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# Market Review and Outlook

## Q1 2023

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# Market Environment

## March 31, 2023

- Volatility in Stock and Bond markets increased in Q1 2023.

<b>Index</b>	<b>March 2023 Return</b>	<b>Q1 2023 Return</b>
<b>Aggregate Bond</b>	+ 2.6%	+3.0%
<b>S&amp;P 500</b>	+ 3.7%	+7.5%
<b>Dow Industrials</b>	+2.1%	+0.9%
<b>NASDAQ</b>	+ 6.8%	+17.0%

- Short term interest rates traded in a range of more than 120 basis points with 2 year Treasury yields rising above 5% as the Fed continued to tighten, then falling below 4% amid the failure of a couple of large (mismanaged) banks.
- The S&P 500 traded in a 10% range, with significant dispersion of returns between Growth and Value, and across sectors.
- Earnings growth decelerated again overall while companies continued to raise prices, passing along increased cost pressures. In general, corporate revenue rose on those higher prices, but on lower volumes as consumers began rejecting higher prices.
- The Fed continued to hike short term interest rates reaching the 5% level for the upper end of their target range, and allowed their balance sheet to continue to run off, reversing Quantitative Easing.
- The Failure of a couple of mismanaged banks caused a tremendous flight to quality into short term treasury notes, and a significant downdraft of most all banking stocks.
- Regional Bank stocks as a sector fell -25% for the quarter, while total market was up, led by over 20% gains in Information Technology and Communications sectors that were among the worst performers last year.
- The significant overweight of 5 the top 5 large cap Tech oriented) stocks allowed for a significant outperformance of the market weighted S&P 500 (+7.5%) over the equal weighted S&P 500 (+2.9%).
- Inflation, interest rates, and prospects for Monetary Policy were again the main drivers of market sentiment, and volatility, for the first quarter, with the addition of the banking sector disruption becoming dominant in mid March.
- Short term Treasury rates now offer investors 4.5% - 5% yields, providing ample competition to higher risk assets, while financial asset valuations continue to be inflated from the effects of years of excess stimulus and liquidity still in the system.
- While economic activity is moderating in some sectors, the economy is not in the recession it is believed to be. The excessive stimulus of the past few years continues to provide a solid nominal level of activity including 6.5% nominal GDP, 6% CPI, and a 3.5% unemployment rate.

# Market Environment

## March 31, 2023

### ➤ Policy

- The Fed hiked rates 2 times in Q1 at a reduced .25% increments, bringing the midpoint Fed Funds rate 4.875%. They continued to let the balance sheet run off, and reiterated their unanimous view of 5.25% terminal funds rate with no easing of policy in 2023.
- The market had brought expectations of Fed policy to over 5.5% terminal rate due to continued strong economic and employment growth during February, until the bank failures in March pushed expectations to significant easing in 2023. We disagree.
- The Fed statement regarding their outlook for over 5% and no ease in interest rates was after the bank failures, so that was considered.
- The Fed and the European Central Bank raised rates and identified different policies to fight inflation and address the banking systems.
- While the covid cash stimulus payments are drying up, spending from previously passed Fiscal packages is beginning to be deployed.
- Fiscal Policy will be dominated by the fight to raise, or not to raise, the debt ceiling.
- The dynamics of Energy policy that conflict fossil fuels and alternative energy, will be exacerbated in 2023 as aggressive goals for transition begin to get tested. Recently, inadequate alternative capacity has stressed systems and led to increased use of coal, oil and gas, while buildout of alternative energy sources are seeing increased cost pressures and supply chain issues.

### ➤ Markets

- Equity markets posted positive returns in Q1 but with wide dispersion across sectors. The hardest hit sectors in 2022 were the leaders in Q1 2023 such as Technology, Communications, and Consumer discretionary, but were concentrated in just a few stocks.
- Bond markets also generated gains for Q1 amid significant volatility in a battle between Fed hikes and a flight to quality.
- After a significant rise in rates amid stronger than expected employment and inflation drove markets to increase expectations of future Fed policy rates toward 6%, the failure of Silicon Valley Bank and Signature Bank (and Credit Swiss) pushed short term interest rates down from above 5% to below 4%, and currently price in a near certain probability of the Fed easing by year end. We disagree.
- Market interest rates have been fighting the Fed, with short-term rates falling well below Fed Funds rates and rates on longer maturities remaining lower. Market expectations of the Fed policy rate are well below the Fed's own outlook for the rate in 2023.
- Market Expectations also incorporate a relatively high probability of recession, which contributes to the argument for lower inflation and Fed easing. However, this is contradicted by high current market valuations for equities and still strong nominal GDP.
- Last years underperformers including Growth stocks such as Technology and Communications have performed extremely well, while last years better performers including Value stocks such as Energy, Utilities, Healthcare and Financials have lagged.
- Market and economic headwinds and tailwinds are still coming together as the Fed accelerates rate hikes well above previous market expectations and inflation seeps deeper into the economy. The Fed's own rate targets are again higher than in the previous quarter.
- To date, those companies that have increased prices, and have product to sell, have been rewarded. However, overall volumes are declining due to higher prices. This could limit additional price rises and potentially further reduce earnings growth.
- Equity markets will be very focused on corporate earnings growth, looking for pre-announcements on guidance.

# Market Outlook

## March 31, 2023

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- Inflation, economic growth, interest rates, corporate earnings, global trade and geopolitics will continue to drive markets in 2023.
- While the market and the Fed continue their shouting match over what the level of interest rates should be, the market will be less preoccupied with Fed policy by mid-year as they are reaching their terminal rate targets.
- No new Fiscal policy moves are likely, however the fight over raising the debt ceiling is likely to get loud and combative.
- Inflation is decelerating in interest-sensitive sectors amid reduced demand for higher-priced goods. Services have been successfully passing along upward pressure on prices due to still tight labor markets and rising wages, but signs of pushback are building.
- Overall economic growth continues to show broad strength as nominal GDP ran at 6.5% in Q4 2022, and will likely continue at a high rate, but largely offset by high inflation. Strong nominal activity will likely support continued strength in employment and inflation.
- We may see a significant decline in “open jobs” caused by a general deceleration in trends of robust production and sales of goods, along with service jobs being filled. However, this doesn’t necessarily signal a large swing to higher unemployment.
- Global trade is shifting with an attempt at onshoring and near shoring production as industries are focused on diversifying supply chains. The build out of physical capacity is accelerating given the deployment of Fiscal stimulus packages passed in recent years.
- The massive amount of Fiscal stimulus passed for infrastructure, semiconductors, alternative energy, electric vehicles, etc. will begin to be deployed, however the push to accelerate these efforts will be challenged by higher costs, labor needs, and supply chain challenges.
- While services are generating the bulk of current job gains, demand will increase in on-shored industries.
- **Earnings growth will eventually be a central focus for equity markets.** However, inflation and borrowing needs will drive interest rates and bond prices, thus influencing equity markets. Fed policy will become less of a focus as much of their job is done.
- We feel that corporate earnings growth expectations remain too high and actual results will weigh on the broad market, including the overweighted large cap Tech stocks, while some sectors of the market remain, or have become undervalued.
- Volatility will surely continue amid rising rates with the 10-year Treasury again reaching above 4% and a real risk of S&P 500 reaching 3500 or below due to reduced forward earnings growth and declining P/E ratios.
- Short-term interest rates had reached a level consistent with what we feel is close to an appropriate target of Fed Funds until the recent flight to quality. We feel this will return as the relatively isolated bank failures will not result in systemic issues. Longer term interest rates may still have further to rise. Short-term, high quality securities over 4.5% yield present good value.
- Financial and risk assets have been the beneficiary of excess stimulus in the system for many years and are now faced with its removal.
- We have begun to see substantial stress and declines in unprofitable companies living off free capital that is going away.
- Geopolitics is evolving in dramatic fashion, and will surely impact global economics, markets, and society.

# Investment Strategy

March 31, 2023

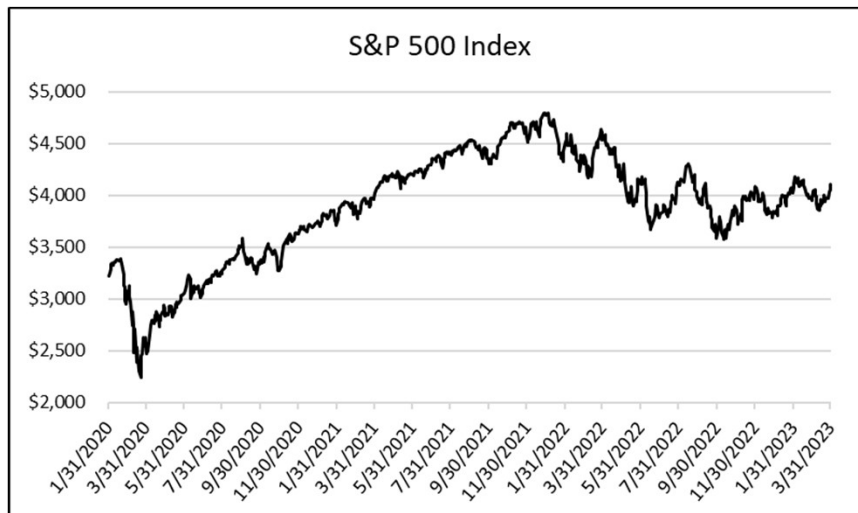
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- We remain defensive in both equity and fixed income markets amid growing earnings pressures and rising interest rates.
- Investment strategy continues to maintain a more significant underweight to equities at -15% relative to neutral strategic asset allocation in favor of fixed income assets. There is no allocation to cash, given higher yielding short-term fixed income.
- We feel the market reaction to the isolated bank failures that dropped short term interest rates down by over 1% and priced in expectations of a significant Fed reversal to ease was excessive. We expect rates to return to previous higher levels.
- The fixed income allocation is focused on short term US Treasuries at now over 4.5% yield while also maintaining a core position in high coupon GNMA Mortgage-Backed securities (full faith and credit of US Government) near 5.5% yield.
- We continue to maintain corporate credit exposure, but also short term in nature given risk of significant spread widening. Where appropriate, we incorporate a short duration High Yield allocation as those yields have risen significantly relative to their risk.
- Maintain Treasury Inflation Protected Securities (TIPS) as implied inflation remains well below reality and our expectations.
- Equity investment strategy has maintained a reduced overall equity allocation, particularly in Growth sectors and maintaining positions in high quality dividend paying Value stocks and short-term fixed income.
- Within equities, Utilities, Energy, Banks, Healthcare, and Industrials are primary areas of focus. We have recently added to agriculture positions, further rotating out of overvalued large cap Technology and paring down utilities given higher interest rates.
- Inflation pressures have diminished in interest rate sensitive and goods sectors, but overall inflation remains high as input costs such as wages continue to move higher. Profit margins may contract as consumers begin to reject higher prices, reducing top line.
- Inflation has had a negative impact on demand for goods and signs are beginning to appear that high services inflation is beginning to curb demand there as well. Inflation itself may have more impact on demand than Fed policy.
- As we move into 2023, higher interest rates, inflation, energy costs, and a growing debt burden will increase the risk of decelerating economic activity and earnings. Earnings growth expectations and P/E ratios remain too high.
- Geopolitical risks have increased recently and may have consequences on the global economy.
- Significant economic activity with low unemployment should mitigate risk of deep recession. However, continued high inflation pressures increases uncertainty on corporate profits. Company specific management will be a differentiator.
- Higher prices themselves have and may continue to reduce aggregate demand.

