.1	2.34	5.06	1.61	5.10	-2.63	0.19	1.61
U.S. Treasury	2.85	92.1	4.19	-	7.8	6.0	2.19	4.72	1.31	4.14	-3.00	-0.20	1.14
U.S. Mortgage Backed Securities	3.22	89.6	4.88	44	7.3	5.9	2.64	5.91	1.63	4.89	-2.28	-0.32	1.21
U.S. Asset Backed Securities	4.76	99.6	4.91	60	3.8	2.8	1.36	2.99	3.05	6.45	1.10	1.90	2.00
U.S. Commercial Mortgage Backed Securities	3.24	92.8	5.07	98	4.8	4.3	2.05	4.60	3.61	7.70	-1.43	1.05	2.18
U.S. Corp. Investment Grade	4.22	93.3	5.14	93	10.8	7.0	2.38	4.96	1.89	6.76	-2.71	0.98	2.58
Bloomberg Municipal Bond Index	4.56	102.3	3.58	-	13.5	6.0	0.91	2.16	0.50	3.74	-0.86	1.18	2.47
Bloomberg Taxable Municipal Bond Index	4.34	93.8	4.90	-	14.5	7.8	2.60	5.47	2.51	6.99	-3.29	0.80	3.13
ICE BofA US Inflation-Linked Treasury Index	0.98	93.1	1.99	-	7.7	5.1	1.81	4.40	2.75	4.27	-1.87	2.30	2.11
ICE BofA Preferred Index (Fixed Rate)	5.28	91.5	6.07	120	-	5.6	0.32	2.90	4.72	8.81	-0.48	2.19	4.32
U.S. High Yield													
ICE BofA US High Yield Index	6.29	94.4	7.61	325	5.8	3.2	1.96	4.11	4.63	11.03	2.19	4.03	4.55
Morningstar LSTA U.S. Leveraged Loan Index	S+3.54	96.6	9.78	461	4.3	_	0.68	1.98	5.12	10.45	6.39	5.50	4.67
Emerging Markets													
J.P. Morgan EM Bond Index (EMBI) Global Diversified	5.45	84.6	8.18	400	-	6.6	1.87	4.34	4.26	9.18	-2.13	0.10	2.75
J.P. Morgan Corp. EM Bond Index (CEMBI) Broad Diversified	5.09	94.2	6.43	229	_	4.4	1.50	3.94	5.41	9.87	0.10	2.35	3.68
J.P. Morgan Govt. Bond Index-EM (GBI-EM) Global Diversified	5.50	-	6.37	-	-	5.1	2.27	2.80	-1.52	0.08	-2.40	-1.02	-0.54
Global Developed Markets													
Bloomberg Global Aggregate Ex-U.S. Index	2.24	95.9	2.73	35	8.6	7.1	3.15	3.66	-2.27	1.17	-6.98	-2.82	-1.42
FTSE World Government Bond Index	2.43	-	3.61	-	-	7.1	2.86	3.93	-1.22	1.87	-6.54	-2.56	-0.82
ICE BofA European Union Government Bond Index	2.07	94.0	2.89	51	9.0	7.4	3.23	3.63	-1.80	3.03	-7.94	-2.80	-1.48
ICE BofA Developed Mkts HY Ex-Sub Fincl Index (USD Hedged)	6.02	94.4	7.35	361	3.7	3.1	1.81	3.87	4.74	11.38	2.47	4.08	4.69
Bloomberg Euro-Aggregate Corporates (EUR)	2.36	95.6	3.49	110	5.1	4.5	1.72	2.66	2.27	7.15	-2.07	-0.69	1.14
Bloomberg Pan-European High Yield Euro (EUR)	4.59	94.9	6.57	364	3.7	3.1	1.23	2.59	4.09	10.51	1.39	2.48	3.44

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 7/31/24. 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 Mtks 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).

Spread Analysis (bps)



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 7/31/24. 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. Asset Backed Securities (ABS) Index. CMBS 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 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.

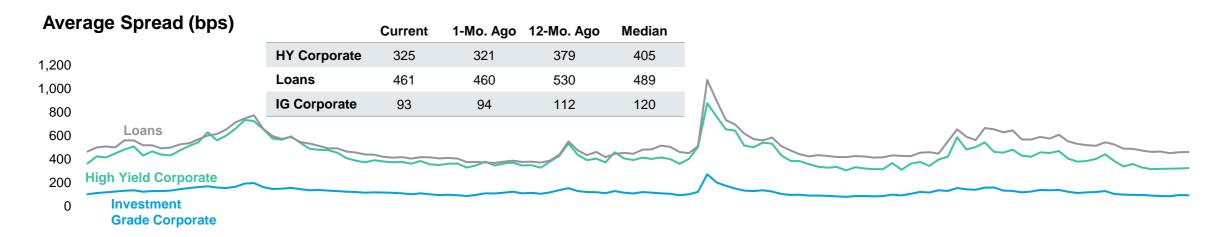
Corporate Bond Market Update

	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	4.22	93.3	5.14	93	10.8	7.0	2.38	4.96	1.89	6.76	-2.71	0.98	2.58
AAA Index	3.27	84.9	4.67	38	17.5	10.3	2.75	5.86	-0.30	3.19	-5.60	-0.66	2.00
AA Index	3.55	89.7	4.77	50	12.9	8.1	2.48	5.01	0.82	4.64	-4.00	-0.32	1.66
A Index	4.10	93.5	5.00	81	10.6	7.0	2.37	4.89	1.65	6.14	-2.83	0.71	2.36
BBB Index	4.47	93.8	5.33	114	10.4	6.8	2.37	5.01	2.31	7.74	-2.31	1.48	2.92
U.S. High Yield													
ICE BofA U.S. High Yield Index	6.29	94.4	7.61	325	5.8	3.2	1.96	4.11	4.63	11.03	2.19	4.03	4.55
BB Index	5.69	97.0	6.30	194	6.6	3.4	1.59	3.94	4.06	10.05	1.58	4.11	4.85
B Index	6.80	96.9	7.42	301	5.2	2.9	1.78	3.72	4.35	10.86	2.58	3.65	4.20
CCC Index	7.22	79.6	13.61	942	4.4	2.9	4.00	5.88	7.54	15.08	3.09	4.34	4.40
Morningstar LSTA U.S. Leveraged Loan Index	S+3.54	96.6	9.78	461	4.3	-	0.68	1.98	5.12	10.45	6.39	5.50	4.67
BBB Index	S+2.05	100.2	7.34	199	4.8	-	0.72	1.94	4.50	8.24	5.86	4.44	4.04
BB Index	S+2.74	99.5	8.23	294	4.9	-	0.80	1.95	4.66	8.99	6.41	4.69	4.28
B Index	S+3.83	98.1	9.77	454	4.4	-	0.73	2.03	5.33	11.23	6.79	5.93	4.98
CCC Index	S+4.66	82.8	18.09	1258	3.5	-	-0.03	1.91	6.45	12.73	4.01	4.81	5.82
D Index	-	26.8	-	-	-	-	0.75	0.03	-11.33	-19.08	-27.25	-25.56	-18.75

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 7/31/24. 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.

