Madison INVESTMENTS

CLIENT COMMUNICATION

Madison Commentary Report - March 31, 2022

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QUARTERLY UPDATE

After three solid years in the equity markets, the first quarter of 2022 was a vastly different environment. It marked two years of pandemic complications including lost lives, business closures, lower labor force participation, supply chain disruptions, and higher commodity prices. The pandemic has also played a large role in the elevated inflation we are seeing today. Core inflation hit a 40-year domestic high in March, reaching an annualized rate of 6.5%. Although the Federal Reserve was already set to begin to raise rates, the high inflation rate has increased the urgency to raise interest rates to hopefully contain inflation. At its meeting in mid-March, the Fed raised interest rates by 0.25% and has reinforced its commitment to steadily raise rates throughout 2022 while simultaneously cutting its quantitative easing program. By late March, the yield curve inverted, often a signal that lower growth and potentially a recession are in the future. In addition, we witnessed the wanton destruction in Ukraine by the Russians in the first land war in Europe since WWII. This caused a spike in oil prices and pushed gasoline prices in the U.S. to new all-time highs.

The market volatility in the first quarter was often jarring and there were days and weeks where the S&P 500® Index dipped accordingly, by the end of March the S&P 500® was only down -4.6% for the quarter, a blip compared to the three strong years of returns we had seen in 2019 (31.5%), 2020 (18.4%) and 2021 (28.7%). Unemployment returned to pre-pandemic lows by quarter-end and corporate profits continued to be robust, despite the pressures of wage increases and surges in commodity prices. The Energy Sector was a beneficiary of $100-plus oil and led the market with a 39% return. The only other positive sector for the period was the defensive Utilities sector, with a 4.8% advance. Inflation concerns put a damper on consumer discretionary stocks, with the sector dropping -9.0% while related worries pushed technology stocks down -8.4%. As investors sought safety, value indices eked out positive returns while smaller stocks were seen as less capable of handling an inflationary and rising-rate environment and underperformed larger stocks. With interest rates moving higher in the first quarter, fixed income had one of its worst quarterly returns with the Bloomberg US Aggregate Bond Index down -5.85%. With the yield curve shift largely behind us, we expect fixed income returns to perform better from here.

As we look forward to the remainder of 2022, one wonders if investors have already witnessed the worst of what the year could bring or if further hurdles will appear. We have been assured by the Fed that the Federal Funds rate will continue to ramp upwards, indicating in March a much more aggressive path for monetary policy than just a quarter ago. Half-point rate hikes are no longer out of the question. Higher interest rates are generally perceived as a negative and are already pushing up mortgage rates and other borrowing costs, putting pressure on consumer spending. Yet despite the negative impact of higher rates, since 1994 the one-year return of the S&P 500 following an initial rate hike has been 7.3%. Of course, the dynamics are complicated, and a rate rise is often sparked by an overheated economy, mitigating the cause and effect of these results. Our current environment of high inflation requires a different calculus. But higher rates are not an automatic market negative.

As for the inverted yield curve, economist Paul Samuelson once quipped that an inversion "has predicted nine of the last five recessions." More practically, the timing between an inverted yield curve and a subsequent recession is so broad as to provide little useful intelligence, ranging from seven months to almost three years, during which the market can advance substantially.

In our view, the economic underpinnings of the U.S. seem solid and persistent. While the U.S. economy and consumers are impacted by rising oil prices, we are much more insulated than overseas economies. The end-of-quarter announcement of the release of a million barrels of oil a day from our strategic oil reserves may moderate gasoline prices in the U.S. Higher oil prices should encourage additional domestic production and exploration. Higher interest rates and an inverted yield curve signal slower growth ahead, but slow growth is not necessarily negative growth (recession). The American consumer balance sheet is strong and job demand continues to exceed supply by record margins. While the war in Ukraine is likely to drag on and continue to be a headwind for the global economy, the S&P 500 has advanced just over 7% since the invasion, and we don't expect that it will be a determinative factor in 2022 U.S. stock returns unless Russia becomes even more aggressive.

EQUITY MARKETS MOVED LOWER IN THE FIRST QUARTER

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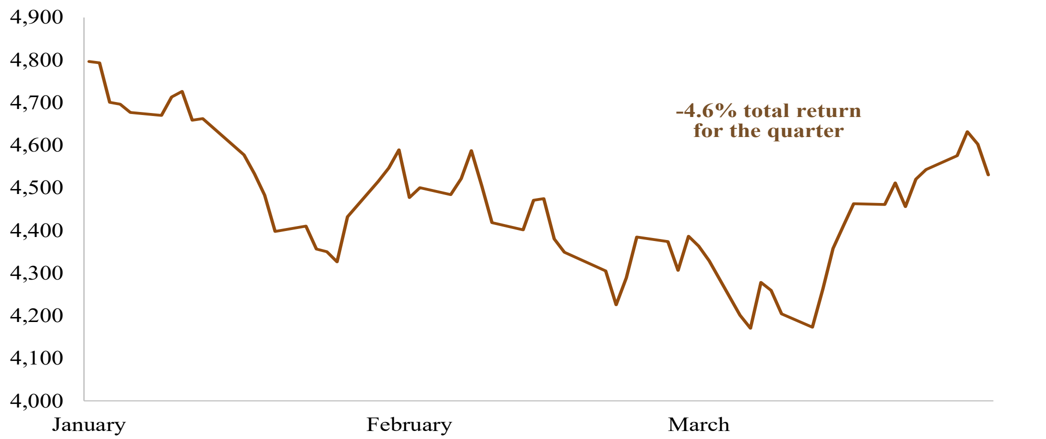
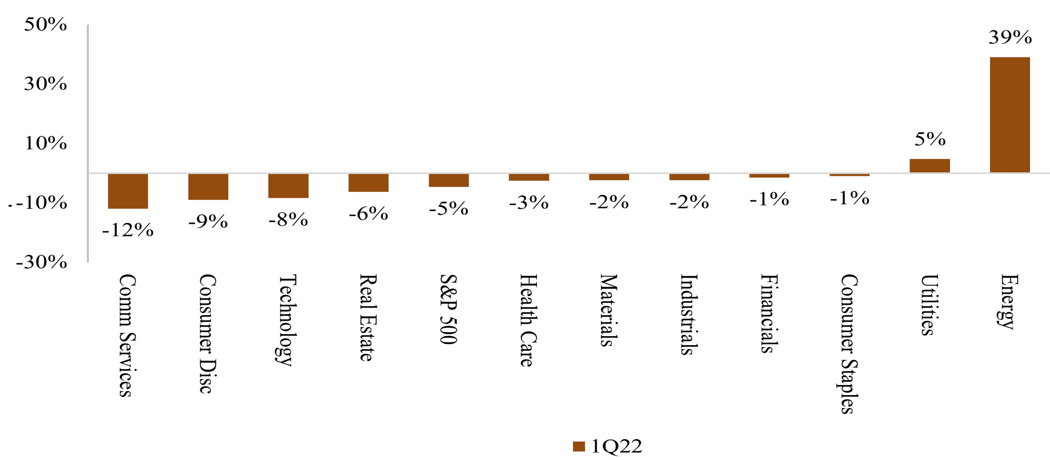
S&P 500® - First Quarter



First Quarter Highlights

- Equity markets were volatile during the first quarter, ending down -4.6% for the quarter. Higher interest rates, the war in Ukraine and higher commodity prices were all headwinds for the market.
- To fight inflation, the Federal Reserve has messaged an aggressive interest rate hiking cycle. They expect to raise rates several more times this year, ending the year above 2%. The bond market and yield curve have already started to price in these moves.
- Fourth quarter Real GDP was strong at 5.5%. We expect much slower growth in 2022 caused by tighter financial conditions, higher inflation, and lower fiscal stimulus. We are looking for modest GDP growth for the year of approximately 2% and first quarter GDP of 1.5%.

S&P 500® Sectors - First Quarter Performance



Sector Snapshot

- Equities in the first quarter faced multiple headwinds that drove negative returns in most sectors.
- First quarter headwinds included: the Omicron variant which impacted consumer spending; higher interest rates; Russia's invasion of Ukraine; 40-year highs in inflation with inflation expected to stay higher for longer; and higher commodity prices.
- The Energy sector outperformed as oil prices surged from $75 at the end of last year to over $100 per barrel. Utilities also posted a positive return while Communication Services, Consumer Discretionary and Technology were the weakest performing sectors.