# Market Review

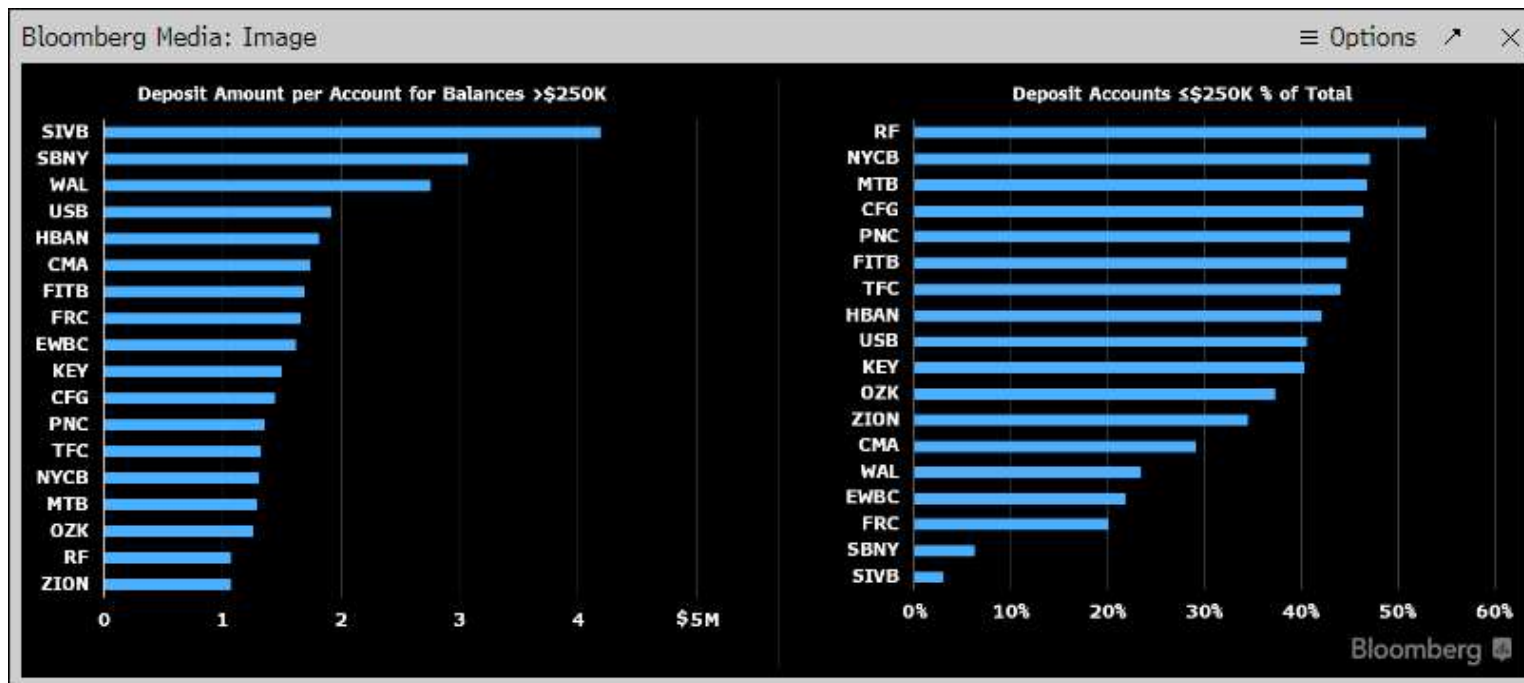
March 31<sup>st</sup>, 2023

- Volatility in Stock and Bond markets continued in Q1 2023 as the Fed continued to raise rates, albeit at a reduced rate, and a couple of bank failures shocked the system.
- Short term interest rates traded in a range of more than 120 basis points with 2 year Treasury yields rising above 5% as the Fed continued to tighten, then falling below 4% amid the failure of a couple of large mismanaged banks.
- The S&P 500 traded in a range 10%, with significant differences in returns between Growth and Value, and across sectors. The S&P 500 generated a +7.5% return in the quarter, with returns dominated by only a few top heavy Technology oriented stocks.
- The Fed has committed to higher rates and holding there, while both equity and fixed income markets are pricing in a reversal of policy, in a disagreement with the Fed.



# Banking Environment

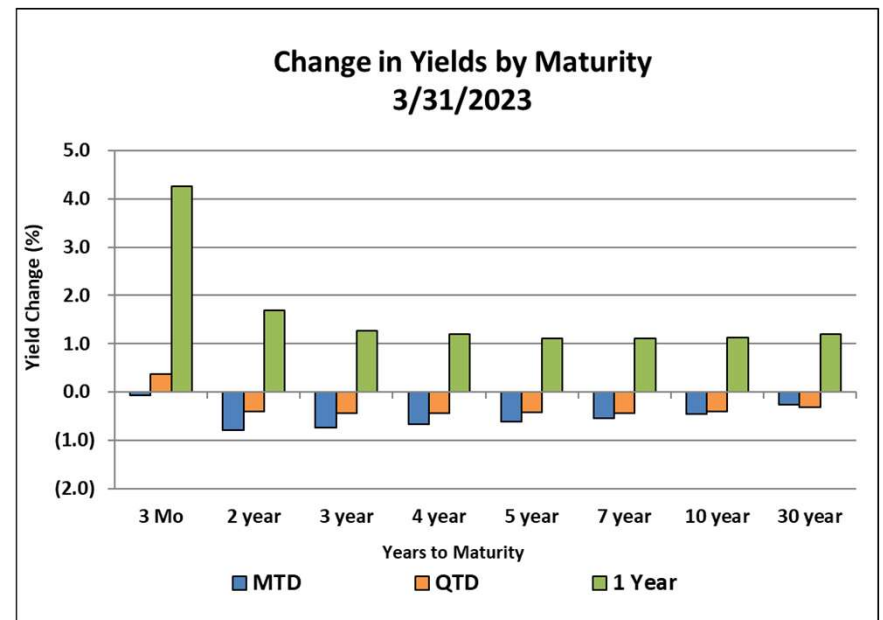
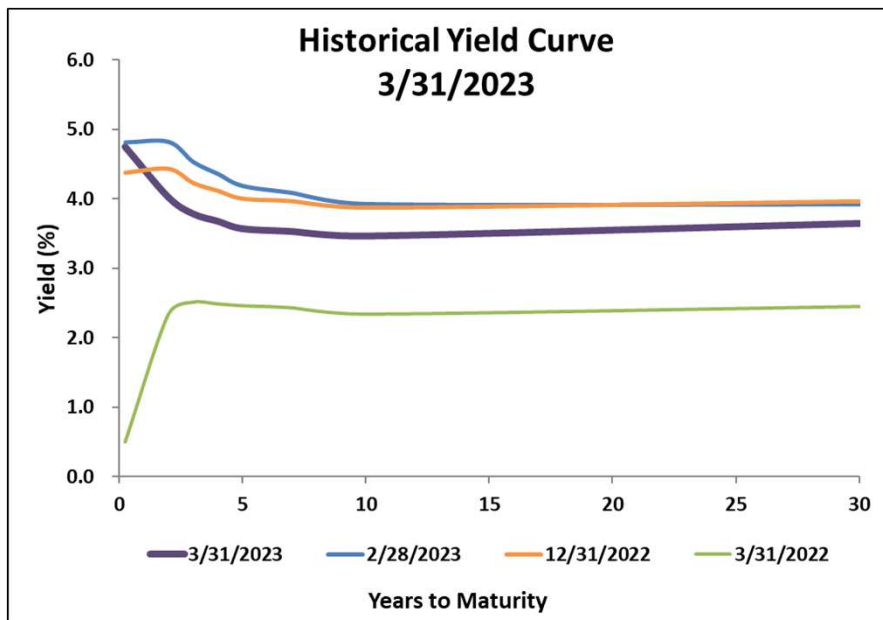
- The recent volatility in the Banking sector was caused by the failure of two mismanaged banks – Silicon Valley (SIVB) and Signature (SBNY). We do not believe the events pose systemic risk.
- The banks were vulnerable due to their unique level of large deposits above the insured level, the concentration of deposits by a small number of depositors, and inappropriately long duration assets.
- The withdrawal of deposits forced the sale of assets that had depreciated significantly due to the rise in rates, leading to capital losses.
- Few banks were as exposed to such long duration assets, or such concentration of large deposits, and therefore, a systemic run on banks is highly unlikely.



# Market Review

## Yield Curve – March 31<sup>st</sup>, 2023

- After a significant rise in interest rates on stronger employment and inflation, interest rates fell across the curve on net in Q1 due to the failure of a couple of large, mismanaged banks.
- The decline in rates was led by short/intermediate rates that reflect market expectations of Fed policy.
- Market sentiment reverted to hope that the Fed would reverse course and began pricing in easing policy in the second half due to expectations related to the fall out of the banking sector.
- In the meeting after the bank failure in March, the Fed hiked rates by .25% to 4.875% and reiterated their commitment to higher rates and no reversal of policy in 2023, as inflation and employment remain strong.
- Market expectations and the resulting level of interest rates are in direct conflict with Fed communications and the level of fundamental economic conditions.

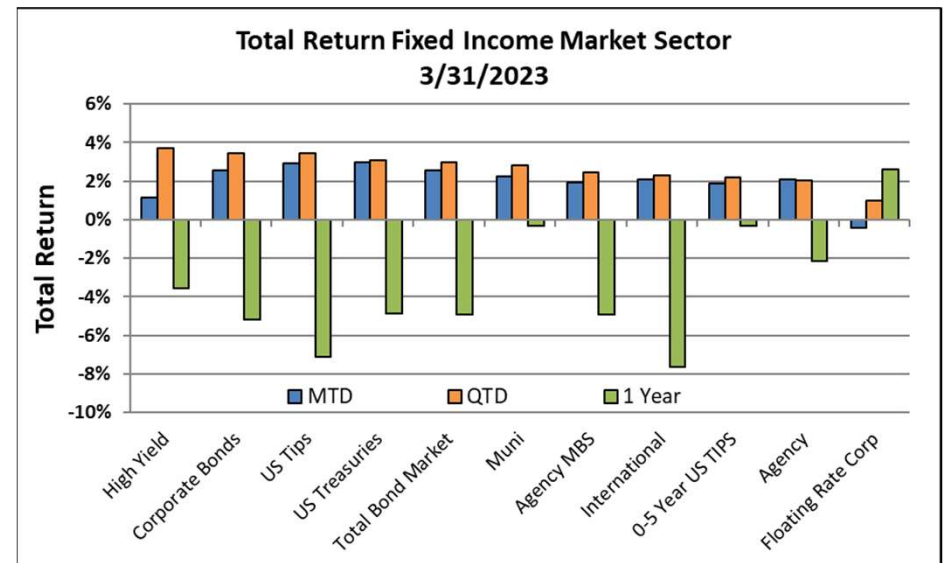
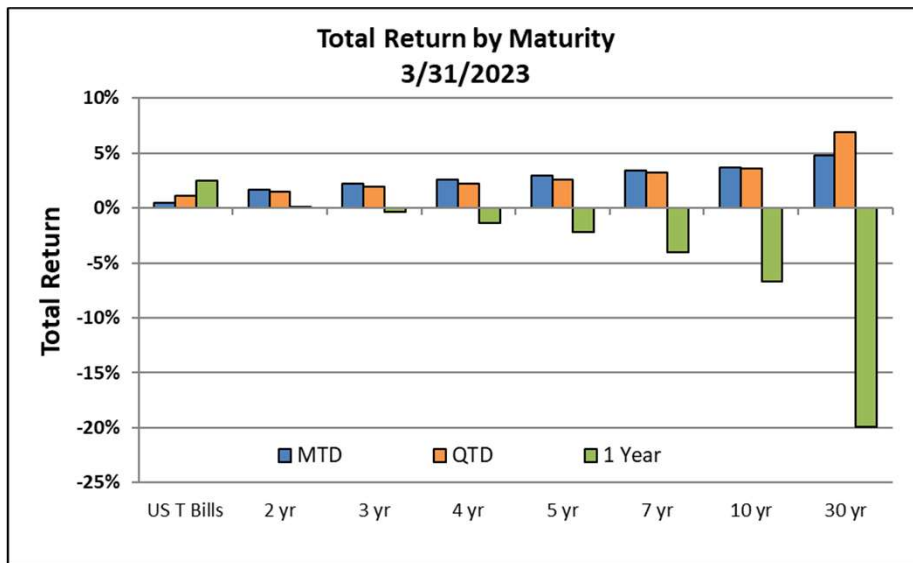




