

Market Environment Report

January 2023

Market review & outlook

2022 Was a Difficult Year for both Stocks and Bonds



- Global markets moved higher for most of the quarter as signs emerged that inflation may have peaked.
 However, some of the quarter's gains were given back in December as fears of an economic slowdown and further Federal Reserve tightening weakened sentiment.
- Overall, Treasury yields saw modest changes during the quarter, outside of the short end of the curve where rates rose in line with Fed tightening. The 10-year Treasury yield peaked at 4.25% in late October, before moving lower and ending the quarter at 3.9%.
- The Bloomberg Aggregate Bond Index rose 1.9% in Q4, leaving it down 13% in 2022. The MSCI ACWI index rose 9.8%, but still ended the year 18.4% lower. For the calendar year, the simultaneous drawdown in both stocks and bonds left a traditional 60/40 portfolio down 16%.

Outlook Remains Uncertain



- The drawdown in stocks and bonds last year appears to be a reasonable response to the Federal Reserve's ('Fed') tightening cycle and the resulting uncertainty for economic growth. The decline in equities can be explained by the rise in interest rates putting downward pressure on valuations. The outlook for inflation and its impact on Fed policy likely will remain the key driver of markets' direction in 2023.
- Encouragingly, inflationary pressures appear to be easing. A warmer than usual winter in Europe has eased
 energy supply and price concerns overseas. Energy prices in the US are also off of their peak levels, which
 should lead the headline inflation rate lower over time. The gradual easing of supply chain issues and
 weaker demand could also slow core inflation. Shelter inflation is also showing signs of a potential peak.
 One concern for the inflation outlook is the labor market which remains strong. Another concern is that the
 re-opening of China's economy could drive increased demand, particularly for commodities.
- US GDP grew in the third quarter after modest declines in the first half of the year. However, the tightening
 of financial conditions is only just beginning to be felt. The drag likely will intensify in 2023, increasing the
 risk of at least a mild recession.
- A mild recession that reduces inflation could prove supportive of both stock and bond markets. The prospect
 of the Fed halting rate increases and a fall in longer-term interest rates could more than offset the negative
 impact of weak earnings for equities in a mild recession. The biggest downside risk we see for balanced
 portfolios is if inflation remains sticky even as the economy slows. This could require a more forceful Fed
 response and a deeper recession. This likely would result in continued weakness in stocks and bonds.