Source: FactSet, Bloomberg

FIRST QUARTER 2022 - MARKETS WERE WEAK GLOBALLY

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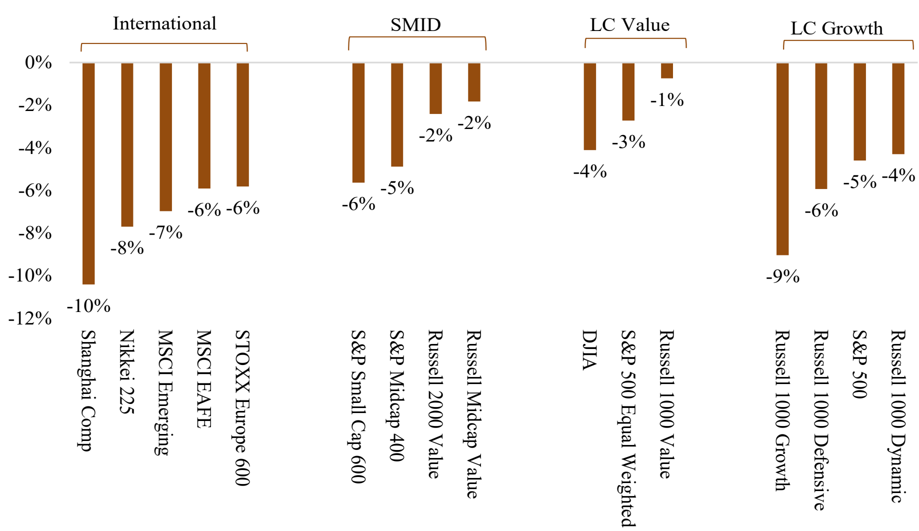
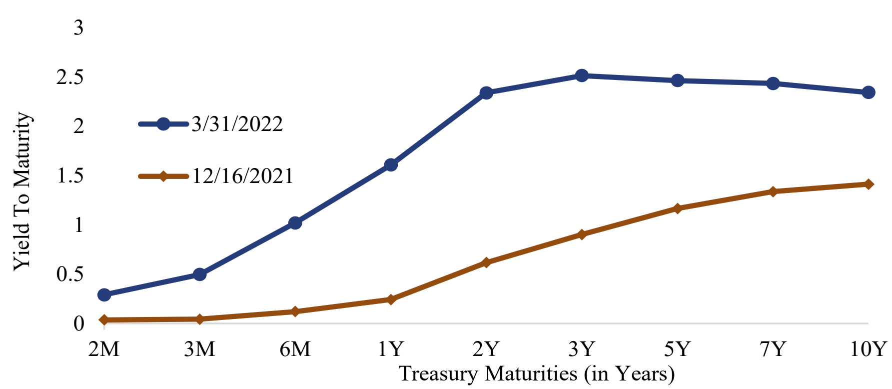
Various Equity Market Returns: Size & Geography

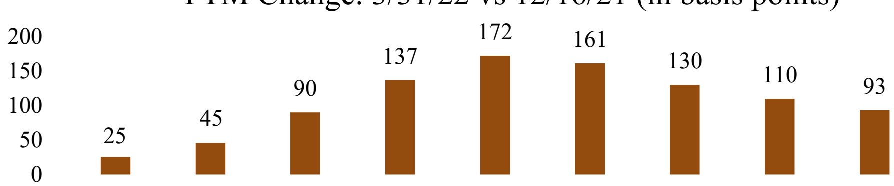


Note: Returns in USD

Yield Curve Has Inverted Since Most Recent Fed Meeting



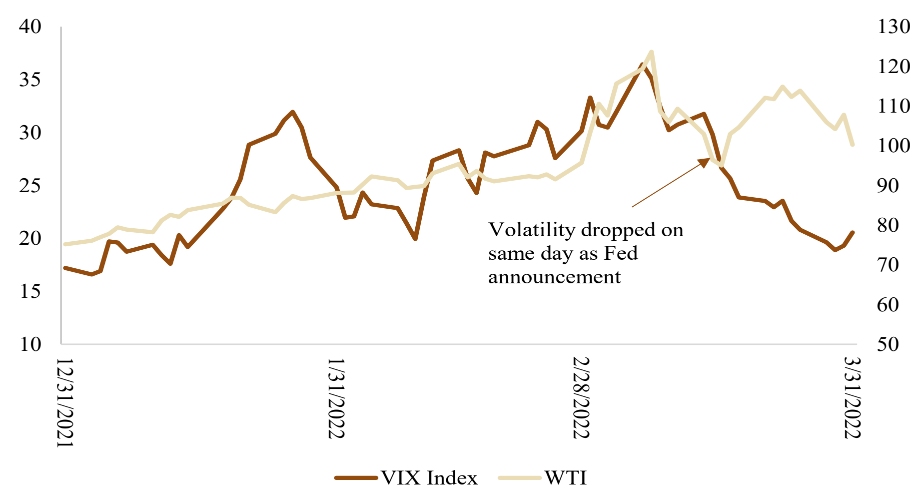
YTM Change: 3/31/22 vs 12/16/21 (in basis points)



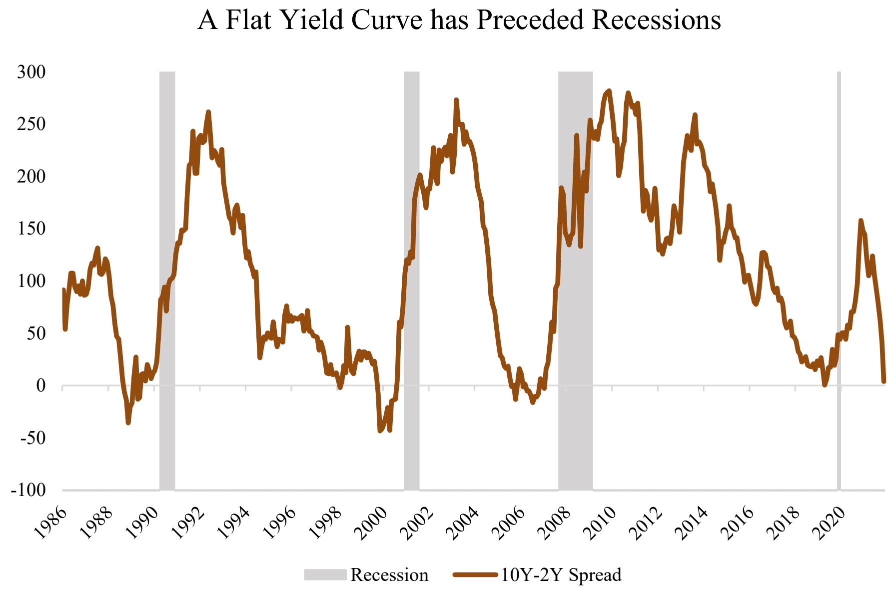
Sources: Bloomberg

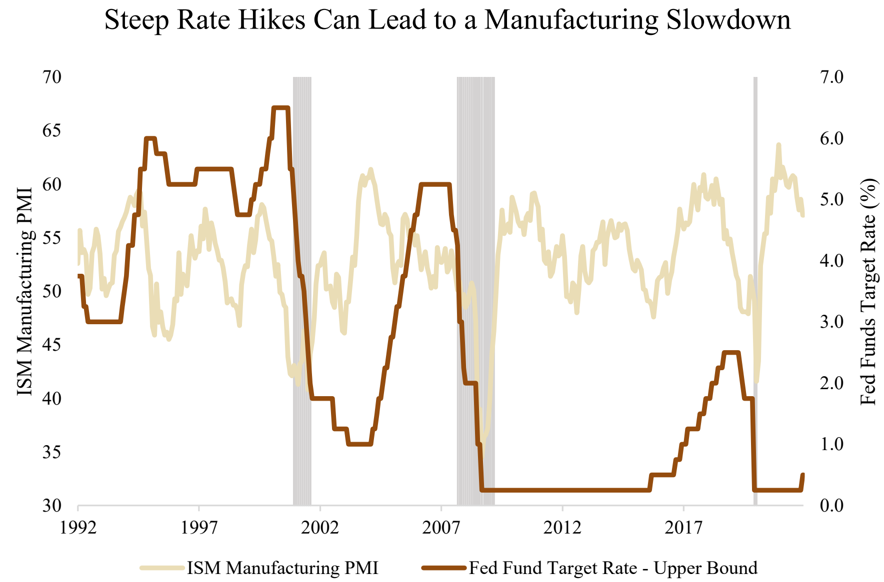
- **(Top Left)** Equity market returns were weak across regions, style and size during the first quarter. Growth and small cap indices were the weakest in the US. Value stocks performed better but still posted negative returns. Emerging and International markets were also weak with China, Japan and Emerging Markets the worst performing indices. China was impacted by shutdowns due to increasing Covid infection rates while Emerging Markets were hurt by higher interest rates, Covid infection rates and the war in Ukraine. Europe was down -6%, a bit worse than US given its proximity to Ukraine and its dependence on Russian oil and gas.
- **(Bottom Left)** Bond market volatility continued as interest rates surged towards the end of the first quarter. Given the strong message from the Fed regarding raising interest rates to offset inflation, the bond market has discounted much of the expected moves.
- **(Bottom Right)** Volatility increased for the first two months of the year along with oil prices, the price of commodities, and higher interest rates. Until mid-March, markets were concerned that inflation would last much longer. The Federal Reserve's update in mid-March sent a strong message to the equity and bond markets that it would tighten financial conditions to ensure that inflation would not become entrenched. This strong anti-inflation message assured investors that the central bank would implement the necessary actions to return to price stability.

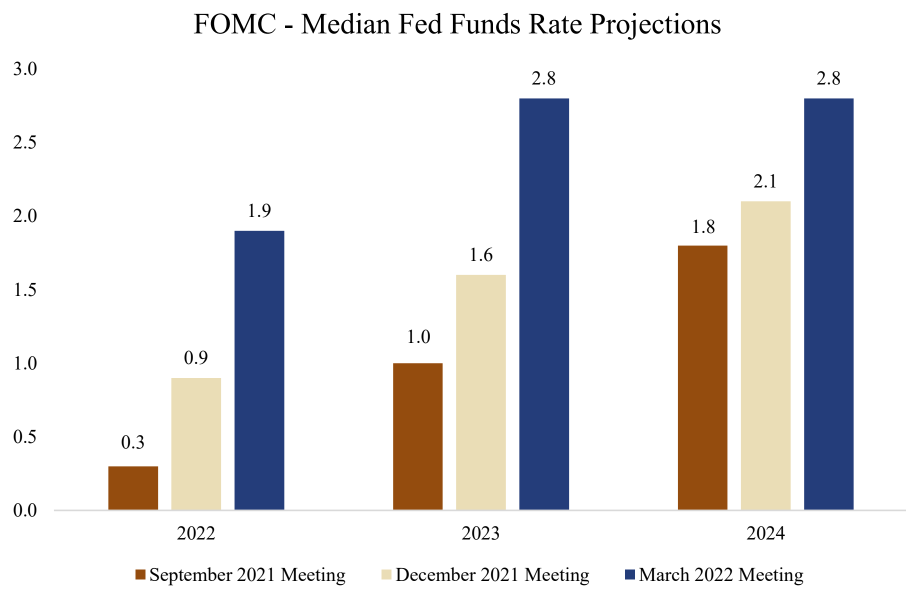
Volatility Moved Higher Along With Oil Prices...
until the Fed's message on fighting inflation



THE FED SET TO RAISE RATES AGGRESSIVELY, WILL THEY GO TOO FAR?





