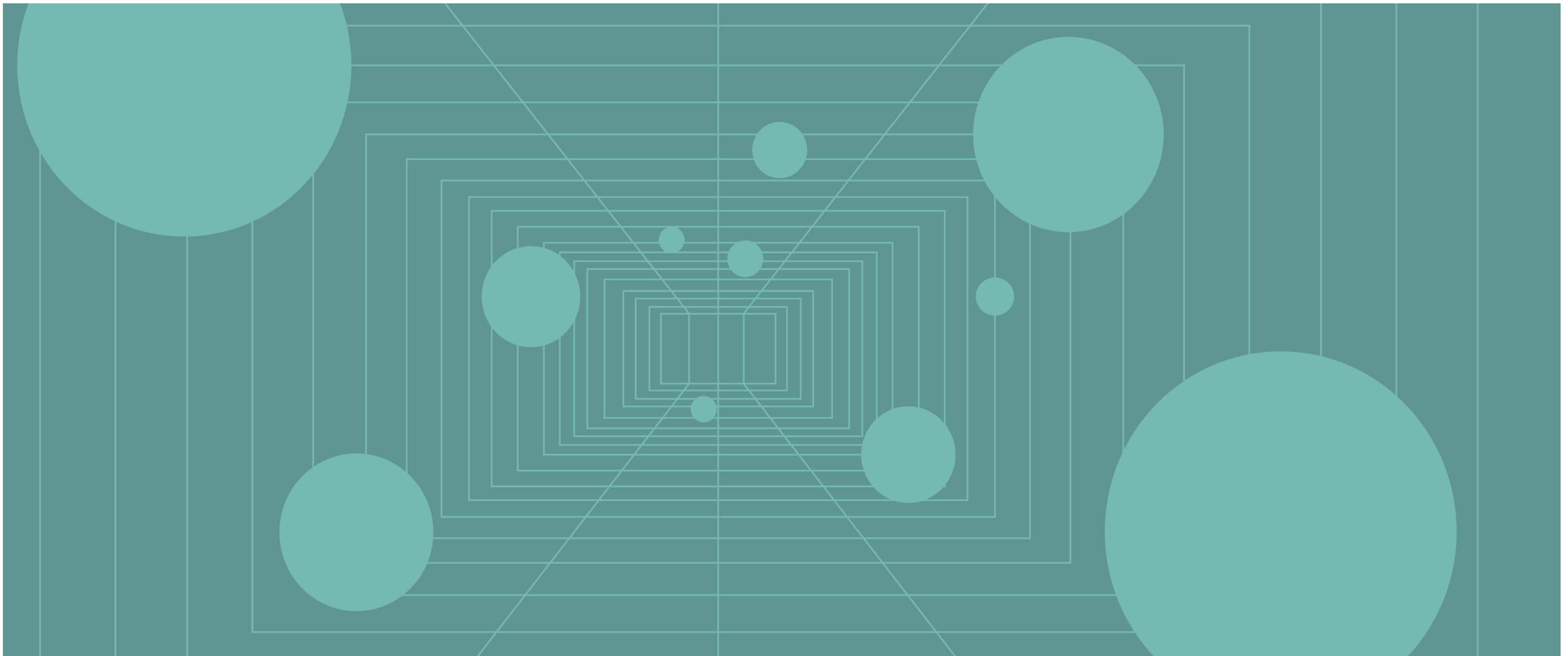
TACTICAL CA HOUSE VIEWS



CAMBRIDGE ASSOCIATES FIFTY YEARS

JANUARY 2024

Overview of Tactical CA House Views

December 31, 2023

Our house views are intended to generate excess returns over a three- to five-year horizon. Sizing of tactical positions should reflect an investor's risk tolerance, liquidity needs, and other holdings.

CURRENT POSITIONS

OVERWEIGHT	UNDERWEIGHT	RECOMMENDED SINCE
China All Shares	Global Equities	1/31/2022
California Carbon Allowances	Global Equities	10/31/2021
Developed Markets ex US Small-Cap Equities	Developed Markets ex US Equities	9/30/2023
US Small-Cap Equities	US Equities	4/30/2022
Developed Markets Value Equities	Developed Markets Equities	6/30/2020
Long US Treasuries	Treasuries	9/30/2023
High-Quality CLO Debt *	US Bonds	6/30/2022

* The High-Quality CLO Debt advice is aimed at US-domiciled investors, given limited implementation options outside the United States.

Overweight China All Share Equities vs Global Equities

Recommended Since January 31, 2022

INVESTMENT THESIS: We expect Chinese equities will outperform global equities, given the weak performance of the asset class recently, which we view as excessive and has left equity valuations depressed relative to global equities and momentum at oversold levels. Increased fiscal and monetary stimulus will be the catalysts to unlock current valuation discounts.