# Market Review

## Yield Curve and Sector Returns – March 31<sup>st</sup>, 2023

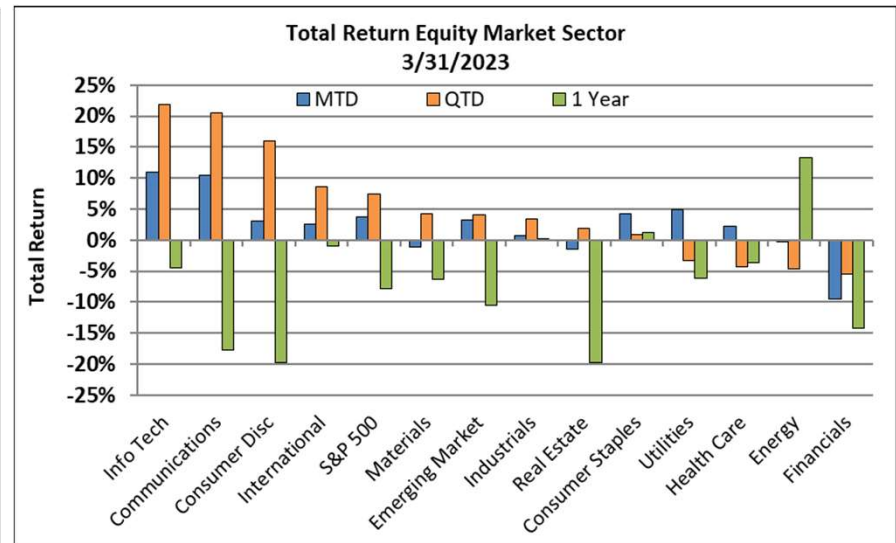
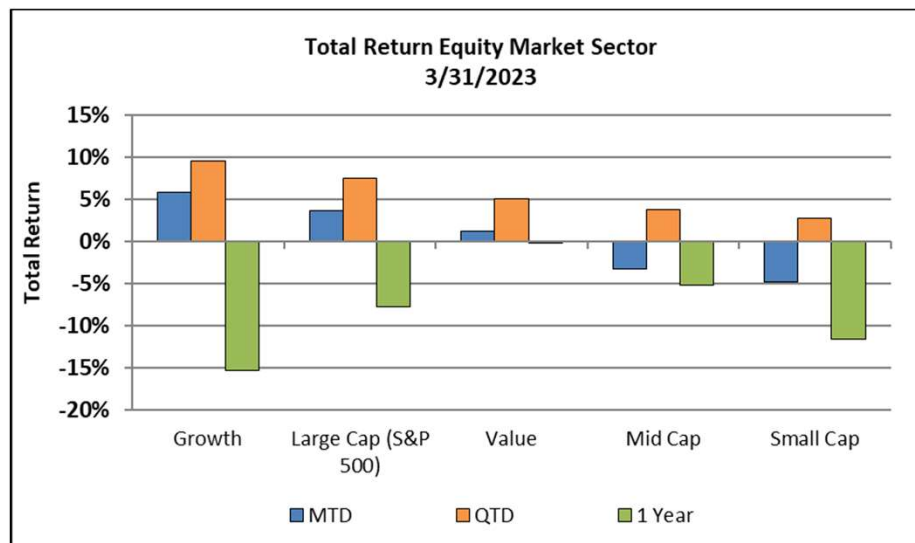
- The fall in rates in Q1 generated positive returns in across maturities and sectors on net for Q1 2023.
- Bouncing off the heels of one of the worst years for bonds, bond market generated some positive returns in Q1, with the aggregate index up +3.0% led by the most interest rate sensitive long-term maturities
- For the Quarter, riskier assets performed well with High Yield and investment grade Corporate bonds among the best performers for the quarter, however returns were tempered in March as yield spreads widened. Floating Rate bonds performed the worst in Q1 along with Agency securities.
- Higher actual inflation than expected than expected helped drive Inflation protected securities higher.



# Market Review

## Equity Market Returns – March 31<sup>st</sup>, 2023

- Equity markets rallied in Q1 amid renewed hope of the Fed pivoting on interest rate policy, however were varied in March given increased risk in the banking sector.
- The S&P 500 generated a positive +7.5% for the quarter, led by just a few stocks.
- The equal weighted S&P lagged the market weighted by 4.6% in Q1 given the rally in growth and Information Technology, which is more heavily weighted in the market weight index.
- Information Technology & Communications were the top performers for Q1.
- Energy & Financials were among the worst performers given lower oil prices and the contagion fear in the financial system brought on by the SVB & Signature Bank Failures.
- Growth outperformed value while small & mid cap stocks continue to lag behind.



# Market Scoreboard

## March 31<sup>st</sup>, 2023

Market Summary - March 31st, 2023				
<b>Bond Market</b>	<b>MTD</b>	<b>QTD</b>	<b>1 Year</b>	<b>Yield</b>
Total Bond Market	2.6%	3.0%	-4.9%	4.4%
US Treasuries	3.0%	3.1%	-4.9%	3.8%
US TIPS (Inflation Prot.)	2.9%	3.4%	-7.1%	1.4%
Corporate Bonds	2.6%	3.4%	-5.2%	5.2%
Floating Rate Corp	-0.4%	1.0%	2.6%	5.4%
US MBS Index	2.0%	2.5%	-4.9%	4.5%
High Yield Corporates	1.1%	3.7%	-3.6%	8.3%
Merrill Muni Index	2.2%	2.8%	-0.3%	2.9%
International Bonds	2.1%	2.3%	-7.7%	2.0%
<b>Commodities/Other</b>	<b>MTD</b>	<b>QTD</b>	<b>1 Year</b>	<b>End Value</b>
Oil (WTI)	-2.0%	-5.9%	-11.3%	76
Gold	7.8%	8.0%	1.6%	1,969
Dollar Index	-2.3%	-1.0%	4.3%	103

Market Summary - March 31st, 2023				
<b>Stock Market Indices</b>	<b>MTD</b>	<b>QTD</b>	<b>1 Year</b>	<b>End Value</b>
DOW Jones Avg.	2.1%	0.9%	-2.0%	32,657
NASDAQ Composite	6.8%	17.0%	-13.3%	11,456
Large Cap Core (S&P 500)	3.7%	7.5%	-7.8%	3,970
Large Cap Growth	5.8%	9.6%	-15.3%	2,440
Large Cap Value	1.3%	5.2%	-0.2%	1,484
Mid Cap Core	-3.2%	3.8%	-5.2%	2,601
Mid Cap Growth	-1.1%	5.0%	-6.5%	1,177
Mid Cap Value	-5.3%	2.5%	-4.1%	875
Small Cap Core	-4.8%	2.7%	-11.6%	1,897
Small Cap Growth	-2.5%	6.1%	-10.6%	8,585
Small Cap Value	-7.2%	-0.7%	-13.0%	15,178
Europe	2.9%	13.6%	6.6%	456
England	-0.5%	5.7%	-1.1%	7,876
Japan	5.4%	7.0%	-5.7%	27,446
Shanghi 300	0.5%	5.1%	-9.4%	4,051
International	2.6%	8.6%	-0.9%	2,054
MSCI China	4.5%	4.7%	-4.7%	479
Emerging Markets	3.2%	4.1%	-10.5%	38

# Market Review

## Yield Curve Scenario Analysis – March 31<sup>st</sup>, 2023

- Short term rates have finally moved in similar magnitude as past tightening cycles with two-year notes rising 400 basis points. With that said, rates remain relatively low by long term historical norms.
- Longer term yields have also moved in similar significant fashion yet are also still low on an absolute basis.
- Although moderating, the rise in inflation currently dwarfs anything seen since 1984, so further upward rate moves are possible.

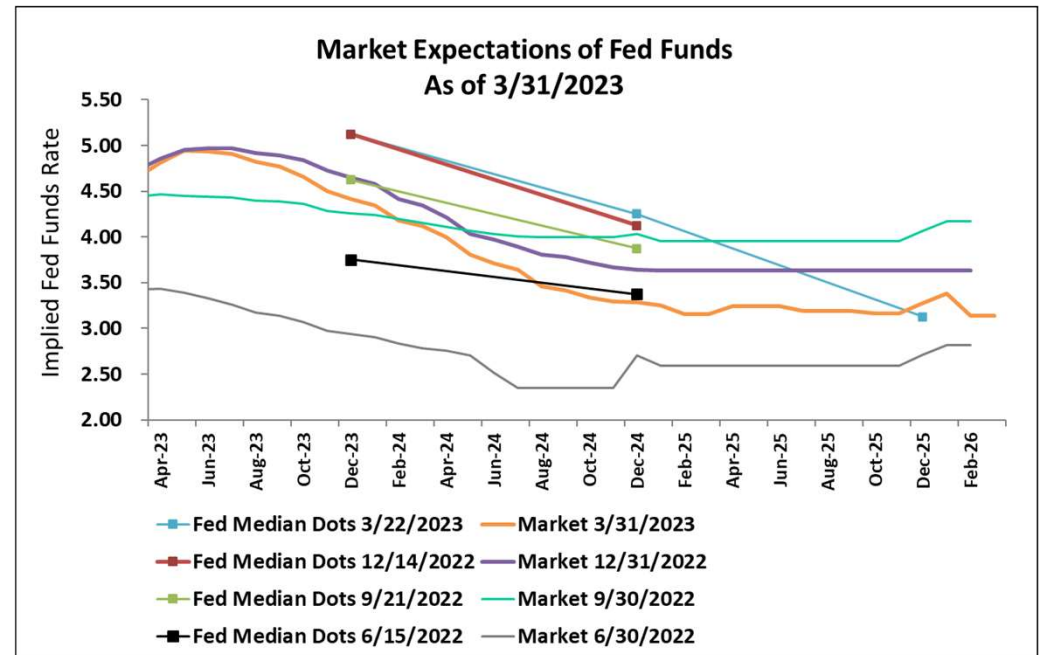


# Market Review

## Monetary/Fed Policy – March 2023

<b>Federal Reserve Median Economic Projections</b>					
<b>As of 3/31/2023</b>					
<b>Change in GDP</b>	<b>Actual</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>Longer Run</b>
March 2023 Projection		0.4	1.2	1.9	1.8
December 2022 Projection		0.5	1.6	1.8	1.8
September 2022 Projection		1.2	1.7	1.8	1.8
Actual Q4 2022 yoy/qoq	<b>2.6%/0.9%</b>				
<b>Unemployment Rate</b>					
March 2023 Projection		4.5	4.6	4.6	4.0
December 2022 Projection		4.6	4.6	4.5	4.0
September 2022 Projection		4.4	4.4	4.3	4.0
Actual December 2022	<b>3.6%</b>				
<b>PCE Inflation</b>					
March 2023 Projection		3.3	2.5	2.1	2.0
December 2022 Projection		3.1	2.5	2.1	2.0
September 2022 Projection		2.8	2.3	2.0	2.0
Actual February 2023	<b>5.0%</b>				
<b>Core PCE Inflation</b>					
March 2023 Projection		3.6	2.6	2.1	
December 2022 Projection		3.5	2.5	2.1	
September 2022 Projection		3.1	2.3	2.1	
Actual February 2023	<b>4.6%</b>				
<b>Projected Policy Path- Fed Funds</b>					
March 2023 Projection		5.1	4.3	3.1	2.5
December 2022 Projection		5.1	4.1	3.1	2.5
Actual December 2022	<b>5.0%</b>				

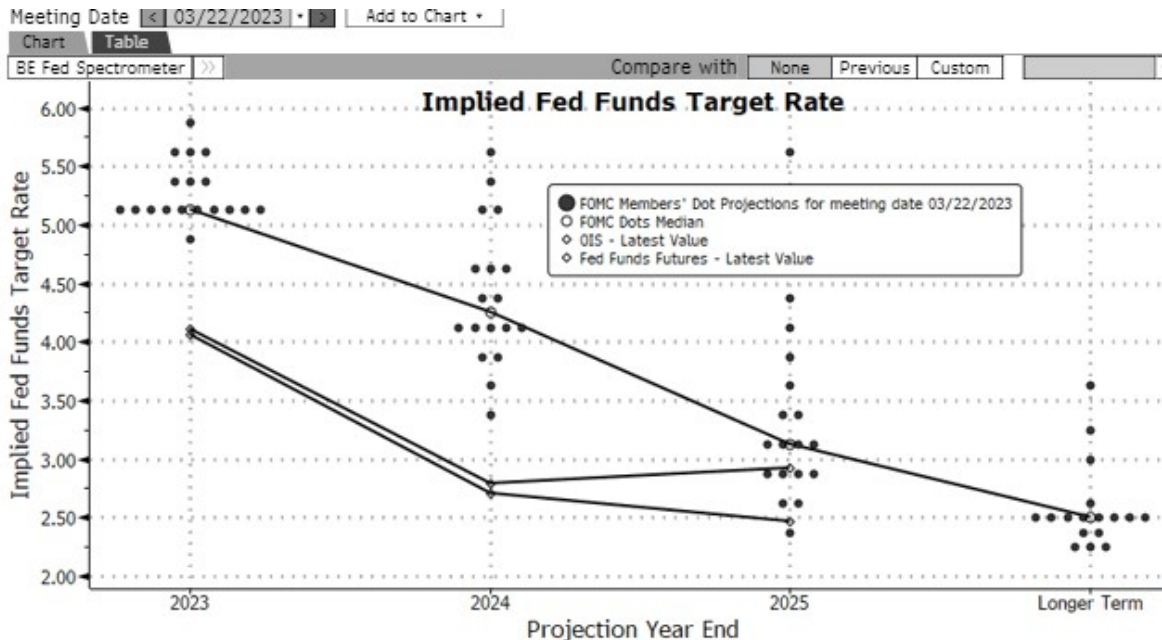
- The Fed hiked interest rates to a range of 4.75 – 5.0% in its March Meeting and stated an objective of over 5%.
- The Fed continues to chase reality in their economic projections and reacting by shifting policy rate expectations accordingly. The Fed raised their rate projections for 2024 by another 25bp at the March meeting.
- The markets continue to discount the Fed’s resolve and maintain a lower funds rate than Fed expectations and continue to carry hope and expectations of a “Fed Pivot”.