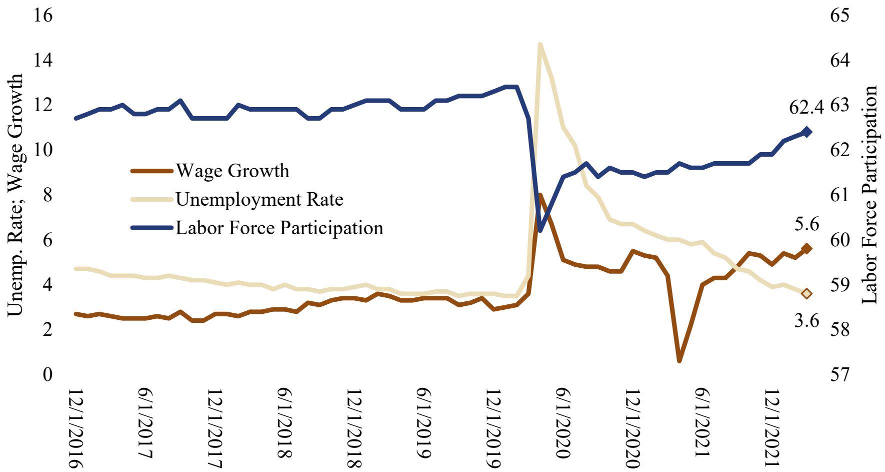


- (**Top Left**) Short term interest rates rose at a faster rate than longer term rates in the first quarter, pushing the 2-year rate above the 10-year rate, inverting the yield curve. While this is not unprecedented, it has historically preceded recessions, occurring seven times over the past sixty years. Historically, the length of time between inversion and recession has varied from 7 months to 35 months. During yield curve inversions, equity markets have moved higher by an average of 15% from the start of inversion over the next several months.
- (**Bottom Left**) The Federal Open Market Committee (FOMC) plans to move interest rates higher to quell inflation. Rate hikes of 25 basis points have been the preferred increment in previous hiking cycles, however, given current inflation dynamics, many members are suggesting 50 basis point hikes. In addition to raising interest rates, the FOMC has communicated its intention to reduce the size of its balance sheet by allowing $95 billion of securities per month to roll off its balance sheet, further tightening financial conditions.
- (**Top Right**) The Federal Reserve (Fed) increased interest rates in March for the first time since 2018. Historically, raising interest rates to fight inflation has led to a decrease in economic activity. While Manufacturing Purchasing Managers' Index (PMI) continue to show economic expansion, in the past, steep rate hike cycles have led to manufacturing slowdowns and a contraction in GDP growth.

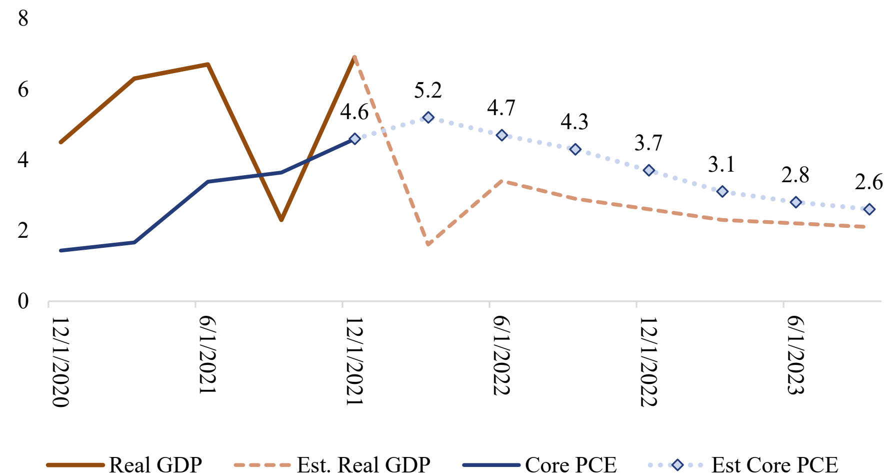
Sources: Factset, Federal Reserve Bank of St. Louis

INFLATION LASTING LONGER, BUT EXPECTED TO DECLINE

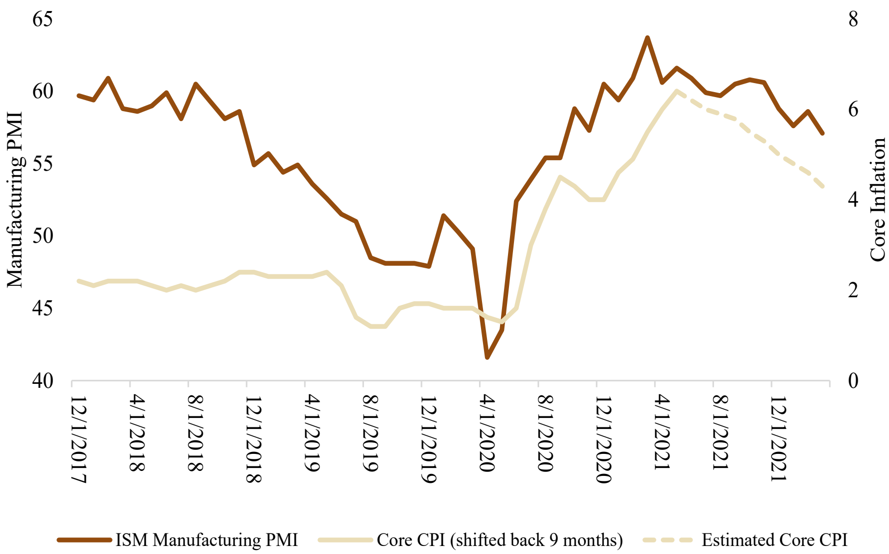
A Tight Job Market is Pressuring Wages



Core Inflation & Real GDP: Still Expected to Slow



Manufacturing is Slowing, Core Inflation Should Follow

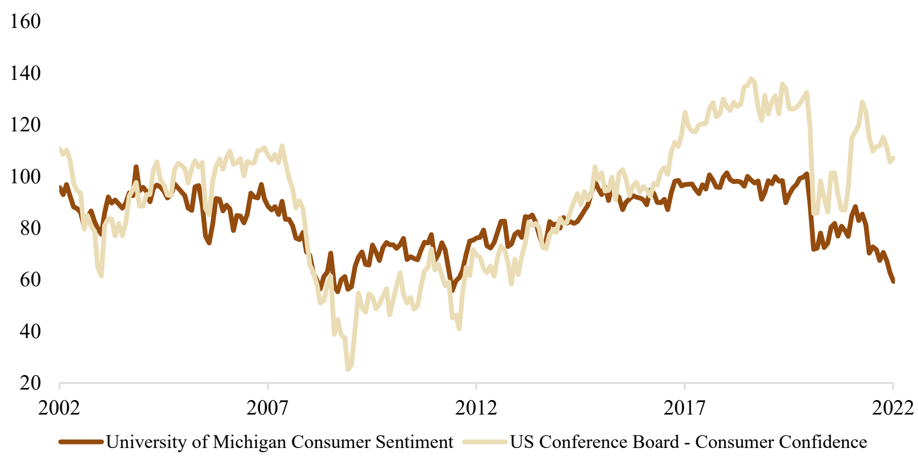


- **(Top Left)** The unemployment rate is at 3.6%, back to pre-pandemic levels and near all-time lows. With the economy re-opening and fewer mask mandates, labor force participation has increased along with the strong job gains reported in the first quarter of this year. This signals a tight job market and as a result, average hourly earnings are growing above 5%, well above the 2% to 3% range before the pandemic. The Fed does not believe that we will see a wage growth spiral. However, higher wages bear monitoring as higher labor prices are typically passed on to consumers which pushes inflation higher.
- **(Top Right)** Real GDP growth was volatile the last few quarters of 2021 but the year finished with 5.7% growth. Real GDP growth in the first quarter of 2022 is likely to be weak with only 1.5% annualized growth but is expected to rebound in the second and third quarters. Real GDP growth is expected to return to its long-term average of 2% as we head into 2023. Core PCE (Personal Consumptions Expenditures Price Index) growth is estimated to peak at 5.2% in the first quarter of this year and is expected to slow along with GDP growth. By mid-2023, Core PCE is estimated to return to 2.6%, slightly above the Federal Reserve's 2% target.
- **(Bottom Left)** The ISM (Institute for Supply Management) Manufacturing PMI showed a strong recovery since the bottom of the pandemic as demand for goods have surged. Core inflation (the tan line, we have lagged the CPI data as it trails manufacturing by approximately 9 months) initially lagged as the recovery took hold but then surged as demand exceeded supply. The Manufacturing PMI has been declining since it peaked last summer as demand for goods is slowing and orders and inventories are more in balance. We expect that core inflation will also start to slow along with manufacturing activity.

