

A decorative geometric pattern of overlapping triangles in shades of blue and green is overlaid on the left side of the image. A large white triangle is positioned to the left of the main title text.

**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

FEBRUARY 2023  
Capital Markets Update

# Market commentary

## U.S. ECONOMICS

- Labor market strength remained persistent, but job growth decelerated compared to the month prior. U.S. nonfarm payrolls increased by 311,000, above expectations of 225,000. In addition to continued job strength, both the unemployment (3.6%) and labor force participation (62.5%) rates ticked higher.
- The University of Michigan Index of Consumer Sentiment continued its ascent from all-time lows tallied in mid-2022 to reach 67.0 in February. While the index was boosted by improved sentiment around the economy, inflation expectations for the year ahead rose +0.2% to 4.1% while long-term expectations were stable at 2.9%.
- The ISM Manufacturing PMI (47.4) remained in contractionary territory for a fourth consecutive month. All index components were in contractionary territory aside from the Prices Index (51.3).

## U.S. EQUITIES

- After climbing in early February, all major equity indices declined as hopes for a more dovish Federal Reserve waned. Investors assessed a greater likelihood of higher interest rates following hotter-than-expected CPI and PCE inflation prints which pressured risk markets.
- Per FactSet, 99% of S&P 500 constituents had reported Q4 earnings as of March 3<sup>rd</sup>, and reported results were nearly in-line with estimates from a month prior. Earnings per share (EPS) growth for the index measured -4.6% in Q4 2022 and marked the first year-over-year decline since Q3 2020.
- In addition to negative growth, earnings among index constituents fared worse than normal relative to analyst expectations. Just 68% of index members beat EPS estimates in Q4, below the 5- and 10-year averages of 77% and 73%, respectively.

## U.S. FIXED INCOME

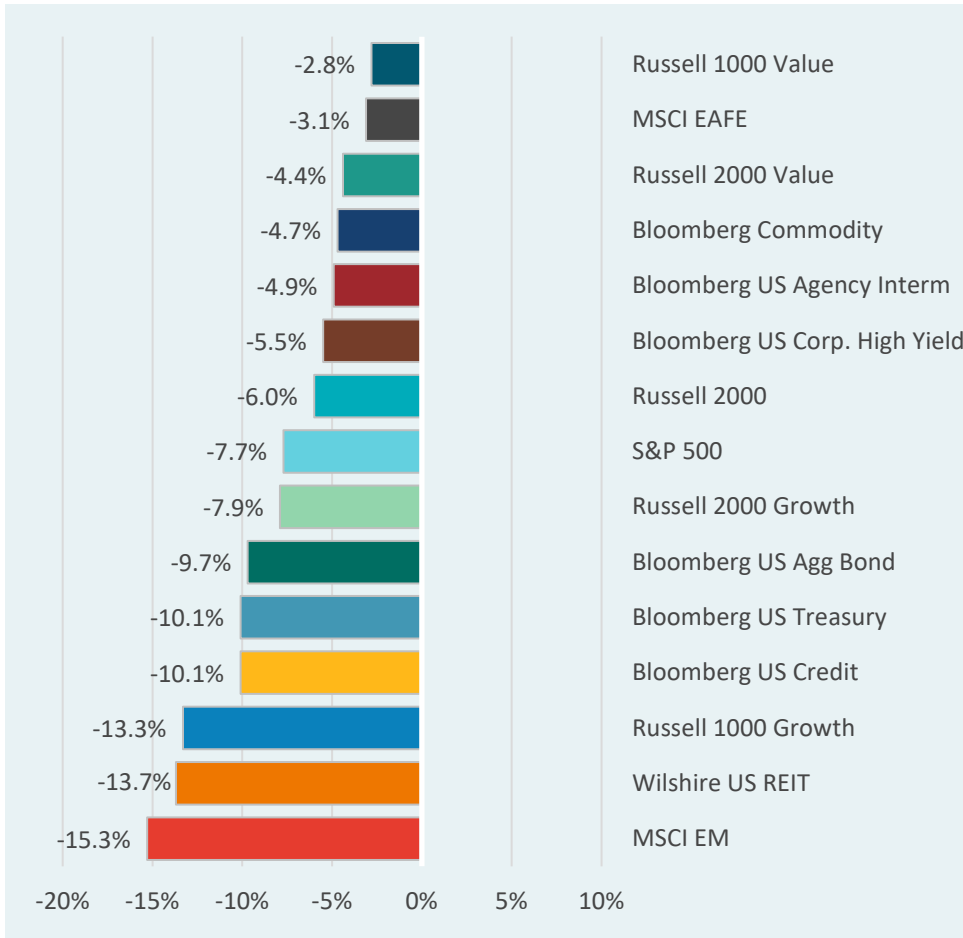
- On the 1<sup>st</sup> of the month the Federal Reserve voted unanimously to raise the target fed fund rate to a range of 4.50% to 4.75%. The 25bps hike was accompanied by perceived dovish commentary, but optimism quickly faded as Chairman Powell reiterated that rates may be higher for longer and that disinflation still had a long way to go.
- Yields across the curve moved higher but were more pronounced in the 10- and 2-year which rose by +40bps and +60bps, respectively. As a result, the 10/2 spread widened to -89bps, the largest deficit in over 30 years.
- In a reversal from January, the dollar regained some strength with the DXY Index rising +2.7%. The rebound was likely driven by the hawkish repricing of rate hike expectations and higher-than-expected inflation data releases.

