



## ECONOMIC OVERVIEW

The year 2022 came to a close with inflationary pressures largely waning, yet still extant. The Federal Reserve remains committed to its path of higher short-term interest rates, while the consumer-led US economy remains buoyant, despite growing headwinds. Growth prospects for 2023 look somewhat muted as corporate America deals with rising input costs and increasingly lackluster demand for goods relative to services.

The bright spot in the American economic landscape remains employment, with the reading for December joblessness coming in at a mere +3.5%. There is ongoing debate as to oddities in the Labor Force Participation Rate, which remains a full percentage point (62.3%) below where it was pre-pandemic. Although headlines continue to point to job cutting in the technology space, Nonfarm Payrolls rose by +223k in December, while Initial Jobless Claims averaged below +200k in January and JOLTS remains +10mm. Across nearly every metric, employment remained strong in January.

As suggested, inflationary headwinds continued to abate in January, with headline CPI falling -0.1% in December (though +6.5% YoY), while Core CPI met expectations, up +0.3% MoM (+5.7% YoY). Producer Prices tumbled a larger than expected -0.5% for the month (+6.2% YoY), and Core PPI rose +0.1% (+5.5% YoY). The PCE Deflator edged up +0.1% in December (+5.0% YoY) while Core PCE rose +0.3% MoM and +4.4% YoY.

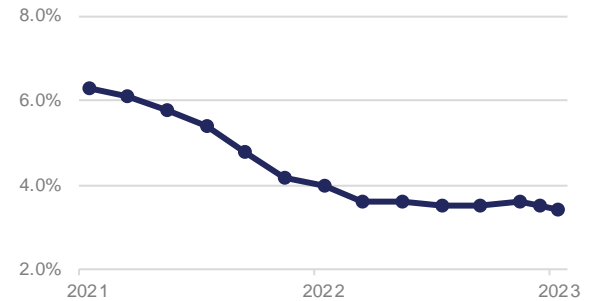
Higher mortgage rates continue to impact home price affordability, resulting in November's -0.54% drop in the S&P CoreLogic CS 20-City Home Price Index (still +6.8% YoY). Housing Starts dipped -1.4% in December, while Building Permits fell -1.6% and Existing Home Sales dropped -1.5%. Mortgage Applications dropped significantly at the end of December, but have bounced back a touch in January as interest rates have pulled back a bit.

The Federal Open Market Committee concludes a 2-day meeting today (Feb 1), and markets are pricing in a +25 basis-point hike to the Federal Funds Rate. There remains a chance for a more aggressive +50 Bp hike, which is not priced in yet and would likely be viewed as overly hawkish. The yield curve remains significantly inverted, suggesting bond buyers are anticipating a material growth slowdown here in 2023. Should the Fed suggest an end to hikes is near, we could see a substantial rally in risk assets, despite an already strong start to the year. The fate of markets rests squarely in the hands of the Fed, and it's likely we'll see a pickup in volatility as the Fed's war on inflation comes to a close.

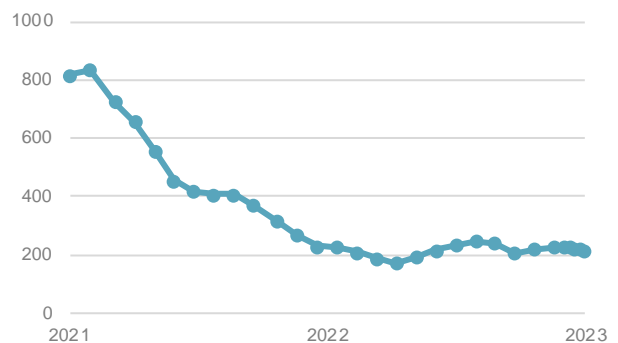
### KEY DATA POINTS

DATA POINT	CURRENT	FOR	PREVIOUS	FOR
Retail Sales ex. Autos MOM %	-1.1	Dec	-0.6	Nov
Housing Starts	1382K	Dec	1401K	Nov
Factory Orders MOM %	-1.80	Nov	0.40	Oct
Leading Indicators MOM %	-1.00	Dec	-1.10	Nov
Unit Labor Costs	2.40	Q4 2022	3.50	Q3 2022
GDP QOQ (Annualized)	2.90	Q4 2022	3.20	Q3 2022
Wholesale Inventories	0.10	Dec	0.90	Nov
MBA Mortgage Applications	-9.00	Jan	-10.30	Dec

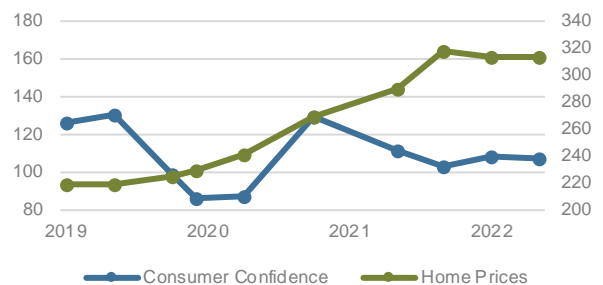
UNEMPLOYMENT RATE (%)