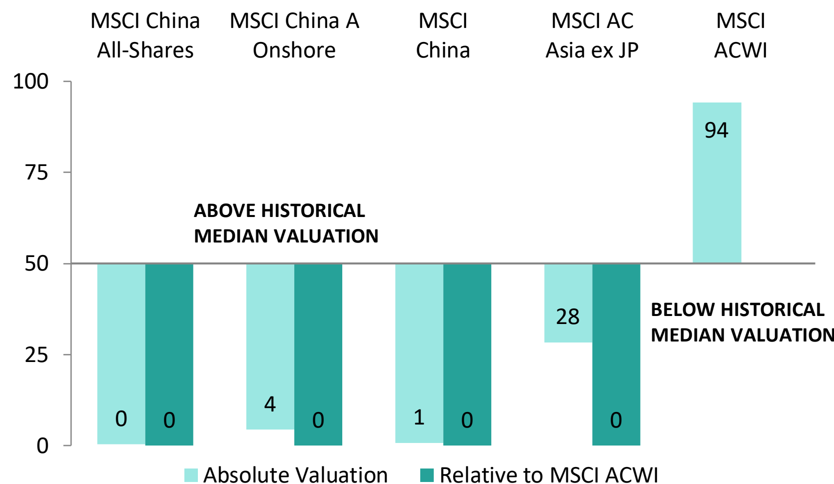
- **KEY SUPPORT #1:** Chinese equities underperformed global equities in 2023. As a result, equity multiple valuations have dropped, such that current Chinese equity valuations are in the bottom decile of historical data dating back to 2005. Moreover, the gap between Chinese and global equity valuations stands at a record wide point relative to history, which also suggests Chinese equities may be underpriced. As of the end of December, relative momentum is at very oversold levels, offering further upside potential as China's economy stabilizes.

- **KEY SUPPORT #2:** We expect Chinese equities to benefit from additional monetary and fiscal policy easing. Recent economic data is showing signs of improvement, and analysts expect real GDP growth and corporate earnings growth in China to be higher than many major developed economies in 2024. Further stimulus measures could trigger a sharp rebound in Chinese equities given oversold levels of valuations and momentum.

- **KEY RISKS:** Further economic weakness and US-China political tensions are two key risks. On the former, the economy is facing challenges associated with weak domestic demand, the property sector, and debt levels. The economy needs further stimulus, without which economic growth may be challenged. On the latter, an escalation in US-China tensions could further impact investor sentiments and fund flows to China. However, we think current valuations reflect these risks and expect Chinese equities will outperform global equities.

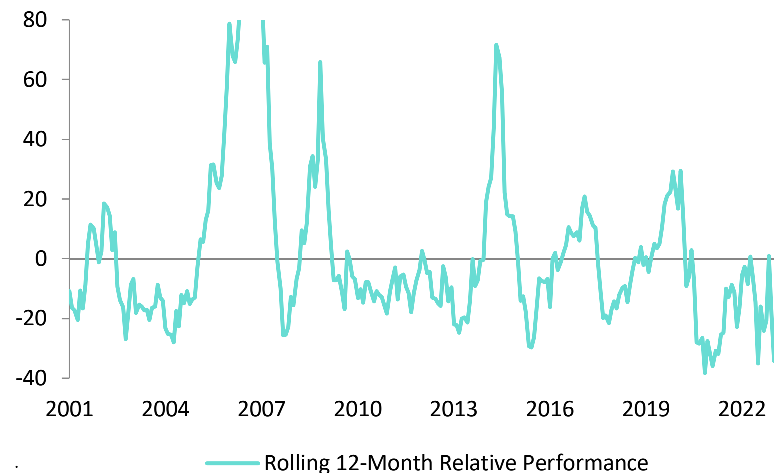
ROE-ADJUSTED P/E: PERCENTILE

March 31, 2005 – December 31, 2023



RELATIVE PERFORMANCE: MSCI CHINA ALL-SHARES VS ACWI

December 31, 2001 – December 31, 2023 • USD • Total Return • Percent (%)



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Data for MSCI China All Shares begin November 30, 2008. Data prior to November 30, 2008, are implied based on the market-cap weighted valuation and performance of the MSCI China Index and MSCI China A Onshore Index. Total returns are gross of dividend withholding taxes. Rolling 12-month axis capped for scaling purposes.

Overweight California Carbon Allowances vs Global Equities

Recommended Since October 31, 2021

INVESTMENT THESIS: We expect California Carbon Allowances (CCAs) will outperform global equities, given our expectation that supply/demand fundamentals are likely to help narrow the gap in prices between CCAs and the EU carbon allowance program and our view that the economic environment may challenge global equity returns. We prefer owning physical allowances over futures implementation. Regulated entities are allotted free allowances for a portion of their emissions and must purchase additional credits to satisfy remaining obligations.

