# ASSET CLASS FACTS & FIGURES

CAMBRIDGE ASSOCIATES FIFTY YEARS

FIRST QUARTER 2024

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# EQUITIES

CAMBRIDGE
ASSOCIATES

# Developed Markets Equities

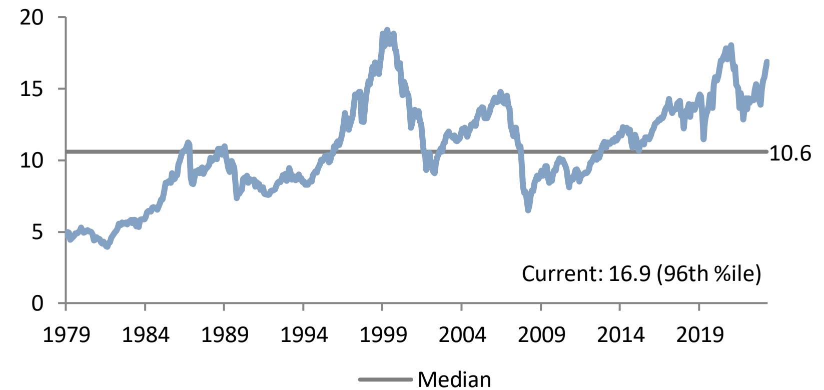
Facts & Figures First Quarter 2024

DM equities returned 8.9% in 1Q and 25.1% in the last 4 quarters for USD investors. The strong performance in 1Q was driven by better-than-expected economic activity data, expectations for central bank policy rate cuts, and continued excitement for companies linked to artificial intelligence. Among major markets, Japan (11.0%) and the US (10.3%) returned the most in 1Q.

- The bloc trades at 16.9x cyclically adjusted cash earnings, which ranks higher than 96% of historical data dating back to 1979. The high valuation level masks dispersion across major DM blocs, with the US trading at levels higher than DM ex US. In particular, the UK's large exposure to cyclical companies has left its equities trading low relative to history.
- The global economy is expected to grow by 2.8% in 2024, according to analysts surveyed by Bloomberg in December. Developed economies, which tend to grow at a slower rate than emerging economies, are expected to collectively grow by 1.5%. While low, the 2024 growth expectation is higher than the expectation in December when analysts expected 2024 growth to be 1.2%. Among major developed countries, growth expectations are highest for the US (2.2%), followed by Japan (0.7%), euro area (0.5%), and the UK (0.3%).
- DM corporate earnings are expected to grow by 7.8% in 2024, which is more than the 0.8% pace earnings are expected to have grown in 2023. This year's growth is expected primarily from sales growth, with profit margins expected to remain roughly similar. Among major markets, US and Japanese earnings are expected to grow at levels above DM as a bloc, with the euro area and the United Kingdom below.
- The impact of monetary policy tightening is a key risk for equities. Major DM central banks increased policy rates by considerable amounts in 2022 and 2023. While the market expects key central banks will cut rates in 2024, monetary policy tends to impact economic activity with a lag. If economic growth is lower than expected in 2024, equity performance could be lackluster.

## CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS

Dec 31, 1979 – Mar 31, 2024




## CORPORATE EARNINGS GROWTH EXPECTATIONS

Jun 30, 2003 – Mar 31, 2024 • Percent (%)

Sources: I/B/E/S, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Data are based on the MSCI World Index.

US equities outperformed global equities in 1Q 2024, hitting new all-time highs several times during the quarter. The rally was fueled by ongoing positive momentum in AI-related equities and better-than-expected economic data. Growth and large-cap stocks outperformed their value and small-cap counterparts overall but lagged during March, as return contribution for the index broadened over the quarter.

- US equities' cyclically adjusted price-to-cash earnings multiple edged even higher in Q1 to 21.5x, reaching the 94th percentile of historical data dating back to 1979, but remains lower than the recent high of nearly 24x in 2021. Relative valuation with DM ex US (10.8x) is now at 2.0x, approaching the peak of 2.15x from November 2021. The gap in equity valuations remains stark even after adjusting for sector differences.

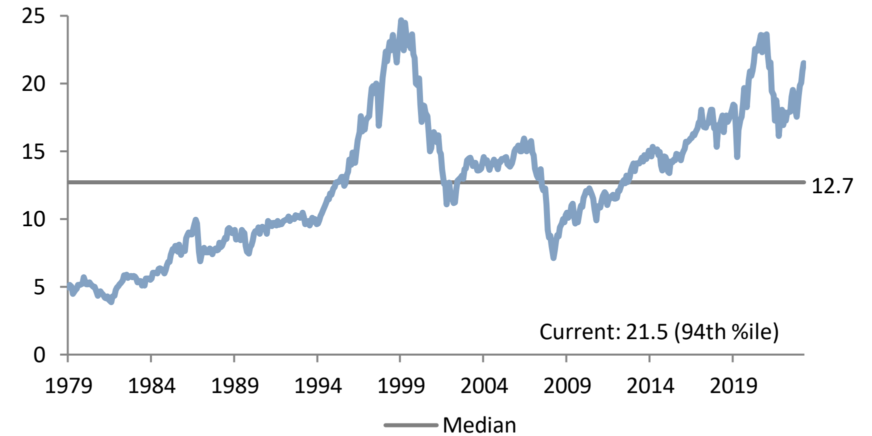
- Latest estimates show that Q4 2023 GDP beat expectations and was revised up to 3.4% and point to 2023 real GDP growth of 2.5% Bloomberg consensus estimates for 2024 and 2025 GDP growth point to a decline in growth rates to 2.2% and 1.7% respectively. However, growth in 2024 is above projections for overall DM GDP growth at 1.5%. In line with positive economic updates, the Fed also raised its outlook for 2024 real US GDP growth in March to 2.1% from 1.4% in December. The Fed's monetary policy response to inflation, amidst labor market strength, remains a focal point for influencing expectations.

- While analyst expectations for 2023 corporate earnings growth fell to as low as -0.4% during last year, March estimates showed 2023 earnings growth estimate of 2.7%. Expectations improved due to ongoing economic resilience and heightened growth from AI-related activity. Furthermore, earnings growth estimates increased to 9.8% and 13.9% for 2024 and 2025, respectively, some of the highest rates across major developed economies.

- The risk of a recession and the pace of monetary policy tightening are key risks for equities. With inflation data exceeding expectations in Q1, investors repriced their policy rate cut expectations down to align with the Fed's outlook of three 25-bp cuts in 2024. This led to higher yields and a negative impact on interest-rate sensitive segments of the market such as REITs. In its March update, the Fed held its expectations for its median policy rate of 4.6% in 2024 steady, while raising it 30 bps to 3.9% for 2025.

## CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS

Dec 31, 1979 – Mar 31, 2024




## CORPORATE EARNINGS GROWTH EXPECTATIONS

Jun 30, 2003 – Mar 31, 2024 • Percent (%)

Sources: I/B/E/S, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Data are based on the MSCI US Index.

# Developed Markets excluding US Equities

Facts & Figures First Quarter 2024

DM ex US equities returned 9.6% in 1Q 2024 in LC terms, narrowly lagging the 10.1% return of broader DM. However, the strong dollar saw a wider performance gap in USD terms, with DM ex US equities returning 5.6% versus 8.9% for broader DM. Equities broadly have been supported recently by strong growth expectations for the tech sector and by strong performance from cyclical sectors on the back of rising GDP growth expectations, particularly for the US.

- The bloc trades at 10.8x cyclically adjusted cash earnings. This is in the 80th percentile of historical data dating back to 1979, and above the long-term median of 9.1x. That valuation multiple remains well below the 16.9x CAPCE of broader DM equities, due to the 21.5x CAPCE enjoyed by US equities. While this gap remains below the COVID-era wides reached in late 2021, it has been widening in recent quarters. A material valuation gap remains after adjusting for sectoral differences.

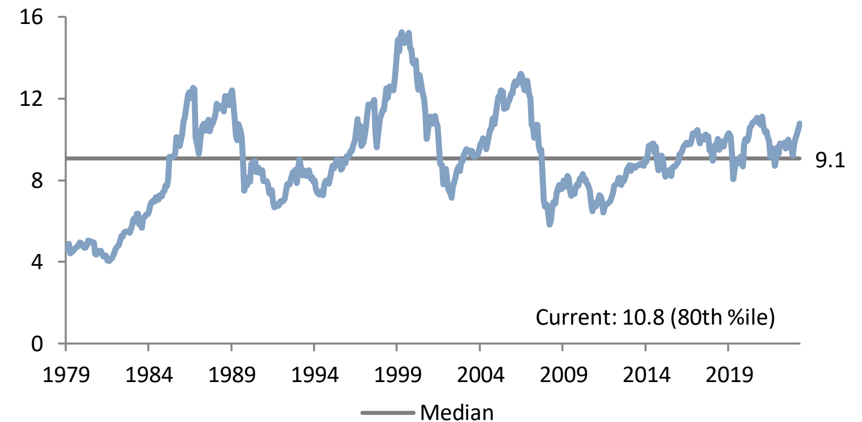
- The global economy is expected to grow by 2.8% in 2024, according to Bloomberg consensus data, up from 2.6% 3 months ago. The perceived odds of a soft landing for the economy, post monetary tightening cycle, has been increasing as economic data has surpassed expectations. The US is expected to continue to outperform the major components of this index. Consensus growth for 2024 is 2.2% for the US, in comparison to 0.7% for Japan, followed by the Eurozone (0.5%) and the UK (0.3%).

- Analysts expect corporate earnings to grow by 6.0% on a 12-month forward EPS basis. This would represent an undershoot of 3.5 ppts to its median long-term expected EPS growth rate. This consensus corporate earnings growth is expected to be driven almost equally by profit margin expansion (from 9.9% to 10.2%) and sales growth (3.0%). This would put the index's profit margin just below the record high-level of 10.3% it reached in 3Q 2022, according to IBES data. But this margin would still be below the current level of the same metric for the US (12.0%).

- EPS expectations for 2024 have been moderating in recent months. On a regional basis, Japan stands out with expected EPS growth of 8.3%, while growth of 4.8% and 3.6% is expected in the EMU and UK.

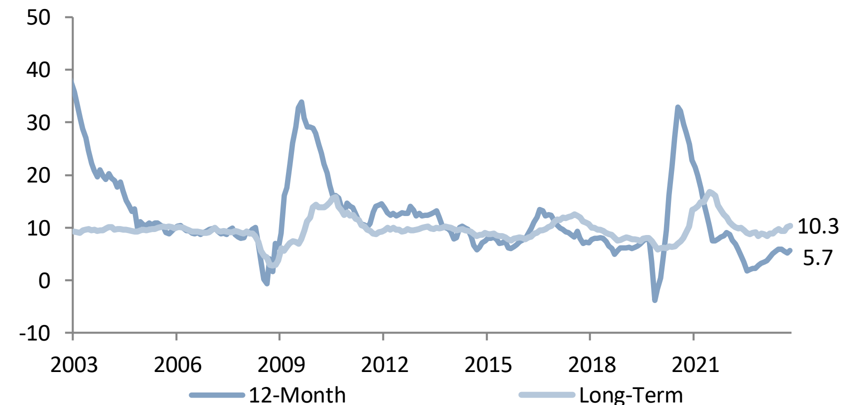
## CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS

Dec 31, 1979 – Mar 31, 2024




## CORPORATE EARNINGS GROWTH EXPECTATIONS

Jun 30, 2003 – Mar 31, 2024 • Percent (%)




Sources: I/B/E/S, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Note: Data are based on the MSCI World ex US Index.

# UK Equities

Facts & Figures First Quarter 2024

UK equities returned 4.0% in 1Q 2024 in LC terms, substantially underperforming the 10.1% returned by broader developed markets. A similar underperformance resulted in USD terms when the UK returned 3.1% versus 8.9% for DM. Partially due to sectoral tilts, the long-term earnings growth of the UK has lagged its peers over a prolonged period and is expected to do so again in 2024.

- The UK's c7yclically adjusted price-to–cash earnings (CAPCE) ratio rose fractionally to 7.3, the 20th percentile. The ratio of the UK's CAPCE to that of DM fell modestly however, to 0.43, in the 1st percentile of observations. When adjusting for the substantial sectoral differences between the indexes, the relative CAPCE stands at 0.63. However, when the weaker expected earnings are considered, i.e., by looking at forward PEs, the ratio of sector-neutral forward PEs stands at 0.80. Overall, the valuation of UK equities remains depressed versus peers.

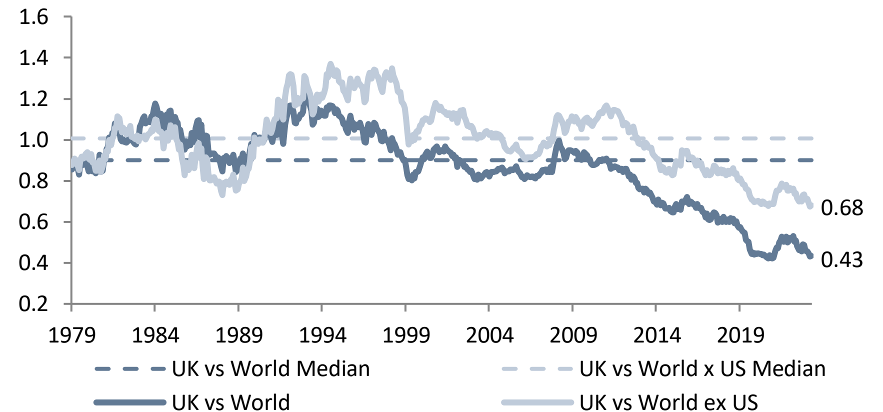
- In general, the UK index has an underweight to growth stocks and an overweight to value stocks. This has been a significant drag on relative performance in recent years. It has proved a headwind once more during 2024, with two of the three top-performing sectors in DM equities during the quarter being the sectors where the UK has the largest relative underweight. In general, these tilts may help the UK in periods of accelerating global growth, particularly when the former are partially driven by rising commodity prices.

- UK EPS are forecast to underperform broader DM by 5.6 ppts over the course of the next 12 months (3.6% vs 9.2%). Sales growth is currently forecast to drive more than all of the EPS growth (4.1%), partially offset by a modest decline in profit margin (11% to 10.9%).

- As with EPS, UK GDP is expected to underperform most peers in 2024. The current consensus for real GDP in 2024 is 0.3% vs 1.5% for developed markets. Though inflation is now easing, the monetary tightening delivered to deal with those pressures, and resultant deceleration in credit growth, in addition to tighter fiscal policy, represent headwinds to UK growth. The uncertainty surrounding a general election at some stage in 2024 could also weigh on confidence. Nonetheless, expectations for the UK are already at a low ebb.

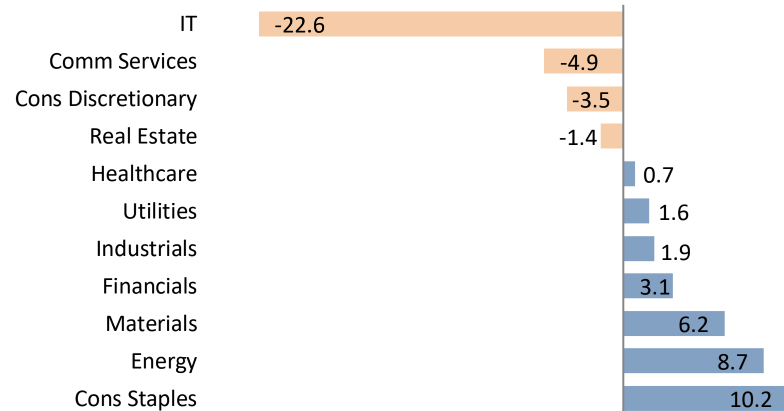
## RELATIVE CAPCE: MSCI UK VS WORLD

Dec 31, 1979 – Mar 31, 2024




## RELATIVE SECTOR WEIGHTS: UK MINUS WORLD

As of Mar 31, 2024 • Percentage Points




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

# Europe ex UK Equities

Facts & Figures First Quarter 2024

Europe ex UK equities returned 9.5% in 1Q 2024 in local currency terms, trailing the 10.1% return of DM equities. However, dollar strength against the euro means that the region underperformed to a greater extent in USD terms (5.9% v 8.9%). The underperformance of the region has been driven both by sectoral tilts and idiosyncratic underperformance. Looking forward, earnings growth is expected to continue to lag that of broad DM in the next year.

- The region's CAPCE ratio climbed to 11.5 during the quarter, standing at the 84th percentile of its history. Its CAPCE relative to DM edged slightly lower to 0.68, a little below the long-term median level of 0.75. A large portion of this relative cheapness is due to the comparative richness of the US market, however. The region's CAPCE relative to that of DM ex US remained at 1.07, in the 81st percentile.

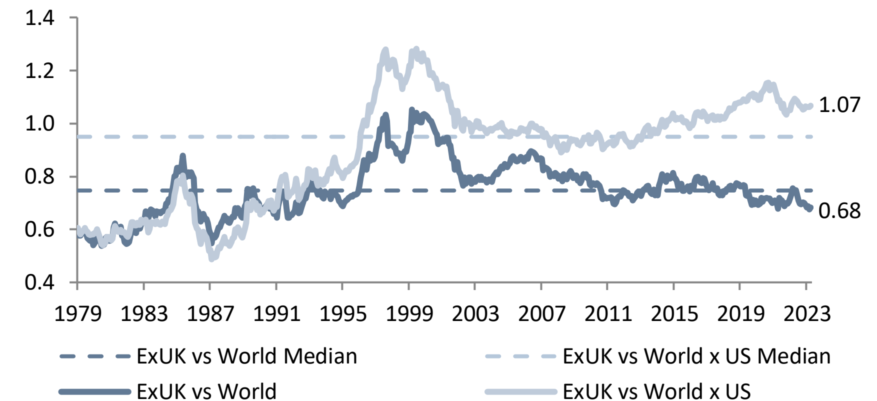
- The longer-term underperformance of the Europe ex UK region versus DM more broadly is down to a lower underlying profitability. The return on equity (ROE) for the region has been below that of broader DM for the last decade and the ratio of their ROEs stands at 0.89, albeit that has improved over the past two years and is now just above the long-term median. This is partly due to the region's lower exposures to some of the higher ROE sectors, notably tech. However, sectoral ROEs are lower in ten of the 11 GICS sectors, showing that it's a broader issue. Nevertheless, the region's ROE is greater than that of DM ex US.

- Earnings growth in Europe ex UK is expected to be 6.1% over the coming 12 months, trailing the 9.2% expected of broader developed markets. Sales growth over this period is expected to be 3.0%, while profit margins are expected to expand from 10.0% to 10.3%.

- Consensus estimates of Eurozone GDP growth for 2024 have been stable over the past quarter and stood at 0.5% at year end. This lags the 1.5% growth expected in developed markets more broadly, a slightly improved figure over the quarter based on improving growth expectations for the US. Growth in the Eurozone has been feeble since the end of 2022. Monetary tightening has exerted a greater drag on Europe than elsewhere as seen in weak credit growth. These data started to improve in 4Q, but we would need to see more persistence in this improvement to be confident of a durable recovery.

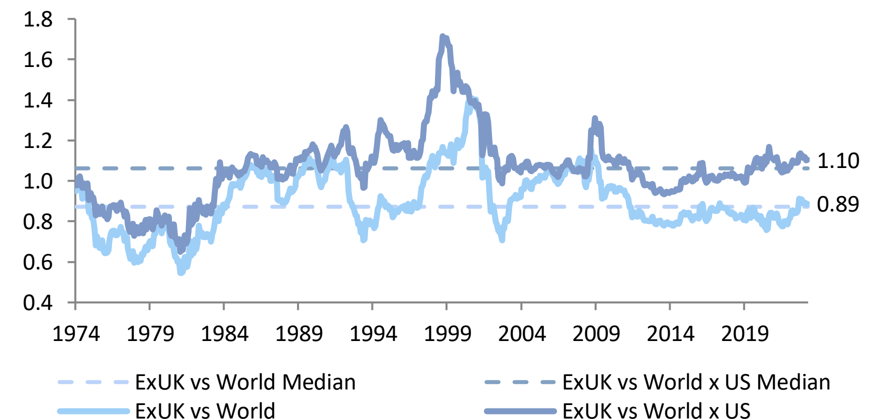
**RELATIVE CAPCE: MSCI EUROPE EX UK VS WORLD AND WORLD EX US**

Dec 31, 1979 – Mar 31, 2024




**ROE: MSCI EUROPE EX UK VS WORLD AND WORLD EX US**

Dec 31, 1974 – Mar 31, 2024 • Percent (%)




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

# Japanese Equities

Facts & Figures First Quarter 2024

**Japanese equities outperformed their developed markets peers in 1Q 2024. Valuations are elevated in absolute terms but below historical median relative to other developed markets. Improving corporate governance and a focus on shareholder returns should help to serve as tailwinds for the market.**

- The MSCI Japan Index returned 19.2% in local currency terms and 11.0% in USD terms in 1Q 2024, outperforming DM equities which returned 10.1% and 8.9%, respectively. Over 2023, Japanese equities (28.6%) outperformed DM equities (23.1%) in local currency terms, but underperformed in USD terms (20.3% vs 23.8%) given the yen's weakness.

- The market trades at 12.9x cyclically adjusted cash earnings, which ranks as the 84th percentile of historical observations since 1979. Relative to other developed markets, Japanese equities are at the 40th percentile of historical observations.

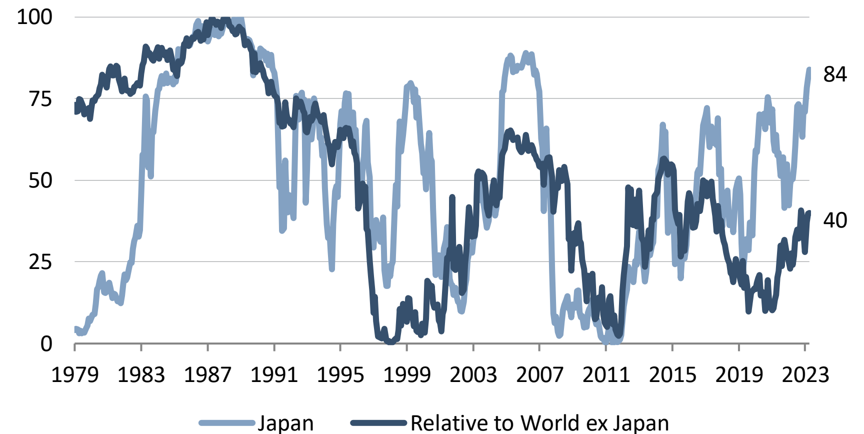
- Accommodative monetary and fiscal policies in Japan have helped to support the market's equity performance in local currency terms, albeit weigh on the yen and erode Japanese equities' outperformance in ~~and~~ USD terms. While the BOJ exited its negative interest rate policy in March, guidance from the central bank indicates further policy tightening will be gradual. Analysts estimates of Japanese EPS growth for FY 2023 (ending March 2024) are high at 13.6%, while EPS growth for FY 2024 (ending March 2025) is forecasted to cool slightly to 8.6%.

- The ROE on Japanese equities currently stands at 9.7%, which is slightly above the historical median. Although Japan's ROE has historically been lower than that of its DM counterparts, an increased focus on corporate governance and shareholder returns in Japan may see this improve.

- As of the end of March, the MSCI Japan Index trailing dividend yield was 1.9%, above the 1.7% historical median. Japanese companies retain significant cash balances and have increased shareholder payouts (dividends plus buybacks) in recent years. Dividend payouts have held up relatively well and may continue to serve as a tailwind for Japanese equities.

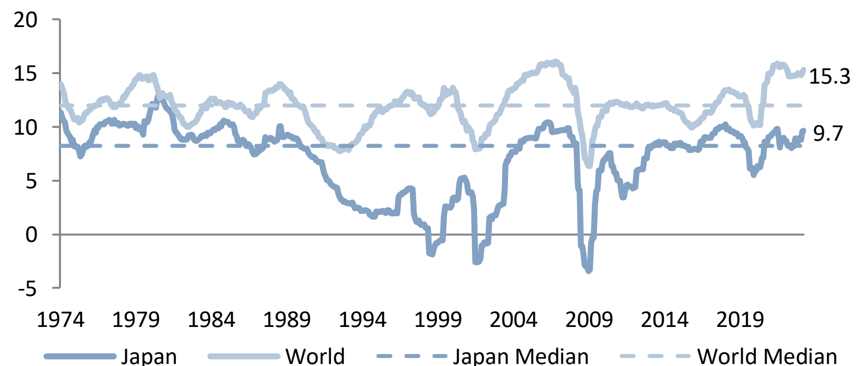
**CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS**

Dec 31, 1979 – Mar 31, 2024 • Percentile (%)




**ROE: MSCI JAPAN VS WORLD**

Dec 31, 1974 – Mar 31, 2024 • Percent (%)




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

# Emerging Markets Equities

Facts & Figures First Quarter 2024

EM equities returned 2.4% in USD terms in Q1, bringing TTM performance to 8.2%. EM has trailed DM in recent years amid global monetary tightening, USD appreciation, and slowing economic activity, particularly in China. China (-2.2%) was once again the primary detractor in Q1, although EM ex China still trailed DM. Taiwan (12.4%), and India (6.1%) were the top contributors to return in Q1.

- EM has trailed DM in recent years, lagging by nearly 14 ppts annualized over the latest trailing three-year period. Recent returns built on an underperformance trend that started in 2010, which has coincided with meaningful USD appreciation. A stronger USD and tightening US financial conditions factored into recent performance as well, along with slowing global economic activity and central bank tightening.

- EM valuations sit near median levels, but exhibit wide dispersion among major countries. A composite valuation metric for Indian equities stands 39% above its 20-year median, whereas the same measure for China trades 24% below median. Broad EM stocks currently trade at a 41% discount to DM, which is near historical lows at the 2nd percentile.

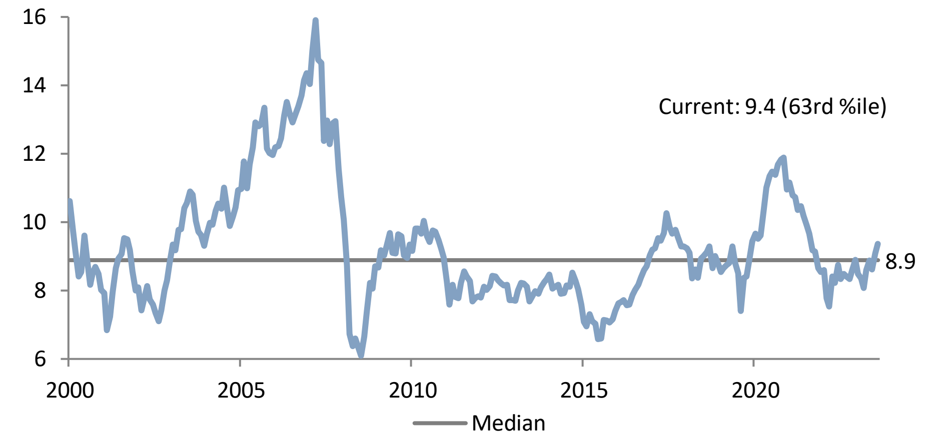
- EM Asia (3.4%) saw divergence in Q1. India was supported by continued robust economic growth (+8.4% YOY in Q4 2023), whereas Taiwan enjoyed the AI-related rally, given its dominance in specialized chip manufacturing. Still, export growth remains weak despite recent stabilization in some markets. Global trade overall—which has been soft in recent months—is key to the outlook for Asian EPS growth.

- LatAm (-4.0%) slumped in Q1, despite resurgent commodity prices. Rate cuts in Brazil and Chile spurred currency depreciation, weighing on returns for non-local investors. EMEA (1.0%) lagged as South Africa (-6.8%) continued to struggle amid ongoing economic challenges.

- Although aggregate EM valuations are low—and expected 2024 EPS (20%) and GDP (4.1%) growth would outperform DM—the outlook for EM stocks is tenuous. The USD may remain strong given expectations for shallow Fed rate cuts and US economic outperformance. Further, lagged impacts of EM central bank tightening and recently weak trade data suggest risks to the EM growth outlook are skewed to the downside. In general, EM equities remain at risk of broader risk aversion, particularly in today's macro and geopolitical environment.