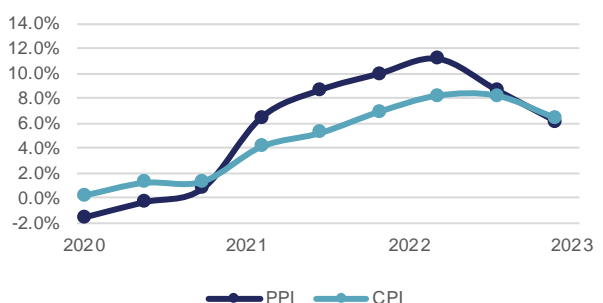
4-WK MOVING AVERAGE OF INITIAL CLAIMS (000S), SA



CONSUMER CONFIDENCE LHS VS. HOME PRICES RHS



PPI & CPI YOY % CHANGE





## DOMESTIC EQUITY

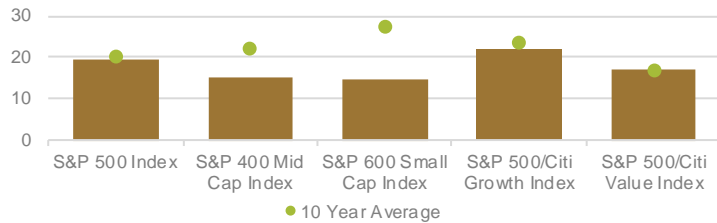
U.S. equities kicked off the new year with a bang, rising sharply to start 2023. The benchmark S&P 500 Index rose +6.3% to close at 4,077. Small- and Mid-Caps, as measured by the S&P 600 and 400 Indices, rose an even more impressive +9.5% and +9.2%, respectively. The risk-on tone was best seen in the performance of the NASDAQ, which rose +10.7% on the month as many of last year's worst performers rebounded. Tax loss selling in 2022 may have given rise to some of 2023's best performing stocks, as Growth oriented names rebounded sharply (i.e. Tesla, +40.6%) and high beta names surged. Those stocks with the greatest sensitivity to market movements gained an impressive +16.2%, as measured by the S&P 500 High Beta Index. This stands in contrast with the S&P 500 Growth Index, which gained a paltry +5.6% in comparison. Value stocks, as measured by the S&P 500 Value Index outperformed their Growth oriented peers, rising +7.0% during the month.

The "average" stock continues to outperform the broader market, as evidenced by the S&P 500 Equal Weight Index gaining +7.4% during January. We continue to believe that both the aforementioned "average" stock and the SMID (collectively Small- and Mid-Caps) cap complex remain attractively valued, despite the economic uncertainty on the horizon. This may speak to both the idea that Value oriented equities look appealing on their own merits, and the fact that many Growth oriented equities still look pricey.

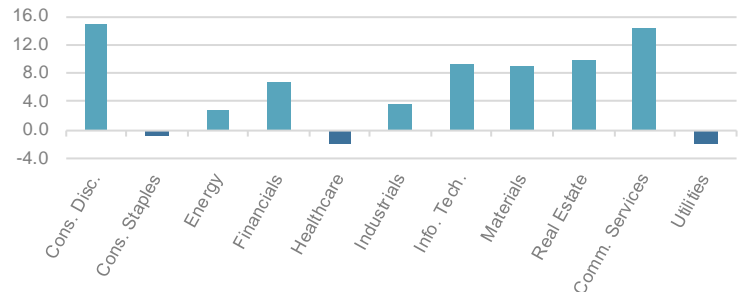
At the sector level, last year's worst performers were among January's best. Consumer Discretionary, which lost -37.0% in 2022, gained +15.0% in January, thanks in part to the rebound in Tesla shares. Communication Services, which lost -39.9% last year, returned +14.5% in January. Additional sectors that outperformed the broader market included Real Estate (+9.9%), Technology (+9.3%), Materials (+9.0%), and Financials (+6.9%). Those that underperformed included Industrials (+3.7%) and Energy (+2.8%), which outperformed in 2022. Defensive sectors such as Consumer Staples, Healthcare, and Utilities, were firmly in negative territory, losing -0.9%, -1.9%, and -2.9%, respectively. Taken together, last year's top performing sectors underperformed to start the year, while those sectors (and stocks) hardest hit performed the best.

Looking ahead, all eyes will be on Fed Chair Jerome Powell's press conference after today's FOMC rate decision. Earnings season is in full swing, and the latest jobs report for January is scheduled to be released on Friday. That leaves investors with a jam packed week of data to shed light on the future direction of equity markets.