## INTERNATIONAL MARKETS

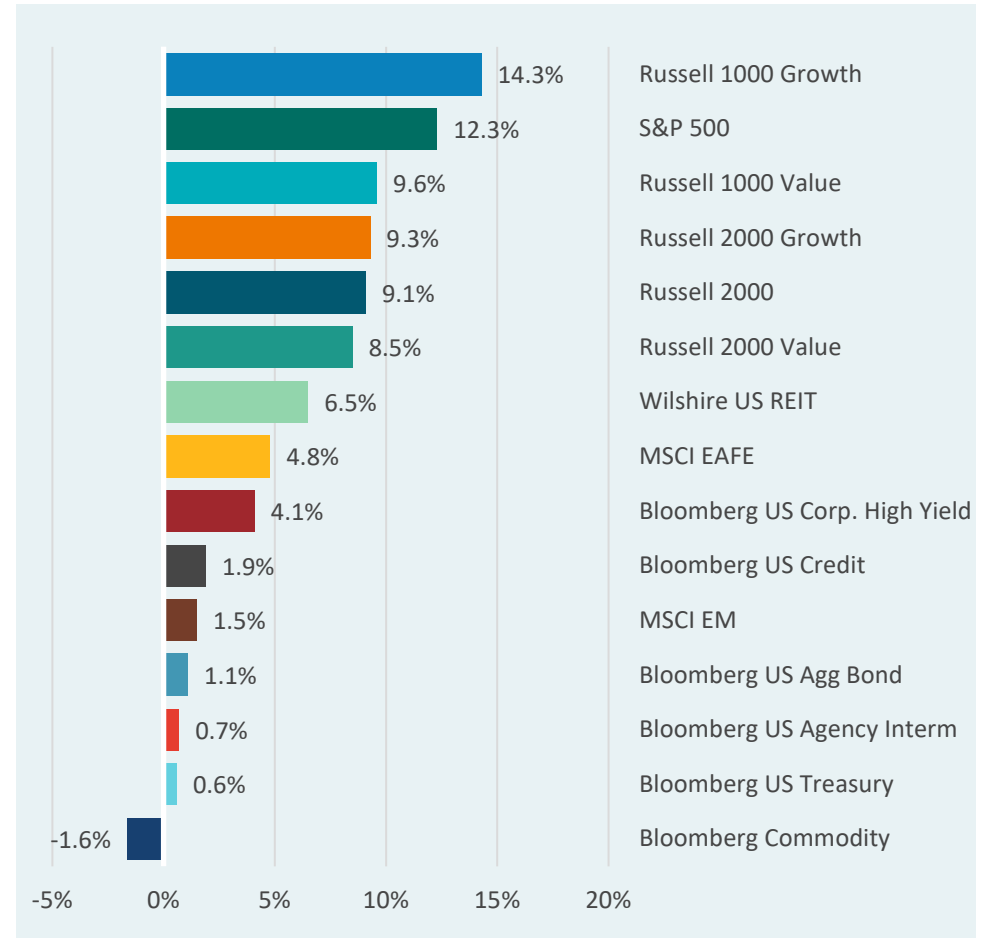
- Sovereign bond yields rose globally following additional rate hikes from major central banks. The ECB and the Bank of England both raised interest rates by +50bps.
- The MSCI UK Index (+0.2%) was the only broad regional index with positive performance for the month. The GDP release from the Office for National Statistics showed that unlike in Q3, the UK economy did not contract in Q4. Improved company earnings and signs of slowing inflation were also contributing factors.
- Japan nominated Kazuo Ueda to begin as the next BOJ governor in April. Ueda joins the Bank amidst 41-year high inflation. There remains uncertainty as to whether the future governor will make quick strides to reverse nearly a decade of dovish BOJ policy.

# Major asset class returns

ONE YEAR ENDING FEBRUARY



TEN YEARS ENDING FEBRUARY



\*Only publicly traded asset performance is shown here. Performance of private assets is typically released with a 3- to 6-month delay.

Source: Morningstar, as of 2/28/23

Source: Morningstar, as of 2/28/23

# U.S. large cap equities

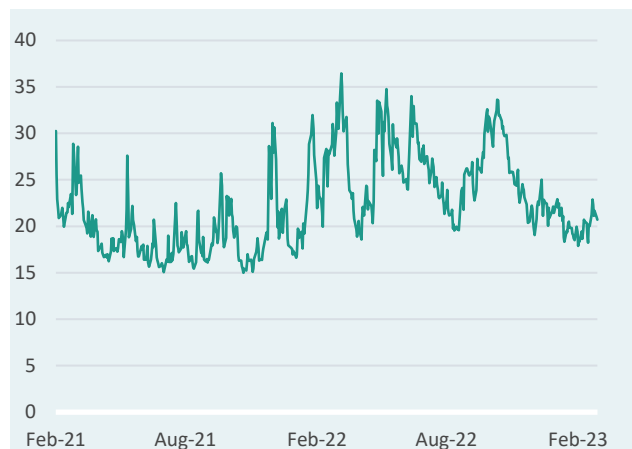
- The S&P 500 Index (-2.4%) reversed course after a wave of strong economic data increased investor expectations of prolonged Fed hawkishness. Additional headwinds, including declines in Q1 earnings estimates and weaker-than-expected guidance from U.S. conglomerates, weighed on large-cap performance.
- All S&P 500 GICS Sectors declined aside from Technology (+0.4%). The Industrials (-0.9%) and Consumer Discretionary (-2.1%) sectors fell narrowly while losses were largest in the Energy (-7.1%), Real Estate (-5.9%), and Utilities (-5.9%) sectors.
- The Technology sector moved higher with help from a continued recovery in semiconductor names along with growing discussion of the rise in artificial intelligence. Chipmaker Nvidia (NVDA), who occupies 1.7% of the S&P 500, rallied +18.8% on strong Q4 earnings and expectations of market leadership in AI computing.
- The Cboe VIX Index of implied volatility rose by a modest +1.3 points to end the month at 20.7 despite hitting a new 1-year low on February 1<sup>st</sup>. Volatility tapered-off toward the end of the month as investors accepted a greater likelihood of aggressive Fed action, in sharp contrast to the optimism of early February.