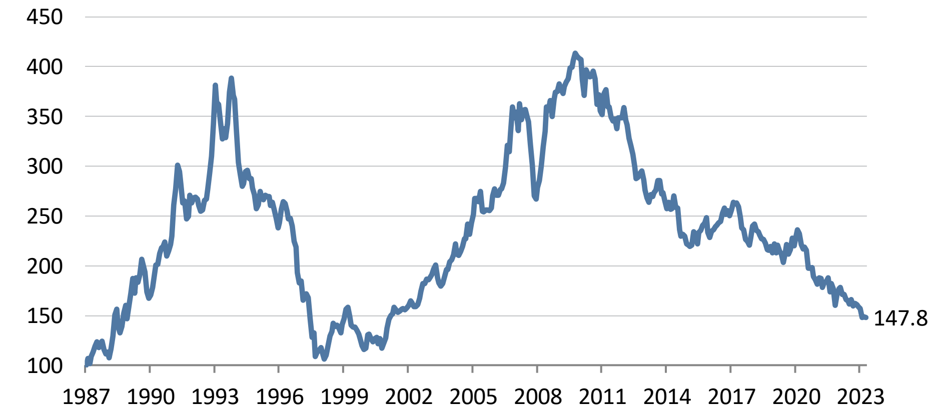
## CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS: MSCI EM

Aug 31, 2000 – Mar 31, 2024




## EM/DM EQUITY RELATIVE CUMULATIVE WEALTH

Dec 31, 1987 – Mar 31, 2024 • US Dollars




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

Notes: EM CAPCE based on five-year average real cash earnings. Total returns are gross of dividend taxes prior to January 2001 and net thereafter. EM and DM equities based on the MSCI Emerging Markets Index and MSCI World Index, respectively.

# Asia ex Japan Equities

Facts & Figures First Quarter 2024

Asia ex Japan equities trailed global equities in 1Q 2024 and over 2023. As of the end of March, the index remains down more than 25% from its February 2021 peak in USD terms.

- Asia ex Japan equities returned 2.4% in USD terms in 1Q 2024, compared to global equities which returned 8.2%. Over 2023, Asia ex Japan equities returned 6.0%, trailing global equities which returned 22.2%.

- Over 1Q, regional and sectoral performance was mixed in USD terms. Taiwan (12.4%) led gains amid a broader rally in IT stocks. Indian equities also posted gains (6.1%) amid more resilient domestic growth activity, while Hong Kong equities (-11.7%) meaningfully underperformed. Across sectors, energy (13.0%) and information technology (9.9%) outperformed, with the former supported by a rise in oil prices. In contrast, real estate (-11.0%) and materials (-5.9%) were the two key sectors which detracted from performance the most.

- Asia ex Japan valuations have risen from their October 2022 lows. The index's CAPCE metric trades at 9.7x, which is the 54th percentile of historical observations. Relative to DM equities, however, Asia ex Japan trades lower at the 4th percentile of historical observations.

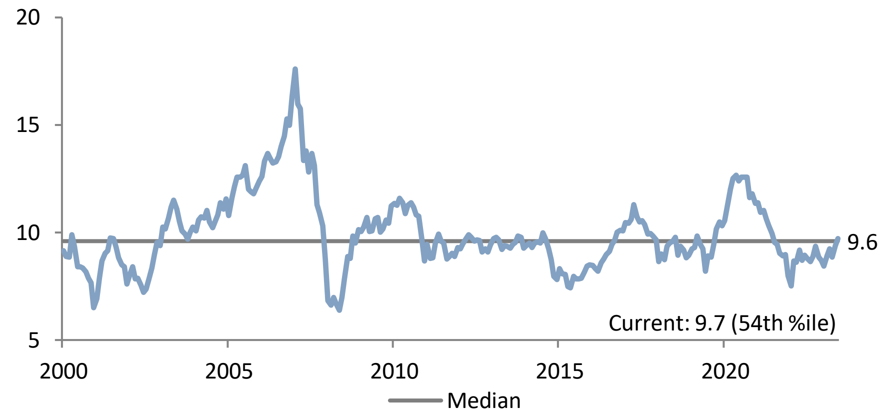
- There is wide dispersion among Asia ex Japan country valuations. Most countries currently trade at a discount to historical medians valuations, with the P/B ratio in Hong Kong near its lowest levels on record. Taiwan and India are exceptions where valuations are very elevated.

- Asia ex Japan equities have been impacted by the ongoing weakness in Chinese equities performance. However, China's equity market has shown signs of stabilization in 1Q 2024, and despite the slower-than-expected economic recovery in China, Asia ex Japan real GDP growth expectations for 2024 remain resilient at 4.8%, higher than the growth forecasts for the United States and Europe. Latest analysts' expectations of forward 12M EPS growth for Asia ex Japan continue to move upwards, sitting at 21.2% as of the end of March, topping global counterparts.

- Yet, key risks to these estimates are if global growth and trade volume growth weakens, given the export-oriented and cyclically sensitive nature of most Asia ex Japan markets.

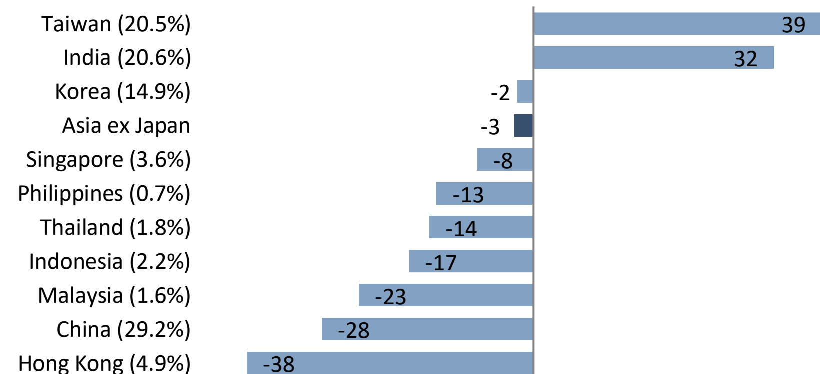
## CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS: MSCI ALL COUNTRY ASIA EX JAPAN

Oct 31, 2000 – Mar 31, 2024




## COUNTRY P/B % DEV FROM HIST MEDIAN: MSCI AC ASIA EX JAPAN

As of March 31, 2024 • Index Weight in Parentheses




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

Notes: CAPCE based on five-year average real cash earnings. Totals may not sum to 100% due to rounding.

# Chinese Equities

Facts & Figures First Quarter 2024

Chinese equities continued to underperform their global peers in early 2024, although the market showed signs of stabilization in 1Q amid improving economic data and increased stimulus measures. Valuations for Chinese equities remain depressed.

- Chinese A-shares, as measured by the MSCI China A Onshore Index, gained 1.2% in 1Q 2024 in local currency terms, while the MSCI China Index, which consists mostly of offshore Chinese equities, declined 1.7%. In comparison, global equities returned 9.5% in 1Q in LC terms. Over 2023, A-shares and the MSCI China Index returned -9.9% and -10.7%, respectively, in LC terms versus 21.6% for global equities.

- Chinese equities bottomed in October 2022 but subsequently rebounded sharply as the government pivoted from its zero-COVID policy. However, performance over 2023 was negative given a slower-than-expected economic recovery arising from weakness in China's real estate sector and manufacturing/exports sector, which weighed on investor sentiments. While Chinese equities sold off further in January, the market has since showed signs of stabilization amid improving recent economic data and increased government stimulus measures.

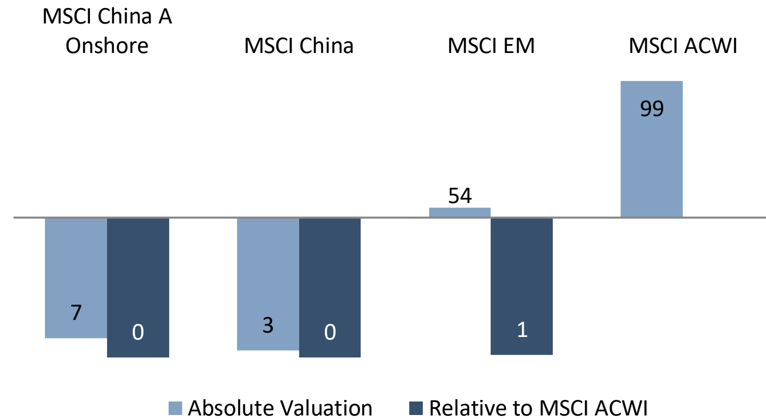
- Valuations for the MSCI China A Onshore Index, which is tilted towards cyclical sectors, are very low both in absolute terms and relative to global equities. Valuations for MSCI China are similarly depressed. The offshore Chinese stocks are more sensitive to geopolitical concerns and were also hit harder by China's 2021's tech reforms given their overweight to tech.

- Chinese equities consist of mainland China-listed A-shares, Hong Kong-listed Chinese companies, and US-listed Chinese companies. The MSCI China Index, which is the China equity universe of the MSCI EM Index, is tilted towards Hong Kong-listed (74%) and US-listed (8%) securities, with just a 17% weight to A-Shares.

- Active China-dedicated managers have historically demonstrated an ability to add value over the A-share index, given the retail-driven nature of the market. However, the A-share market is underweight the technology sector, with most Chinese tech companies listed offshore in Hong Kong or the US. Managers with flexible "All China" mandates can offer exposure across the China equity universe.

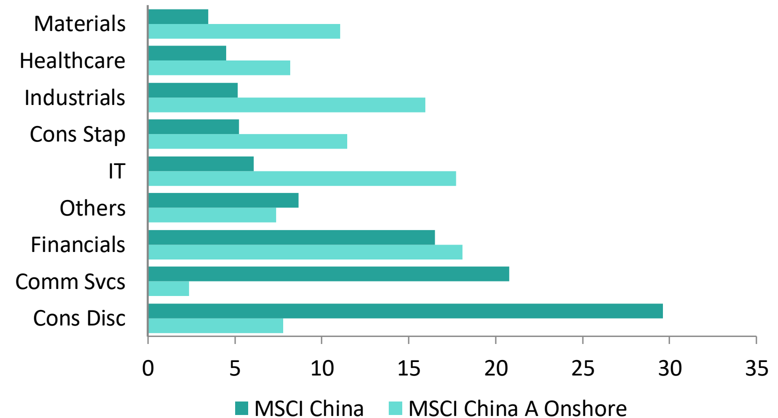
## ROE-ADJUSTED P/E: PERCENTILE

Mar 31, 2005 – Mar 31, 2024




## SECTOR WEIGHTS

As of Mar 31, 2024 • Percent (%)




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

Notes: Sector weight for "Others" consists of Real Estate, Utilities, and Energy. Totals may not sum to 100% due to rounding.

# US Small-Cap Equities

Facts & Figures First Quarter 2024

US small-cap equities returned 5.6% in 1Q, trailing their mid- and large-cap peers (10.3%). Over the past 12 months, small caps trailed large caps by nearly 10 ppts.

- Small-caps' relative performance in 1Q was due solely to performance in January, during which small caps trailed broader equities by 5 ppts. Large-cap tech stocks powered higher as strong economic data keep investors optimistic that a soft landing was achievable. In February and March, small caps bested large caps, but by negligible amounts.

- The key headwind for small caps this year has been the repricing of rate cut expectations. Late last year, investors had expected the Fed to cut rates substantially, but better-than-expected economic data has tempered these expectations. While small caps are typically closely tied to the health of domestic economy, higher interest rates can provide a difficult backdrop for their profitability, given that small caps often rely more heavily on floating-rate debt than their large cap counterparts.

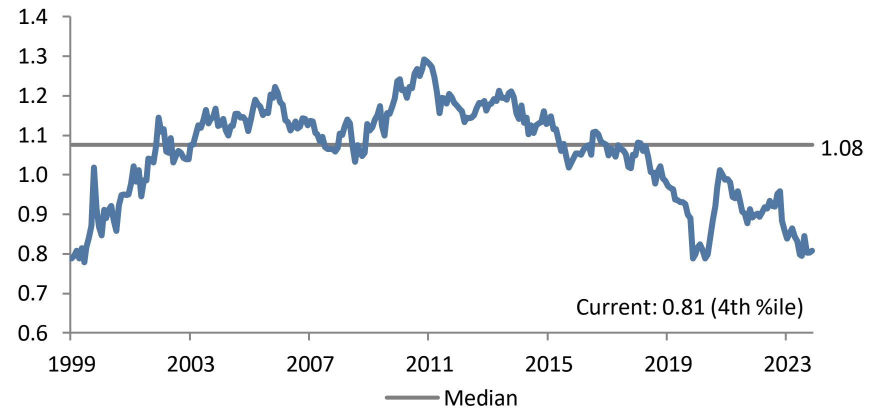
- Relative valuations between small caps and mid- to large-cap peers remain sharply discounted, in just the 4th percentile of historical observations based on a CAPCE ratio. Since 1999, small caps have traded at an 8% premium versus large caps, as opposed to the 19% discount they are trading at today.

- The US small-cap segment is overweight cyclical sectors and underweight technology compared to the mid-/large-cap universe. As such, small caps tend to be more sensitive to the economic cycle and have a better track record during economy recovery phases.

- 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. US small-cap indexes have higher relative weightings to the industrials and materials sectors, both of which could benefit from greater spending on infrastructure projects.

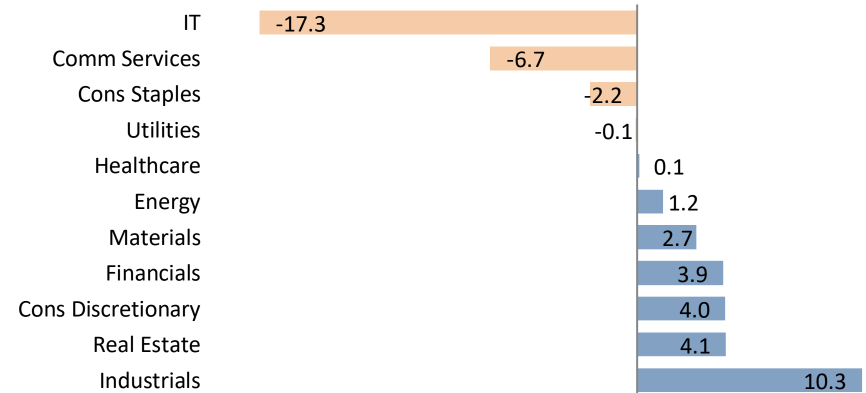
## RELATIVE 5-YR CAPCE: MSCI US SC VS US LC/MC

May 31, 1999 – Mar 31, 2024




## RELATIVE SECTOR WEIGHTS: US SC MINUS US LC/MC

As of Mar 31, 2024 • Percentage Points




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

Note: CAPCE ratios based on five-year average inflation-adjusted earnings.

# Developed ex US Small-Cap Equities

Facts & Figures First Quarter 2024

Developed ex US small caps rose 7.0% in 1Q, lagging their mid- to large-cap peers by 258 bps. Over the past 12 months, small caps have trailed mid- to large-caps by 381 bps.

- Non-US small caps again failed to keep pace with their large-cap counterparts in 1Q. Large-cap IT stocks again surged in 1Q relative to their small-cap peers, outpacing all other sectors and driving relative outperformance. On the flip side, the small-cap real estate sector stumbled, weighing down the broader index.

- Developed ex US small-cap valuations crept higher in 1Q but remain steeply discounted relative to their large-cap peers. As of March 31, developed ex US small-cap valuations were trading at a 9.5x cyclically adjusted price-to–cash earnings (CAPCE) ratio, in the 38th percentile of historical observations. On a relative basis, small-cap valuations are in the 12th percentile versus their large-/mid-cap counterparts.

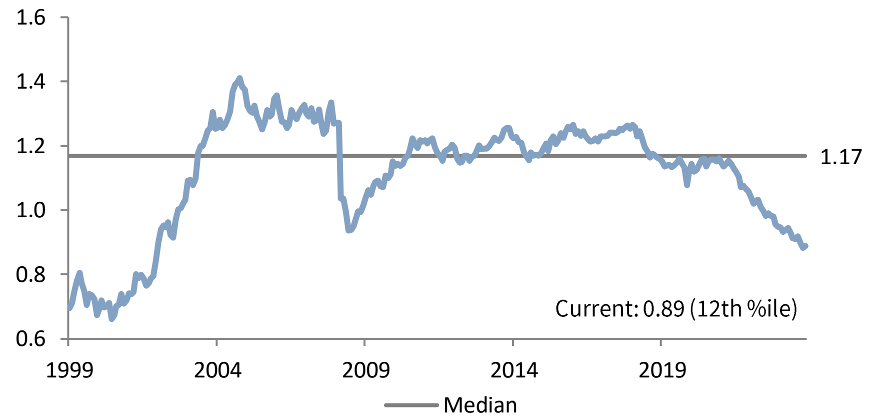
- From a relative sector exposure standpoint, the developed ex US small-cap segment is overweight cyclicals—particularly real estate and industrials—vis-à-vis its large-/mid-cap counterpart, though this is partially offset by a large underweight to financials. However, the defensive and higher-quality consumer staples and healthcare sectors are meaningfully underrepresented in the small-cap universe.

- Superior long-term earnings growth has helped developed ex US small caps outperform their large-/mid-cap counterparts over time. Over the last 15 years, world ex US small caps compounded real cash earnings per share grew by 2.7% per annum, while real EPS for large-/mid-caps has been flat.

- The developed ex US small-cap universe is arguably less efficient than the larger-cap space. Therefore, the former may provide more opportunities for active managers to add value over time.

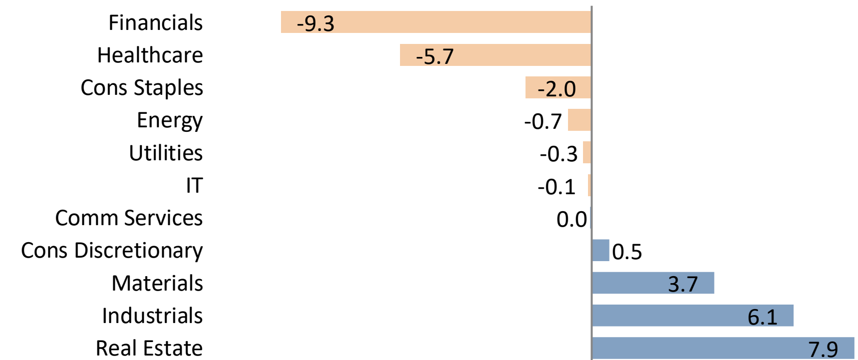
## RELATIVE 5-YR CAPCE: MSCI WORLD EX US SC VS LC/MC

May 31, 1999 – Mar 31, 2024




## RELATIVE SECTOR WEIGHTS: MSCI WORLD EX US SC MINUS WORLD EX US LC/MC

As of Mar 31, 2024 • Percentage Points




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

Note: CAPCE ratios based on five-year average inflation-adjusted cash earnings.

# US Growth and Value Equities

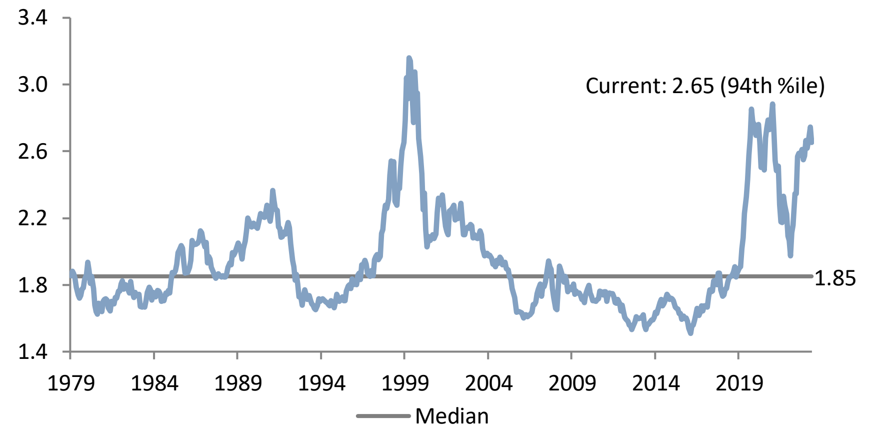
Facts & Figures First Quarter 2024

**US growth stocks gained 11.7% in 1Q, besting value stocks (8.9%) for the fourth time in the past five quarters. Over the past 12 months, growth bested value by 20 ppts, driven by a surge in technology stocks.**

- Growth stocks added another impressive quarter to their track record of recent dominance versus value stocks. Performance was again boosted by the surge in a subset of large-cap tech stocks, though the market rally showed signs of broadening out near the end of the quarter, as value saw an uptick in March.
- Based on the cyclically adjusted price-to–cash earnings (CAPCE) ratio, the MSCI US Growth Index trades at 2.7 times the valuation of the MSCI US Value Index. That relative ratio is in the 94th percentile of historical observations. Investors have also demonstrated a willingness to assign a higher multiple to expected earnings for growth-oriented stocks compared to value stocks. The price-to–forward earnings multiple for the MSCI US Growth Index trades at 30x, which is 1.8 times higher than that for value stocks. This ratio is 33% higher than the median ratio of 1.35 that has been observed over the past 20 years.
- Growth stocks have traditionally generated higher return on equity (ROE) than value counterparts. Today's wide ROE spread is partly driven by differences in sector exposures—technology and financials most prominently—and helps to explain the current valuation disparity between the growth and value indexes.
- Technology stocks have largely driven the US market's profitability, growth, and price performance over the past decade. Today the IT sector plus just two other stocks (Amazon and Alphabet) make up more than 60% of the growth index. In comparison, IT is just 12% of the value index. However, the value index has a much higher weighting to the financials sector, which could see an increase in profitability if rates rise and the slope of the yield curve steepens.

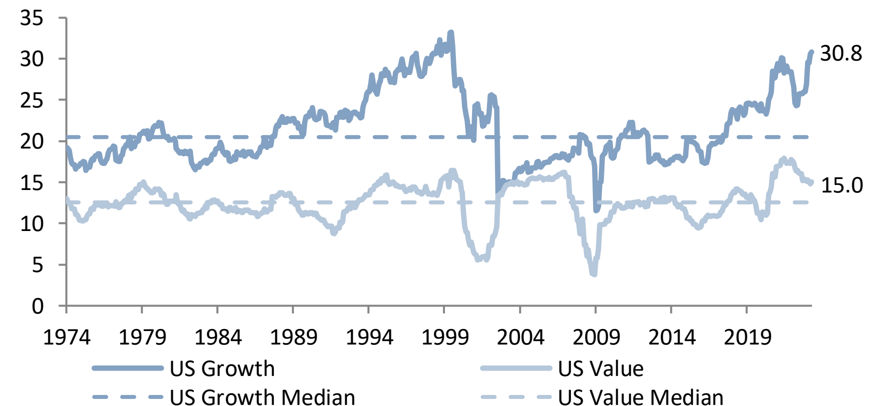
**RELATIVE 5-YR CAPCE: MSCI US GROWTH VS US VALUE**

Nov 30, 1979 – Mar 31, 2024




**ROE: MSCI US GROWTH VS US VALUE**

Dec 31, 1974 – Mar 31, 2024 • Percent (%)




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

# Developed Markets Equity Factors

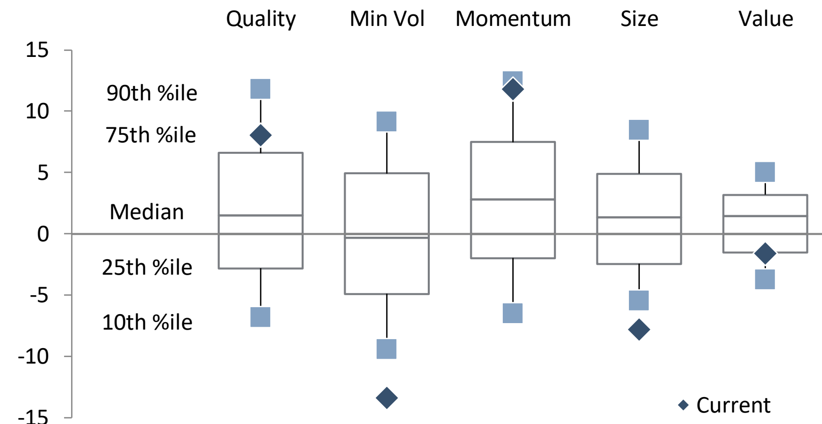
Facts & Figures First Quarter 2024

Momentum (22.2%) was the top-performing major equity market factor in 1Q, handily outpacing all other factors. Quality (12.6%) was the only other factor that bested the broader MSCI World Index (10.1%). Value (9.6%), size (7.4%), and minimum volatility (7.3%) all lagged. In the past 12 months, momentum's 38.0% return has topped all other factors.

- Momentum's strong performance in 1Q, and in the past 12 months, owes to the continued outperformance of a subset of IT stocks. Momentum strategies ride the wave of recent price performance, so sustained upward price trends can lead to outperformance. NVIDIA, which is the largest component of the MSCI World Momentum Index, has seen six consecutive quarters of outperformance, amounting to a 644% cumulative gain during that span.
- Valuations increased across all factors in 1Q. Quality still commands the richest valuations among major factors, based on three different multiples. The value factor generally trades at the lowest multiples.
- The P/B ratio tends to have the strongest relationship to subsequent five-year returns across factors, but the strength of the relationship varies by factor. For instance, the relationship between starting valuation and subsequent returns is weak for the momentum factor, which overweights recent outperformers and has an exceptionally high turnover ratio (111% as of December).
- Because the excess returns across several strategies have low or negative correlations with each other, combining these factors can add a diversification benefit. For example, value and momentum had strongly negative correlations over the trailing five-year period, suggesting that certain combinations of factors may work together to smooth out the overall pattern of portfolio outperformance over time.
- Quality, minimum volatility, momentum, size, and value are five factors primarily cited in academic research. These factors represent market premiums that have all shown superior risk/return characteristics compared to broad-market benchmarks.

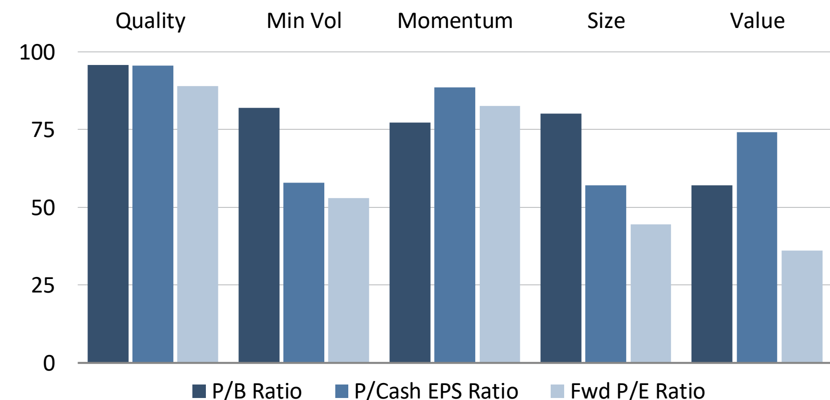
**FACTOR RETURNS IN EXCESS OF DEVELOPED MARKETS EQUITIES**

As of Mar 31, 2024 • Rolling 12M • Percent (%)




**CURRENT VALUATION PERCENTILE RANKING BY FACTOR**

As of Mar 31, 2024




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

# Hedge Funds

Facts & Figures First Quarter 2024

**Strong markets globally provided a favorable backdrop for hedge funds as all the major strategies produced positive results in 1Q, especially quant and long/short equity funds.**

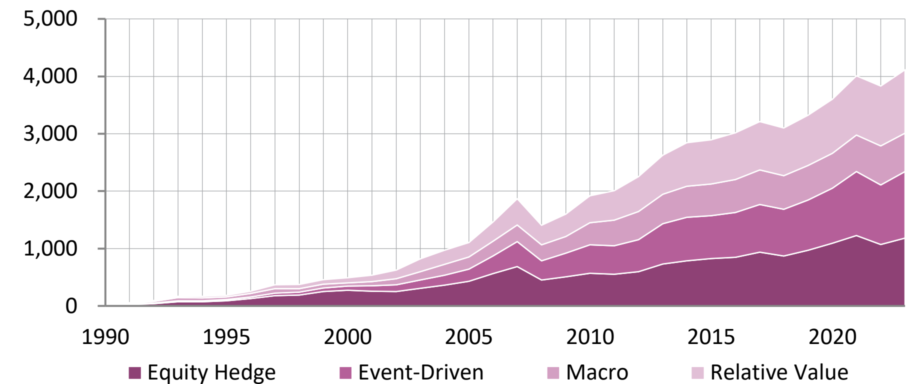
- Quantitative strategies snapped back sharply from the prior quarter's losses, with the HFRI Macro Systematic Diversified Index returning 9.4%. Macro funds also started the year off strong, as the HFRI Macro (Total) Index gained 6.2%. Relative value hedge funds continued to post steady gains, notching another quarter of positive returns, with the HFRI Relative Value (Total) Index up 2.5%. Trend following strategies benefited from strong movements in equities and commodities markets, particularly Cocoa, which went parabolic, while macro strategies took advantage of movements within equities, rates, and FX markets. Uncertainty around inflation and central bank policy is creating an attractive environment for macro and relative value managers.