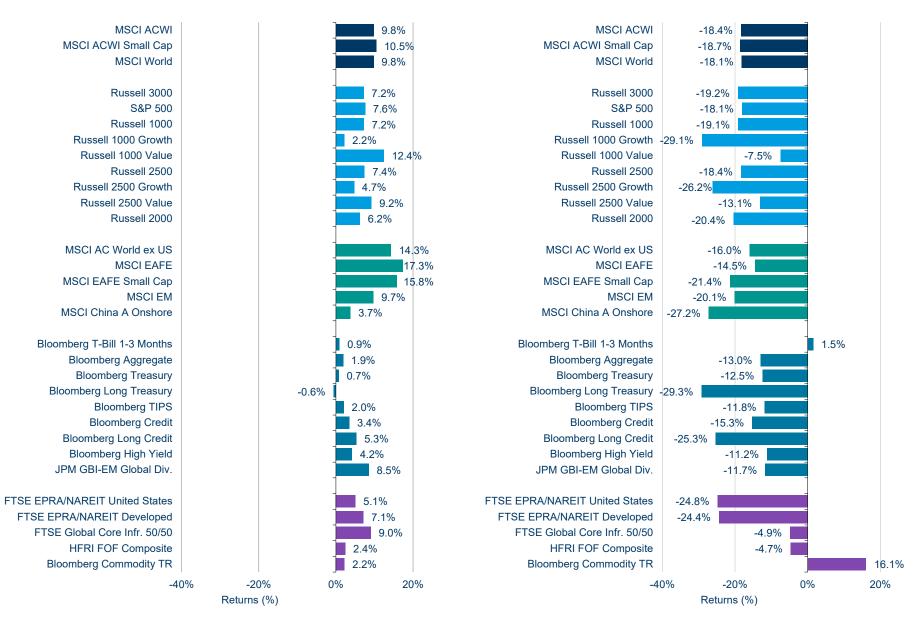
Performance summary

Market Performance

Fourth Quarter 2022

Market Performance

Year-to-Date



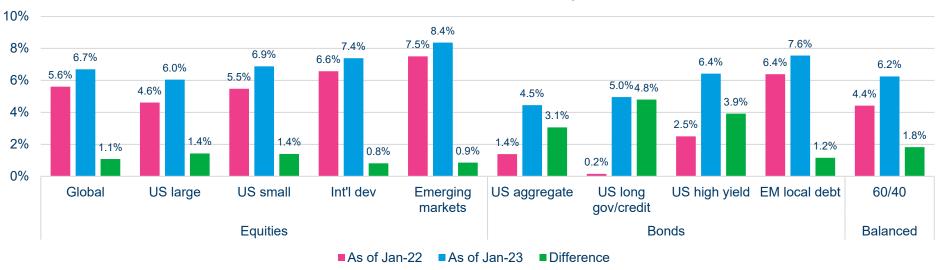
Source: Standard & Poor's, Russell, MSCI Barra, NAREIT, Bloomberg; as of 12/31/22

Source: Standard & Poor's, Russell, MSCI Barra, NAREIT, Bloomberg; as of 12/31/22

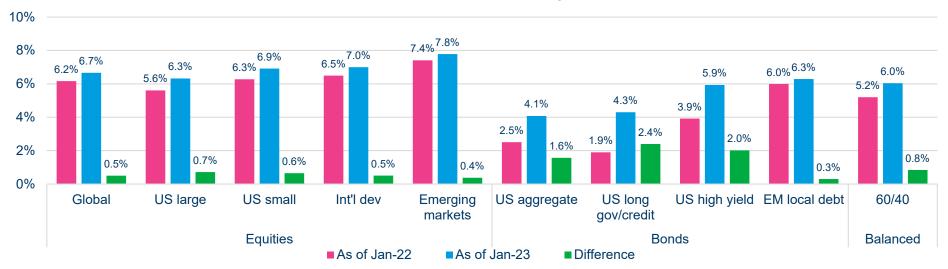


Mercer's long-term return forecasts increased materially in 2022

Mercer's 10Y Return Assumptions



Mercer's 20Y Return Assumptions



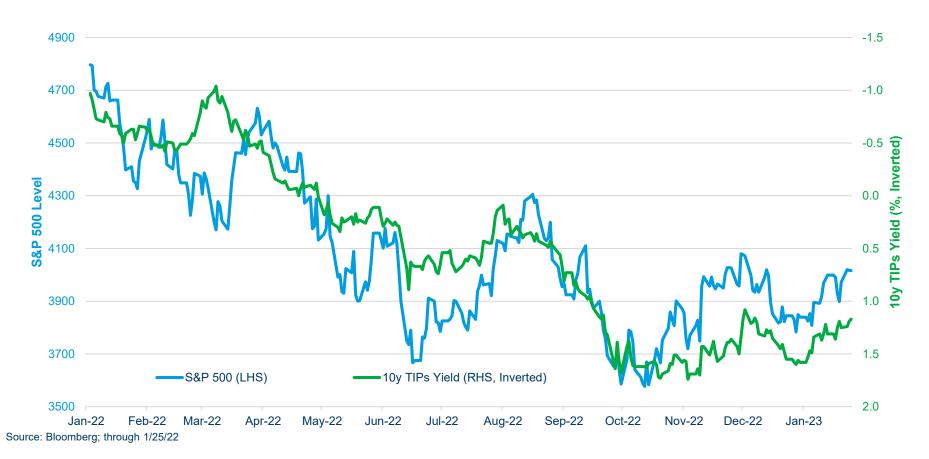
Source: Mercer's capital market assumptions; assumptions are gross of fees
Expected return, volatility, and correlation are hypothetical projections and are derived using Mercer's forward-looking Capital Market Assumptions methodology. There can be no assurance that these results can be achieved. Actual results are likely to vary. Please see Important Notices for further information on Risk and Return Expectations.



The equity bear market has mostly been driven by higher interest rates

The surge in interest rates in 2022 was the primary driver of the bear market in equities. The S&P 500 has been particularly sensitive to the real yield on TIPS. The recovery in markets since October 2022 has generally tracked a reduction in the real yield. Looking ahead, the outlook for inflation and its impact on Fed policy likely will remain the key driver of the markets' direction.