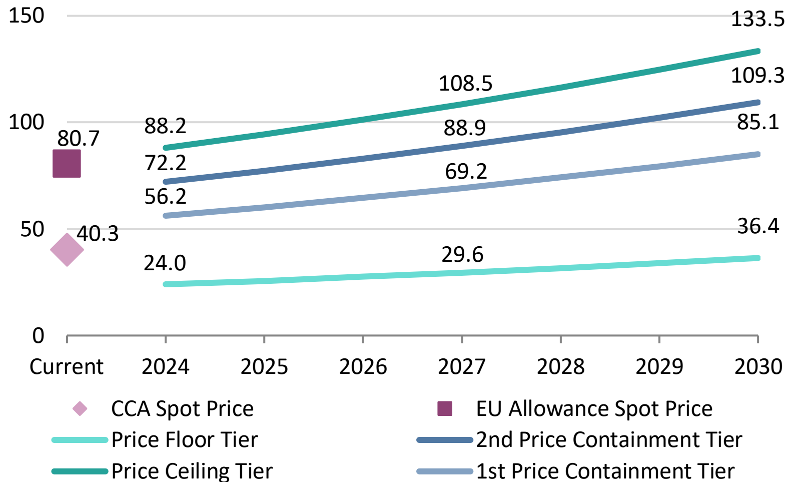
- **KEY SUPPORT #1:** California projects that its cap-and-trade program will be needed to meet its 2030 mandatory emissions target. Accordingly, the state must reduce CCA supply relative to demand. The late-July public rulemaking workshop related to the Cap-and-Trade program indicated California will reduce supply more than previously anticipated, which will help bring about a deficit relative to demand. Such deficits in more mature carbon markets and in markets more generally have typically led to increases in prices.

- **KEY SUPPORT #2:** CCAs trade at a discount to EU carbon prices. We expect CCAs will increase toward current EU price levels. We anticipate that relative to equities, CCAs downside is comparable, while the upside is much greater. The CCA price will receive an additional boost should the California Air Resources Board target a 48% reduction in emissions by 2030; a boost from the current 40% requirement. Carbon allowance supply would be reduced in line with this new target.

- **KEY RISKS:** Regulatory changes present the biggest risk to CCAs, although the program is well established and provides significant revenue to the state of California. Further, demand for carbon credits will decrease in a recession putting downward pressure on carbon prices, potentially more than equities. Finally, global equity performance may exceed our expectations. From an implementation perspective, rolling futures costs an estimated 3%-5% annually, while options for owning physical allowances are limited.

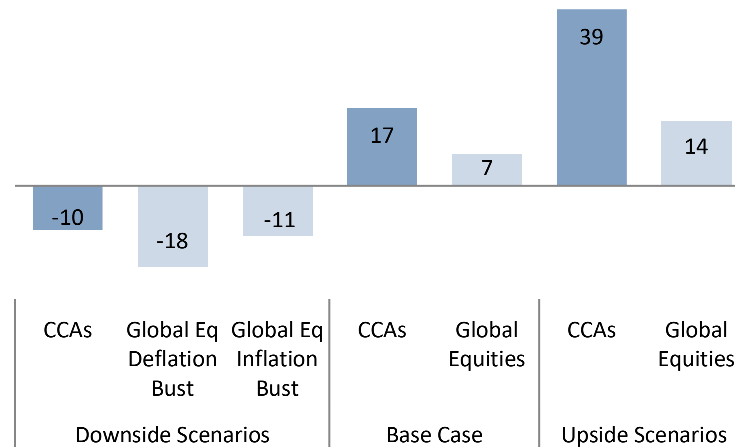
CCA PRICE COMPARED TO EU AND PRICE CONTAINMENT TIERS

As of December 31, 2023 • US Dollars



RETURN PROJECTION SCENARIOS: CCAs VS GLOBAL EQUITIES

As of December 31, 2023 • 3-Yr Annualized Average Compound Return (%)



Sources: Bloomberg L.P., MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: For the left-hand side chart, spot prices are based on near month futures contract prices. Price tiers increase by 5% plus inflation per year, which is assumed to equal US TIPS 10-year breakeven inflation. Price containment tiers are thresholds at which additional allowances are made available as a hedge against higher costs. For the right-hand side chart, for CCAs, the downside scenario assumes prices decline to the 2026 price floor; the base case assumes prices increase to $65, converging toward current EU ETS carbon prices; and the upside scenario assumes prices increase to the 2026 price ceiling. For global equities, the deflation bust downside scenario assumes that normalized P/E ratios decline by 50% and the nominal normalized earnings growth rate averages -2% year-over-year. The inflation bust downside scenario assumes the same P/E contraction with an average growth rate of 2.5%. The base case for global equities assumes today's normalized P/E is unchanged during the period and the growth rate reflects recent averages. The upside scenario assumes that normalized P/E increases by a decile (or to the all-time max if current P/E ratios are already above the 90th percentile) and an average growth rate of 6%.

