Market Review and Outlook
Q3 2023

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Investment Performance
September 30, 2023

"Of 85 actively managed core us bond mutual funds that use the Bloomberg US Aggregate index as their benchmark, only six have generated a positive return according to Morningstar direct."

- Wall Street Journal September 30, 2023

- **Vectors Core US Fixed Income composite total return +2.03% YTD.**
- **Low Volatility Fixed Income Investment strategy named "Top Gun" in PSN, a nationally recognized consultant universe, ranking Vectors as a top 10 Asset Manager nationally**
- **Vectors track record dates to October 2006, and shows positive performance relative to benchmarks over the short and long term, while also maintain a top 10th percentile performance ranking in national consultant universe.**

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Market Environment

September 30, 2023

- Bond markets returned negative -3.3% in Q3, turning YTD returns negative for the third consecutive year, a historic event as interest rates returned to levels dating to 2007. We view the rate environment as returning to "normal" levels.
- The move higher in rates pushed Equity markets down in broad based fashion but Indices remain positive on the year.

Index	Q3 2023 Return	YTD 2023 Return	1 Year Return
Aggregate Bond	-3.3%	-1.2%	0.6%
Dow Industrials	-2.1%	2.7%	8.7%
S&P 500	-3.3%	13.1%	10.4%
NASDAQ	-3.9%	27.1%	13.0%

- A significant shift in market sentiment occurred on the heels of the September 20 Fed meeting when they increased their terminal rate target for 2024 by .50% to over 5%. They passed on hiking but kept one more rate hike penciled in for 2023.
- Market expectations, and persistent hopes, have been well below Fed indications, but adjusted in September.
- Continued stronger than expected economic data has supported the Feds new mantra of "higher for longer" as they also raised their economic projections for the next year.
- Long term rates rose significantly more than short term rates, reflecting higher rates for longer, however also due to the recognition of significant Government debt issuance needed to support all the fiscal stimulus packages.
- Since the recent stock market highs on July 31, S&P 500 is down -6.3%, a downward move that coincided with rising rates, then accelerated in September as interest rates accelerated to new highs since 2007 after the Fed meeting.
- The Market weighted S&P 500 (-3.3%) again outperformed the equal weighted index (-4.9%) as large cap growth stock valuations remain elevated, while dividend paying value stocks were pushed down in bond like fashion.
- Earnings growth declined again overall while companies continued to raise prices, passing along increased cost pressures. Again, corporate revenue rose on those higher prices, but on lower volumes as consumers continue rejecting higher prices.
- AI hype has cooled a bit as market participants evaluate the cost side of implementation and how the technology will be monetized. Risk assets began to adjust to reflect the higher interest rate environment and discount of future earnings.
- Short term Treasury rates now offer investors 5% - 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.

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Market Environment

September 30, 2023

- **Policy**

  - The Fed raised their expected 2024 terminal rate by .50% to just over 5% at their September 20 meeting. They passed on hiking at that meeting as expected but are still penciling in one more hike in 2023 to 5.625%.
  - The Fed is nearing their target interest rate, if not already there, and transitioning to holding, but maintaining higher rates for longer.
  - The Fed is also reversing Quantitative Easing by letting accumulated Treasury and Mortgages mature and roll off their balance sheet.
  - After multiple fiscal stimulus packages and little reduction in current spending levels, significant Treasury debt issuance is coming to market including over $1 Trillion in the current quarter. Significant additional debt issuance will continue to hit the markets.
  - The Fed and Market participants continue to look for "long and variable lags" in monetary policy to take hold on inflation while refusing to acknowledge that continued fiscal stimulus is pushing economic activity and inflation higher.
  - Global Central Banks remain in a tightening mode amid still high inflation yet seem to be reaching a pause stage.
  - The dynamics of Energy policy that conflict fossil fuels and alternative energy will be exacerbated moving forward.

- **Economic Environment**

  - Economic activity continues to exceed expectations, and in some areas picked up after a pause.
  - While inflation has come off the boil it remains elevated with indications of picking back up as wage pressures persist, and oil prices returned to the $90's, and business continues to pass through cost increases.
  - The employment environment remains robust with available jobs still high, layoffs low, and monthly payroll additions accelerating.
  - Consumer spending remains robust due to strong employment environment and continued spending on services.
  - Consumptions is becoming bifurcated, with inflation hitting lower income earners while older and higher income earners are less sensitive to higher prices.
  - Capital Investment is strong as it relates to Fiscal Stimulus packages; however, is curious as it relates to the degree of corporate investment in AI and other technology investment amid higher interest rates and other increased cost pressures.
  - The Fiscal Stimulus funds for environment, chips and infrastructure are beginning to be deployed and will provide a boost to economic activity, however rising costs and shortage of workers may inhibit execution.
  - The US Dollar had gained significant strength, including levels vs. Japanese Yen not seen since 1990, that may begin to impact international trade.
  - Geopolitical events continue to disrupt and stress international relations, increasing economic and market risks.

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Market Outlook

September 30, 2023

- The Bill comes due…
- Interest rates will be higher for longer due to stronger than expected economic activity, price pressures, and increased debt issuance.
- The source of all pressures is the excessive fiscal stimulus during and after the covid experience, that continues to feed the economy.
- The resulting debt burden from fiscal policy is accelerating the pace of debt issuance by the US Government, putting upward pressures on longer term interest rates. There is over $1 Trillion in government borrowing in the current fiscal quarter, and at least $1.7 Trillion in additional borrowing next year. The Fed is no longer a buyer.
- While the Fed is nearing its terminal level in short term interest rates, they will turn to holding rates at current levels for longer than markets expect, while longer term rates move higher amid significant debt issuance.
- Short term and long term interest rates are, and will continue to be, much higher than market expectations heretofore. Interest rates are returning to more normal levels, and the yield curve may return to a more normal/positive slope with short term rates remain near current levels and long term rates rising.
- Equity markets and overall market sentiment are beginning to adjust to the reality of a return to a normal (higher) rate environment.
- Equity markets continue to be extremely preoccupied by fed policy and hopes for easing and continue to largely ignore a declining earnings environment, resulting in persistently high equity valuations.
- Some market sectors have corrected significantly and show better value, while many stocks remain over valued.
- Labor market strength continues to put upward pressure on wages. It is becoming more difficult for corporations to pass through price increases, leading to continued decline in earnings as it becomes more difficult to pass through to consumers.
- We expect further market correction in equities in Q4 considering the normalization of interest rates and P/E ratio's, along with a reevaluation of earnings growth to bring equities into a range of 3,600 to 3,800 for the S&P 500.
- All around higher prices that stay elevated will ultimately result in reduced aggregate demand, slowing overall economic activity.
- We see a high probability of recession in the first half of 2024 as overall economic activity slows and equity markets adjust to earnings reality. This however may not lead to lower long term rates amid significant debt issuance and as price pressures remain high.
- Longer term interest rates should migrate above 5% and stay there for an extended period of time.

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Investment Strategy

September 30, 2023

- We remain defensive in both equity and fixed income markets amid high valuations and rising interest rates.
- Investment strategy continues to maintain a significant underweight to equities, primarily reflected in the underweight of the "Great Eight" stocks that dominate (27% weighting) the S&P 500, in favor of short-term fixed income assets yielding near 5.5%.
- The return of higher interest rates to 2007 levels, and the reality of higher Fed rate policy for longer has provided for higher income in Fixed Income portfolios, however longer term rates may continue to pose a risk of further losses.
- The fixed income allocation is focused on short term US Treasuries at 5% - 5.5% yield while also maintaining a core position in high coupon GNMA Mortgage-Backed securities (full faith and credit of US Government) at over 6% yield.
- We continue to maintain corporate credit exposure, but to a limited degree and also short term in nature given risk of significant spread widening. Where appropriate, we incorporate a short duration High Yield allocation but have begun to trim back.
- Corporate credit yield spreads remain historically narrow but may widen as economic activity and corporate profitability falls, while maturing debt needs to be rolled over at higher rates.
- 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.
- Within equities, strategy has made additional allocation to Healthcare, Industrial, and Material sectors, further rotating out of overvalued large cap Technology and paring down utilities given higher interest rates and rising costs.
- Overall inflation remains high as input costs such as wages, energy, and interest rates continue to move higher. Profit margins continue to contract as consumers begin to reject higher prices, reducing top and bottom lines.
- 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.
- Geopolitical risks have continued and will continue to have consequences on the global economy and markets.
- International markets continue to be strained with continued high inflation, rising rates, and slower growth. Japan continues easy policy with the rest of the world tightening. Europe is returning to recession, and China stagnant with significant structural issues.
- Significant economic activity with low unemployment should mitigate risk of deep recession. However, continued high inflation pressures with reduced demand increases uncertainty on corporate profits and may lead to moves to reduce costs.

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Market Review

September 30, 2023

- Interest rates shot up in Q3 in response to the Federal Reserve new mantra of higher rates for longer, and a significant increase in Treasury debt issuance
- Interest rates rose more significantly on longer term maturities than on shorter maturities.
- Equity markets reacted to the long denied reality of higher interest rates with a broad based decline across most sectors, but with growth continuing to outperform value.
- Energy markets rebounded, turning positive for the year as oil rose back into the $90's.
- Markets punished dividend payers such as Utilities and Real Estate amid higher rates.
- Bond markets are again negative for the year, with potential additional for stress amid the Fed "higher for longer" and significant additional Government bond issuance, while equities may see increased volatility amid higher rates, economic prospects, and upcoming earnings season.

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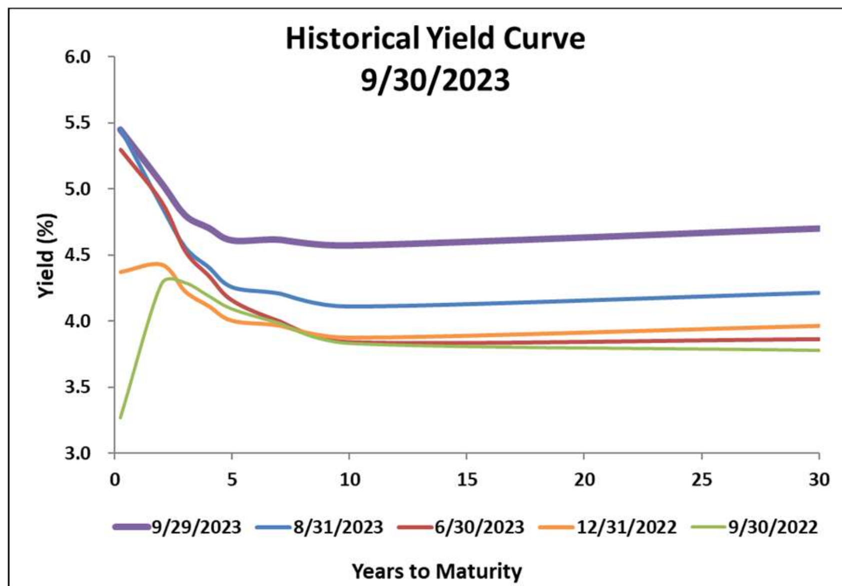
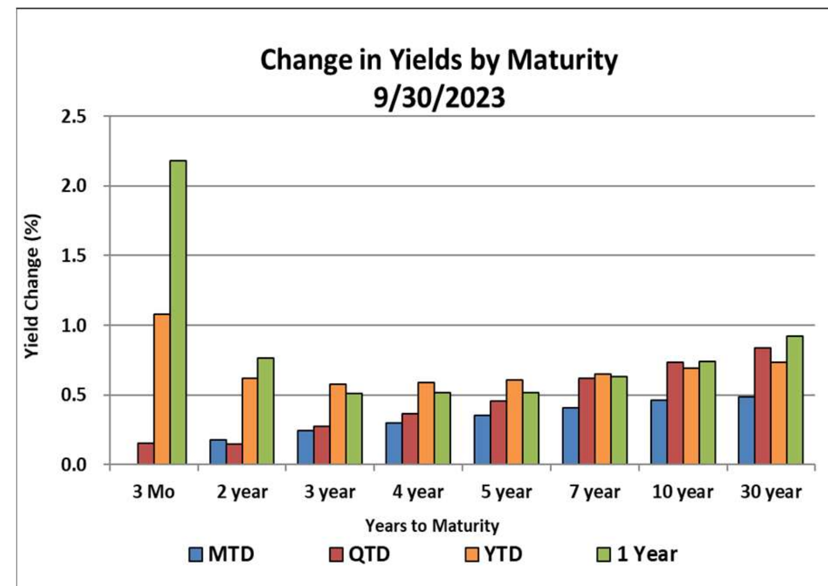
Market Review

Yield Curve – September 30, 2023

- Interest rates rose across the maturity spectrum in Q3, led by long term rates in a "bear steepener" amid stronger than expected economic data and significantly increased borrowing by the US Treasury.
- "Higher for longer" was the drumbeat message from the Federal reserve during Q3 that financial markets have refused to accept throughout the year. The message may finally be getting through.
- At the September meeting, the Fed increased their terminal rate outlook for year end 2024 by .50% while retaining an outlook for an additional rate rise in 2023. They increased their economic projections.
- Continued massive government borrowing together with continued inflation pressures should continue to put upward pressure on longer term rates, while short rates may have achieved their objectives.





