

REVIEW OF MARKET PERFORMANCE

CALENDAR YEAR 2023



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Key Points

- Risk assets enjoyed mostly positive returns in CY 2023. Developed markets equities led as fears over the severity of a possible recession moderated and inflation declined.
- Emerging markets equities lagged developed markets as economic growth in China disappointed.
- Large-cap technology stocks led the US market on positive developments in AI technologies and anticipation of lower interest rates.
- Bonds posted strong returns as the market began to anticipate policy rate cuts in CY 2024, driving yields down.
- Interest rate-sensitive real assets rebounded. Commodities lagged on lower oil prices due to slowing demand.

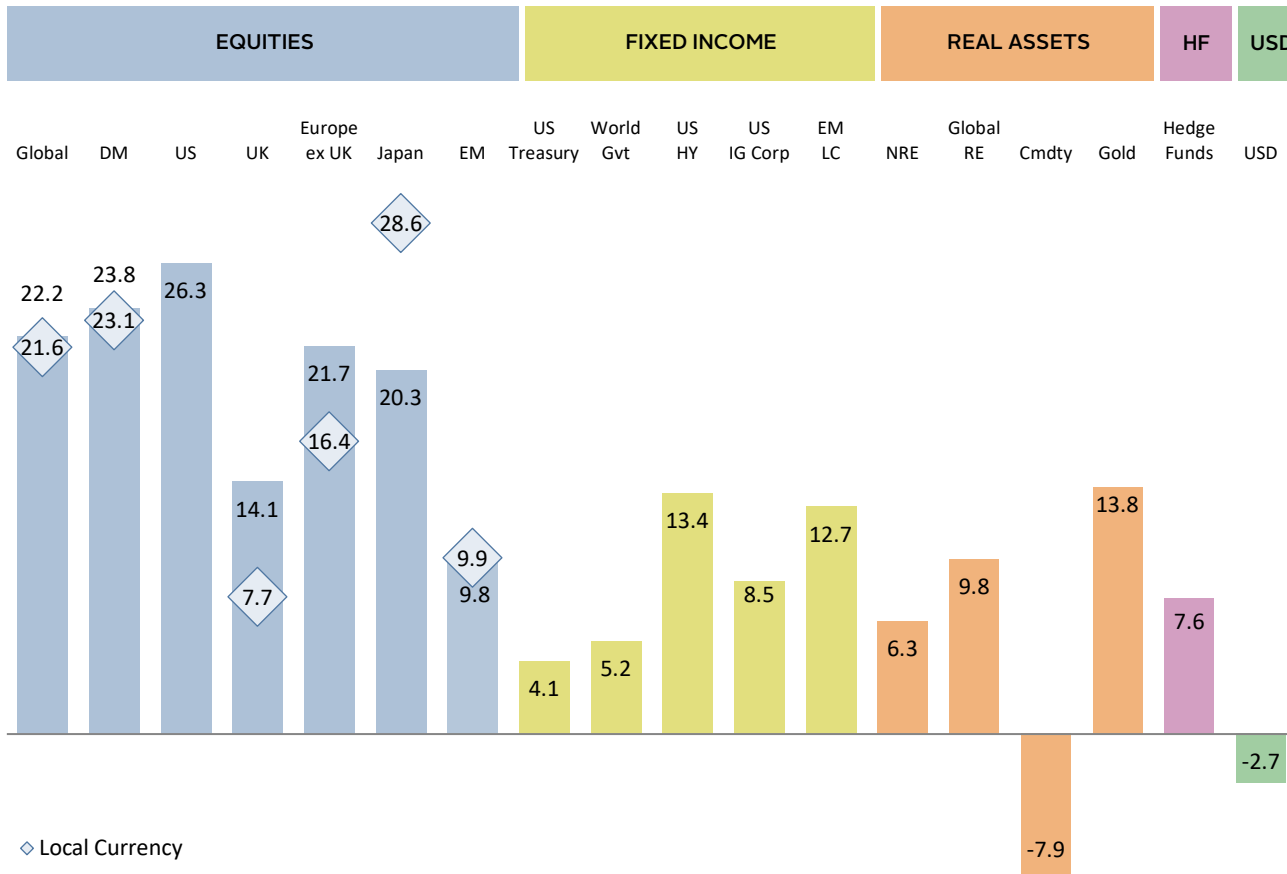


CAMBRIDGE FIFTY
ASSOCIATES YEARS

CY 2023 was a strong year for risk assets

GLOBAL ASSET CLASS PERFORMANCE: CY 2023

As of December 31, 2023 • Total Return (%) • US Dollar



Most risk assets enjoyed positive returns in CY 2023. Equities rebounded strongly as fears over the severity of a possible recession moderated. Emerging markets (EM) equities lagged developed markets (DM) as economic growth from China disappointed. Commodity futures performance bucked the trend, posting negative returns as concerns of softening demand weighed on sentiment. Inflation rates declined faster than expected, leading investors to price in policy rate cuts in CY 2024. This pushed yields lower, rendering strong fixed income returns, particularly late in the year. Attractive yields drove investment to high-yield (HY) bonds and EM local currency debt.

Sources: Bloomberg Index Services Limited, Bloomberg L.P., EPRA, Federal Reserve, FTSE Fixed Income LLC, FTSE International Limited, Hedge Fund Research, Inc., Intercontinental Exchange, Inc., J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: Asset classes represented by: MSCI All Country World Index ("Global"), MSCI World Index ("DM"), S&P 500 Index ("US"), MSCI UK Index ("UK"), MSCI Europe ex UK Index ("Europe ex UK"), MSCI Japan Index ("Japan"), MSCI Emerging Markets Index ("EM"), Bloomberg US Treasury Index ("US Treasury"), FTSE World Government Bond Index ("World Gvt"), Bloomberg US High Yield Bond Index ("US HY"), Bloomberg US Corporate Investment Grade Bond Index ("US IG Corp"), J.P. Morgan GBI-EM Global Diversified Index ("EM LC"), market cap-weighted Datastream World Energy Index and Datastream World Basic Resources Index blend ("NRE"), FTSE® EPRA/NAREIT Global Real Estate Index ("Global RE"), Bloomberg Commodity TR Index ("Cmdty"), LBMA Gold Price ("Gold"), Hedge Fund Research Fund Weighted Composite Index ("Hedge Funds"), and Nominal Trade Weighted US Dollar Index: Broad ("USD"). Total return data for all MSCI indexes are net of dividend taxes. Hedge Fund Research data are preliminary for the preceding five months. Gold performance is based on spot price returns.

Global equity markets reversed course in CY 2023

GLOBAL EQUITY PERFORMANCE: CY 2023 VS CY 2022

Total Return (%) • US Dollar



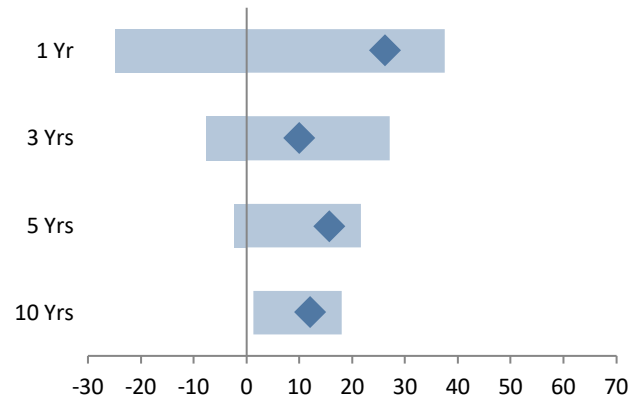
Global equities reversed course in 2023, posting positive returns across the board. Within DM, the United States led in USD terms, on resilient economic data and expectations of lower rates boosting growth stocks. Japanese equities also enjoyed strong returns on a weaker yen and optimism on growth and stock market reform. Europe rebounded as markets assessed that the economic slowdown was less severe than initially feared. EM also advanced, but lagged DM. The largest detractor in EM was China as investors were disappointed by economic growth and became particularly wary of the headwinds facing the property sector.