- Long/short equity funds, participating alongside rising equity markets, continued their strong run into 2024 as the HFRI Equity Hedge (Total) Index returned 5.2% in 1Q. While technology-focused funds benefited from renewed excitement around artificial intelligence (AI), generalist managers saw broad and diversified contributions across industries. Technology and communications services led the way from a sector standpoint, but the broader industrials and energy sectors also generated solid results. In a welcome reversal of the melt-up experienced in 4Q 2023, managers witnessed a return of positive short alpha generation. For instance, the Russell 2000® Biotechnology Index generated a gain of 8.8% in the quarter, but that masked underlying sector dispersion that many healthcare specialists were able to exploit.

- The HFRI Event-Driven (Total) Index returned 2.5% for 1Q. Merger arbitrage continued to be a return driver and source of capital allocation for event-driven managers as M&A activity has picked up, although some managers who benefited from US steel exposure late last year failed—to their detriment—to anticipate protectionist rhetoric from the White House this quarter. Within credit, tight spreads have reduced the opportunity set; however, managers report the early stages of credit spread dispersion across industries and issuers and an uptick in defaults and distressed exchanges. Participation in the Talen Energy restructuring, which encompassed prominent market themes around AI, data storage, and clean energy, proved profitable for several funds as AWS agreed to purchase Talen's nuclear-powered data center campus in Pennsylvania.

## HFRI HISTORICAL ASSET GROWTH BREAKOUT

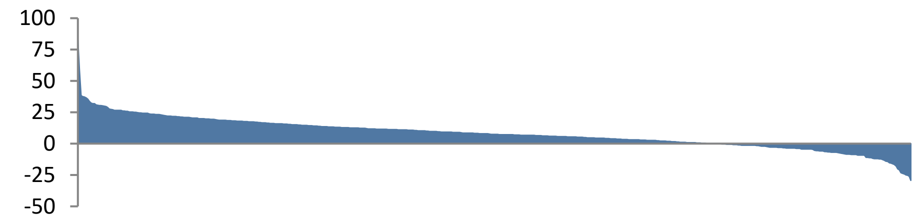
1990–2023 (Dec) • US$B



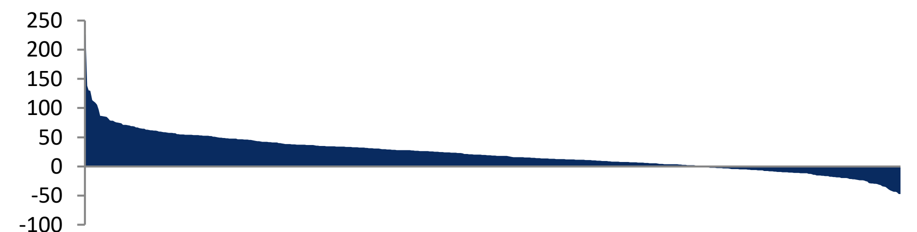

## EQUITY DISPERSION: TOTAL RETURNS FOR THE S&P 500 CONSTITUENTS

As of Mar 31, 2024

**Trailing 3-Month Returns (%)**




**Trailing 12-Month Returns (%)**




Sources: Hedge Fund Research, Inc., FactSet Research Systems, and Standard & Poor's.

# FIXED INCOME

CAMBRIDGE ASSOCIATES

# US Bonds

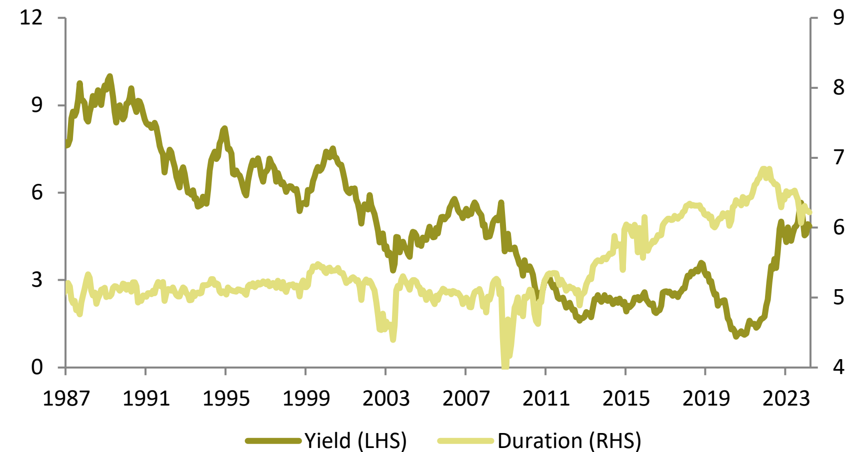
Facts & Figures First Quarter 2024

Core US bonds posted minor losses in 1Q as yields rose in response to warming growth and inflation data. The market is now pricing in fewer rate cuts for 2024 but slower Fed balance sheet shrinkage could help cap any increase in rates from here.

- The Bloomberg US Aggregate Bond Index returned -0.8% in 1Q, cooling off after a solid 2023 return of 5.5%.
- Performance of core fixed income assets like US Treasuries was boosted in 4Q as the market increasingly priced in Fed easing over the course of 2024. The pace of that easing has been rethought in recent weeks as economic growth surprises to the upside and recent inflation readings have come in slightly warmer than expected.
- Core PCE has fallen roughly half over the past two years to 2.8% yet remains above the Fed's target.
- Even if the Fed delivers fewer cuts in 2024 than had been expected, minutes from the March FOMC meeting suggest it may slow the pace at which it had been shrinking its balance sheet, which could cap any upward retracement of interest rates.
- The Bloomberg US Aggregate Bond Index yield rose around 30 bps in 1Q to 4.85% and remains well above its ten-year average. Higher yields should improve the ability of stock/bond blended portfolios to cushion equity market volatility and meet investors' spending needs.
- The Bloomberg Aggregate Index has a high-quality asset mix—over 70% of the index carries an AA or higher rating, and most of this is either a direct or indirect obligation of the federal government. Just about 12% of the index consists of corporate bonds carrying a rating of BBB or below.
- The relatively high duration of the Bloomberg US Aggregate index (over 6 years) means it is vulnerable to unexpected spikes in long-term yields.
- Credit spreads declined in 2023 and are now well below historical averages. Still, US IG corporate fundamentals remain healthy as rising earnings are helping to somewhat offset higher interest costs.

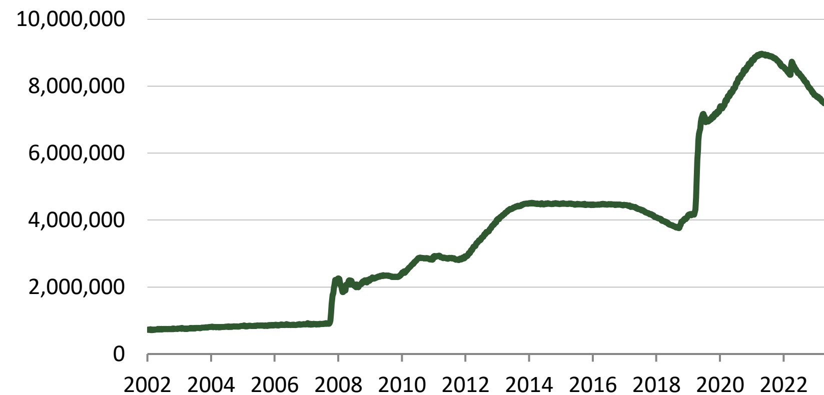
**YIELD VS DURATION: BBG US AGGREGATE BOND INDEX**

Jan 31, 1987 – Mar 31, 2024




**FED BALANCE SHEET TOTAL ASSETS**

Dec 18, 2002 – Mar 31, 2024 • US$M




Sources: Bloomberg Index Services Limited, Federal Reserve Bank of St. Louis, and Thomson Reuters Datastream.

Notes: Fed balance sheet assets are weekly and not seasonally adjusted. Total assets are less eliminations from consolidation.

# US Treasuries

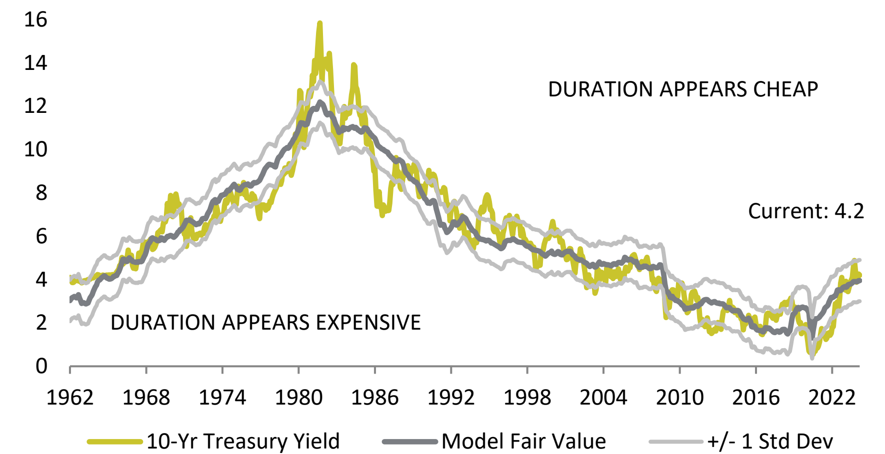
Facts & Figures First Quarter 2024

**The Bloomberg US Treasury Index gained 4.1% in 2023 but was down 1% in 1Q 2024. The pullback coincides with stronger US economic and inflation data to start the year, which drove the market to par back the number of rate cuts it expected this year and interest rates higher.**

- Ten-year US Treasury yields were yielding 4.2% as of March 31, more than 20 bps above where they started the year but well below their recent peak of 5% reached in 4Q 2023.
- Treasury valuations are somewhat elevated (i.e., cheap). Ten-year yields are 0.3 standard deviation above their implied fair value of 3.9%, based on trailing ten-year real GDP and CPI growth. Higher valuations tend to lead to better subsequent performance.
- Weaker growth and inflation, in addition to the dovish shift by the Fed, supported US Treasuries in 4Q 2024—trailing 12-month price momentum has rebounded off its recent bottom. However, the rally has reversed in 1Q 2024 given stronger-than-expected economic and inflation data to start the year.
- Consensus real GDP growth forecasts for 2024 have been revised up from 1.3% at the start of the year to 2.2%. US core CPI inflation rose 3.8% YOY in March, and the three-month annualized rate of inflation has been rising and was 4.5% in March.
- That said, inflation is forecast to fall by year-end and prominent measures of inflation are 150 bps to 200 bps below the median Fed funds target rate (5.375%). As such, the Fed views policy as restrictive and believes it can begin to ease policy at some point in 2024. The Fed currently projects it will cut rates by 75 bps this year, while the market has only penciled in 50 bps of cuts.
- Supply/demand technicals are another headwind. Treasury issuance is projected to increase in 2024 due to the US government's large fiscal budget deficit and the Fed's quantitative tightening. According to J.P. Morgan, net Treasury coupon issuance to the private sector (excluding the Fed) is projected to increase to $1.9T in 2024.
- The inverted Treasury yield curve is another challenge. Currently, ten-year yields are 126 bps below cash rates.

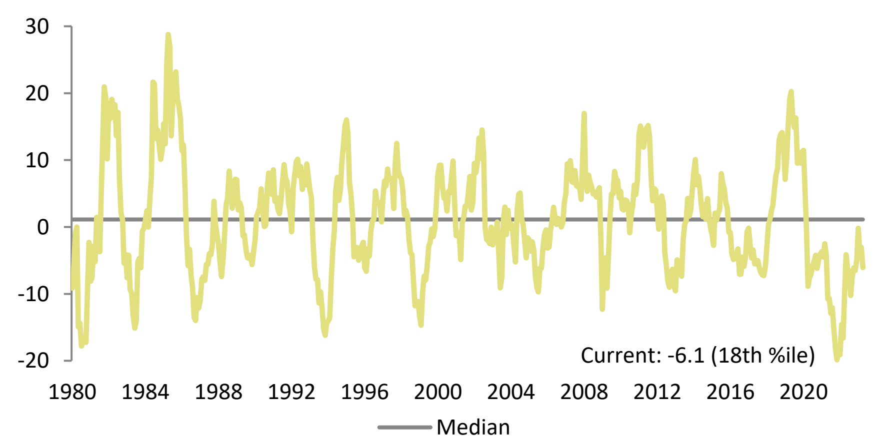
**VALUATIONS: 10-YR TREASURY**

Jan 31, 1962 – Mar 31, 2024 • Percent (%)




**12-MONTH PRICE MOMENTUM: 10-YR TREASURY**

Dec 31, 1980 – Mar 31, 2024 • Percent (%)




Sources: Federal Reserve and Thomson Reuters Datastream.

Note: The Model Fair Value is the predicted range of ten-year yields based on a multiple linear regression model that includes trailing ten-year real GDP and CPI change. CPI data are as of February 29, 2024.

# US Cash

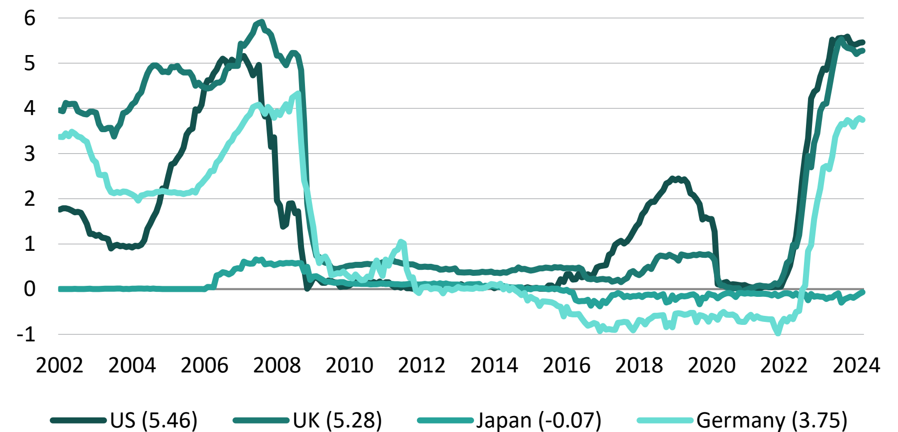
Facts & Figures First Quarter 2024

US cash returned 1.3% in 1Q 2024 and 5.2% over the trailing 12 months. Cash has been a stable source of returns for three straight years amid the sharp rise in interest rates. Holding cash may continue to payoff in the near-term given elevated cash yields and inverted yield curves across major regions, but cash will likely continue to underperform both stocks and bonds over longer periods.

- DM central banks aggressively raised interest rates in recent years to bring down inflation. The Fed, BOE, and ECB have raised their key policy rates by 525 bps, 515 bps, and 450 bps, respectively. The BOJ became the last major central bank to tighten its policy last quarter by increasing interest rates 10 bps and ending other unconventional policies.
- Monetary tightening has increased cash yields and inverted treasury yield curves, reducing the opportunity cost of holding cash. While the market has dialed-back its expectations for rate cuts this year, most central banks should begin to undue some of this tightening this year. In this scenario, cash yields would fall, and yield curves would steepen.
- Cash should be a stable source of returns across several economic environments, and its elevated yields and minimal duration risk should provide downside protection if interest rates continue to rise. However, holding cash for an extended period would be challenging, given the risk that inflation erodes the value of cash in real terms and the opportunity costs of not investing in assets with higher expected returns over longer periods. Additionally, reinvestment risk will likely increase quickly if central banks cut rates more than the market expects.
- Cash holdings are important for liquidity needs, particularly for investors with heavy operational spending, significant unfunded commitments, or that have currency and other hedging overlays. US investors should stick to secure instruments such as US T-bills. In the eurozone, cash should be kept in a core country bank within prudent limits.
- For investors that use money market funds, we recommend Treasury and government funds. Prime funds invest in bank commercial paper, corporate notes, and other credits and may have gating and floating-NAV provisions, making them slightly riskier.

## T-BILL RATES

Jan 31, 2002 – Mar 31, 2024 • Percent (%)




## MARKET EXPECTATIONS FOR FUTURE CENTRAL BANK RATES

As of Mar 31, 2024 • Percent (%)

| | CURRENT | 3M | 6M | 1Y | 2Y |
|---|---|---|---|---|---|
| UK | 5.25 | 5.10 | 4.85 | 4.32 | 3.73 |
| Japan | 0.00 | 0.11 | 0.19 | 0.36 | 0.51 |
| EMU | 4.00 | 3.74 | 3.42 | 2.87 | 2.38 |
| US | 5.38 | 5.22 | 5.00 | 4.49 | 3.87 |

Sources: Bloomberg L.P. and Thomson Reuters Datastream.

Notes: ECB data represented by the ECB overnight deposit rate. Feds funds target range is 5.25%-5.50%. The mid-point of 5.38% is used for future market expectations.

# US Corporate Bonds

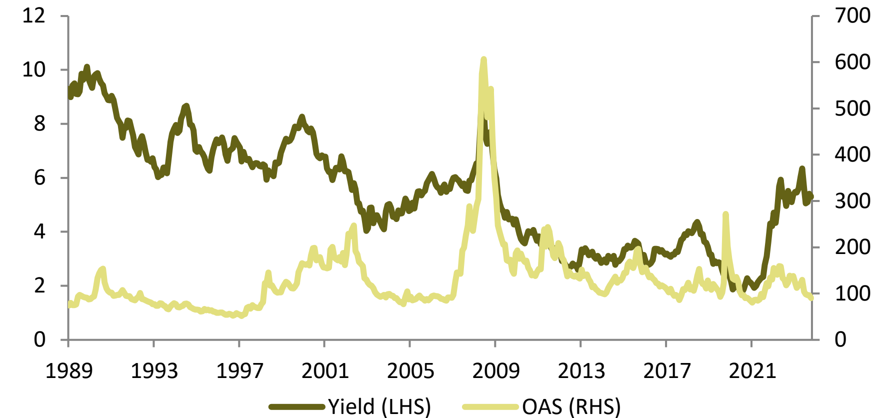
Facts & Figures First Quarter 2024

US investment-grade corporate bonds posted a minor loss in 1Q, cooling down after a strong 2023. Higher yields improve the risk/reward balance for investors, but delayed easing by the Fed could prove a headwind to returns.

- The Bloomberg Corporate Investment-Grade Index returned -0.4 in 1Q after a 2023 full-year return of 8.5%.
- Spreads declined slightly in 1Q to 0.90%, reflecting around the 25th percentile of historical readings. The index spread is a bit deceptive, however, as its average credit rating has declined over time. Looking at individual categories suggests IG bonds are more expensive; for example, the 44 bps OAS on AA-rated bonds is just 12th percentile.
- Spreads look unattractive on a historical basis, but yields may look more tempting. The 5.30% index yield at the end of 1Q was well above its ten-year average and has moved higher in April after resurgent inflationary data.
- Inflationary data, and delayed hopes of Fed easing, represent a larger threat to IG corporate bond investors than fundamentals. Morgan Stanley reports the median interest coverage ratio for investment-grade corporate borrowers was 10.9x at the end of 4Q. This marks a nearly 3x decline from its recent peak given the Fed hiking cycle but is well above levels seen pre-COVID. The consensus expects IG issuer EBITDA to rebound in 2024, which should lead to further improvement in debt coverage metrics.
- New issue supply was elevated in 1Q with around $356 billion of net issuance after 2023 IG issuance of $561B. The recent back-up in interest rates could cause some issuers to reevaluate issuance intentions although spreads remain below long-term averages.

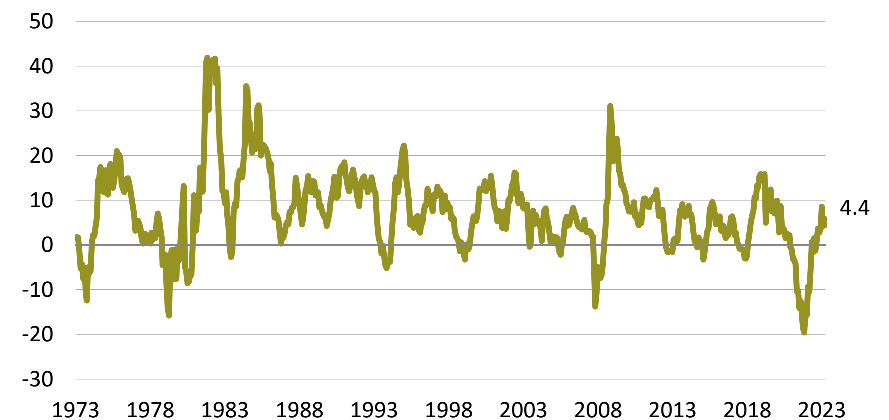
**YIELD AND OPTION-ADJUSTED SPREAD: US INVESTMENT-GRADE CORPORATES**

Jun 30, 1989 – Mar 31, 2024 • Percent (%)




**TRAILING 12-MONTH RETURN: US INVESTMENT-GRADE CORPORATES**

Dec 31, 1973 – Mar 31, 2024 • Percent (%)




Sources: Bloomberg Index Services Limited and Thomson Reuters Datastream.

# US Tax-Exempt Bonds

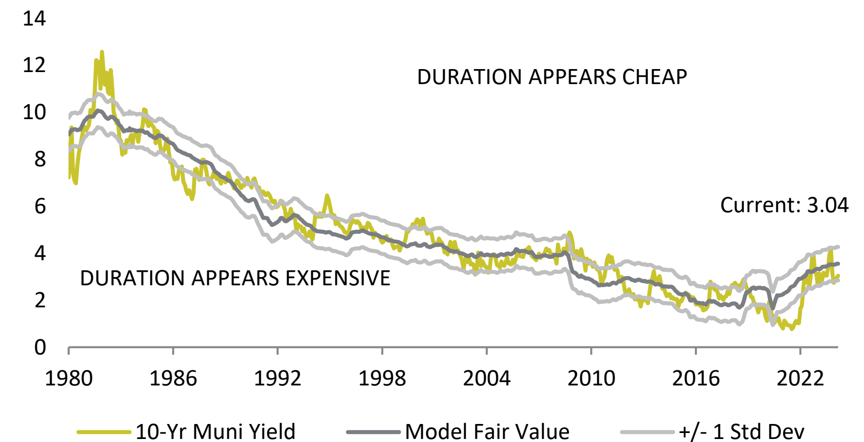
Facts & Figures First Quarter 2024

US municipal (munis) bonds returned 6.4% in 2023 *before* taxes but were down 0.4% in 1Q 2024 amid the pullback in US Treasuries, which returned 4.1% and -1.0% over the same periods.

- Bond yields peaked in October once it became clear the Fed was done tightening. Since then, ten-year muni yields dropped from a peak of 4.16%, their highest level since 2009, to 3.04% as of March 31, which is 30 bps above were they started of the year.
- Still, ten-year muni yields are not very compelling in absolute terms. Yields currently sit slightly above their trailing twenty-year median of 2.76% and are about 0.7 standard deviation below their implied fair value of 3.55% based on tax-adjusted economic fundamentals.
- Munis continue to offer an after-tax yield advantage over Treasuries (~60 bps), but that is down from over 170 bps less than six months ago. Additionally, the current ten-year muni/Tsy ratio of 0.72 is only slightly above its all-time low of 0.56 and the spread (-116 bps) is near its lowest level since 2000. A higher muni/Tsy ratio tends to lead to better relative subsequent performance for munis.
- It remains more likely than not the Fed will cut rates at some point this year. The Fed projects it will cut rates by 75 bps in 2024. That said, the macro-environment has been more challenging for bonds to start the year as economic and inflation data have both surprised to the upside.
- Retail investors, which own about 70% of the muni market, pulled a record $120B from muni mutual funds and ETFs in 2022. Outflows have stabilized but demand remains tepid—there has only been $10.9B in total inflows since the beginning of 2023.
- Robust state and local finances have helped reign in issuance in recent years and support fundaments. Muni credit fundamentals remain solid. State balances as a percent of GDP (1.2% in FY 2023) remain well above pre-COVID levels, giving states ample cushion in a slowdown.
- Munis would still likely lag Treasuries in a flight to quality given their illiquid nature, but the risk of default among high-quality muni issuers is low and the sector is better prepared for a recession than corporates.

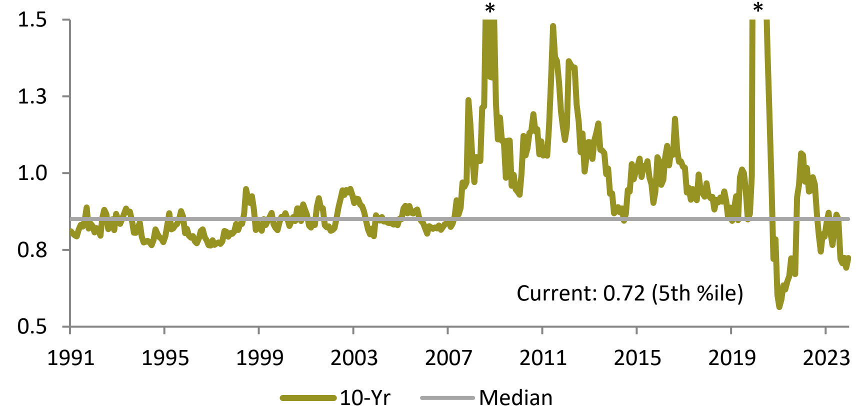
### VALUATIONS: 10-YR MUNI

Jan 31, 1980 – Mar 31, 2024 • Percent (%)




### RATIO OF 10-YR MUNI YIELDS TO TREASURY YIELDS

Apr 30, 1991 – Mar 31, 2024




* Axis is capped for scaling purposes. Ratio hit a high of 3.16 on 4/30/2020.

Sources: Bloomberg Index Services Limited and Thomson Reuters Datastream.

Note: The Model Fair Value is the predicted range of ten-year yields based on a multiple linear regression model that includes trailing ten-year real GDP and CPI change. CPI data are as of February 29, 2024.

# US Inflation-Linked Bonds

Facts & Figures First Quarter 2024

**The Bloomberg US TIPS Index gained 3.9% in 2023 but was down -0.1% in 1Q 2024. TIPS have outperformed Treasuries so far this year due to stronger inflation, which has increased inflation expectations.**

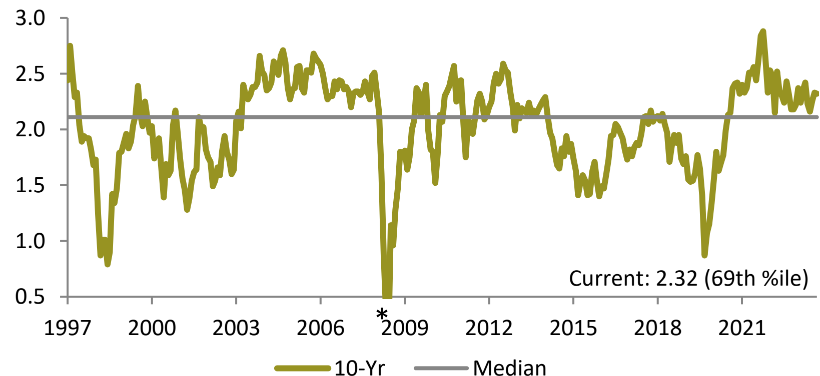
- US ten-year real yields are roughly 60 bps below their recent peak of 2.5% in 4Q 2023, but they are up 15 bps this year to 1.9%.
- US TIPS look appealing at current yields. Ten-year real yields are above their long-term median of 1.5% and 0.7 standard deviations above their implied fair valued of 1.2%, based on trailing ten-year real GDP growth
- Real yields have increased this year as stronger-than-expected growth and inflation to start the year has resulted in the market paring back the number of rate cuts it expects from the Fed this year.
- Indicators of US economic activity have surprised to the upside so far in 2024 and consensus real GDP growth forecasts for 2024 have been revised up from 1.3% at the start of the year to 2.2%.
- Inflation also accelerated in 1Q 2024. US core CPI inflation rose 3.5% YOY in March, and the three-month annualized rate of inflation has been rising and was 4.6% in March.
- The consensus among market participant heading into the year was for the Fed to cut rates by a total of 150 bps in 2024. That is now down to 50 bps following the stronger-than-expected start to the year. Prior to March's CPI print, the Fed projected it will cut rates by 75 bps this year.
- Hotter inflation has put upward pressure on inflation expectations, which benefited TIPS over nominals. The ten-year breakeven inflation rate rose 16 bps in 1Q to 2.3%.
- TIPS are contractually linked to CPI and less liquid than Treasuries, which has led to them underperforming Treasuries when inflation is falling and during periods of markets stress.
- TIPS are one of the few assets that provide defense against unexpectedly high inflation. TIPS may offer more value if inflation is stickier than expected given higher real yields and relatively subdued breakeven inflation rates for the current environment.