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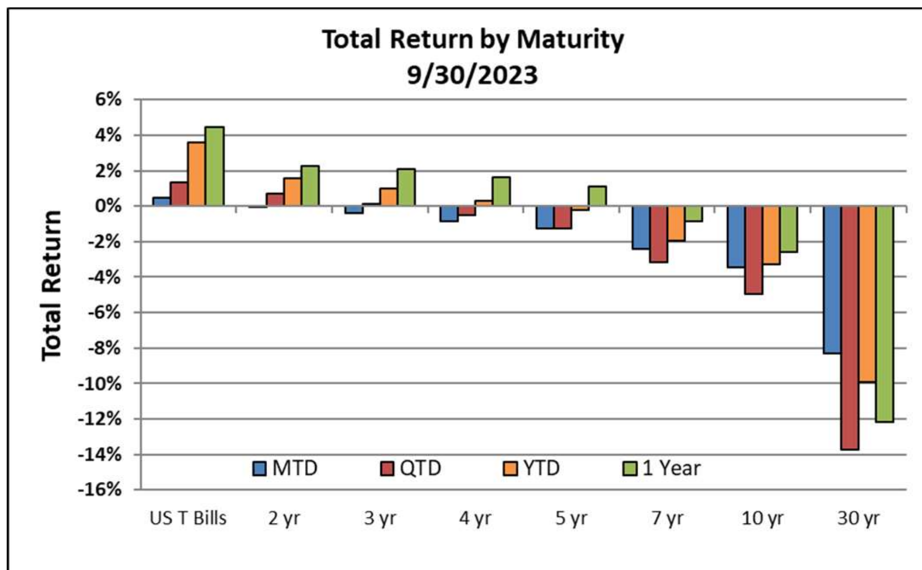
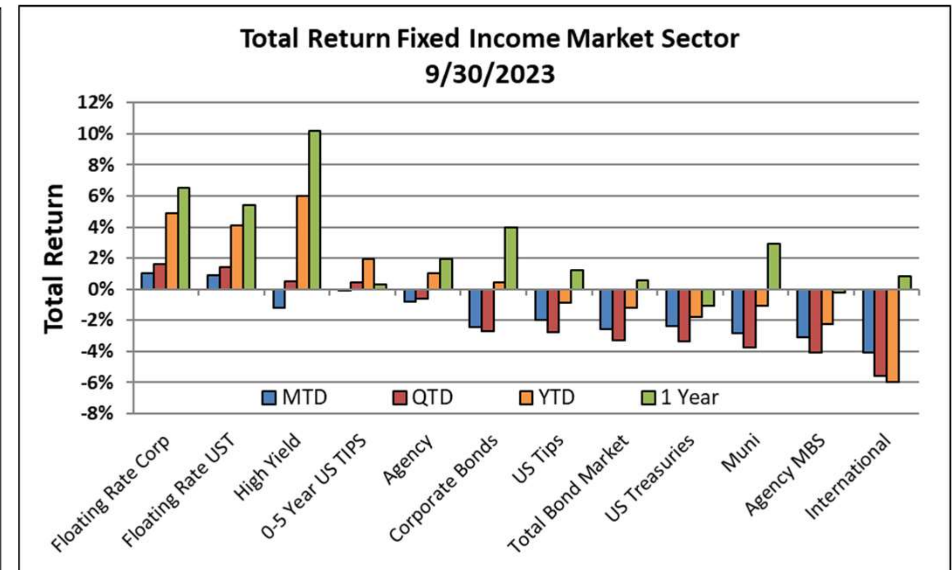
Market Review

Yield Curve and Sector Returns – September 30, 2023

- The rise in rates in Q3 generated negative returns across maturities longer than three years, as shorter term maturities have less price sensitivity and now generate enough income to offset price loss.
- Longer term maturities have greater price sensitivity to yield changes while also had larger yield changes, exacerbating losses. 30 year maturities were down almost 14% in total return for the quarter.
- Due to less rate sensitivity and higher income, floating rate notes, High Yield corporate bonds, and short term TIPS amid still high inflation generated positive returns.
- The total bond market benchmark is now negative YTD, for the third consecutive year, due to rising rates and falling prices of longer term maturities across all sectors.





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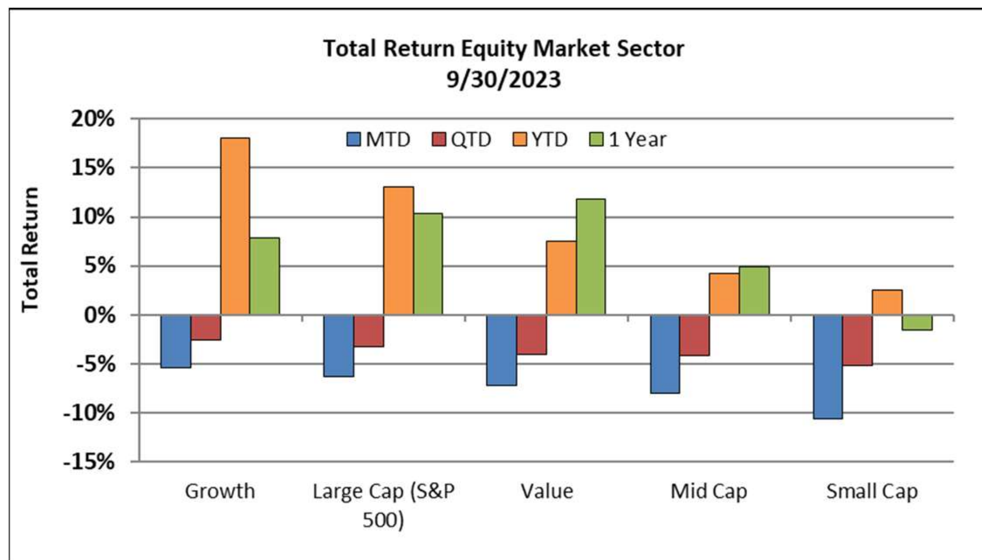
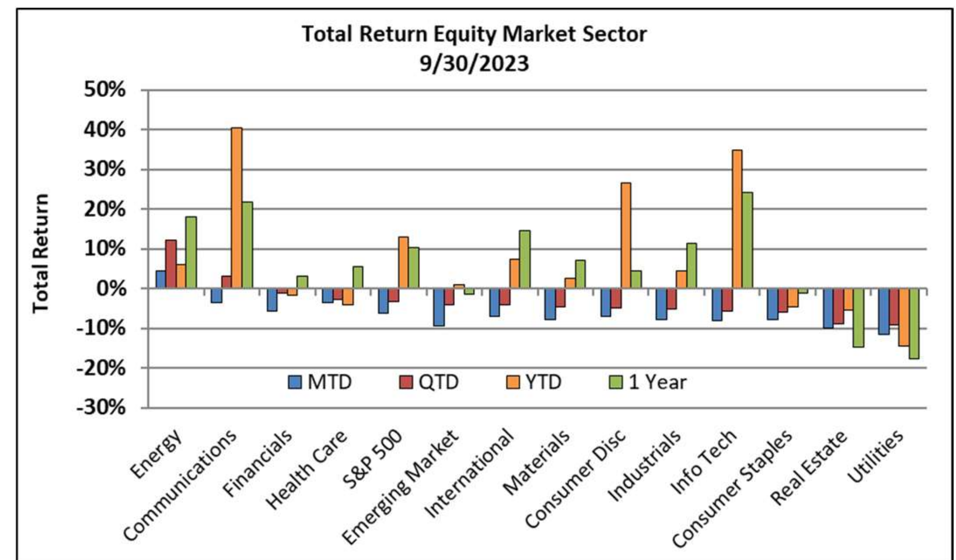
Market Review

Equity Market Returns – September 30, 2023

- Equity markets finally gave in to higher interest rates as it became clear the Fed was going to maintain higher rates for longer.
- Losses were broad based in equities, however the stars of the year in growth and large cap continued to outperform with the market weighted S&P 500 continuing to outperform the equal weighted.
- Small Cap and Mid Cap stocks continued to perform poorly.
- Value stocks were bifurcated with Energy as the best performing sector as a result of higher oil prices, with Utilities and Real Estate the worst, reflecting higher interest rates given their bond like behavior.
- Year to date the "Great Eight" continue to dominate the YTD gains, as seen in Communications, Info Tech, and Consumer Discretionary.





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Market Scoreboard

September 30, 2023

Market Summary - September 30th, 2023					
Bond Market	**MTD**	**QTD**	**YTD**	**1 Year**	**Yield**
Total Bond Market	-2.5%	-3.3%	-1.2%	0.6%	5.4%
US Treasuries	-2.4%	-3.3%	-1.8%	-1.1%	4.9%
US TIPS (Inflation Prot.)	-2.0%	-2.8%	-0.9%	1.2%	2.5%
Corporate Bonds	-2.5%	-2.7%	0.4%	4.0%	6.1%
Floating Rate Corp	1.1%	1.6%	4.9%	6.5%	5.9%
US MBS Index	-3.1%	-4.1%	-2.2%	-0.2%	5.7%
High Yield Corporates	-1.2%	0.5%	6.0%	10.2%	8.8%
Merrill Muni Index	-2.8%	-3.8%	-1.0%	2.9%	3.7%
International Bonds	-4.1%	-5.5%	-6.0%	0.9%	2.6%
Commodities/Other	**MTD**	**QTD**	**YTD**	**1 Year**	**End Value**
Oil (WTI)	9.4%	28.6%	16.7%	29.5%	91
Gold	-4.7%	-3.7%	1.3%	11.3%	1,849
Dollar Index	2.5%	3.2%	2.6%	-5.3%	106

Market Summary - September 30th, 2023					
Stock Market Indices	**MTD**	**QTD**	**YTD**	**1 Year**	**End Value**
DOW Jones Avg.	-5.4%	-2.1%	2.7%	8.7%	33,508
NASDAQ Composite	-7.7%	-3.9%	27.1%	13.0%	13,219
Large Cap Core (S&P 500)	-6.3%	-3.3%	13.1%	10.4%	4,288
Large Cap Growth	-5.5%	-2.6%	18.1%	7.8%	2,761
Large Cap Value	-7.3%	-4.1%	7.5%	11.8%	1,520
Mid Cap Core	-8.0%	-4.2%	4.2%	4.8%	2,502
Mid Cap Growth	-6.8%	-3.2%	6.8%	5.9%	1,174
Mid Cap Value	-9.3%	-5.2%	1.5%	3.6%	811
Small Cap Core	-10.6%	-5.1%	2.5%	-1.6%	1,785
Small Cap Growth	-11.5%	-7.3%	5.2%	-0.3%	8,308
Small Cap Value	-9.8%	-3.0%	-0.5%	-3.1%	14,108
Europe	-9.7%	-7.1%	9.4%	23.4%	441
England	-5.4%	-2.1%	6.1%	13.7%	7,608
Japan	-8.0%	-6.6%	9.0%	8.3%	31,858
Shanghi 300	-9.8%	-3.5%	-7.9%	-12.4%	3,690
International	-7.1%	-4.1%	7.5%	14.4%	2,031
MSCI China	-11.5%	-1.9%	-7.3%	-10.1%	444
Emerging Markets	-9.5%	-4.1%	0.9%	-1.5%	38

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Market Review

Yield Curve Scenario Analysis – September 30, 2023

- Short term and long term interest rates continued to move higher, getting back toward a more "normal" historical level, and a level that better reflects current economic conditions.
- The notion that monetary policy will be higher for longer has pushed 2 year notes above 5%, while longer term yields have risen higher to reflect higher for longer as well as significant increase in borrowing.
- Interest rates have returned to levels in 2007 that preceded the great financial crisis. Excessively easy monetary policy that suppressed short term and long term interest rates over the past 15 years are no longer viable options.

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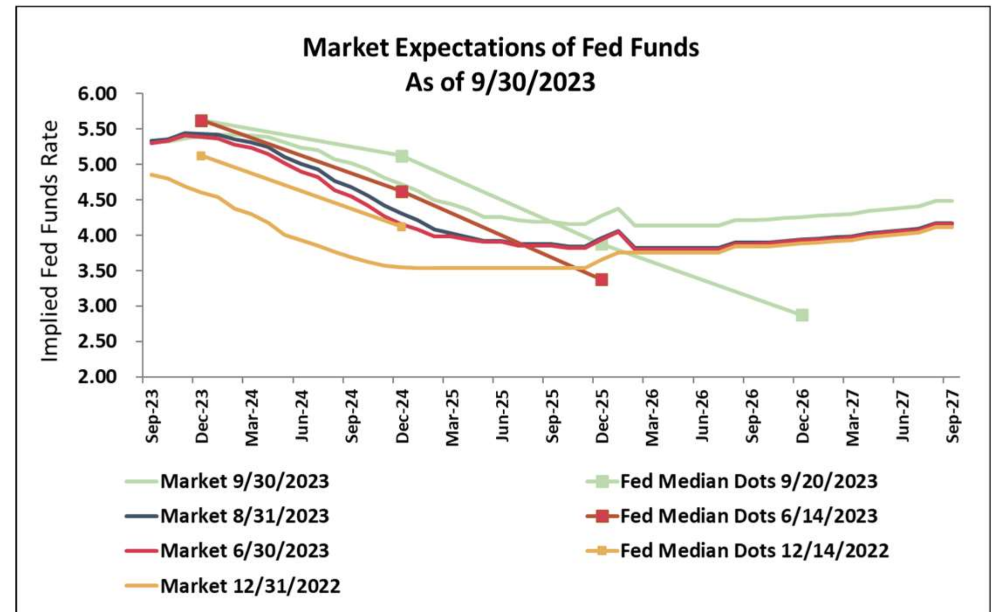
Market Review

Monetary/Fed Policy – September 2023

Federal Reserve Median Economic Projections As of 9/30/2023						
Change in GDP	**Actual**	**2023**	**2024**	**2025**	**2026**	**Longer Run**
September 2023 Projection		2.1	1.5	1.8	1.8	1.8
June 2023 Projection		1.0	1.1	1.8		1.8
March 2023 Projection		0.4	1.2	1.9		1.8
Actual Q2 2023 yoy/qoq	**2.5%/2.1%**					
Unemployment Rate						
September 2023 Projection		3.8	4.1	4.1	4.0	4.0
June 2023 Projection		4.1	4.5	4.5		4.0
March 2023 Projection		4.5	4.6	4.6		4.0
Actual August 2023	**3.8%**					
PCE Inflation						
September 2023 Projection		3.2	2.5	2.2	2.0	2.0
June 2023 Projection		3.2	2.5	2.1		2.0
March 2023 Projection		3.3	2.5	2.1		2.0
Actual July 2023	**3.3%**					
Core PCE Inflation						
September 2023 Projection		3.7	2.6	2.3	2.0	
June 2023 Projection		3.9	2.6	2.2		
March 2023 Projection		3.6	2.6	2.1		
Actual July 2023	**4.2%**					
Projected Policy Path- Fed Funds						
September 2023 Projection		5.6	5.1	3.9	2.9	2.5
June 2023 Projection		5.6	4.6	3.4		2.5
Actual September 2023	5.4%					

- The Fed raised its expected Fed Funds rate at year end 2024 to over 5%, an increase of .50%, and retained expectations of another .25% hike in 2023.
- The Fed continues to chase reality in their economic projections and again shifted growth expectations higher.
- Financial markets made a significant adjustment with higher long term rates and lower equity prices, however continue to discount the Fed's resolve to maintain a higher funds rate than Fed expectations and continue to carry hope and expectations of a downshift in Fed rate policy.