US and developed markets equities led across different time periods

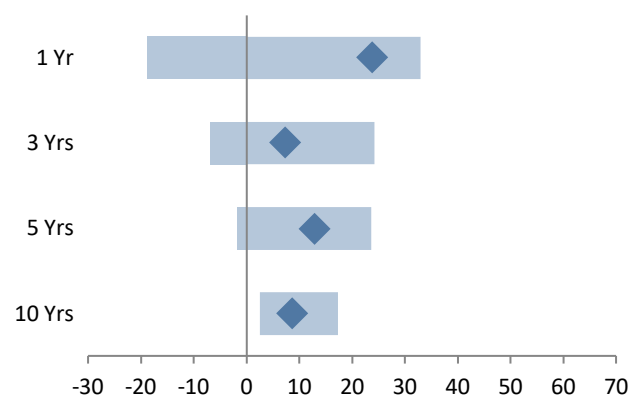
AVERAGE ANNUAL COMPOUND RETURN RANGE FOR VARIOUS TIME PERIODS

Periods Ended December 31, 2023 • Total Return (%) • US Dollar

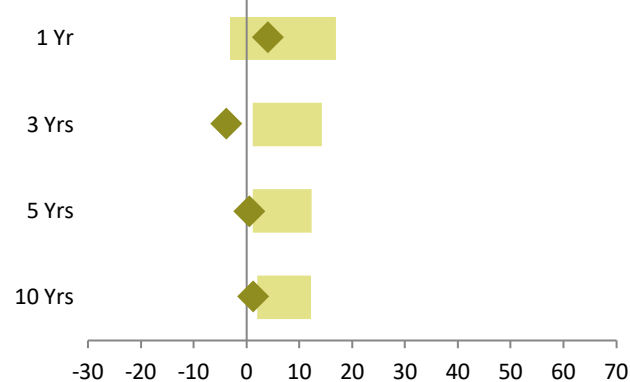
US Equities



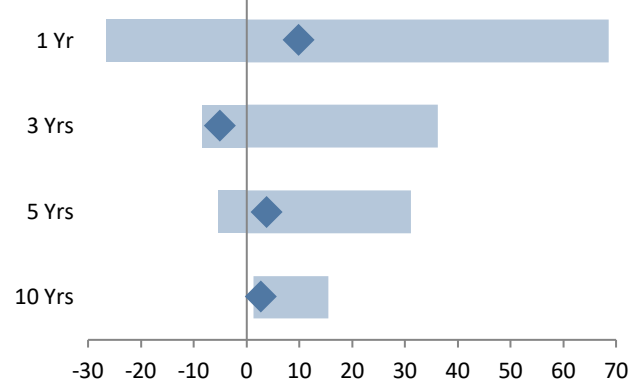
Developed Markets Equities



US Treasuries



Emerging Markets Equities



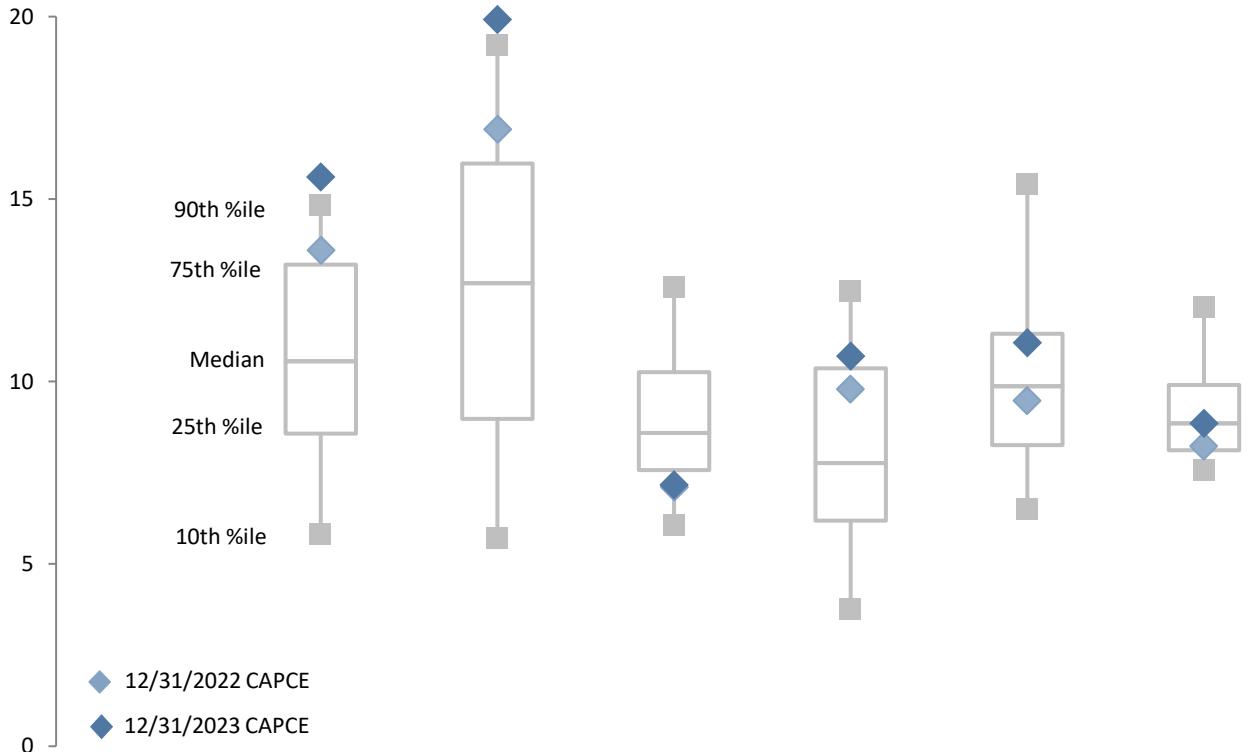
■ 5th/95th Percentile ◆ Current Calendar Year

As investors worried less about the severity of a potential recession in the United States and Europe, one-year equity returns swung from negative extremes in CY 2022 to the upper-end of the historical range in CY 2023. One-year returns for EM equities also improved to slightly below median. Despite this performance, three-, five- and ten-year returns for these categories remained mostly in line with the prior year. After two years of negative performance, US Treasuries posted a positive one-year return, boosted by a strong 4Q as investors began to price in rate cuts. However, three-, five-, and ten-year returns remain near or at the low-end of the historic range.

Equity valuations expanded across most major markets

CYCLICALLY ADJUSTED PRICE-TO-CASH EARNINGS (CAPCE) RATIOS BY REGION

As of December 31, 2023



% Change	World	US	UK	Europe ex UK	Japan	EM
to 50th %ile	-32.3	-36.3	19.9	-27.4	-10.9	0.0
to 25th %ile	-45.0	-54.9	5.8	-42.2	-25.5	-8.4
to 10th %ile	-62.8	-71.3	-15.6	-65.0	-41.4	-14.4

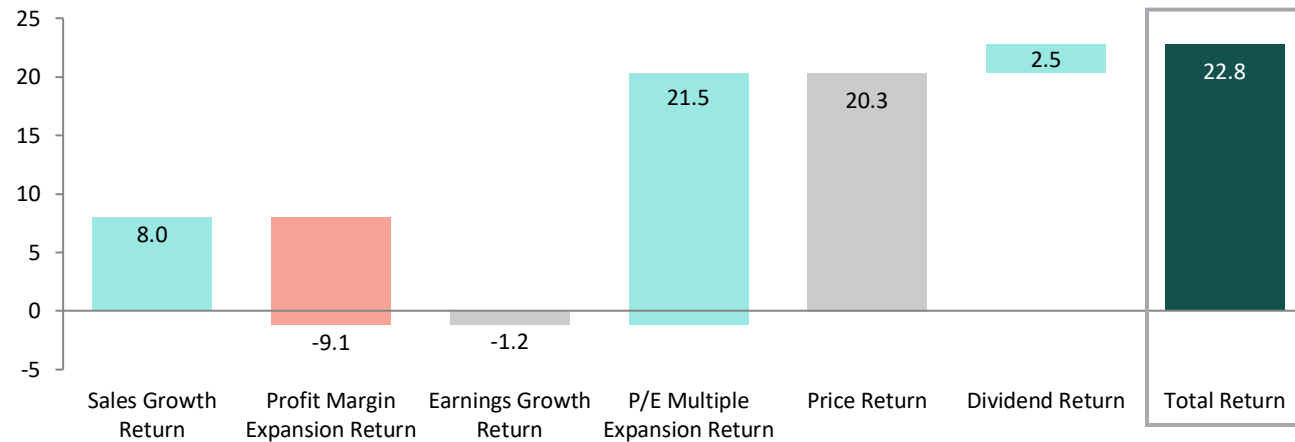
Cyclically adjusted price-to-cash earnings (CAPCE) multiples expanded in most regions in CY 2023. Broad DM and US equities valuations expanded to above the 90th percentile of historic observations, as investors drove equity returns up on optimism that monetary policies would soon become less restrictive. Multiple expansion in Japan was impressive as well, with equities returning nearly 30% in LC terms on a weaker yen and investor enthusiasm around stock market reforms. Europe ex UK and EM enjoyed relatively modest expansion in multiples. UK equities multiples held steady at the low end of their range (approaching the 10th percentile of historical observations) and were the lowest of the group. Investors differentiated the country on expectations of relatively high-inflation rates.

Investors looked past margin compression, driving markets higher on P/E multiple expansion

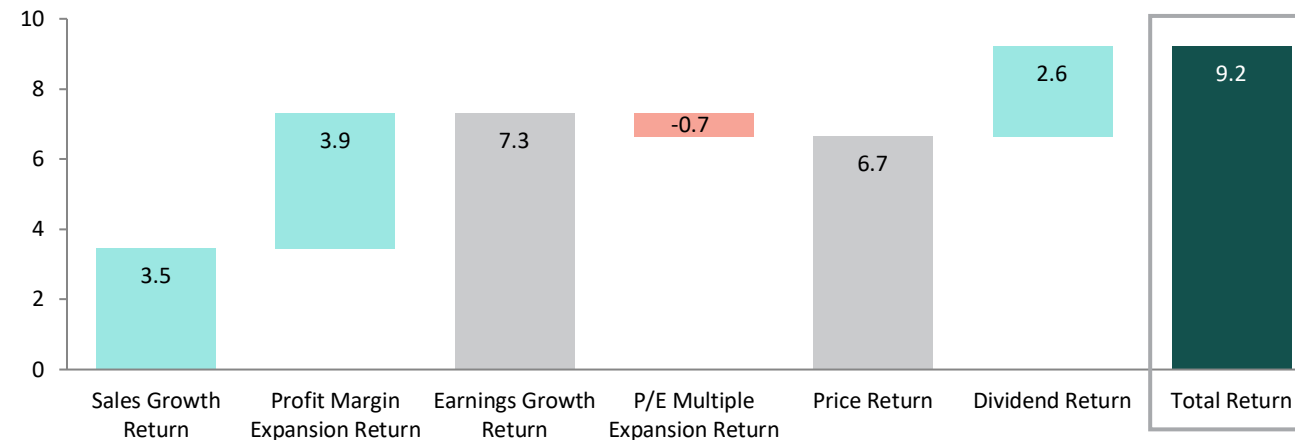
GLOBAL EQUITY RETURN DECOMPOSITION

As of December 31, 2023 • Percent (%) • US Dollar

CY 2023



CY 2003 – CY 2023 Aggregate (AACR)



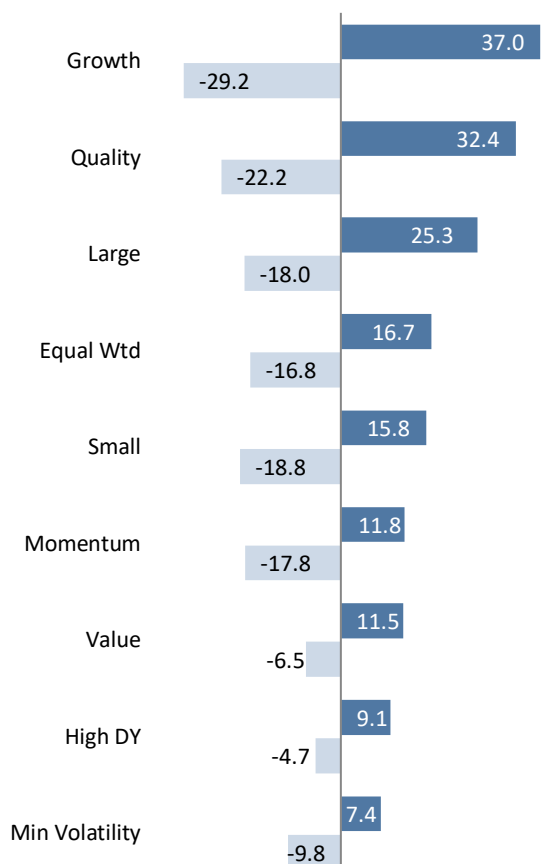
Investors became more optimistic in CY 2023, driving up global equity markets as data showed that an economic slowdown may be less severe than prior expectations. Although earnings declined around 1%, equities returned 23%—well above the 20-year average total returns. This was largely driven by investors' willingness to pay higher P/E multiples as the potential for rate cuts in CY2024 lowered discount rates. Sales growth was above its average pace of growth since 2003, but profit margins compressed as companies struggled to pass on higher input and debt servicing costs.