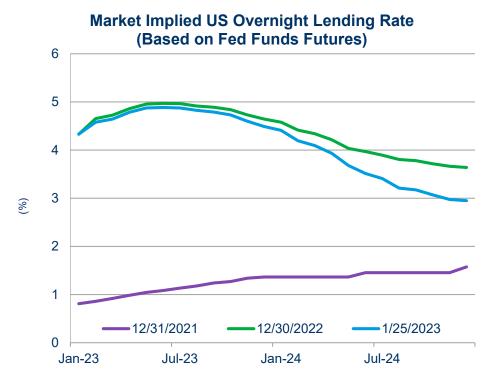
S&P 500 and 10y TIPs Real Yield





The market has priced a 5% peak Fed Funds rate, but with the next easing cycle starting late this year

The bond market implies the Fed will tighten another 50bps during the first half of the year, peaking with a Fed Fund's rate range of 4.75% to 5%. Markets price the Fed to begin an easing cycle late this year, with significant cuts implied for 2024. The risk to interest rates has probably shifted from further rate hikes to the length of time the Fed remains at the peak rate.



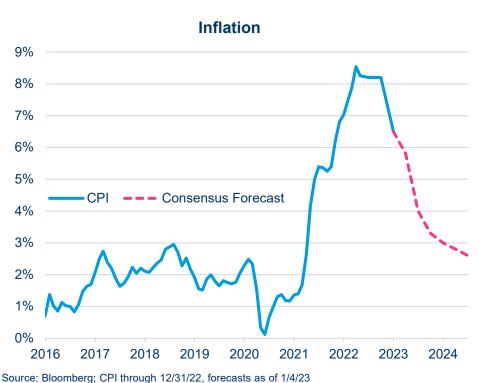


Source: Bloomberg

Source: Bloomberg, as of 1/25/22

Inflation pressures have eased, but the labor market remains tight

Inflation was 6.5% for 2023, down from a peak of 9.1% in mid-2022. Falling energy and goods prices weakened the inflationary impulse. Encouragingly, core inflation exhousing has deflated at a 1.1% annualized rate over the last three months. (The housing component is lagged, not yet reflecting the recent weakness in rents.) Wage growth has eased somewhat, but remains concerning. With the labor market remaining tight, there are few indications of a rapid easing in wage pressures, which might keep the Fed cautious even if the CPI falls back to target in 2023.



(3m Annualized Change)

10%

5%

CPI

(3m Annualized Change)

5%

CPI — Core CPI ex-Shelter — CPI Shelter

-5%

Jan-21 Apr-21 Jul-21 Oct-21 Jan-22 Apr-22 Jul-22 Oct-22

Source: Bloomberg; through 12/31/22



Markets are pricing a rapid decline in inflation

Consistent with economists' consensus forecasts, markets are pricing a rapid decline in inflation over the next year. Longer-term inflation expectations also remain in check. It suggests that the tightening priced by markets will be enough to bring inflation lower, and allow the Fed to begin letting off the brake later this year. This highlights a risk to the outlook. If inflation is stickier than what markets expect, then it could induce the Fed keep policy tighter for longer, which would be negative for both stocks and bonds.

Inflation Swaps



Inflation Breakeven Rate on TIPS



Source: Bloomberg, Mercer; through 12/30/22

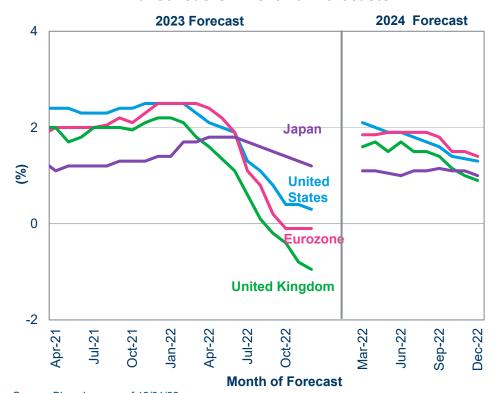
Source: Bloomberg, Mercer; as of 12/30/22



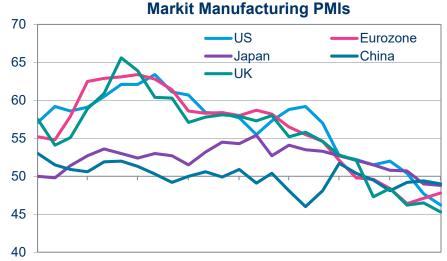
Global growth continued to soften, but China's reopening is a potential positive

Economists continued to trim 2023 growth forecasts as PMIs suggested contractions in economic activity. European economies are expected to contract in 2023. However, European economic data has been better than expected lately, helped by falling energy costs. The US is expected to grow only 0.3% in 2023, which would be consistent with a mild recession during the year. China's reopening should help to support global demand, but could add to inflationary pressures.