Corporate Bond Market Update



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 7/31/24. 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).

Municipal Bond Market Update

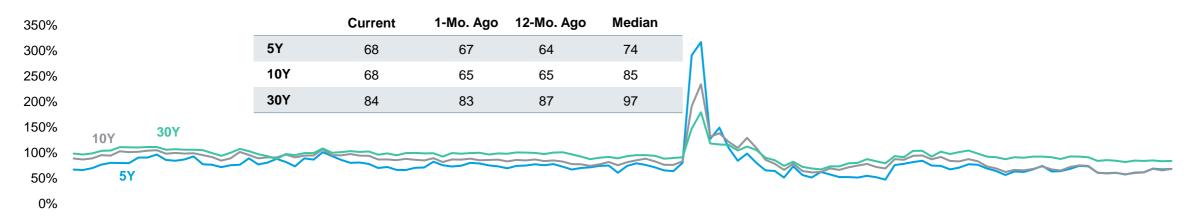
			Averages					Total	Returns	(%)		
	Coupon (%)	Price (\$)	Yield To Worst (%)	Maturity (yrs.)	Duration (yrs.)	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
Bloomberg Municipal Bond Index	4.56	102.3	3.58	13.5	6.0	0.91	2.16	0.50	3.74	-0.86	1.18	2.47
AAA Index	4.49	103.1	3.44	13.1	6.3	0.90	2.01	-0.20	3.28	-1.06	0.86	1.95
AA Index	4.59	103.3	3.46	13.1	5.9	0.90	2.03	0.22	3.27	-0.90	1.02	2.24
A Index	4.54	100.6	3.81	13.8	5.9	0.92	2.34	1.25	4.71	-0.53	1.57	2.94
BBB Index	4.56	97.5	4.28	17.3	7.0	0.99	3.12	2.29	5.78	-0.63	2.00	3.64
5-Year Index	4.71	105.3	3.20	5.0	3.6	1.03	1.43	0.22	2.99	-0.48	0.87	1.65
10-Year Index	4.57	105.4	3.34	9.9	5.6	0.80	1.12	-0.78	2.28	-0.84	1.17	2.54
22+ Year Index	4.55	98.2	4.16	26.6	9.7	0.97	3.56	1.05	4.90	-2.37	0.91	3.05
Bloomberg High Yield Municipal Bond Index	4.67	65.1	5.42	19.7	6.6	1.10	4.36	5.28	9.38	0.09	3.09	4.71
Hospital	5.30	74.7	5.92	20.6	6.0	1.73	6.53	8.34	11.56	-0.48	1.43	3.93
IDR/PCR	4.27	37.9	5.90	19.8	6.4	0.38	2.94	3.72	7.25	-0.53	3.13	5.85
Tobacco	2.31	19.1	6.15	28.4	9.7	-0.20	3.91	0.96	7.01	-1.63	3.83	7.54
Puerto Rico	3.56	56.0	4.64	19.6	7.1	1.05	2.18	3.47	9.29	0.92	5.46	5.09

Past performance is no guarantee of future results.

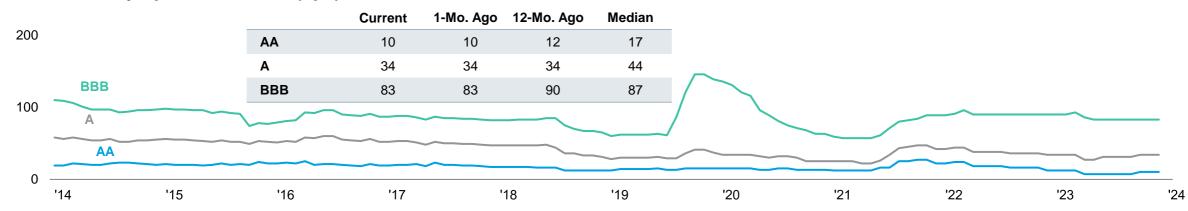
It is not possible to invest directly in an index. Source: Bloomberg, Morningstar as of 7/31/24. Coupon and Yield To Worst figures are based on average market prices while Price is based on an average of par value. Data provided is for informational use only. See end of report for important additional information.

Municipal Bond Market Update

AAA Muni-to-Treasury Yield Ratios



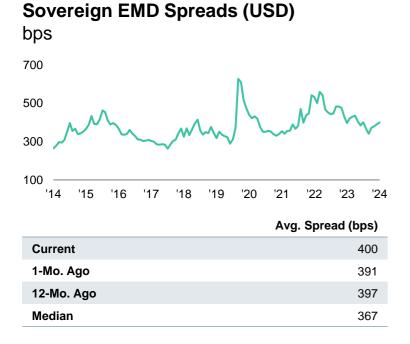
Credit Quality Spreads vs. AAA (bps)

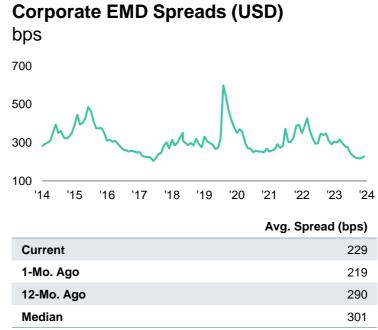


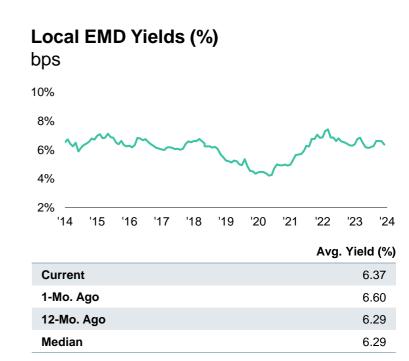
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It is not possible to invest directly in an index. Source: Bloomberg as of 7/31/24. Data provided is for informational use only. See end of report for important additional information. All spreads are in basis points and measure option-adjusted yield spread relative to comparable maturity U.S. Treasuries.

Emerging Markets Bond Market Update







		ges	l otal Returns (%)								
	Coupon (%)	Price (\$)	Yield (%)	Duration	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y
JPMorgan Emerging Markets Bond Index (EMBI) Global Diversified	5.45	84.6	8.18	6.6	1.87	4.34	4.26	9.18	-2.13	0.10	2.75
JPMorgan Corporate Emerging Markets Bond Index (CEMBI) Broad Diversified	5.09	94.2	6.43	4.4	1.50	3.94	5.41	9.87	0.10	2.35	3.68
JPMorgan Government Bond Index-Emerging Markets (GBI-EM) Global Diversified	5.50	-	6.37	5.1	2.27	2.80	-1.52	0.08	-2.40	-1.02	-0.54

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It is not possible to invest directly in an index. Source: J.P. Morgan, Morningstar as of 7/31/24. 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.