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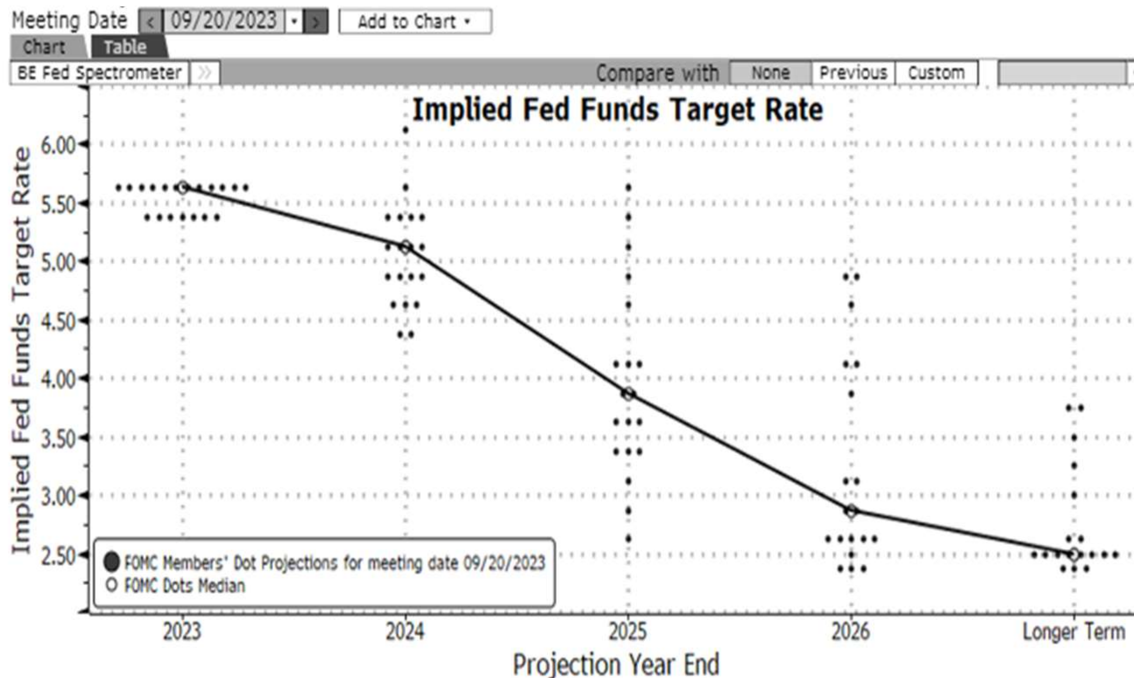
Market Review

Monetary Policy – September 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 5.5% by year end 2023, indicating another hike in 2023.
- The dots also show an increase in the terminal rate for 2024 to over 5%, a significant upward adjustment. The distribution of dots for 2023 and 2024 has tightened, showing greater agreement; however there is significant disagreement on the level of rates beyond next year.
- Market inflation expectations remain extremely low as implied by TIPS at under 2% for the next 2 years, and slightly over for 5 and 10 years, and remains well below actual inflation and our expectations.



Current Fed Funds Rate
5.33

10 Year Tip	10 Year UST	Implied Inflation Premium
2.23	4.57	**2.34**

5 Year Tip	5 Year UST	Implied Inflation Premium
2.39	4.61	**2.22**

2 Year Tip	2 Year UST	Implied Inflation Premium
3.16	5.04	**1.88**

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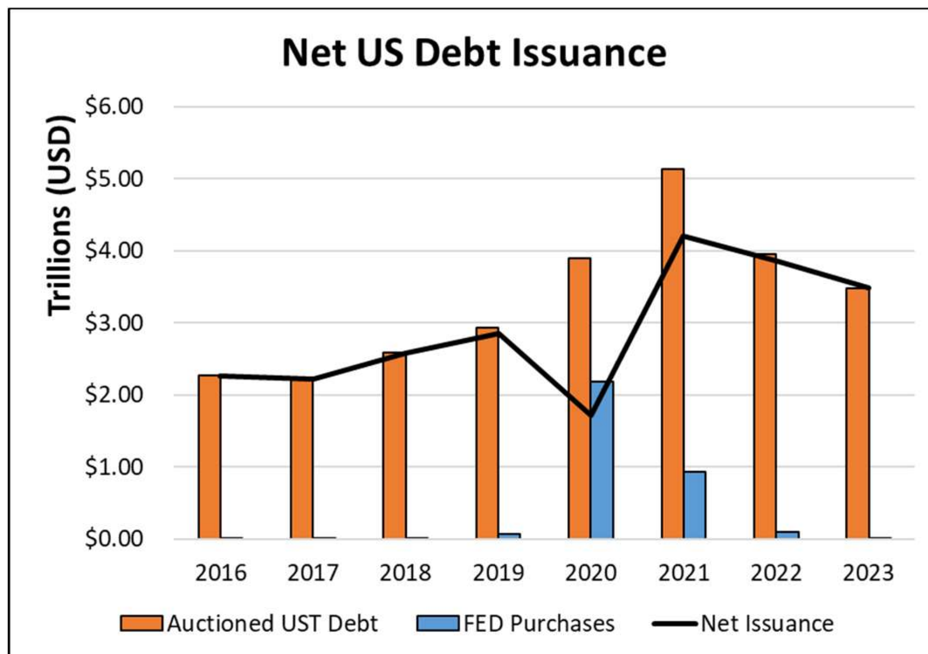
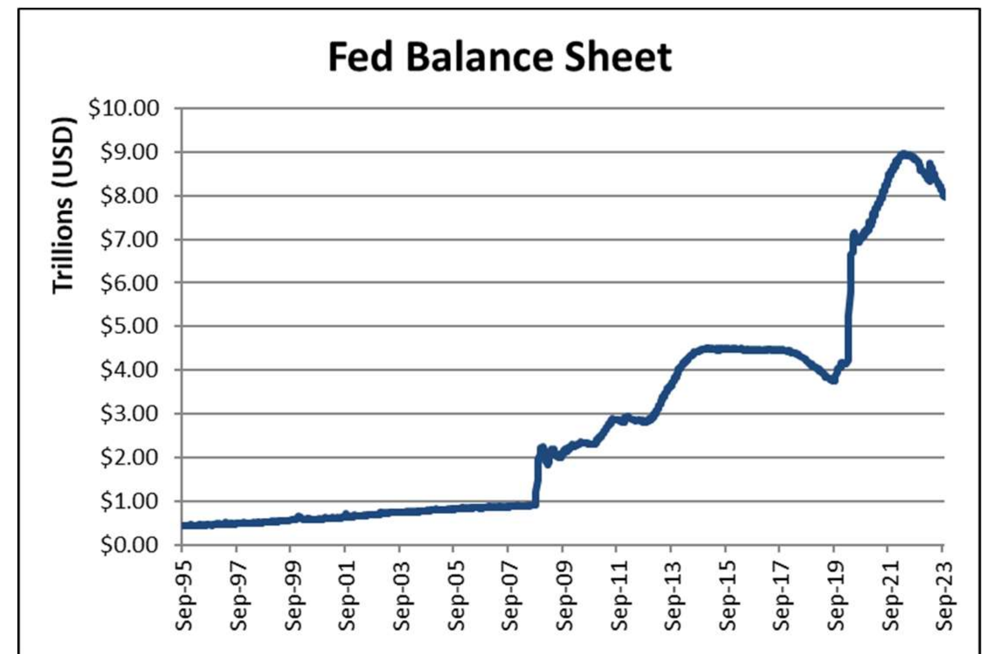
Market Review

Treasury & Fed – September 2023

- The US Treasury has auctioned off nearly $3.5 Trillion in Debt in 2023.
- The Federal Reserve has nearly stopped all purchases, outside of $750M in "Small Dollar" Operations as it slowly works down its balance sheet.
- The Fed still owns nearly 8 Trillion in US Debt.
- The Fed will not be buying additional debt as they unwind Quantitative Easing.





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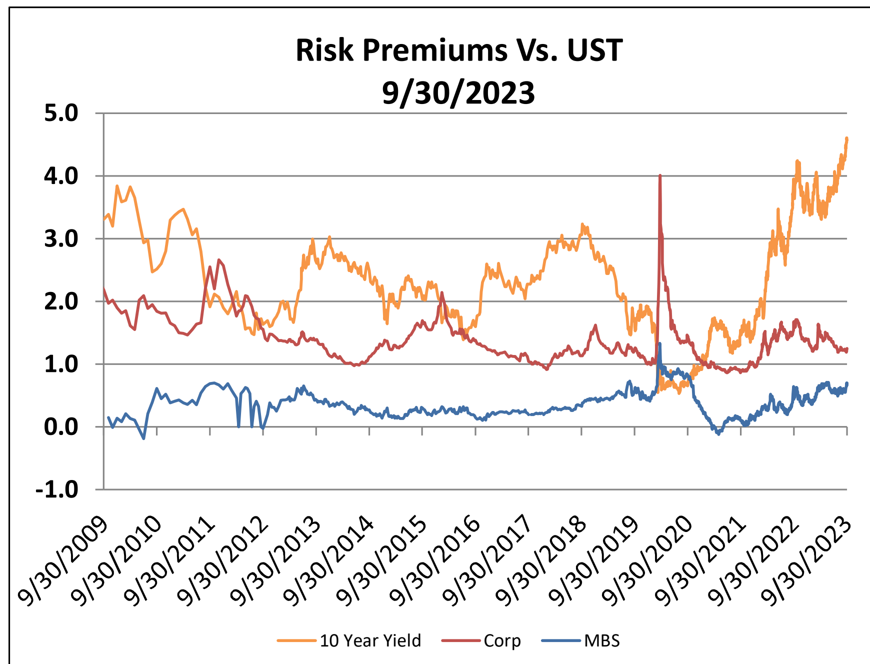
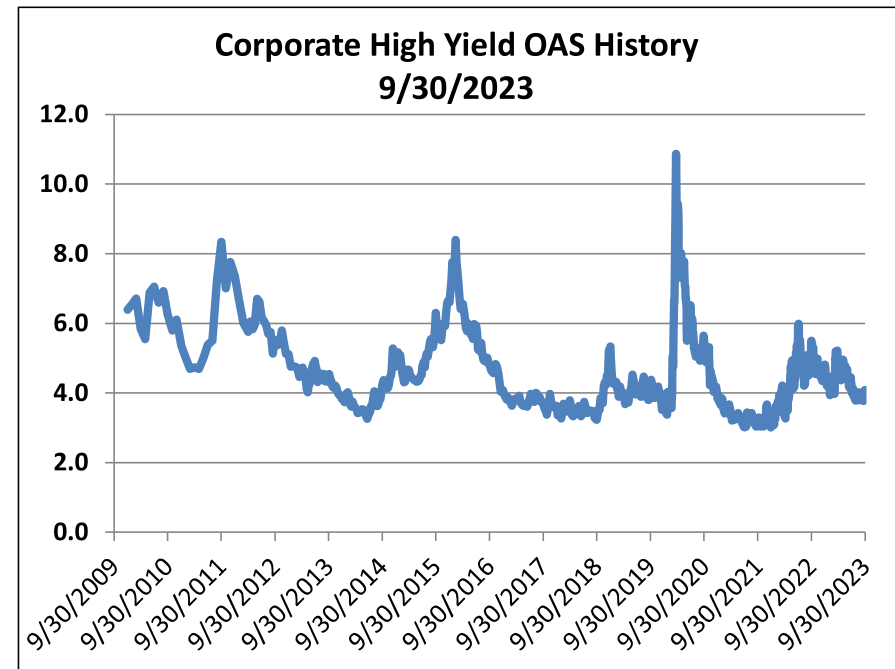
Market Review

Yield Spreads – September 2023

- While Treasury rates rose and equity prices fell, corporate bond risk premiums held steady
- 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, may be more stable given lack of credit risk.
- MBS spreads widened relative to treasuries, narrowing their spreads to corporate bonds.