DOMESTIC EQUITY MARKET  
P/E RATIOS



MTD S&P 500 SECTOR RETURNS



### S&P 500 SECTOR RETURNS

SECTOR	MTD	QTD	YTD	1YR	3YR	5YR	% Wt.
Consumer Discretionary	15.02	15.02	15.02	-19.81	6.08	7.22	11%
Consumer Staples	-0.89	-0.89	-0.89	-0.13	8.83	8.28	7%
Energy	2.81	2.81	2.81	42.80	25.08	8.96	5%
Financials	6.86	6.86	6.86	-4.48	9.14	6.43	11%
Healthcare	-1.87	-1.87	-1.87	3.19	12.26	10.67	14%
Industrials	3.72	3.72	3.72	2.86	9.79	7.00	8%
Information Technology	9.32	9.32	9.32	-15.70	13.47	16.15	26%
Materials	8.98	8.98	8.98	2.63	16.10	8.43	3%
Real Estate	9.90	9.90	9.90	-11.37	4.56	8.31	3%
Communication Services*	14.50	14.50	14.50	-26.61	0.83	3.61	8%
Utilities	-2.00	-2.00	-2.00	2.90	3.35	9.82	3%

\*The S&P 500 Communication Services Sector was reclassified from the Telecommunications Sector on September 21st, 2018

### DOMESTIC EQUITY RETURNS

NAME	MTD	QTD	YTD	1YR	3YR	5YR
S&P 500 Index	6.28	6.28	6.28	-8.23	9.86	9.52
S&P 400 Mid Cap Index	9.22	9.22	9.22	2.30	11.37	7.96
S&P 600 Small Cap Index	9.49	9.49	9.49	-1.00	10.46	7.22
S&P 500/Citi Growth Index	5.62	5.62	5.62	-18.63	8.69	9.93
S&P 500/Citi Value Index	7.00	7.00	7.00	3.05	9.62	8.14

### S&P 500 FACTOR RETURNS

NAME	MTD	QTD	YTD	1YR	3YR	5YR
S&P 500 Quality	4.79	4.79	4.79	-7.80	10.38	9.66
S&P 500 Momentum	-0.47	-0.47	-0.47	-4.84	10.87	10.34
S&P 500 Equal Weight	7.39	7.39	7.39	-0.58	12.30	9.70
S&P 500 High Beta	16.16	16.16	16.16	-1.87	19.57	11.99
S&P 500 Low Volatility	0.03	0.03	0.03	-0.01	4.44	8.02



## INTERNATIONAL EQUITY

International markets had a robust start to 2023 with all major indices posting positive results, thanks in part to a weakening US Dollar and China's reopening. The MSCI ACWI ex-USA Index came out of the 2023 gates strong, returning +8.1%. Developed Markets (DM), as measured by the MSCI EAFE Index gained +8.1% while Emerging Markets (EM), as measured by the MSCI EM Index added +7.9%.

Shares in Europe had their best start since 2015 on the back of some encouraging economic data. Business activity unexpectedly stabilized in January as the Eurozone Composite Purchasing Manager's Index grew to 50.2 from December's 49.30 print. PMI readings greater than 50 indicate economic expansion. Milder weather and government support for the bloc cushioned the impact of rising energy prices as the Eurozone's economy expanded by 0.1% during the fourth quarter of 2022. This came as a welcomed surprise as the consensus forecast was for a -0.1% drop in GDP. For the month, the MSCI EMU index grew +9.7% in EUR terms and +11.3% in USD terms.

To the East, China's reopening to the world after three years of President's Xi Jinping's zero-covid has spurred on markets in anticipation of a return to normalcy. Approximately 96 million trips were taken via air, rail, waterways and roads in celebration of the Lunar New Year. This compares to the roughly 19 million trips taken in 2022. While China's economic recovery is far from certain, markets have high expectations as bets on Chinese tech stocks, copper and iron ore have staged a \$700bn rally since their low in October 2021, according to the Financial Times. Even as mainland Chinese financial markets were closed for a full week in Celebration of the New Year, the MSCI China Index returned +12.3% in USD terms during the month of January.

Japan's Nikkei 225 Index also grew, albeit a modest +4.7% in USD during the first month of the year. Solid economic data out of the US, a major trading partner for Japan, served as a tailwind to growth in asset levels. Tokyo's core consumer price inflation has become a major focus as prices have risen 4.3% YoY, exceeding the Bank of Japan's (BoJ) 2.0% inflation target for the eighth straight month. This has caused mounting pressure on the BoJ to tighten its ultra-loose monetary policy. Markets will be keenly tuned into who Prime Minister Fumio Kishida nominates as the new BoJ governor in the month ahead. Incumbent Haruhiko Kuroda's term comes to an end in April which may mark as a major shift away from the central bank's historically dovish views around monetary policy.