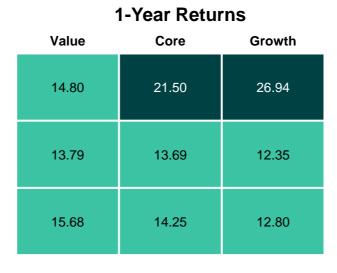
Asset Class Return Analysis (%)

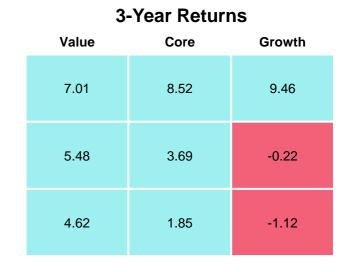
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
Higher	Municipal 9.05	Municipal 3.30	High Yield 17.49	EMD (Local Currency) 15.21	Municipal 1.28	Investment Grade 14.54	Global Agg Ex-U.S. 10.11	High Yield 5.36	Bank Loan -0.77	High Yield 13.46	EMD (Corp. Bonds) 5.41
	Investment Grade 7.46	MBS 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	Bank Loan 5.12
	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 4.63
	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	EMD (Hard Currency) 4.26
	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 1.89
	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	MBS 1.63
	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	Treasury 1.31
	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	Municipal 0.50
	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	EMD (Local Currency) -1.52
Lower	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	Global Agg Ex-U.S. -2.27

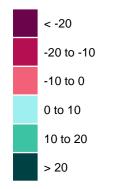
Past performance is no guarantee of future results. It is not possible to invest directly in an index. In general, fixed income investments are subject to credit and interest rate risks. High yield investments may have a higher degree of credit and liquidity risk. Foreign securities are subject to currency, political, economic and market risks. Investors should carefully review the risks of each asset class prior to investing. Source: Morningstar as of 7/31/24. Data provided is for informational use only. See end of report for important additional information. Investment Grade 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 Aggregate Ex-USD Index. EMD (Local Currency) represented by J.P. Morgan Government Bond Index (EMBI) Global Diversified. EMD (Hard Currency) represented by J.P. Morgan Emerging Markets Bond Index (EMBI) Broad Diversified.

Performance: Market Barometer (%)













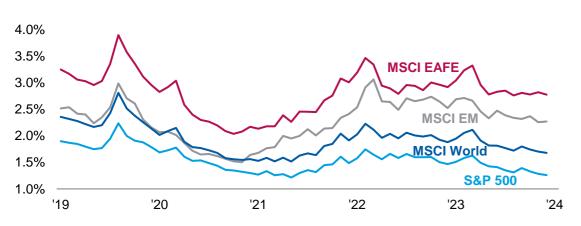
Global	U.S.
5.75	9.60
International 3.63	Emerging Markets -2.74

Past performance is no guarantee of future results.

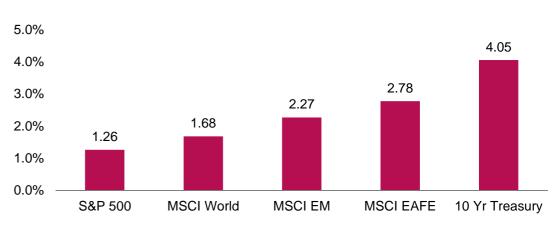
It is not possible to invest directly in an index. Source: Morningstar as of 7/31/24. Data provided is for informational use only. See end of report for important additional information. Returns over 1 year are annualized. Large Cap Value represented by Russell 1000 Value Index. Large Cap Core represented by Russell 1000 Growth Index. Mid Cap Value represented by Russell Mid Cap Value Index. Mid Cap Growth represented by Russell Mid Cap Index. Mid Cap Growth represented by Russell 2000 Value Index. Small Cap Value Index. Small Cap Growth represented by Russell 2000 Growth Index. Global represented by Russell 2000 Growth Index. Global represented by MSCI Emerging Markets Index.

Dividend Yields and Volatility Analysis

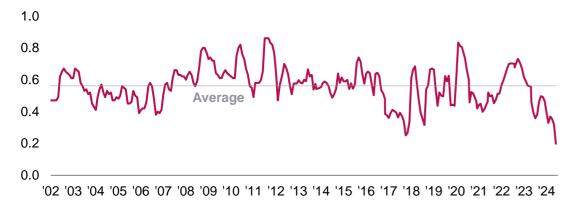
Historical Yields



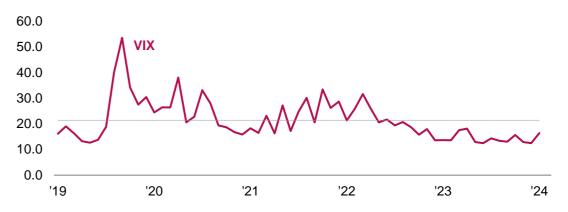
Current Yields



Correlation of S&P 500 Stocks



CBOE Market Volatility Index (VIX)

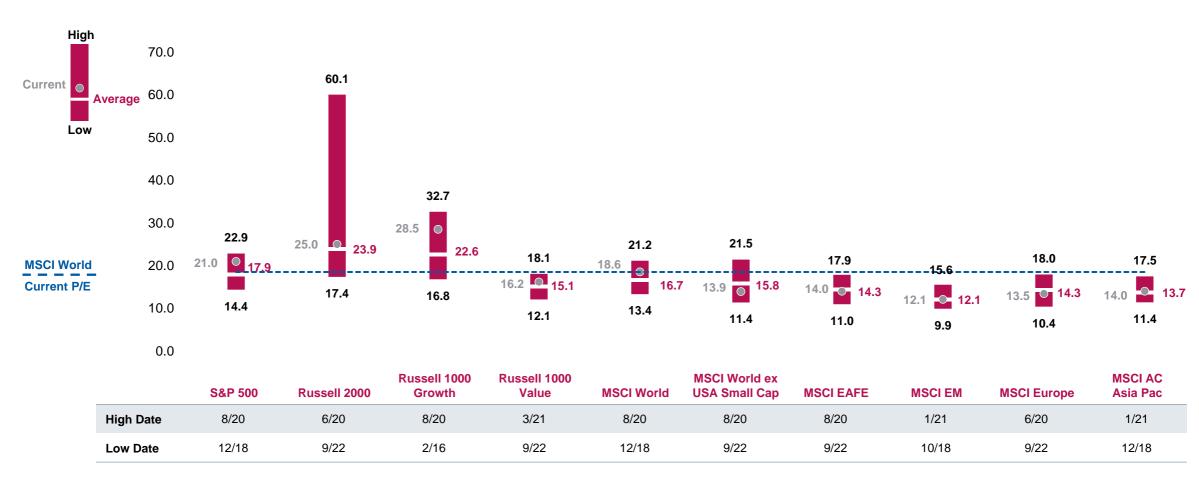


Past performance is no guarantee of future results.

It is not possible to invest directly in an index. Source: FactSet and Ned Davis Research as of 7/31/24. 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.