**S&P 500 PRICE INDEX**



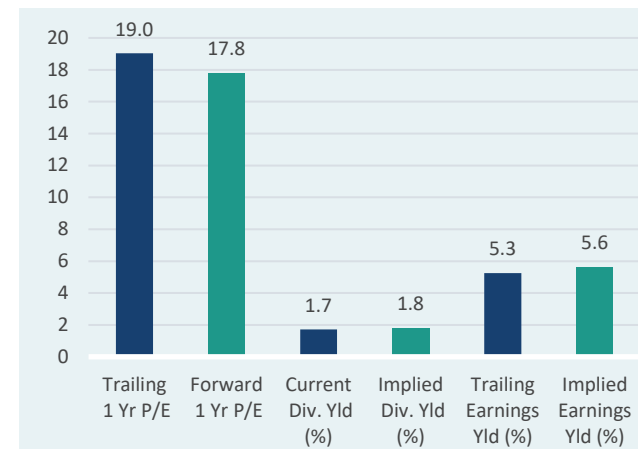
Source: Bloomberg, as of 2/28/23

**IMPLIED VOLATILITY (VIX INDEX)**



Source: Cboe, as of 2/28/23

**S&P 500 VALUATION SNAPSHOT**

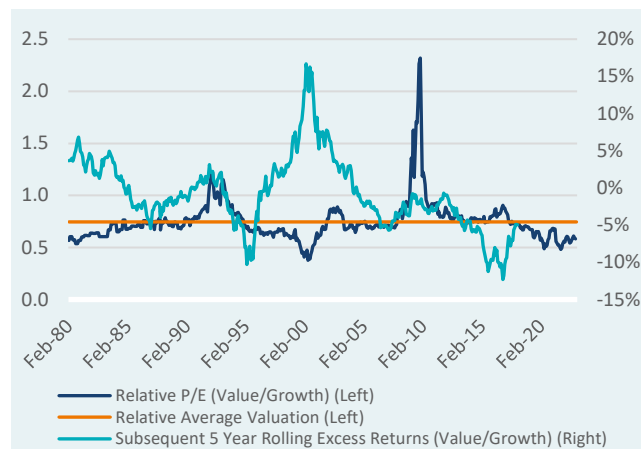


Source: Bloomberg, as of 2/28/23

# Domestic equity size and style

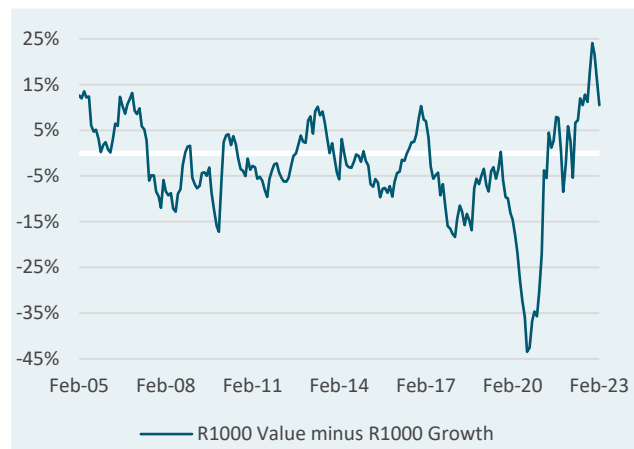
- Large-cap growth equities (-1.2%) fell less than value (-3.5%) in a second month of growth overperformance. Growth equities rallied early in the month on sentiment that the Fed might slow its tightening cycle, but changing expectations drove a reversal.
- Small-cap stocks (-1.7%) declined narrowly and continued their year-to-date outperformance of large-caps. The Russell 2000 Index has led domestic equity indices in 2023, outperforming the S&P 500 and Dow Jones Industrial Average by 4.2% and 9.0%, respectively.
- Despite the recent rally, small-caps appear more cheaply valued compared to large-cap peers when measured against historical multiples. The Russell 2000 was trading at 21.1x forward earnings at month end, representing a 10.6% discount to its 10-year average, compared to just a 1.7% discount on the S&P 500.
- Recent strength in more concentrated sectors including technology and consumer discretionary drove a reversal in the relative performance of the equal-weight index. The S&P 500 Equal Weight Index fell -3.3%, lagging the cap-weighted index by -0.8%.