**HISTORICAL YIELD: 10-YR TIPS**

Jan 31, 1997 – Mar 31, 2024 • Percent (%)

**10-YR BREAKEVEN INFLATION**

Jul 31, 1997 – Mar 31, 2024 • Percent (%)




* Capped for scale purposes. 10-Yr BE Inflation hit a low of 0.11% on 12/31/2008.

Sources: Bloomberg Index Services Limited, Global Financial Data, Inc., and Thomson Reuters Datastream.

# Global Inflation-Linked Bonds

Facts & Figures First Quarter 2024

**Global linkers gained 5.5% in 2023 but were down 1.6% in 1Q 2024. Global linkers have outperformed global treasuries so far this year due to stronger inflation, which has increased inflation expectations.**

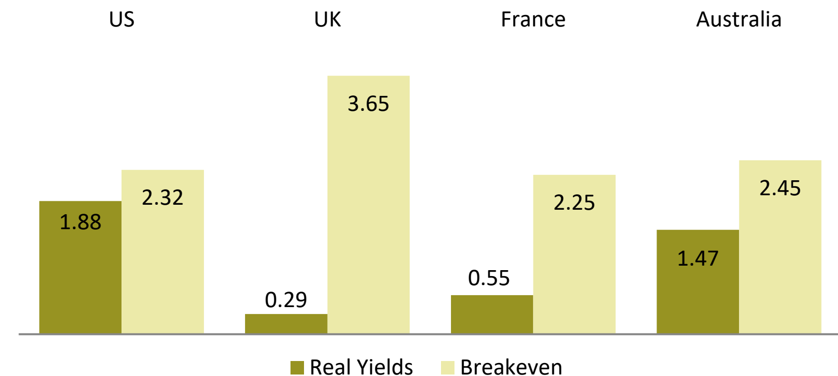
- Global treasury yields peaked in 4Q, with real yields reaching as high as 1.9%, their highest level since 2009. Real yields have fallen since then and are roughly 60 bps below their recent peak, but they've backed up some this year. They are currently in line with their historical median.
- Global linker valuations have normalized somewhat since the peak in real yields, but they remain cheap. Global real yields are 0.8 standard deviations above their implied fair value of 0.6%, based on trailing ten-year real global GDP growth.
- Most major central banks now view their current monetary policy stance as appropriately restrictive and plan to cut rates at some point this year. However, stronger inflation this year, particularly in the US, has resulted in the market paring back the number of rate cuts it expects this year. The Fed, BOE, and ECB are projected to cut rates by around 130, 120, and 150 bps, respectively, this year.
- The repricing in rate expectations was driven by stronger-than-expected growth and inflation to start the year. Consensus forecasts DMs real GDP to grow 1.5% and inflation will average 3.9% in 2024, both of which are higher than at the beginning of the year. This has put upward pressure on inflation expectations in many DMs, which has benefited global linkers at the expense of nominals.
- A resumption of the decline in inflation we saw in 2H 2023 and the risk that central banks cause a recession are risks for linkers versus Treasuries. Linkers are contractually linked to inflation and less liquid than Treasuries, which has caused them to underperform when inflation is falling and in periods of markets stress.
- Linkers are one of the few assets that protect against unexpectedly high inflation. Linkers may offer more value if inflation continues to be stickier than expected given higher real yields and relatively subdued breakeven inflation rates in most DM countries.

### HISTORICAL INDEX YIELD: BBG GLOBAL LINKERS

Dec 31, 1996 – Mar 31, 2024 • Percent (%)

### 10-YR REAL YIELDS AND BREAKEVEN INFLATION

As of Mar 31, 2024 • Percent (%)




Sources: Bloomberg Index Services Limited and Thomson Reuters Datastream.

Notes: France data are based on the underlying securities within the Bloomberg Global Agg Treasuries and Bloomberg World Govt Inflation-Linked indexes. All other data are based on the Bloomberg real yield and breakeven series.

# UK Gilts

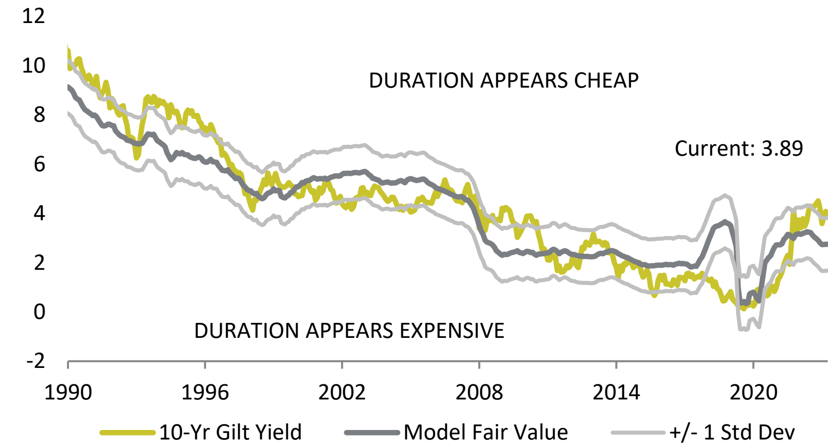
Facts & Figures First Quarter 2024

UK gilts gained 3.8% in 2023 in local currency terms but were down 1.7% in 1Q 2024. The pullback coincides with the market reducing the number of rate cuts it expects from major central banks this year following a pickup in US growth and inflation to start the year.

- Ten-year gilts were yielding 3.9% as of March 31, roughly 30 bps above where they started the year but well below their recent peak of 4.7% reached in August 2023.
- Gilt yields are elevated, and valuations are cheap. Ten-year yields are more than 1 standard deviations above their implied fair value of 2.7%, based on trailing ten-year GDP and inflation growth. Cheap valuations tend to lead to better subsequent performance.
- Further, the sell-off in bonds appears to have bottomed and momentum has reversed. Trailing 12-month price momentum is rising from record lows and is currently in the 27th percentile of observations.
- Stronger-than-expected US economic and inflation data led the market to reduce the number of rate cuts it expected from the Fed, and in turn, other major central banks that might be hesitant to lead the Fed and risk weakening their currencies.
- The BOE reaffirmed in March that it would likely cut rates this year, but the market now expects the BOE to cut rates by only 75 bps, compared to 125 bps at the start of this year.
- Weak domestic growth and a sharp decline in inflation have opened the door to rate cuts. The UK economy entered a technical recession in 4Q 2023 and consensus forecasts real GDP growth of only 0.3% in 2024. UK inflation has fallen significantly. UK CPI inflation dropped to 3.4% YOY in February, down from a high of 11.1% in late 2022.
- The openness of the UK economy and its fiscal position are risks, and the BOE plans to reduce it gilt holdings by £100B in this fiscal year. As a result, the OBR estimates the change in private sector gilt holdings will reach its highest level on record of 7.9% of GDP by FY 2024–25.
- The inverted gilt yield curve is another challenge. Currently, ten-year yields are 131 bps below cash rates.

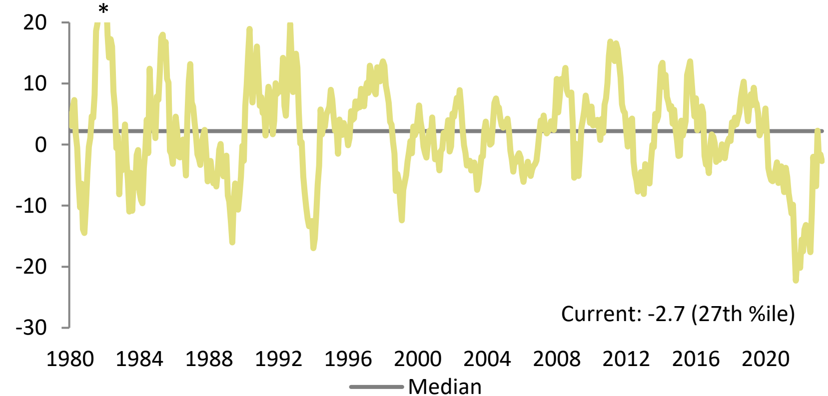
**VALUATIONS: 10-YR GILTS**

Jan 31, 1979 – Mar 31, 2024 • Percent (%)




**12-MONTH PRICE MOMENTUM: 10-YR GILTS**

Dec 31, 1980 – Mar 31, 2024 • Percent (%)




* Capped for scale purposes. The rolling 12-M Momentum was 44.5% in October 1982.

Source: Thomson Reuters Datastream.

Note: The Model Fair Value is the predicted range of ten-year yields based on a multiple linear regression model that includes trailing ten-year real GDP and RPI/CPI change. CPI data are as of February 29, 2024.

# UK Corporate Bonds

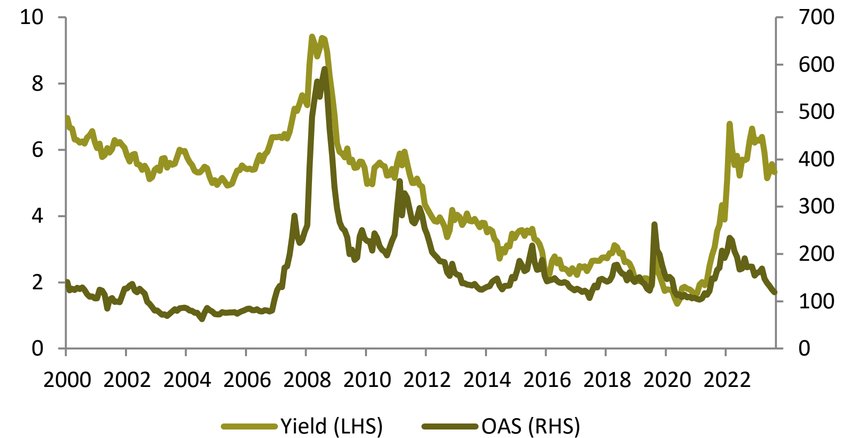
Facts & Figures First Quarter 2024

**Sterling-denominated investment-grade corporate bonds were basically flat in 1Q as modest spread tightening offset a rise in underlying benchmark rates.**

- Sterling investment–grade corporate bonds returned 0.1% in 1Q, though this follows a robust 2023 full-year return of 9.8%. Investors will need further gains to fully recover from a record drawdown of -19.3% in 2022.
- The index yield rose around 20 bps in 1Q to 5.32%. Investors may continue to be attracted by yields, which remain about 200 bps above their prior ten-year average (3.15%).
- The rise in yields was driven by lift in underlying gilt yields. The option-adjusted index spread fell around 20 bps in 1Q to 119 bps and is now around the 30th percentile of observed values.
- The BOE held its base rate steady in March at 5.25% but members suggested that rate cuts could begin this summer. Policymakers have more flexibility as inflation continues to cool. The February CPI reading of 3.4% remains above the target but is almost 8 ppts below its late-2022 peak.
- Despite the UK entering a technical recession 2023, monthly GDP figures grew in January and February, while PMI data suggested economic activity is expanding, supporting credit fundamentals. Still, the consensus expects just 0.3% GDP growth in 2024 as the lagged impact of recent rate hikes begin to take effect.

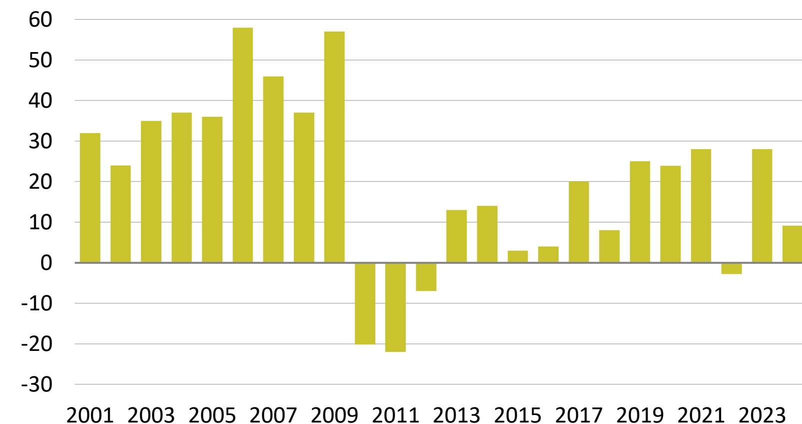
**YIELD AND OPTION-ADJUSTED SPREAD: STERLING CORPORATES**

Aug 31, 2000 – Mar 31, 2024 • Percent (%)




**NET ANNUAL ISSUANCE: STERLING CORPORATES**

2001-24 • Sterling (Billions)




Source: Bloomberg Index Services Limited.

Note: Issuance data for 2024 are through March 31.

# Euro Area Sovereign Bonds

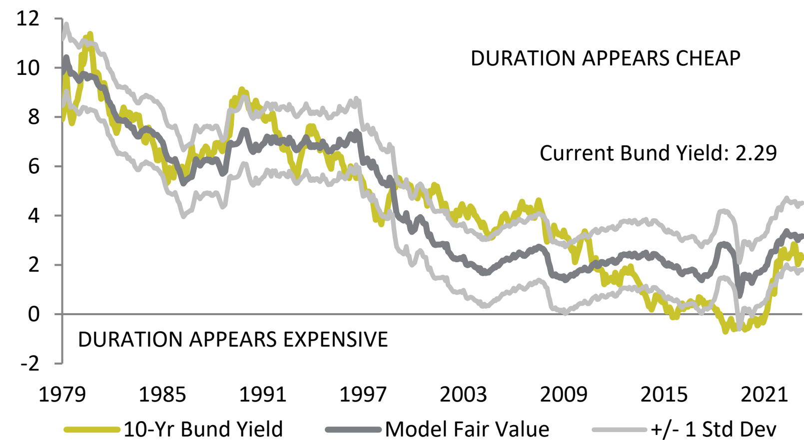
Facts & Figures First Quarter 2024

Core EA sovereigns (i.e., German bunds) returned 5.4% in 2023 in local currency terms but were down 1.3% in 1Q 2024. The pullback coincides with the market reducing the number of rate cuts it expects from major central banks this year following a pickup in US growth and inflation.

- Ten-year bunds were yielding 2.3% as of March 31, roughly 30 bps above where they started the year but well below their recent peak of 3.0% reached in early 4Q 2023.
- Bund valuations are less supportive than DM peers. Ten-year bund yields are 0.6 standard deviations below their implied fair value of 3.2%, based on trailing ten-year GDP and inflation growth. Higher valuations tend to lead to better subsequent performance.
- Stronger-than-expected US economic and inflation data led to the market reducing the number of rate cuts it expected from the Fed, and in turn, other major central banks that might be hesitant to lead the Fed and risk weakening their currencies.
- The ECB held rates steady at their April policy meeting, but it plans to cut rates at some point this year. The market now expects the ECB to cut rates by only 75 bps, compared to 150 bps at the start of this year.
- Weak domestic growth and a sharp decline in inflation have opened the door to rate cuts. EA real GDP grew 0.4% in 2023 and consensus forecasts it will grow just 0.5% in 2024. EA inflation has fallen significantly. CPI rose just 2.4% YOY in March, down from a peak of 11%.
- Increased coordination within the EA and structural reforms within the periphery have reduced fiscal risk and kept EA spreads in check. According to Eurosystem projections, the EA budget deficit is estimated to steadily decline from 3.1% of GDP in 2023 to 2.6% in 2026. The Italian/German ten-year yield spread is 137 bps, which is below its trailing 20-year average of 150 bps.
- The ECB is reducing its bond holdings held in its APP portfolio and plans to begin the same process for its PEPP portfolio by mid-year.
- The inverted bund yield curve is a challenge. Currently, ten-year yields are 147 bps below cash rates.

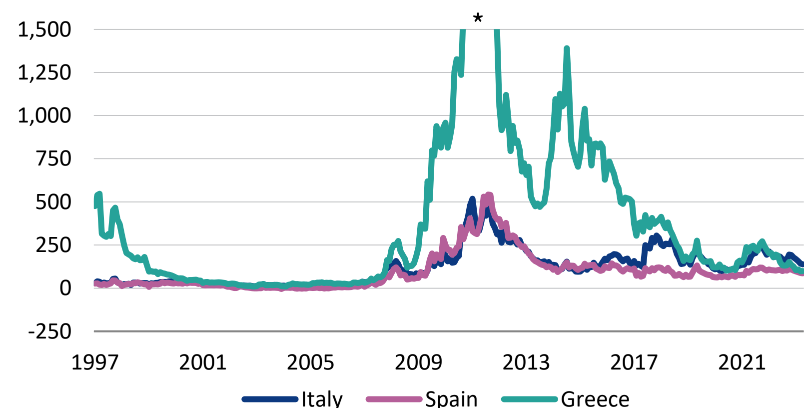
**VALUATIONS: 10-YR BUNDS**

Dec 31, 1979 – Mar 31, 2024 • Basis Points (bps)




**HISTORICAL 10-YR SPREADS OVER BUND YIELDS**

Jan 31, 1998 – Mar 31, 2024 • Basis Points (bps)




* Capped for scale purposes. Greece spread hit a high of 3,476 bps on 2/29/2012.

Source: Thomson Reuters Datastream.

Note: The Model Fair Value is the predicted range of ten-year yields based on a multiple linear regression model that includes trailing ten-year real GDP and CPI change.

# Euro Area Corporate Bonds

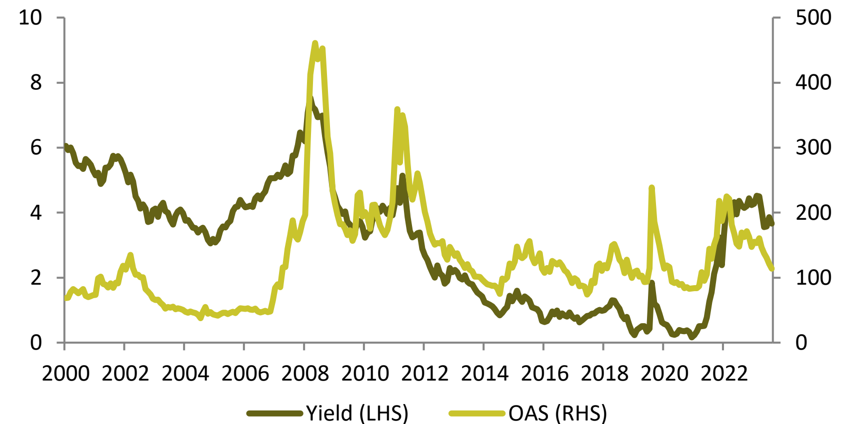
Facts & Figures First Quarter 2024

The Bloomberg Euro-Aggregate Corporate Index returned 0.5% in 1Q, cooling off after a robust 8.2% return in FY 2023. Intermediate-term returns remain subdued given back-to-back losses in 2021 and 2022.

- Yields on euro corporate bonds held fairly steady in 1Q as a decline in credit spreads offset an upward move in underlying sovereign yields. The current 3.66% yield is up slightly from year-end 2023 but well below levels seen last summer.
- The corporate bonds OAS of 114 bps is close to its historical median. This spread looks elevated relative to other IG bonds markets (e.g., the US) but the flipside is that index credit quality has fallen over time and there isn't a significant cushion for investors if fundamentals weaken.
- The macro backdrop is mixed for corporate earnings. The region avoided a recession in 2023 but the consensus estimate for 2024 Eurozone GDP growth remains subdued at 0.5%.
- In March, the ECB left its main base rate at 4.0% but suggested a rate cut could be imminent given the ongoing decline in inflationary pressures. HICP fell in March to 2.4% YOY, fairly close to its target.
- Trends in fundamentals for European corporates have recently seen limited improvement given weak economic growth. According to J.P. Morgan, European IG issuer EBITDA shrank 3% quarter-over-quarter in 4Q. Still, many metrics look healthy given companies refinanced debt during a multi-year period of near-zero interest rates. As example, interest coverage declined in 4Q to 15.5x but remains well above long-term averages.
- Issuance of Eurozone corporate bonds rebounded in 2023 to €166B, almost twice the level issued in 2022. This was still well below levels seen in 2019 and 2020 when issuers rushed to lock in low rates.

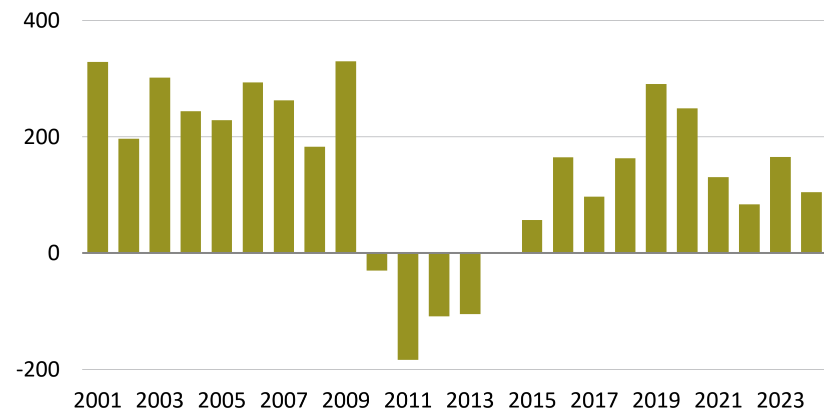
YIELD AND OPTION-ADJUSTED SPREAD: EUROPEAN CORPORATES

Aug 31, 2000 – Mar 31, 2024 • Percent (%)




NET ANNUAL ISSUANCE: EUROPEAN CORPORATES

2001-24 • Billions (EUR)




Source: Bloomberg Index Services Limited.

Note: Issuance data for 2024 are through March 31.

# Structured Finance

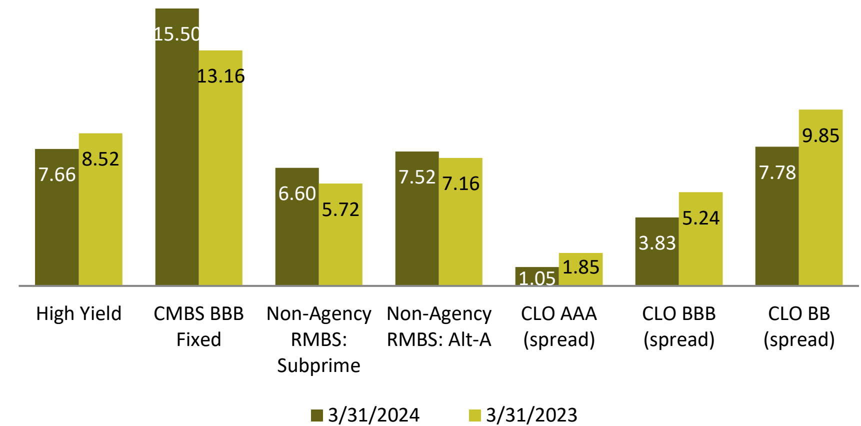
Facts & Figures First Quarter 2024

Most parts of the structured credit market generated positive returns in 2023 and this momentum has carried into 2024. Underlying credit fundamentals have been boosted by resilient economic growth but there remains secular headwinds for certain segments of the commercial property market. In general, floating-rate assets have seen stronger recent returns than longer-duration fixed-rate equivalents.

- Most structured credit indexes posted positive returns in 1Q. Examples included CLO liabilities, as AAA CLO debt returned 1.8%, outpacing the return of the Bloomberg US Aggregate Index (-0.8%).
- Lower-rated private label CMBS also bounced back despite ongoing concerns over commercial real estate fundamentals and refinancing risks. BBB-rated CMBS bonds have an average dollar price in the mid- to high-60s, providing ample room for outperformance when shifts in sentiment (or data) occur.
- Many structured finance instruments are floating rate, which had been a tailwind during the Fed hiking cycle. Recently persistent inflationary pressures have caused markets to reevaluate the potential for Fed easing in 2024 and led to a sell off in duration, allowing shorter-duration bonds like CLO debt to again outperform.
- Fundamentals have held up reasonably well with some exceptions. While leverage levels are elevated for some loan issuers in CLO pools and interest costs have risen, resilient economic growth has led to a rebound in corporate earnings and thus improvement in metrics like interest coverage ratios. In contrast, delinquency rates on underlying loans in CMBS pools have risen YOY but shown some mild improvement in recent months.
- Some structured credit assets are less liquid than corporate equivalents and often require specialized systems to analyze. Many also have indefinite maturities given amortizing loan pools. The result is a spread premium to similarly rated corporate debt.
- Investors can access structured credit through several vehicles and mandates, including mutual funds, hedge funds, and closed-end funds.

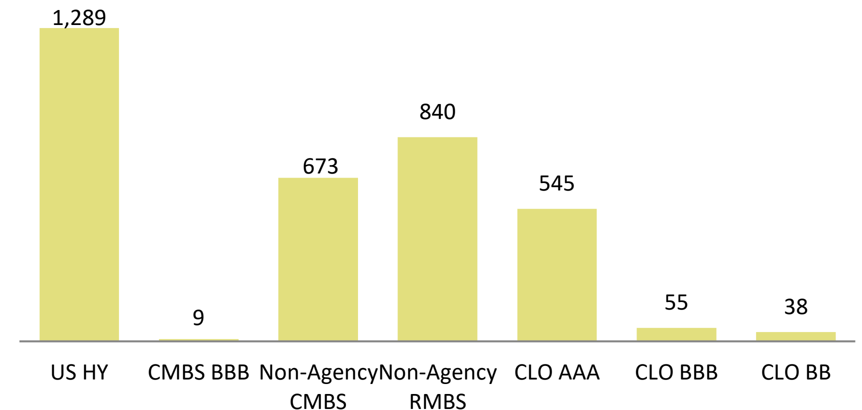
## YIELD: SELECT STRUCTURED CREDITS

Percent (%)




## MARKET CAP: SELECT STRUCTURED CREDITS

As of March 31, 2024 • US$B




Sources: Bloomberg Index Services Limited, ICE BofA Merrill Lynch, J.P. Morgan Securities, Inc., Securities Industry and Financial Markets Association(SIFMA), and Thomson Reuters Datastream.

Notes: CLOs yield data are represented by discount margins. Non-Agency CMBS and Non-Agency RMBS market-cap data are as of December 31, 2021.

# US High-Yield Bonds

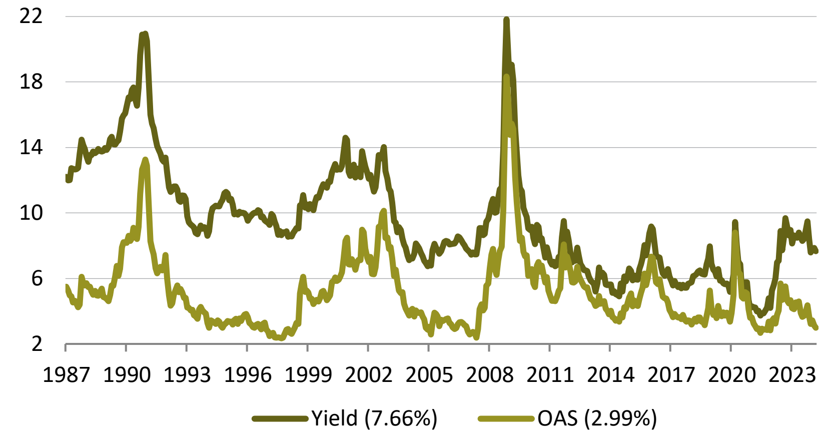
Facts & Figures First Quarter 2024

**US high-yield bonds returned 1.5% in 1Q, cooling off after a strong 13.4% return in 2023. Spreads are well below their historical median, offering investors little protection if higher rates or a recession mean fundamentals deteriorate.**

- The Bloomberg High-Yield Index returned 1.5% in 1Q, trailing benchmarks like US leveraged loans (2.5%) and a 70/30 MSCI ACWI/30% Bloomberg Govt/Credit portfolio (5.5%).
- The high-yield index yield rose slightly in 1Q to 7.66%. As was demonstrated in 1Q, this yield is not at a level historically associated with outperformance compared to stock/bond blends.
- The index OAS fell 24 bps in 1Q to 299 bps. This falls in the bottom decile of observed values and offers investors limited cushion if defaults rise further or persistent inflation puts upward pressure on base rates.
- Moody's reported a speculative-grade default rate of 2.5% at the end of February, close to its long-term median of 2.3%. As hopes for a soft landing have risen, the distressed ratio has fallen, suggesting market concerns about an elevated default cycle are starting to fade.
- Should the US economy enter a recession, credit fundamentals will be starting from a healthy position. Morgan Stanley reports the median interest coverage for HY borrowers stood at 4.9x at the end of 4Q as earnings rose slightly (1.4%) YOY.
- Technicals are mixed for high-yield bonds. Lipper reports that supply has been resurgent in 2024 with around $97B of issuance YTD. While investor demand has been tepid (around $3B of inflows into US HY mutual funds), a variety of other sources of liquidity (coupon payments, bond redemptions, etc) has helped pick up the slack.
- The average credit rating for the high-yield index ticked down to B1/B2 in late 2023. A recession could bring additional downgrades and threaten stability, though 2023 rating agency upgrades (by dollar volume) outnumbered downgrades.