Valuation Analysis

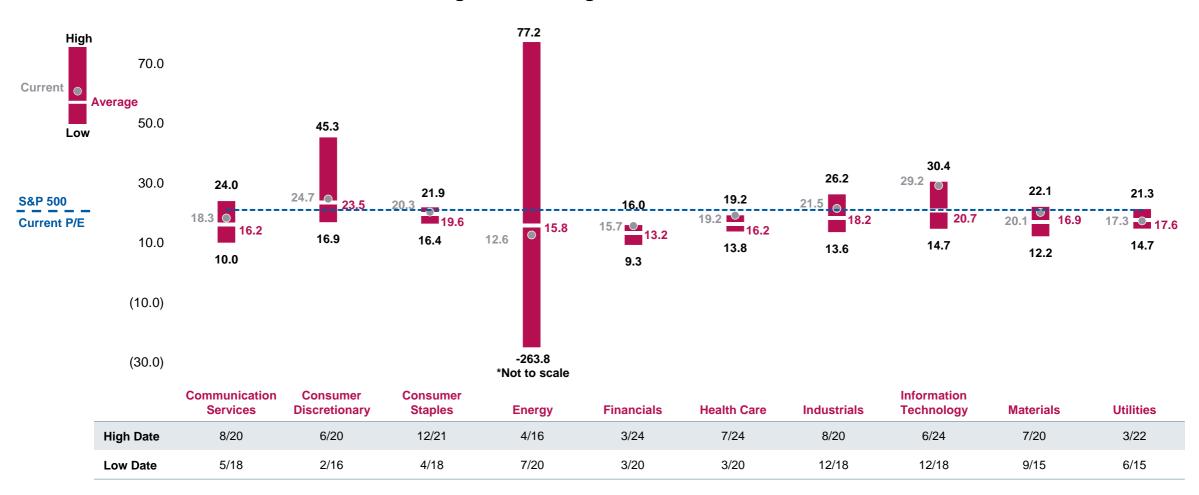
Regions/Styles: Current NTM P/E vs. 10-Year High, Low, Average



Source: FactSet as of 7/31/24. 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.

Valuation Analysis

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



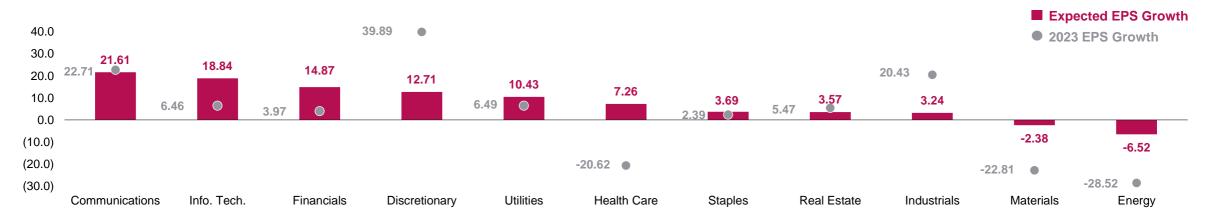
Source: FactSet as of 7/31/24. NTM P/E is market price per share divided by expected earnings per share over the next twelve months. The Real Estate sector is excluded from this 10-year chart since the sector was created on August 31, 2016. Data provided is for informational use only. See end of report for important additional information. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

Corporate Earnings Growth

Regions/Styles

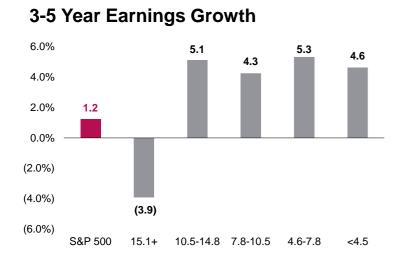


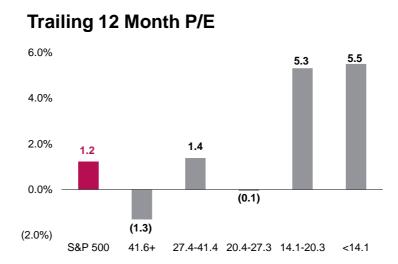
S&P 500 Sectors

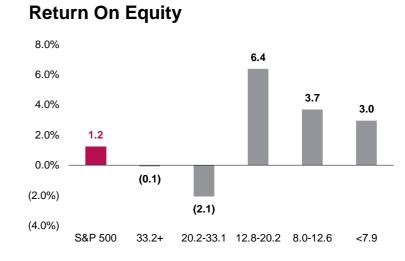


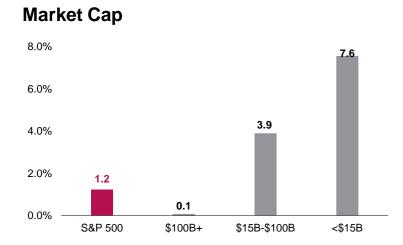
Source: FactSet as of 7/31/24. Expected EPS Growth is defined as the expected % change in the EPS growth from the beginning of the current calendar year though the end of the calendar year. 2023 EPS Growth is defined as the % change in EPS from the beginning of the year through the end of the year. Data 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.

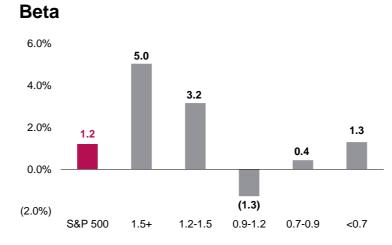
S&P 500 Index: 1-Month Return Analysis

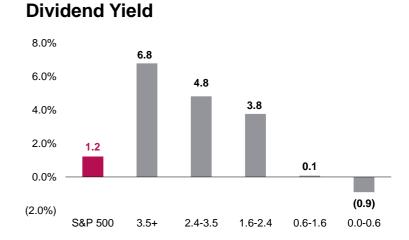










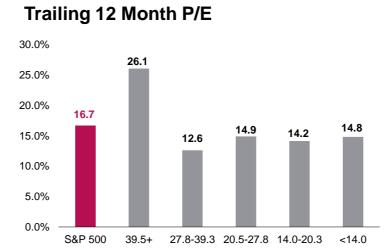


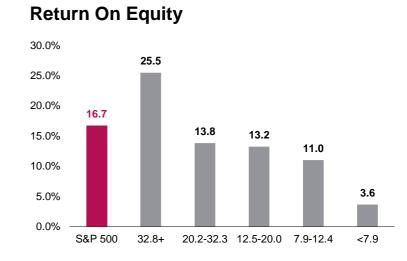
Past performance is no guarantee of future results.

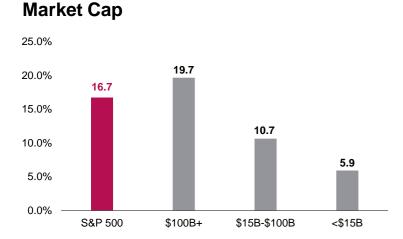
It is not possible to invest directly in an index. Source: FactSet as of 7/31/24. Data provided is for informational use only. See end of report for important additional information.