Overweight Developed Markets ex US Small Caps vs Developed Markets ex US Equities

Recommended Since September 30, 2023

INVESTMENT THESIS: We expect developed markets (DM) ex US small-cap equities will outperform their mid- to large-cap counterparts, given their low relative valuations, expectations for stronger near-term earnings growth, and still-weak performance momentum, despite the rally in 4Q 2023. DM ex US small caps perform best in the early, recovery stage of the business cycle—with limited downside during recessions, historically—making the current valuation discount particularly attractive.

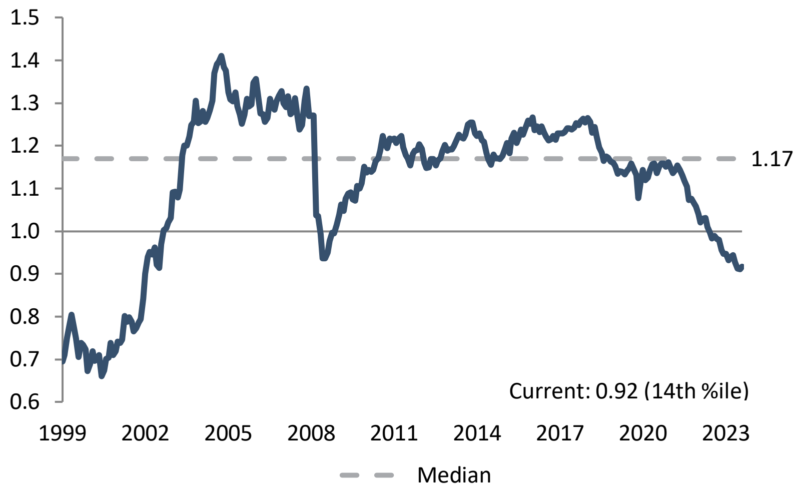
- **KEY SUPPORT #1:** DM ex US small-cap equities trade at enticing valuation levels relative to their mid- and large-cap peers. In fact, small caps carry an 8% *discount*, according to our cyclically adjusted price-to–cash earnings multiple, compared to their typical 17% *premium.* On a forward-looking basis, when small-cap valuations were at a discount historically, they consistently outperformed over the subsequent three-year period. Small caps appear adequately priced for an economic downturn scenario, and current levels support outperformance potential during a recovery.

- **KEY SUPPORT #2:** The valuation backdrop and earnings growth outlook suggest that DM ex US small caps are primed for a rebound. Although performance was strong in 4Q 2023, relative momentum currently suggests that upside potential for the trade remains. Analysts expect EPS growth of more than 14% in the next 12 months, compared to just under 6% for the mid- and large-cap universe. The expected earnings outperformance is broadly based across geographies and sectors. Small-cap price levels are now 20% below their three-year peak, whereas large caps have rebounded more quickly (6% below peak). Combining these factors, we expect the recent performance gap to narrow.

- **KEY RISKS:** Small caps have relatively higher leverage and lower profitability. Given their lower quality vis-à-vis large caps, small caps are at risk of larger drawdowns in a risk-off scenario. Real estate is the largest sector overweight for the small-cap position, which is concentrated in Japan. Easy monetary policy has protected performance thus far in the cycle, but any shift to tightening or higher rate levels could pose a headwind in this segment.

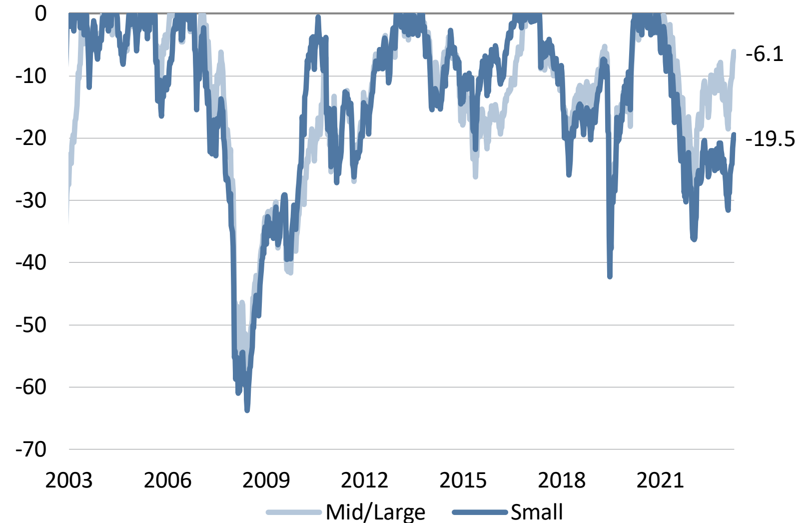
RELATIVE NORMALIZED VALUATIONS: DM EX US SC VS LARGE/MID CAP

May 31, 1999 – December 31, 2023



DRAWDOWN FROM ROLLING 3-YR HIGH: DM EX US EQUITY

January 1, 1993 – December 31, 2023 • US Dollars • Percent (%)



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Relative normalized P/E data are monthly and are based on an adjusted price-to-cash earnings ratio. The cyclically adjusted price-to–cash earnings (CAPCE) ratio is calculated by dividing the inflation-adjusted index price by trailing five-year average inflation–adjusted cash earnings. Cash earnings are defined as net income from continuing operations plus depreciation and amortization expense. MSCI does not publish cash earnings for banks and insurance companies and therefore excludes these two industry groups from index-level cash earnings. Drawdown data are weekly and based on index price levels.