Growth made a comeback in developed markets but lagged in emerging markets

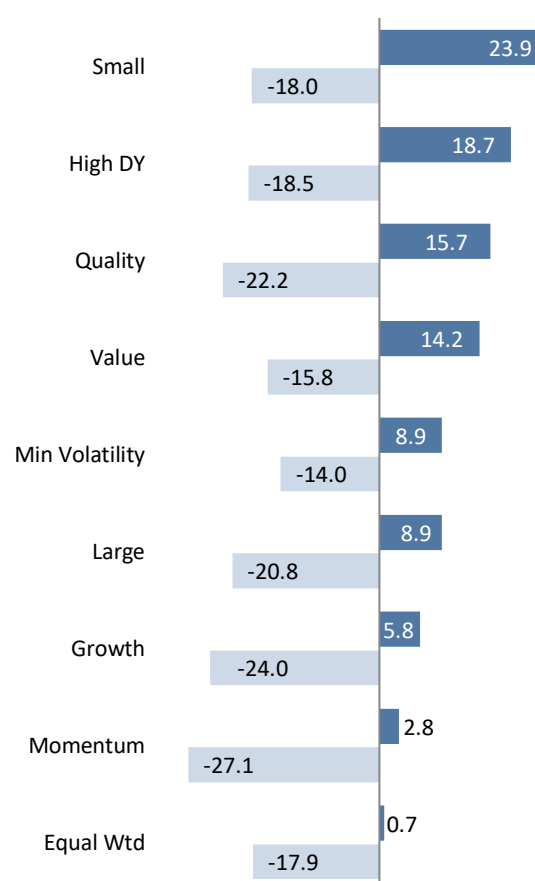
EQUITY PERFORMANCE BY FACTOR AND STYLE: CY 2023 VS CY 2022

As of December 31, 2023 • US Dollar • Percent (%)

Developed Markets



Emerging Markets



■ 2023 ■ 2022

Growth strategies made an impressive comeback in DM on the heels of investor frenzy around artificial intelligence (AI) technologies and expectations of rate cuts in 2024. DM quality outperformance was driven by similar forces as well as investors positioning more defensively, given expectations of an economic slowdown. However, EM still saw growth strategies lag, along with momentum and equal-weighted strategies. Investors instead favored small-cap stocks, which led on an overweight to India, significantly lower exposure to China than the broader EM index, and strong performance in the IT and materials sectors. Within EM, investors also favored high-yielding dividend companies to ride out the storm of an economic slowdown.

Investors looked past near-term weakness and rewarded IT and communication services sectors

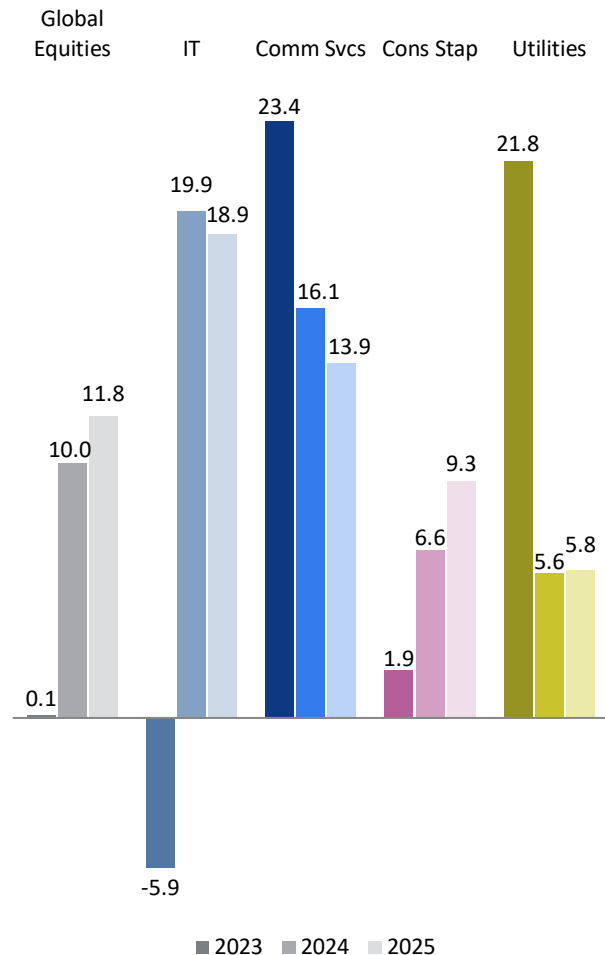
GLOBAL EQUITIES CY PERFORMANCE BY SECTOR

2021-23 • US Dollar • Percent (%)

CY21	CY22	CY23
Energy 36.0	Energy 33.1	IT 51.0
IT 27.4	Utilities -4.7	Comm Svcs 37.7
Financials 24.3	Healthcare -6.1	Cons Disc 29.1
Real Estate 22.8	Cons Stap -6.6	Industrials 21.9
Healthcare 17.5	Financials -9.8	Financials 15.5
Industrials 16.1	Materials -11.6	Materials 12.1
Materials 14.8	Industrials -13.1	Real Estate 8.5
Cons Stap 11.1	Real Estate -24.6	Energy 5.0
Comm Svcs 10.4	IT -31.1	Healthcare 3.6
Utilities 10.1	Cons Disc -31.8	Cons Stap 2.5
Cons Disc 9.0	Comm Svcs -35.5	Utilities 0.5

CY EARNINGS GROWTH FORECASTS

As of December 31, 2023 • US Dollar • Percent (%)

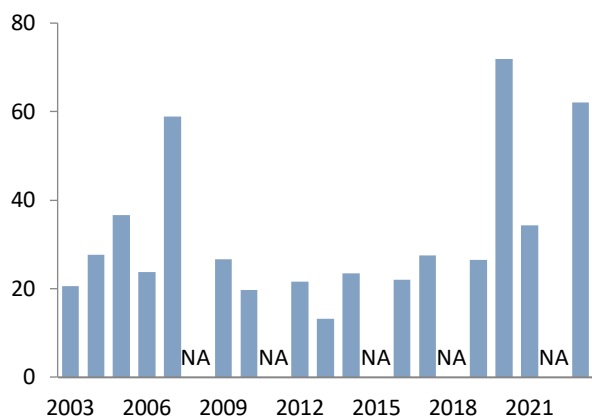


Sector winners and losers looked quite different from the prior year, with the bottom performers of CY 2022 posting the strongest returns this year. The top five sectors had representation across growth, cyclical, and value strategies. The IT sector posted the best return despite expectations of negative earnings growth in 2023, as investors looked through near-term challenges to strong expected growth in 2024 and 2025. Communication services also posted high returns. On the other hand, the relatively defensive sectors, consumer staples and utilities, lagged as investor positioned for a risk-on environment. Utilities performance also reflected slowing earnings growth.

Return contribution narrowed in CY 2023

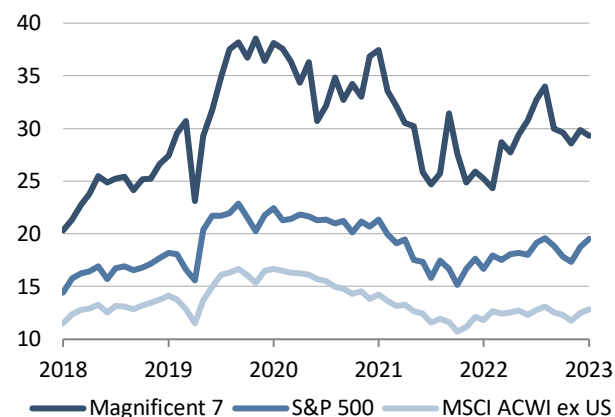
PERCENTAGE OF S&P 500 TOTAL RETURNS ATTRIBUTED TO THE TOP 7 STOCKS

CY 2003–CY 2023 • Percent (%)



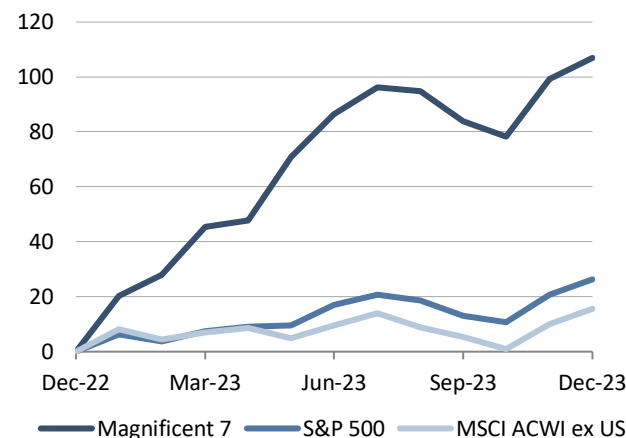
FORWARD P/E RATIOS

December 31, 2018 – December 31, 2023



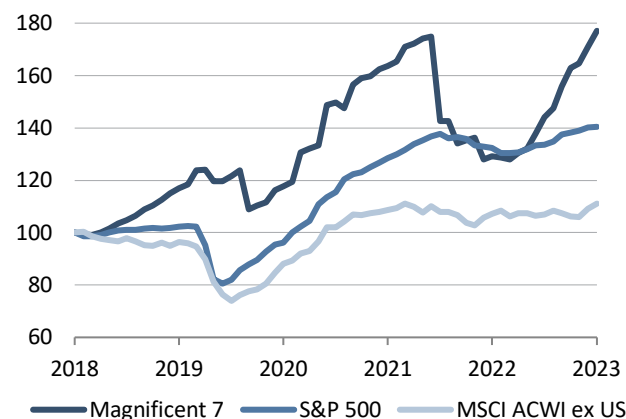
CY 2023 CUMULATIVE RETURNS

December 31, 2022 – December 31, 2023 • US Dollar • Percent (%)



12-MONTH FORWARD EPS

December 31, 2018 – December 31, 2023 • December 31, 2018 = US\$100



During CY 2023, investors flocked to growth stocks (particularly in the IT sector) whenever rate hike expectations softened. However, investor interest in large-cap technology stocks gained momentum, when positive developments in the AI space were announced in mid-CY 2023. Investor frenzy for this space led to strong overall market results, but performance was concentrated in a handful of large-cap technology-related stocks. These stocks, popularly referred to as the “Magnificent 7,” accounted for over 60% of S&P 500 total returns in 2023. Their performance eclipsed that of the broader US and international market. Indeed, growth expectations for the “Magnificent 7” sharply outstripped the broader market in 2H 2023, while the premium of forward P/Es versus the broader US markets remained well below the highs of 2020.

Sources: Bloomberg L.P., FactSet Research Systems, I/B/E/S, MSCI Inc., Standard & Poor’s, and Thomson Reuters Datastream. MSCI data provided “as is” without any express or implied warranties.

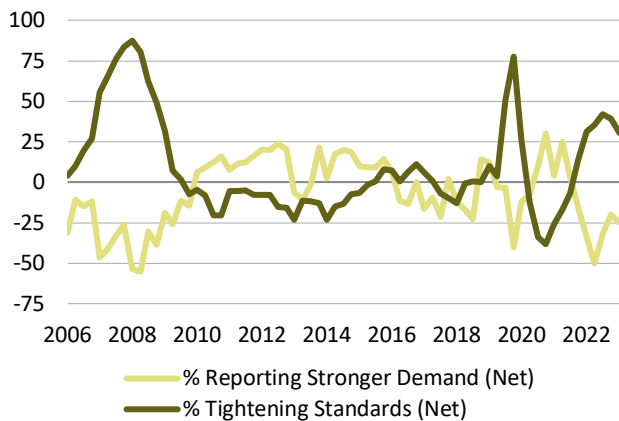
Notes: Years where the S&P 500 returned less than 3% are excluded from the top left chart and are denoted as “NA.” Top left chart data reflects the percentage of S&P 500 returns that are attributed to the top 7 contributing stocks, with stock contribution to returns derived based on the weight of the constituent in the index and its return over the calendar year. Constituents of the top 7 stocks differ as a result in each calendar year. Alphabet Class A & C shares are combined in calculations. MSCI return data are net of dividend taxes. Return data for the Magnificent 7 is represented by the Bloomberg Magnificent 7 Index, which is an equal-dollar weighted equity benchmark. Forward P/E ratio for the Magnificent 7 reflects the market-cap weighted harmonic average, and the average 12-month forward EPS for the Magnificent 7 is weighted by number of shares outstanding.