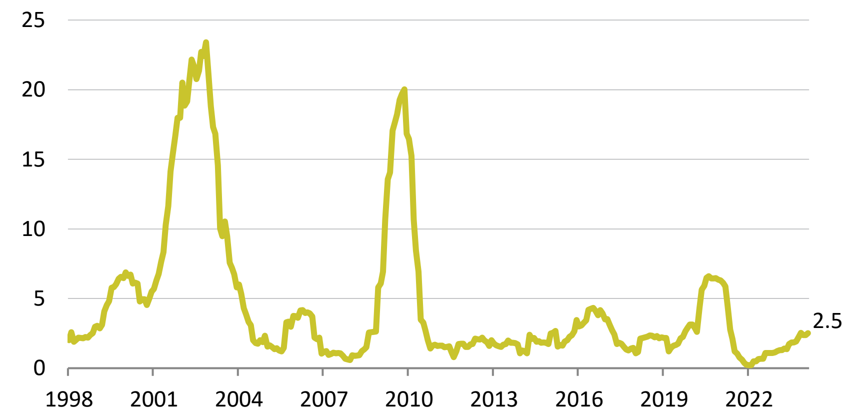
**YIELD AND OPTION-ADJUSTED SPREAD: US HIGH-YIELD INDEX**

Jan 31, 1987 – Mar 31, 2024 • Percent (%)




**PAR DEFAULT RATES: US HIGH-YIELD**

Jan 31, 1998 – Feb 29, 2024 • Percent (%)




Sources: Bloomberg Index Services Limited, Deutsche Bank Credit Strategy, and Moody's Investors Service.

Notes: Data prior to June 30, 2017, are represented by Moody's default rates as provided by the Deutsche Bank US Credit Strategy Chartbook. All default rate data on and after June 30, 2017, are sourced from the Moody's Investor Services Default Report.

# Leveraged Loans

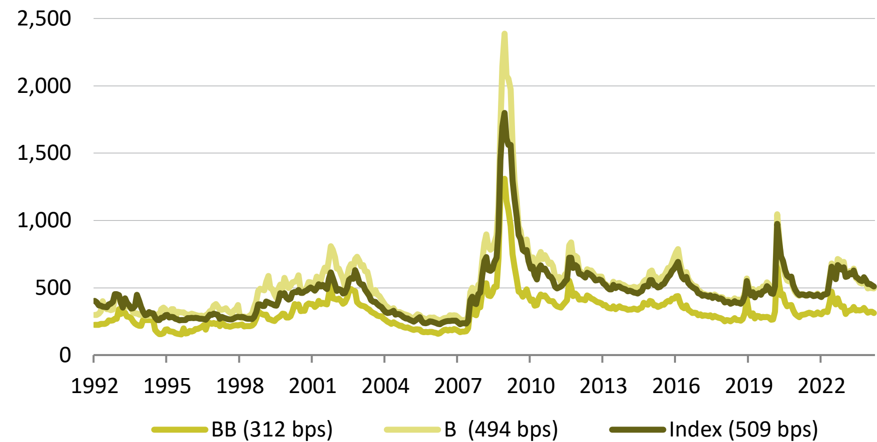
Facts & Figures First Quarter 2024

**US leveraged loans built on their impressive 2023 return with a solid 2.5% return in 1Q. While fundamentals started the year at a relatively strong level, rising rates and tepid earnings growth mean metrics like interest coverage are deteriorating and leading to higher defaults.**

- Leveraged loans returned 2.5% in 1Q, outperforming US high-yield bonds and many fixed income benchmarks. Loan returns over the past two years have been cushioned by their floating rate format as inflation rose and the Fed in turn aggressively hiked rates.
- Discount margins for leveraged loans declined around 20 bps in 1Q to 509 bps but remain above their long-term median of 457 bps.
- The current discount margin coupled with one-month SOFR (around 5.3%) means the implied yield on leveraged loans is over 10%.
- Fundamentals are mixed as improving economic growth has allowed issuers to boost revenues, while at the same time higher base rates mean interest costs are rising. According to J.P. Morgan, the median interest coverage ratio (ICR) for loan issuers stood at 3.4x at the end of 4Q, down from more than 4x in mid-2022. Stronger revenue growth means the tail of weaker borrowers (e.g., those with ICRs <2x) is shrinking but at 36% is well above levels seen prior to the Fed hiking cycle.
- This weaker tail ties with higher default rates. J.P. Morgan reports the trailing default rate for leveraged loans rose to 3.5% at the end of 1Q. Recently 2024 default forecasts have been trimmed by some analysts given resilient economic growth; however, resurgent inflation is also pushing back expected Fed easing, which creates concern around companies with elevated interest costs.
- The loan index has lower average credit quality than the HY index, leaving it more vulnerable to future downturns. According to LCD, just 30% of the S&P loan index has at least one BB rating.
- Loan supply has been strong in 2024 helped in part by strong CLO demand. After totaling just $370B gross in 2023, loan issuance reached $318 billion in 1Q 2024.

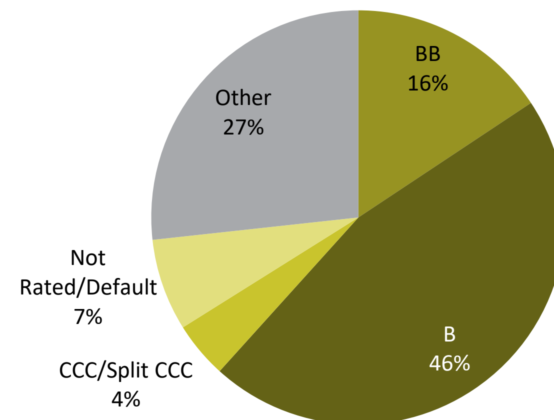
## DISCOUNT MARGIN: CS LEVERAGED LOAN INDEX

Jan 31, 1992 – Mar 31, 2024 • Basis Points




## RATINGS BREAKDOWN: CS LEVERAGED LOAN INDEX

As of March 31, 2024




Source: Credit Suisse.

Notes: Discount margin assumes a three-year life, assuming all loans are paid off at par with no defaults. Other category includes Split BBB, Split BB, and Split B. Not Rated/Default includes CC, C, and Not Rated/Default loans.

# Pan-European High-Yield Bonds

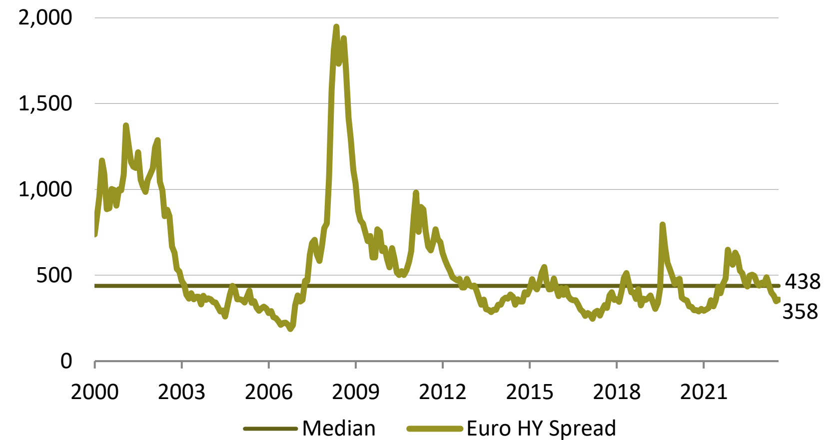
Facts & Figures First Quarter 2024

In 2023, European high-yield bonds had their highest return in over a decade. Returns cooled and became more "carry like" in 1Q 2024. Spreads continue to compress despite lackluster economic data in part because central banks are expected to ease later this year.

- The Bloomberg Pan-European High-Yield Index returned 1.8% in 1Q 2024, following a FY 2023 return of 12.8%.
- Returns for 1Q were driven by carry as yields rose slightly. The 7.72% index yield is slightly below its 4Q peak but well above average levels over the last decade.
- The index OAS fell again in 1Q to 358 bps, well below its historical median. Investors seem to be accepting below average spreads given yields remain higher than historical averages.
- Sovereign yields reversed course in 1Q and rose across global markets. Still, inflation is declining across European markets at a faster pace than seen in the US. The ECB and Bank of England both kept base rates unchanged during recent meetings, but signaled rate cuts could occur in the near future.
- Defaults have been contained in recent years as low rates boosted interest coverage metrics. According to Moody's the trailing 12-month default rate was just 1.5% at the end of February. Looking ahead, European HY credit metrics overall look healthy given the previous extended era of low rates, but there is a tail of borrowers that are seeing earnings and thus metrics deteriorate. At the end of 1Q, several of these borrowers appointed restructuring advisors, suggesting default rates could see some upside from here.
- Credit globally has been boosted by central bank asset purchases and investors' thirst for income in a low-yield environment. This tailwind is reversing, with the Bank of England now selling assets and the ECB no longer reinvesting proceeds from maturing bonds purchased under its Asset Purchase Program.
- On a relative basis, European borrowers are less levered than those in the United States. More than 65% of the European HY Index carries at least one BB rating.

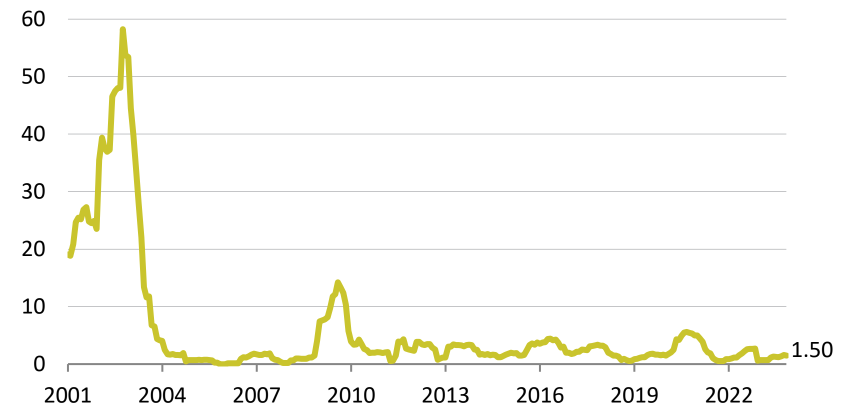
**OPTION-ADJUSTED SPREAD: EUROPEAN HIGH YIELD**

Aug 31, 2000 – Mar 31, 2024 • Basis points (bps)




**PAR DEFAULT RATES: EUROPEAN HIGH YIELD**

Apr 30, 2001 – Feb 29, 2024 • Percent (%)




Sources: Bloomberg Index Services Limited and Moody's Investor Services.

Notes: The European high-yield option-adjusted spread peaked in December 31, 2008, at 1,949 bps. The European high-yield default rate peaked on January 31, 2003, at 58.2%.

# Distressed Investing: Non-Control

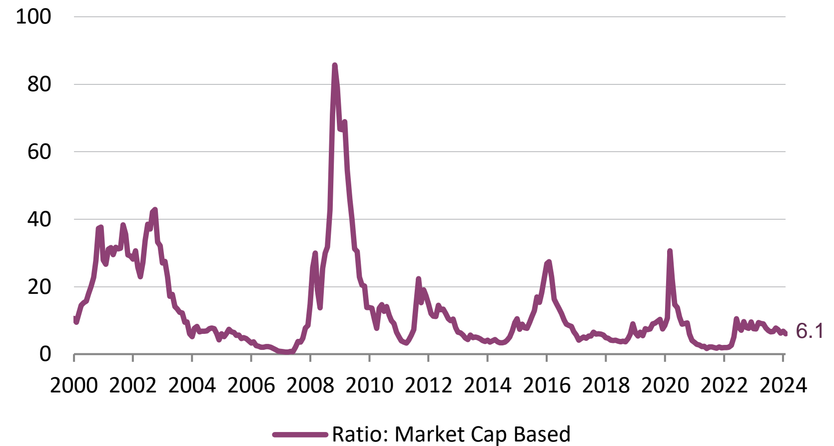
Facts & Figures First Quarter 2024

Distressed hedge funds have generated healthy returns in recent quarters. Distressed ratios are not elevated on a historical basis but credit markets have grown in size and funds are finding opportunity as some companies struggle with elevated borrowing costs.

- The HFRI Event Driven: Distressed/Restructuring Index returned 2.8% in 1Q following a 7.9% full-year 2023 return. Distressed hedge funds trailed the broader fund-of-funds (diversified) HF Index in 1Q but outperformed broader credit indexes like the Bloomberg US Corporate High Yield Index (1.5%).
- Distressed funds have seen their opportunity set fluctuate over the past couple of years. Currently, only 6% of the $1.4 trillion face value HY index trades with a spread above 1,000 bps. The flipside is that the combined US HY and leveraged loan market has more than doubled in size since the GFC, so the overall opportunity set is larger.
- High total yields (given recent Fed hikes) may be helping put a floor under demand. Dollar prices suggest funds are having an easier time underwriting double-digit returns, as the average price of CCC-rated bonds is around 84 cents.
- Despite its lower credit ratings, less than 4% of the leveraged loan index trades below 80 cents despite interest coverage ratios coming under pressure for companies with predominantly floating rate liabilities.
- Distressed debt and credit opportunity funds could see a growing opportunity set as credit fundamentals have softened for some companies and default rates are rising. Bank of America reports interest coverage for typical B- and CCC+ rated borrowers was 1.4x and 1.2x, respectively, at the end of 2023. There is little to cushion these companies if growth and thus revenue disappoints in 2024.
- The flipside is that funds should tread carefully as weak loan documentation means recoveries after default may be lower.
- There are a variety of ways to invest in distressed debt, including hedge funds and lock-up vehicles, which will do everything from trade existing securities to provide rescue finance for troubled companies. Skilled managers may find opportunities beyond traditional focus areas, including structured credit and property-backed credit.

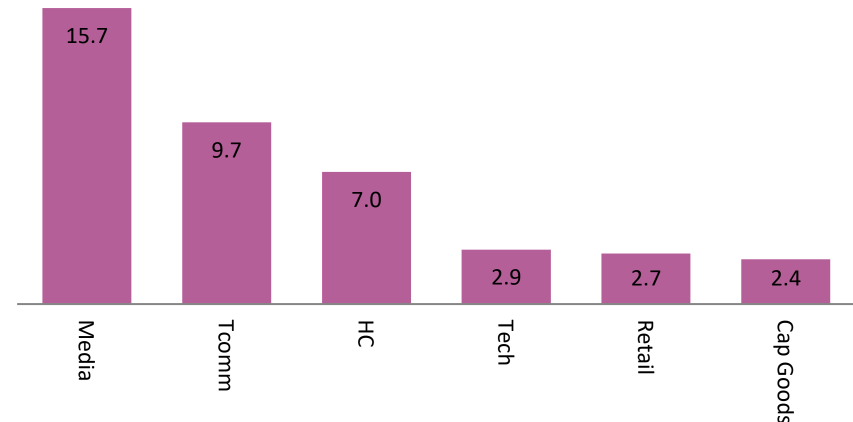
### DISTRESSED RATIO: BOFA ML HIGH YIELD MASTER II INDEX

Jan 31, 2000 – Feb 29, 2024 • Percent (%)




### MARKET VALUE OF DISTRESSED PAPER FOR SELECT INDUSTRIES

As of March 31, 2024 • US$B




Source: ICE BofA Merrill Lynch.

Notes: Bottom chart represents the ICE BofA Merrill Lynch US High Yield Index universe. Distressed bonds are defined as bonds with option-adjusted spreads greater than 1,000 basis points. Only industries with a market value equal or greater than $2 billion are shown.

C|A

# USD-Denominated Emerging Markets Debt

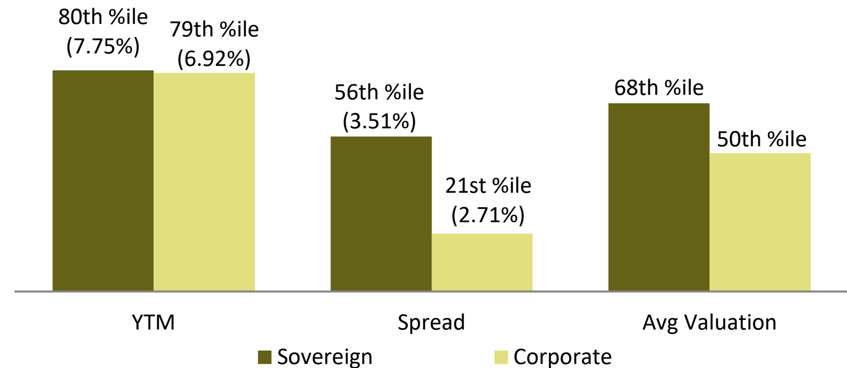
Facts & Figures First Quarter 2024

EM debt indexes rallied in 2023, rebounding from 2022, when the (sovereign) JPM EMBI Global Diversified and (corporate) CEMBI Broad Diversified indexes returned -17.8% and -12.3%, respectively. Performance in 2023 was supported by slower policy tightening, capped off by the perceived Fed pivot and falling rates in 4Q.

- The sovereign and corporate EM debt indexes returned 11.1% and 9.1%, respectively, in 2023. Performance was concentrated in 4Q as the more dovish than expected Fed catalyzed a sharp fall in US Treasury yields and downward repricing of forward rate expectations. Both segments continued rallying in 1Q 2024, up around 2%.
- EM debt yields have risen around 300 bps over the past three years, pushed higher by the underlying move in Treasury yields, which have risen as growth and inflation forced the Fed to hike its target rate by 500 bps. Still, yields are down roughly 200 bps since their peaks late last year as the forward policy stance has become more dovish.
- EM sovereign debt spreads have narrowed significantly to near median levels (56th percentile). Corporate spreads also tightened, closing at their 21st percentile and nearly a full turn lower than sovereign peers.
- Sovereign yields look elevated from a historical perspective, but recent events highlight some of the unique risk factors for the asset class. In February 2022, Russia invaded Ukraine, and EM index providers responded to the uninvestible nature of Russian assets by eliminating them from many indexes. The benchmark JPM EMBI GD Index saw its 3% weight for Russian bonds written down to zero, while debt from Ukraine and surrounding countries also plunged.
- More broadly, EM debt index stats disguise wide variation in underlying fiscal health across borrowers. For example, the main EM sovereign index includes a number of CCC/CC-rated borrowers (Argentina, Ukraine, Sri Lanka, etc.) whose optically cheap debt will only prove attractive if coupons and principal payments are repaid.
- About 50% of the sovereign index has an investment-grade rating, which is similar for corporates. The wide dispersion of fundamentals and possible political outcomes suggests an active management approach to these assets may generate more successful outcomes.

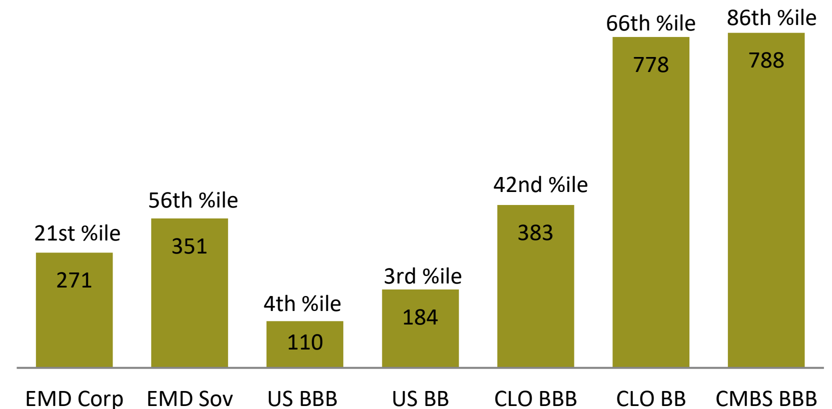
### PERCENTILE RANK: USD EM DEBT

As of Mar 31, 2024 (Based on Post-2003 Data)




### PERCENTILE RANK: OPTION-ADJUSTED SPREAD

As of Mar 31, 2024




Sources: Bloomberg Index Services Limited, J.P. Morgan Securities, Inc. and Thomson Reuters Datastream.
Notes: Composite Valuation Indicator is the average of YTM percentile and spread percentile. Asset classes represented by J.P. Morgan Emerging Market Bond Index (EMD Sov), J.P. Morgan Corporate Emerging Markets Bond Index (EMD Corp), Bloomberg US Corporate Investment Grade BBB Index (US BBB), Bloomberg US High Yield BB Index (US BB), J.P. Morgan CLOIE BBB Index (CLO BBB), J.P. Morgan CLOIE BB Index (CLO BB), and Bloomberg US CMBS Baa Index (CMBS BBB).

# Local Currency Emerging Markets Debt

Facts & Figures First Quarter 2024

Local currency EM debt returned 2.0% in local currency terms in 1Q 2024. A strengthening US dollar saw weaker USD returns, falling 2.1% on the quarter. While yields rose modestly, in sympathy with moves in developed markets, the carry was sufficient to offset this despite the below average yield.

- EM local currency bond yields declined more than their DM equivalents in 2023 due to inflation that was moderating more quickly in the wake of earlier rate hikes. Last quarter however, they traded broadly in line with moves in DM bonds. The spread between EM and DM government bonds reached its narrowest level since 2007 during the quarter. While it was a positive for the asset class last year to trade more in line with the needs of its domestic economies, the narrow spread poses some risks in the event of another risk-off episode.

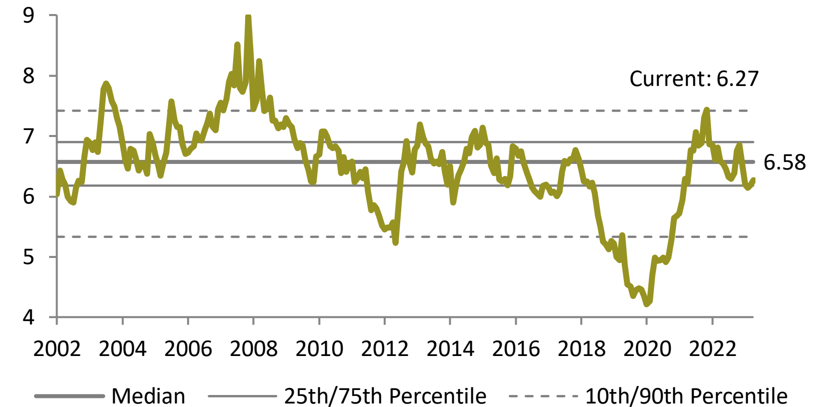
- EM currencies are highly sensitive to global growth prospects. Therefore, impairment of global supply chains and fears of a policy-induced economic slowdown and geopolitical risks have all proved headwinds at various times post-COVID. The recent boost in global growth estimates had proven beneficial to EM currencies when it was accompanied by an expectation of US rate cuts. Now that firmer data is seeing previously expected cuts removed, the dynamic has reversed for EM currencies.

- EM-LC bond yields rose by 8 bps during the quarter, now standing 116 bps below the October 2022 peak in yields. As a result, yields now sit back below median at the 31st percentile of historical observations. EM currencies are likely to remain the larger driver of returns for unhedged investors. While currency valuation has risen from the 2022 low, they remain relatively modestly valued, with the REER of EM fixed income–weighted currencies sitting at the 12th percentile.

- On a medium-term outlook, EM currencies look well placed to appreciate. Global growth will eventually improve more materially, risk appetite will pick up and the dollar should secularly decline. Shorter term head winds could appear if the extent of an expected Fed pivot disappoints, or if recessionary fears rematerialize. The level of dispersion between the underlying countries suggests there are opportunities for active managers with broad mandates to add value.

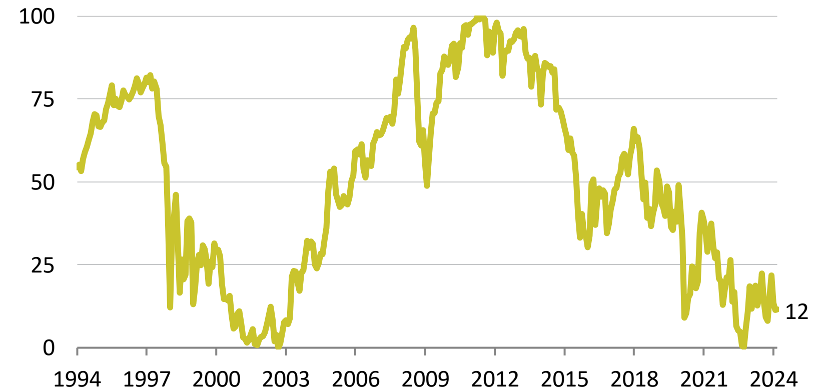
**NOMINAL YIELD: JPM GBI-EM GLOBAL DIVERSIFIED INDEX**

Dec 31, 2002 – Mar 31, 2024




**FI-WEIGHTED EM REAL EXCHANGE RATE VS US: PERCENTILE**

Jan 31, 1994 – Mar 31, 2024




Sources: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Taiwan; INE - National Institute of Statistics, Chile; International Monetary Fund; J.P. Morgan Securities, Inc.; MSCI Inc.; National Bureau of Statistics of China; Thomson Reuters Datastream; and US Department of Labor - Bureau of Labor Statistics. MSCI data provided "as is" without any express or implied warranties.

# PRIVATE EQUITY/VENTURE CAPITAL

CAMBRIDGE ASSOCIATES

# US Private Equity

Facts & Figures First Quarter 2024

US PE returned 6.2% YTD through 3Q 2023, remaining resilient despite ongoing macro headwinds. While performance has trailed broader public markets recently, the US PE index still outperformed by at least 200 bps in every trailing period longer than three years. While the fundraising pace has held up, investment and exit activity slowed considerably in 2023, and these trends persisted in early 2024.

- US PE funds raised a near-record $389B in 2023, following the high of $395B set in 2022. Cumulatively, more than $1.1T was raised over the past three years. Average fund sizes increased to a record $1.22B in 2023, as fundraising has been concentrated in fewer, larger funds. Indeed, 17 funds of $5B or more accounted for roughly half the 2023 fundraising total. This trend is set to continue, as 11 funds of $5B or more already closed or remain open as of 1Q 2024. US PE funds secured almost 70% of capital raised globally over the past two years, which is higher than recent averages (54% in decade ended 2021).

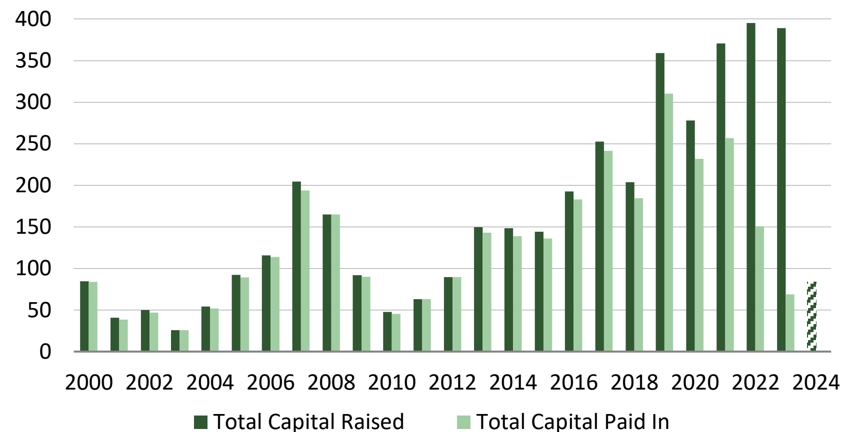
- Capital invested in US buyout and growth equity deals totaled $377B in 2023, compared to $552B and $627B in 2022 and 2021, respectively. While activity in 2023 was in-line with pre-COVID averages, the pace has slowed further in early 2024. Amid tighter credit conditions, add-on and growth equity deals—which are smaller than buyouts—accounted for a greater share of deal activity, and carveouts have also rebounded. IT companies attracted 25% of investment in 2023, and 44% so far in 2024, compared to 42% in 2022. The trailing five-year average share was 26%. Healthcare accounted for just 9% in 2023 and 10% in 2022.

- According to PichBook LCD data, purchase price multiples for large buyout transactions climbed from 2009 to 2022, but fell in 2023. Looking at EV/Revenue multiples, valuations were down 20% in 2023 versus the 2021 peak (2.1x vs 2.6x). Leverage fell back to 5.0x EBITDA in 2023 as equity contributions hit the highest level on record at 50%.

- Total US PE-backed exit value turned lower in 2023 at $268B, marking the weakest year since 2012 ($247B). Exit activity YTD in 2024 is on pace to match 2023. M&A exits to corporates accounted for 56% of all exit value in 2023, with IPO exit value coming in at just $8B; these trends continued in early 2024. The ratio of exits-to-entry deals was historically low in 2023 at 0.34x, versus ~0.55x roughly ten years ago.