# Market Review

## Monetary Policy – March 2023

- The Feds Dot Plot shows all Fed Governors thoughts on where rates will be at each time period, with the median suggesting a rate over 5% by year end 2023, an increase from their previous meeting.
- Inflation expectations remain extremely low as implied by TIPS at just over 2% for the next 2, 5, and 10 years, and remains well below actual inflation and our expectations.
- There is significant disagreement among Fed officials over the level of rates by end of 2024.



**Current Fed Funds Rate**  
4.83

**10 Year Tip 10 Year UST Implied Inflation Premium**  
1.14 3.47 2.33

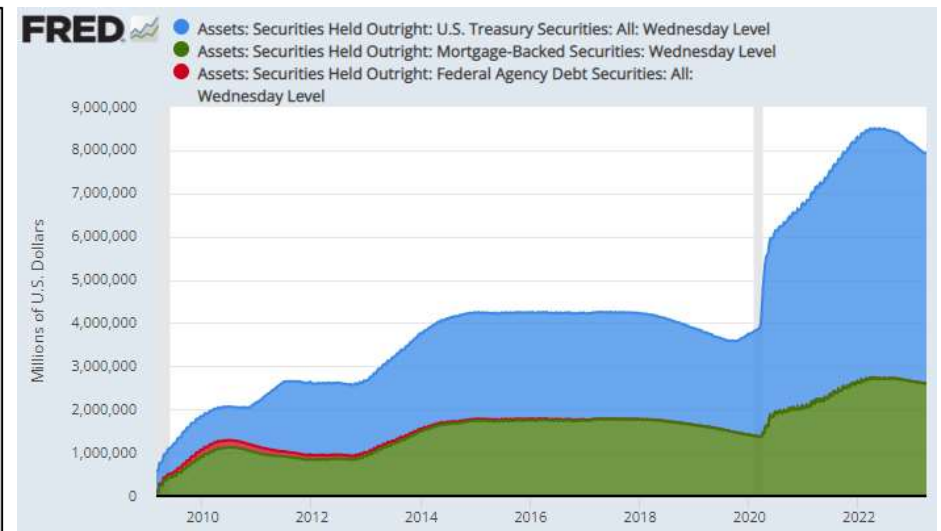
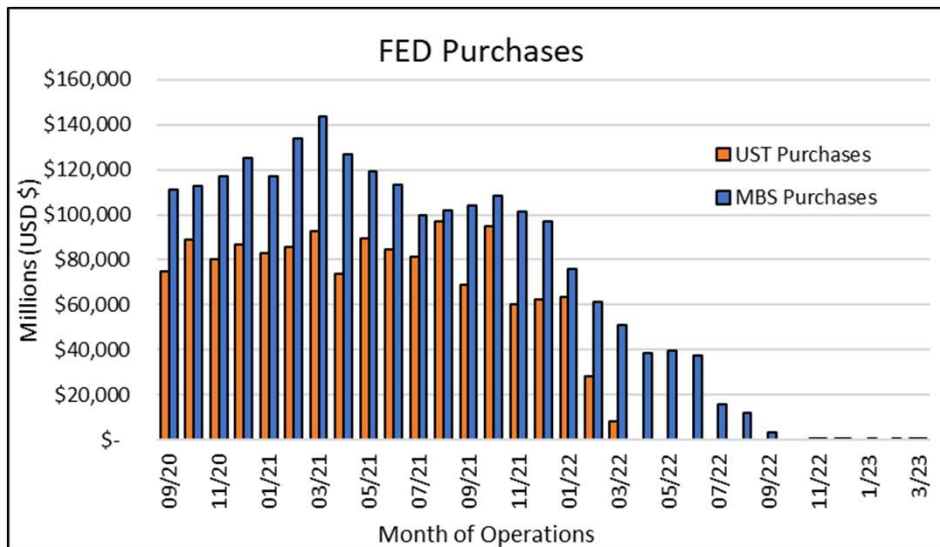
**5 Year Tip 5 Year UST Implied Inflation Premium**  
1.16 3.57 2.41

**2 Year Tip 2 Year UST Implied Inflation Premium**  
1.57 4.03 2.45

# Market Review

## Fed Purchases – March 2023

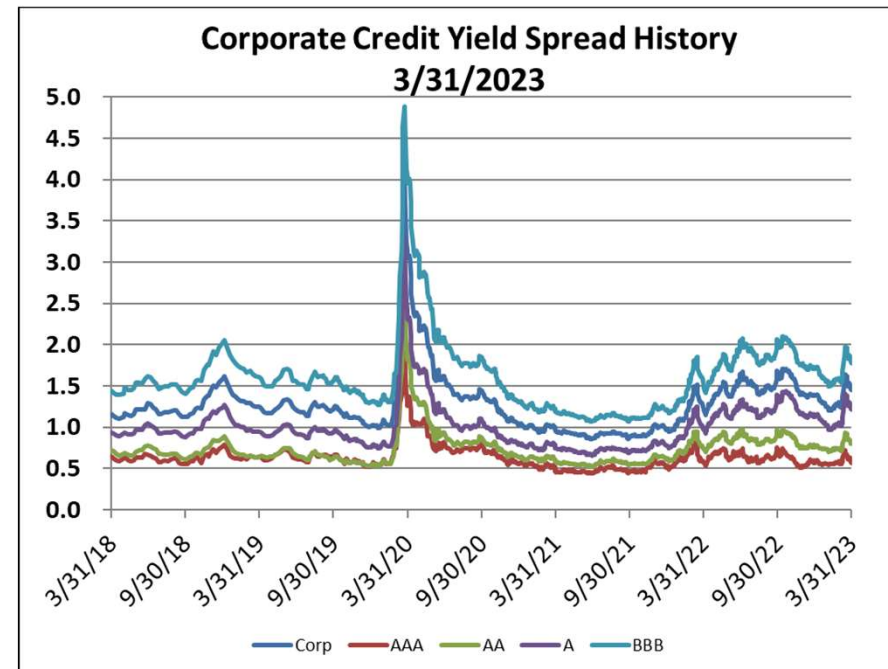
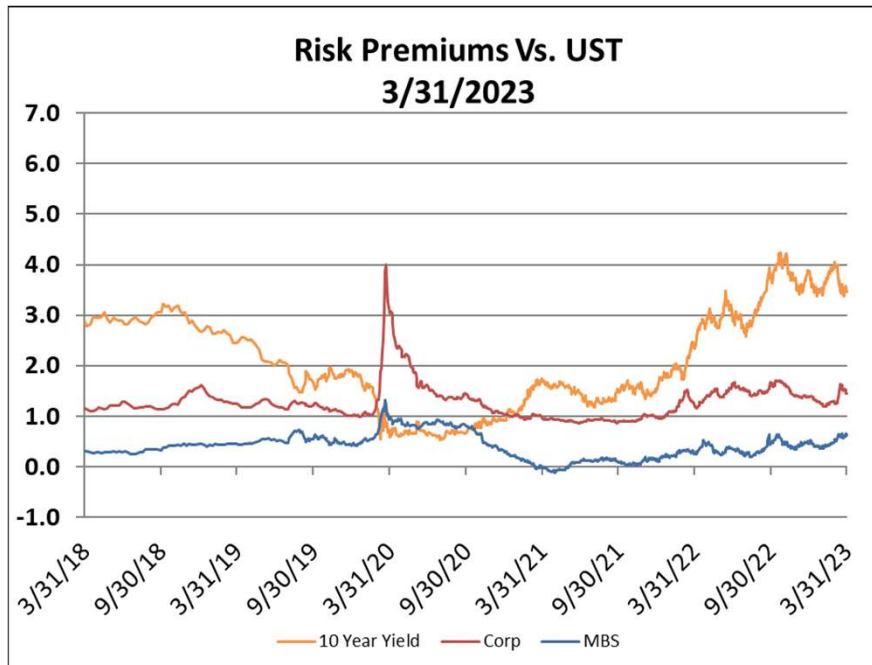
- The FED stopped purchasing additional US Treasuries in March of 2022 and brought its Mortgage Purchasing operations to a close in September 2022 and has started to wind down its balance sheet.
- Since then, the Fed has conducted several “small dollar” operations. Reinvesting bonds in excess of their monthly cap, to help facilitate the wind down of their balance sheet as bonds mature and roll off.
- In sum since 6/1/2020 the Fed has purchased: \$1.684 Trillion in US Treasuries and \$2.477 Trillion in Mortgage-Backed Securities to “maintain liquidity” and further stimulate the economy, which is currently running with inflation accelerating through 40-year highs.



# Market Review

## Yield Spreads – March 2023

- Risk premiums in Corporate, Muni & MBS widened in Q1, but may still have further to go amid ongoing equity market volatility and earnings pressures.
- Corporate credit conditions have been strong; however, rising rates and slower overall economic activity may begin to put pressure on companies with higher debt levels.
- Corporate bonds may still be vulnerable in an economic downturn, while Mortgage backed securities, whose spreads have widened, may be more stable given lack of credit risk.

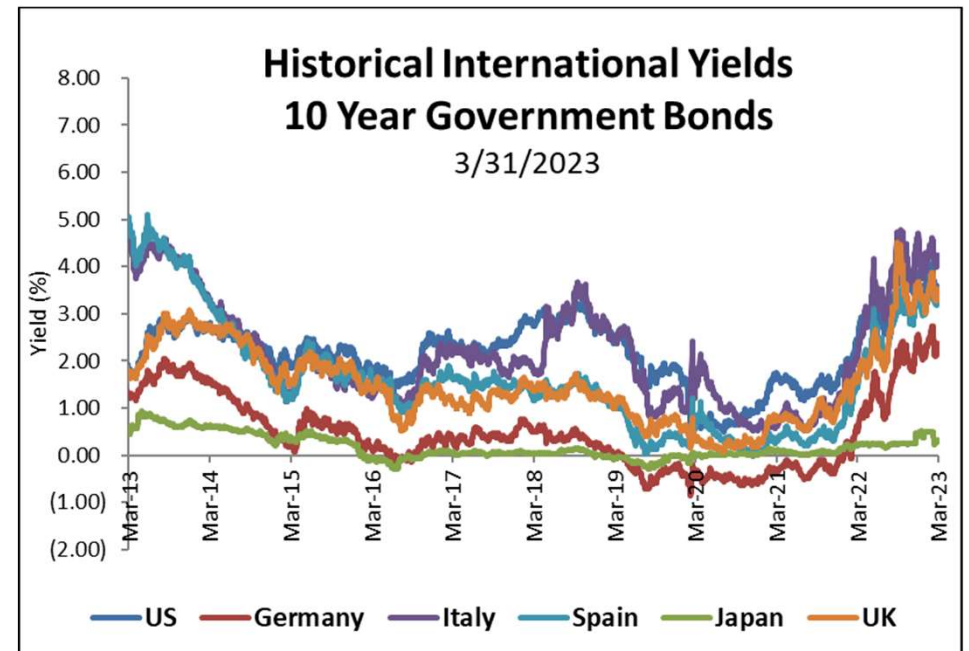
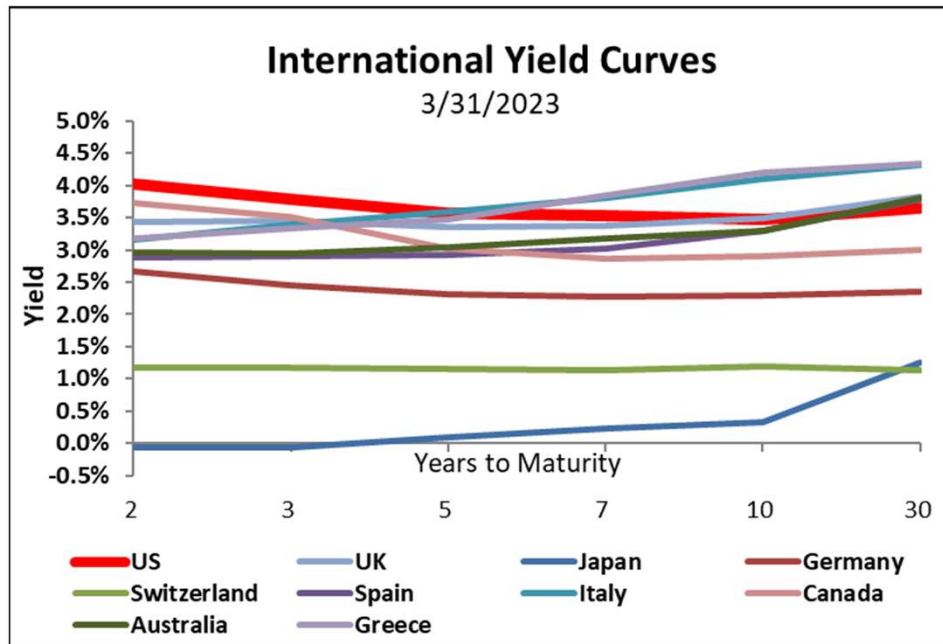