Banking crisis contributed to tightening financial conditions

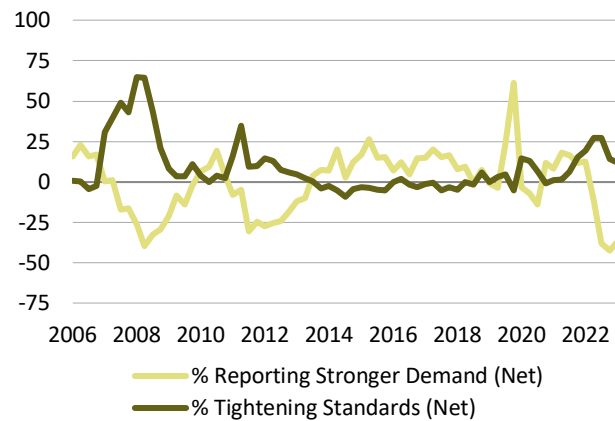
BANK LENDING CONDITIONS

Fourth Quarter 2006 – Fourth Quarter 2023

United States

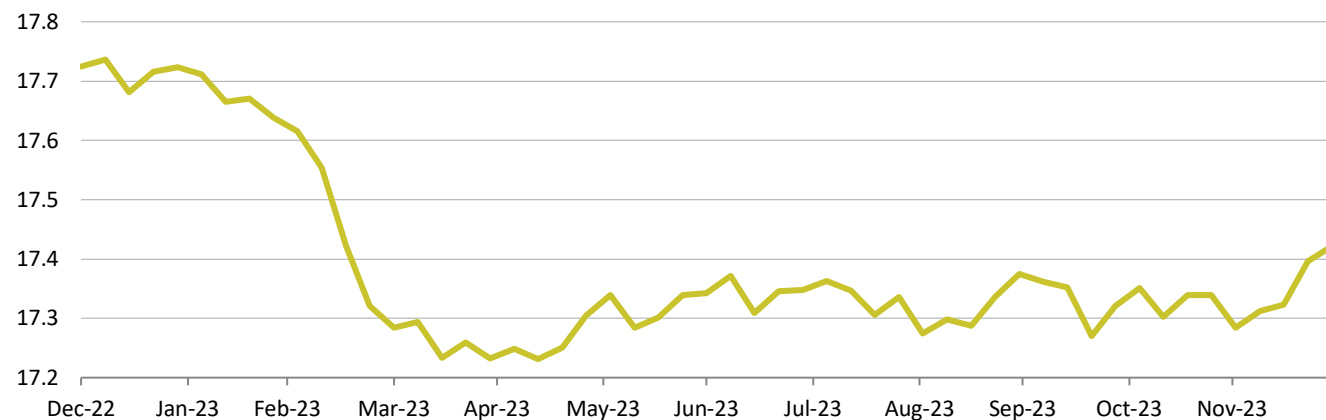


Euro Area



US COMMERCIAL BANK DEPOSITS

December 31, 2022 – December 31, 2023 • US\$ Trillions

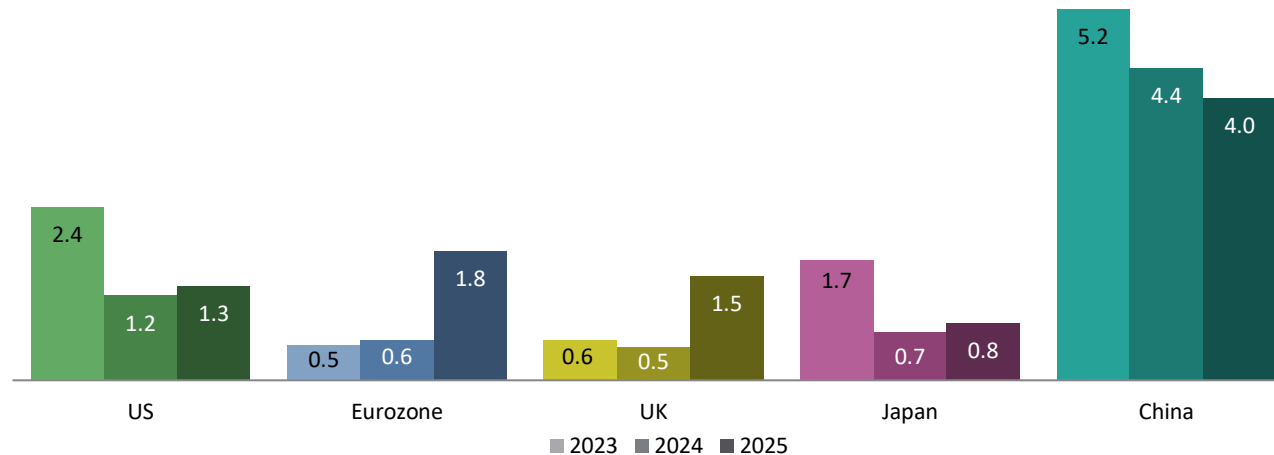


Lending conditions were already tightening at the start of CY 2023, as central banks had increased policy rates and expectations of a recession took hold. However, conditions tightened further after the March collapse of Silicon Valley Bank (SVB) and the sudden acquisition of Credit Suisse by UBS. Concerns about strained business and funding models added to pressure on small banks. In response, central banks stepped in to help calm global markets by funneling increased liquidity. Deposits at US commercial banks have stabilized since then, showing an uptick as recently as December. Bank lending conditions also modestly improved in the latter half of 2023 as sentiment on the economy improved.

GDP growth expected to moderate in 2024

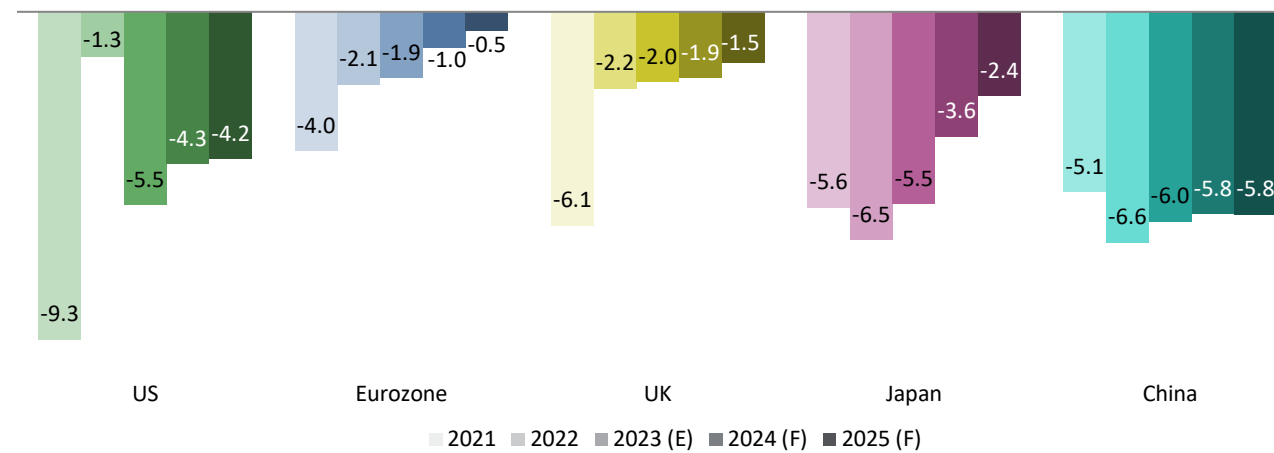
REAL GDP GROWTH FORECASTS

2023–25 • Percent (%)



GENERAL GOVERNMENT PRIMARY BALANCE

As at September 29, 2023 • Percent of GDP (%)

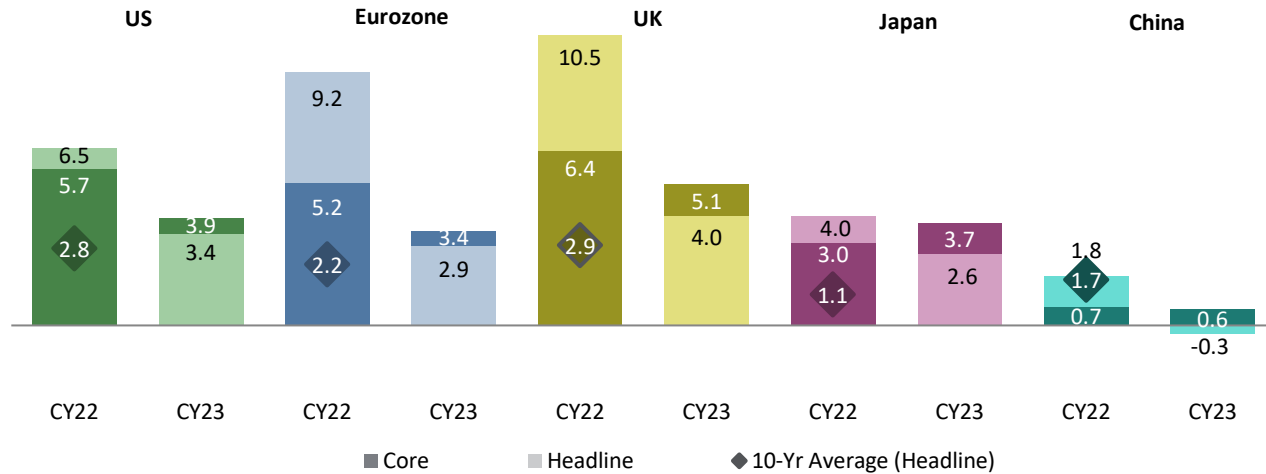


Real GDP growth is expected to moderate in most major economies in 2024. Within DM, GDP growth forecasts are highest for the United States on resilient economic data. The United Kingdom lags, in part because it faced the toughest challenge among major DM in reining in inflation. China growth led in CY 2023 as it benefited from its economic reopening. However, expectations are for the growth rate to decline in coming years. Japan and China continued to employ more accommodative policies to support economic growth, although some investors expect Japan will modestly move away from its ultra-loose monetary policy. Forecasts also indicated that the government's budget deficit grew in the United States but remains below levels seen after the pandemic began.