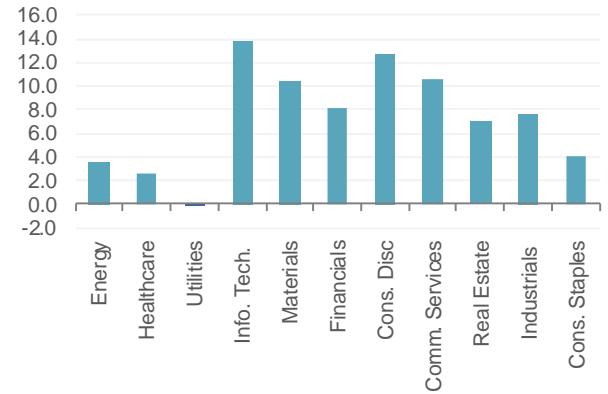
Ten of the eleven MSCI ACWI ex-US sectors posted positive results with the leaders confirming signals of a risk-on rally. Information Technology led the way, returning +13.9%, followed by Consumer Discretionary +12.6%, Communication Services +10.6% and Materials +10.4%. The lone detractor came from Utilities, falling -0.1%.

### MSCI ACWI EX U.S. SECTOR RETURNS

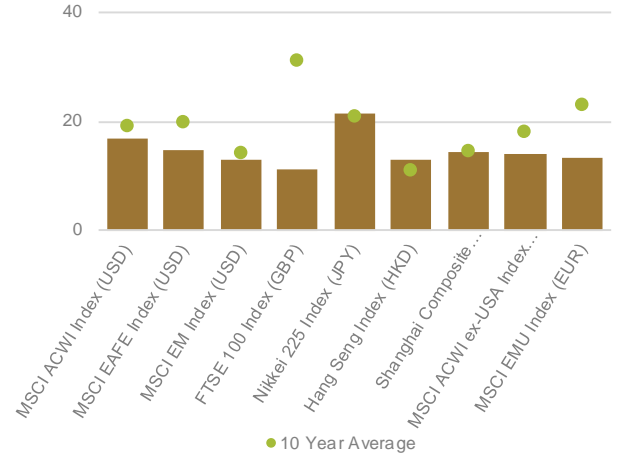
SECTOR	MTD	QTD	YTD	1YR	3YR	5YR	%
Energy	3.65	3.65	3.65	4.43	6.22	2.66	10%
Healthcare	2.52	2.52	2.52	-1.66	2.46	4.81	8%
Utilities	-0.07	-0.07	-0.07	-0.98	2.23	7.09	6%
Information Technology	13.90	13.90	13.90	-16.15	8.55	6.50	10%
Materials	10.39	10.39	10.39	0.88	11.99	4.82	8%
Financials	8.11	8.11	8.11	-1.87	5.75	0.83	19%
Consumer Discretionary	12.63	12.63	12.63	-7.21	2.30	0.05	12%
Communication Services*	10.58	10.58	10.58	-11.88	-0.26	-1.10	6%
Real Estate	7.00	7.00	7.00	-13.97	-7.91	-5.57	2%
Industrials	7.64	7.64	7.64	-4.19	4.31	2.21	12%
Consumer Staples	4.03	4.03	4.03	-3.14	1.65	1.47	9%

\*The MSCI ACWI Ex U.S. Communication Services Sector was reclassified on November 30th, 2018

MTDMSCI ACWI SECTOR RETURNS



INTERNATIONAL EQUITY MARKET P/E RATIOS



### INTERNATIONAL EQUITY RETURNS

NAME	MTD	QTD	YTD	1YR	3YR	5YR
MSCI ACWI Index (USD)	7.20	7.20	7.20	-7.53	7.34	6.07
MSCI EAFE Index (USD)	8.12	8.12	8.12	-2.21	4.84	2.72
MSCI EM Index (USD)	7.90	7.90	7.90	-11.90	1.70	-1.17
FTSE 100 Index (GBP)	4.35	4.35	4.35	7.90	5.78	4.53
Nikkei 225 Index (JPY)	4.73	4.73	4.73	3.43	7.64	5.48
Hang Seng Index (HKD)	10.42	10.42	10.42	-5.09	-3.10	-4.82
Shanghai Composite Index (CNY)	5.39	5.39	5.39	-0.50	5.47	1.06
MSCI ACWI ex-USA Index (USD)	8.13	8.13	8.13	-5.21	4.16	1.89
MSCI EMU Index (EUR)	9.68	9.68	9.68	0.30	6.49	5.10
MSCI China Index (USD)	12.26	12.26	12.26	-9.48	-1.99	-4.50
MSCI Canada Index (USD)	7.43	7.43	7.43	1.35	9.33	8.31
MSCI EM ex-China (USD)	6.04	6.04	6.04	-13.17	3.58	0.25



## FIXED INCOME

The Federal Reserve is meeting today and will announce the outcome of their two days of discussion. The expectation is that they will raise interest rates by 25 basis points, in a continued effort to lower inflationary pressures by slowing economic growth and increasing unemployment.

Market expectations have begun to price in a slightly less aggressive Fed stance in 2023. While it is likely that the Federal Reserve will raise rates a few more times, the market believes that they will pause mid-year, and reduce rates prior to year-end 2023. This is in direct conflict with the most recent version of the Fed's dot-plot chart, which illustrates Fed member's expectations for the policy rate through 2025. It would likely require a significant degradation of economic strength for restrictive policy to be removed so quickly.