Consensus GDP Growth Forecasts



Source: Bloomberg; as of 12/31/22



Dec-20 Mar-21 Jun-21 Sep-21 Dec-21 Mar-22 Jun-22 Sep-22 Dec-22 Source: Bloomberg; as of 12/31/22

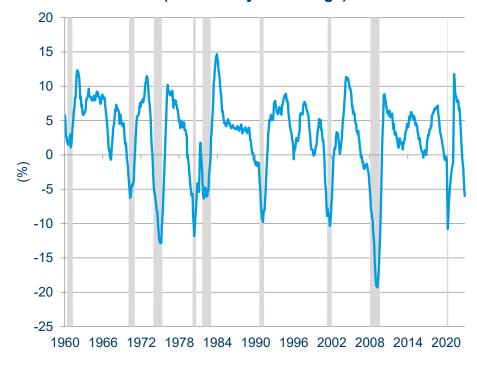




Leading indicators signal a US recession in 2023

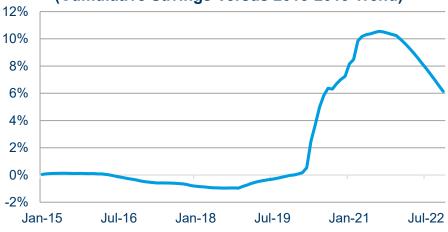
The odds of the US entering a recession have increased as financial conditions tightened. Economists polled by Bloomberg estimate a 70% chance of entering a recession in 2023. However, the health of household finances should keep any recession relatively mild. However, this might eventually prove a double-edged sword. Demand could stay too strong even as financial conditions tighten, requiring a more forceful Fed response. Despite recessionary fears, business investment has remained solid.

Conference Board Leading Economic Indicators (Year-over-year Change)



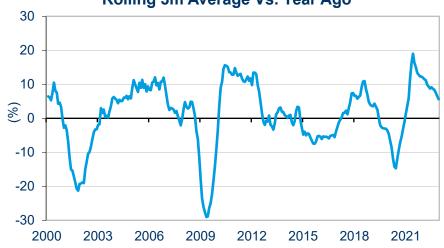
Source: Bloomberg, through 12/31/22

Excess Household Savings as Share of GDP (Cumulative Savings Versus 2015-2019 Trend)



Source: Bureau of Economic Analysis, through 11/30/22

Nondefense Capital Goods Orders (Ex. Aircraft) Rolling 3m Average Vs. Year Ago



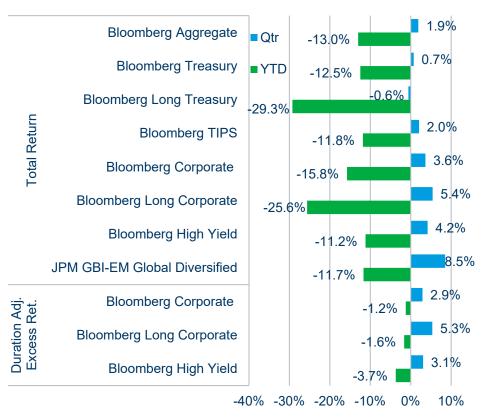
Source: Bloomberg, through 12/31/22



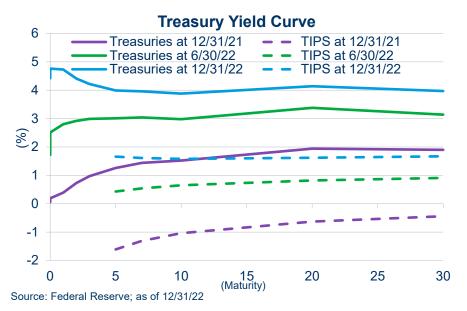
What happened in fixed income in Q4?