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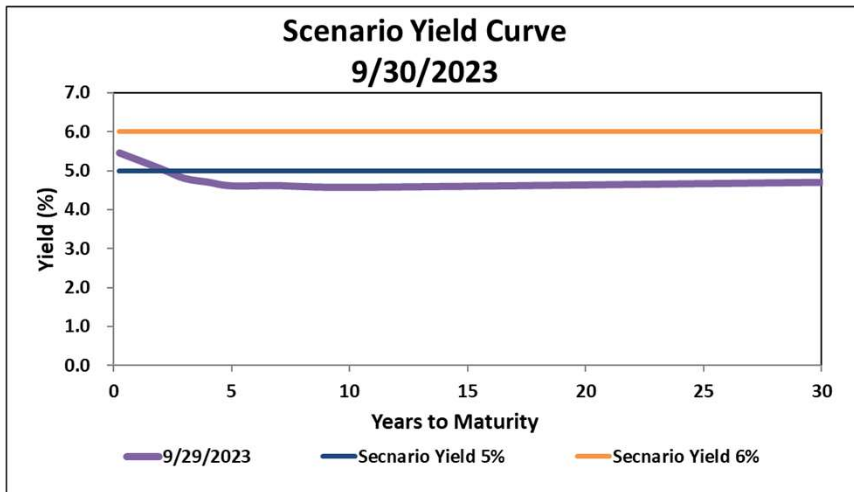
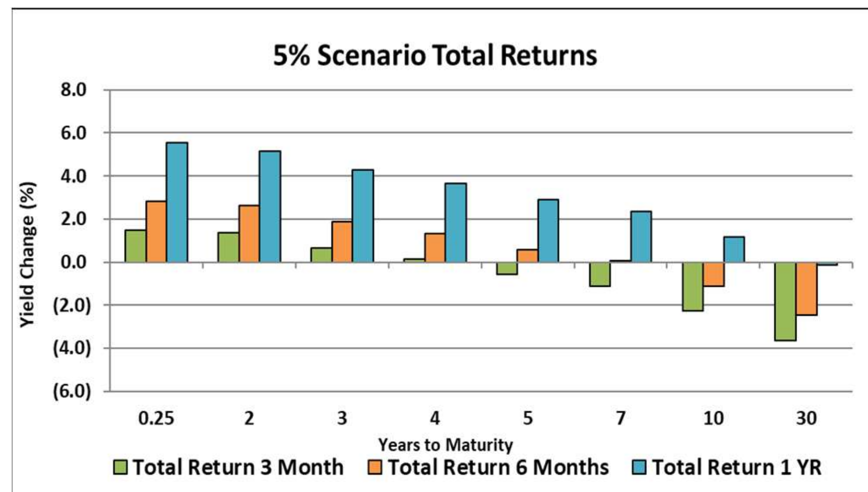
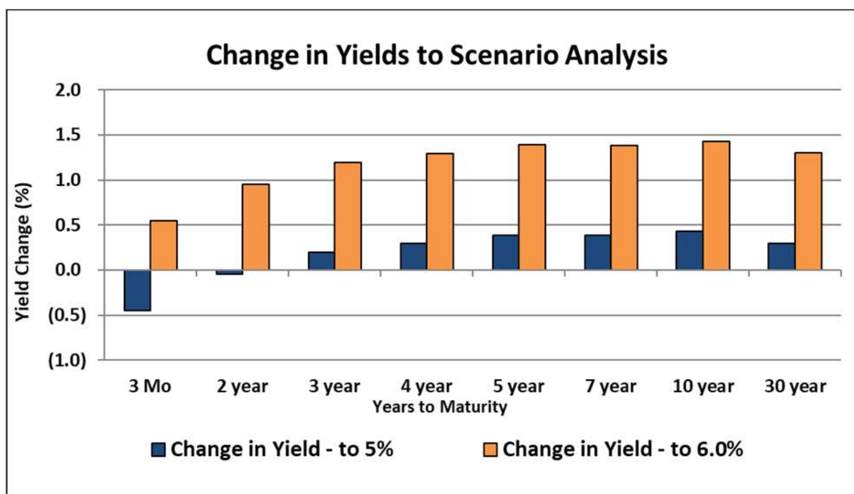
Market Review

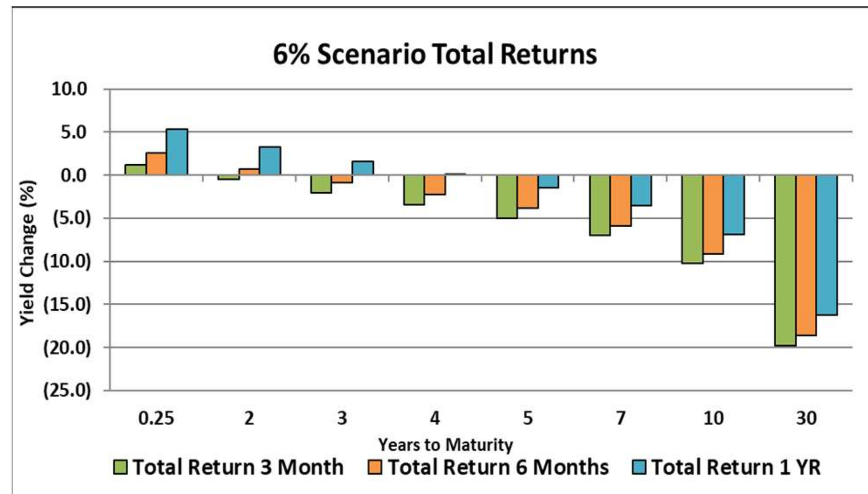
Yield Curve Scenario Analysis – September 30, 2023

- Given the recent rise in rates above 5%, 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 now even to 6% across the curve, shorter term maturities still generate positive returns, where longer term maturities remain vulnerable.









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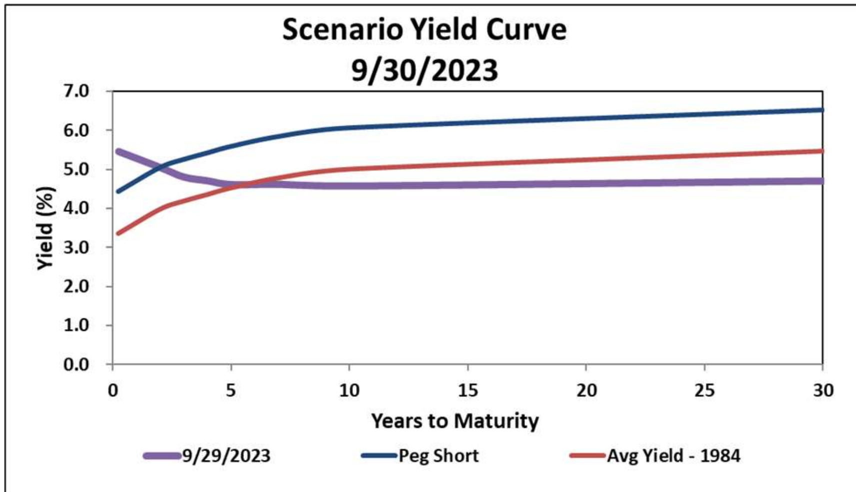
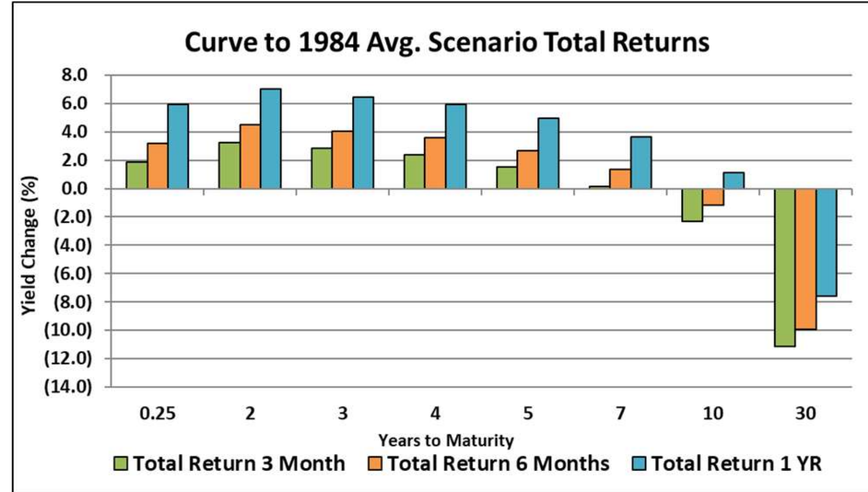
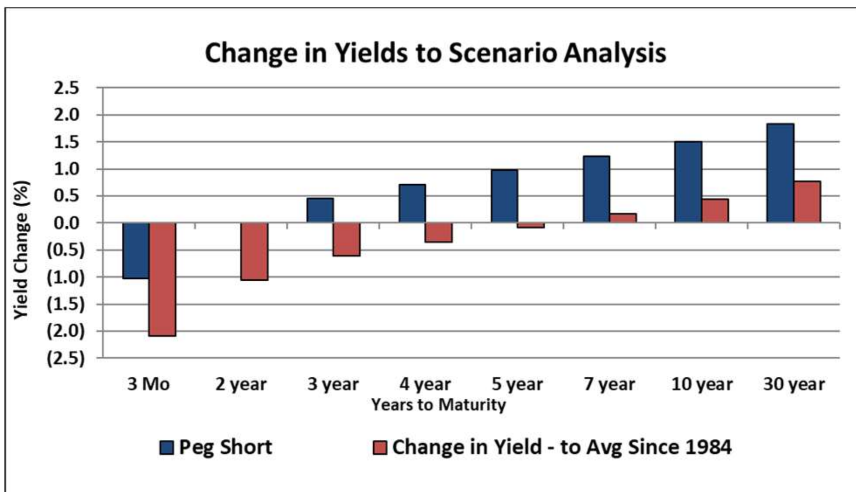
Market Review

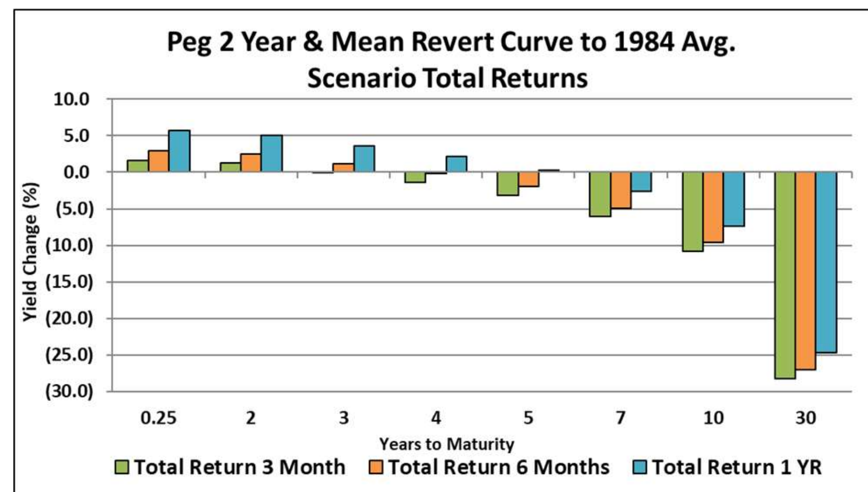
Yield Curve Scenario Analysis – September 30, 2023

- In scenario analysis that returns yields across the maturity spectrum to their average levels since 1984, and in a scenario that pegs the 2 year note and returns the curve to its average slope since 1984, shorter term maturities continue to provide superior total returns than longer term maturities.









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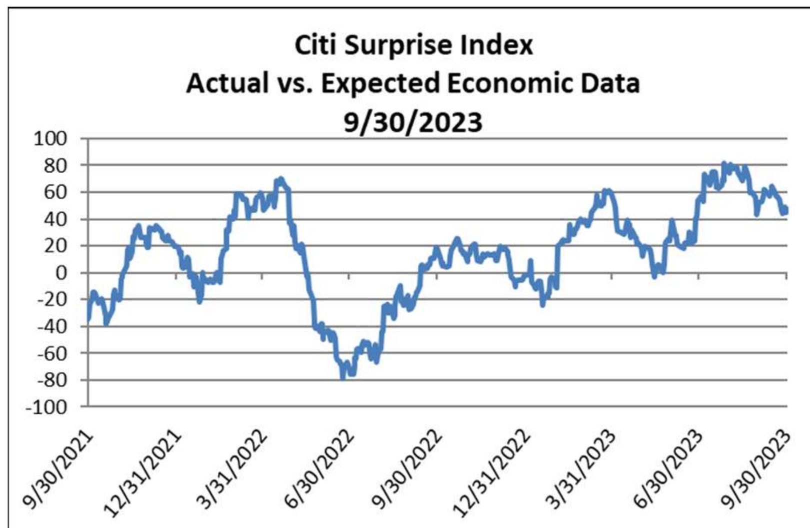
Economic Environment

September 2023

- Economic activity remains strong and has been coming in much stronger than market expectations, as evidenced in the Citi Surprise index, however has begun to roll over.
- Global economic activity has begun to slow, with some areas such as Europe at or near recession.
- Inflation in off the boil in some areas, but remains elevated around many areas of the globe.
- 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			
		One Year	
	Q2 2023	Ago	Change
US	2.40	1.90	0.50
Eurozone	0.50	4.20	(3.70)
Germany	(0.20)	1.50	(1.70)
France	1.00	3.90	(2.90)
Italy	0.35	5.14	(4.80)
UK	0.60	3.90	(3.30)
Canada	1.10	4.20	(3.10)
Mexico	3.59	3.32	0.27
Australia	2.10	3.10	(1.00)
Japan	1.60	1.70	(0.10)
China	6.30	0.40	5.90
Russia	4.90	(4.50)	9.40
Brazil	3.40	3.69	(0.29)