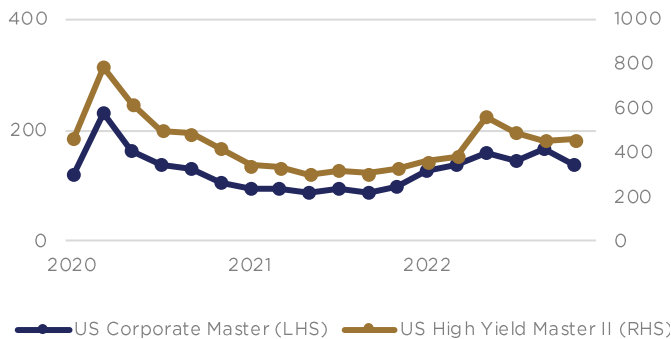
January saw a continued inversion of the Treasury yield curve, with longer maturity yields declining further below short-term rates. This is not the sign of a strong economy, but typically signals a coming decline in economic growth. While many maintain the faith that the Fed's policy response will result in a "soft landing" for the economy, it is historically a low probability outcome.

In the general risk-on environment experienced in January, credit spreads contracted, giving a boost to Investment Grade and High Yield corporate bond prices. This spread tightening paired with declining yields allowed their returns to lead the way in the month, generating close to 4% upside in the month.

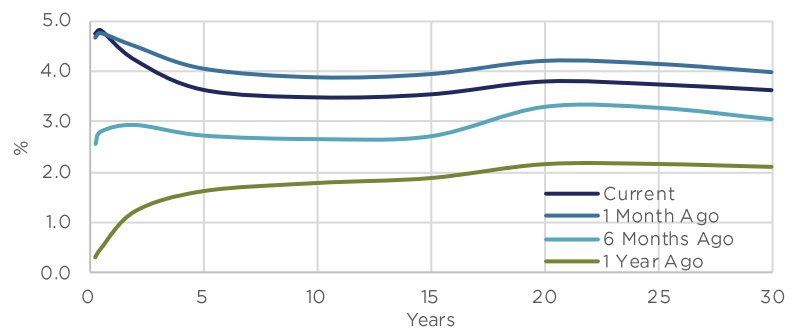
Tax-free Municipal bonds also rallied strongly, returning close to 3% in January. This performance was driven by declining yields in general, which were experienced to an even greater degree in the Municipal bond space, allowing them to outperform Government bond returns.

The tone of Jerome Powell's press conference will provide important information to the markets. If he is sanguine, and unconcerned about the prospect of sustained inflation, this month's risk rally will look quite rational. A more hawkish Powell, intent on making sure that inflation does not become entrenched, may have aggressive investors looking for the exits.

OPTION-ADJUSTED SPREAD (OAS)



TREASURY YIELD CURVE



### U.S. TREASURY YIELDS

PERIOD	3MOS	1YR	5YR	10YR	20YR	30YR
Current	4.75	4.23	3.63	3.47	3.79	3.62
1 Month Ago	4.66	4.49	4.05	3.87	4.20	3.98
6 Months Ago	2.58	2.94	2.74	2.67	3.29	3.05
1 Year Ago	0.30	1.22	1.62	1.79	2.16	2.11

### CENTRAL BANK ACTIVITY

NAME	CURRENT	1MTH AGO	6MTH AGO	1YR AGO
Fed Funds Rate	4.50	4.50	2.50	0.25
Bank of Japan Target Rate	0.10	0.10	0.10	0.10
European Central Bank Rate	2.50	2.00	0.00	0.00
Bank of England Base Rate	3.50	3.50	1.25	0.25

### FIXED INCOME RETURNS

NAME	MTD	QTD	YTD	1YR	3YR	5YR
Bloomberg Barclays US Government Index	2.48	2.48	2.48	-8.43	-2.55	0.70
Bloomberg Barclays US Agg Index	3.08	3.08	3.08	-8.36	-2.35	0.86
Bloomberg Barclays US Corporate Index	4.01	4.01	4.01	-9.33	-2.36	1.44
Bloomberg Barclays US Corporate High Yield Index	3.81	3.81	3.81	-5.22	1.29	2.95
Bloomberg Barclays EM USD Agg Index	3.20	3.20	3.20	-10.18	-3.37	0.25
Bloomberg Barclays Global Agg Treasuries USD Index	1.88	1.88	1.88	-7.87	-2.76	0.80
Bloomberg Barclays Municipal Index	2.87	2.87	2.87	-3.25	-0.42	2.07



## ALTERNATIVE INVESTMENTS

Alternative investments had mixed results in January. Broad commodities, as measured by the Bloomberg Commodity Index, fell -0.9% during month the as other risk assets rallied.

China's pivot from its Zero COVID policy to an economic re-opening is a major wildcard for commodities and global financial markets overall in 2023. The recovery of the world's second largest economy is far from certain, but the country remains one of the biggest consumers of commodities. Copper, zinc, and iron ore are hard commodities that have rallied since the policy announcement. However, crude oil prices have not surged since Beijing began loosening COVID restriction and prices actually declined in January, although many other factors are at play in the current global energy market.