Fixed income delivered modest gains in Q4, but the Bloomberg Aggregate declined 13% over the past year. Longer-term yields saw little change during the quarter, but rose significantly during 2022, with the 10-year Treasury yield rising from 1.5% to 3.9%. Credit spreads generally fell during the quarter, with investment-grade spreads narrowing by 29 bps, while high yield spreads fell by 84 bps. TIPS outperformed Treasuries due to a modest increase in inflation-breakeven rates.

Fixed Income Performance





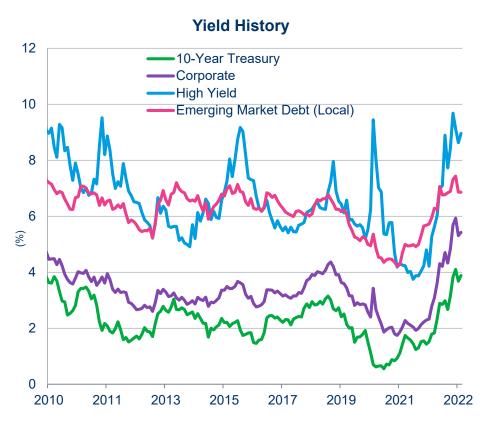


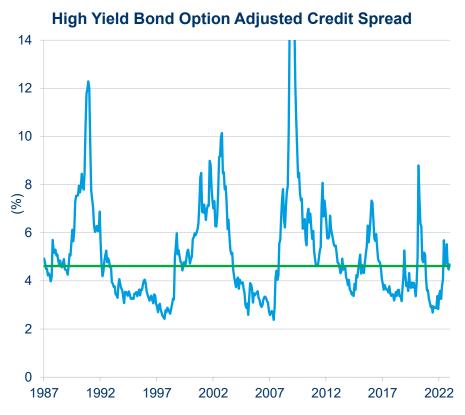
Source: Bloomberg, Datastream; as of 12/31/22



The reward-to-risk of fixed income has improved

The increase in interest rates has improved the return outlook for fixed income. A 4% 10-year Treasury yield provides reasonable income to offset potential further increases in rates, while offering downside protection should the economy suffer a hard landing. TIPS have an inflation-protected yield of 1.7%, the highest in more than a decade. Some riskier fixed income securities have yields competitive with equity expected returns. High yield bonds finished the quarter with a yield of nearly 10% and a spread of 5.5% to Treasuries. Although high yield spreads are likely to rise further if the US enters a recession, providing a potentially better entry point.





Source: Federal Reserve, Bloomberg; as of 12/30/22

Source: Bloomberg; through 12/30/22



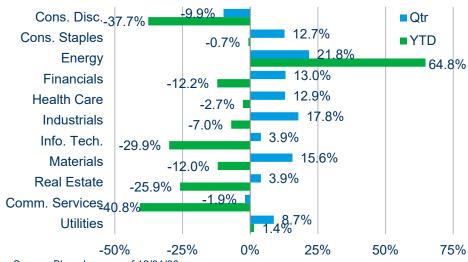
What happened in equity markets in Q4?

Equities rebounded in Q4, although MSCI ACWI finished the year with an 18.4% loss. Value stocks performed considerably better than growth stocks over the past year, and large-cap value was the best performing style segment. Energy was the best performing sector during Q4 and finished 2022 up almost 65%. MSCI EAFE outperformed the S&P 500 in local terms during Q4 and US dollar weakness added 860 bps to US\$ returns.

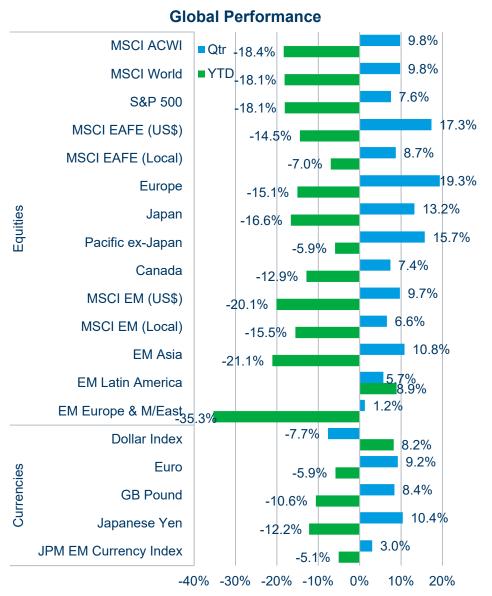
US Style Performance (%)