# Market Review

## International Yield Curves – March 2023

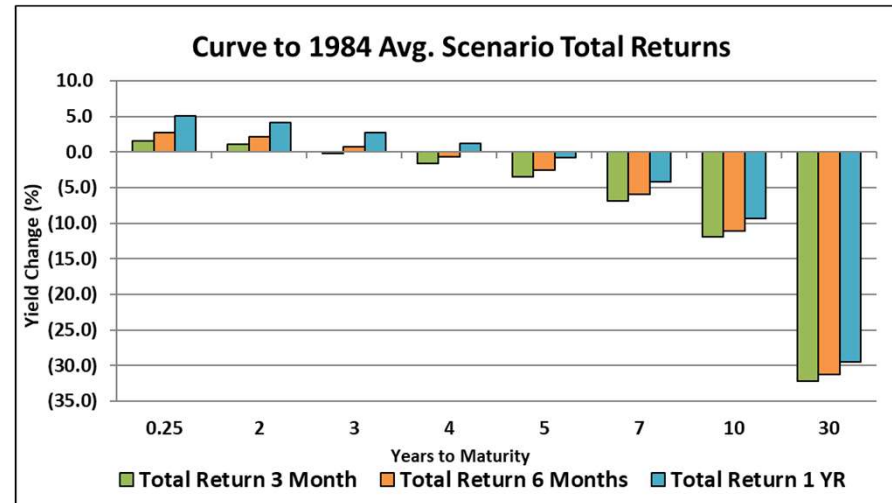
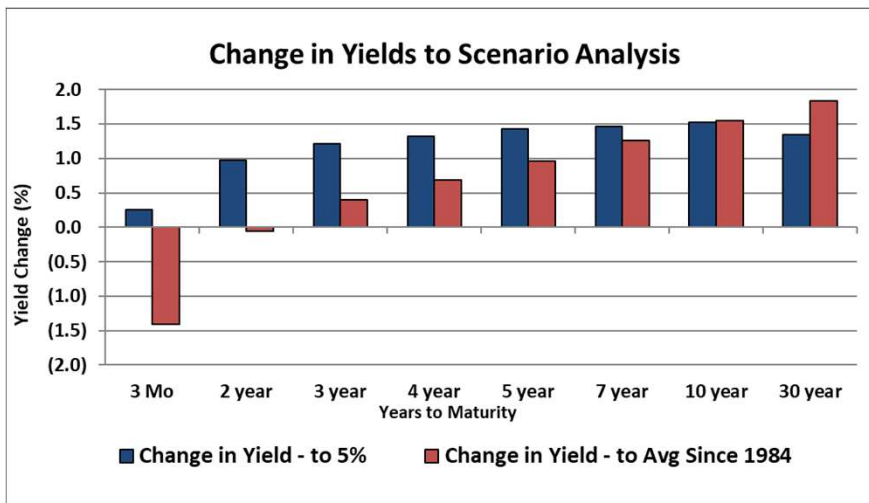
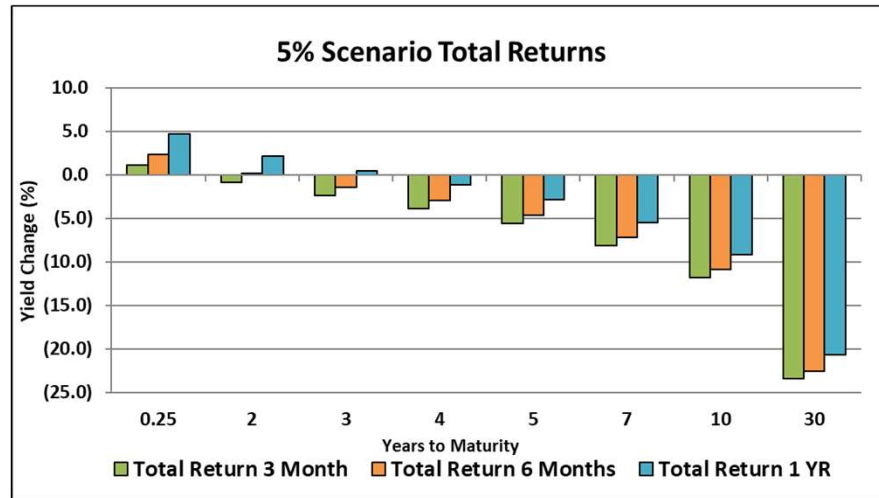
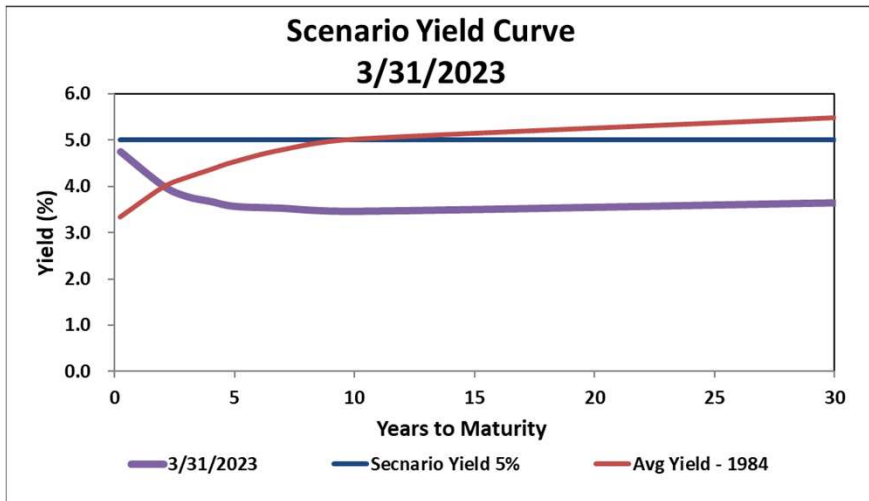
- Inflation has become a global phenomenon and interest rates are rising globally.
- Central banks all moved toward a tightening bias including Europe and Japan.
- The US continues as one of the highest yielding developed countries, however longer term rates in peripheral Europe have risen above the US.
- The rise in international rates and narrowing of interest rate differentials has reversed the stronger dollar trend in Q1, while generating significant negative bond returns.



# Market Review

## Yield Curve Scenario Analysis – March 31<sup>st</sup>, 2023

- Given the recent rise in rates above 4%, the higher current level of income in shorter term maturities is better able to offset a decline in price from further rate increases. In scenarios moving rates to 5.0% and to their average yield curve since 1984, shorter term maturities still generate positive returns, where longer term maturities remain vulnerable.



# SPX Trailing Earnings Scenario Analysis

- Bloomberg reports that “Headline” earnings grew 4.92% year-over-year to \$222.42. “As Reported” (GAAP) earnings fell -13.47% year-over-year to \$176.17, and “Adjusted” earnings grew 5.81% year-over-year to \$208.74
- We looked at the real trailing P/E based on the SPX price on March 31<sup>st</sup> and scenarios if the index were to trade at historical multiples based on arithmetic mean, harmonic mean, median, and mode (rounded to the nearest whole number).
- All three “flavors” of EPS are trading above their historical multiples
- Historical scenarios are based on daily data from 4/5/2003 to 3/31/2023.

Headline EPS Trailing Year			GAAP EPS Trailing Year			Adjusted EPS Trailing Year		
Actuals 3/31/2023			Actuals 3/31/2023			Actuals 3/31/2023		
YoY Growth 4.94%			YoY Growth -13.46%			YoY Growth 6.03%		
Act. EPS \$ 222.46			Act. EPS \$ 176.19			Act. EPS \$ 209.11		
Description	P/E	SPX Price	Description	P/E	SPX Price	Description	P/E	SPX Price
3/31/2023	18.47	<b>\$ 4,109</b>	3/31/2023	23.32	<b>\$ 4,109</b>	3/31/2023	19.65	<b>\$ 4,109</b>
Mean	17.61	\$ 3,918	Mean	21.56	\$ 3,798	Mean	18.29	\$ 3,824
Median	17.21	\$ 3,828	Harmonic	20.27	\$ 3,572	Mode	18.00	\$ 3,764
Harmonic	17.07	\$ 3,797	Median	20.23	\$ 3,565	Median	17.89	\$ 3,741
Mode	17.00	\$ 3,782	Mode	18.00	\$ 3,171	Harmonic	17.65	\$ 3,692

# SPX Forward Earnings Scenario Analysis

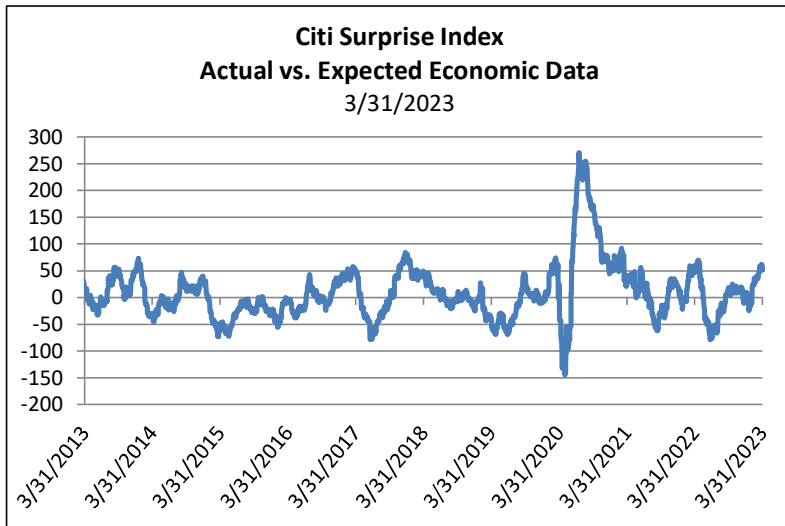
- Bloomberg consensus estimates for Headline EPS is -0.91% growth over the next twelve months and Bloomberg consensus estimates for Adjusted EPS is 0.29% growth over the next twelve months
- We looked at the real forward P/E based on the SPX price on March 31<sup>st</sup> and scenarios if the index were to trade at historical multiples based on arithmetic mean, harmonic mean, median, and mode (rounded to the nearest whole number).
- Both flavors of EPS are trading above historical forward multiples
- For the index to be fairly valued at historical multiples the index would need to see earnings growth above 5% for headline and near 10% on an adjusted basis.
- Historical scenarios are based on daily data from 4/5/2003 to 3/31/2023.

Headline EPS Year Forward							Adjusted EPS Year Forward						
Estimates 3/31/2023							Estimates 3/31/2023						
YoY Growth							YoY Growth						
10.00% 5.00% <b>-0.93%</b> -5.00% -10.00%							10.00% 5.00% <b>0.34%</b> -5.00% -10.00%						
Est. EPS							Est. EPS						
\$ 244.71 \$ 233.58 \$ 220.39 \$ 211.34 \$ 200.21							\$ 230.02 \$ 219.57 \$ 209.82 \$ 198.65 \$ 188.20						
Description	P/E	SPX Price					Description	P/E	SPX Price				
3/31/2023	18.65	\$ 4,563	\$ 4,355	\$ <b>4,109</b>	\$ 3,940	\$ 3,733	3/31/2023	19.58	\$ 4,505	\$ 4,300	\$ <b>4,109</b>	\$ 3,891	\$ 3,686
Mean	17.32	\$ 4,239	\$ 4,047	\$ 3,818	\$ 3,661	\$ 3,469	Mean	18.16	\$ 4,178	\$ 3,988	\$ 3,811	\$ 3,608	\$ 3,418
Median	17.05	\$ 4,173	\$ 3,983	\$ 3,758	\$ 3,604	\$ 3,414	Median	17.58	\$ 4,043	\$ 3,860	\$ 3,688	\$ 3,492	\$ 3,308
Harmonic	16.82	\$ 4,115	\$ 3,928	\$ 3,706	\$ 3,554	\$ 3,367	Harmonic	17.55	\$ 4,037	\$ 3,853	\$ 3,682	\$ 3,486	\$ 3,303
Mode	16.00	\$ 3,915	\$ 3,737	\$ 3,526	\$ 3,381	\$ 3,203	Mode	17.00	\$ 3,910	\$ 3,733	\$ 3,567	\$ 3,377	\$ 3,199

# Economic Environment

## March 2023

- Levels of global economic growth have decelerated relative to the robust post covid recovery, but has maintained a robust pace.
- Economic activity has been coming in much stronger than expected, led by employment.
- Inflation remains elevated around the globe and continues to accelerate in some areas such as Europe.
- Central banks around the world are raising interest rates aggressively and curbing additional Fiscal stimulus, acknowledging the risk of recession to win the battle against inflation.