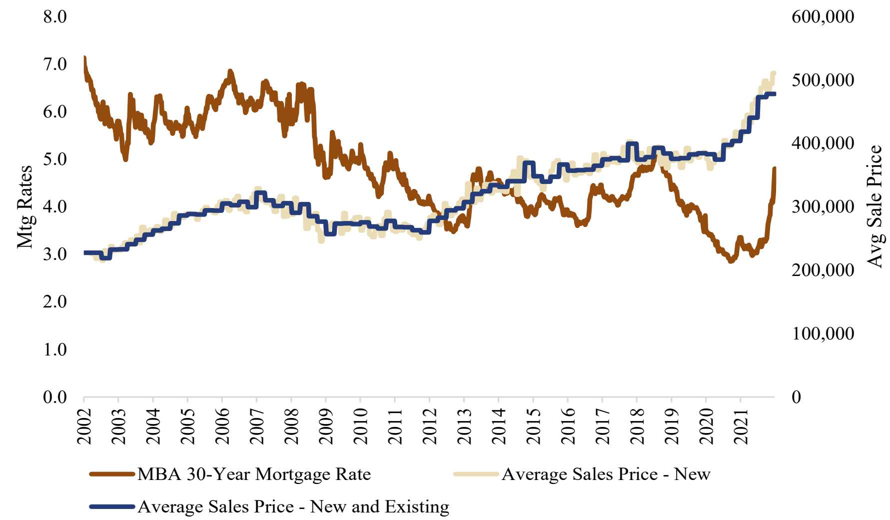
Source: Bloomberg, Madison Investments

CONSUMER CONFIDENCE HAS FALLEN BUT CONSUMER REMAINS IN GOOD SHAPE

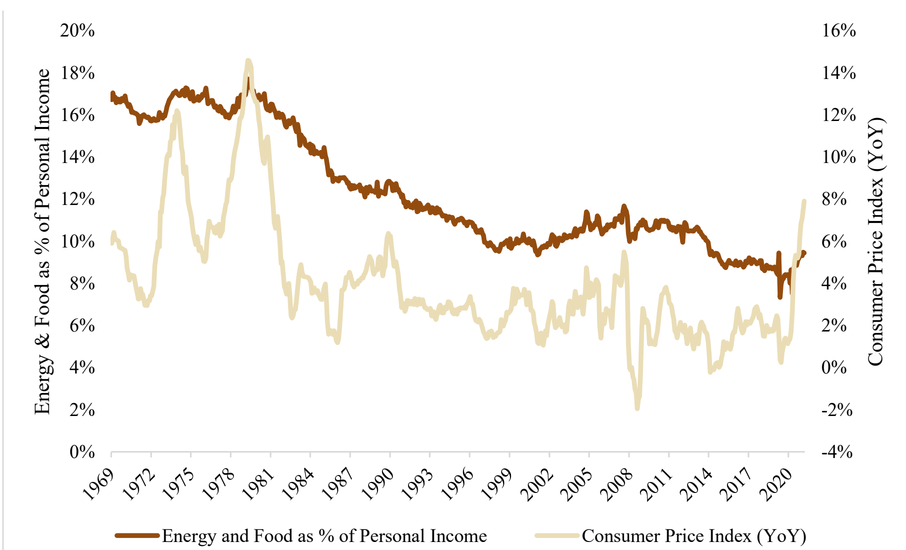
Consumer Confidence



Home Prices Continue to Appreciate



Energy & Food Expenditure as % of Personal Income



- (**Top Left**) Facing a combination of higher prices, lower real wages, and heightened geopolitical tensions, broad-based measures of consumer confidence fell during the quarter. By one measure, the University of Michigan's Consumer Sentiment reading, is lower today than it was in the early innings of the pandemic. Measured by the US Conference Board, consumer confidence is higher than 2020, however, it remains in a downtrend.
- (**Bottom Left**) In February, inflation hit a level not seen in 40 years. As a percentage of personal income, energy and food expenditures are roughly 40% lower today than the last time the U.S. experienced inflation at these levels. While prices have been increasing over the last year as measured by CPI, the consumer today is in a relatively stronger position when compared to history.
- (**Top Right**) A decade of undersupply of housing combined with the surge in demand brought forward from the pandemic created a suitable backdrop for house pricing. Now as interest rates have moved higher during the quarter, mortgage rates followed suit. In the face of higher borrowing rates, housing prices have continued to move higher, establishing a new high for new and existing homes during the quarter. Housing costs could be a headwind for consumers.

Source: Factset, Federal Reserve Bank of St. Louis

EARNINGS GROWTH WILL MODERATE AS ECONOMIC GROWTH SLOWS

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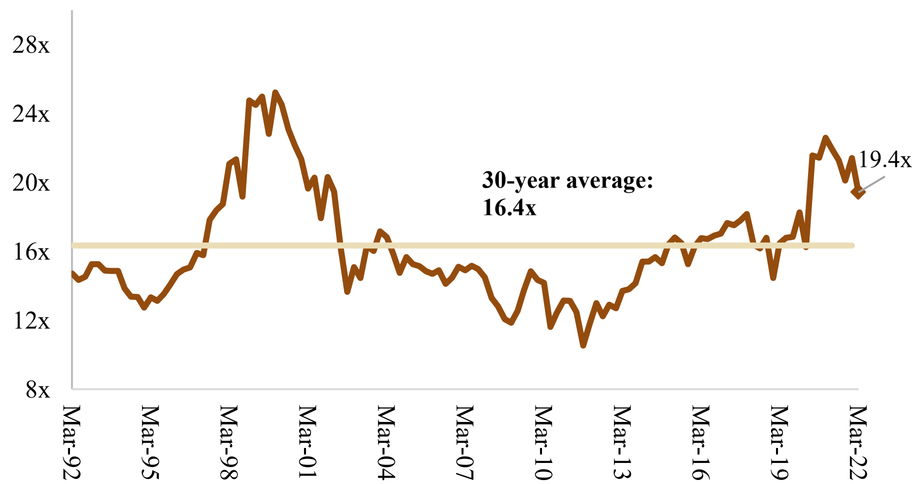
S&P 500 Index Forward P/E Multiple



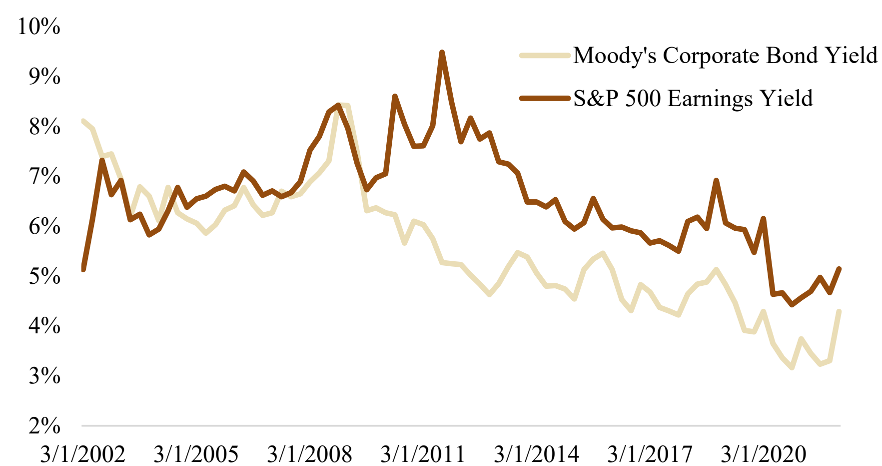
- **(Top Left)** Equity valuations remain high relative to historical averages but have moved lower due to the recent market action. Given the various headwinds, it is surprising that earnings estimates for the S&P 500 have continued to move higher. Higher interest rates and a reduction of the Fed's $9 trillion balance sheet could continue to be a headwind for stocks.
- **(Bottom Left)** Earnings estimates have continued to rise this year despite higher interest rates and expected slower economic growth. Earnings estimates for 2022 and 2023 have increased modestly to $228 and $250, representing year-over-year growth of 9% and 10%, respectively. As the Fed moves to raise interest rates and shrink its balance sheet, we could see continued volatility in the equity markets. In the long run, stocks follow earnings growth so we remain constructive longer term.
- **(Bottom Right)** Despite the recent volatility and higher interest rates, equities continue to be more attractive than bonds as represented by the chart below which compares the S&P 500 earnings yield to average investment grade corporate bond yields. Although bonds have priced in much of the expected interest rates moves, we continue to anticipate volatility in both the equity and fixed income markets. Fixed Income is more attractive from a yield perspective today versus last year but we continue to be more constructive on equities at this time .

S&P 500 Level Implied by Price to Earnings Combinations

			Price/Earnings Multiple				
			14x	16x	18x	20x	22x
	$	275	3,850	4,400	4,950	5,500	6,050
	$	270	3,780	4,320	4,860	5,400	5,940
	$	260	3,640	4,160	4,680	5,200	5,720
S&P 500	$	250	3,500	4,000	4,500	5,000	5,500
Earnings	$	240	3,360	3,840	4,320	4,800	5,280
per Share	$	230	3,220	3,680	4,140	4,600	5,060
	$	220	3,080	3,520	3,960	4,400	4,840

S&P 500 Top Down Estimates		
	Mean	Growth
2020A	$ 140.45	-14%
2021A	$ 208.46	48%
2022E	$ 227.89	9%
2023E	$ 250.19	10%
2024E	$ 277.57	11%

Stocks Remain Attractive to Investment Grade Bonds



Source: FactSet, Bloomberg, Moody's

MACROECONOMIC SCORECARD: MARCH 31, 2022

The full-scale Russian military invasion of Ukraine has created sobering humanitarian, geopolitical, and economic impacts that are poised to persist for years to come. The related impact from the war on inflation rattled investors and negatively impacted the broad market.