**VALUE VS. GROWTH RELATIVE VALUATIONS**



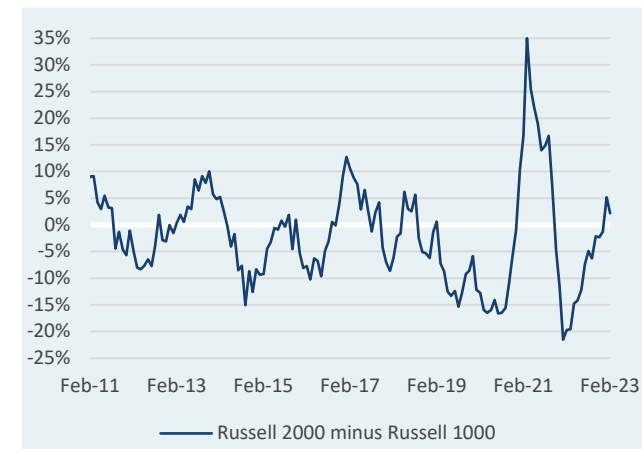
Source: FTSE, Bloomberg, as of 2/28/23

**VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE**



Source: FTSE, Bloomberg, as of 2/28/23

**SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE**

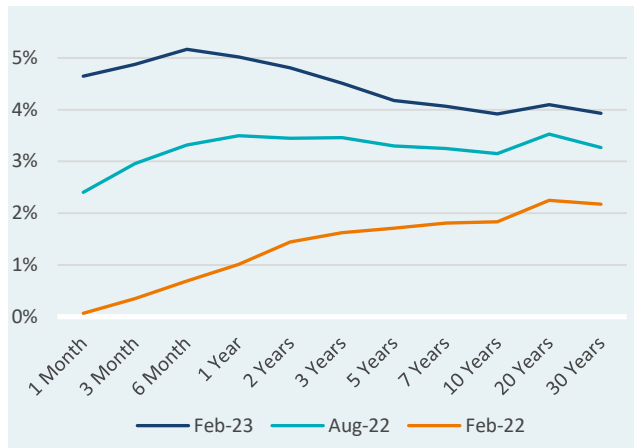


Source: FTSE, Bloomberg, as of 2/28/23

# Fixed income

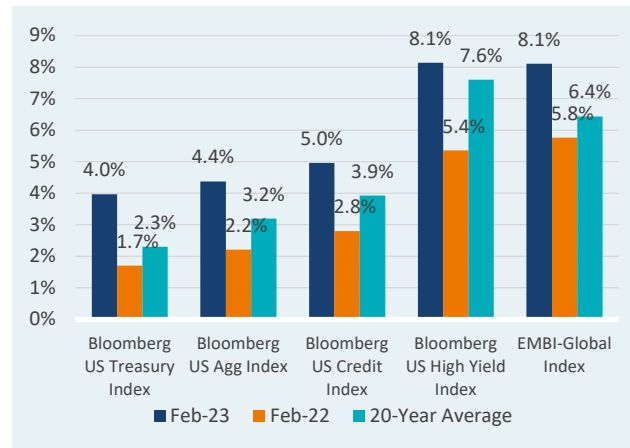
- Persistent strength in U.S. economic data reversed prior month expectations of an incoming Fed pivot. Yields rose across the curve on renewed investor bets that the Fed would continue to raise interest rates in its effort to combat high inflation.
- Recent highs in yields have made short-term government tenors appear increasingly attractive compared to other investments. Yields on 6-month T-bills rose +38bps to end the month at 5.17%, now exceeding earnings yields on the 60/40 portfolio (5.09%) for the first time since 2001.
- Expectations of higher rates made for a tough environment in the bond market in February. The Bloomberg US Aggregate was down -2.6%, negative across all sub-indices but particularly on the long end of the curve. The Bloomberg US Long Treasury Index was down -4.7%.
- Leveraged loans (Morningstar LSTA U.S. Leveraged Loan Index +0.6%) outperformed the broader fixed income landscape, given the low duration of the index. Lower quality CCC-rated leveraged loans outperformed other ratings across the index.