		Q4			2022	
	Value	Blend	Growth	Value	Blend	Growth
Russell Top 200	13.4	6.6	1.1	-5.1	-19.8	-29.7
Russell Midcap	10.4	9.2	6.9	-12.0	-17.3	-26.7
Russell 2000	8.4	6.2	4.1	-14.5	-20.4	-26.4

MSCI USA Sector Returns



Source: Bloomberg; as of 12/31/22 Source: Bloomberg, Datastream; as of 12/31/22







Equity valuations have improved, but bonds have become more competitive

Equity valuations improved in 2022. The Shiller P/E on the MSCI US fell from 36 to 26. However, the prospective equity risk premium over long-term Treasuries fell as the expected return on bonds rose by more than that on equities. The equity risk premium is at its lowest level since before the financial crisis. Historically, the equity risk premium has tended to rise going into recessions.





S&P 500 - Equity Risk Premium Versus Long-Term Treasuries



Note: the equity risk premium represents a normalized earnings yield on the S&P 500 less the real return on 30y Treasuries.

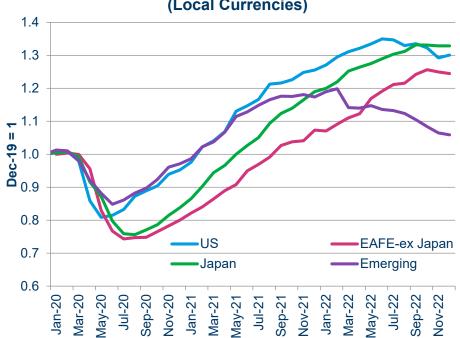
Source: Bloomberg, Refinitiv, Mercer, through 12/30/22



Earnings estimates likely have further to fall

While economists expect a recession in 2023, stock analysts have been slow to adjust earnings estimates downward. US forward earnings estimates are down only 4% since peaking in the summer. Wage growth is likely to begin cutting into profit margins. The slowdown in inflation means companies have less pricing power. Inflation-adjusted wages are beginning rise. The market might, however, look through a period of weak earnings in a mild recession, especially if it is accompanied by a reduction in interest rates.

Forward Operating Earnings Estimates (Local Currencies)

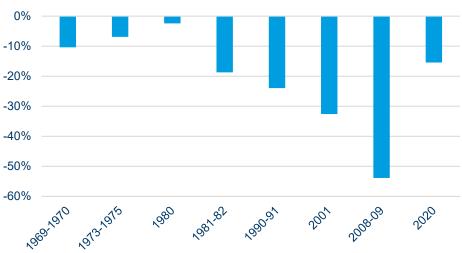


Source: Datastream, through 12/31/22

S&P 500 Profit Margin on Sales 14 12 10 8 6 4 2 Trailing 12-months 10y Average Long-term Average 1956 1962 1968 1974 1980 1986 1992 1998 2004 2010 2016 2022

Source: S&P, through 12/31/22

MSCI US Earnings Performance Around Recessions



Source: Datastream, Mercer calculations



The outperformance of value stocks could continue

The Russell 1000 Value Index outperformed its growth counterpart by 22 percentage points in 2022. This has largely corrected the outsized premium on growth relative to and value, although growth still trades modestly rich versus history. Mercer continues to favor value stocks. Style performance tends to exhibit long, multi-year cycles, with momentum eventually causing an overshoot. This suggests value should continue to outperform.

Relative Performance Russell 1000 Growth / Value



Source: Bloomberg; as of 12/30/22

Valuation of MSCI US Growth to Value (Based on P/B, P/CF, P/E and FPE)



Source: Bloomberg; as of 12/30/22

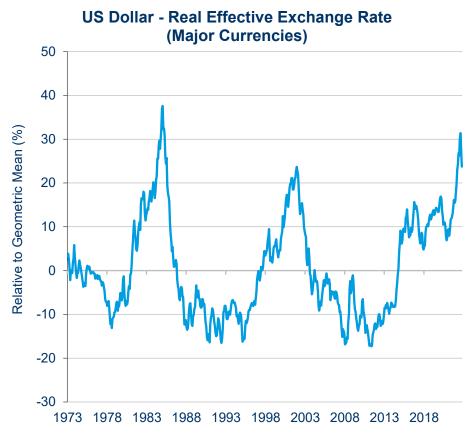
Z-score represents the number of standard deviations away from the mean



The dollar tumbled during the quarter, but was higher for the year

The dollar index (DXY) tumbled 8% in the fourth quarter as foreign interest rates rose versus US rates, and falling energy prices eased strains on Europe. Still, the dollar finished 2022 8% higher as the Fed tightened at a faster pace than other central banks. The dollar's real effective exchange rate remains nearly 25% above the long-term average, suggesting the potential for further weakness.