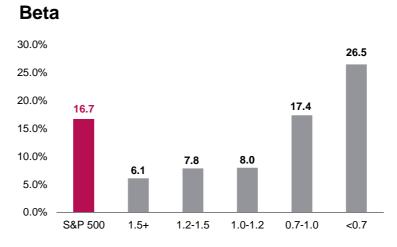
S&P 500 Index: YTD Analysis

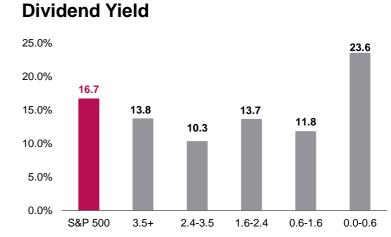








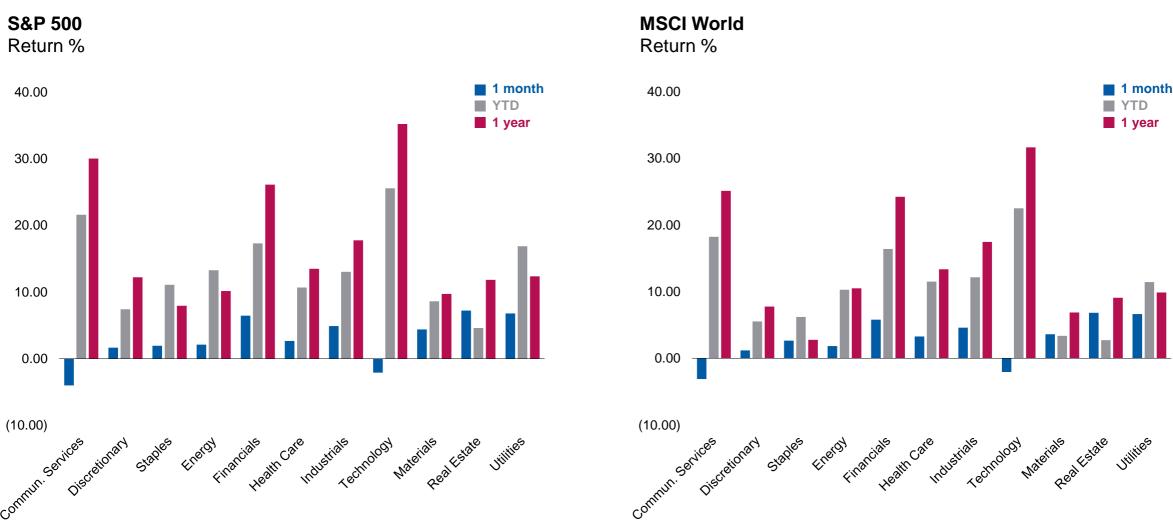




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Index Sectors: Return Analysis

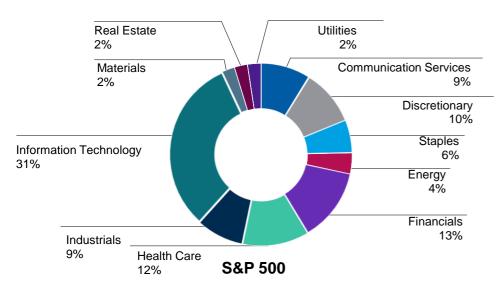


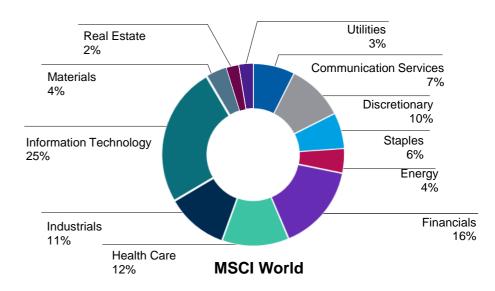
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Current Characteristics and Sector Weights

	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	503	1921	440	846	1429	2317	741	1328	417	1395
Maximum Market Cap	\$3,405.39B	\$11.73B	\$3,405.39B	\$945.87B	\$3,209.75B	\$8.94B	\$423.61B	\$704.46B	\$423.61B	\$704.46B
Minimum Market Cap	\$6.99B	\$0.02B	\$0.80B	\$0.48B	\$1.81B	\$0.10B	\$1.81B	\$0.10B	\$1.81B	\$0.10B
Dividend Yield	1.26	1.28	0.55	2.00	1.68	2.71	2.78	2.27	2.95	2.15
NTM PE	21.01	25.02	28.52	16.18	18.55	13.94	14.02	12.12	13.48	14.02
Price to Book	4.90	2.12	13.25	2.75	3.44	1.44	1.94	1.84	2.11	1.79
Price to Cash Flow	17.14	14.17	26.57	12.07	14.27	9.35	9.95	8.54	8.47	11.48
Price to Sales	2.92	1.32	5.60	1.79	2.27	0.93	1.41	1.42	1.40	1.45
Est 3-5 Yr EPS Growth	16.02	13.16	21.26	9.80	14.94	12.40	11.76	17.83	12.08	15.22
5Yr. Div Growth Rate	4.44	6.25	5.40	1.16	2.71	4.90	0.64	2.63	-0.25	0.96





Source: FactSet as of 7/31/24. 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.

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Asset Class Return Analysis (%)