*Canada GDP as of 7/31/2023
*All other GDP as of 6/30/2023

Inflation YoY % Change			
		One Year	
	Sep-23	Ago	Change
US	3.70	8.20	(4.50)
Eurozone	4.30	9.90	(5.60)
Germany	4.50	8.60	(4.10)
France	4.90	5.60	(0.70)
Italy	5.30	8.90	(3.60)
UK	6.70	9.90	(3.20)
Canada	4.00	7.00	(3.00)
Mexico	4.45	8.70	(4.25)
Australia	2.10	3.10	(1.00)
Japan	3.20	3.00	0.20
China	0.10	2.50	(2.40)
Russia	6.00	13.68	(7.68)
Brazil	5.19	7.17	(1.98)

*UK, Canada, Japan, & China as of 8/2312023
*Australia CPI as of 6/30/2023

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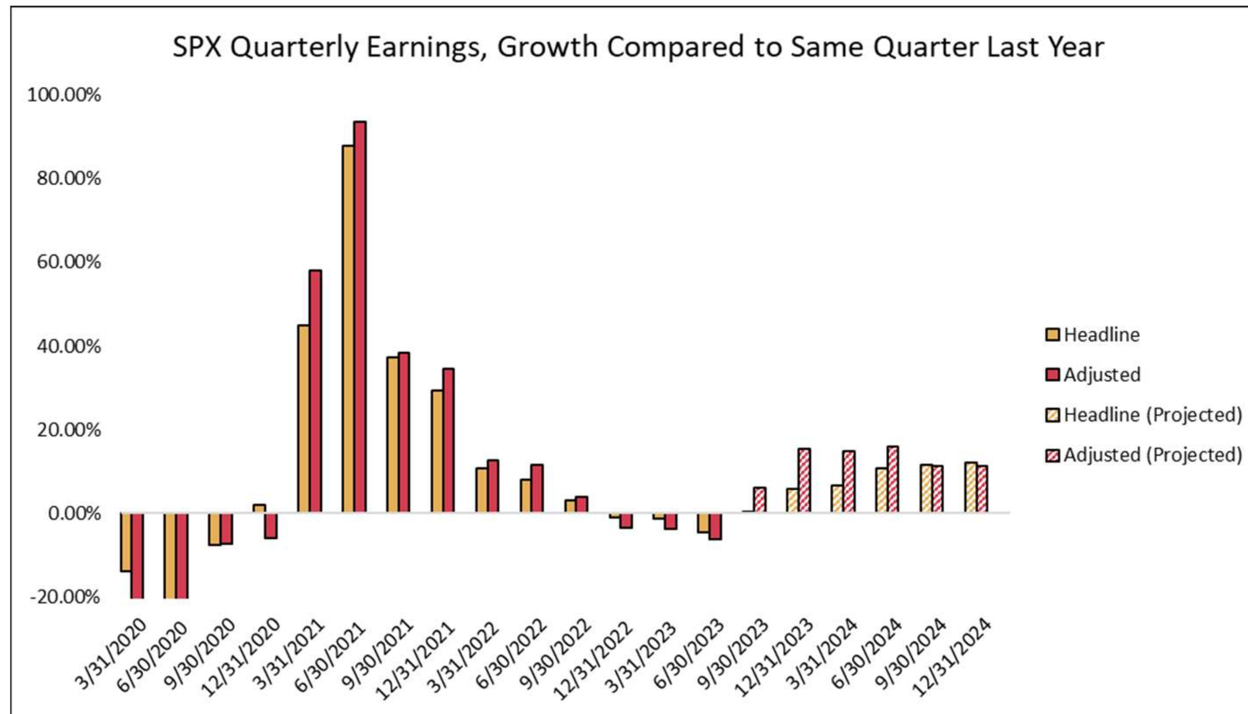
S&P 500 Quarterly Earnings Compared to Same Quarter Last Year

- Actual "headline" earnings for Q2 came in down -4.6% vs the same quarter one year ago for S&P 500 companies, while "adjusted" earnings fell -6.11% vs year ago quarter.
- Market expectations are for the S&P 500 membership to break its streak of quarterly earnings declines when comparing to the same quarter last year (Q3 2023 vs Q3 2022)
- Bloomberg reports Headline earnings are expected to rise 0.4% in Q3 2023 before accelerating to mid-single digit growth in Q4.
- Adjusted earnings are expected to grow 6.18% in Q3 2023 before accelerating to double digit growth.



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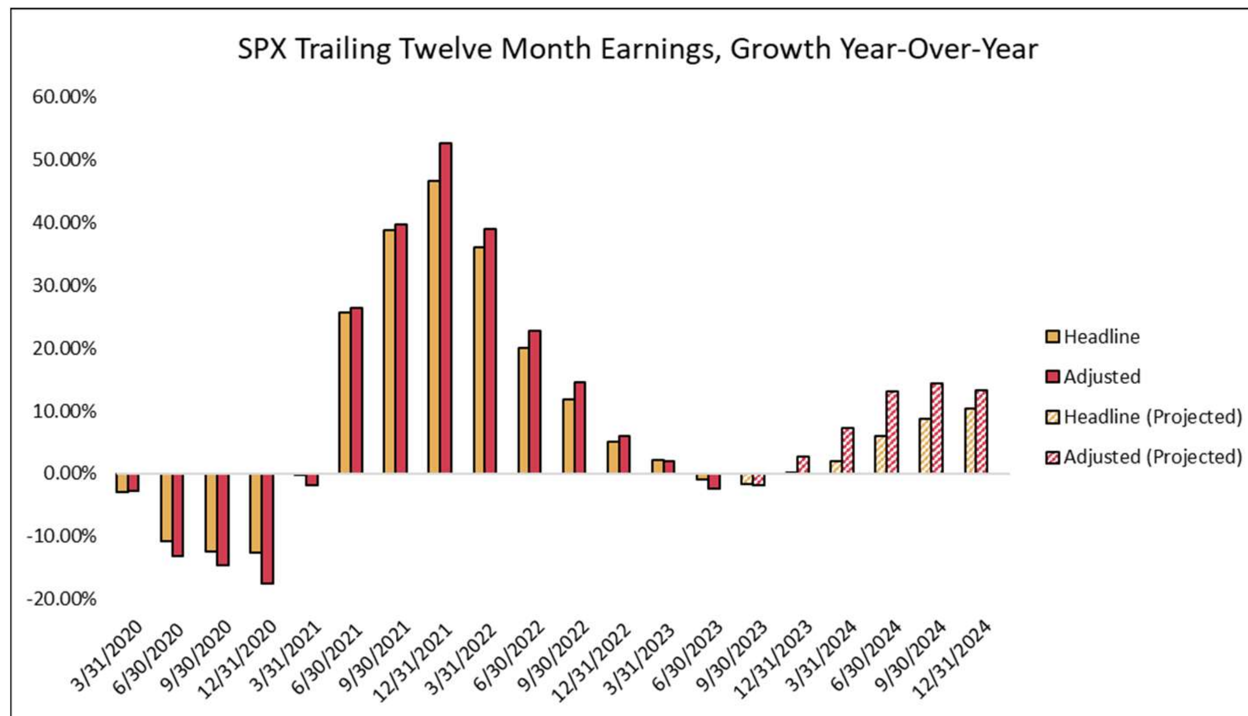
S&P 500 Earnings Trailing Twelve Months Year-Over-Year

- Actual "headline" earnings for Q2 came in down -2.44% vs the full year vs. the previous year, while "adjusted" earnings fell -.99% vs previous year.
- On a trailing twelve-month basis earnings are still expected to shrink for Q3 2023.
- Bloomberg reports "headline" earnings are expected to shrink by -1.83% in Q3 2023, while "adjusted" earnings are expected to shrink -1.62% in Q3 2023 compared to year ago levels.
- Continued cost pressures including labor costs from continued wage pressures, higher finance costs from rising interest rates, and for multi nationals a strong dollar reducing the value of foreign income.



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SPX Headline Earnings Scenario Analysis

- Bloomberg reports that Headline* earnings shrank -0.68% year-over-year to $219.84 as of September 30th, down from $223.26 on June 30th.
- This indicates the P/E ratio for the last twelve months is 19.51x earnings, above the 20-year average, median, mode, and harmonic average.
- Consensus estimates are for headline earnings to grow by over the next twelve months by 5.66% to $232.29
- This indicates the P/E ratio for the next twelve months is 18.46x earnings, also above the 20-year average, median, mode, and harmonic average.
- Historical scenarios are based on daily data from 9/30/2003 to 9/30/2023.
- *Headline earnings use the market convention for each security and is a mix of GAAP, Adjusted, and special metrics (FFO Per Share for REITs, etc.)

Headline EPS Trailing Year

	Actuals 9/29/2023	
	YoY Growth	-0.68%
	Act. EPS	$ 219.84
Description	P/E	SPX Price
9/29/2023	19.51	**$ 4,288**
Mean	17.52	$ 3,851
Median	17.18	$ 3,776
Mode	17.00	$ 3,737
Harmonic	16.96	$ 3,728

Headline EPS Year Forward

	Estimates 9/29/2023					
	YoY Growth	10.00%	7.50%	**5.66%**	0.00%	-5.00%
	Est. EPS	$241.82	$236.33	$232.29	$219.84	$208.85
Description	P/E	SPX Price				
9/29/2023	18.46	$ 4,464	$ 4,363	**$ 4,288**	$ 4,058	$ 3,855
Mode	17.00	$ 4,111	$ 4,018	$ 3,949	$ 3,737	$ 3,550
Mean	16.25	$ 3,930	$ 3,841	$ 3,775	$ 3,573	$ 3,394
Median	15.93	$ 3,852	$ 3,765	$ 3,700	$ 3,502	$ 3,327
Harmonic	15.79	$ 3,818	$ 3,731	$ 3,668	$ 3,471	$ 3,298

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SPX Adjusted Earnings Scenario Analysis

- Bloomberg reports that Adjusted* earnings shrank -2.42% year-over-year to $204.03 as of September 30th, down from year-over-year at $208.14 on June 30th.
- This indicates the P/E ratio for the last twelve months is 21.02x earnings, above the 20-year average, median, mode, and harmonic average
- Consensus estimates are for adjusted earnings to grow over the next twelve months by 13.04% to $230.63
- This indicates the P/E ratio for the next twelve months is 18.59x earnings, above the 20-year average, median, mode, and harmonic average
- Historical scenarios are based on daily data from 9/30/2003 to 9/30/2023
- It is arguable that an elevated P/E relative to historical levels may be rationalized by extraordinarily low interest rates and/or extraordinarily high economic growth prospects, however rates have risen and growth is slowing.

Adjusted EPS Trailing Year

	Actuals 9/29/2023	
	YoY Growth	-2.42%
	Act. EPS	$ 204.03
Description	P/E	SPX Price
9/29/2023	21.02	**$ 4,288**
Mean	18.35	$ 3,743
Mode	18.00	$ 3,673
Median	17.91	$ 3,654
Harmonic	17.70	$ 3,612

Adjusted EPS Year Forward

	Estimates 9/29/2023					
	YoY Growth	20.00%	15.00%	**13.04%**	6.50%	0.00%
	Est. EPS	$244.84	$234.63	$230.63	$217.29	$204.03
Description	P/E	SPX Price				
9/29/2023	18.59	$ 4,552	$ 4,363	**$ 4,288**	$ 4,040	$ 3,793
Mean	16.35	$ 4,003	$ 3,836	$ 3,770	$ 3,552	$ 3,335
Median	16.02	$ 3,922	$ 3,759	$ 3,695	$ 3,481	$ 3,269
Harmonic	15.89	$ 3,890	$ 3,728	$ 3,665	$ 3,453	$ 3,242
Mode	15.00	$ 3,673	$ 3,520	$ 3,459	$ 3,259	$ 3,060

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The "Great 8" S&P 500

- S&P 500 returns have been largely dominated by 8 stocks: Apple, Microsoft, Amazon, Nvidia, Google (x2), Meta, and Tesla.
- YTD these 8 stocks collectively attributed to nearly 85% of the index total return (generating 11.00% of the 13.06% return for YTD 2023).
- This trend has been developing since the start of the year and as it continues, we see significant risks in the index and these stocks as their relative weights have grown to more than 27% of the index itself.