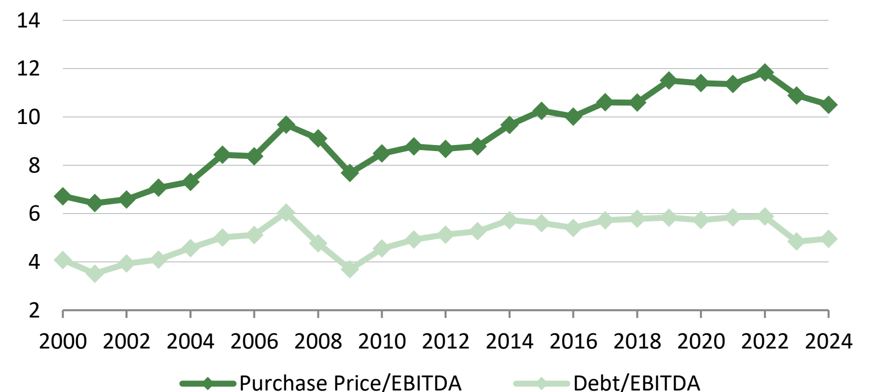
**FUNDRAISING AND PAID-IN CAPITAL: US PE**

Vintage Years 2000–24 (Mar 31) • US$B




**AVERAGE PURCHASE PRICE AND DEBT MULTIPLES: US PE**

2000–24 (Mar 31)




Sources: Cambridge Associates LLC, Morningstar, Inc. LCD and PitchBook.

Note: Historical fundraising and paid-in capital data revise.

# US Venture Capital

Facts & Figures First Quarter 2024

US VC returns remained weak YTD through 3Q 2023 (-3.9%), extending on negative performance in 2022 (-20.9%). While this result underperformed public markets, the US VC index has generally outperformed over longer time horizons. Pre-money valuations plummeted in 2023, as fundraising and deal activity normalized. Exits were limited as the IPO market remained mostly closed. These trends showed nascent signs of stabilization in early 2024.

- US VC funds raised $80B in 2023, according to PitchBook, which marked a four-year low. This followed the exceptional prior two years, when more than $360B was raised. Fundraising in 1Q 2024 was soft at just $9B, on pace for the weakest haul since 2013. PitchBook noted that established managers secured 75% of capital raised in 2023, with capital raised by first-time funds falling to a seven-year low. Indeed, the average fund size in 2023 of $151M remained elevated, while the median fund size increased 35% to around $34M. US funds attracted 42% of global VC capital raised in 2023. For the decade ended in 2022, US VC accounted for 36% of global fundraising flows.

- US VC deal activity slowed to $166B in 2023, following the records of $350B and $242B reached in 2021 and 2022, respectively. While investment activity in 2023 tracked well-ahead of the pre-COVID pace, deals slowed further in 1Q 2024 ($37B). Two-thirds of deal activity was concentrated in the IT and healthcare sectors in 2023, roughly in-line with their trailing five-year average share. Late-stage VC deals made up two-thirds of activity, one of their largest shares on record.

- US VC valuations dropped almost across the board in 2023, and most acutely for later funding rounds. Median valuations for series C and D+ deals declined 31% and 48% in 2023, respectively. Valuations have stabilized in early 2024, due in part to only higher-quality venture companies securing financing amid a still-challenging environment.

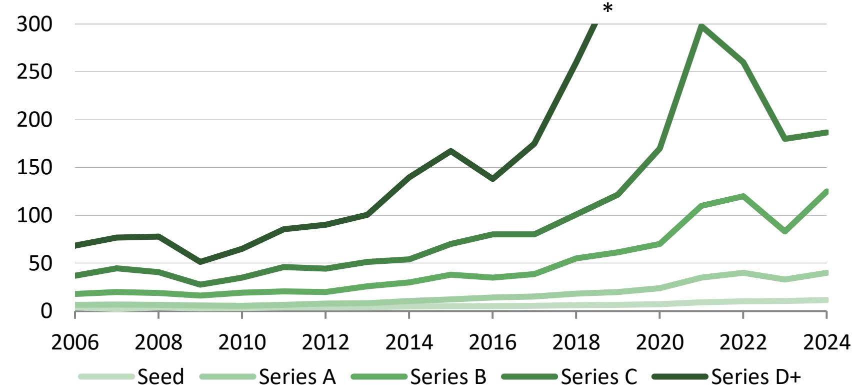
- Exit activity in 2023 ($66B) was the slowest since 2016 and the second straight year of exit value below $100B. Exits in 1Q 2024 ($18B) were bolstered by the successful IPOs of Astera Labs and Reddit. Recent slowing followed extraordinary exit activity in 2021 ($798B), when the value of IPOs surged to $676B. The number of IPOs and the public market's appetite for tech helped drive exit values in 2021. While IPO activity was just $29B in 2023, it already hit $13B in 1Q 2024.

## FUNDRAISING AND PAID-IN CAPITAL: US VC

Vintage Years 2000–24 (Mar 31) • U$B

## MEDIAN PRE-MONEY VALUATIONS BY SERIES: US VC

2006–24 (Mar 31) • U$M




* Y-axis capped for scale purposes. Latest value for Series D+ is 575.

Sources: Cambridge Associates LLC and PitchBook.

Note: Historical data revise.

# European Private Equity

Facts & Figures First Quarter 2024

European PE posted a solid return YTD through 3Q 2023 (4.2% in USD, 5.0% in EUR), remaining resilient despite ongoing macro headwinds. While this result underperformed public markets, European PE has outperformed over longer time periods historically. Fundraising activity hit a fresh record in 2023 and saw a strong start in 1Q 2024, while deal and exit activity has normalized to around pre-COVID averages.

- European PE fundraising hit a record at €126B in 2023, exceeding the prior high of €119B set in 2021. European PE funds have already raised €68B YTD in 2024. Recent fundraising has been concentrated in fewer funds, with median and average fund size both increasing to a record of €255M and €992M in 2023, respectively. This trend has continued, with just three funds accounting for nearly 80% of total fundraising in 1Q 2024. European funds attracted 23% of global PE capital raised in 2023, tracking in-line with their share in the decade ended 2022.

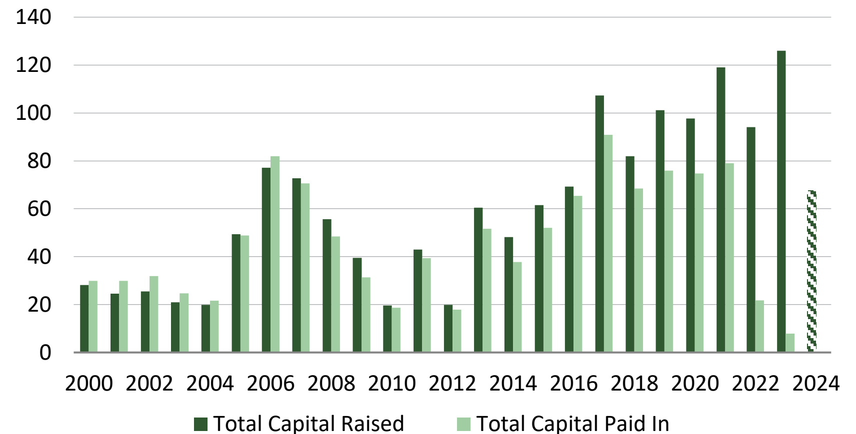
- Investment activity directed at European-based companies reached a total deal value of €438B in 2023. This slowed from deal values of just under €600B in both 2021 and 2022, but was still well-ahead of pre-COVID averages. Deal activity normalized further in 1Q 2024 at €70B. According to PitchBook data, average deal sizes fell in 2023 as add-ons have gained favor at the expense of megadeals (>€1B). Among sectors, IT comprised more than 20% of deal value in 2022–23, with investment in IT growing steadily over the past decade.

- According to PitchBook LCD, purchase price multiples (PPMs) declined for a third straight year in 2023 to 10.1x EBITDA. PPMs are now below their trailing ten-year average and back to 2014–15 levels. Leverage multiples have held steady at 5.8x in 2023. Equity contributions to LBOs turned higher in 2023 to 50%, back to levels last reached in 2020 (52%) and 2009–10 (53%).

- Total exit value held steady at €256B in 2023 (compared to €401B and €255B in 2021 and 2022, respectively), and was broadly in line with pre-COVID averages. However, exit value totaled just €36B in 1Q 2024. The value generated by IPO exits rebounded in 2023, although this was largely driven by the Arm public listing at just under €45B. Still, corporate acquisitions and secondary buyouts continue to account for the majority of exit value, which is the usual exit route for European PE.

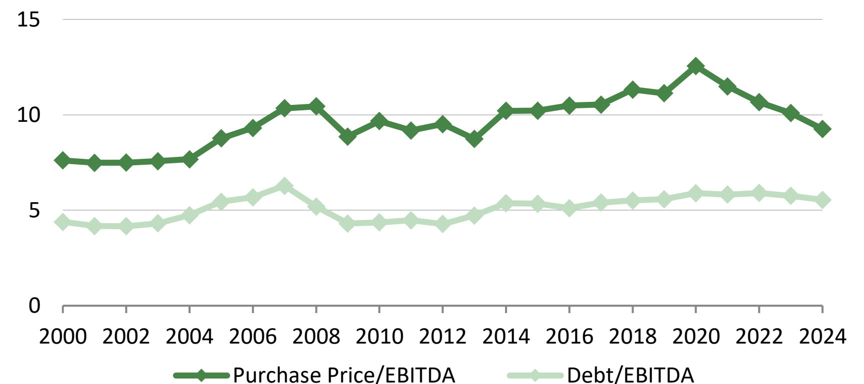
**FUNDRAISING AND PAID-IN CAPITAL: EUROPEAN PE**

Vintage Years 2000–24 (Mar 31) • Euro (Billions)




**AVERAGE PURCHASE PRICE AND DEBT MULTIPLES: EUROPEAN PE**

2000–24 (Mar 31)




Sources: Cambridge Associates LLC, Morningstar, Inc. LCD and PitchBook.

Note: Historical fundraising and paid-in capital data revise.

# European Venture Capital

Facts & Figures First Quarter 2024

European VC returns remained weak YTD through 3Q 2023 (-3.9% in USD, -3.2% in EUR), extending on negative performance in 2022. While this result lagged public markets, European VC has generally outperformed over longer time periods historically. Activity slowed across the board in recent quarters—particularly for exits—although pre-money valuations have held up better than their US counterparts.

- According to PitchBook data, European VC funds raised €18B of fresh capital in 2023, the lowest amount since 2018. In 2020–22, VC funds in Europe raised on average €29B per year. Capital raised in 1Q 2024 (€4B) was on pace with 2023. Larger fund sizes have bolstered activity in recent years—with the average fund size of $143M in 2023, its second highest level on record, trailing only 2017. Among all VC funds globally, European managers secured 10% of capital raised in 2023, which is in-line with recent averages.

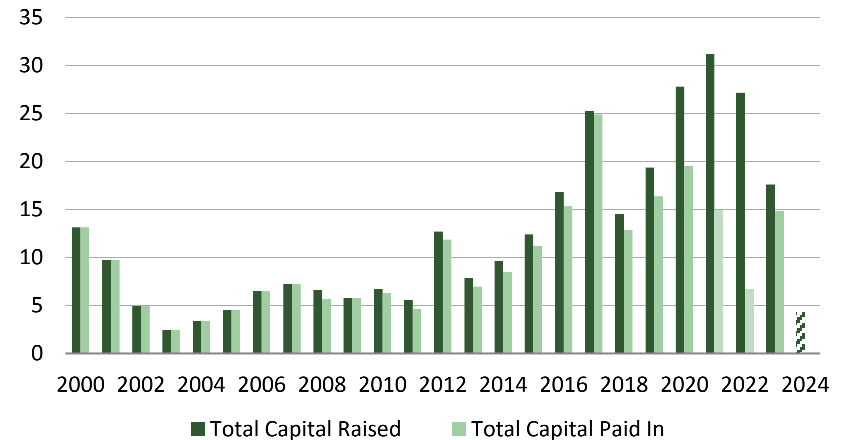
- Deal activity slowed in 2023, with €61B of capital invested in Europe-based businesses. This follows an average of more than €100B in the prior two years but was well ahead of the pre-COVID pace. In 1Q 2024, €16B was invested in European targets. According to PitchBook, late-stage venture saw the largest slowdown in 2023, whereas early-stage deals have been more resilient. IT accounted for roughly one-third of deal flow in 2023, which slowed from more than 40% in 2022 but remained the top sector for VC deal activity.

- Valuations rolled over somewhat in 2023, although not as severely as in the US. While they have rebounded at the seed and early-stage phases, later-stages have held steady just under €13B. The drivers of the longer-term uptrend in later-stage valuations were some very large financing rounds (evidenced by average valuations coming in at almost 14x the median valuation in 2021).

- Exit activity slowed to €14B in 2023 after surging to a record in 2021 (€156B). Exit values are now tracking below their pre-2021 five-year average of €24B. Exit activity has slowed considerably in recent quarters, with just €2B of exit value generated in 1Q 2024. IPO activity was exceptional in 2021, hitting €125B in value, an eleven-fold increase over 2020. While IPO activity was still solid in 2022 at €14B, it was just €1B in 2023. Value generated by M&A transactions was halved in 2023 (€27B in 2022 vs €13B in 2023).

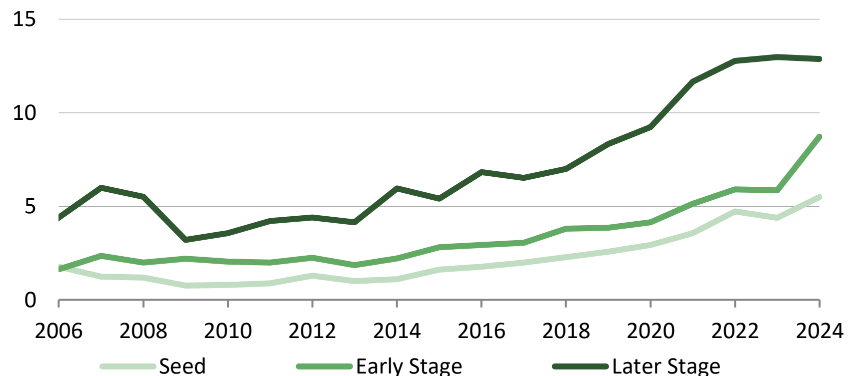
**FUNDRAISING AND PAID-IN CAPITAL: EUROPEAN VC**

Vintage Years 2000–24 (Mar 31) • Euro (Billions)




**MEDIAN PRE-MONEY VALUATIONS BY STAGE: EUROPEAN VC**

2006–24 (Mar 31) • Euro (Millions)




Sources: Cambridge Associates LLC and PitchBook.

Notes: Valuations are shown by stage (as defined by PitchBook) rather than by series due to small sample sizes. Historical fundraising and paid-in capital data revise.

C|A

# Asian Private Equity

Facts & Figures First Quarter 2024

Asian PE returned 2.2% in USD terms YTD through 3Q 2023, remaining resilient despite ongoing macro headwinds. Despite underperforming public markets in 2023, Asian PE has outperformed by a wide margin over longer time periods historically. In 2023, activity across fundraising, entry investment, and exits showed signs of a continued slowdown from 2022. Fundraising fell to the lowest level in a decade.

- Asian PE funds raised just $40B of new capital in 2023, the lowest since 2013. Fundraising of $10B in 1Q 2024 was on pace with the 2023 total. In the five years prior to 2023, annual fundraising by Asian PE funds averaged nearly $90B per year. Recent fundraising has been driven by fewer, larger funds, with the median fund size in 2023 climbing to a record high of $206M. Asian PE funds secured just 6% of global capital raised in 2023, which was less than half the region's take during the decade ending in 2022 (18%).

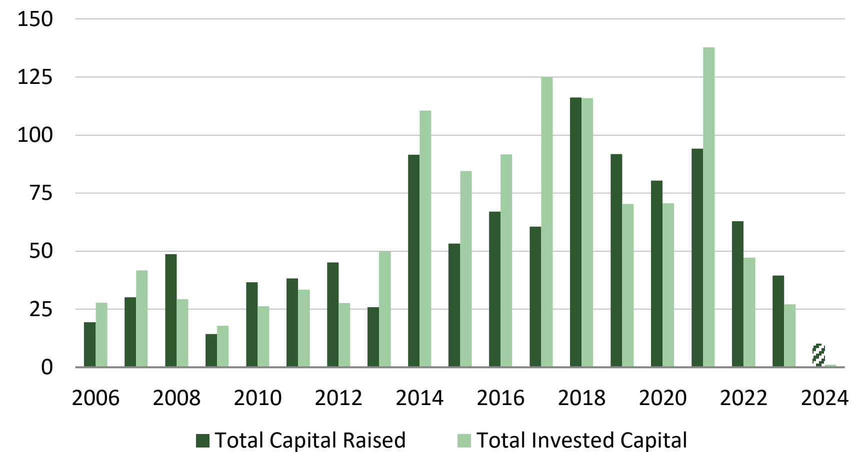
- Asia-based businesses attracted $118B of capital in 2023, following the flurry of activity in the prior two years when deal activity averaged around $150B per year. Despite the recent slowing, deals in 2023 were more in-line with their pre-COVID averages. However, the pace slowed further in early 2024, with $10B invested in 1Q. According to PitchBook, Australia-based companies received 24% of deal flow in 2023, followed by Japan (23%), India (22%), and China (12%). China's share of investment has declined in recent years, while the portion of regional capital deployed into Japan and India has increased.

- Buyout strategies were more prevalent than growth in Australia, Korea, and Japan, while the reverse has been true in China. Regardless of strategy, leverage has historically been modest or low, while valuations, especially in growth sectors, have been as high as those in other regions.

- Exit activity faltered in 2023. After averaging $130B of exit value per year in 2021–22, this value fell to $36B in 2023 (the lowest since 2013), according to Dealogic. M&A activity (the typical exit path in Asia) continued to account for the majority of exit activity (85%), which was squarely in-line with historical averages.

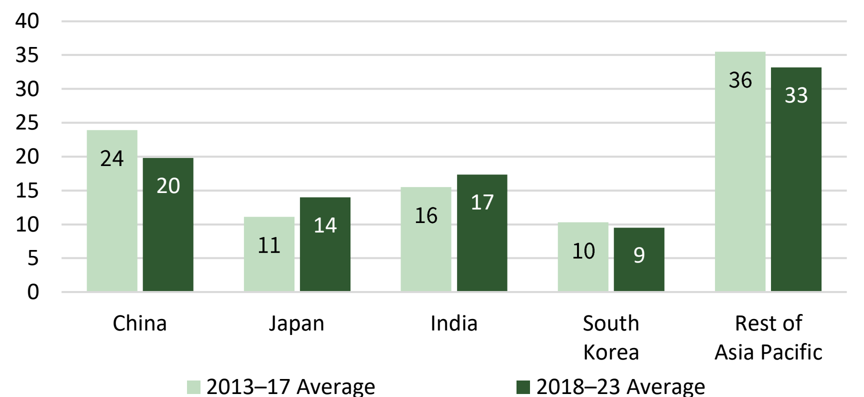
## FUNDRAISING AND INVESTED CAPITAL: ASIA-PACIFIC PE

2006–24 (Mar 31) • US$B




## PERCENT (%) OF INVESTED CAPITAL BY COUNTRY OF TARGET COMPANY

As of Mar 31, 2024




Source: PitchBook.

Notes: Total Capital Raised does not include Softbank Vision funds. For the top chart, invested capital includes deals where the investor is an Asia-based PE fund. For the bottom chart, invested capital includes PE deals where the target company is headquartered in Asia; data may not sum to 100 due to rounding. Historical data revises.

# Asian Venture Capital

Facts & Figures First Quarter 2024

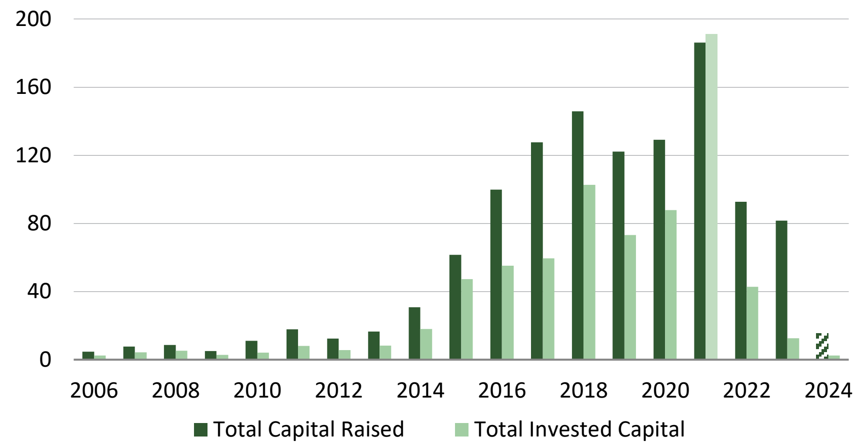
Asian VC returns remained weak YTD through 3Q 2023 (-3.7% in USD), extending negative performance that started in 2H 2021. While VC in Asia has lagged public indexes in recent quarters, it has outperformed by a wide margin over longer periods historically. Although activity has shown signs of slowing and later-stage valuations have come down, exits remained more available than in the US and Europe.

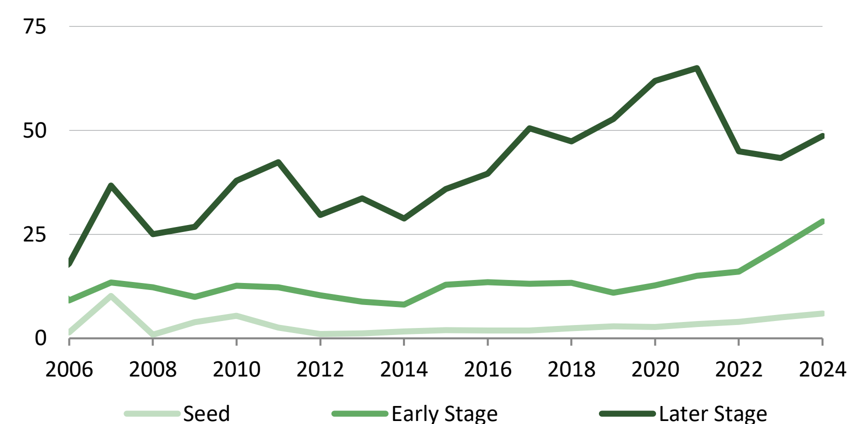
- Asian VC funds raised $82B in 2023, following the prior five-year average of more than $130B per year. Indeed, fundraising was the weakest since 2015, and on pace to slow again with just $15B raised in 1Q 2024. However, average fund sizes have steadily pushed higher over this time period, hitting a record at just under $100M in 2023. Despite the slowdown, Asia's share of global VC fundraising increased in 2023 to 44%. This was up from 30% in 2022, and broadly in-line with more recent averages.

- Global investors allocated $100B to Asia-based venture companies in 2023, the slowest pace since 2017. In the prior five years, deal activity averaged more than $160B per year. Asian VC managers invested just $13B in 2023, the lowest since 2013 and nearly $90B lower than the annual average of the previous five years. Chinese companies received 59% of invested capital in 2023, followed by India, Singapore, and Korea. IT accounted for more one-third of deal activity.

- Median pre-money valuations have fallen since 2021 across later-stage VC deals but continued climbing at earlier rounds. Later-stage valuations, which are most impacted by public markets, contracted $22M from their 2021 peak to year-end 2023, but rebounded in 1Q 2024. Consumer and IT valuations increased in 2022 and 2023, whereas health care valuations continued falling from their recent peak in 2021. These three sectors have historically dominated the Asia VC landscape.

- Exit activity slowed to around $145B in 2023, which was the slowest pace in four years. Although this exit value was down from the prior three-year average of around $285B, the exit environment looks healthy relative to pre-COVID levels. Additionally, VC-backed IPOs in Asia have held up better than their US and European counterparts, where public listings were mostly frozen over the past couple years. In fact, IPOs accounted for more than 90% of exit value in 2023.




Source: PitchBook.

Notes: Total Capital Raised does not include Softbank Vision funds. Invested capital includes deals where the investor is an APAC-based VC fund. Valuations are shown by stage (as defined by PitchBook) rather than by series, due to small sample sizes. Historical data revises.

# REAL ASSETS

C|A CAMBRIDGE ASSOCIATES

# Developed Markets Property Securities

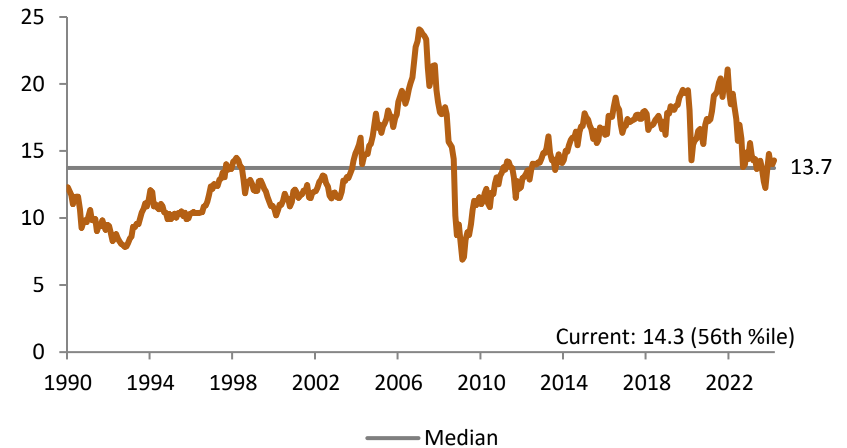
Facts & Figures First Quarter 2024

DM property securities returned -1.0% in USD terms in 1Q. A decrease in the spread between DM property security yields relative to government bond yields attributed to the decline. Higher growth forecasts caused policy rate expectations to remain evaluated for longer. This moved bond yields higher and was a headwind for rate sensitive DM property securities. Over the last 12 months, DM property securities have returned 8.6% but have lagged board DM equities by more than 16 ppts.

- DM property securities trade at 14.3x normalized funds from operations, which is higher than 56% of historical data going back to 1990. Furthermore, property securities offer a yield spread of just 0.8% over government bonds, well below the long-term median of 1.7%. Spreads narrowed during the quarter as government bond yields increased due to upside surprises in economic data.
- The global economy is expected to grow 2.8% in 2024, according to analysts surveyed by Bloomberg in March. This is up 20 bps from the 2.6% forecast last quarter. Furthermore, DM economies have also had 2024 upside growth surprises increasing from 1.1% to 1.5% over the quarter. The increase in DM growth forecasts is mainly driven by upside surprises in the US where forecasts have increased 90 bps to 2.2%.
- A key concern for property investors is the pandemic's long-term impact on consumer and business preferences. For instance, while funds from operations of broad DM property securities have recovered from the pandemic, some sectors such as offices, hotels, and retail, remain below 2019 levels. Conversely, other sectors such as industrials and residential, have fared far better growing funds from operations.
- Real estate is a capital-intensive business, which uses debt to finance its growth to a greater degree than other sectors. Still, developed property securities' leverage has fallen since the GFC, with net debt as a percentage of total assets at 39% at the end of 1Q relative to the 42% at the beginning of 2010. The current level of leverage is below the average over the last two decades and reflects more discipline in capital markets.

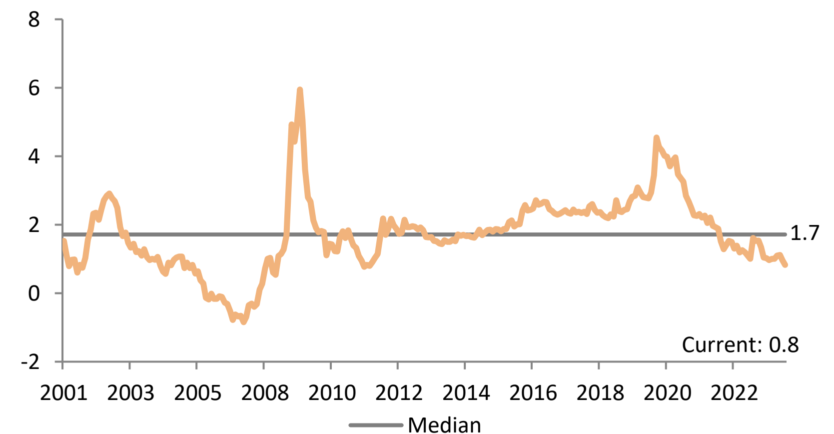
## NORMALIZED PRICE-TO–FUNDS FROM OPERATIONS MULTIPLE

Jan 31, 1990 – Mar 31, 2024




## SPREAD BETWEEN DY AND GLOBAL GOVT BONDS

Oct 31, 2001 – Mar 31, 2024




Sources: EPRA, FTSE International Limited, J.P. Morgan Securities, Inc., National Association of Real Estate Investment Trusts, and Thomson Reuters Datastream.