Inflation began to decline as monetary policies impacted price levels

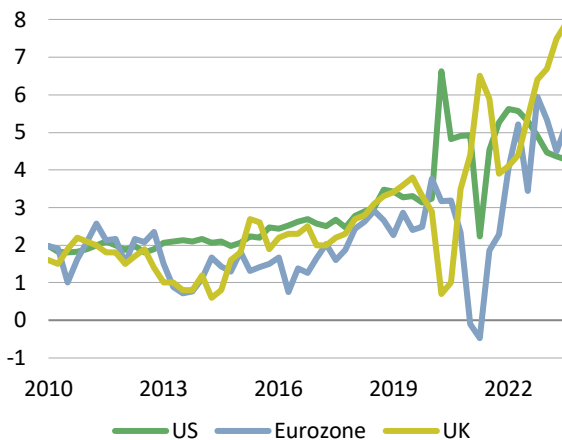
INFLATION

As at December 31, 2023 • Percent (%)



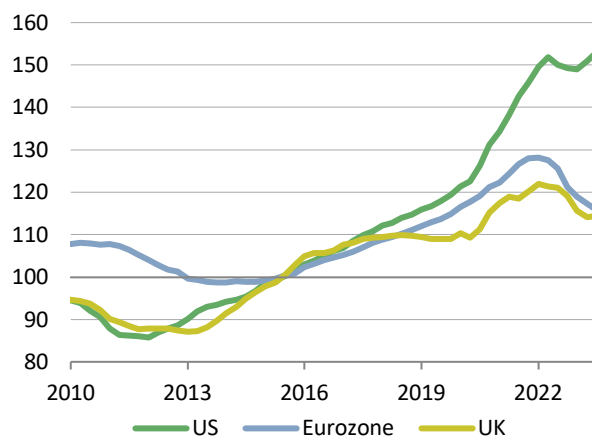
WAGE GROWTH

1Q 2010 – 3Q 2023 • YOY Percent (%) • Local Currency



REAL HOUSE PRICE INDEX

1Q 2010 – 3Q 2023 • Cumulative Wealth • Local Currency • 2015 = 100

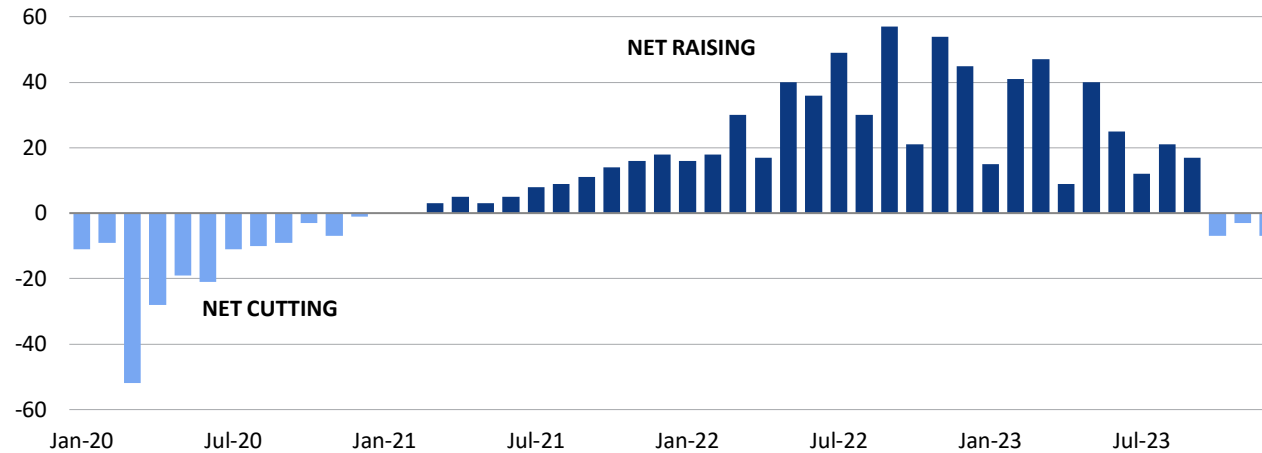


Both headline and core inflation rates declined during CY 2023 as tight monetary policies began to moderate economic growth. As energy and food prices came down, headline inflation fell more than core inflation, especially in the United States, Eurozone, and United Kingdom. Wage growth was particularly persistent in the United Kingdom, where inflation was one of the highest within DM. Although Japan enjoyed one of the lowest inflation rates within DM, inflation is still hitting 40-year highs, leading some investors to anticipate the Bank of Japan (BOJ) may move away from negative interest rates in CY 2024. China is a clear outlier, with low inflation and the government introducing support mechanisms to boost the stock market and the economy, including its beleaguered property sector.

Monetary policies remain tight, but some central banks signal an end to hikes

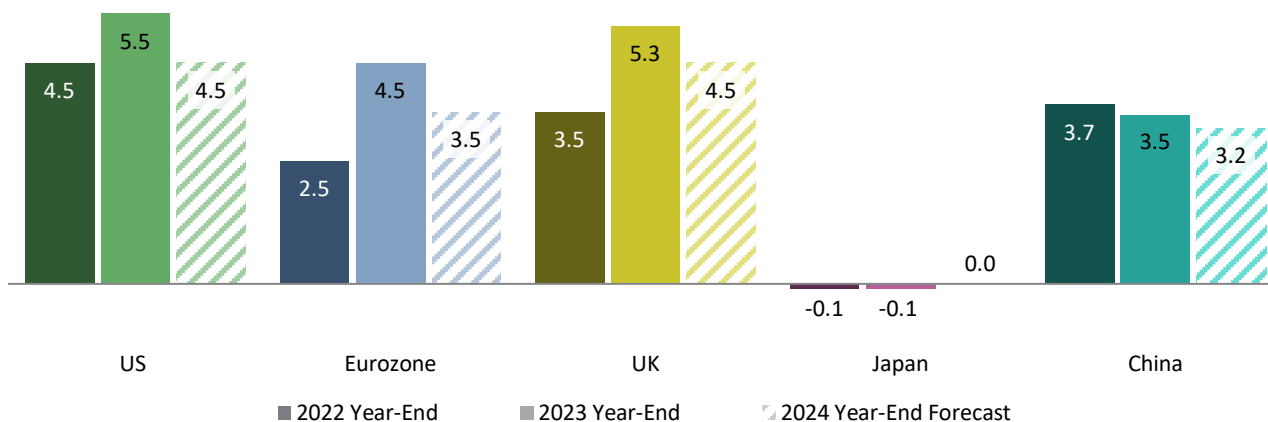
NET NUMBER OF CENTRAL BANKS RAISING RATES

January 31, 2020 – December 31, 2023 • Percent (%)



CENTRAL BANK POLICY RATES

2022–24 (f) • Percent (%)

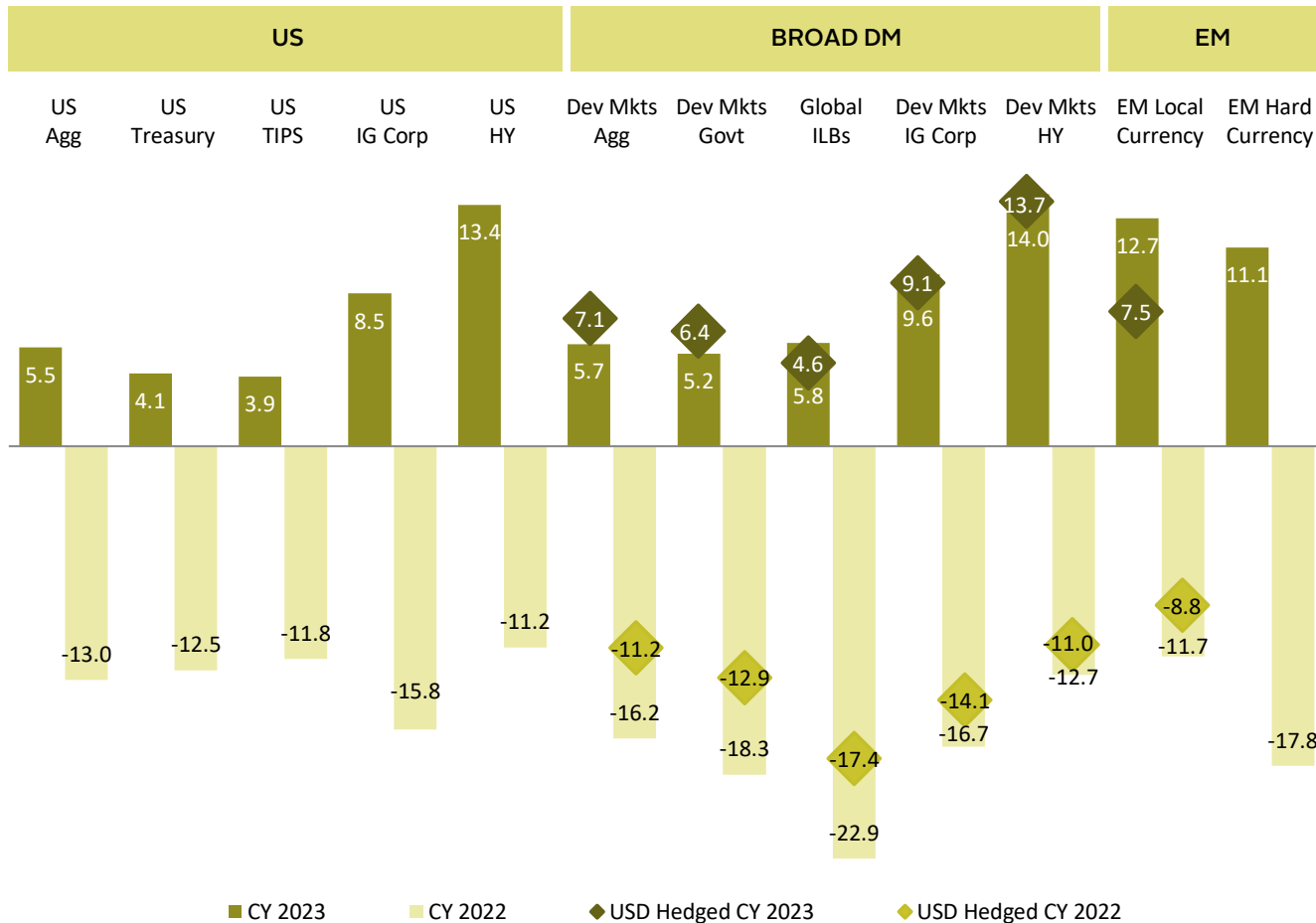


Most central banks entered 2023 focused on persistent inflationary pressures but their hawkish tone faded by the second half of the year. Several DM economies have paused rate hikes to assess the impact of monetary tightening on the economy and it seems likely that many are at end of their hiking cycle. The market is now pricing in 2024 rate cuts for the United States, Eurozone, and United Kingdom. Japan was an outlier as it continued an easy monetary policy stance, having faced more benign inflation trends. Several EMs began to cut rates in 2023 as inflation had approached their target ranges—many had begun hiking well before their DM peers.

HY and EM bonds were clear winners among fixed income asset classes

GLOBAL BOND PERFORMANCE: CY 2023 VS CY 2022

Total Return (%) • US Dollar

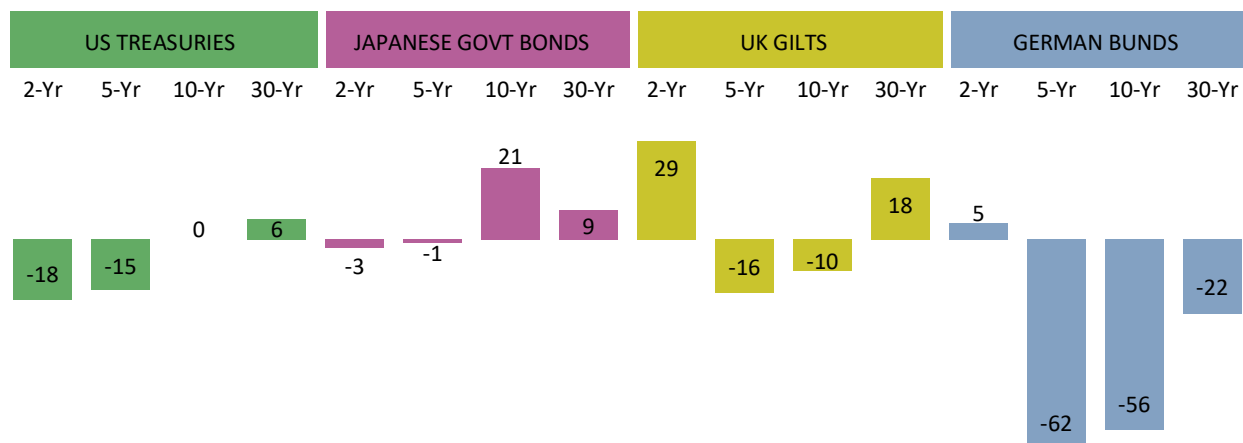


Bond performance improved after steep losses the previous year, with particularly stellar returns in 4Q 2023. All categories presented posted positive returns as investors began to price in lower yields on expectations that monetary policies would ease in 2024. Higher-duration bonds underperformed, while attractive spreads and easing hard landing fears helped draw interest to HY counterparts. The US dollar proved less of a headwind to both categories of EM bonds this year. Local EM debt returns were also boosted on easing inflationary pressures, with EM central banks becoming dovish and some even beginning to cut policy rates.