	-			-0-			+	Potential Influence on Stock Market
U.S. Economy			Current	Prior				US economic growth is expected to slow in 2022 due to a number of headwinds. Fiscal and monetary policy are no longer accommodative. The recent increase in domestic interest rates will tighten US financial conditions.
Corporate Profits			n/c					The 2022 profit outlook is increasingly uncertain. While labor costs may begin to moderate, supply chain and material cost pressures may continue to climb due to Ukraine and heightened COVID lockdown issues in China.
Inflationary Pressures		Current		Prior				The confluence of the lingering impact of COVID supply chain challenges, structural underinvestment in energy infrastructure, and the war in Ukraine will all contribute to an upward price-level adjustment that may persist.
Interest Rates				Current		Prior		The Fed began raising interest rates in March; meanwhile US bonds rerated notably lower (producing higher yields) during the quarter. Interest rate volatility escalated after the onset of the war in Ukraine.
Liquidity			Current			Prior		Liquidity conditions are expected to materially tighten. The Fed, in an effort to slow or stop inflation, has been clear in its intentions to continue raising interest rates and to embark on a significant quantitative tightening (QT).
Sentiment	Prior	Current						Investor complacency continues to moderate after peaking in late 2021. Relative to history, year-to-date fixed income markets have been unusually (and unsustainably) more volatile than equity markets.
Valuation		n/c						Risk asset valuations remain elevated relative to historical norms. This is especially true if profit margins are indeed peaking. Proactive risk management is becoming increasingly important for all investors.

- Negative for Stocks
+ Positive for Stocks

■ - Current
■ - Prior
n/c - No change

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NEWS INFLUENCING MARKETS

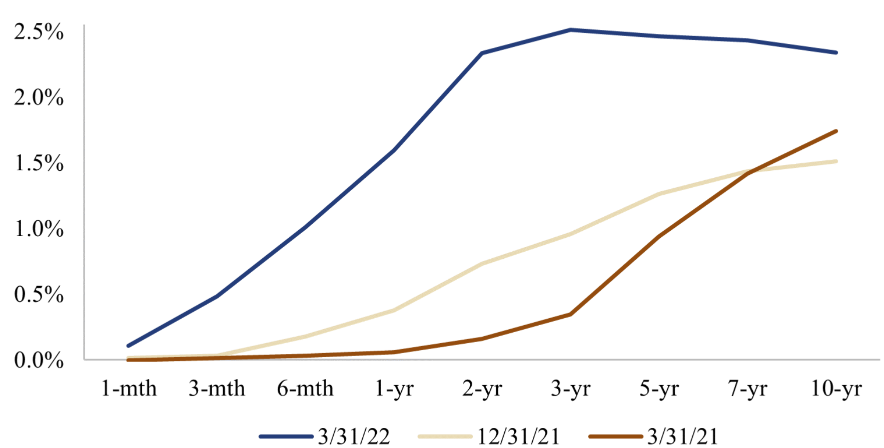
Potentially Positive for Bond Returns

+ Higher prices could begin to reduce consumer demand, thereby weighing on inflation and prompting the Fed to moderate their projected policy path.
+ A more pronounced flattening of the yield curve and escalation of signals implying potential Fed policy errors could indicate a peak in rates.
+ Some form of détente between Russia and Ukraine could ease geopolitical concerns, easing price pressures within the energy complex and overall inflation concerns.

Potentially Negative for Bond Returns

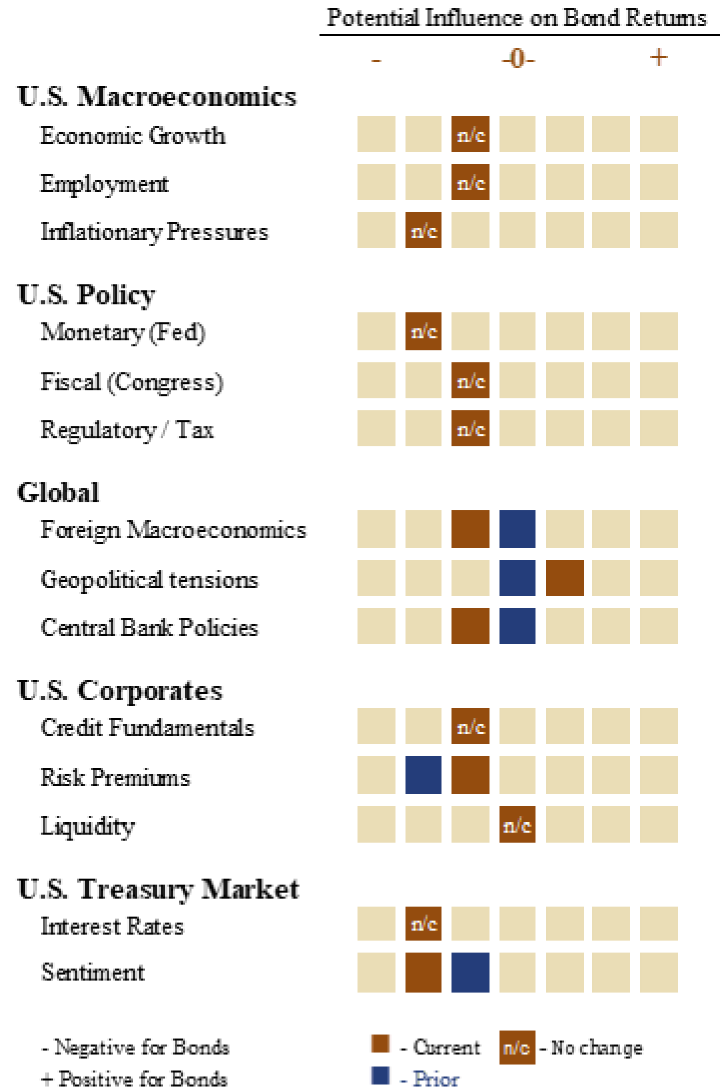
– Stronger than expected economic momentum could lead the Fed to raise rates to levels exceeding what is currently discounted by the market.
– Persistent inflation levels stemming from input costs that are passed-through to final goods could prompt a more aggressive Fed response.
– Quantitative tightening (as the Fed reduces its balance sheet holdings) could pressure rates higher as substitute buyers may be reluctant to emerge at prevailing valuations.

Treasury Yield Curve Comparison



Source: Madison, Bloomberg

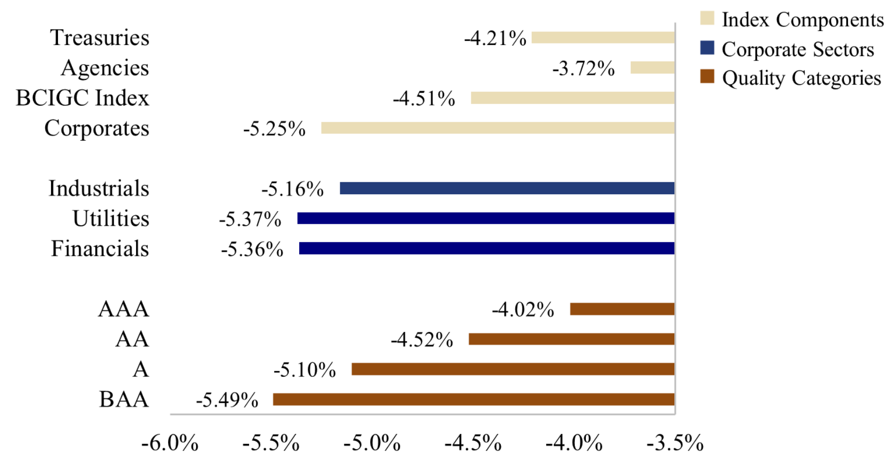
Fixed Income Scorecard



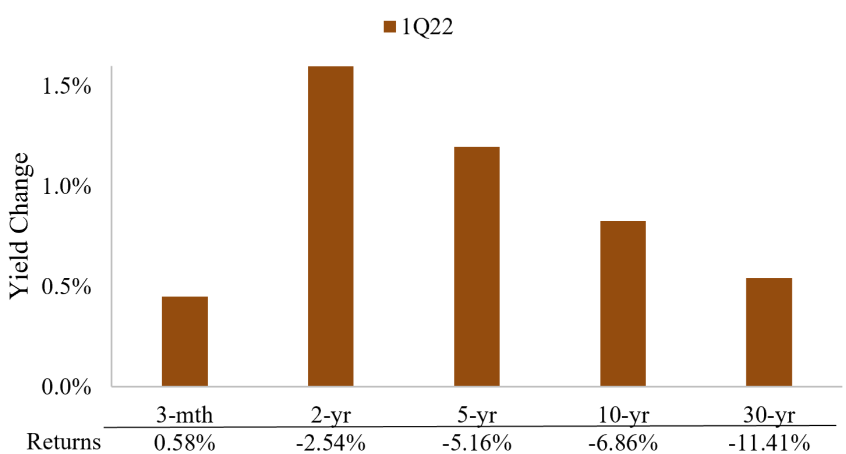
PERFORMANCE UPDATE FOR THE FIRST QUARTER 2022