Overweight US Small-Cap Equities vs US Equities

Recommended Since April 30, 2022

INVESTMENT THESIS: We expect small-cap equities will outperform their mid- to large-cap counterparts in the United States, given their valuation discount, strong profitability, and desirable sector composition. Small-cap equities have historically tended to perform best in the recovery stage of business cycles, and investors could see significant benefit when economic growth and fundamentals rebound.

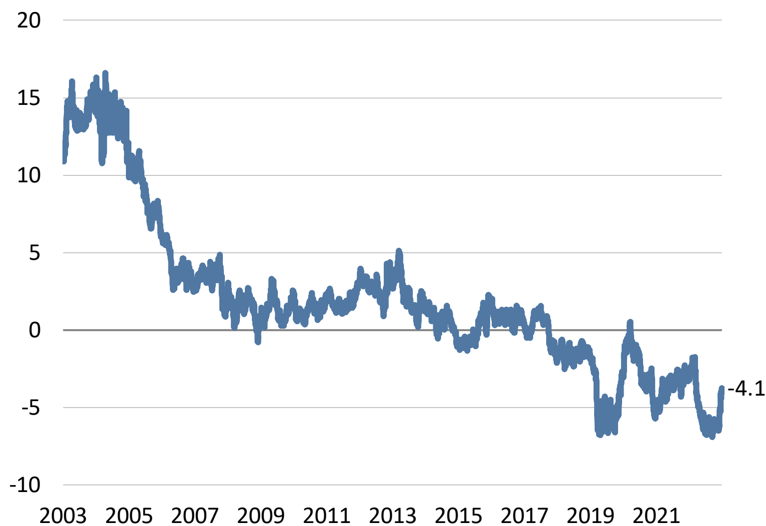
- **KEY SUPPORT #1:** Despite their strong rally of late, US small-cap valuations are steeply discounted relative to US mid- to large-cap equities. The S&P 600® Index trades at a 36% discount to the MSCI US Index's 19.9 price-to-cash earnings multiple, near the widest discount on record based on history back to 2003. Small caps seem to be receiving little recognition for their steady profitability and robust earnings growth. Over the past five years, S&P 600® Index cash earnings have grown at a 14% annualized rate, well above the 6% growth for the MSCI US Index.

- **KEY SUPPORT #2:** Recent US government initiatives, such as the Infrastructure Act, the CHIPs Act, and the Inflation Reduction Act, could provide incentives for some reshoring of supply chains that would benefit certain sectors overweight in small-cap stock indexes. The S&P 600® Index has a large weight to the industrials sector, and has a greater relative weight to the materials sector, both of which could benefit from greater spending on infrastructure projects.

- **KEY RISKS:** Small-cap companies have lower margins and tend to be more cyclical than larger-cap stocks, and thus are more vulnerable to an economic slowdown. Moreover, the recent boom in the mega-cap "Magnificent 7" tech stocks saw small caps lag substantially, and a continuation of that rally could further widen the performance gap.

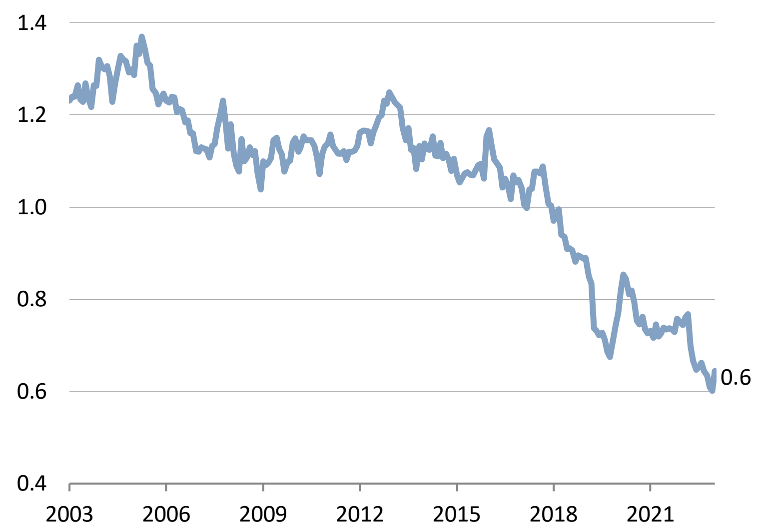
5-YR EXCESS RETURN S&P 600® VS MSCI USA

December 31, 2003 – December 31, 2023 • Rolling 5-Yr Relative AACR (%)



RELATIVE NORMALIZED P/E RATIO: S&P 600® VS MSCI USA

December 31, 2003 – December 31, 2023



Sources: FactSet Research Systems, MSCI Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Notes: Excess return data are daily. The cyclically adjusted price-to–cash earnings (CAPCE) ratio is calculated by dividing the inflation-adjusted index price by trailing ten-year average inflation–adjusted cash earnings. Cash earnings are defined as net income from continuing operations plus depreciation and amortization expense. MSCI does not publish cash earnings for banks and insurance companies and therefore excludes these two industry groups from index-level cash earnings. S&P does not calculate a cash earnings metric; cash flow is used as a proxy.