Yield curves became less inverted in most developed markets

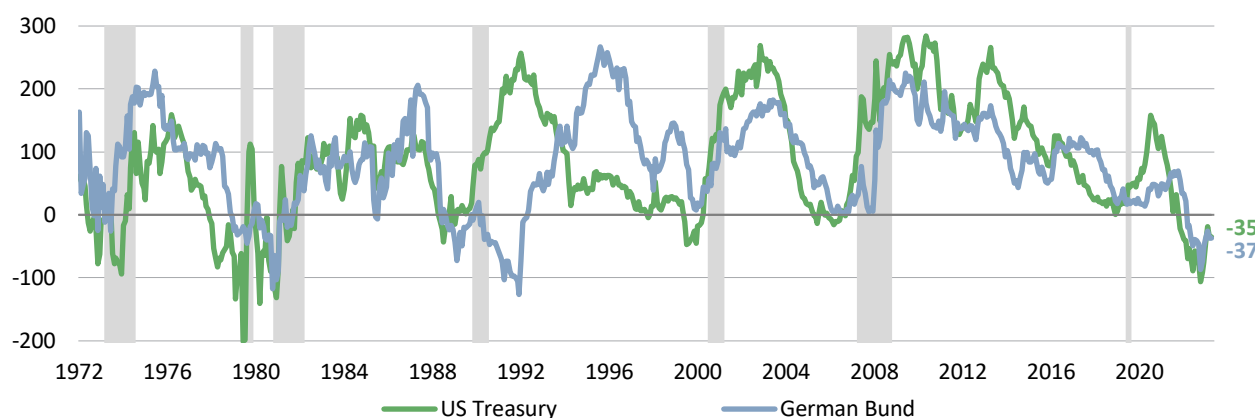
CHANGE IN YIELD VS DECEMBER 31, 2022 FOR VARIOUS GOVERNMENT BOND MATURITIES

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



10-YR/2-YR YIELD CURVE SPREADS

September 30, 1972 – December 31, 2023 • Basis Points (bps)



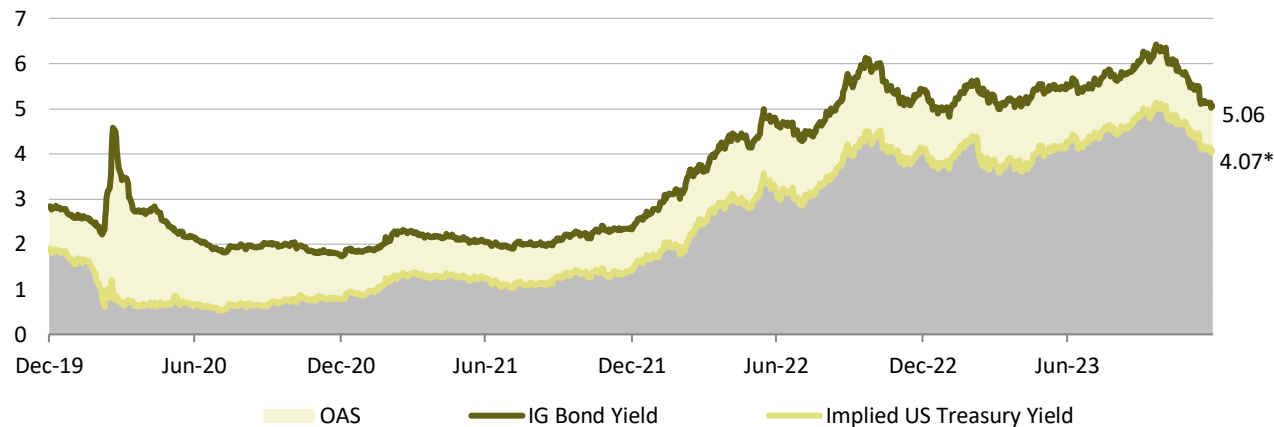
As inflation rates finally moderated, investors began anticipating lower policy rates in 2024. This drove shorter-term yields lower, though Germany was an exception as fears around a budget crisis took hold in 4Q. Increased expectations of more government bond issuance to help fund spending commitments pushed longer-term rates higher in many countries. Japan remained the only major DM economy committed to its ultra-loose monetary policy. However, with core inflation remaining above its 2% target, some investors now expect the BOJ may move away from its negative interest rate policy, as reflected in the change to its ten- and 30-year yields.

US corporate credit returns were driven primarily by duration, while spreads narrowed modestly

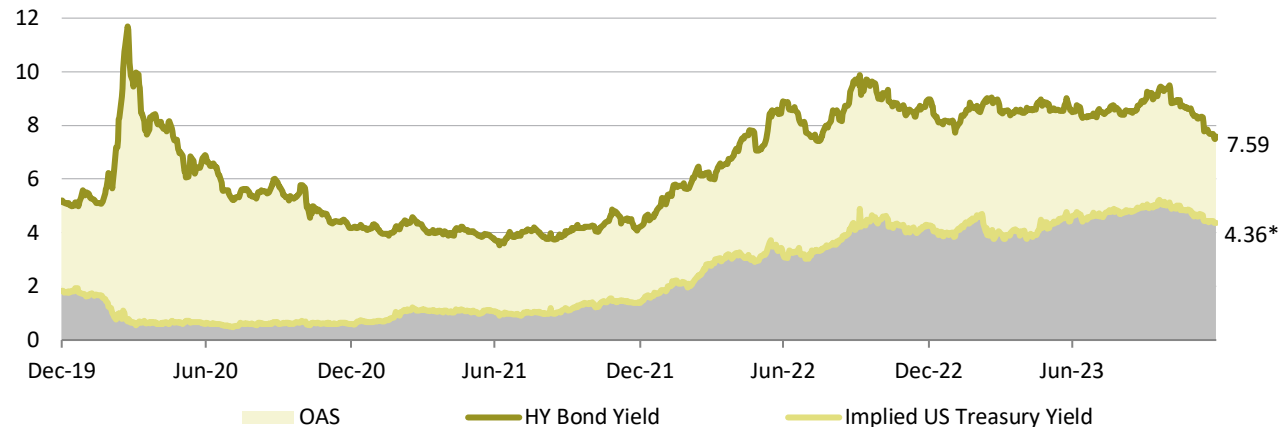
OPTION-ADJUSTED SPREADS (OAS) ON US INVESTMENT-GRADE AND HIGH-YIELD CORPORATE BONDS

December 31, 2019 – December 31, 2023 • Yield to Worst (%)

US Investment-Grade Corporate Bonds



US High-Yield Corporate Bonds



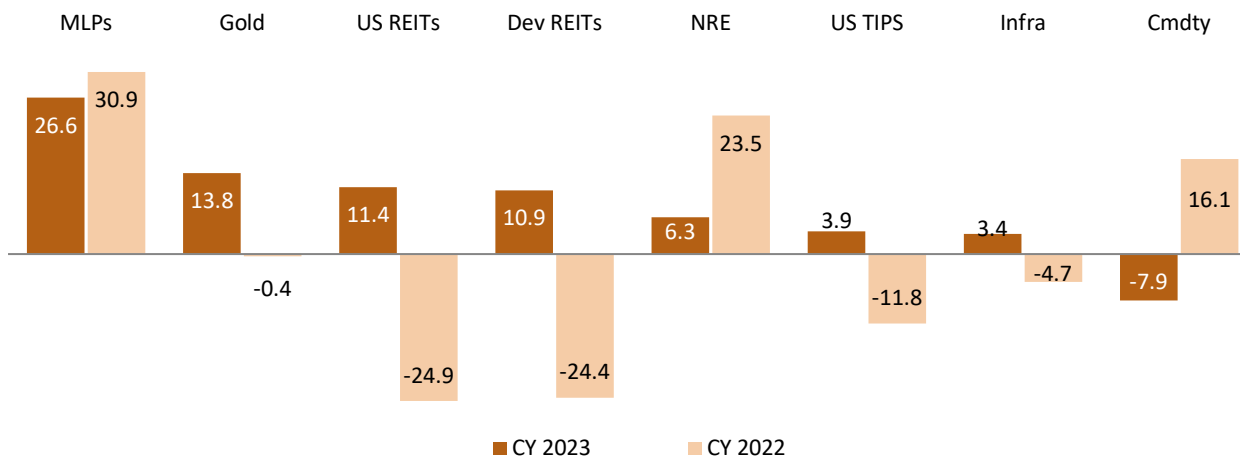
* US Treasury yields are calculated by subtracting the IG and HY OAS from the IG and HY bond yields, respectively.

Yields on corporate credit assets declined in 4Q 2023 as expectations of 2024 rate cuts pushed underlying sovereign yields lower. US corporate investment-grade (IG) bonds posted positive returns but lagged HY peers by almost 5 percentage points (ppts). The corporate IG bond index is longer duration (7+years) and was particularly impacted by the rise in discount rates, though moderate spread compression helped offset the impact. Shorter-duration HY corporates generated strong relative and absolute performance as spreads narrowed nearly 150 basis points. Both corporate IG and HY spreads declined to levels below historical medians despite signs of deteriorating fundamentals.