Asset Class	Market Sector	1Q22
Money Market	3-month T-bill	0.0%
Fixed Income	TIPS (1-10 year)	-1.7%
	Intermediate Gov/Credit	-4.5%
	US High Yield	-4.8%
	US Aggregate (1-30 yr)	-5.9%
	Municipal Bonds (1-30 yr)	-6.2%
	EM Aggregate	-9.2%
Equities	S&P 500 Index	-4.6%
	Russell 3000 Index	-5.3%
Int'l Equities	MSCI Europe, Asia, Far East	-5.8%
	MSCI Emerging Markets	-7.0%
Commodities	Crude Oil (Brent)	43.6%
	Commodities	25.5%
	Gold	6.6%

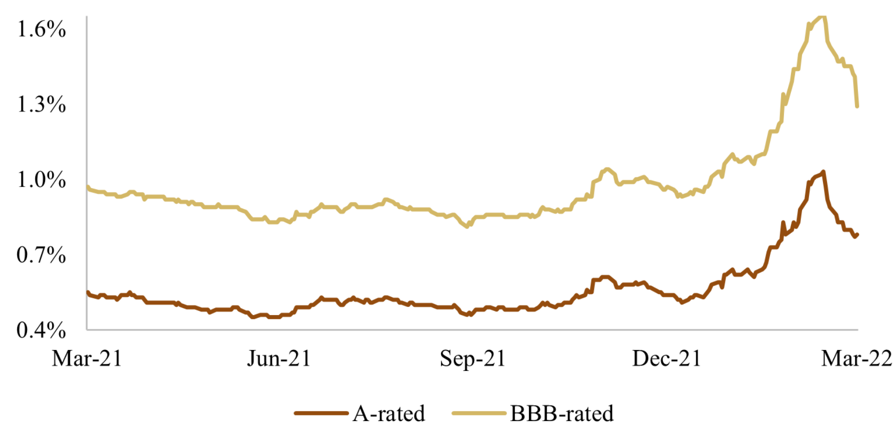
Total Rate of Return Comparison
First Quarter 2022



U.S. Treasury Curve
Yield Change (bars) and Period Returns (bottom data table)



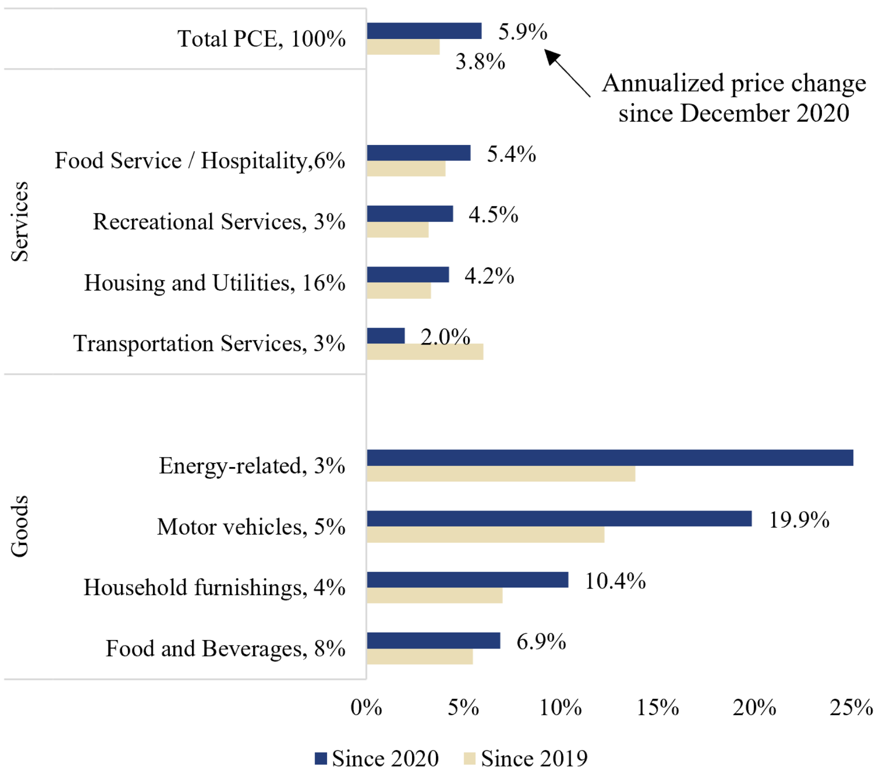
Comparison of Intermediate Corporate Spread
by Credit Quality



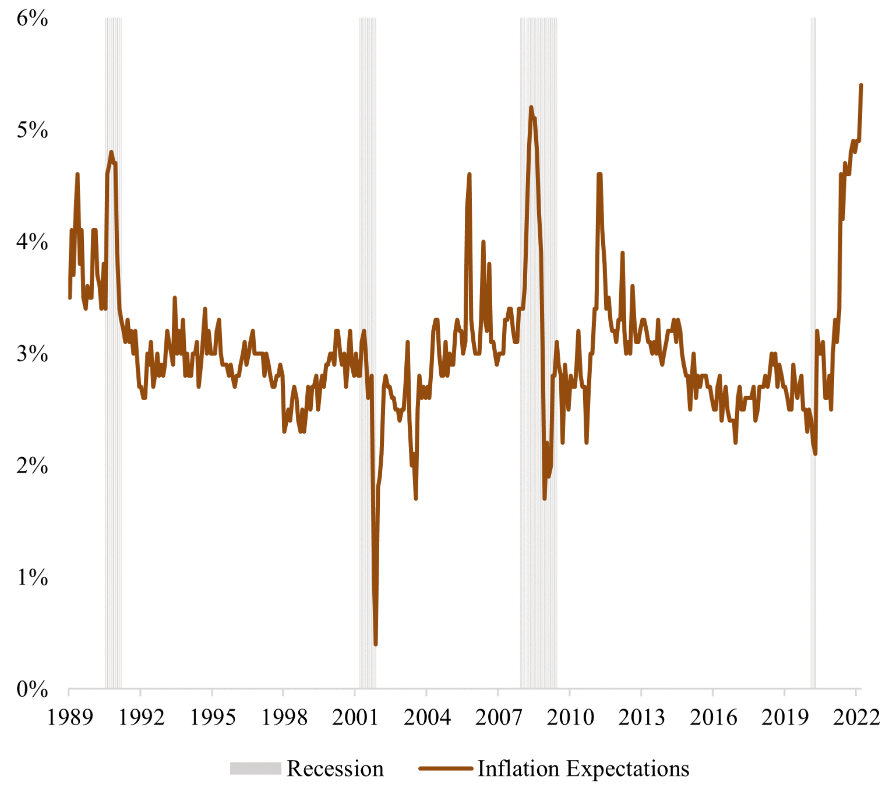
Source: Madison, Bloomberg

INFLATION HAS SKYROCKETED DURING THE PAST 12 MONTHS

Inflation Has Trended Significantly Higher as Evidenced by the Personal Consumption Expenditures Index



Consumers Anticipate Inflation Will Remain Above 5% During the Next 12 Months



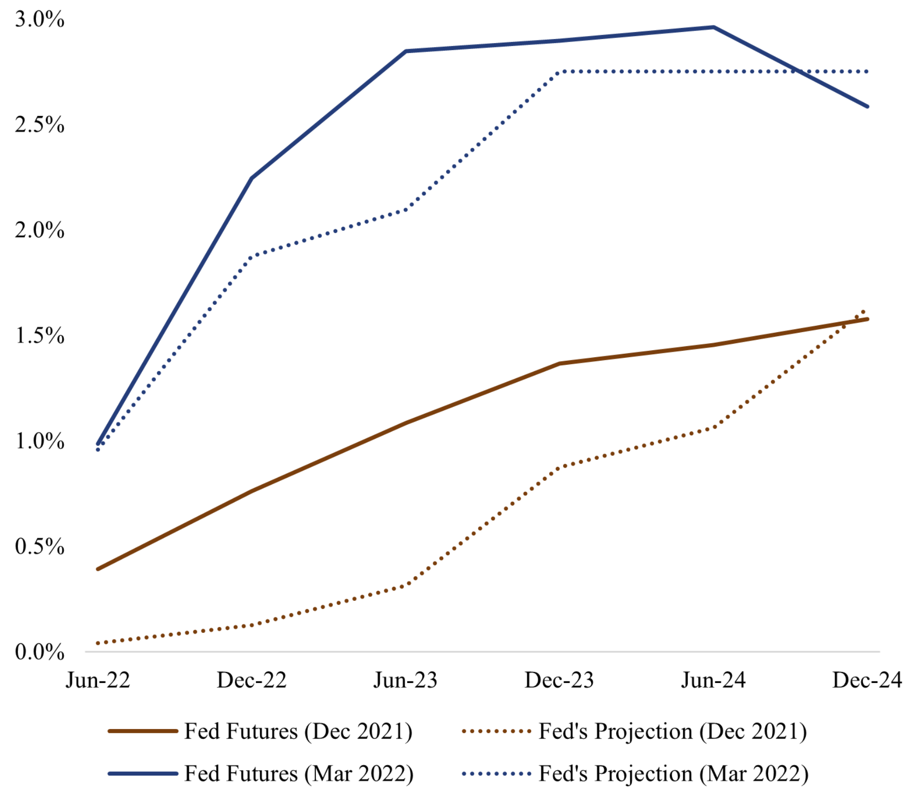
- Persistent inflation is likely to cause the Fed to raise short-term rates aggressively in coming quarters.
- Higher inflation initially constrained to the Goods sector is quickly spilling over into the Services sector, especially food service, hospitality, and recreation.
- We believe the significant rise in energy and motor vehicle prices will abate going forward, although supply chain challenges may prolong inflationary pressures within the Goods sector.