		1-Mo.	3-Mo.	YTD	1Y	3Y	5Y	10Y	2023	2022	2021	2020	2019
	S&P 500	1.22	10.05	16.70	22.15	9.60	15.00	13.15	26.29	-18.11	28.71	18.40	31.49
	Russell 1000 Defensive	1.99	9.18	13.38	18.38	7.08	12.18	12.21	20.23	-16.43	26.93	13.93	30.47
	Russell 1000 Dynamic	0.93	10.28	18.40	24.62	9.91	16.79	13.31	33.34	-21.94	25.57	27.69	32.35
U.S.	Russell 2500	7.43	10.22	9.95	13.06	2.72	9.65	9.31	17.42	-18.37	18.18	19.99	27.77
Equities	Russell 1000 Growth	-1.70	11.21	18.65	26.94	9.46	18.41	16.31	42.68	-29.14	27.60	38.49	36.39
	Russell 1000 Value	5.11	7.42	12.08	14.80	7.01	9.92	8.96	11.46	-7.54	25.16	2.80	26.54
	Russell Mid Cap	4.71	6.99	9.91	13.69	3.69	10.16	9.88	17.23	-17.32	22.58	17.10	30.54
	Russell 2000	10.16	14.62	12.07	14.25	1.85	8.91	8.72	16.93	-20.44	14.82	19.96	25.52
	CBOE S&P 500 Buywrite BXM	1.13	4.05	8.81	8.59	5.18	5.58	5.91	11.82	-11.37	20.47	-2.75	15.68
	MSCI World	1.76	8.47	13.72	18.34	6.85	12.06	9.53	23.79	-18.14	21.82	15.90	27.67
	MSCI EAFE	2.93	5.19	8.43	11.21	3.63	7.36	4.84	18.24	-14.45	11.26	7.82	22.01
	MSCI EM	0.30	4.84	7.81	6.27	-2.74	3.41	2.63	9.83	-20.09	-2.54	18.31	18.44
Global	MSCI AC Asia Pac	1.98	6.15	9.91	10.04	0.04	5.41	4.57	11.45	-17.22	-1.46	19.71	19.36
	MSCI ACWI	1.61	8.09	13.10	17.02	5.75	11.05	8.74	22.20	-18.36	18.54	16.25	26.60
Equities	MSCI Europe	2.15	4.69	8.08	10.68	3.98	8.01	4.78	19.89	-15.06	16.30	5.38	23.77
	MSCI World Small Cap	6.85	9.54	8.44	11.17	1.15	8.18	7.44	15.76	-18.76	15.75	15.96	26.19
	MSCI World Ex USA Small Cap	5.56	7.01	6.60	8.88	-1.71	5.93	4.88	12.62	-20.59	11.14	12.78	25.41
	FTSE 100	4.18	6.23	11.45	12.80	7.21	6.86	3.34	14.38	-7.01	17.36	-8.73	22.03
	FTSE All Small	5.81	11.04	12.09	15.28	-1.01	9.06	5.04	12.57	-23.06	22.15	10.77	22.63
	STOXX Europe 600	2.39	4.79	8.13	10.80	3.48	8.09	4.94	19.87	-16.14	16.09	6.83	24.53
	Nikkei 225 Average	5.62	6.61	10.27	12.95	3.13	7.22	7.15	22.05	-19.49	-4.69	23.99	21.35
	S&P 500 Comm. Services	-4.01	7.21	21.60	30.03	3.76	13.03	9.09	55.80	-39.89	21.57	23.61	32.69
	S&P 500 Cons Disc	1.66	6.95	7.41	12.21	2.64	10.69	12.58	42.41	-39.09	24.43	33.30	27.94
Sectors	S&P 500 Cons Staples	1.93	4.24	11.08	7.93	6.92	9.33	9.49	0.52	-0.62	18.63	10.75	27.61
	S&P 500 Energy	2.11	0.40	13.27	10.15	28.95	13.84	3.86	-1.33	65.72	54.64	-33.68	11.81
	S&P 500 Financials	6.46	8.85	17.29	26.11	8.29	11.44	11.44	12.15	-10.53	35.04	-1.69	32.13
	S&P 500 Health Care	2.65	7.11	10.67	13.48	5.98	12.48	11.35	2.06	-1.95	26.13	13.45	20.82
	S&P 500 Industrials	4.90	5.63	13.03	17.77	9.19	12.44	11.38	18.13	-5.48	21.12	11.06	29.37
	S&P 500 Info Tech	-2.09	17.83	25.57	35.20	17.46	25.81	22.34	57.84	-28.19	34.53	43.89	50.29
	S&P 500 Materials	4.39	4.48	8.61	9.71	5.32	11.94	8.81	12.55	-12.27	27.28	20.73	24.58
	S&P 500 Real Estate	7.22	14.94	4.59	11.83	-0.55	5.51	7.72	12.36	-26.13	46.19	-2.17	29.01
	S&P 500 Utilities	6.79	9.95	16.86	12.36	6.71	7.57	9.51	-7.08	1.57	17.67	0.48	26.35

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Asset Class Return Analysis (%)

Higher	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
† †	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 18.65
	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 16.70
	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 13.10
	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	Value 12.08
	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	Small-Cap 12.07
	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 9.91
	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 8.43
	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	Emerging Markets 7.81
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	International Small-Cap 6.60

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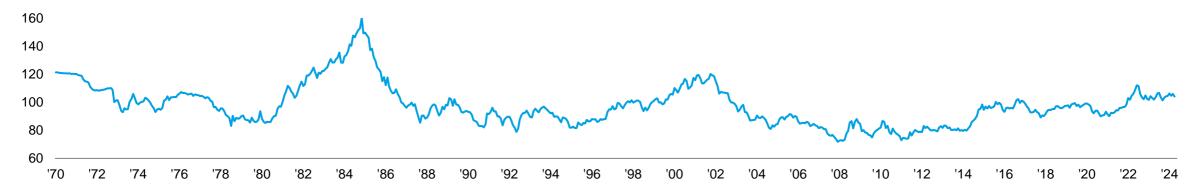
It is not possible to invest directly in an index. In general, Foreign securities are subject to currency, political, economic and market risks. The risks of investing in emerging market countries are greater than investments in foreign developed countries. Investors should carefully review the risks of each asset class prior to investing. Source: Morningstar as of 7/31/24. Data provided is for informational use only. See end of report for important additional information. Small-Cap represented by Russell 2000 Index. Emerging Markets represented by MSCI Emerging Markets Index. Value represented by Russell Midcap Index. Global represented by MSCI EAFE Index. International Small-Cap represented by MSCI World Ex USA Small Cap Index.

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Developed Market Currency Performance and Yields

		Spot Ret	urns vs. USI	D (%)		Spot Returns vs. EUR (%)					Local Interest Rates (%)
Currency	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
U.S. Dollar (USD)	-	-	-	-	-	-0.96	2.08	1.89	3.10	0.57	4.41
Euro (EUR) *	0.97	-2.04	-1.85	-3.00	-0.57	-	-	-	-	-	2.80
British Pound (GBP)	1.61	0.76	-0.17	-2.61	0.96	0.64	2.86	1.72	0.41	1.54	4.29
Japanese Yen (JPY)	6.91	-6.30	-5.57	-9.98	-6.32	5.89	-4.35	-3.78	-7.19	-5.78	0.17
Australian Dollar (AUD)	-2.22	-4.30	-3.09	-3.87	-1.07	-3.16	-2.31	-1.26	-0.89	-0.51	4.17
Canadian Dollar (CAD)	-0.95	-4.55	-4.72	-3.32	-1.01	-1.90	-2.56	-2.92	-0.33	-0.44	3.89
New Zealand Dollar (NZD)	-2.53	-6.19	-4.56	-5.24	-2.09	-3.46	-4.24	-2.76	-2.30	-1.53	4.29
Norwegian Krone (NOK)	-2.62	-7.12	-7.48	-6.86	-4.29	-3.56	-5.19	-5.73	-3.98	-3.74	4.15
Swedish Krona (SEK)	-1.19	-5.97	-1.96	-7.06	-2.19	-2.13	-4.01	-0.11	-4.18	-1.63	2.67
Danish Krone (DKK)	0.90	-2.14	-1.98	-3.11	-0.56	-0.06	-0.10	-0.13	-0.11	0.01	2.40
Swiss Franc (CHF)	2.08	-4.39	-1.52	0.98	2.38	1.11	-2.39	0.34	4.10	2.96	0.68

U.S. Dollar Index



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Emerging Market Currency Performance and Yields