Gold had a relatively strong month in terms of performance, finishing January up +5.7%. This is a continuation of solid performance from late last year, where the precious metal finished Q4 2022 up +9.8%. Demand for gold surged to its highest level in over a decade in 2022, driven mainly by central bank demand as governments around the world may have tried to diversify reserves away from the US Dollar. Gold is viewed as a safe haven in times of geopolitical upheaval and high inflation.

Lithium, a soft silver metal that is critical to Electric Vehicle batteries, had a strong 2022 with prices rising over +50% for the year. In January, the metal fell -5.8% but the lithium market still remains very imbalanced, as demand is much stronger than supply. Supply remains scarce as lithium extraction projects take many years to become functional and there is a bottleneck in lithium refining. Lithium demand is also expected to keep growing as internal combustion engines are phased out over the next decade and global demand for electric vehicles is expected to continuously rise.

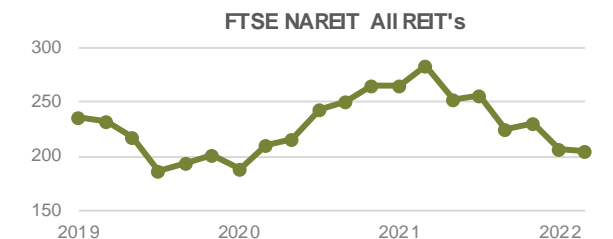
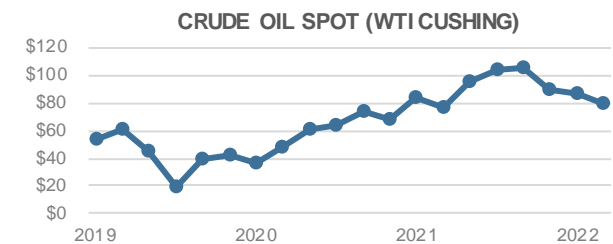
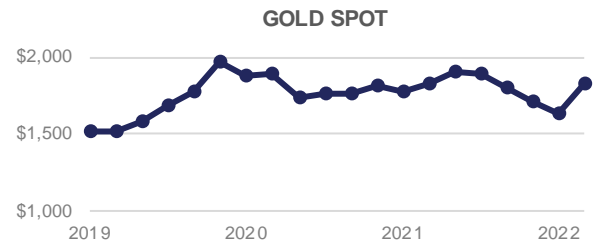
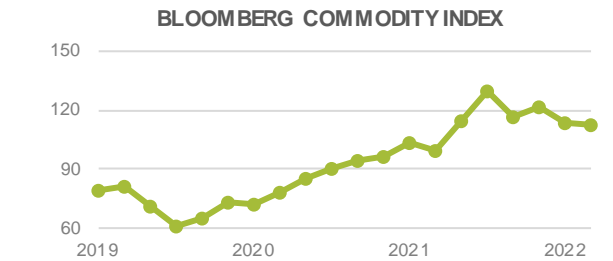
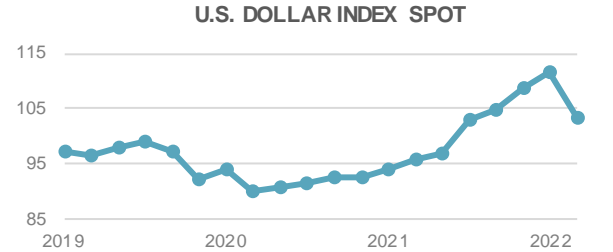
### SPOT RATES

DESCRIPTION	CURRENT	1MTH AGO	3 MTHS AGO	6 MTHS AGO	1YR AGO
CAD / USD	1.33	1.36	1.36	1.28	1.27
JPY / USD	129.76	130.95	148.27	131.61	114.71
USD / GBP	1.23	1.21	1.15	1.23	1.35
USD / EUR	1.09	1.07	0.99	1.03	1.13

### HEDGE FUNDS

NAME	MTD	QTD	YTD	1YR	3YR	5YR
Global Hedge	1.67%	1.67%	1.67%	-1.36%	2.33%	1.25%
Convertible Arbitrage	3.93%	3.93%	3.93%	-7.01%	2.68%	2.62%
Equity Hedge (L/S)	1.56%	1.56%	1.56%	0.45%	4.98%	2.26%
Equity Market Neutral	-0.14%	-0.14%	-0.14%	-0.53%	-0.51%	-1.86%
Event Driven	2.36%	2.36%	2.36%	-4.36%	1.10%	-0.17%
Macro	0.00%	0.00%	0.00%	5.58%	2.10%	0.95%
Merger Arbitrage	-0.68%	-0.68%	-0.68%	-0.12%	2.34%	1.07%
Relative Value Arbitrage	2.27%	2.27%	2.27%	-4.39%	0.59%	1.31%
Absolute Return	0.07%	0.07%	0.07%	1.81%	1.91%	1.74%