- Consumers expect inflation will remain above 5% during the next year, a level last seen in 2008.
- At this point, it's unclear how consumers may alter their purchase of goods and services over the near term, especially if prices remain high.
- However, lower income households are apt to spend more on necessities (e.g. food, shelter, transportation) during the coming months while middle-to-upper income families may choose to delay purchases in anticipation prices may decline at some point.

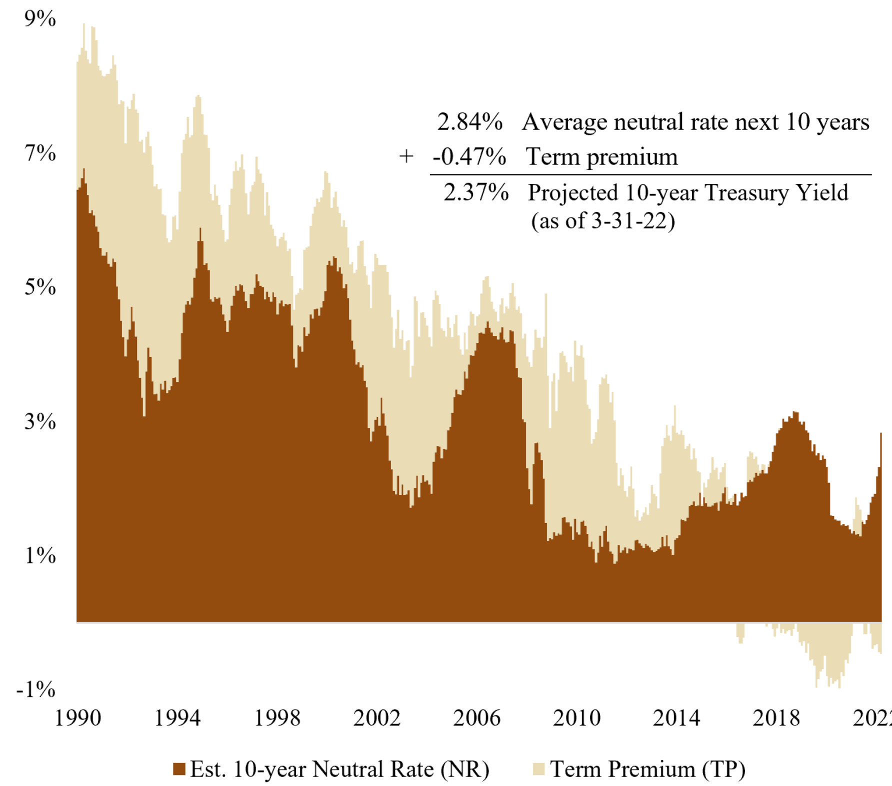
Source: Bloomberg, Bureau of Economic Analysis

INTEREST RATES ARE ADJUSTING HIGHER IN RESPONSE TO INFLATION AND ANTICIPATED FED RATE HIKES

Fed Fund Futures Indicate Investors Believe the Fed Will Accelerate the Pace of Rate Hikes



The 10-year Treasury Yield is Projected to Rise Towards 2.50%



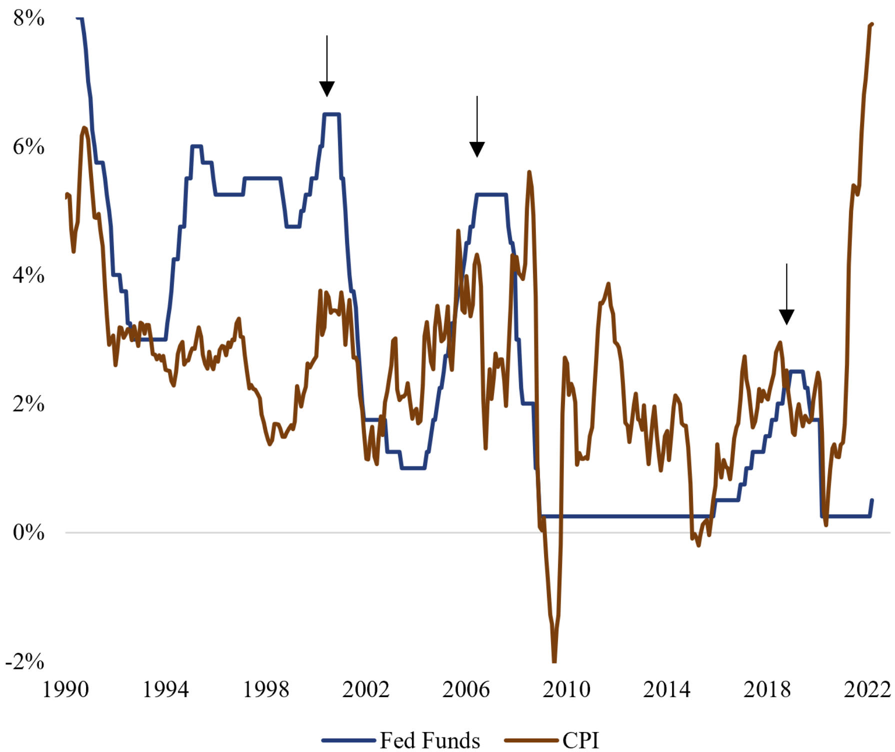
- In March, the Fed elevated estimates for short-term rates going forward. This upward trajectory is depicted by the dotted brown and blue lines in the above chart.
- Investors (as indicated by fed futures) also increased their expectations for the future path of short-term rates, although they believe the Fed will raise rates more aggressively during the next year.

- Longer-term rates can be estimated by summing the neutral rate and term premium for a given maturity along the yield curve. The neutral rate is the theoretical interest rate at which the Fed supports economic growth by maintaining full employment and price stability.
- Currently, a ballpark projection for the 10-year yield is near 2.4%. Although the neutral rate is near 2.8%, the term premium (compensation investors require to extend maturities) is negative.

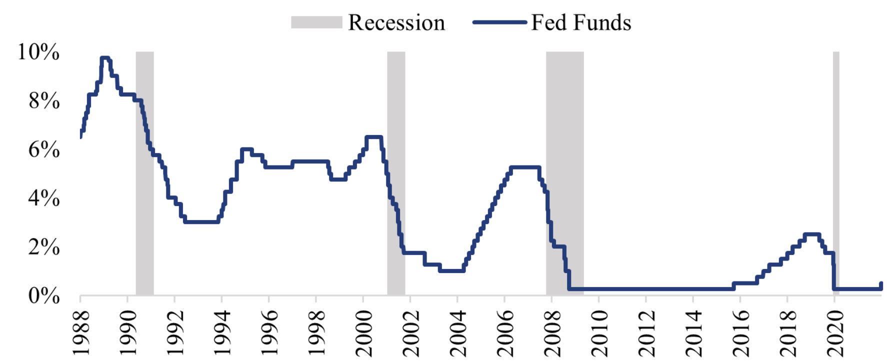
Source: Bloomberg, Federal Reserve

THE MAGNITUDE OF INTEREST RATE CHANGES IS UNKNOWN, ALTHOUGH BOND RETURNS ARE LIKELY TO SUFFER

Historically, the Fed's Terminal Rate has Always Exceeded the Rate of Inflation



Comparison of Fixed Income Returns During Periods of Rising Rates



Percent Return During Periods of Rising Rates

	3/28/88 to 2/24/89	2/3/94 to 2/1/95	6/29/99 to 5/16/00	6/29/04 to 6/29/06	12/15/15 to 1219/18
# Rate Hikes	8	7	6	17	9
Rate Increase	325 bps	300 bps	175 bps	425 bps	200/ bps
2-year Treasury	3.44	1.13	2.73	3.44	1.92
10-year Treasury	2.38	-7.40	0.79	3.37	1.08
Treasuries[a]	3.92	-2.69	3.27	5.41	3.82
Corporates[a]	5.54	-2.78	0.06	6.01	10.47
Core Bond[a]	4.45	-2.01	2.12	6.12	6.03
High Yield BB/B[a]	4.94	-1.74	-1.30	14.56	22.40

(a) 1 to 30 year maturities

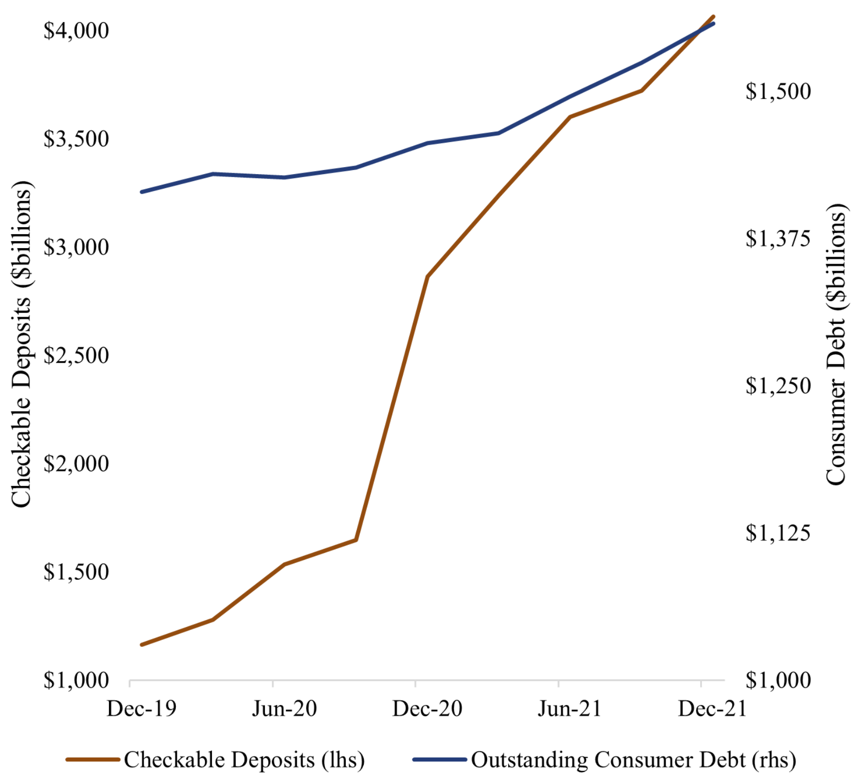
- With hindsight, the Fed should have raised rates much sooner to combat the economy's relentless price increases. Now the question is how much will the Fed need to raise rates to bring inflation under control?
- Historically, the Fed has tightened policy until short-term rates exceeded the rate of inflation.
- However, we believe inflation will drift lower and the Fed's terminal rate during this tightening cycle will be between 2.5% and 3.0%.