**U.S. TREASURY YIELD CURVE**



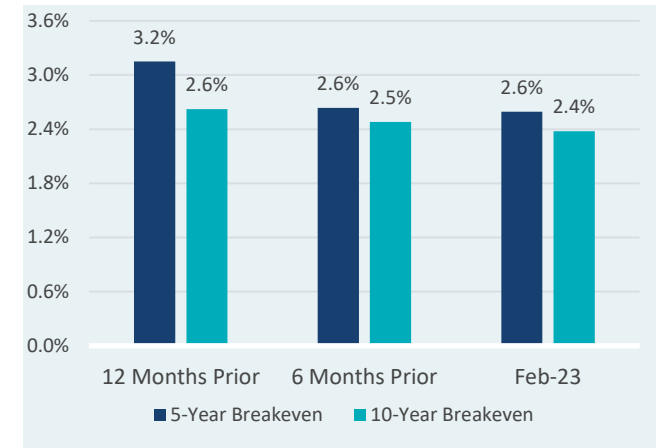
Source: Bloomberg, as of 2/28/23

**NOMINAL YIELDS**



Source: Morningstar, as of 2/28/23

**BREAKEVEN INFLATION RATES**

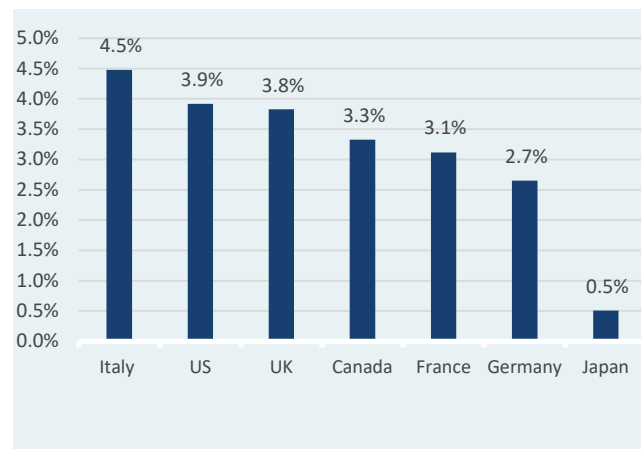


Source: Bloomberg, as of 2/28/23

# Global markets

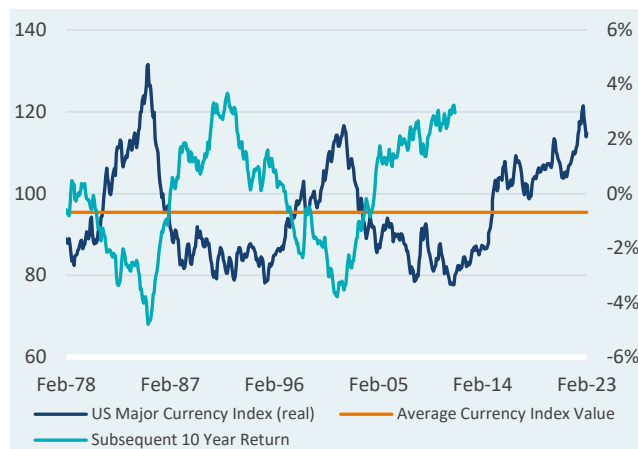
- Global equities (MSCI ACWI Index -2.9%) marginally underperformed domestic equities but are up year-to-date. An increase in sovereign bond yields across developed markets along with rising tensions in key emerging market countries weighed on global equity performance.
- In contrast to domestic trends, international value stocks (MSCI EAFE Value -1.4%) fell less than growth (MSCI EAFE Growth -2.8%). The value index holds a greater percentage of energy stocks, the only international developed sector to end the month in the green.
- The MSCI China Index (-9.9%) was one of the hardest hit markets. Among other factors, China faced headwinds from rising geopolitical tensions, weaker economic growth expectations, and some fading enthusiasm around its reopening.
- The MSCI Emerging Markets Index fell -6.5%, underperforming global equities. The strengthening of the dollar, re-escalation of US-China tensions and expectations for continued rate hikes likely contributed to the difficult environment.

## GLOBAL SOVEREIGN 10-YEAR YIELDS



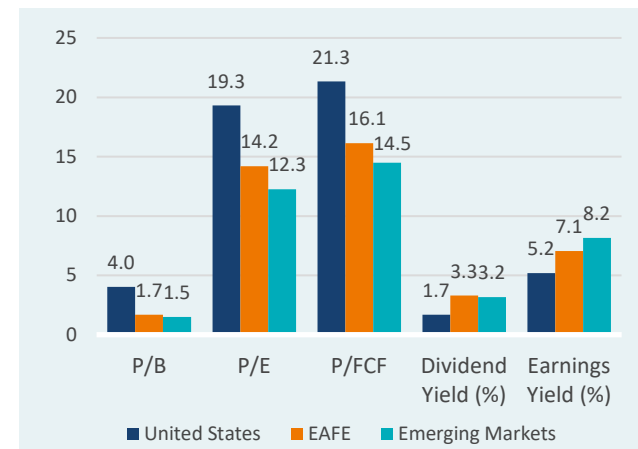
Source: Bloomberg, as of 2/28/23

## U.S. DOLLAR MAJOR CURRENCY INDEX



Source: Federal Reserve, as of 2/28/23

## MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 2/28/23

# Commodities

- The Bloomberg Commodity Index fell -4.7% in a continuation of the recent downtrend in commodities markets. Notable gains were limited to lower-weight index constituents including the Livestock and Softs Sub-Indices while larger components including metals and agriculture led the index lower.
- Within grains, soft red winter and hard red winter wheat led the decline – down -7.3% and -7.5% respectively. Global wheat prices have experienced downward pressure from investor expectations of supply recovery and stabilization in Australia, Canada, and Russia going into 2023.

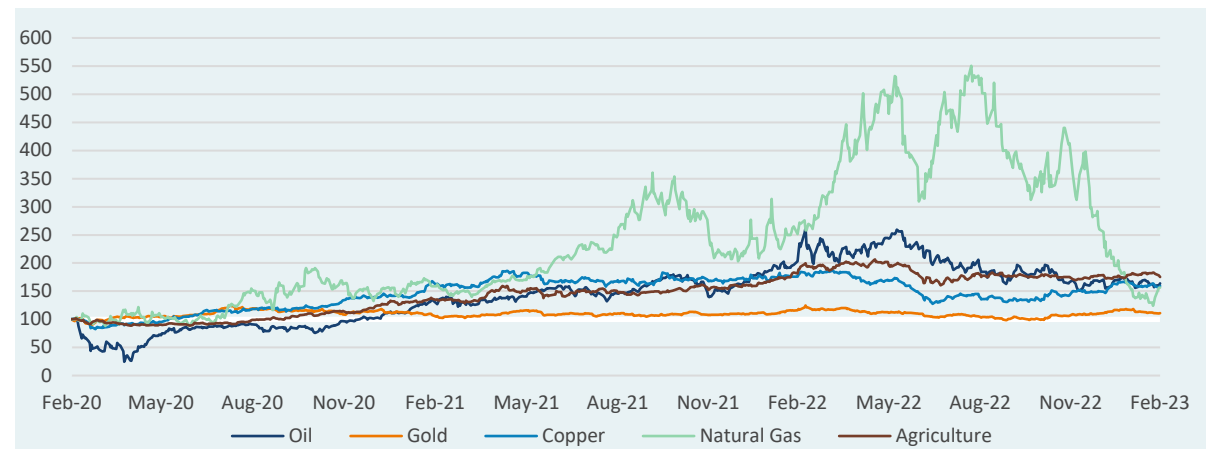
- All components of the Bloomberg Industrial Metals Sub-Index (-9.1%) finished in the negative. Zinc (-11.6%), aluminum (-10.7%), and nickel (-18.4%) struggled even amid the China reopening. While the general outlook remains uncertain, rising inventories have begun to alleviate some of the pricing pressures created by shortages over the past year.
- The Bloomberg Precious Metals Index finished the month -6.8% lower. Gold (-5.6%) and silver (-11.6%) both retreated in February, with silver posting its worst 1-month performance since March 2020.

## INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	(4.7)	(5.2)	(5.2)	(4.7)	15.5	5.3	(1.6)
Bloomberg Agriculture	(3.2)	(1.0)	(1.0)	(0.7)	21.9	7.6	(0.8)
Bloomberg Energy	(3.3)	(12.6)	(12.6)	(6.6)	11.2	0.8	(8.0)
Bloomberg Grains	(5.5)	(5.5)	(5.5)	(6.5)	19.9	6.5	(2.6)
Bloomberg Industrial Metals	(9.1)	(1.8)	(1.8)	(12.5)	17.2	5.0	1.7
Bloomberg Livestock	0.8	(2.0)	(2.0)	0.7	1.8	(3.5)	(2.8)
Bloomberg Petroleum	(3.5)	(3.6)	(3.6)	9.0	22.1	8.4	(3.8)
Bloomberg Precious Metals	(6.8)	(2.7)	(2.7)	(6.3)	4.7	5.3	(0.5)
Bloomberg Softs	0.4	9.0	9.0	3.3	18.0	6.0	(1.8)

Source: Morningstar, as of 2/28/23

## COMMODITY PERFORMANCE



Source: Bloomberg, as of 2/28/23



# Appendix

# Periodic table of returns

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	5-Year	10-Year
Small Cap Growth	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	38.5	28.3	16.1	8.8	11.5	14.3
Small Cap Equity	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	34.6	27.6	9.4	7.9	9.7	12.1
Large Cap Growth	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	21.0	27.1	1.5	7.0	7.5	9.6
Small Cap Value	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	20.0	26.5	-4.7	7.0	7.2	9.3
International Equity	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	18.3	25.2	-7.5	5.8	6.4	9.1
Large Cap Equity	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.4	14.0	17.7	-13.0	4.2	6.0	8.8
60/40 Global Portfolio	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.0	10.3	14.8	-14.5	2.4	5.3	8.5
Large Cap Value	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	7.8	11.3	-14.5	1.5	5.1	4.8
Emerging Markets Equity	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	7.5	8.9	-17.3	0.9	3.2	4.8
Cash	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	4.6	6.5	-19.1	0.6	3.0	3.6
US Bonds	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	2.8	2.8	-20.1	0.4	2.6	1.5
Real Estate	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	0.5	0.0	-20.4	0.0	1.3	1.1
Hedge Funds of Funds	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	0.5	-1.5	-26.4	-4.7	0.5	0.8
Commodities	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-3.1	-2.5	-29.1	-5.2	-1.9	-1.6

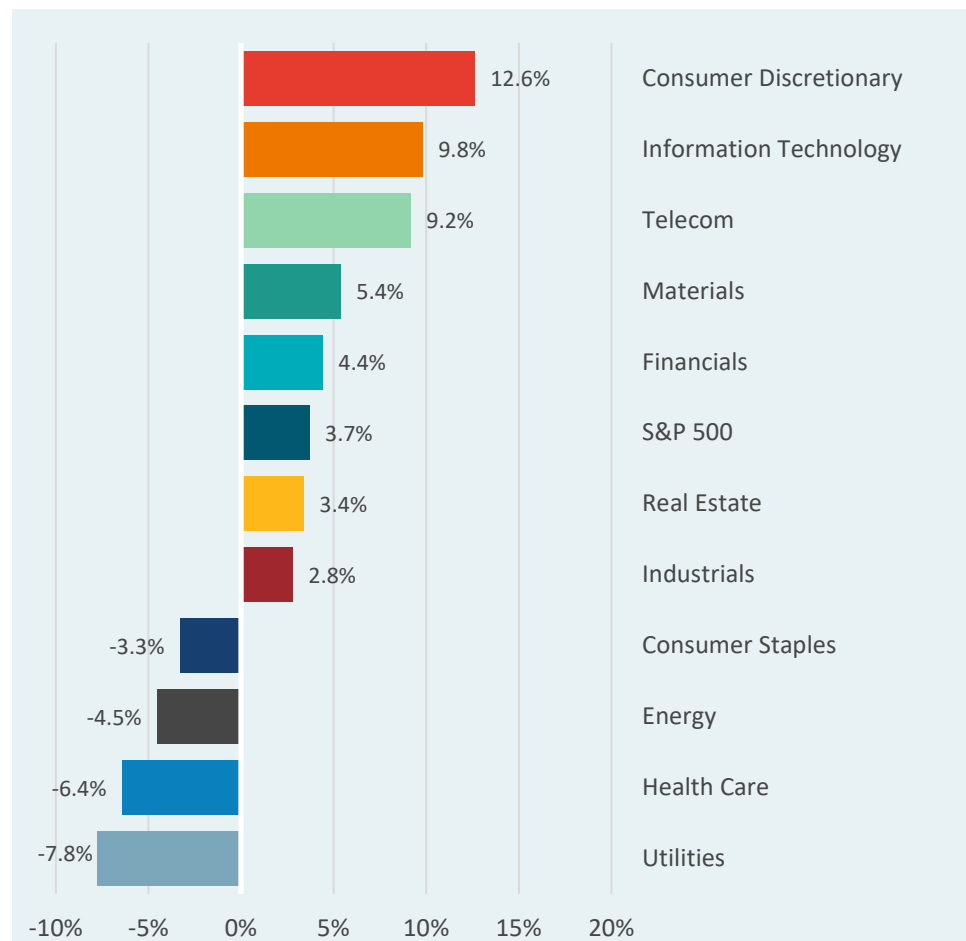
BEST  
↑  
↓  
WORST



Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, Bloomberg US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, Bloomberg Global Bond. NCREIF Property Index performance data as of 12/31/22.