# US Private Property

Facts & Figures First Quarter 2024

US property returned 4.6% annualized over the last three-year period at the asset level, according to NCREIF Property Index data as of 4Q. That return masks considerable sector dispersion, with industrial properties returning 16.3% annualized over the same period, while office returned -5.5%. Retail was only the segment where returns improved versus 3Q. Factors, such as tighter financial conditions, increased supply, and continuing trend of working-from-home, have weighed on the sector.

- Capitalization rates, or cap rates, have steadily fallen since the end of the GFC. While levels remain relatively low, cap rates began to inflect upwards in 4Q 2023 as tighter financial conditions in a higher interest rate environment weighed on the sector. Across sectors, cap rates are lowest within industrial (3.9%) and apartments (4.1%) and highest within office (5.5%) and retail (5.4%).

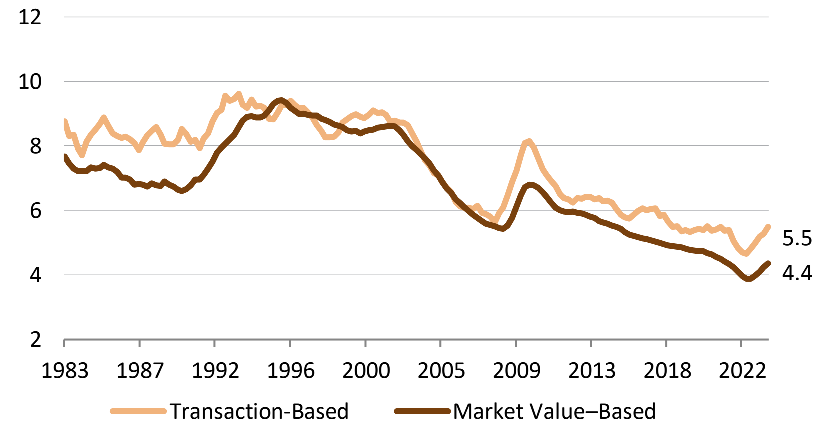
- Four-quarter NOI growth rate, at an aggregate level, declined modestly versus 3Q 2023 at 5.38% but is over 20% higher than the recent 2Q low. The retail sector has rebounded from years of stress; however, 4Q growth of 2.8% was lower than 4Q 2022 (4.5%). While office NOI growth of 1.5% is positive, it is notably below the 3Q rate of 4.5% and 4Q 2022 rate of 3.7% as the sector continues to work through supply/demand imbalances. Industrials NOI growth of 12.3% improved from 9.8% in the prior quarter and is now in line with the rates enjoyed over the past two years. Apartment NOI growth (4.4%) improved sequentially, whoever it is less than half the rate of 4Q 2022, as the market contends with higher supply.

- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end.

- New commercial real estate construction collapsed following the GFC, and, while it has been minimal for most of this cycle, construction has picked up in recent years. YTD total construction ending in February is 11.3% higher than the same period in 2023, although spending has been trending down since the recent nominal peak in December 2023.

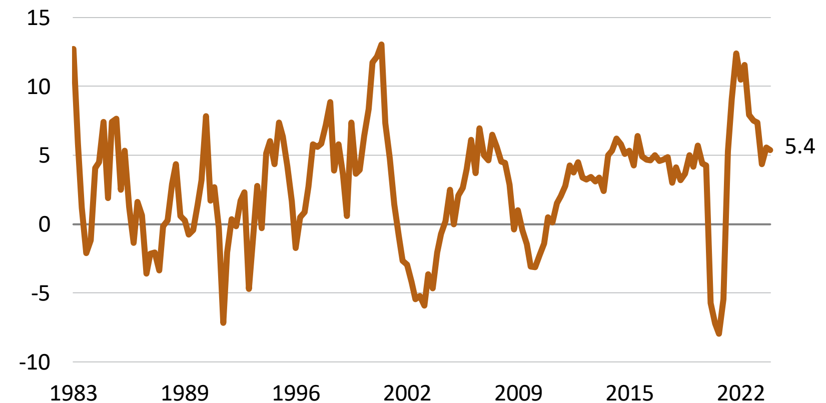
## ALL PROPERTY CAP RATES

Second Quarter 1983 – Fourth Quarter 2023 • Percent (%)




## FOUR-QUARTER ROLLING NOI GROWTH

First Quarter 1983 – Fourth Quarter 2023 • Percent (%)




Source: National Council of Real Estate Investment Fiduciaries.

# UK Private Property

Facts & Figures First Quarter 2024

UK private property returned 1.6% annually over the last three-year period at the asset level, according to the unlevered MSCI UK Quarterly Property Index as of 4Q in GBP terms. Returns are markedly lower as monetary tightening in the economy takes hold. Industrial performance was strongest at 6.6%, and all other sectors posted low single-digit to negative mid single-digit returns.

- After dipping to a low of 5.1% in mid-2022, yields across all UK investment properties increased to 7.1% as the BOE monetary policy remained restrictive. According to data from the UK government, non-residential monthly transactions are 4% higher than February 2023, on a seasonally adjusted basis, and running only 2.5% higher than 2015. Vacancy rates have also increased recently, almost 2 ppts higher than levels seen at the beginning of the COVID-19 pandemic. Ongoing affordability concerns and higher government yields may mean transaction activity continues to be modest in 2024.

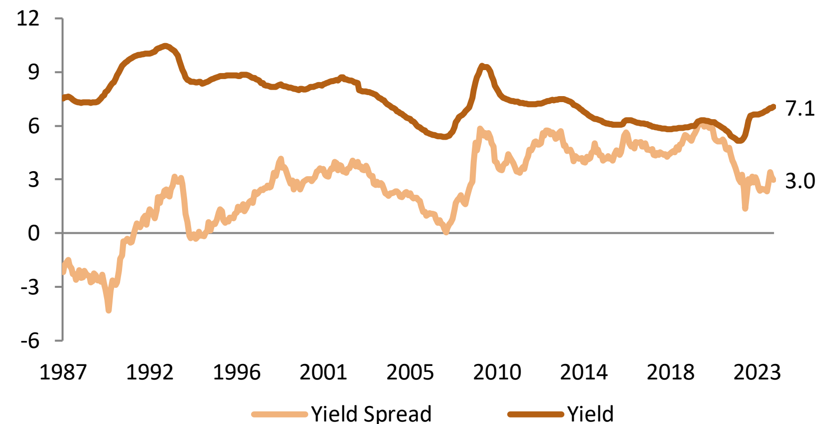
- Property yields can be sensitive to changes in government rates. As government rates have increased, property's yield spread has fallen to 3.0. The current spread is lower than the ten-year average (3.8 ppts), which suggests the asset class's attractiveness relative to gilts has declined in recent quarters.

- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end.

- As of 2022, the UK commercial real estate market is estimated to be roughly $881B, according to MSCI Real Estate—$31 higher YOY. It is the largest market in Europe and is followed by Germany's roughly $793B market. The UK commercial real estate market is composed primarily of retail, office, and industrial properties, with the industrial sector being the largest sector in the country.

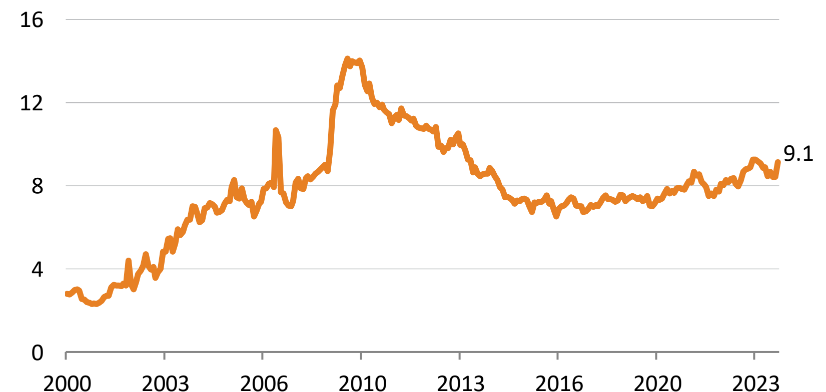
## ALL PROPERTY EQUIVALENT YIELDS AND SPREADS

Dec 31, 1987 – Feb 29, 2024 • Percent (%)




## VACANCY RATE

Jan 31, 2000 – Feb 29, 2024 • Percent (%)




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

Notes: The MSCI Real Estate index measures returns to direct investment in commercial property. Initial yield is current net income divided by gross capital value.

# Europe ex UK Private Property

Facts & Figures First Quarter 2024

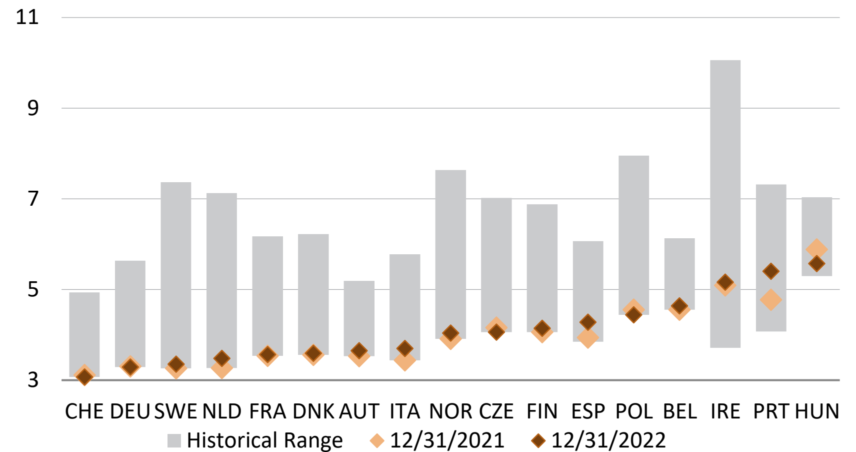
Continental property returned -4.7% annually over the last three-year period at the asset level, according to the unlevered MSCI Global Property Fund Index data as of 4Q 2023 in local currency terms. At a sector level, retail returned 0.1%, while residential, industrial properties, and office returned -1.1%, -5.0%, and -6.3%, respectively. Properties face challenges, including affordability, given the impact of higher interest rates and tighter lending conditions.

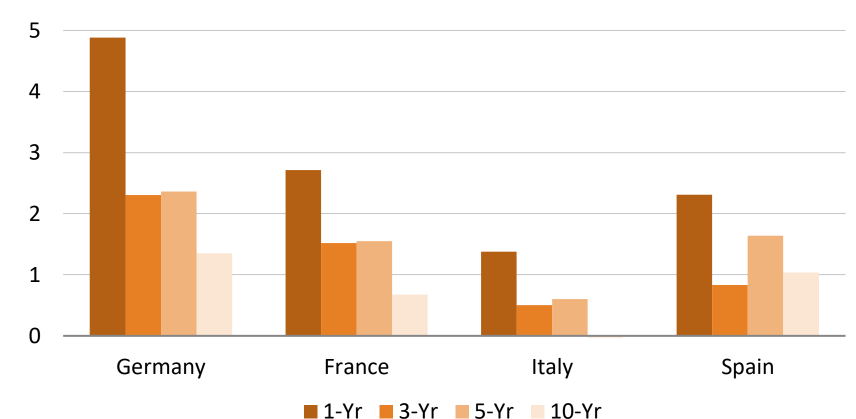
- Property yields across most European countries have steadily decreased over the last decade. Top markets, such as Germany and France, have property yields near the lowest level for which data are available, according to MSCI Real Estate. But it seems reasonable to expect property yields to come under pressure, given the increase in sovereign yields recently.

- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end, while the Eurozone is expected to grow at 0.5%.

- Investment in European commercial real estate fell 30% in 4Q relative to 2022, and is down 47% on TTM basis, according to CBRE. The office sector saw the largest decline, down by 61% YOY, as affordability due to higher rates has become a concern. Meanwhile, hotels were the strongest, down only 13% YOY. Of the top seven countries in the region, Germany, France, and Netherlands saw the worst declines in investment, down 56%, 55%, and 53%, respectively.

- The top two largest commercial real estate investment markets across Europe, excluding the UK, are Germany and France. MSCI estimates the size of all commercial real estate in 2022 in those two markets to be roughly $793B and $610B, respectively. Offices make up a large portion of both Germany and France's commercial real estate markets. Indeed one-year rents in these countries have led and outpaced three-,five- and ten-year growth rates.




Source: MSCI Real Estate. MSCI data provided "as is" without any express or implied warranties.

# Asian Private Property

Facts & Figures First Quarter 2024

**Asian property returned 3.2% annually over the last three-year period at the asset level, according to MSCI Global Property Fund Index data as of 4Q 2023 in USD terms. At a sector level, retail delivered the best results, returning 3.9%, whereas industrials had the lowest returns of 2.7%, over the same period.**

- Property yields in many markets have steadily decreased since the GFC. Two top markets, Australia and Japan, have property yields near or at the lowest level for which data are available, according to MSCI real estate data. Property yields in some countries, such as Australia, have begun to see upward pressure, given sovereign yields have increased.

- Vacancy rates held mostly steady through the pandemic for many markets. But many properties have multi-year leases, so they make not reflect changed consumer and work life preferences. In some geographies with higher frequency data, higher office and retail vacancy rates have been observed.

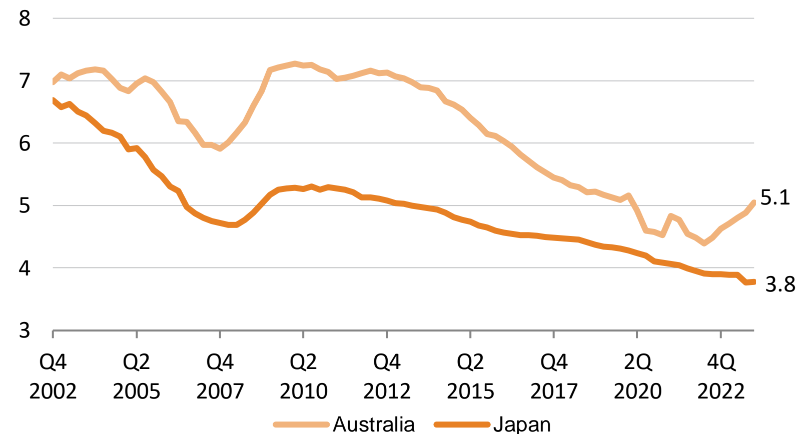
- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end.

- Asia-Pacific real estate total investment volume fell by 36% YOY in 4Q according to CBRE. Japan outperformed in 2023 but still saw volumes decrease 15% YOY, while China, Australia, and Singapore saw material declines. Recovery in office continued in Q4, with net absorption 65% higher in the last two quarters versus the 1H23. Office capital values decreased 7.7% YOY dragged down by Greater China, Tokyo, and Australia.

- Property investors continue to focus on six primary locations in Asia Pacific: China, Japan, Hong Kong, Australia, South Korea, and Singapore, which account for most of the property transactions in the region. The focus as it relates to Asian properties (ex Australia) has been primarily from investors within Asia.

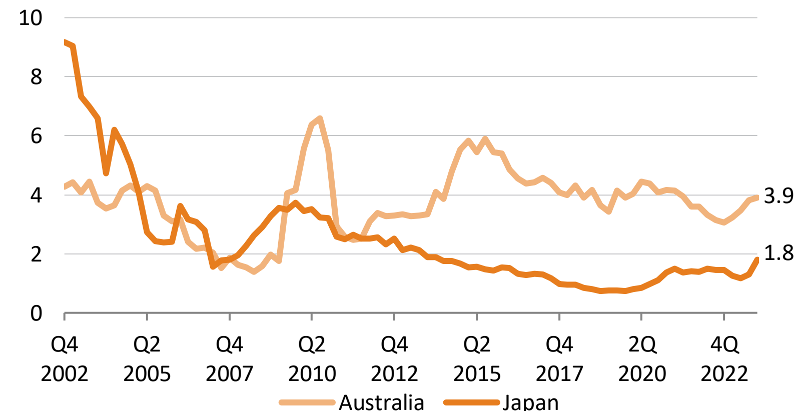
## PROPERTY YIELDS

Fourth Quarter 2002 – Fourth Quarter 2023 • Percent (%)




## VACANCY RATES

Fourth Quarter 2002 – Fourth Quarter 2023 • Percent (%)




Source: MSCI Real Estate. MSCI data provided "as is" without any express or implied warranties.

Note: Japan third quarter 2023 data are as of November 30.

# Private Infrastructure

Facts & Figures First Quarter 2024

Private infrastructure returned 11.5% annualized over the last three-year period, according to the Cambridge Associates Infrastructure Index as of 3Q 2023. This index, which calculates horizon internal rates of return, net of fees, expenses, and carried interest, returned 10.5% annualized over the last ten-year period. Albeit more recent returns have been relatively modest in the face of tighter financial conditions. Developed markets contributed the bulk of the return. The industry benefited from stable demand and increased interest among institutional investors.

- Infrastructure companies transacted at 11.7 times EBITDA over the prior 12-month period, which is in line with the industry's long-term average level. Broadly speaking, institutional investors have been increasingly attracted to brownfield infrastructure investments, as an effort to generate portfolio income and protect against inflation.

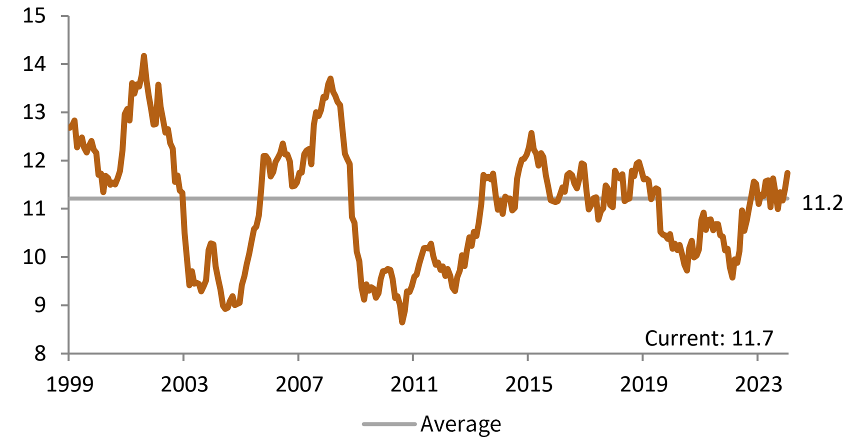
- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end.

- Global infrastructure transaction values trailed 2022 in 2023. Thus far in 2024, global refinancing, greenfield, and brownfield deals accounted for 12%, 30%, and 57% of deal volume, respectively. Energy and renewables were the top two sectors for investment, accounting for 32% and 18%, respectively, of deal volume.

- Global infrastructure PE fundraising slowed considerably, declining by more than 40% YOY in 2023. Annualizing 2024 activity points to a nearly 12% improvement in volumes versus last year. Direct investments by pension funds and sovereign wealth funds in infrastructure assets have increased in recent years. Direct investments can offer attractive return potential, given fees are generally lower, and they allow investors to build custom exposures.

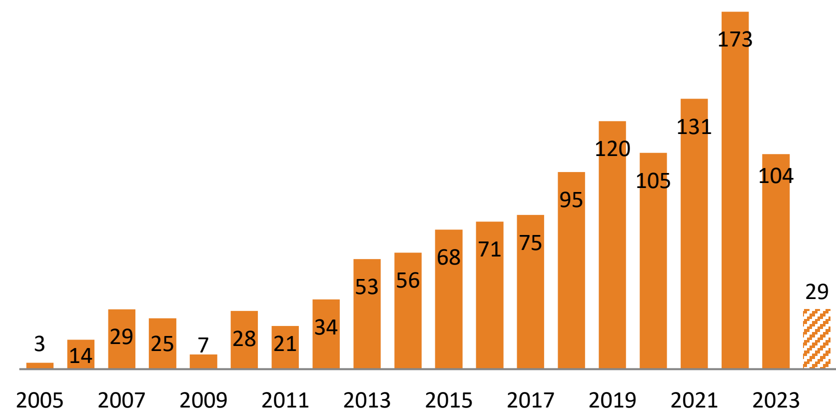
## PRICES OF TRANSACTIONS (EV/EBITDA)

Mar 31, 1999 – Mar 31, 2024 • Rolling 12M Average




## GLOBAL CAPITAL COMMITMENTS TO INFRASTRUCTURE PE FUNDS

2005–24 • US$B




Sources: Dealogic and InfraDeals.

Notes: Data are monthly and represent the trailing 12-month average EV/EBITDA for all infrastructure transactions. Historical data revise. 2024 capital comitments data are through March 31.

# Natural Resources Equities

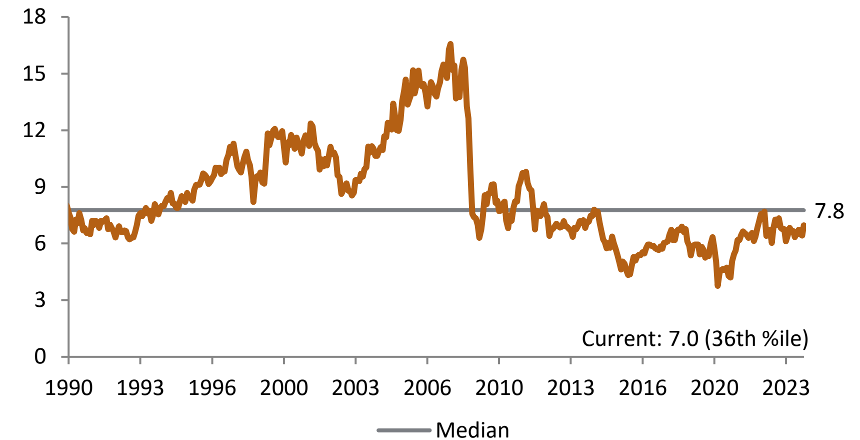
Facts & Figures First Quarter 2024

**Natural resources equities returned 6.4% in 1Q according to the MSCI World Natural Resources Index in local currency terms. Performance during the quarter was largely driven by more supportive supply/demand dynamics for commodities.**

- Natural resources firms trade at 7.0 times cyclically adjusted price-to–cash earnings, which ranks in the 36th percentile of month-end observations dating back to 1990. While valuations remain rangebound and below the median level of 7.7x, the multiple did expand by 0.5x versus 4Q 2023. NREs rallied as oil prices rose by around 12% on fears that OPEC+ would extend its production cuts driving the market into a supply deficit. Some industrial metals prices also rose on news of a rebound in Chinese industrial activity.
- Low investment levels contributed to the rise in oil & gas prices in recent years, with capital expenditures hitting at trough of 4.5% of total assets in 2021. However, as prices have recovered, capital expenditures have rebounded to levels not seen since late 2016. Increased spending resulted in the number of rotary rigs operating around the world in 2023 to increase by nearly 4% versus 2022 and 34% versus 2020. Rig count in 1Q is also 3% higher sequentially. Still, these spending levels are lower than those that led to a severe glut in energy commodities and the rig count remains far lower than the ~3,000 rigs that operated on average between 2010 and 2016.
- A key consideration for investors is the extent that renewable energy could undercut future hydrocarbon demand. Indeed, the recent COP28 called for a possible tripling of renewables capacity by 2030, while encouraging a phase down of fossil fuel usage. Some long-term energy analyses, such as the US Energy Information Administration's 2023 Annual Energy Outlook reference case, highlight that oil and natural gas may continue to be a dominant energy source for decades. Still, long-term energy forecasts have wide confidence intervals, and investors would be wise to carefully consider how different future energy scenarios may impact their portfolios. On the other hand, natural resources equities may attract more investor interest, as weaning off fossil fuels supports demand for certain metals to facilitate the transition to net zero.

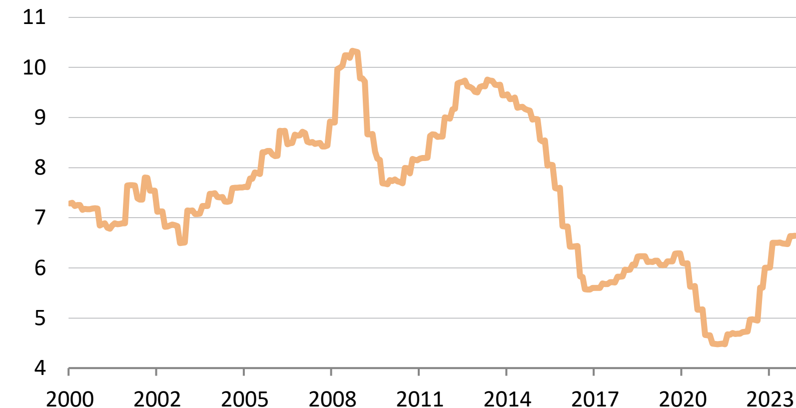
**CYCLICALLY ADJUSTED PRICE-TO–CASH EARNINGS**

Dec 31, 1989 – Mar 31, 2024




**CAPITAL EXPENDITURES**

Jan 31, 2000 – Mar 31, 2024 • Percent (%) of Total Assets




Source: Thomson Reuters Datastream.

Notes: Natural resources equities are made up of constituents in the Datastream World Energy Index and the Datastream World Basic Resources Index, weighted on a market-capitalization basis. Historical data revise.

# Commodity Futures

Facts & Figures First Quarter 2024

**The Bloomberg Commodity Index returned 2.2% in 1Q in USD terms, while the more energy-heavy index S&P GSCI™ was up 10.4% driven by price increases in underlying commodities. Industrial metals were supported by a rebound in Chinese industrial activity, while oil prices were up around 12% on fears that OPEC+ production cuts would be extended.**

- Commodity spot prices are just above the ten-year inflation-adjusted mean, using the constituents and weights associated with the Bloomberg Commodity Index. Prices reflect supply/demand issues unique to commodities. Robust economic data and improving demand expectations have buoyed prices. Oil markets may now enter a supply deficit if OPEC+ continues with its production cuts.

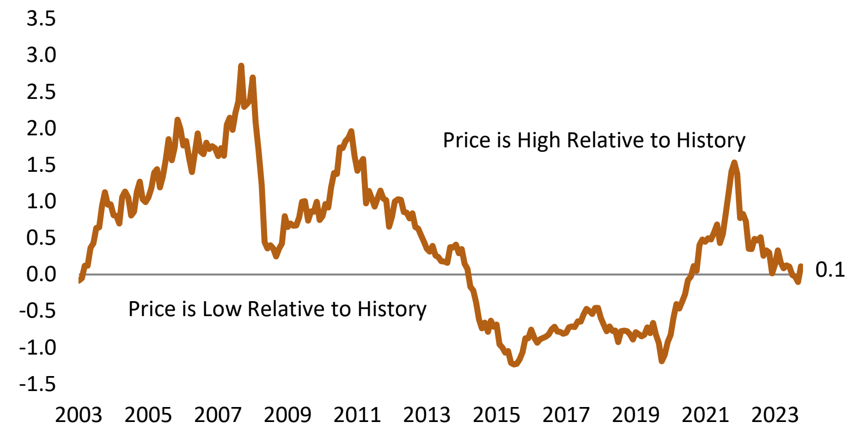
- The global economy is expected to grow by 2.8% and 3.0% in 2024 and 2025, respectively, according to analysts surveyed by Bloomberg in March, marginally below the expected growth in 2023 (2.9%). The 2024 estimate has improved slightly from 4Q (2.6%). Growth expectations for 2024 are highest for Asia ex Japan (4.8%) and China (4.6%). Growth expectations for developed markets are modest at 1.5%, led by the US (2.2%), contrasted by the UK at 0.3% on the low end.

- The performance of commodity futures consists of the returns linked to spot price changes, rolling a futures contract forward as it comes due, and the cash used to collateralize the contracts. When the markets are in contango, meaning near-dated contracts are cheaper than contracts dated farther out, the roll return can detract from commodity index returns. After being in backwardation since late 2020 markets are in contango again, reflecting expectations of economic uncertainty and weaker demand in the near term.

- Two frequently referenced commodity benchmarks are the Bloomberg Commodity Index and the S&P GSCI™. The former is a world production- and liquidity-weighted index, with restrictions on individual commodity and commodity subsector sizes to promote diversification. The latter is a world production-weighted index of liquid futures contracts, which has most of its exposure in energy. While both indexes only hold near-month futures contracts, many active managers have the capability to buy contracts all along futures curves.