Source: Bloomberg, Mercer calculations; through 12/31/2022



Have international equites finally turned the corner?

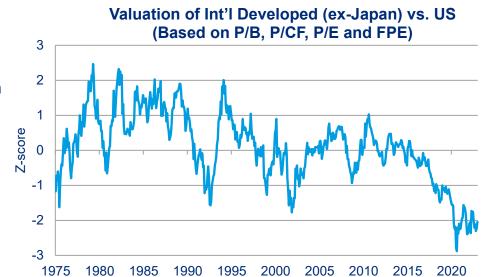
Despite the strength of the dollar in 2022, MSCI EAFE outperformed the S&P 500 for the first time since 2017. Emerging markets slightly underperformed, but showed positive momentum in the fourth quarter with China's reopening. We think 2022 may have marked a turning point in the performance of US versus the rest-of-the-world. International developed and emerging valuations are attractive versus the US. In addition, the dollar remains expensive. The reopening of China should provide a tailwind to not only emerging markets, but also Europe and Japan.

Ratio of MSCI US to MSCI EAFE (Relative

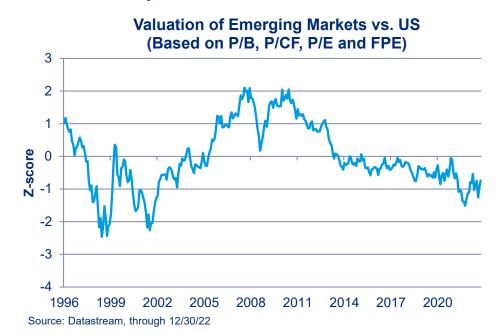




Source: Datastream; as of 12/31/22



Source: Datastream, through 12/30/22





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Important Notices (continued)

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Expected return, volatility, and correlation are hypothetical projections and are derived using Mercer's forward-looking Capital Market Assumptions methodology. Actual return, volatility, and correlation may be lower or higher than the data quoted. The expectations for the modelled portfolio are a compilation of return, volatility, and correlation expectations of the underlying asset classes.

Portfolio expectations are forward looking and reflective of Mercer's Capital Market Assumptions, as defined by asset class and incorporating return, standard deviation, and correlations. Our process for setting asset class expected returns begins with developing an estimate of the long term normal level of economic growth and inflation. From these two key assumptions, we develop an estimate for corporate earnings growth and the natural level of interest rates. From these values, we can then determine the expected long term return of the core asset classes, equity and government bonds. We combine current valuations with our expectations for long term normal valuations and incorporate a reversion to normal valuations over a period of up to five years. Volatility and correlation assumptions are based more directly on historical experience except in cases in which the market environment has clearly changed. Manager impact on performance is not incorporated into expectations. The views expressed are provided for discussion purposes and do not provide any assurance or guarantee of future returns.

Expected return is shown gross of investment advisory, investment manager fees, brokerage and other commissions and assumes the reinvestment of dividends and other earnings. Periods over one year are annualized.

Hypothetical performance results and related statistics do not represent the results of actual trading using client assets. Actual results may significantly differ from the hypothetical returns being presented. Investors may experience loss. The time periods shown represent a variety of economic and market conditions, including the unpredictability of such conditions and includes periods of market volatility. There are limitations with the data presented below as each client would have its own investment objectives, risk tolerance, goals and benchmarks for its portfolios. Performance results for individual client portfolios will vary due to possible inclusion of cash and cash equivalents, reinvestment of dividends, interest and other earnings including timing of investments, withdrawals among other reasons.

Actual returns would be reduced by advisory and other expenses as brokerage commissions, custodial costs and other expenses. Actual fees would vary depending on, among other things, the applicable fee schedule, portfolio size and/or investment management agreement. Further information regarding investment advisory fees are described in our Form ADV, Part 2A.

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