Note: Price Return, Returns as of 01/31/2023



### COMMODITIES

	MTD	QTD	YTD	1YR	3YR	5YR
Dollar	-1.88%	-1.88%	-1.88%	2.78%	0.75%	1.78%
BCOM	-0.89%	-0.89%	-0.89%	4.34%	14.30%	4.48%
Gold	5.72%	5.72%	5.72%	7.64%	6.66%	7.46%
WTI	-1.73%	-1.73%	-1.73%	16.23%	24.33%	9.54%
FTSENAREIT	10.07%	10.07%	10.07%	-10.27%	2.94%	7.49%



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**S&P 500 Index (SPX)** – Standard and Poor's 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

**S&P 500 Sector Indices (S5COND, S5CONS, S5ENRS, S5FINL, S5HLTH, S5INDU, S5INFT, S5MATR, S5TELS, S5UTIL, S5RLST)** – The S&P 500 is broken down into eleven sub-indices according to the Global Industry Classification Standard (GICS) sectors. These eleven sectors include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.

**S&P 400 Mid Cap Index (MID)** – Standard and Poor's Mid Cap 400 Index is a capitalization-weighted index, which measures the performance of the mid-range sector of the U.S. stock market.

**S&P 600 Small Cap Index (SML)** – Standard & Poor's Small Cap 600 Index is a capitalization-weighted index that measures the performance of selected U.S. stocks with a small market capitalization.

**S&P 500/Citigroup Growth Index (SGX)** – The S&P 500/Citigroup Growth Index is a market capitalization weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

**S&P 500/Citigroup Value Index (SVX)** – The S&P 500/Citigroup Value Index is a market capitalization-weighted index. All the stocks in the underlying parent index are allocated into value or growth. Stocks that do not have pure value or pure growth characteristics have their market caps distributed between the value & growth indices.

**MSCI AC World Index (MXWD)** – The MSCI AC World Index is a free float-weighted equity index. The index includes both emerging and developed world markets.

**MSCI EAFE Index (MXEA)** – The MSCI EAFE Index is a capitalization-weighted index that monitors the performance of stocks from developed markets in Europe, Australia-Asia, and the Far East.

**MSCI Emerging Market Index (MXEF)** – The MSCI Emerging Market Index is a free-float weighted index that is designed to measure the equity performance of international emerging markets.

**FTSE 100 Index (UKX)** – The FTSE 100 Index is a capitalization weighted index of the 100 most highly capitalized companies traded on the London Stock Exchange. The equities use an investability quotient weighting in the index calculation.

**Nikkei 225 Stock Average Index (NKY)** – The Nikkei-225 Stock Average is a price-weighted average of 225 top-rated Japanese companies listed in the First Section of the Tokyo Stock Exchange.

**Hang Seng Index (HSI)** – The Hang Seng is a free-float capitalization-weighted index of selected companies from the Stock Exchange of Hong Kong. The components of the index are divided into four sub-indices: Commerce and Industry, Finance, Utilities, and Properties.

**Shanghai Stock Exchange Composite Index (SHCOMP)** – The Shanghai Stock Exchange Composite Index is a capitalization weighted index. The index tracks the daily price performance of all A-shares and B-shares listed on the Shanghai Stock Exchange.

**MSCI USA Extended ESG Focus Index** – The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI USA Index.

**MSCI EAFE Extended ESG Focus Index** – The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI EAFE Index.

**MSCI Emerging Markets Extended ESG Focus Index** – The Index is designed to maximize exposure to positive environmental, social and governance (ESG) factors while exhibiting risk and return characteristics similar to those of the MSCI Emerging Markets Index.

**MSCI ACWI ex USA Index (MXWDU)** – The MSCI ACWI ex USA Index is a free-float weighted index.

**MSCI ACWI ex USA Sector Indices** – The MSCI ACWI ex USA Index is broken down into eleven sub-indices according to the Global Industry Classification Standard (GICS) sectors. These eleven sectors include Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Information Technology, Materials, Communication Services, Utilities, and Real Estate.

**MSCI EMU Index (MXEM)** – The MSCI EMU (European Economic and Monetary Union) Index is a free-float weighted equity index.

**Bloomberg Barclays Global Treasuries USD Hedged Index (LGTRTRUH)** – The Bloomberg Barclays Global Treasury Index tracks fixed-rate, local currency government debt of investment grade countries. The index represents the treasury sector of the Global Aggregate Index and contains issues from 37 countries denominated in 24 currencies.

**Bloomberg Barclays Municipal Bond Index (LMBITR)** – The Bloomberg Barclays Municipal Bond Index covers the USD denominated long-term tax exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

**Bloomberg Barclays U.S. Government Index** – Bloomberg Barclays US Government Bond Index is comprised of the US Treasury and US Agency Indices. The index includes US dollar-denominated, fixed-rate, nominal US Treasuries and US agency debentures (securities issued by US government owned or government sponsored entities, and debt explicitly guaranteed by the US government).