	GDP YoY % Change			Inflation YoY % Change		
	Q4 2022	Ago	Change	Mar-23	Ago	Change
<b>US</b>	0.90	5.70	(4.80)	5.00	8.50	(3.50)
<b>Eurozone</b>	1.80	4.80	(3.00)	6.90	7.40	(0.50)
<b>Germany</b>	0.90	1.80	(0.90)	7.40	5.90	1.50
<b>France</b>	0.50	5.10	(4.60)	5.60	4.50	1.10
<b>Italy</b>	1.43	6.87	(5.44)	7.70	6.50	1.20
<b>UK</b>	0.60	8.90	(8.30)	10.40	6.20	4.20
<b>Canada</b>	3.00	3.10	(0.10)	5.20	5.70	(0.50)
<b>Mexico</b>	3.57	1.02	2.55	6.85	7.45	(0.60)
<b>Australia</b>	2.70	4.60	(1.90)	2.70	4.60	(1.90)
<b>Japan</b>	0.40	0.80	(0.40)	3.30	0.90	2.40
<b>China</b>	2.90	4.30	(1.40)	0.70	1.50	(0.80)
<b>Russia</b>	(2.70)	5.80	(8.50)	10.99	9.15	1.84
<b>Brazil</b>	1.91	2.14	(0.23)	4.65	11.30	(6.65)

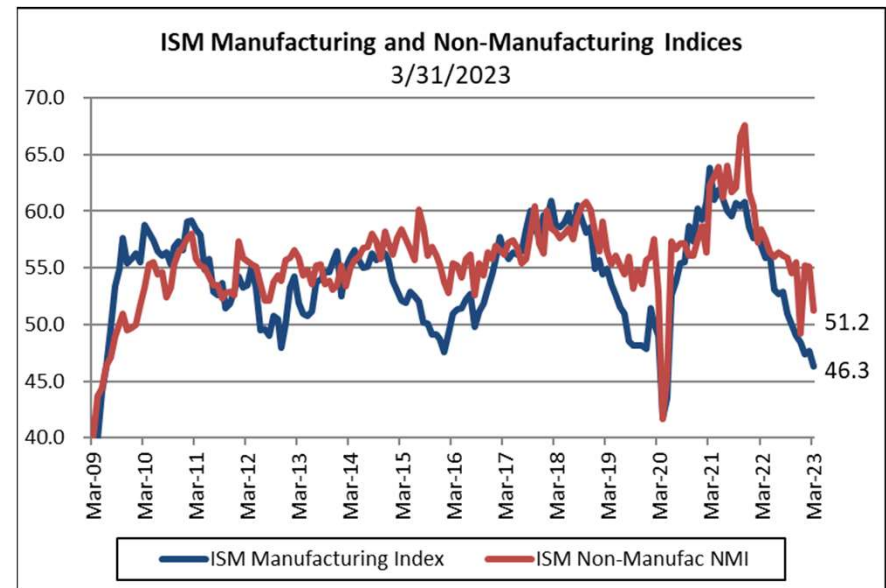
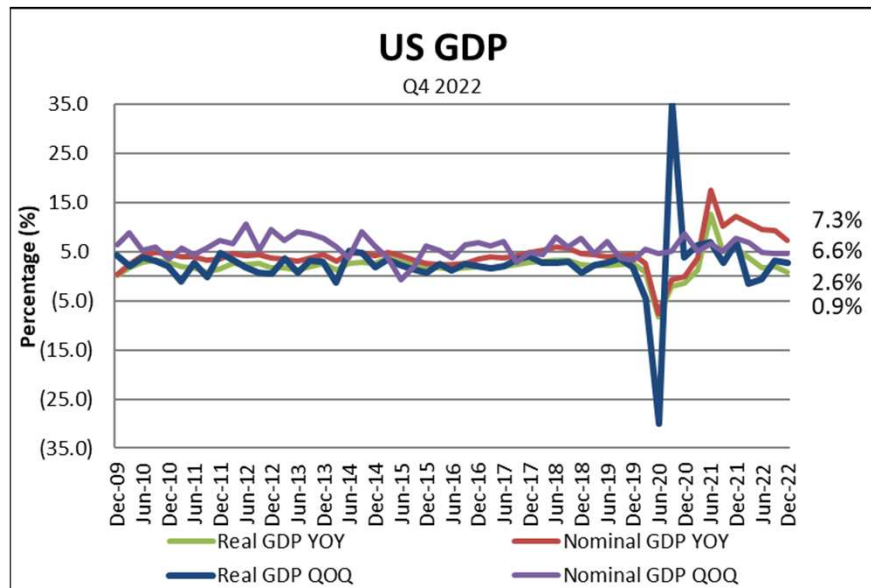
\*Canada GDP as of 1/31/2023  
\*All other GDP as of 12/31/2022

\*UK, Canada, & Japan, Russia, Brazil as of 2/28/2023  
\*Australia CPI as of 12/31/2022

# Economic Environment

## March 2023

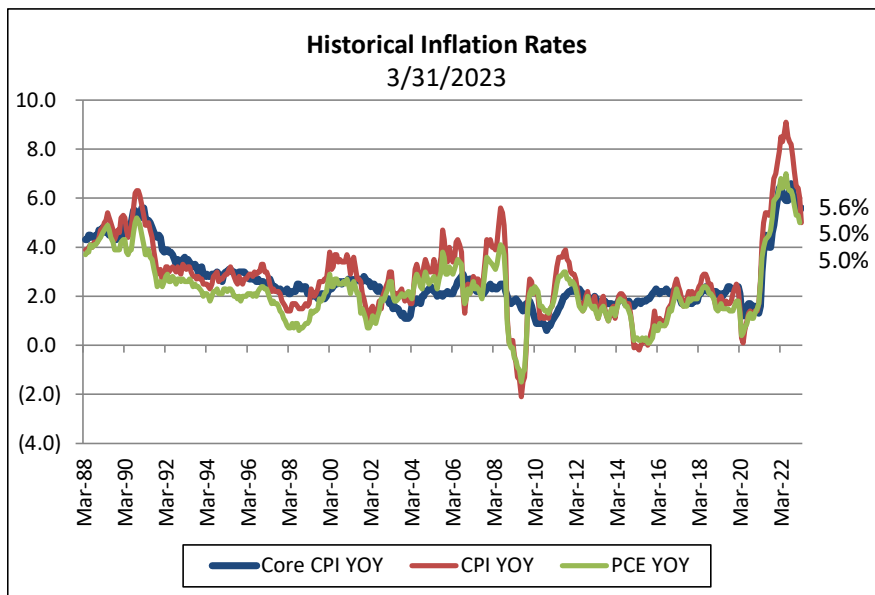
- US Economic activity remained robust in Q4 with a Nominal GDP growth rate of 6.5% and a net Real GDP of 2.6%. The average Nominal GDP growth rate since 1984 has been 5%.
- This level of activity resulting from the excess monetary and fiscal stimulus of the past number of years continues to generate historically high and persistent inflation that has started to decelerate.
- While the Goods sectors of the economy have moderated as evidenced by the declining Manufacturing PMI survey below 50, the Services sectors have been robust. Recently the Services PMI turned down dramatically in a surprise, which may very well be due to weather disruptions in March.



# Economic Environment

## Employment and Inflation – March 2023

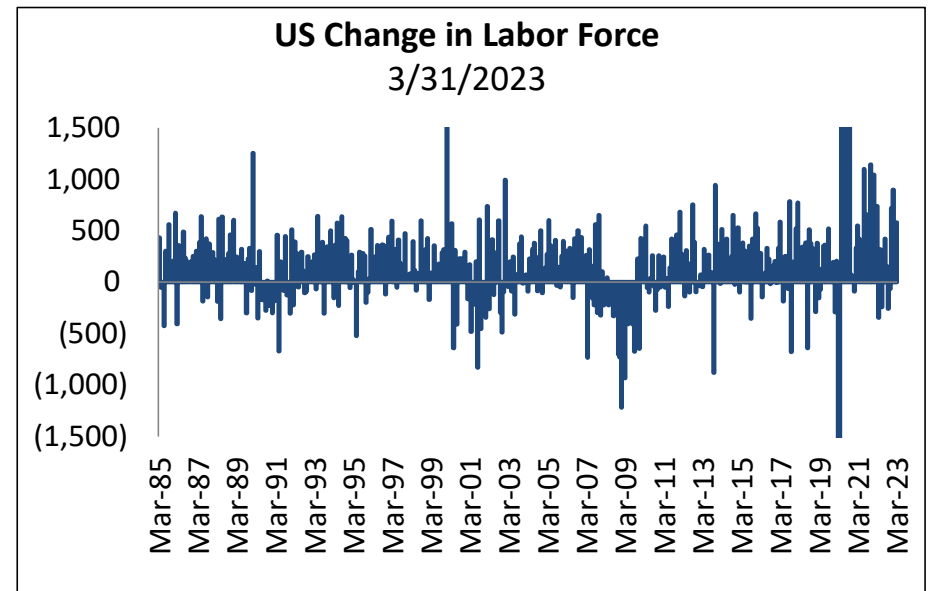
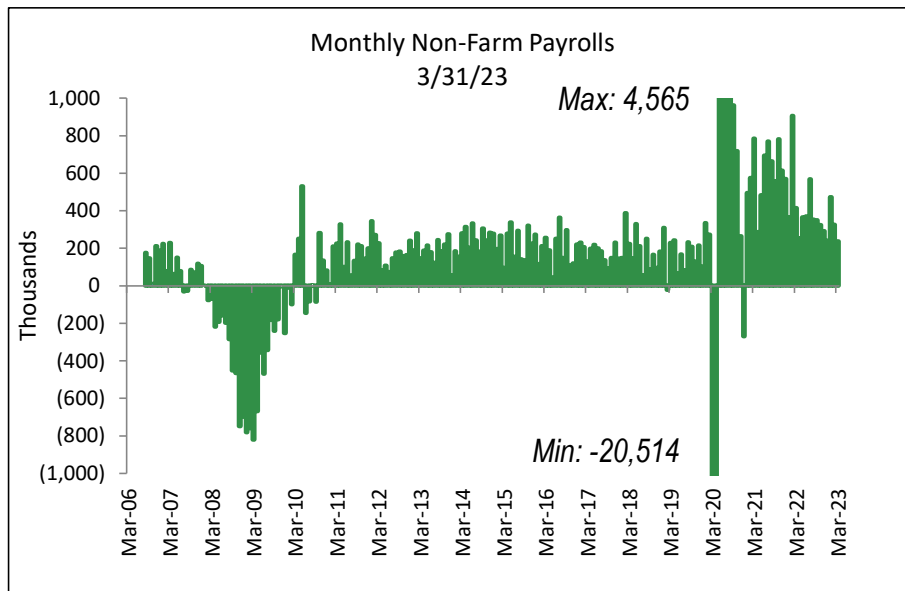
- Inflation levels found a peak in the second quarter of 2022 at 9.1%, and has decelerated to 5% in March, but still at historically high levels. Energy has fallen, but core inflation remains high at 5.6%.
- Input costs have moderated due to reduced energy and transportation costs, however remain high with wage pressures, and continue to be passed through to final demand, particularly in the services area.
- The economy has returned to around the 80% capacity utilization rate as supply chain disruptions have normalized and employees continue to return to the workforce filling in needed jobs.
- The unemployment rate has returned to its historical low of 3.5% amid continued demand for workers, suggesting continued wage pressures.



# Economic Environment

## Employment – Monthly Payrolls – March 2023

- Monthly payrolls additions continue at strong levels but gains are decelerating as the pool of available workers is low at 3.5% unemployment rate, and many unfilled jobs have been filled.
- Many of the added jobs are people returning to the labor force after a long absence.
- The labor force continues to grow as people continue to return to work. Much work is still needed to fill available jobs. Weekly unemployment claims remain at extremely low levels as companies are hesitant to lay off workers.
- Many high profile layoff announcements have been reducing excesses from covid buildup.