Q3 2023 & YTD 2023 - Top 8 Holdings Vs. Rest of S&P 500

Company	12-31-2022 % Weight in SPX	6-30-2023 % Weight in SPX	9-30-2023 % Weight in SPX	QTD % Return	% QTD Contribution	YTD % Return	% YTD Contribution
AAPL	6.0%	7.6%	7.0%	-11.6%	-0.9%	32.3%	1.9%
MSFT	5.6%	6.7%	6.5%	-7.1%	-0.5%	32.6%	1.8%
AMZN	2.3%	3.1%	3.2%	-2.5%	-0.1%	51.3%	1.2%
NVDA	1.1%	2.0%	3.0%	2.8%	0.1%	197.8%	2.2%
GOOGL	1.6%	1.9%	2.2%	9.3%	0.2%	48.3%	0.8%
TSLA	1.0%	1.7%	1.9%	-4.4%	-0.1%	103.1%	1.1%
GOOG	1.5%	2.8%	1.9%	9.0%	0.3%	48.6%	0.7%
META	0.8%	1.7%	1.9%	4.6%	0.1%	149.5%	1.3%
Top 8 of SPX	**20.0%**	**27.6%**	**27.5%**	**-3.5%**	**-0.9%**	**55.0%**	**11.0%**
Rest of SPX	**80.0%**	**72.4%**	**72.6%**	**-3.2%**	**-2.3%**	**2.6%**	**2.1%**
Total S&P 500	100.0%	100.0%	100.0%	-3.3%	-3.3%	13.1%	13.1%
Equal Weight	100.0%	100.0%	100.0%	-4.9%	-4.9%	1.7%	1.7%

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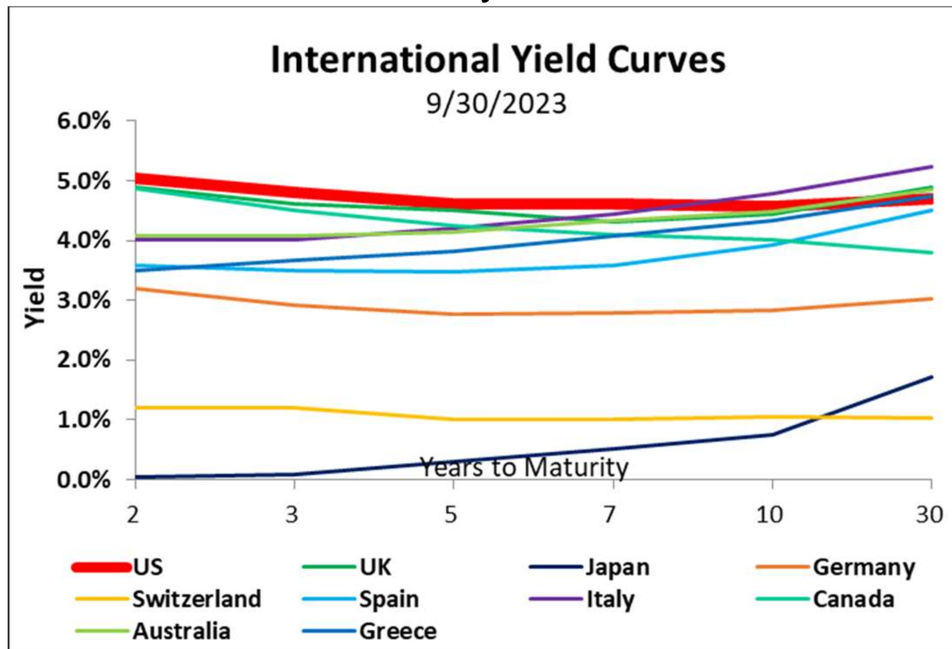
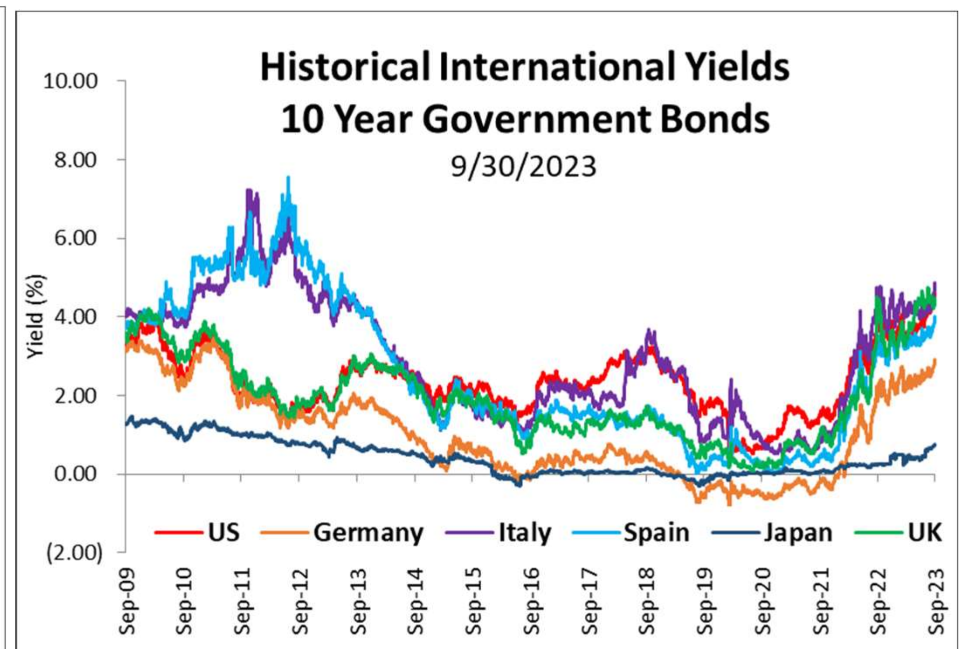
Market Review

International Yield Curves – September 2023

- Inflation has become a global phenomenon and interest rates are rising globally.
- Central banks globally have tightened policy in Q3 with some central banks starting to pause on further hikes while others still have more work to do.
- The US continues as one of the highest yielding developed countries, however longer-term rates some countries have risen above the US. UK inflation, and interest rates are higher.
- Japan is the lone holdout maintaining excessive easy monetary policy, but has hinted at a shift to back off of yield curve control.





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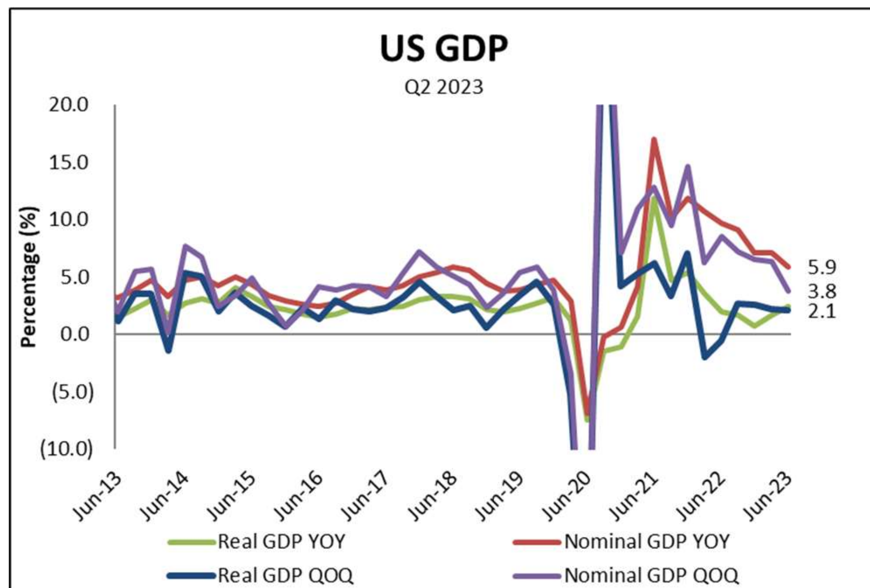
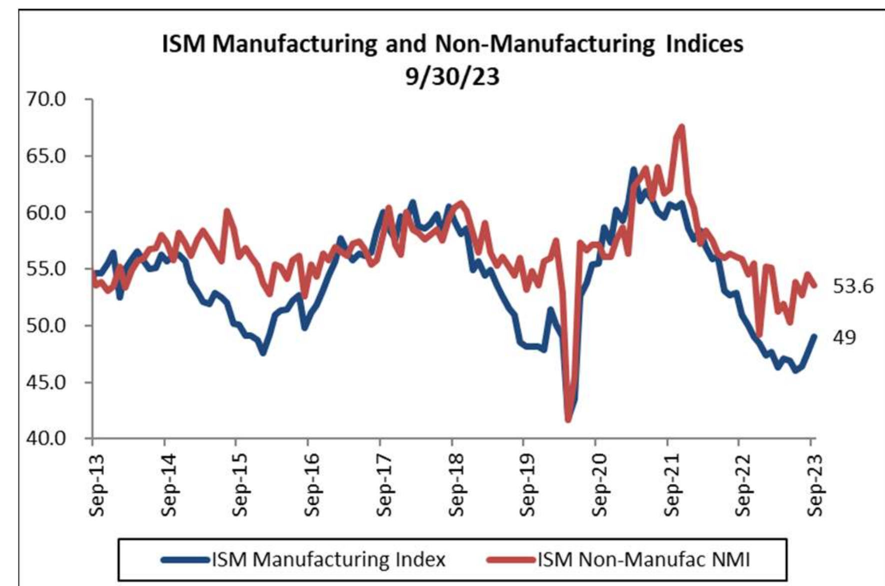
Economic Environment

September 2023

- US Economic activity moderated a bit in Q2 2023, with Real GDP holding at just above 2% and Nominal GDP downshifting to 3.8% from 6.1% in Q1.
- On a Year over Year basis, Real growth ticked up while Nominal decelerated to below 6%.
- While the level of activity resulting from the excess monetary and fiscal stimulus of the past number of years persists, we are beginning to see moderation as high prices begins to curb activity.
- The manufacturing Goods sectors of the economy have turned up as fiscal stimulus money gets deployed, while the Services sectors remain robust amid a shift in consumption.
- Consumption continues to be skewed toward dining out, travel and leisure, and fueled by strong employment income, higher income earners and the older population.





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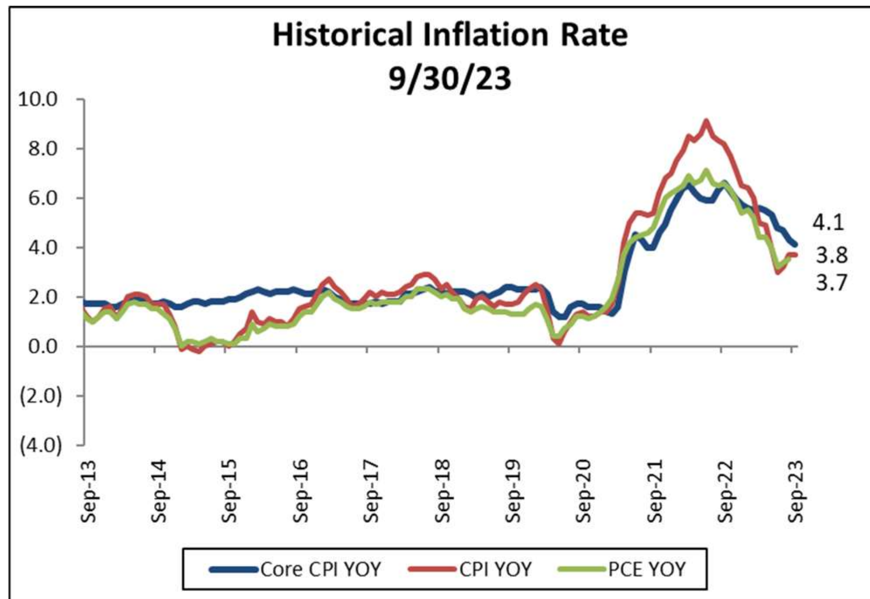
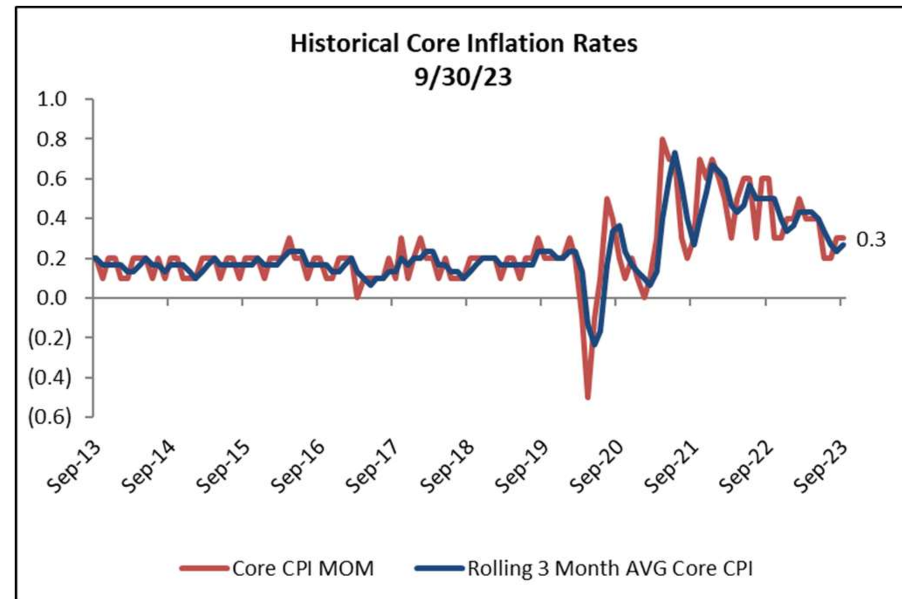
Economic Environment

September 2023

- Inflation has come off the boil, however remains well above Fed target levels of 2%.
- Continued wage pressures and recently increasing energy prices has contributed to cost pressures being passed through to consumers by corporations. To wit, consumer company earnings reports are consistently reporting higher revenues on lower volumes.
- Expected declines in housing prices have not materialized per market expectations, and home prices have turned back up, logging 6 consecutive months of higher home prices.
- Core inflation remains above 4%, while food and energy prices are rising again.