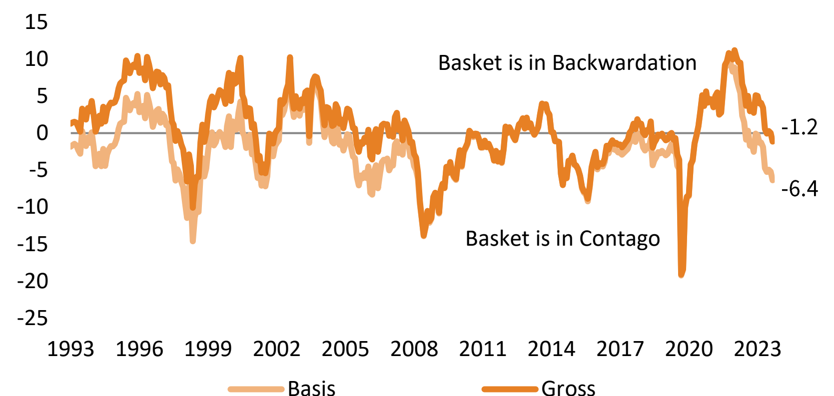
**COMMODITY FUTURES BASKET PRICE DEVIATION**

Jun 30, 2003 – Mar 31, 2024 • Z-Score




**COMMODITY FUTURES BASKET INDICATIVE ROLL YIELD**

Jul 31, 1993 – Mar 31, 2024 • Percent (%)




Sources: Bloomberg L.P. and Thomson Reuters Datastream.

Notes: Exhibits are based on the current futures and weights of the Bloomberg Commodity Index. Price deviation is the weighted z-score of commodity futures using ten years of trailing data. Basis is the roll yield's weighted percentage difference of front month contract relative to contracts one year later. Gross is the roll yield plus cash yield.

# Gold

Facts & Figures First Quarter 2024

**The price of gold climbed 7.2% in 1Q, ending the quarter at $2,214/troy ounce, an all-time nominal price high. Gold's rally has been unusual given the lack of typical supporting fundamentals, but geopolitical risks and speculative flows appear to be factors driving gold prices higher. For the last 12 months, gold has advanced 12%.**

- Gold has surged in 2024, even as the dollar has strengthened and yields have moved higher. Typically, those moves would create challenging backdrop for gold—specifically the rise in real yields, which raises the opportunity cost of holding a non-interest–bearing asset like gold. But gold has defied these negative fundamentals, suggesting that other factors are at play.

- Investors may still be looking ahead to future rate cuts as a supportive factor for gold. Futures markets are still pricing two Fed policy rate cuts by December of this year—albeit far fewer than what was priced in just a few months ago. If inflation remains stubborn and the Fed is forced hold rates at current levels or hike again, this would be expected to negatively impact gold.

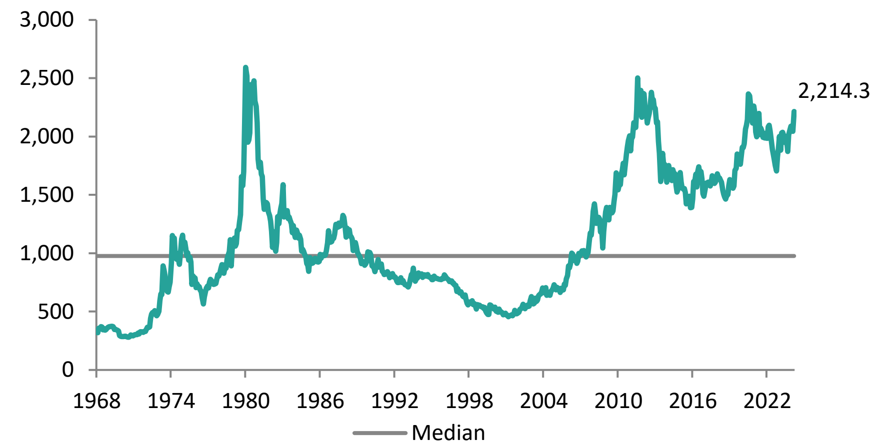
- In addition, geopolitical tensions remain elevated. They increased last year with the outbreak of the Israel-Hamas conflict, and measures of geopolitical risk are elevated. Historically, the price of gold has often climbed during periods of geopolitical uncertainty, given its reputation as a safe-haven investment.

- There are several low-cost, physically backed gold ETFs that track the price of gold without requiring physical storage. While these "paper gold" products offer liquidity, they also carry counterparty risk. Physical gold, which provides investors with a tangible asset, is subject to purchase premiums and storage fees. However, these fees are typically in the low-single digit basis point range.

- Gold has an expected real return of zero over the long term, which makes it problematic for institutions tasked with meeting a real spending objective. However, it provides a hedge against conditions that are hostile to capital markets.

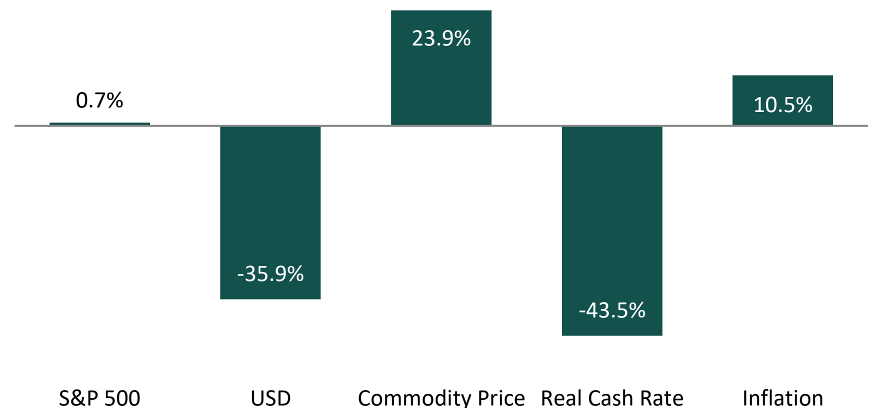
**GOLD BULLION REAL PRICE**

Jan 31, 1968 – Mar 31, 2024 • US Dollars per Troy Oz




**LONG-TERM CORRELATION VS GOLD PRICES**

Dec 31, 1970 – Mar 31, 2024




Sources: Intercontinental Exchange, Inc., Standard & Poor's, and Thomson Reuters Datastream.

Notes: Real prices are inflation adjusted to today's dollar. Data for CPI-U are through February 29, 2024.

# CURRENCIES

C|A CAMBRIDGE ASSOCIATES

# USD vs Developed Markets Currencies

Facts & Figures First Quarter 2024

The US dollar rose by 3.2% in 1Q 2024 in nominal trade-weighted terms. Interest rate differentials widened somewhat during the quarter, while the continued strong economic outperformance and modest risk asset outperformance also supported the currency. The still-rich real valuation of the dollar suggests the multi-year direction of travel will likely be lower. However, a continuation of growth outperformance and an eventual recessionary environment could yet offer short-term support.

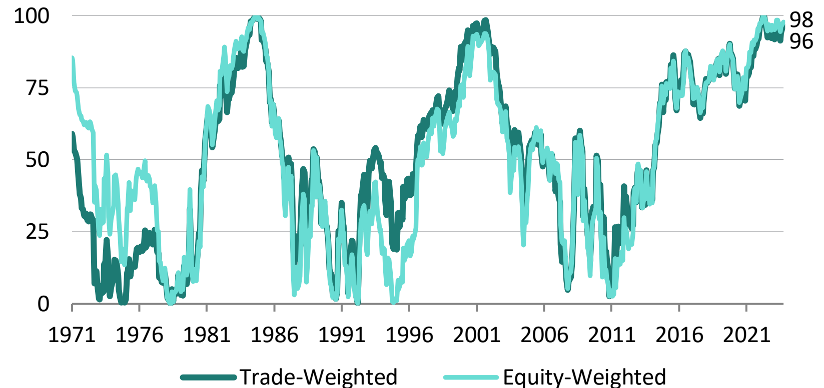
- A widening in interest-rate differentials between the US and its peers, as a result of an earlier rise in inflation and a more hawkish Fed, was the main plank of dollar strength since this rally began in mid-2021. The bulk of this widening had played out by October 2022 and there has been something of a range trade since. The market is now pricing in a broadly similar number of cuts across the US, eurozone, and UK during 2024. A weaker growth impulse and softer sequential inflation may see peers of the US require greater easing than in the US itself in the coming quarters.

- Risk aversion has also played a role in the post-COVID dollar rally. This was initially due to factors such as COVID-induced inflation and the war in Ukraine, and at times due to risk market declines. The perception of increased odds of a soft landing, as rate cuts got priced in, resulted in some weakness in the dollar toward the end of 2023. That has partially reversed in 1Q, albeit continued strong economic data in the US has maintained hopes for a soft landing even as the number of previously expected rates cuts decline. The cumulative impact of delivered tightening still holds some chance of a more pronounced slowdown eventuating. The dollar has rallied during each of the past seven US recessions, by a median of 4.5%.

- The US dollar remains richly valued on a longer horizon. Its real effective exchange rate stands at the 96th and 98th percentiles for the trade- and equity-weighted series. Further easing of US rate expectations versus peers, but absent any serious global or US recessionary fears, would be the most potent potential catalyst for USD weakness. A hawkish pivot by the Bank of Japan would be an alternative source of dollar selling.

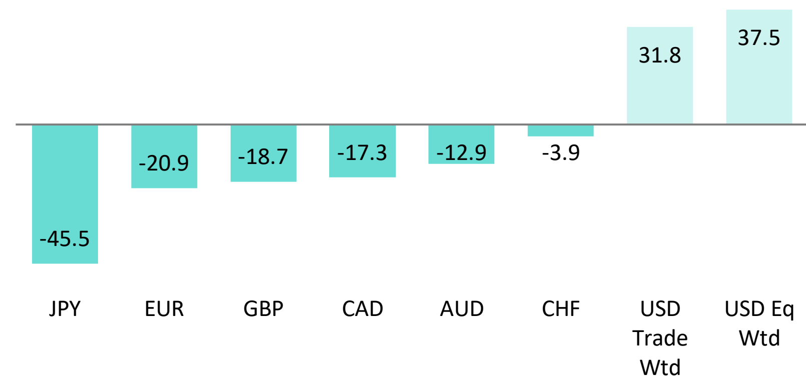
**USD BASKET REAL EXCHANGE RATE PERCENTILE**

Jun 30, 1971 – Mar 31, 2024




**REAL EXCHANGE RATE VS THE USD: % FROM MEDIAN**

As of Mar 31, 2024




Sources: MSCI Inc., National Sources, OECD, Refinitiv, Thomson Reuters Datastream, and US Federal Reserve. MSCI data provided "as is" without any express or implied warranties.

Notes: Australian inflation data are quarterly and as of December 31, 2023. All other inflation data are as of February 29, 2024.

# Emerging Markets Currencies

Facts & Figures First Quarter 2024

EM currencies, as measured by an equal-weighted basket, fell by 3.3% in 1Q 2024, reversing the rise of the same magnitude from the prior quarter. US economic data has been firm enough to remove some of the interest rate cuts that has previously been expected, with the resultant dollar strength weighing on EM currencies. The medium horizon outlook should be helped by an eventual weaker dollar, though global growth risks introduce some shorter horizon uncertainty.

- EM currencies are highly sensitive to global growth prospects. Therefore, impairment of global supply chains, fears of a policy-induced economic slowdown and geopolitical risks have all proved headwinds at various times post-COVID. The recent boost in global growth estimates proved beneficial to EM currencies when it was accompanied by an expectation of US rate cuts. Now that firmer data is seeing previously expected cuts removed, the dynamic has reversed for EM currencies.

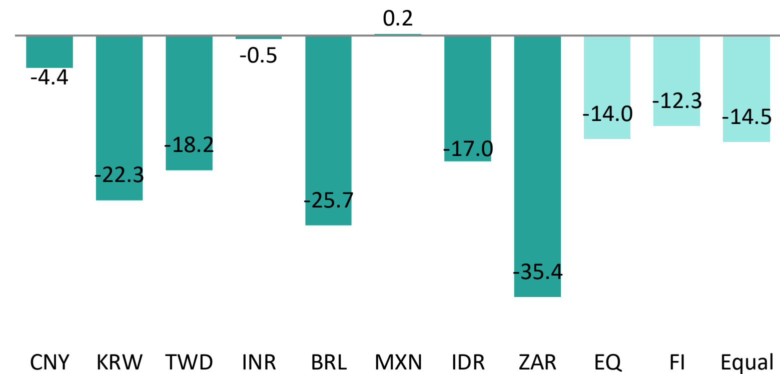
- EM central banks acted earlier and more aggressively in response to the post-COVID surge in inflation. These actions paid dividends last quarter, with inflation rolling over and growth-supportive rate cuts being priced into several interest rate markets, supporting EM currencies. However, the most recent quarter saw both growth and interest rate differentials move against EMs, weighing on their currencies.

- In general, interest rates in Asia didn't rise as much as elsewhere in EM during the COVID-19 period. As a result, Asian bonds and currencies have traded with a lower beta than their peers during broad risk-on and risk-off periods. This stood to the Asian heavy equity–weighted index in 1Q, as its -2.5% decline saw it outperform both the debt-weighted (-2.8%) and equal-weighted indexes. The valuation of the fixed income and equity-weighted EM currency baskets are, both well below their historical medians.

- The carry of EM currencies has declined since the end of 2021 as the interest rate differential with DM markets has narrowed, due to the increased number of hikes delivered by the latter and some expected cuts in the former. The cost of hedging out the FX exposure of EM equities is now negative 0.9% for a USD-based investor, near its lowest levels. It costs 1.2% to do likewise for EM local bonds, the lowest differential since data began two decades ago.

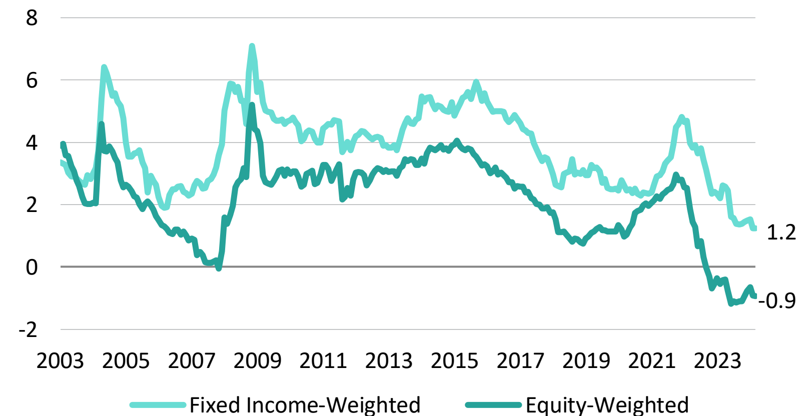
**EM REAL EXCHANGE RATE VS USD: % FROM MEDIAN**

Jan 31, 1994 – Mar 31, 2024




**EMFX IMPLIED CARRY**

Jan 31, 2003 – Mar 31, 2024 • Percent (%)




Sources: Directorate-General of Budget, Accounting and Statistics, Executive Yuan, Taiwan; INE - National Institute of Statistics, Chile; International Monetary Fund; J.P. Morgan Securities, Inc.; MSCI Inc.; National Bureau of Statistics of China; Refinitiv; Thomson Reuters Datastream; and US Department of Labor - Bureau of Labor Statistics. MSCI data provided "as is" without any express or implied warranties.

# GBP vs Developed Markets Currencies

Facts & Figures First Quarter 2024

The pound rose by 1.2% in trade-weighted terms in 1Q 2024, following on from the prior quarter's 1% rise. Despite a narrowing rates differential versus its peers, a softening inflation picture and improving global growth picture helped to lift sterling. The consensus outlook for the United Kingdom remains weak with UK GDP growth expected to lag that of its peers during 2024.

- The Bank of England kept its policy rate unchanged at 5.25% during the quarter, with its hiking cycle now completed. While inflation continued to slow over the quarter, UK interest rates rose, albeit more modestly than peers, resulting in narrowing rates differentials. Nonetheless, this did not transpire to be a headwind for sterling in the first quarter. A broadly similar number of rate cuts are expected across the UK, US, and euro area during 2024.

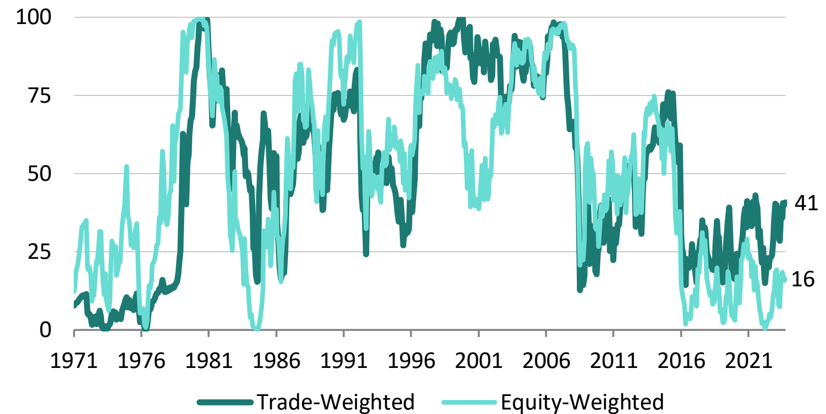
- The UK's structural current account deficit and the greater prevalence of cyclical sectors in the country's asset markets, gives sterling a propensity to behave as a risk-on/risk-off currency. Therefore, with risk assets continuing to perform strongly on growing hopes of an economic soft landing, this contributed toward sterling appreciating against most peers during the quarter, with the exception of the US dollar.

- The USD dominates the equity-weighted index, with a weight of 75%, given its dominance of the MSCI World index. The dollar could stay supported in the near term on growth outperformance and global recession fears, however, in the medium term, improved global growth, further Bank of Japan tightening or an eventual Fed cutting cycle are all potential catalysts for a dollar reversal from its rich valuation. The euro dominates the trade-weighted index, at 56%.

- There remain some headwinds for the UK to contend with, for instance the lagged impact of the monetary tightening already delivered, via rising effective mortgage rates. The fact that rates are now well below their peak does offer some mitigation, nonetheless consensus 2024 GDP growth expectations for the UK (0.3%) still lag those of peers (1.5%). An upcoming general election also has the potential to introduce further uncertainty. The fact that sentiment toward the UK and its risk assets remains depressed could prove supportive in the event of any improvement in fundamentals.

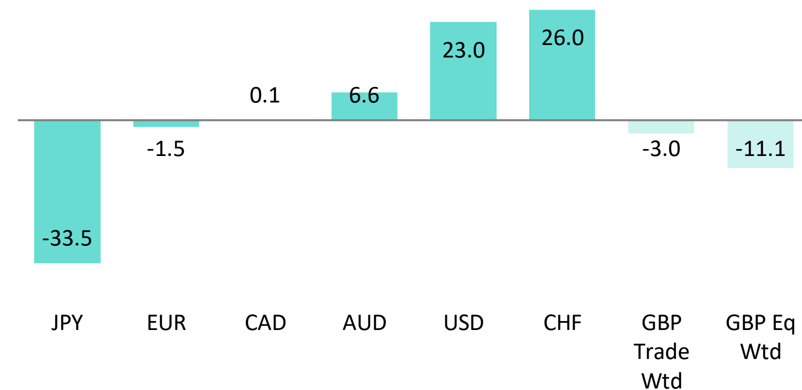
### GBP BASKET REAL EXCHANGE RATE PERCENTILE

Jun 30, 1971 – Mar 31, 2024




### REAL EXCHANGE RATE VS THE GBP: % FROM MEDIAN

As of Mar 31, 2024




Sources: Bank of England,MSCI Inc., National Sources, OECD, Refinitiv, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Australian inflation data are quarterly and as of December 31, 2023. All other inflation data are as of February 29, 2024.

# EUR vs Developed Markets Currencies

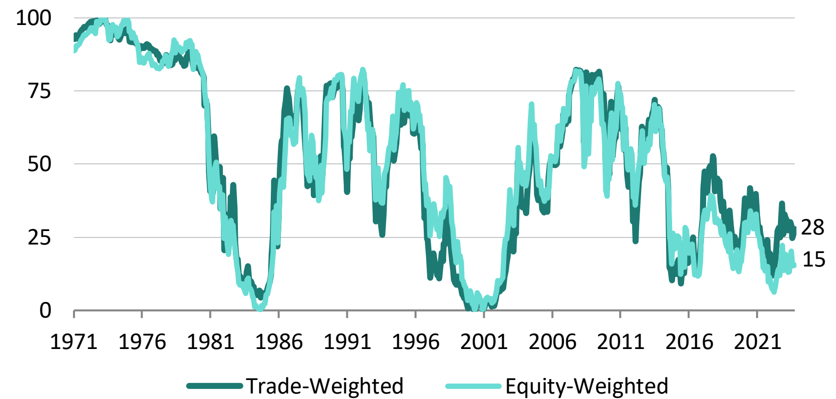
Facts & Figures First Quarter 2024

The euro rose by 0.2% in trade-weighted terms in 1Q 2024, bringing its one-year change to 0.1%. Broad weakness in the yen and the Swiss franc contributed substantially all the euro's strength during the quarter, offsetting the decline against the dollar. In the medium term, a weakening dollar may be a tailwind. However, in the short run, growth conditions continue to be challenging.

- The ECB left rates unchanged during the quarter with its hiking cycle now completed. Meanwhile, both headline and core inflation rates have continued to cool in recent months. When combined with a weak growth backdrop, the market is now looking ahead to the extent of an expected cutting cycle this year. A broadly similar number of cuts is priced in for the euro area and the US, which may be a short-run headwind given its weaker growth and inflation backdrop.
- Growth in the euro area has been anemic in recent quarters, with GDP essentially flat since the end of 3Q 2022. The comparison to the United States has been particularly stark. The economy is likely to have bottomed either in Q4 2023 or Q1 2024, with indicators such as PMIs and credit growth showing some signs of life. Nevertheless, growth is expected to underperform again in 2024, with an expansion of 0.5% expected in the euro area compared to 1.5% for broader DMs. .
- On an equity-weighted basis, the REER stands at the 15th percentile, while it is at the 28th percentile on a trade-weighted basis. These values are 14.3% and 4.5% below median, respectively. The direction of the dollar remains key for the euro outlook, especially for the equity-weighted index which has an 80% weight to the USD. The greenback may stay supported in the near term if the US continues to outperform economically, or if recession fears emerge. However, in the medium term, improved global growth, further BOJ tightening and an eventual Fed cutting cycle are likely catalysts for an eventual dollar reversal.
- To see sustained, domestically generated outperformance of the euro we likely need to see increased fiscal and regulatory convergence, particularly between periphery and core, to boost potential growth. This includes delivering on the NextGenerationEU and REPowerEU plans, but also completing the capital markets union, growing issuance of jointly issued bonds and increasing budgetary flexibility.

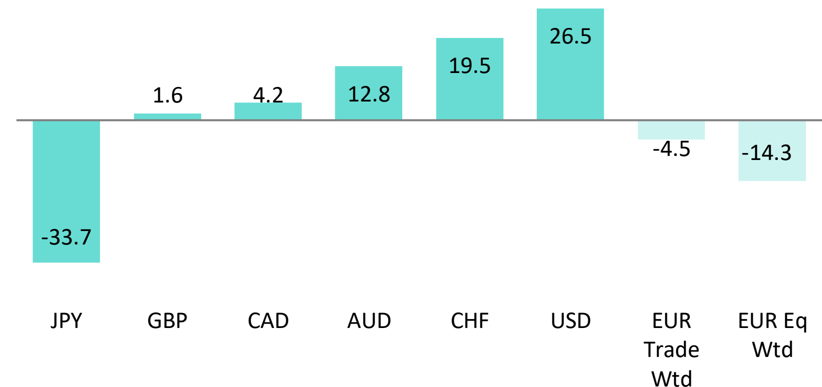
**EUR BASKET REAL EXCHANGE RATE PERCENTILE**

Jun 30, 1971 – Mar 31, 2024




**REAL EXCHANGE RATE VS THE EUR: % FROM MEDIAN**

As of Mar 31, 2024




Sources: European Central Bank, MSCI Inc., National Sources, OECD, Refinitiv, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Australian inflation data are quarterly and as of December 31, 2023. All other inflation data are as of February 29, 2024.

# Digital Assets

Facts & Figures First Quarter 2024

The price of bitcoin rose 66% in 1Q, benefiting from the SEC's approval of spot bitcoin ETFs and the anticipation of the upcoming bitcoin halving event. The digital currency reached a new all-time high price in 1Q, adding to its impressive gain from 2023. Other cryptocurrencies had even better performance in 1Q, with the CMC Crypto 200 ex BTC Index up 81%.

- In early January, the SEC approved the trading of spot bitcoin ETFs, roughly ten years after the first application. The decision marked a watershed moment for the crypto industry. As a result, these ETFs are likely to increase bitcoin's liquidity, reduce its volatility, and deepen derivative markets linked to the asset.

- The upcoming bitcoin halving, which effectively halves the rate at which new bitcoins are created, is expected to take place in late April. Historically, bitcoin has experienced three halvings since its inception, occurring roughly every four years. Bitcoin's price has fared well in the near term after those halvings.

- There are few reliable options for valuing digital assets. One metric—price-to-transactions per coin (P/TC)—can be viewed as a crude valuation metric for bitcoin. Transactions per coin offers a way to gauge the utility of coins in circulation. Thus, a high P/TC could indicate speculation, with bitcoin being priced expensively for every unit of its transaction volume. But transactions per coin only show bitcoin's utility as a medium of exchange and doesn't inform on how users "stake" bitcoins, which can indicate bitcoin's utility as a store of wealth.

- Digital asset investing carries numerous risks; the most obvious is high price volatility. Indeed, the annualized standard deviation of bitcoin has been nearly 5x that of major equity indexes in the past five years. Other less established digital assets are likely to have even higher volatility. Other pertinent risks for investors include complicated tax considerations and the negative environmental impacts of proof-of-work cryptocurrency mining.

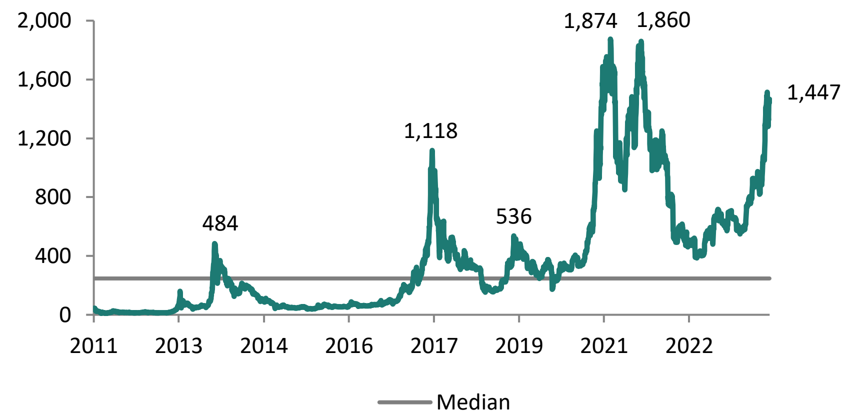
- Bitcoin is just one of thousands of different cryptoassets that utilize blockchain technology. Implementation options have historically been limited, but passive and active options—including dedicated custodians, cryptoasset trusts, and venture capital and hedge funds—continue to be introduced.

**BITCOIN PRICE**

Dec 31, 2015 – Mar 31, 2024 • US Dollars

**RATIO OF BITCOIN PRICE TO TRANSACTIONS PER COIN**

Aug 31, 2011 – March 31, 2024




Sources: Blockchair.com and Thomson Reuters Datastream.

Notes: Bottom chart represents the USD price of bitcoin divided by the number of transactions per coin outstanding. All data are daily.

# Notes on Data

First Quarter 2024

**Note on CA House Views**

- All performance data is quoted in US dollars unless otherwise noted.

**Notes on Our Cyclically Adjusted Price-to–Cash Earnings Calculations**

- For most equity markets, we construct a cyclically adjusted price-to–cash earnings (CAPCE) ratio. 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.
- EM is cyclically adjusted by trailing five-year data.
- On our equity valuation charts, we use a consistent approach to our median and percentile calculations for valuation ratios across all regions. All charts are labeled to indicate the current valuation's percentile versus the historical median. We typically consider the range from the 25th to the 75th percentile as fairly valued. Valuations in the 75th to 90th percentile are typically overvalued relative to history, and in the 10th to 25th percentile, undervalued. The top 10th and bottom 10th percentiles generally represent very overvalued and very undervalued relative to history, respectively. An asset class's valuation call takes into account valuations, fundamentals, momentum, sentiment, and other factors, and calls do not mechanistically change with percentiles; rather these ranges are used as guides for our valuation calls.

**Notes on the 12-Month Absolute and Relative Price Momentum**

- The 12-month absolute momentum is the trailing 12-month index price return in local currency terms.
- The 12-month relative momentum is calculated as the geometric difference between each market's trailing 12-month price return in local currency terms.

**Notes on Specific Data Providers**

- Dealogic updates its database on a regular basis; therefore, historical data may change.
- Hedge Fund Research data are preliminary for the preceding five months.
- Total return data for all MSCI indexes are net of dividend taxes.
- US CPI data lag by one month.

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