# Economic Environment

## Employment – Jobs – March 2023

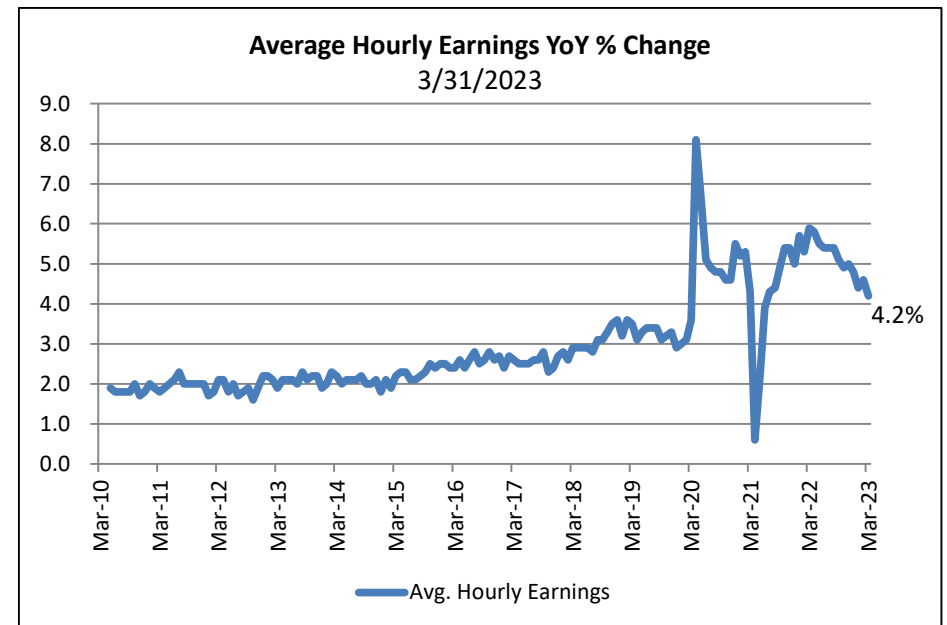
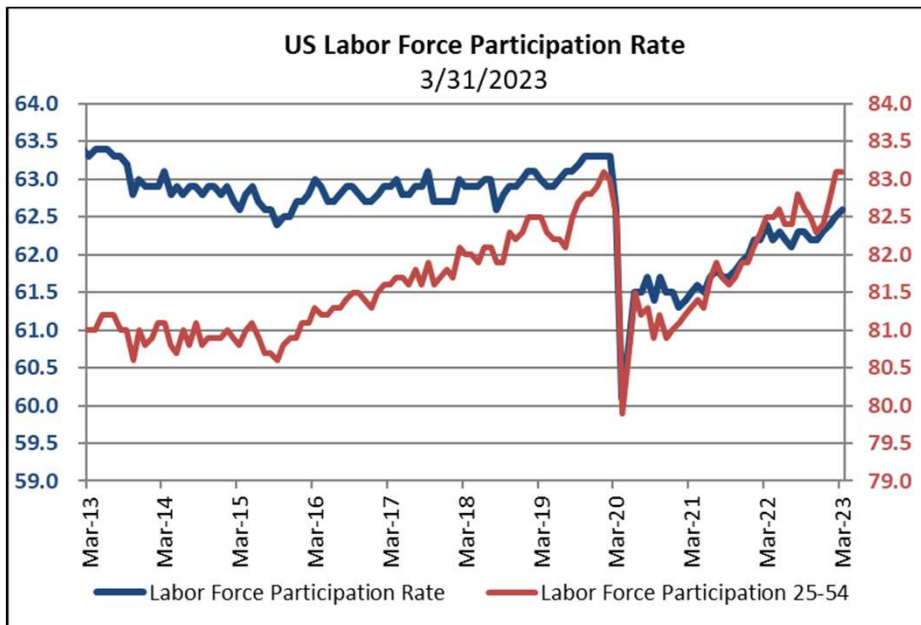
- Virtually all employment indicators suggest a very strong labor market, but may have begun to equalize as many jobs are getting filled, and further add needs are being reduced.
- The number of jobs available remains surprisingly high, although has begun to decline as the number of jobs being filled monthly has been consistently high.
- Currently, there are 1.67 jobs available for every unemployed worker, showcasing the labor shortage. A decline in the jobs openings may not be a leading indicator of a softening economy and overall labor market unless a significant increase in unemployment claims.



# Economic Environment

## Employment and Inflation – March 2023

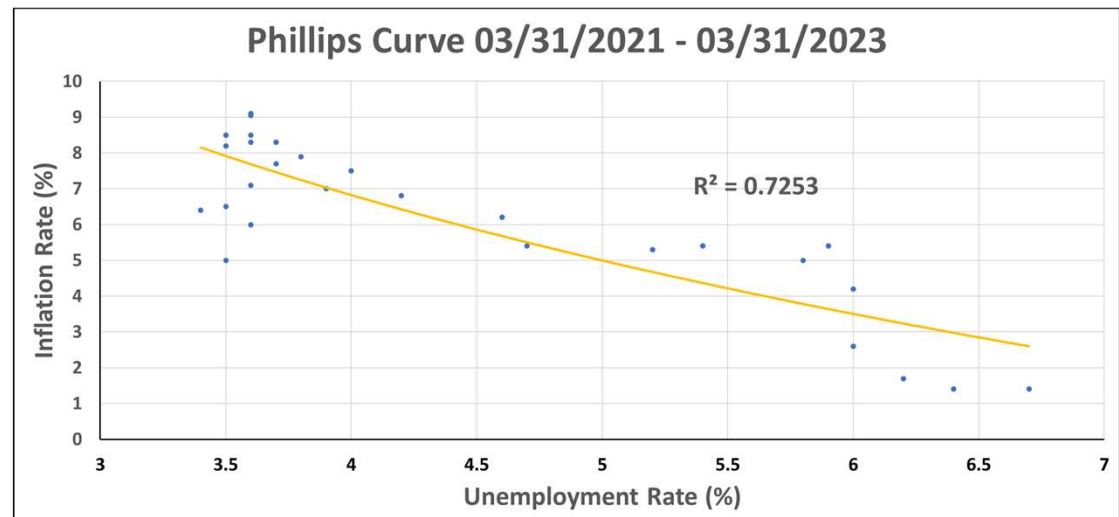
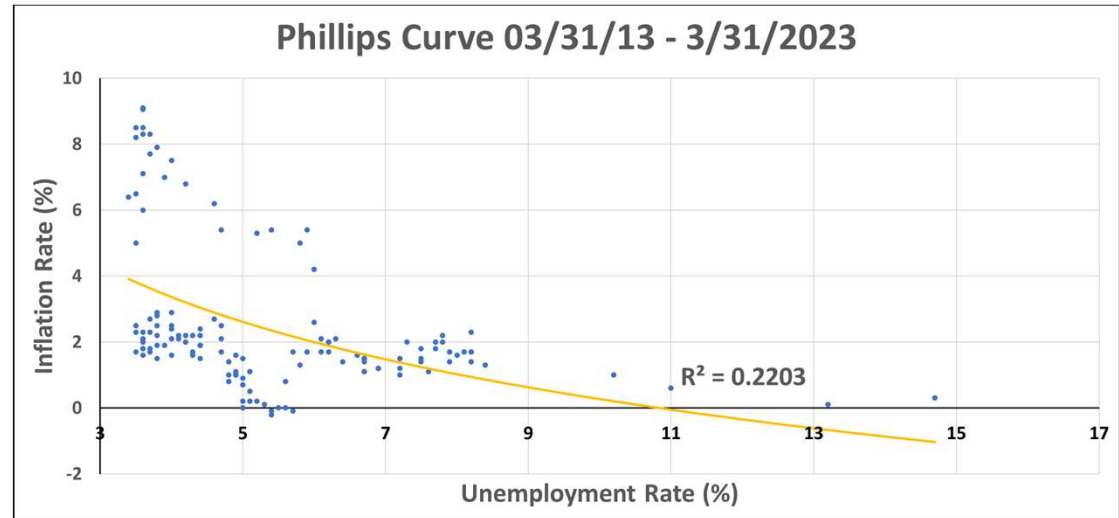
- The prime working age participation rate has been increasing and is back near pre pandemic levels.
- The demand for labor has pushed up wages and pulled workers off the sidelines. The expiration of government stimulus and an evident rise in credit card use point to further rise in participation.
- The pandemic related frictions in the labor market such as remote work, required vaccination mandates, child care and worker choices have mostly faded but still exist to various degrees.
- Average hourly earnings have recently decelerated from high levels, perhaps due to the larger contributions from additions to the lower wag service sector.



# Economic Environment

## Employment and Inflation – March 2023

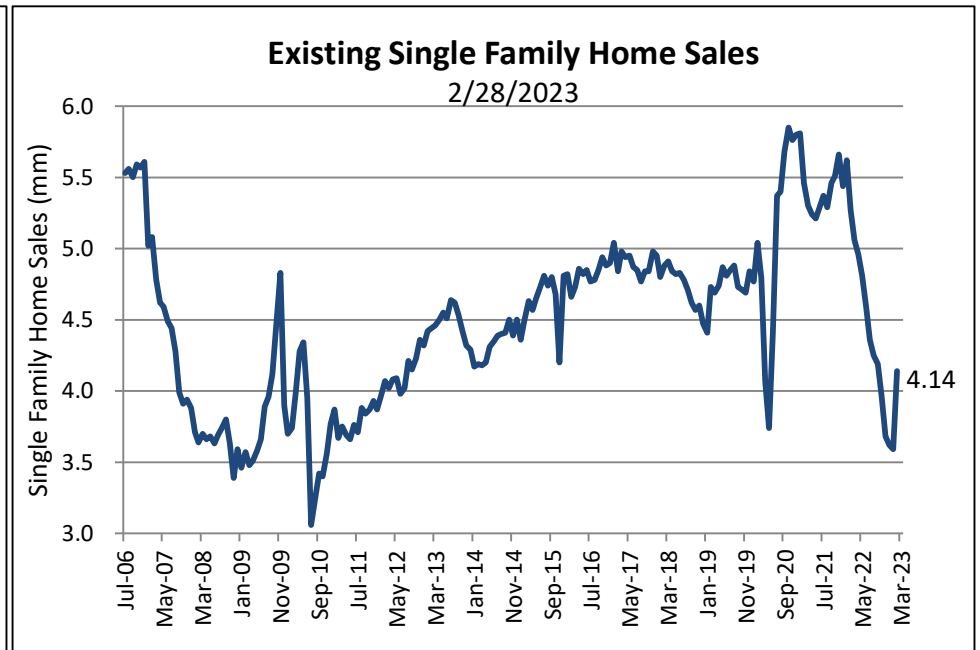
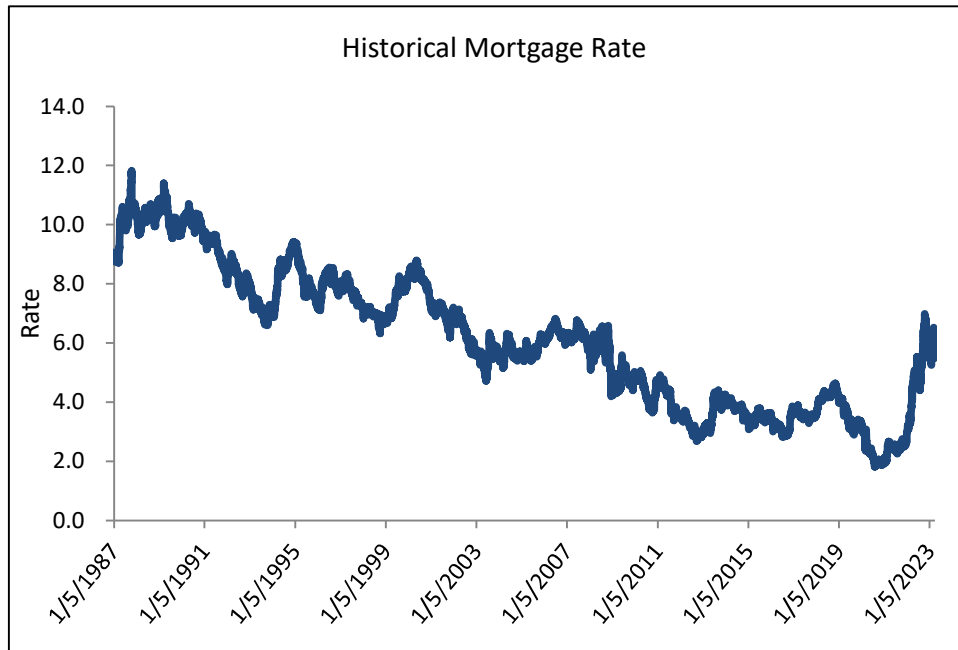
- In the last two years, the Phillips Curve has re-emerged.
- Inflation has workers demanding higher wages, and demand for labor has employers paying more to retain and hire workers, which in turn, increases costs and the need to raise prices.
- The strong demand for labor has provided for continued job switching for higher wages, as workers seek to offset higher costs of living.
- Real wages have fallen as inflation has risen, and as prices continue to rise faster than wage growth.