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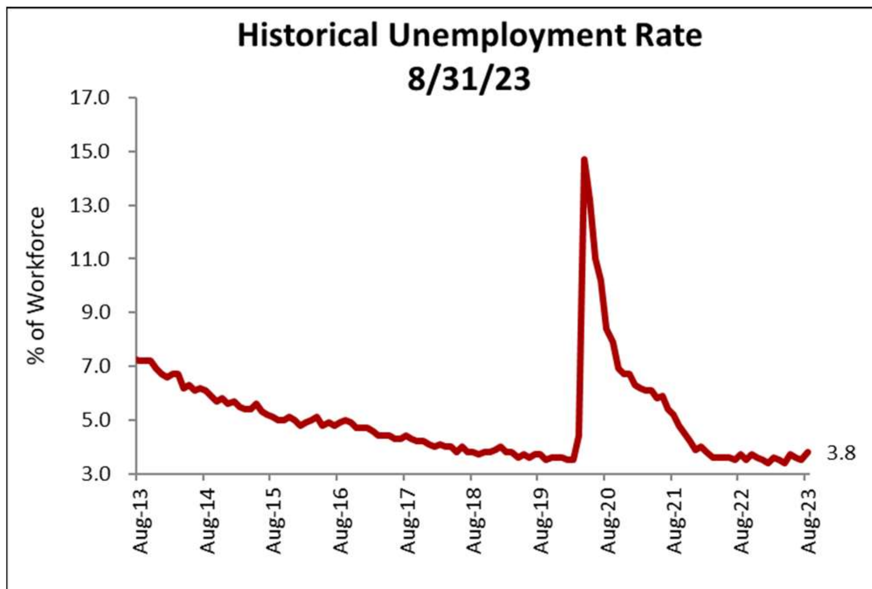
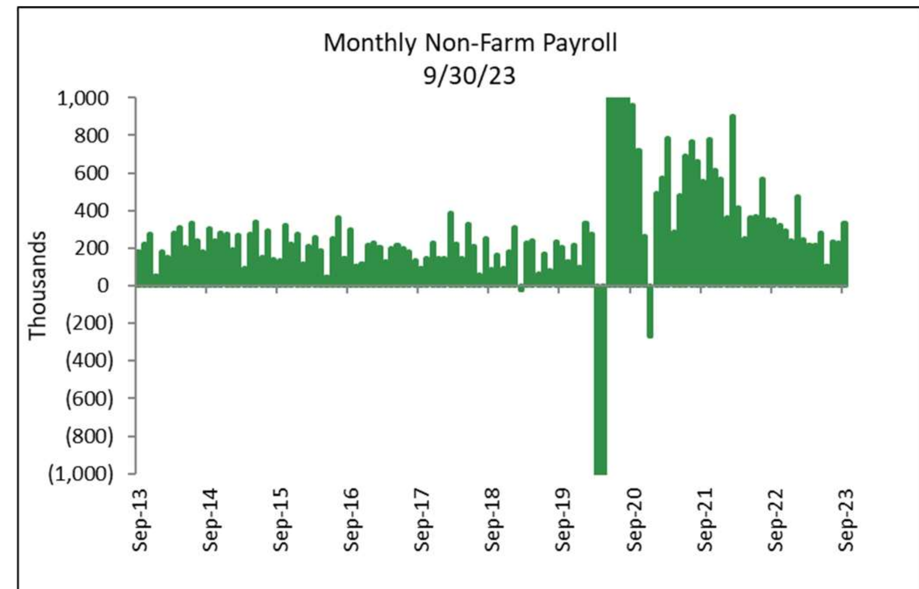
Economic Environment

Employment – Monthly Payrolls – September 2023

- The unemployment rate remains at a historically low rate of 3.8% as demand for workers continues to outnumber availability of workers and layoffs remain extraordinarily low.
- The slight rise in the unemployment rate is due to significant additions to the labor force.
- Monthly payrolls additions continue at strong levels, certainly stronger than market expectations. Jobs are being filled in government, health care, and services sectors.
- Recently, the lone reduction in jobs has been in technology related sectors but laid off workers are quickly finding new jobs.





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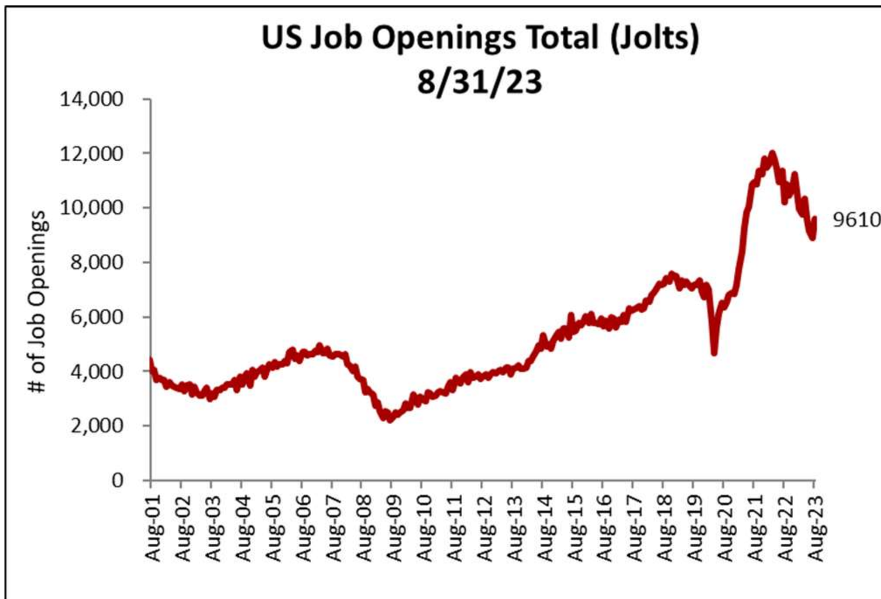
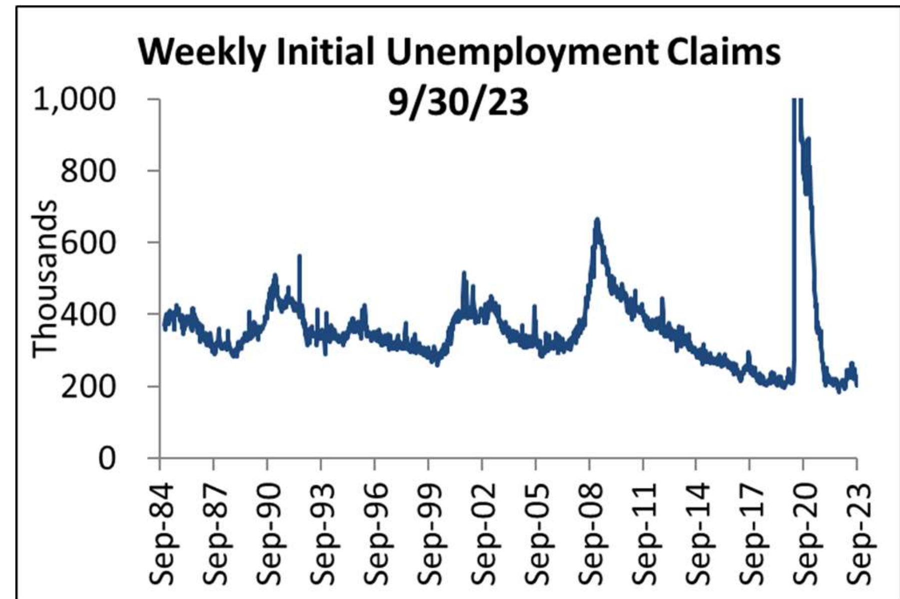
Economic Environment

Employment – Jobs – September 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, and after consistently dropping has recently turned higher again. There are 1.58 jobs available for every unemployed worker.
- Layoffs remain extremely low as seen by the weekly initial claims for unemployment running near 200,000.





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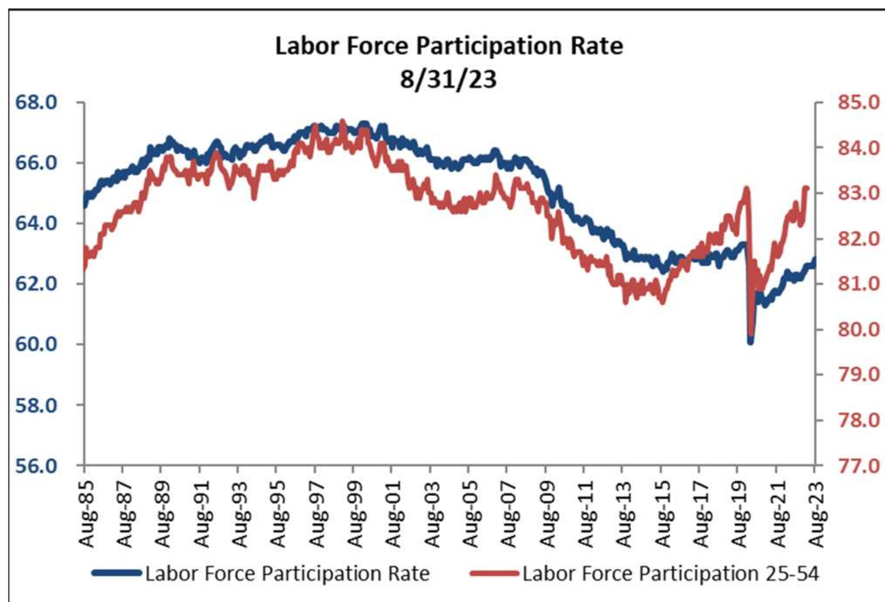
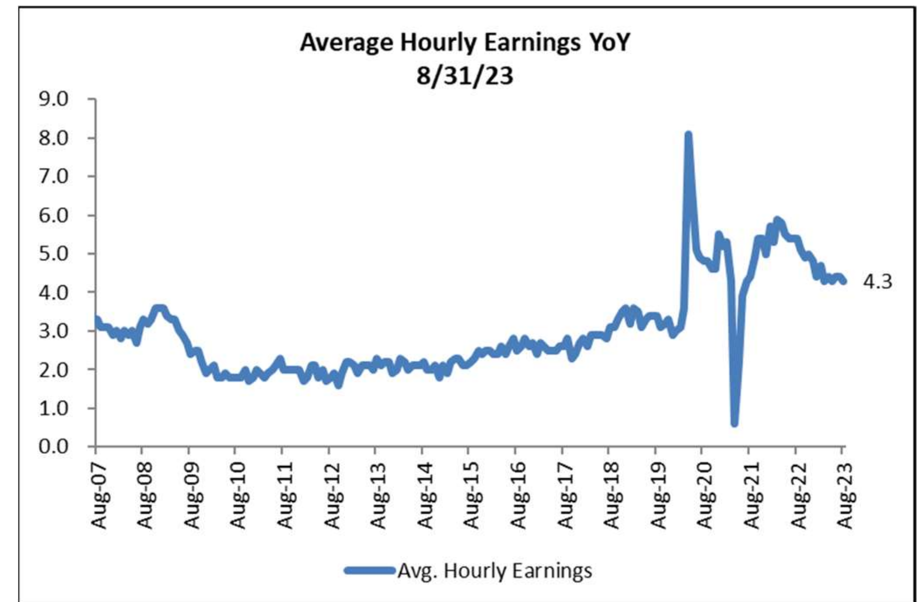
Economic Environment

Employment and Inflation – September 2023

- The prime working age participation rate has been increasing and is back near pre pandemic levels, however is not back to the mid 90's "nirvana" economic environment the Fed is trying to achieve.
- 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 strong demand for labor has empowered employees, evident by Union behavior and wage gains, and continue to push significant wage pressures on corporations and inflation.
- Average hourly earnings have recently decelerated from high levels, perhaps due to the larger contributions from additions to the lower wage service sector, but wage growth remains high.





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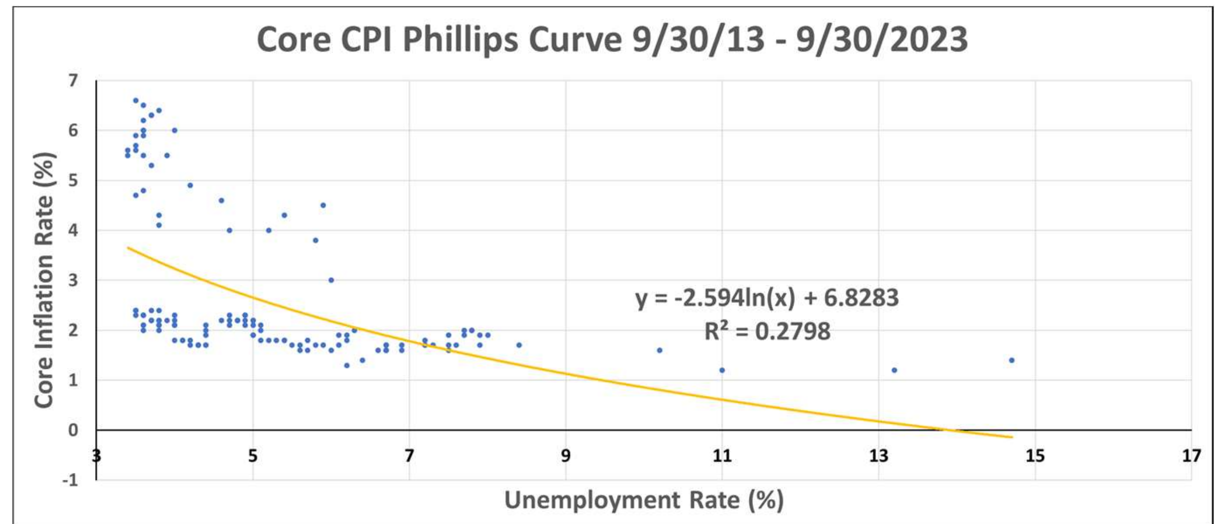
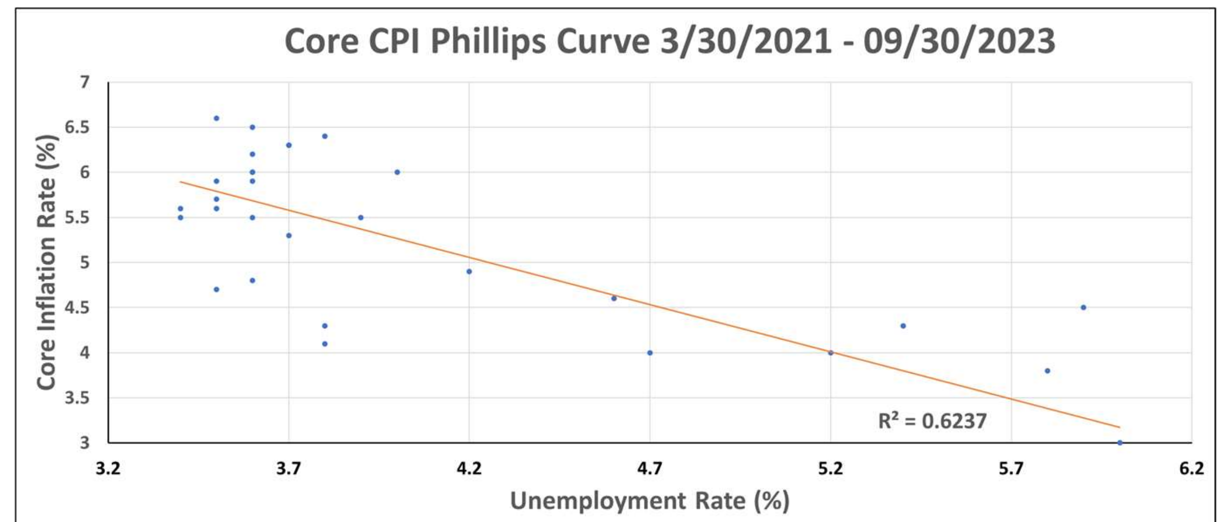
Economic Environment

Employment and Inflation – September 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.