Overweight Developed Markets Value Equities vs Developed Markets Equities

Recommended Since June 30, 2020

INVESTMENT THESIS: We expect value equities to outperform broad equites in developed markets, given the style's attractive valuation multiples, our expectation that it will outperform when economic activity improves, and that a secular shift to more normalized interest rate policy could be more supportive to value equities than the broad index.

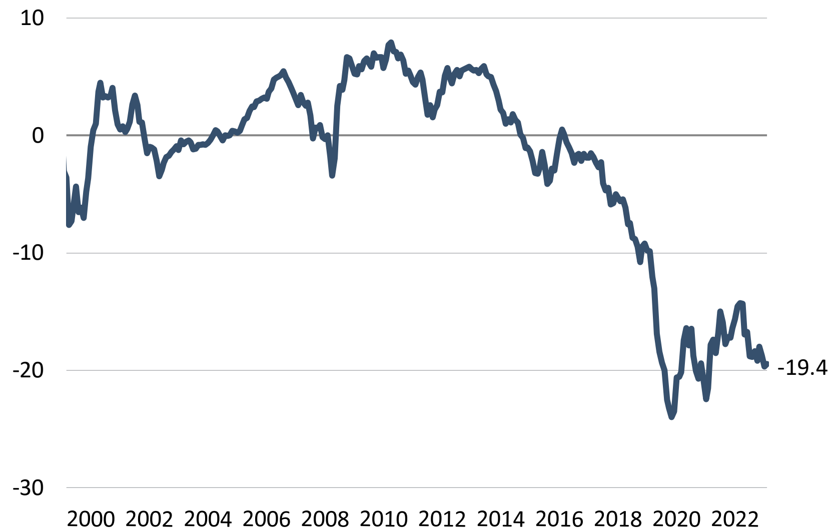
- **KEY SUPPORT #1:** Value equities trade at a discount relative to broad equities. Using the MSCI World Value Weighted Index and the MSCI World Index as our proxies, value equities trade at 8.8 times trailing five-year cyclically adjusted earnings, while broad equities trade at 14.4 times. That gap is wider than the typical valuation gap between these two blocs and has widened after the recent surge in AI-related tech stocks pushed growth valuations higher. The relative valuation is now 19% below the long-term median discount, after bottoming at 24% in late 2020. A further closing of that valuation discount would support value equity performance.

- **KEY SUPPORT #2:** Value equities have often held up better than broader equities in higher rate environments. While we expect that most central banks will cut rates modestly in 2024, costs of capital will remain higher than in the past decade. This should support value, particularly relative to growth stocks that could see headwinds from higher-for-longer rates.

- **KEY RISKS:** Value tends to underperform in recessions, given its larger exposure to cyclical sectors. Downturns are also associated with reductions in costs of capital, which tend to be beneficial to sectors that value indexes often underweight, such as information technology. Moreover, the recent boom in artificial intelligence stocks could persist, which could keep growth stock valuations elevated.

RELATIVE NORMALIZED P/E RATIO: PERCENT (%) FROM MEDIAN

January 31, 2000 – December 31, 2023



CUMULATIVE RELATIVE RETURN SINCE PRE-PANDEMIC LEVEL

December 31, 2019 – December 31, 2023 • Percent (%)

Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Relative normalized P/E ratio and relative returns are both based on the MSCI World Value Weighted Index versus the MSCI World Index. All data are in US Dollar terms. Relative normalized P/E data are monthly and are based on an adjusted price-to-cash earnings ratio. The cyclically adjusted price-to–cash earnings (CAPCE) ratio is calculated by dividing the inflation-adjusted index price by trailing five-year average inflation–adjusted cash earnings. Cash earnings are defined as net income from continuing operations plus depreciation and amortization expense. MSCI does not publish cash earnings for banks and insurance companies and therefore excludes these two industry groups from index-level cash earnings. Performance data are daily and are based on total returns net of dividend withholding taxes.

Overweight US Long Treasuries vs US Treasuries

Recommended Since September 30, 2023

INVESTMENT THESIS: We expect US Long Treasuries to outperform US Treasuries over a one- to three-year period given they appeared both oversold and cheap in fourth quarter 2023. Historically, these initial conditions have caused longer-duration Treasury bonds to outperform over our investment horizon. In addition, the macro-economic and policy backdrop should be more supportive in 2024 if economic activity slows, inflation declines further, and the Fed delivers on rate cuts as we expect.