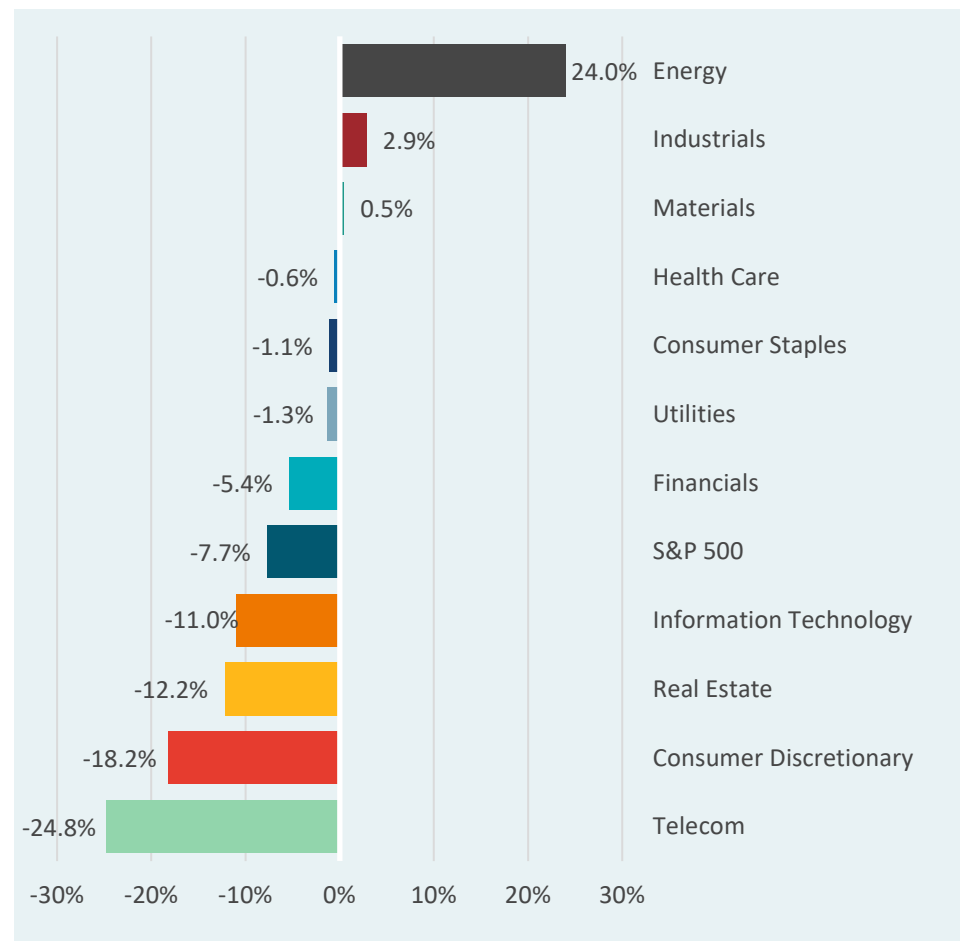
# S&P 500 sector returns

QTD



Source: Morningstar, as of 2/28/23

ONE YEAR ENDING FEBRUARY



Source: Morningstar, as of 2/28/23

# Detailed index returns

## DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Core Index</b>							
S&P 500	(2.4)	3.7	3.7	(7.7)	12.1	9.8	12.3
S&P 500 Equal Weighted	(3.3)	3.8	3.8	(3.0)	14.6	9.9	12.0
DJ Industrial Average	(3.9)	(1.1)	(1.1)	(1.6)	11.0	7.8	11.3
Russell Top 200	(2.4)	3.6	3.6	(9.3)	12.1	10.2	12.6
Russell 1000	(2.4)	4.2	4.2	(8.2)	11.9	9.7	12.1
Russell 2000	(1.7)	7.9	7.9	(6.0)	10.1	6.0	9.1
Russell 3000	(2.3)	4.4	4.4	(8.1)	11.8	9.4	11.9
Russell Mid Cap	(2.4)	5.7	5.7	(5.0)	11.5	8.4	10.7
<b>Style Index</b>							
Russell 1000 Growth	(1.2)	7.0	7.0	(13.3)	12.1	11.5	14.3
Russell 1000 Value	(3.5)	1.5	1.5	(2.8)	11.0	7.2	9.6
Russell 2000 Growth	(1.1)	8.8	8.8	(7.9)	6.5	5.1	9.3
Russell 2000 Value	(2.3)	7.0	7.0	(4.4)	12.9	6.4	8.5

## INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
MSCI ACWI	(2.9)	4.1	4.1	(8.3)	8.8	5.8	7.9
MSCI ACWI ex US	(3.5)	4.3	4.3	(7.2)	5.3	1.6	3.9
MSCI EAFE	(2.1)	5.8	5.8	(3.1)	6.8	2.6	4.8
MSCI EM	(6.5)	0.9	0.9	(15.3)	1.0	(1.9)	1.5
MSCI EAFE Small Cap	(2.2)	5.1	5.1	(9.7)	5.3	0.7	6.1
<b>Style Index</b>							
MSCI EAFE Growth	(2.8)	5.5	5.5	(7.2)	5.6	3.5	5.6
MSCI EAFE Value	(1.4)	6.2	6.2	0.6	7.5	1.3	3.8
<b>Regional Index</b>							
MSCI UK	0.2	6.8	6.8	(0.1)	8.4	3.0	3.6
MSCI Japan	(3.8)	2.1	2.1	(9.3)	3.4	0.1	5.1
MSCI Euro	(0.7)	11.1	11.1	1.7	8.5	2.8	5.4
MSCI EM Asia	(6.9)	1.2	1.2	(15.3)	1.6	(0.8)	3.6
MSCI EM Latin American	(6.2)	3.1	3.1	(0.3)	2.3	(2.2)	(1.9)

## FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
<b>Broad Index</b>							
Bloomberg US TIPS	(1.4)	0.4	0.4	(10.4)	0.2	2.6	1.2
Bloomberg US Treasury Bills	0.3	0.7	0.7	2.0	0.8	1.3	0.8
Bloomberg US Agg Bond	(2.6)	0.4	0.4	(9.7)	(3.8)	0.5	1.1
Bloomberg US Universal	(2.5)	0.6	0.6	(9.3)	(3.4)	0.7	1.4
<b>Duration</b>							
Bloomberg US Treasury 1-3 Yr	(0.8)	(0.0)	(0.0)	(2.8)	(1.0)	0.8	0.6
Bloomberg US Treasury Long	(4.7)	1.4	1.4	(24.1)	(11.0)	(0.7)	1.0
Bloomberg US Treasury	(2.3)	0.1	0.1	(10.1)	(4.2)	0.4	0.6
<b>Issuer</b>							
Bloomberg US MBS	(2.6)	0.6	0.6	(9.1)	(3.6)	(0.1)	0.8
Bloomberg US Corp. High Yield	(1.3)	2.5	2.5	(5.5)	1.3	2.9	4.1
Bloomberg US Agency Interm	(1.2)	0.0	0.0	(4.9)	(1.9)	0.6	0.7
Bloomberg US Credit	(3.0)	0.7	0.7	(10.1)	(3.8)	1.1	1.9
<b>OTHER</b>							
<b>Index</b>							
Bloomberg Commodity	(4.7)	(5.2)	(5.2)	(4.7)	15.5	5.3	(1.6)
Wilshire US REIT	(4.8)	6.0	6.0	(13.7)	4.0	7.1	6.5
CS Leveraged Loans	0.6	3.2	3.2	2.3	3.7	3.6	4.0
S&P Global Infrastructure	(3.4)	1.5	1.5	(0.1)	5.1	5.4	6.4
Alerian MLP	(1.8)	4.1	4.1	17.0	17.9	5.4	1.2
<b>Regional Index</b>							
JPM EMBI Global Div	(2.2)	0.9	0.9	(8.6)	(5.2)	(0.7)	1.8
JPM GBI-EM Global Div	(3.2)	1.0	1.0	(6.1)	(4.3)	(3.0)	(2.0)
<b>Hedge Funds</b>							
HFRI Composite	(0.3)	1.8	1.8	(0.4)	4.8	3.2	3.4
HFRI FOF Composite	(0.5)	2.2	2.2	0.1	7.4	4.8	4.6
<b>Currency (Spot)</b>							
Euro	(2.4)	(0.6)	(0.6)	(5.6)	(1.2)	(2.8)	(2.1)
Pound Sterling	(1.7)	0.6	0.6	(9.8)	(1.8)	(2.6)	(2.2)
Yen	(4.5)	(3.1)	(3.1)	(15.5)	(7.5)	(4.8)	(3.8)

Source: Morningstar, HFRI, as of 2/28/23.

# Detailed private market returns

## Comparison to public market index returns

Private Equity Pooled IRRs	1 Year	3 Year	5 Year	10 Year
Global Private Equity FoFs & Secondary Funds	(1.6)	21.3	17.3	14.0
Global Private Equity Direct Funds *	(5.0)	21.1	18.3	16.2
U.S. Private Equity Direct Funds *	(2.3)	24.2	20.9	17.9
Europe Private Equity Direct Funds *	(11.4)	17.3	15.2	14.1
Asia Private Equity Direct Funds *	(9.5)	11.9	11.2	12.9

### Public Index Time-weighted Returns

MSCI World	(19.6)	4.6	5.3	8.1
S&P 500	(15.5)	8.2	9.2	11.7
MSCI Europe	(24.8)	(1.7)	(1.2)	3.4
MSCI AC Asia Pacific	(27.7)	(1.7)	(0.6)	3.7

### Private Real Estate Pooled IRRs

U.S. All Private Real Estate	15.7	13.5	11.9	13.3
------------------------------	------	------	------	------

### Public Index Time-weighted Returns

FTSE NAREIT Equity REIT	(16.4)	(2.0)	2.9	6.3
-------------------------	--------	-------	-----	-----

Private Credit Pooled IRRs	1 Year	3 Year	5 Year	10 Year
U.S. All Private Debt **	9.9	15.3	12.4	11.6

### Public Index Time-weighted Returns

S&P / LSTA U.S. Leveraged Loan 100 Index	(3.9)	1.4	2.5	3.0
--	-------	-----	-----	-----

### Private Real Assets Pooled IRRs

Global Nature Resources ***	25.2	8.7	5.1	3.6
Global Infrastructure	9.4	10.8	10.3	10.7

### Public Index Time-weighted Returns

S&P Global Natural Resources	1.0	9.1	5.7	3.4
S&P Global Infrastructure	(6.0)	(0.1)	2.1	5.7

Source: Pooled IRRs are from Thompson Reuters CJA and Time-weighted Returns are from Investment Metrics, as of September 30<sup>th</sup>, 2022. All returns in U.S. dollars.

\* Includes Buyout, Growth Equity and Venture Capital.

\*\* Includes Control-Oriented Distressed, Credit Opportunities, Senior Debt and Subordinated Capital.

\*\*\* Includes Private Equity Energy, Timber and Upstream Energy & Royalties.

# Notices & disclosures

**Past performance is no guarantee of future results.** This document is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and is not intended for retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. This document may include or imply estimates, outlooks, projections and other “forward-looking statements.” No assurance can be given that future results described or implied by any forward looking information will be achieved. Investing entails risks, including possible loss of principal. Additional information about Verus Advisory, Inc. is available on the SEC’s website at [www.adviserinfo.sec.gov](http://www.adviserinfo.sec.gov).

Verus – also known as Verus Advisory™.