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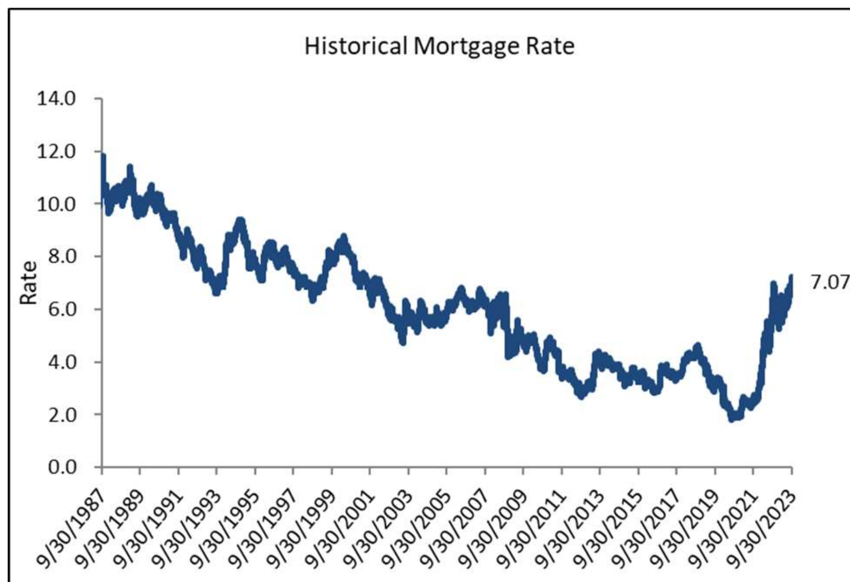
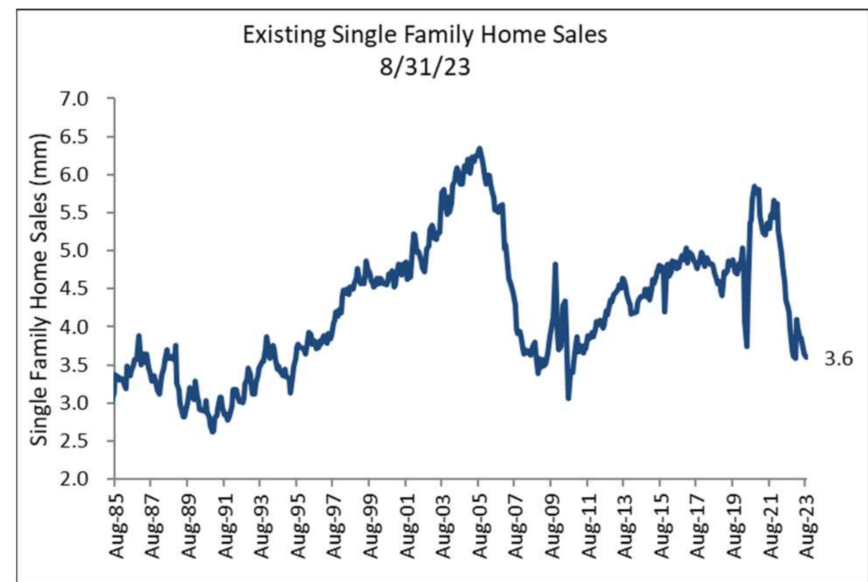
Economic Environment

Mortgage Rates and Housing – September 2023

- Mortgage rates have been rising and have returned closer to more long term historical normal levels nearing 7.5%.
- The rise in mortgage rates along with record high home prices has reduced home affordability dramatically slowed housing activity, particularly with still low inventory levels.
- New home sales had ticked up amid a drop in price, however have fallen back again amid another push higher in rates and prices.
- Housing had suffered a short term price and rate shock; however, the labor market remains strong and higher income levels and continued migration are sustaining housing activity.





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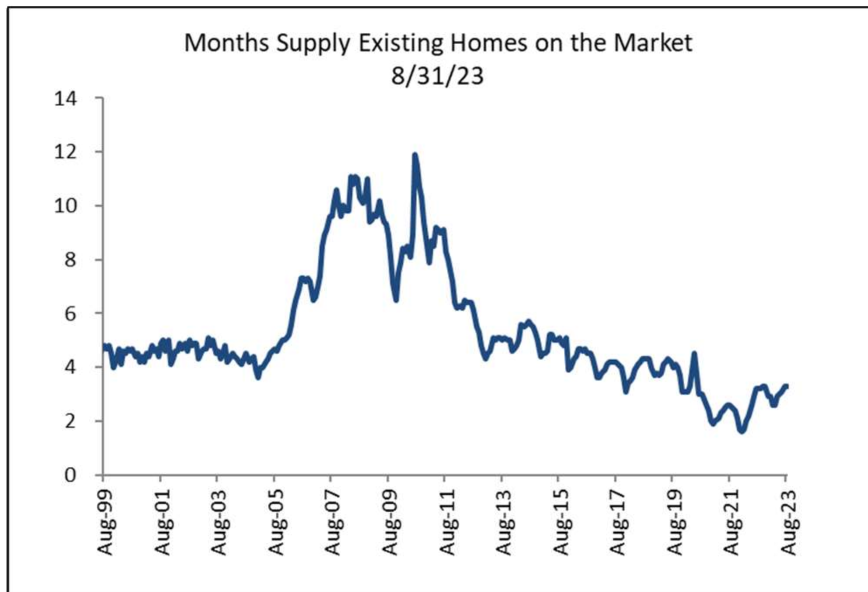
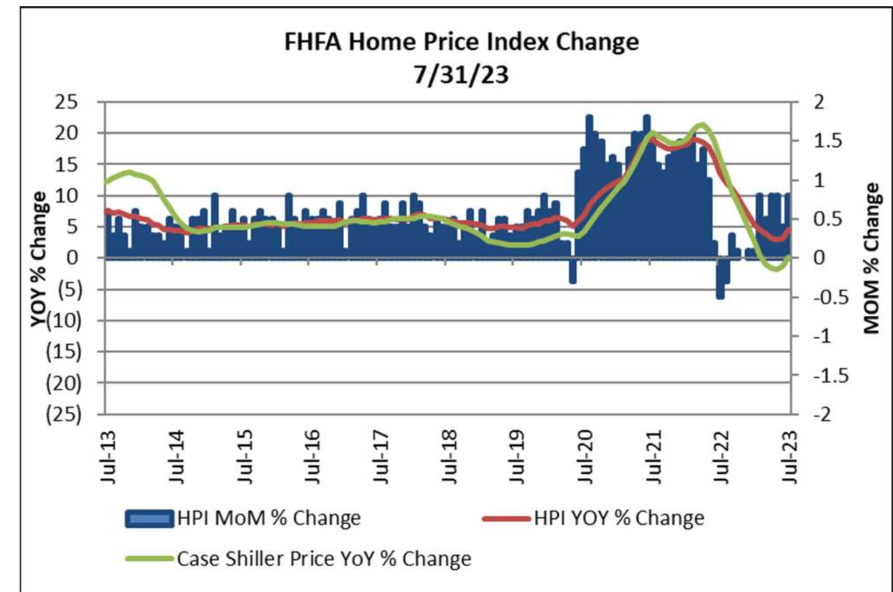
Economic Environment

Mortgage Rates and Housing – September 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.
- After a drop in prices from the highs, continued demand has stabilized prices. Despite higher mortgage rates, home prices have rebounded and have increase for the last 7 consecutive months.
- The lagged impact of home prices in CPI has contributed to higher levels, but has begun to slow. However, significant expected declines may not come to fruition if home purchases and prices continue to accelerate.





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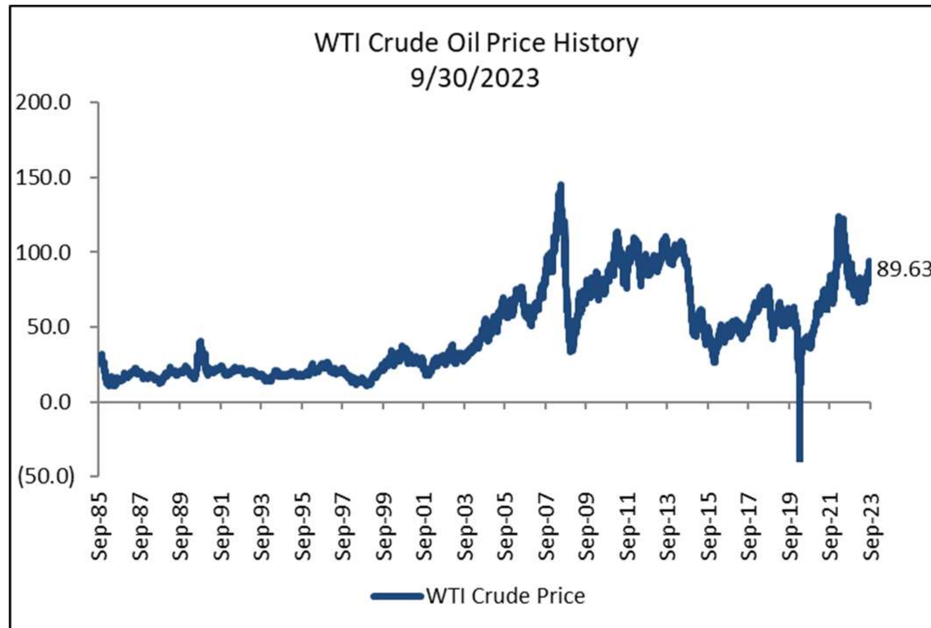
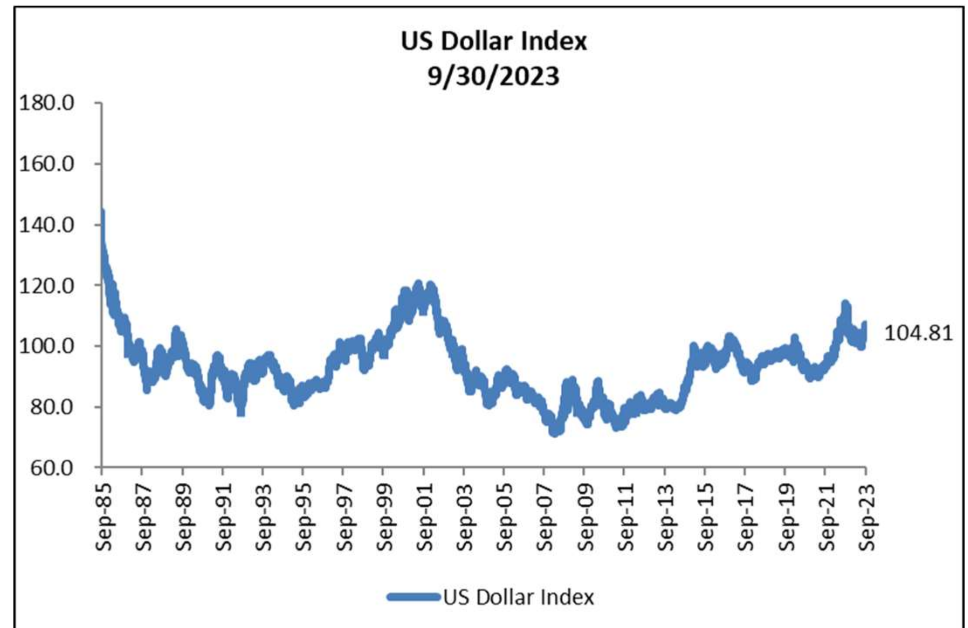
Economic Environment

September 2023

- OPEC+ continues to limit production in an effort to support/increase the price of oil. It is working.
- After a moderation in economic activity led many to increase probability of recession, realization of current supply/demand imbalance and stronger than expected growth boosted prices back into the $90's.
- 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.
- The Dollar strength has resumed as rate expectations shifted higher in the US, along with generally stronger economic conditions relative to the rest of the world.





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