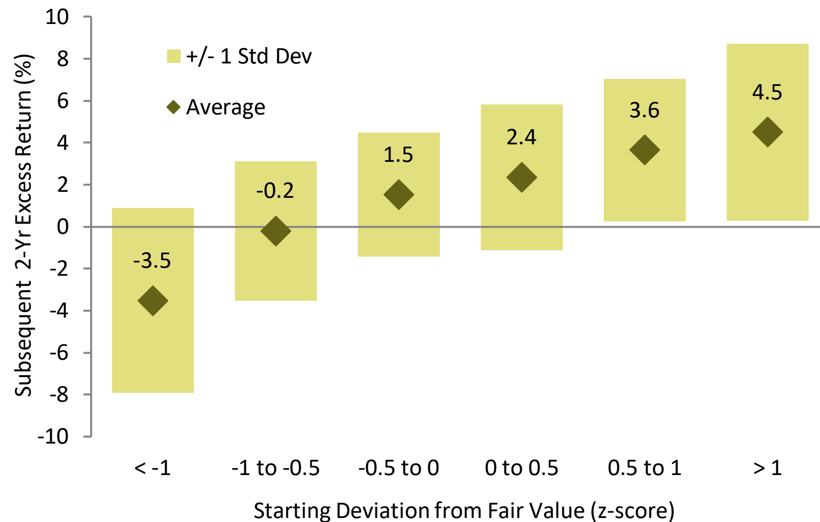
- **KEY SUPPORT #1:** The sharp rise in interest rates has resulted in one of the worst bond bear markets on record, with US Long Treasuries declining more than 40% over the previous three years through October 2023. However, the sell-off appears to have bottomed and momentum has reversed on the back of softer inflation and a signal from the Fed that it expects to begin cutting rates in 2024. US Long Treasuries tend to outperform heading into and following the first Fed rate cut, suggesting this trade has more upside.

- **KEY SUPPORT #2:** US Long Treasury valuations became extremely cheap in 4Q 2023. Ten-year Treasury yields peaked at 5%, more than 1 standard deviation above their estimated fair value of 3.9%. Ten-year yields have fallen sharply since then and they finished 2023 in line with their fair value at 3.9%. While valuations have normalized somewhat, they still favor US Long Treasuries based on current levels and considering their starting point (cheap). We would look to close this trade if valuations fell more than -0.5 standard deviations below their fair value (i.e., a ten-year yield of roughly 3.4%).

- **KEY RISKS:** The major concern for this trade is resilient US growth and hotter-than-expected inflation force the Fed to keep rates elevated for longer than anticipated. Challenging supply/demand technicals are also worth monitoring. Non-US investors should also consider the impact of FX volatility and regional differences in macro and policy outcomes.

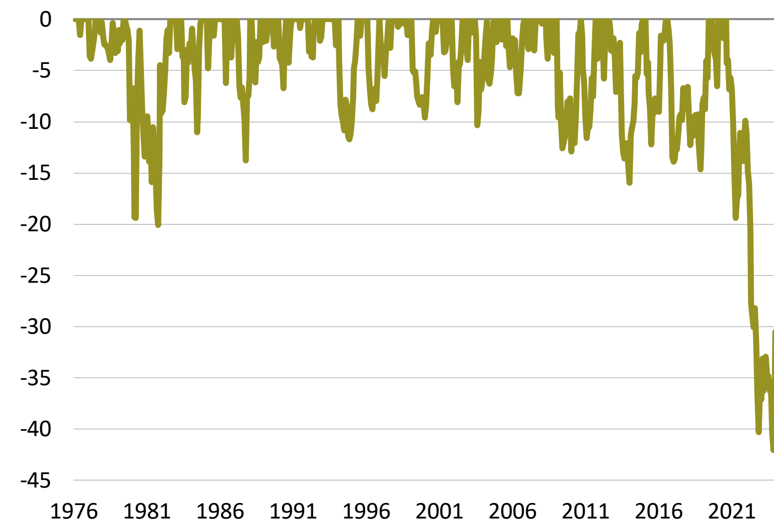
US LONG TREASURIES VS TREASURIES: VALUATIONS & PERFORMANCE

January 31, 1973 – December 31, 2023 • Average Annual Compound Return



US LONG TREASURIES: ROLLING 3-YR MAX DRAWDOWN

January 31, 1973 – December 31, 2023 • Total Return (%)



Sources: Bloomberg Index Services Limited, Federal Reserve, Thomson Reuters Datastream, US Department of Commerce - Bureau of Economic Analysis, and US Department of Labor - Bureau of Labor Statistics.

Notes: The starting deviation from fair value is the deviation of ten-year US Treasury yields from their fair value shown as a z-score. Fair value is estimated using a multiple linear regression model that includes trailing ten-year real GDP and headline CPI growth. GDP data are as of September 30, 2023, and CPI data are as of November 30, 2023.