**Bloomberg Barclays EM Hard Currency Aggregate Index (LG20TRUU)** – The Bloomberg Barclays Emerging Markets Hard Currency Aggregate Index is a hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

**Bloomberg Barclays U.S. Aggregate Bond Index (LBSTRUU)** – The Bloomberg Barclays US Aggregate Bond Index is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-through), ABS and CMBS (agency and non-agency).

**Bloomberg Barclays U.S. Corporate Index (LUACTRUU)** – The Bloomberg Barclays US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers.

**Bloomberg Barclays U.S. Corp High Yield Index (LFTR ML U.S. Corporate Index (COAO))** – The Bloomberg Barclays US Corporate High Yield Bond Index measures the USD denominated, high yield, below-investment grade fixed-rate corporate bond market.

**S&P Green Bond Select Index (SPGRSLLT)** – The S&P Green Bond Select Index is a market value-weighted subset of the S&P Green Bond Index that seeks to measure the performance of green-labeled bonds issued globally, subject to stringent financial and extra-financial eligibility criteria.

**ML U.S. Corporate Index (COAO)** – The Merrill Lynch U.S. Corporate Index tracks the performance of U.S. dollar denominated investment grade corporate debt publicly issued in the U.S. domestic market.

**ML U.S. High Yield Index (HOOA)** – The Merrill Lynch U.S. High Yield Index tracks the performance of U.S. dollar denominated below investment grade corporate debt publicly issued in the U.S. domestic market.

**FTSE NAREIT All REITs Index (FNAR)** – The FTSE NAREIT All REITs Index is a free float adjusted market capitalization-weighted index that includes all tax qualified REITs listed in the NYSE, AMEX, and NASDAQ National Market.

**Bloomberg Commodity Index (BCOM)** – Bloomberg Commodity Index (BCOM) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification. Roll period typically occurs from 6th-10th business day based on the roll schedule.

**U.S. Dollar Index (DXY)** – The U.S. Dollar Index (USDIX) indicates the general int'l value of the USD. The USDIX does this by averaging the exchange rates between the USD and 6 major world currencies. The ICE US computes this by using the rates supplied by some 500 banks.



**HFRL Global Hedge Fund Index (HFRLGL)** – The HFRL Global Hedge Fund Index is designed to be representative of the overall composition of the hedge fund universe. It is comprised of all eligible hedge fund strategies.

**HFRL Convertible Arbitrage Index (HFRLCA)** – The HFRL Convertible Arbitrage Index is designed to reflect the general performance of strategies in which the investment thesis is predicated on realization of a spread between related instruments in which one or multiple components of the spread is a convertible fixed income instrument.

**HFRL Distressed Securities Index (HFRLXDS)** – The HFRL Distressed Securities Index is designed to reflect the general performance of strategies focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance of obliged (par value) at maturity as a result of either formal bankruptcy pro

**HFRL Macro Index (HFRLXM)** – The HFRL Macro Index reflects the general performance of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency, and commodity markets.

**HFRL Equity Hedge Index (HFRLXH)** – The HFRL Equity Hedge Index is designed to reflect the general performance of strategies that maintain both long and short positions in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques. Strategies can be broadly diversified or narrowly focused.

**HFRL Equity Market Neutral Index (HFRLXMN)** – The HFRL Equity Market Neutral Index is designed to reflect the general performance of strategies that employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities.

**HFRL Event Driven Index (HFRLXED)** – The HFRL Event Driven Index reflects the general performance of strategies that maintain positions in companies currently or prospectively involved in corporate transactions of a wide variety including, but not limited to, mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance, or other capital structure adjustments.

**HFRL Merger Arbitrage Index (HFRLXMA)** – The HFRL Merger Arbitrage Index reflects the general performance of strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are current engaged in a corporate transaction.

**HFRL Relative Value Arbitrage Index (HFRLXRVA)** – The HFRL Relative Value Arbitrage Index reflects the general performance of strategies that maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

#### **Economic Data Sources:**

**PPI & CPI** – Bureau of Labor Statistics

**Unemployment Rate** – Bureau of Labor Statistics

**Consumer Confidence** – Conference Board

**SP/Case-Shiller Composite 20** – Case-Shiller

**Industrial Production** – Federal Reserve

**Capacity Utilization** – Federal Reserve

**Retail Sales** – U.S. Census Bureau

**Housing Starts** – U.S. Department of Commerce

**Factory Orders** – U.S. Census Bureau

**Leading Indicators** – Conference Board

**Unit Labor Costs** – Bureau of Labor Statistics

**GDP** – Bureau of Economic Analysis

**Wholesale Inventories** – U.S. Census Bureau

**MBA Mortgage Applications** – Mortgage Bankers Association

**4-Week Moving Average of Initial Claims, SA** – Bureau of Labor Statistics

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