		Spot Ret	urns vs. USI	D (%)		Spot Returns vs. EUR (%)					Local Interest Rates (%)
Currency	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
Asia, excluding Japan											
Chinese Renminbi (CNY)	0.54	-1.87	-1.11	-3.69	-0.96	-0.42	0.18	0.76	-0.71	-0.40	1.35
Malaysian Ringgit (MYR)	2.68	0.01	-1.86	-2.79	-2.13	1.70	2.10	-0.01	0.22	-1.57	3.08
Indian Rupee (INR)	-0.41	-0.62	-1.77	-3.85	-3.86	-1.36	1.46	0.09	-0.88	-3.31	6.75
Indonesian Rupiah (IDR)	0.71	-5.31	-7.26	-3.83	-2.93	-0.26	-3.33	-5.50	-0.85	-2.37	6.48
Philippine Peso (PHP)	0.40	-5.14	-5.91	-5.04	-2.71	-0.56	-3.16	-4.13	-2.10	-2.15	6.13
Singapore Dollar (SGD)	1.32	-1.38	-0.73	0.41	0.46	0.35	0.67	1.14	3.52	1.03	3.31
South Korean Won (KRW)	-0.02	-6.45	-7.42	-5.82	-2.99	-0.97	-4.50	-5.67	-2.90	-2.43	3.14
Taiwanese Dollar (TWD)	-1.30	-6.63	-4.39	-5.24	-1.10	-2.25	-4.68	-2.58	-2.31	-0.54	1.35
Thai Baht (THB)	2.95	-4.24	-3.97	-2.67	-2.91	1.97	-2.25	-2.16	0.35	-2.35	2.25
Latin America											
Brazilian Real (BRL)	-1.74	-14.07	-15.85	-3.08	-7.82	-2.68	-12.28	-14.26	-0.07	-7.29	10.73
Chilean Peso (CLP)	-0.10	-7.57	-11.15	-7.04	-5.80	-1.05	-5.65	-9.47	-4.17	-5.26	5.03
Colombian Peso (COP)	2.10	-4.56	-4.34	-1.62	-4.10	1.12	-2.57	-2.53	1.43	-3.55	8.37
Mexican Peso (MXN)	-1.85	-9.10	-10.35	2.15	0.37	-2.79	-7.21	-8.65	5.32	0.95	10.99
Peruvian New Sol (PEN)	3.03	-0.42	-3.08	2.90	-2.38	2.04	1.66	-1.24	6.09	-1.82	2.44

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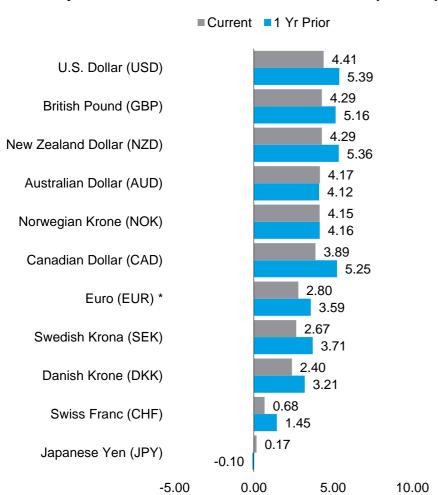
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Emerging Market Currency Performance and Yields

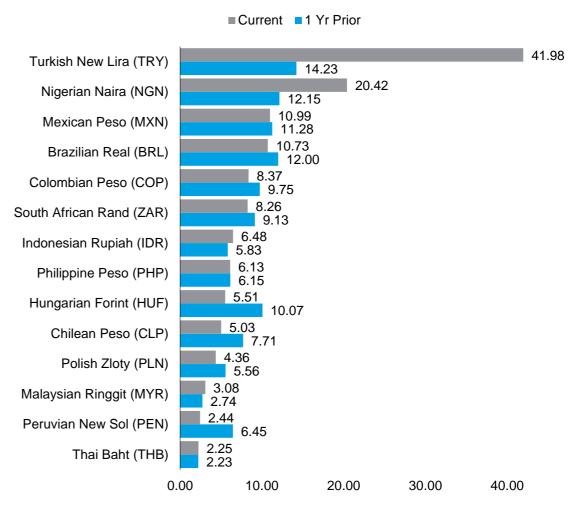
		Spot Ret	turns vs. US	SD (%)		Spot Returns vs. EUR (%)					Local Interest Rates (%)
Currency	1-Mo.	YTD	1Y	3Y	5Y	1-Mo.	YTD	1Y	3Y	5Y	1Y
Europe											
Czech Koruna (CZK)	-0.70	-5.03	-7.99	-2.99	-0.41	-1.65	-3.05	-6.26	0.02	0.16	3.35
Hungarian Forint (HUF)	1.18	-4.99	-3.60	-6.09	-4.29	0.22	-3.01	-1.78	-3.18	-3.74	5.51
Polish Zloty (PLN)	1.30	-0.91	0.66	-1.01	-0.61	0.33	1.15	2.56	2.06	-0.04	4.36
Romanian Leu (RON)	0.95	-2.10	-2.70	-3.42	-1.57	-0.01	-0.06	-0.86	-0.43	-1.01	5.74
Russian Ruble (RUB)	0.35	4.01	6.83	-5.23	-5.90	-0.61	6.18	8.85	-2.30	-5.36	
Turkish New Lira (TRY)	-0.99	-10.80	-18.68	-36.64	-30.01	-1.93	-8.94	-17.14	-34.68	-29.61	41.98
Middle East and Africa											
Ghanaian Cedi (GHS)	-1.54	-23.33	-27.16	-27.41	-19.06	-2.49	-21.73	-25.78	-25.16	-18.59	17.90
Israeli Shekel (ILS)	0.16	-4.26	-2.59	-4.98	-1.45	-0.80	-2.27	-0.75	-2.04	-0.88	3.96
Kenyan Shilling (KES)	0.19	21.71	10.54	-5.58	-4.20	-0.76	24.24	12.63	-2.65	-3.65	16.92
Moroccan Dirham (MAD)	0.39	-0.60	-0.92	-3.46	-0.63	-0.57	1.48	0.95	-0.47	-0.06	2.94
Nigerian Naira (NGN)	-5.61	-44.08	-53.93	-36.47	-25.75	-6.51	-42.92	-53.05	-34.50	-25.32	20.42
South African Rand (ZAR)	0.38	0.53	-2.24	-7.01	-4.87	-0.58	2.62	-0.39	-4.13	-4.32	8.26
Ugandan Shilling (UGX)	-0.48	1.39	-2.90	-1.61	-0.15	-1.43	3.51	-1.06	1.44	0.42	13.75
Zambian Kwacha (ZMK)	-8.32	-1.68	-27.44	-9.75	-13.21	-9.19	0.37	-26.07	-6.95	-12.72	18.50

Local Sovereign Currency Yields

Developed Market Local Interest Rates % (1 Year)



Emerging Market Local Interest Rates % (1 Year)



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Commodities Return Analysis (%)