Most real assets posted positive returns and improved versus 2022

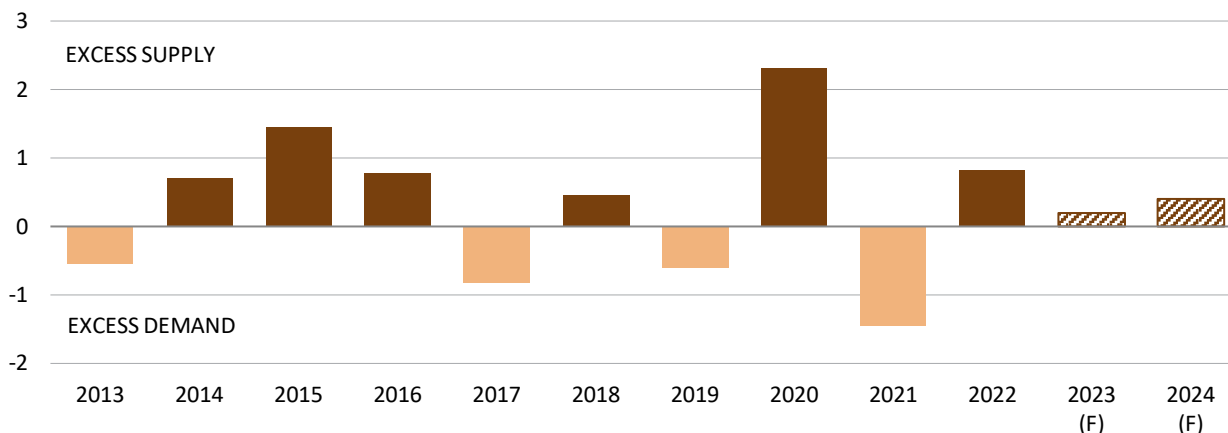
REAL ASSET AND INFLATION SENSITIVE PERFORMANCE: CY 2023 VS CY 2022

Total Return (%) • US Dollar



GLOBAL OIL SUPPLY AND DEMAND

2013–24 (f) • Millions Barrel Per Day



As expectations for policy rates cuts gained momentum, returns for interest rate-sensitive real assets such as REITs, US TIPS and infrastructure turned positive. REITs rebounded impressively in November and December, gaining roughly 10% in each of these months. Natural resource equities returns declined relative to a stellar 2022 on expectations of softening demand. Commodities were the only category presented here to post negative returns as oil prices plummeted 10%. Lower energy demand and production volume growth drove the oil market into an imbalance with excess supply. While energy MLPs posted softer returns than 2022, they were still impressive, offering investors attractive distribution yields. Energy infrastructure MLPs benefited from lower input costs.

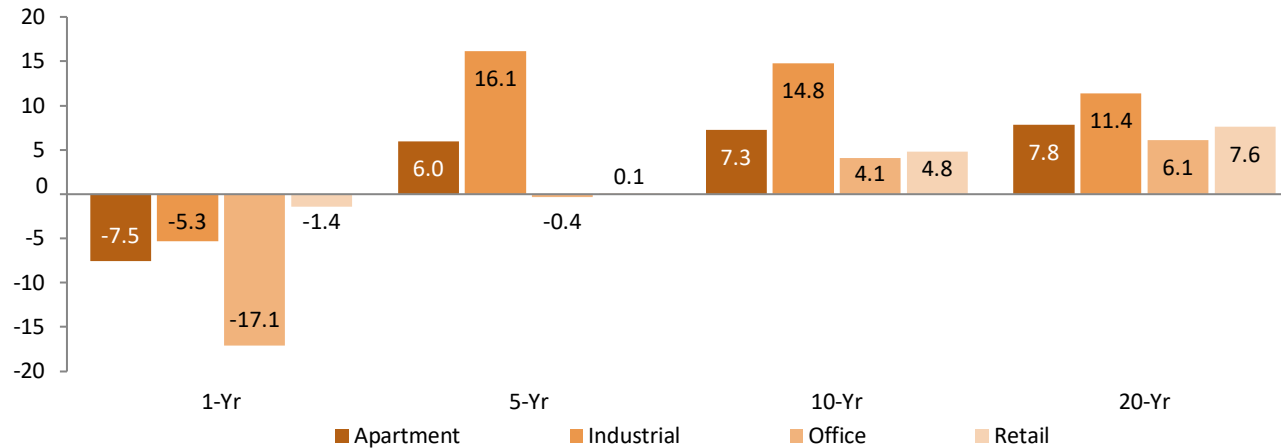
Sources: Alerian, Bloomberg Index Services Limited, EPRA, FTSE International Limited, Intercontinental Exchange, Inc., International Energy Agency, MSCI Inc., National Association of Real Estate Investment Trusts, Refinitiv, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

Notes: All returns are total returns, except those for gold, which are based on spot price returns. Asset classes represented by the following: Alerian MLP Index ("MLPs"), LBMA Gold Price ("Gold"), FTSE® NAREIT All Equity REITs Index ("US REITs"), FTSE® EPRA/NAREIT Developed Real Estate Index ("Dev REITs"), market cap-weighted blend of Datastream World Energy Index and Datastream World Basic Resources Index ("NRE"), Bloomberg US TIPS Index ("US TIPS"), MSCI World Infrastructure Index ("Infra"), and Bloomberg Commodity TR Index ("Cmdty"). Total return data for all MSCI indexes are net of dividend taxes. Excess oil supply/demand is calculated as annual global oil supply minus annual global oil demand. Oil supply and demand data are based on IEA forecasts beginning December 2023.

Real estate returns disappointed, with office lagging its peers

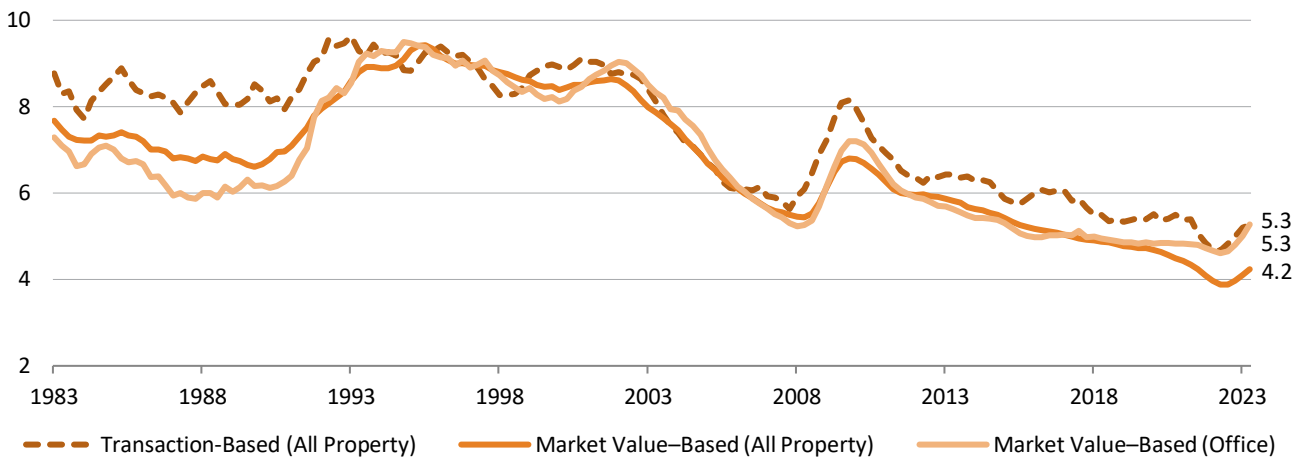
RETURNS BY PROPERTY TYPE

As of Third Quarter 2023 • AACR (%) • US Dollar



PROPERTY CAPITALIZATION RATES

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



Private real estate posted relatively disappointing one-year results, with all four major sub-sectors posting negative performance. Industrials posted negative returns despite secular tailwinds, while retail outperformed, as it continued to recover from the lows experienced during the pandemic. The apartment sector performance suffered because of increased supply coming to market. Office remained the most challenged sector as work-from-home trends persisted, leading to higher vacancy rates and lower property values. As a result, marked value-based office cap rates ticked up more than the broader category.

Gold price rebounded as yields remained rangebound

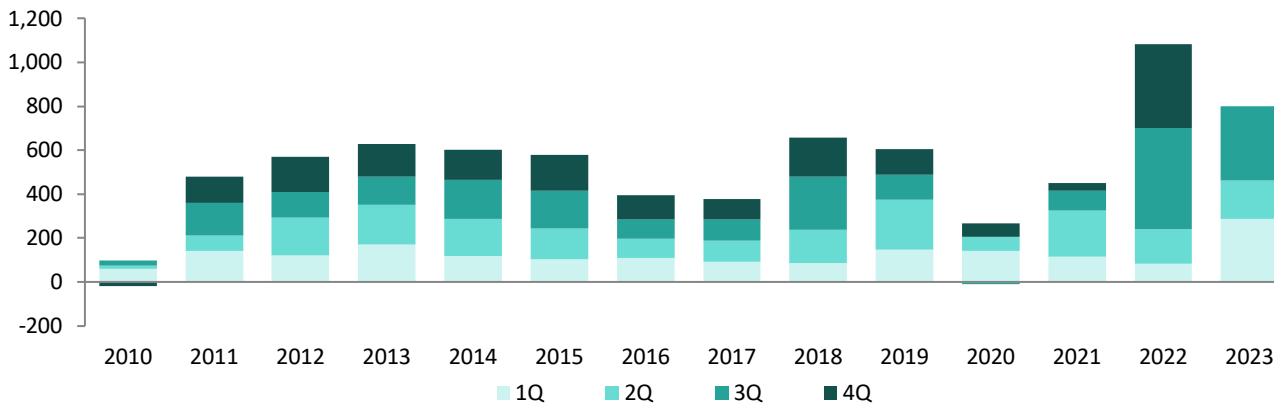
GOLD BULLION PRICE VS 10-YR US REAL YIELDS