Overweight High-Quality CLO Debt vs US Bonds

Recommended Since June 30, 2022

INVESTMENT THESIS: Investment-grade CLO debt offers a higher yield and spread than US bonds, proxied by the Bloomberg US Aggregate Bond Index. The credit quality of the top tranches of debt is similar to that of the Bloomberg Aggregate, which includes a blend of US government debt, agency-backed ABS, and corporate IG debt. However, CLO debt is floating-rate and thus shorter duration, causing it to underperform during periods when longer-term interest rates are falling.

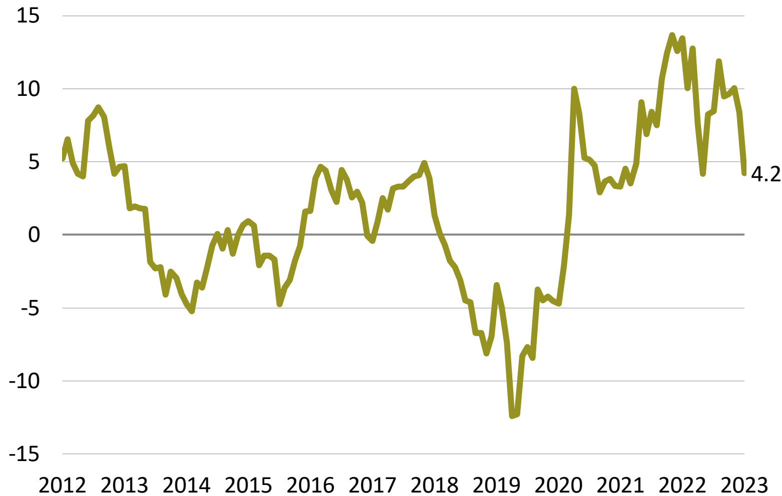
- **KEY SUPPORT #1:** Spreads on investment-grade CLO debt have declined over the past 18 months but remain slightly elevated on a relative and absolute basis. The combination of high spreads and an elevated SOFR (base rate) means yields of around 6% are available from a blend of high-quality CLO bonds. Total returns in 2023 were higher as bond prices rose but this tailwind has faded. In comparison, the Bloomberg Aggregate Index, which offers a similar credit profile, yields 4.53%.

- **KEY SUPPORT #2:** CLO structures are designed to withstand significant credit stress, with for example AAA tranches designed to withstand up to 60% annual default rates (using standard recovery rates) on underlying loans before suffering write-downs. As a result, AAA- or AA-rated tranche impairment has been de minimis over their history, with no impairments for such tranches issued after the GFC. In fact, CLO debt has historically suffered lower defaults than comparably rated corporate credit.

- **KEY RISKS:** While the CLO investment-grade debt market is large and decently liquid, it can be more volatile than other highly rated debt markets like US government bonds or agency paper. As inflationary pressures have eased and the growth outlook faded, the market has increasingly priced in aggressive easing by the Federal Reserve in 2024, in turn causing longer-duration indexes like the Bloomberg Aggregate Index to outperform. The flipside is that US government debt issuance is rising, and QT is underway, which could tip the supply/demand balance out of favor.

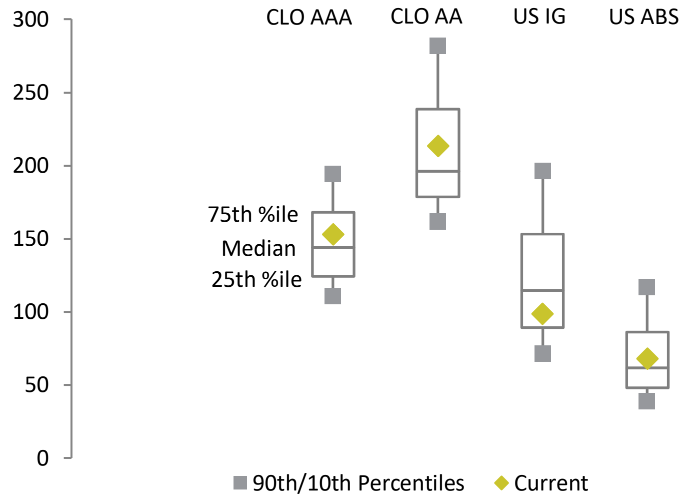
ROLLING 12-MONTH RELATIVE PERFORMANCE

December 31, 2012 – December 31, 2023 • Percent (%)



CURRENT CREDIT SPREADS IN HISTORICAL CONTEXT

As of December 31, 2023 • Basis Points (bps)



Sources: Bloomberg Index Services Limited, J.P. Morgan Securities, and Thomson Reuters Datastream.

Notes: Asset classes represented by: J.P. Morgan CLOIE AAA Index (CLO AAA) and J.P. Morgan CLOIE AA Index (CLO AA), Bloomberg US Corporate Investment Grade Index (US IG) and Bloomberg Asset-Backed Securities Index (US ABS).

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