Index	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y
Bloomberg Commodity Index	-4.04	-3.85	0.90	-5.17	3.58	6.51
Bloomberg Sub Agriculture	-4.83	-7.16	-10.82	-16.09	1.51	9.01
Coffee	1.54	7.00	29.18	54.51	15.57	18.10
Corn	-5.62	-14.01	-21.44	-29.10	-5.50	2.43
Cotton	-4.63	-10.57	-14.20	-18.79	1.73	6.15
Soybean	-6.93	-8.77	-18.11	-20.67	1.73	10.27
Soybean Oil	-2.89	-1.14	-11.98	-26.75	-5.27	15.09
Sugar	-6.25	-0.92	-0.27	-13.79	10.79	12.89
Wheat	-7.62	-14.24	-18.67	-27.63	-14.87	-3.58
Bloomberg Sub Energy	-7.65	-5.23	-0.28	-12.76	2.55	-1.32
Brent Crude	-3.32	-2.77	13.21	7.37	20.11	14.32
Heating Oil	-3.88	-3.81	6.07	0.72	28.96	15.52
Natural Gas	-21.25	-12.44	-36.07	-54.11	-38.39	-30.40
Unleaded Gas	-0.68	-5.08	12.95	-3.06	25.37	17.94
WTI Crude Oil	-2.92	-1.81	15.60	8.25	13.91	3.64

Index	1-Mo.	3-Mo.	YTD	1Y	3Y	5Y
Bloomberg Sub Industrial Metals	-6.78	-10.16	1.59	-1.50	-1.33	6.60
Aluminum	-10.02	-12.76	-5.55	-2.05	-5.15	2.83
Copper	-4.44	-7.17	9.61	6.69	-0.24	10.29
Nickel	-4.12	-13.98	-0.30	-25.89	-4.60	2.96
Zinc	-9.26	-9.53	-0.24	4.81	-0.52	3.82
Bloomberg Sub Precious Metals	2.68	6.48	18.12	20.93	8.45	10.28
Gold	4.13	5.69	17.31	22.45	9.72	10.07
Platinum	-2.26	3.99	-1.50	4.38	-0.45	2.70
Silver	-1.63	8.86	20.31	15.19	3.87	10.74
Bloomberg Sub Livestock	2.35	1.92	12.17	1.94	5.76	-0.72
Lean Hogs	6.33	-6.28	9.37	-6.92	-2.26	-6.93
Live Cattle	0.52	8.78	15.70	8.37	10.82	3.13

Past performance is no guarantee of future results.

It is not possible to invest directly in an index. Source: Morningstar as of 7/31/24. Data provided is for informational use only. See end of report for important additional information. Commodity represented by Bloomberg Agriculture Subindex. Energy represented by Bloomberg Subindex. 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 Livestock Subindex. Precious Metals Subindex.

Asset Class Return Analysis (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD 2024
Higher •	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 17.71
	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 10.46
	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	Managed Futures 7.59
	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	Multi-Strategy 6.81
	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	Equity Market Neutral 6.22
	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	Event Driven 5.81
	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	Commodity 5.14
	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	Fixed Income Arbitrage 4.97
	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	Global Macro 3.89
	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	Convertible Arbitrage 2.80
Lower	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	Currency -1.38

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Morningstar as of 6/30/24. *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 J.P. Morgan EMLI+ Index. Equity Market Neutral represented by Credit Suisse Equity Market Neutral Index. Fixed Income Arbitrage represented by Credit Suisse Fixed Income Arbitrage 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	0.70	0.86	0.37	0.38	0.80	0.60	0.40
International	0.89	1.00	0.80	0.78	0.40	0.44	0.81	0.62	0.45
Emerging Markets	0.71	0.80	1.00	0.64	0.38	0.43	0.71	0.57	0.50
Small Cap	0.86	0.85	0.72	1.00	0.29	0.31	0.77	0.64	0.38
U.S. Aggregate	0.52	0.54	0.49	0.44	1.00	0.85	0.49	0.16	-0.08
Municipal	0.55	0.62	0.59	0.49	0.85	1.00	0.54	0.28	0.01
High Yield	0.83	0.82	0.71	0.83	0.58	0.68	1.00	0.80	0.50
Bank Loan	0.62	0.62	0.62	0.68	0.21	0.37	0.81	1.00	0.50
Commodities	0.42	0.48	0.47	0.40	-0.06	0.08	0.48	0.49	1.00
Ì	5 Years ended J	uly 30, 2024	10 Years ended Ju	ly 30, 2024					

Past performance is no guarantee of future results.

It is not possible to invest directly in an index. Source: Morningstar as of 7/31/24. 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	1,904	7,861	26,472
Diversified Emerging Mkts	1,384	-2,373	-9,126
Global Bond-USD Hedged	1,279	4,177	14,843
Intermediate Core Bond	1,070	11,388	73,237
Foreign Large Blend	813	-3,996	1,262
High Yield Muni	716	2,079	2,752
Nontraditional Bond	648	1,618	3,100
Small Blend	620	-308	-5,995
Short-Trm Inflation-Protected Bond	579	88	1,544
High Yield Bond	422	-662	5,415

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

	1 Mo.	3 Mo.	12 Mo.
Health	-1,059	-3,325	-15,086
Ultrashort Bond	-1,088	614	-8,133
Small Growth	-1,362	-5,084	-13,618
Mid-Cap Value	-1,678	-5,993	-22,052
Global Allocation	-2,363	-7,779	-22,618
Mid-Cap Growth	-2,736	-8,152	-26,312
Moderate Allocation	-3,064	-8,551	-31,451
Large Value	-3,535	-13,168	-67,844
Large Growth	-9,216	-28,863	-102,793
Large Blend	-10,723	-21,238	-75,803

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

	1 Mo.	3 Mo.	12 Mo.
Large Blend	16,063	56,993	259,839
Large Growth	14,103	29,477	80,553
Foreign Large Blend	7,054	16,079	51,787
Long Government	5,639	9,114	33,198
Ultrashort Bond	5,360	18,503	42,087
Corporate Bond	4,543	926	10,444
Technology	3,922	4,312	21,812
Foreign Large Growth	3,096	3,877	4,324
Global Large-Stock Blend	2,750	2,695	8,043
Derivative Income	2,490	7,447	25,323

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

	1 Mo.	3 Mo.	12 Mo.
Health	-151	-3,440	-10,428
Commodities Focused	-193	-575	-12,377
Consumer Cyclical	-302	-1,415	427
Inflation-Protected Bond	-366	-1,303	-3,994
China Region	-558	454	-2,372
Short-Term Bond	-568	-1,058	-8,918
Industrials	-734	959	2,690
Foreign Large Value	-1,465	-1,112	1,446
Equity Energy	-1,485	-2,329	-113
TradingLeveraged Equity	-1,527	-3,334	-10,447

Source: Morningstar as of 6/30/24. 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 16.70
	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	Small-Cap 12.07
	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 8.43
	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 8.00
	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	Emerging Markets 7.81
	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	Bank Loan 5.12
	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	High Yield 4.63
	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	US Agg 1.61
	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	Commodities 0.90
	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 0.50

Past performance is no guarantee of future results. It is not possible to invest directly in an index. Source: Morningstar as of 7/31/24. 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 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.



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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 fixedrate, 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.

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. Governmentsponsored 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.

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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.

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