December 31, 2012 – December 31, 2023



GLOBAL CENTRAL BANKS GOLD DEMAND

2010–23 (3Q) • Tonnes

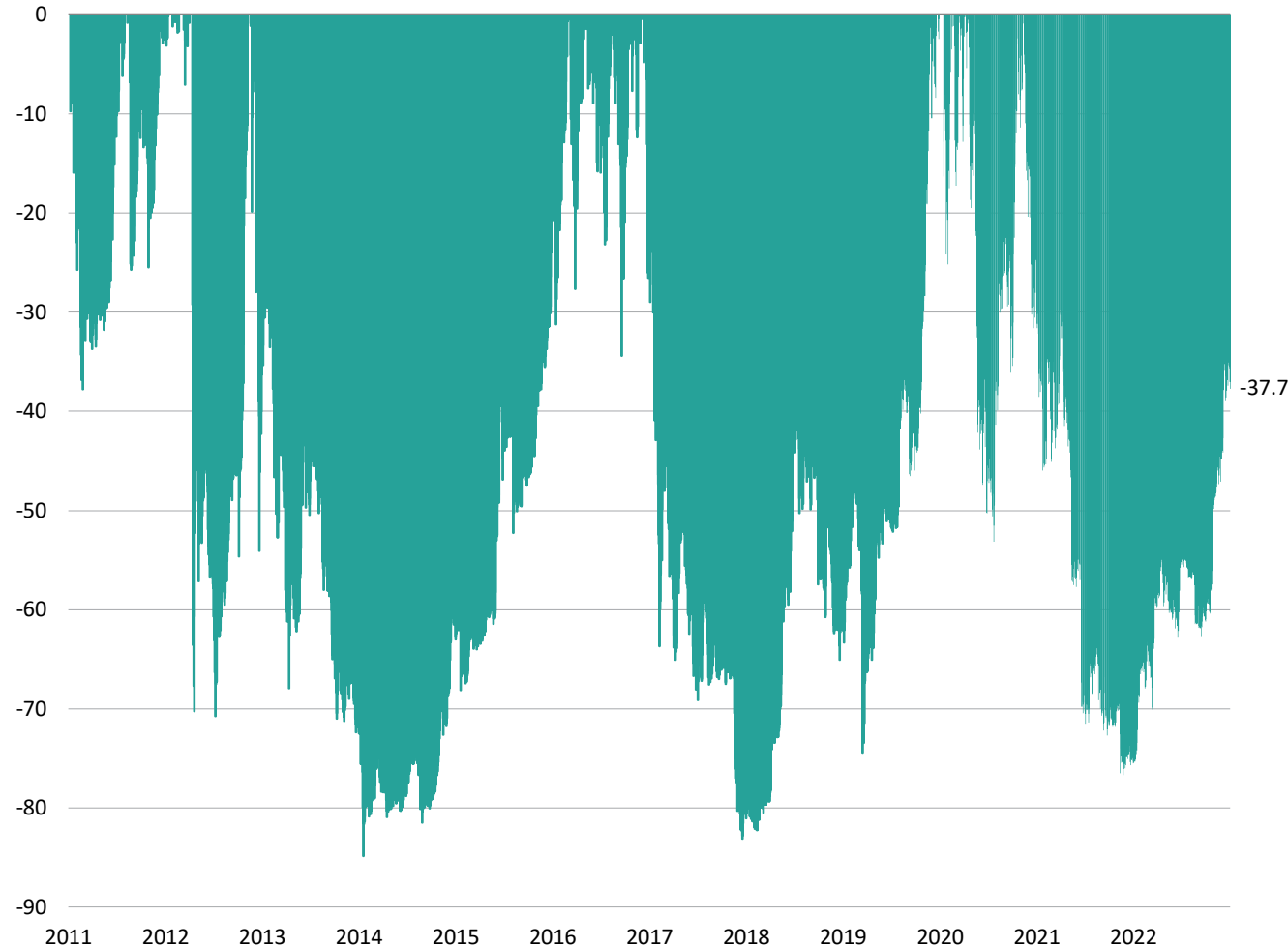


Historically, gold returns are negatively correlated with long-dated real yields, particularly those of the United States. This relationship broke down recently, as gold's value increased in USD terms, while real yields rose in 2022 and the early part of 2023. This was driven in part by continued strong demand from central banks. However, given its safe-haven status, gold prices markedly gained momentum 4Q 2023 on increased geopolitical risks. Gold closed the year at \$2065—the 93rd percentile of historic observations over the last 50 years adjusted for inflation.

Crypto winter thaws in 2023

BITCOIN PRICE DRAWDOWN FROM PREVIOUS ALL-TIME HIGH

December 31, 2011 – December 31, 2023 • US Dollar • Percent (%)

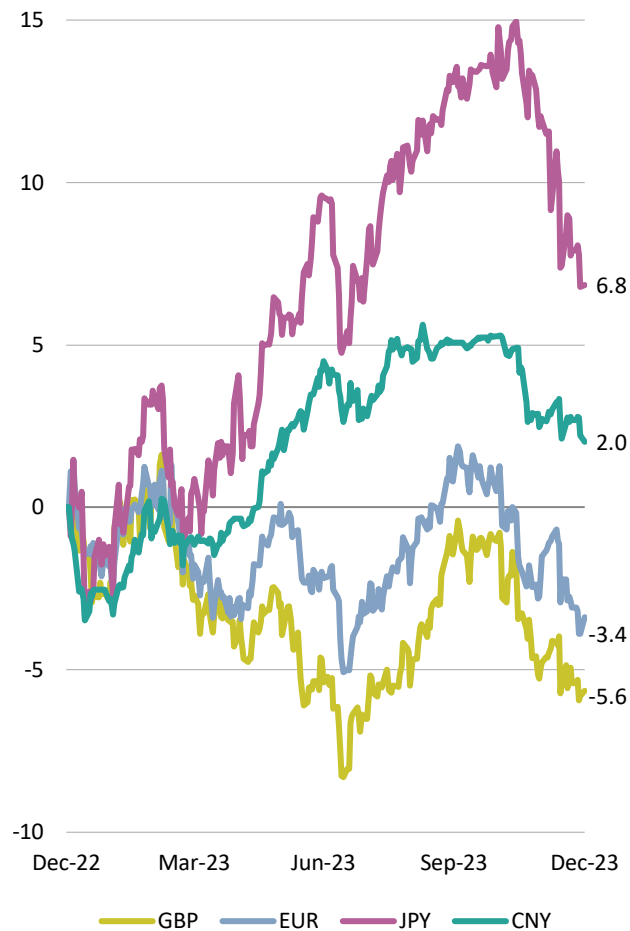


After a bruising 64% decline in 2022, Bitcoin prices rebounded over 150% in CY 2023 to \$42,085. Central banks began to tighten monetary policies in CY 2022 to tame inflation. The rise in interest rates particularly weighed on valuations of investments viewed at the highest end of the risk spectrum. Declines in 2022 led to bitcoin's fifth peak-to-trough drawdown of more than 70% in the past decade—not entirely unexpected for a relatively immature asset class. The asset class was also mired by bankruptcies and fraud. However, as investors began to price-in lower interest rates and anticipated the SEC approval of listing spot ETFs in early 2024, the asset class posted a robust recovery in 2023, yet it still ended the year 38% below its peak in November 2021.

US dollar weakened as expectations for interest rate differentials narrowed

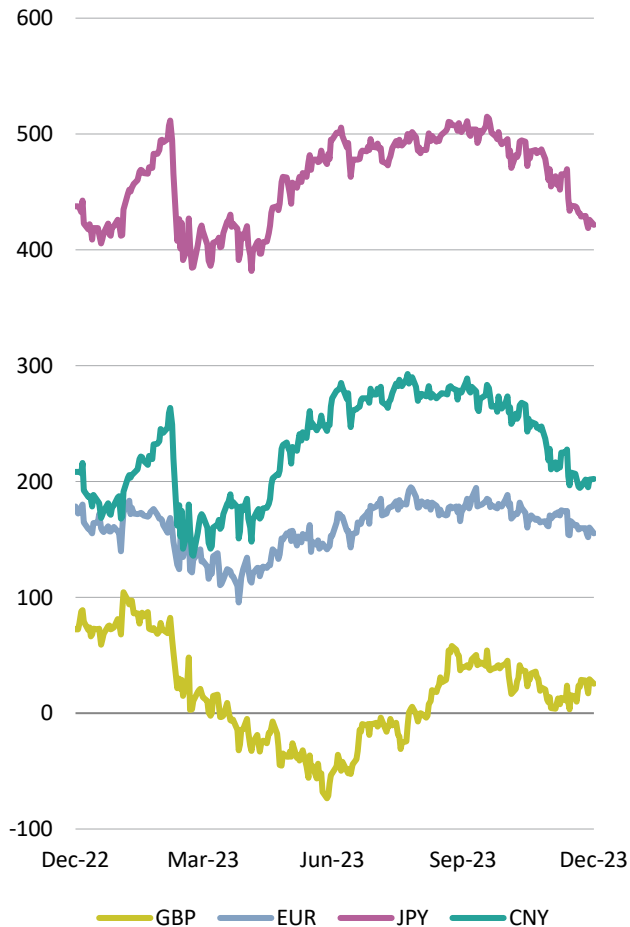
CY 2023 USD CUMULATIVE PERFORMANCE VS SELECT CURRENCIES

December 31, 2022 – December 31, 2023 • Percent (%)



US VS SELECT COUNTRIES 2-YR INTEREST RATE DIFFERENTIALS

December 31, 2022 – December 31, 2023 • Basis Points



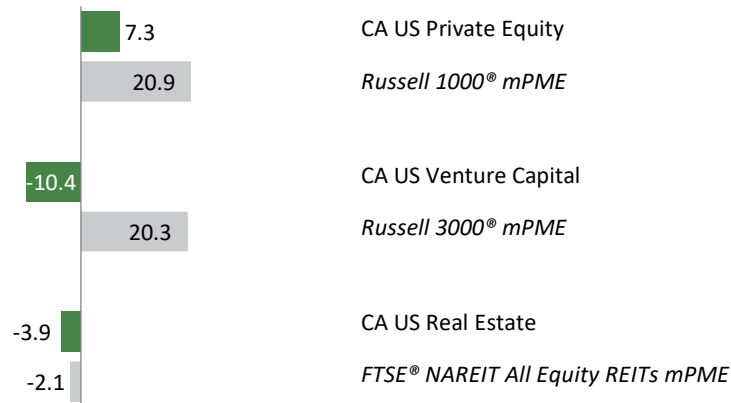
The US dollar index closed CY 2023 down almost 3%, with the currency losing steam as expectations for rate cuts in the United States gained momentum, narrowing the interest-rate differential versus other regions. Performance was weaker when compared to regions where interest rate tightening was perceived to be more prolonged than the United States, such as the United Kingdom and Europe. There were periods where the greenback's status as a safe-haven increased demand for the US dollar, such as during the banking crisis. The US dollar gained versus the yen and yuan, as those countries continue to pursue looser monetary policies.

Private markets performance moderated, mostly lagging public market counterparts

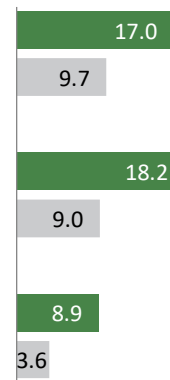
PERFORMANCE OF SELECT CAMBRIDGE ASSOCIATES PRIVATE INVESTMENT INDEXES VS PUBLIC EQUIVALENTS

As of Third Quarter 2023 • Percent (%)

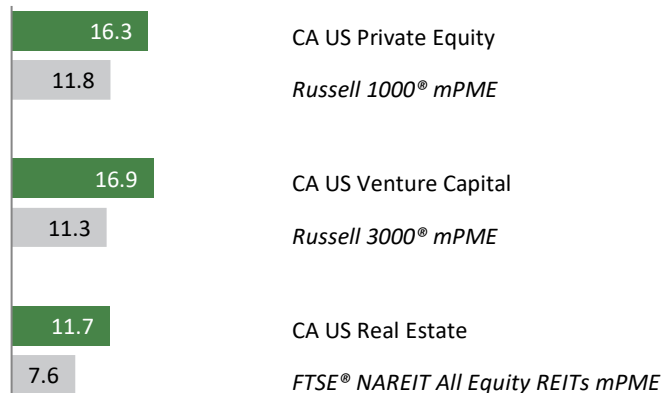
1-Yr Return



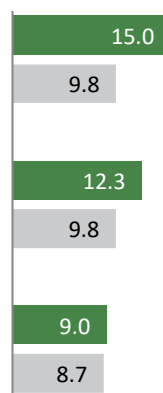
5-Yr Return



10-Yr Return



20-Yr Return



On a one-year basis through the end of 3Q 2023, private equity and venture capital underperformed their public counterparts as valuations adjusted to reflect tighter financial conditions. It was a tumultuous year for venture capital as the collapse of SVB, a key lender for its constituents, left markets concerned about future funding sources for the asset class. Private real estate underperformed public REITs, as valuations adjusted down to reflect higher interest rates. In the five-, ten-, and 20-year periods all three private assets outperformed their public counterparts.

Hedge fund performance rebounded

HEDGE FUND PERFORMANCE: CY 2023

Total Return (%) • US Dollar



Based on preliminary data from Hedge Fund Research, Inc., hedge fund performance rebounded in CY 2023. Given the rebound in equity markets since the lows of October 2022, strategies that tend to have net long equity exposure performed well. Markets became more concerned about tighter financial conditions in CY 2023, especially after a bout of banking failures, creating a favorable environment for event-driven and distressed strategies. However, as consensus grew among investors on monetary policy projections and potential rate cuts in 2024, there were fewer dislocations to take advantage of compared to the prior year. This resulted in macro and systematic diversified strategies posting the only negative returns in this group—a reversal from CY 2022.



David Kautter also contributed to this publication.

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