# Economic Environment

## Mortgage Rates and Housing – March 2023

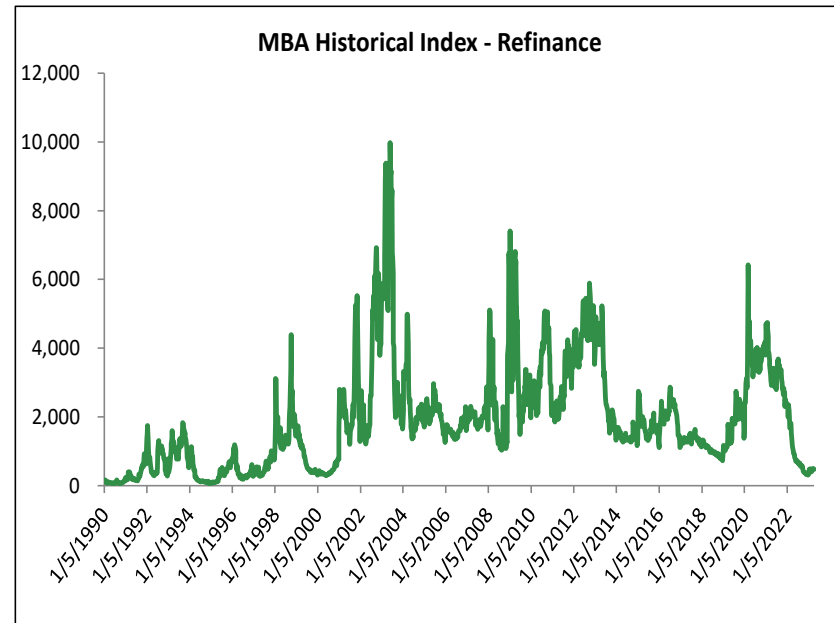
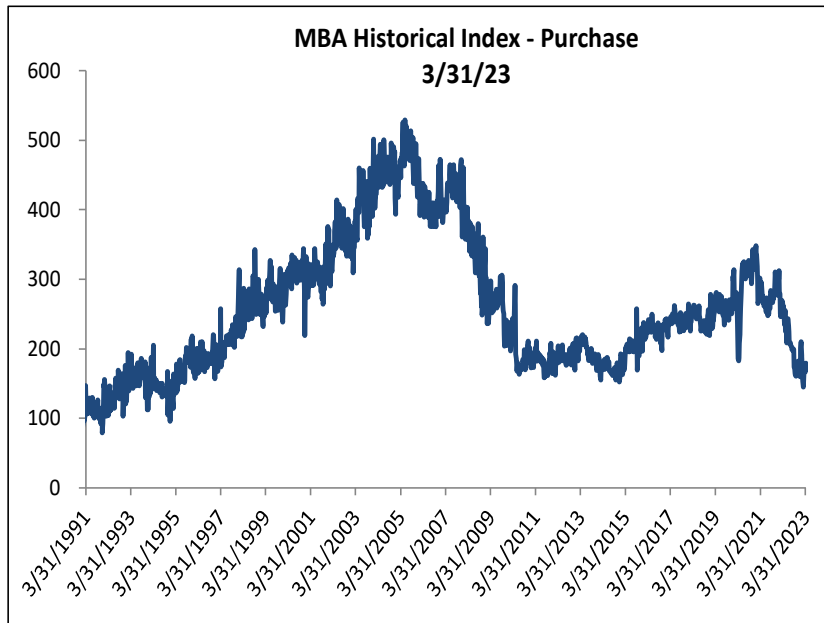
- Mortgage rates have been rising and have returned closer to more long term historical normal levels above 6%.
- The rise in mortgage rates along with record high home prices has reduced home affordability. While demand remains high, overall home sales have been significantly reduced.
- Housing has suffered a short term price and rate shock. If the labor market remains strong, higher income levels and continued migration may generate renewed housing activity.



# Economic Environment

## Mortgage Rates and Housing – March 2023

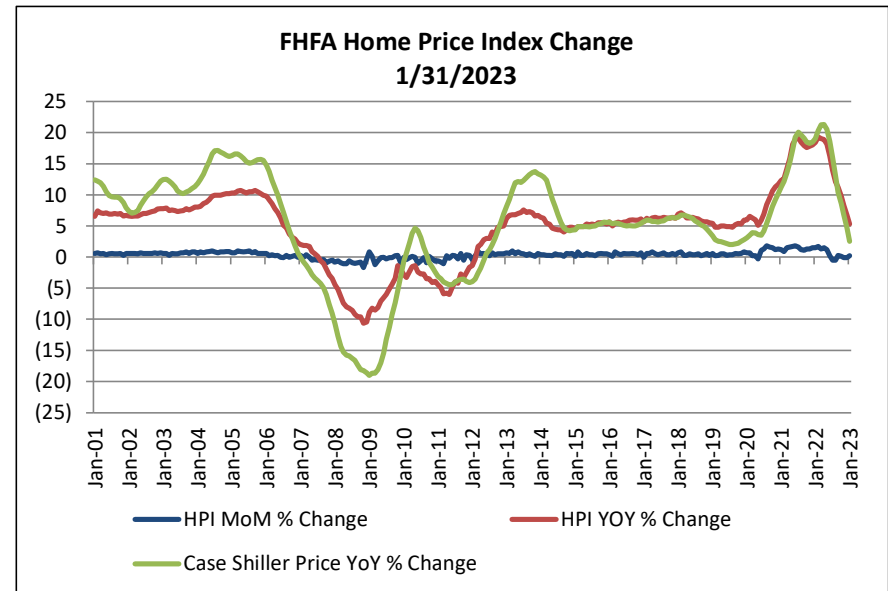
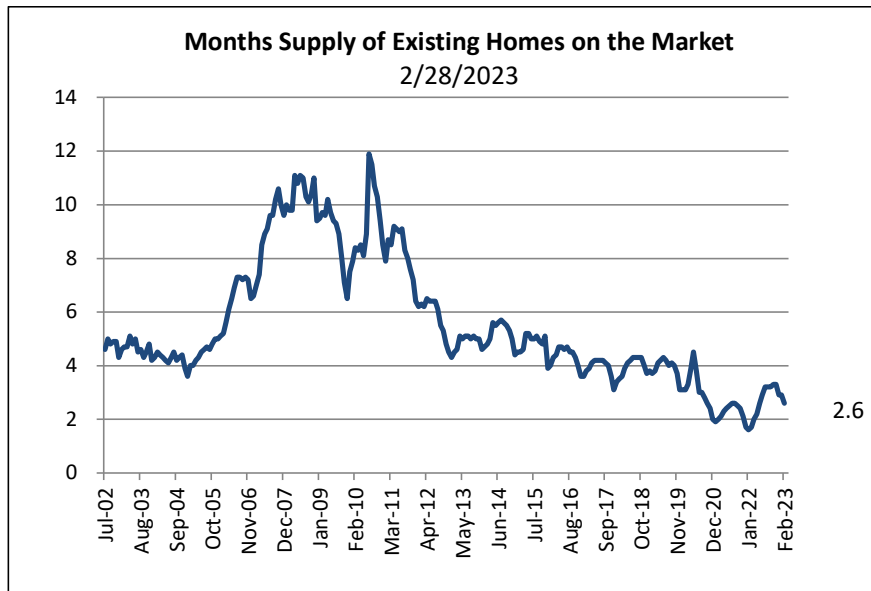
- Mortgage Purchases have decelerated recently as a lack of inventory, rapid home price appreciation, and recently high mortgage rates has reduced demand.
- Mortgage Refinances have slowed to a standstill over the past year as higher interest rates make it less economic to refinance mortgages. There are few mortgages outstanding at higher interest rates that the current rate to refinance.
- We are seeing a pickup in home purchase activity given the recent decline in home prices from the peak levels of last year, perhaps driven by lower prices and strong employment gains.



# Economic Environment

## Mortgage Rates and Housing – March 2023

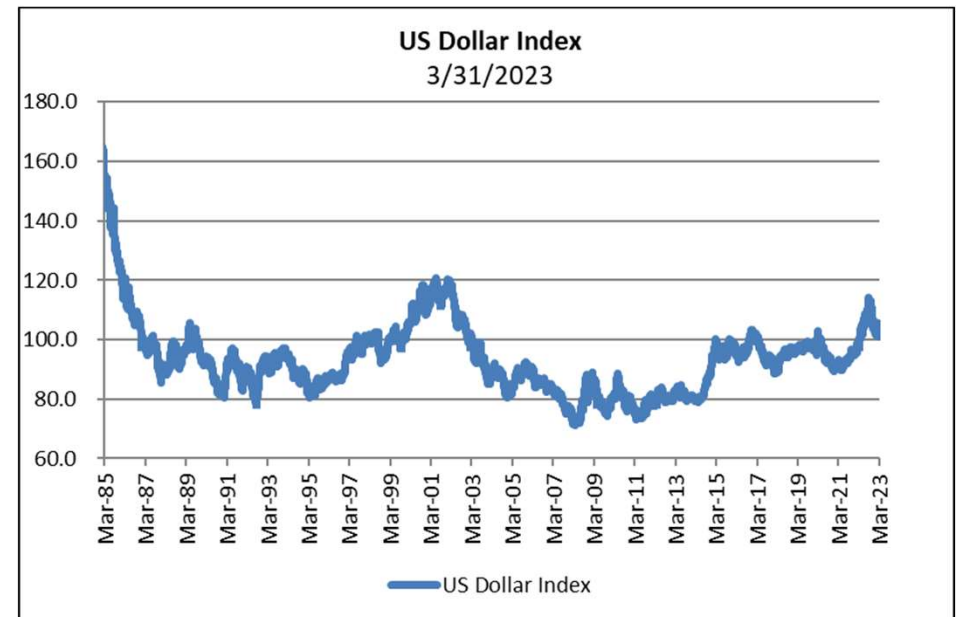
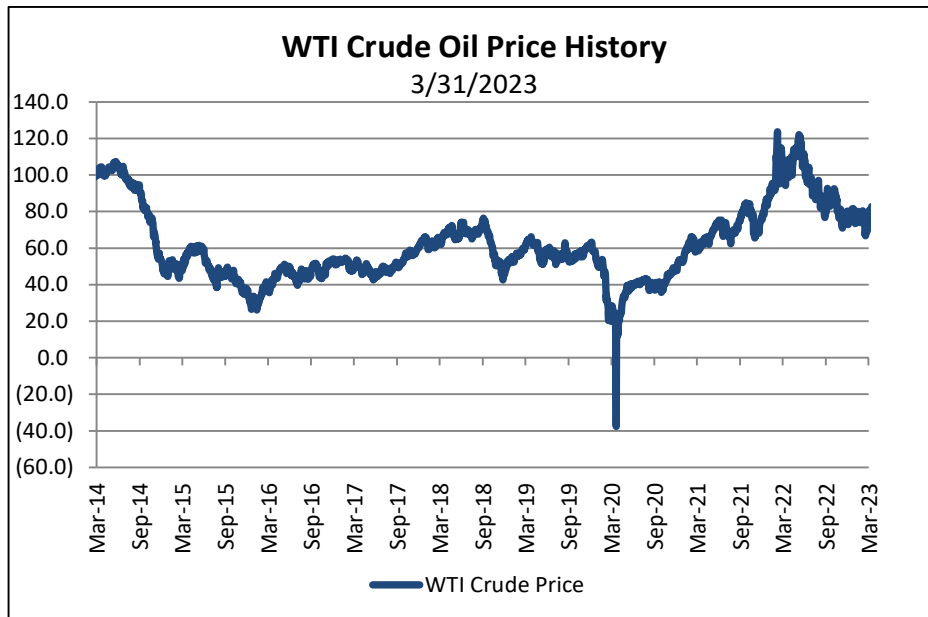
- Demand remains strong in many areas, and after a pause that brought home prices down and some inventory higher, new activity has stabilized prices and taken out inventory.
- Lower prices and recent decline in mortgage rates from the highs has spurred some renewed buying activity and stabilized prices.
- The lagged impact of home prices in CPI has contributed to higher levels, but will soon reverse. However, significant expected declines may not come to fruition if home purchases continue to accelerate.



# Economic Environment

## March 2023

- Energy flows have shifted materially with Russian energy distribution shifting to China and India, while European supplies become sourced from the US and Middle East.
- The shift in policy to limit exploration, production, and distribution of oil and gas has led to a supply/demand imbalance and increasing energy prices, exacerbated by the Russian invasion of Ukraine.
- A spell of warm weather in Europe has eased supply concerns and brought down prices of gas and oil.
- The drive toward “green” energy is actually being hampered by supply chain disruptions and the accelerating costs for all energy, impairing investment and development.
- The Dollar strength has reversed recently as other central banks around the world have begun tightening monetary policy by raising interest rates, reducing rate differentials and strengthening their currencies.



# Disclosures

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