- A policy rate between 2.5% and 3.0% suggests 8 to 10 short-term rate increases amounting to 25 basis points each.
- Unless inflation drops significantly in the coming months, we anticipate the Fed will be more aggressive in tightening policy and raise rates by as much as 50 basis points at a time.
- Unlike most previous periods of rising rates, fixed income returns may struggle given coupon income may not be enough to offset price declines.

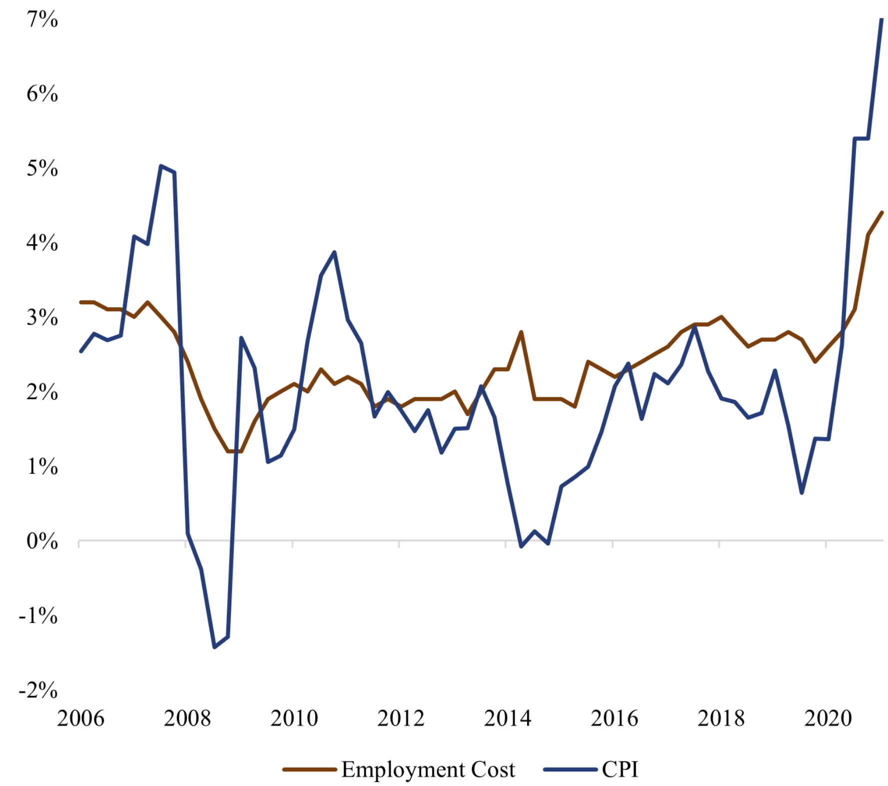
Source: Madison, Bloomberg

CONSUMERS ARE IN GOOD SHAPE FINANCIALLY, ALTHOUGH LOSING GROUND VERSUS INFLATION

Consumers Have the Capacity to Spend



Wage and Benefit Gains are Lagging Inflation



- Although rising rates are apt to negatively impact many families, the potential good news is most households are in solid financial shape.
- There appears to be residual amounts available to spend from the federal government's pandemic stimulus and overall consumer debt has not increased much since 2019.

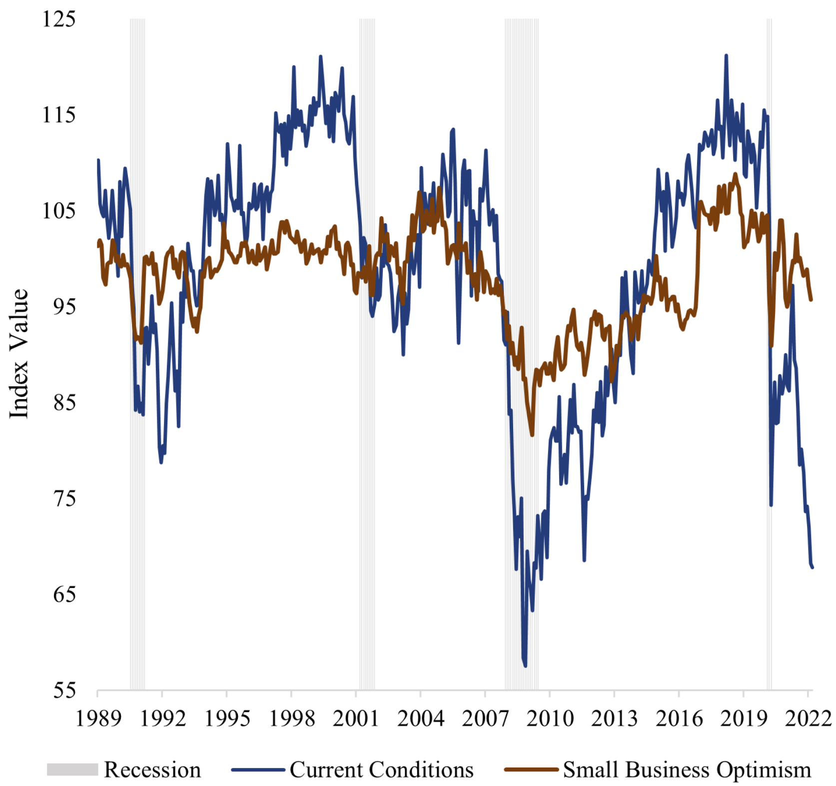
Loan Type	12/31/19	12/31/21
Mortgages	68%	70%
Student Loans	11%	10%
Auto	9%	9%
Credit Cards	7%	5%
Other	3%	3%
Revolving Credit	3%	2%

- The availability of both savings and borrowing capacity may reinforce consumer spending during the coming quarters, especially since wage gains have not kept pace with inflation.
- Many employers are likely to experience mounting employment costs, especially should low unemployment and the battle for talent continue.
- We foresee slower economic growth as consumers adjust their spending patterns in response to both inflation expectations and disposable income.

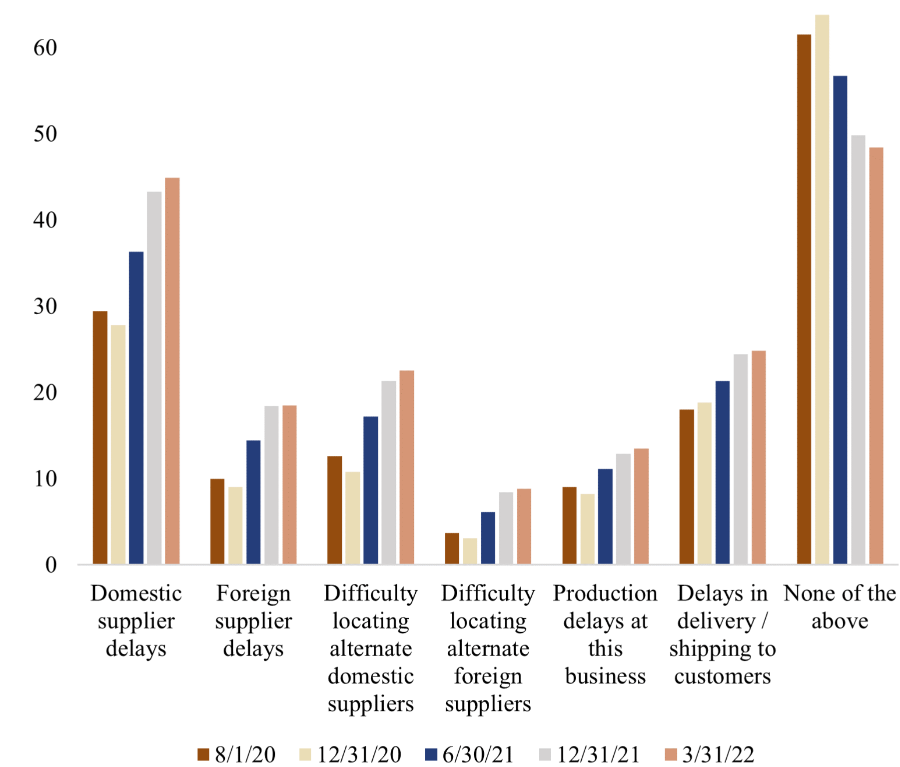
Source: Bloomberg

CONSUMERS AND BUSINESSES ARE LEERY ABOUT THE FUTURE

Both Consumers and Businesses Appear Less Optimistic



U.S. Small Businesses Continue to Experience Supply Chain Challenges



- Recent consumer and business surveys reveal concerns about future economic conditions.
- Often times these sentiments foreshadow how spending patterns may shift over the near-term. A meaningful decrease in consumer and/or business outlays could lead to an economic slowdown.

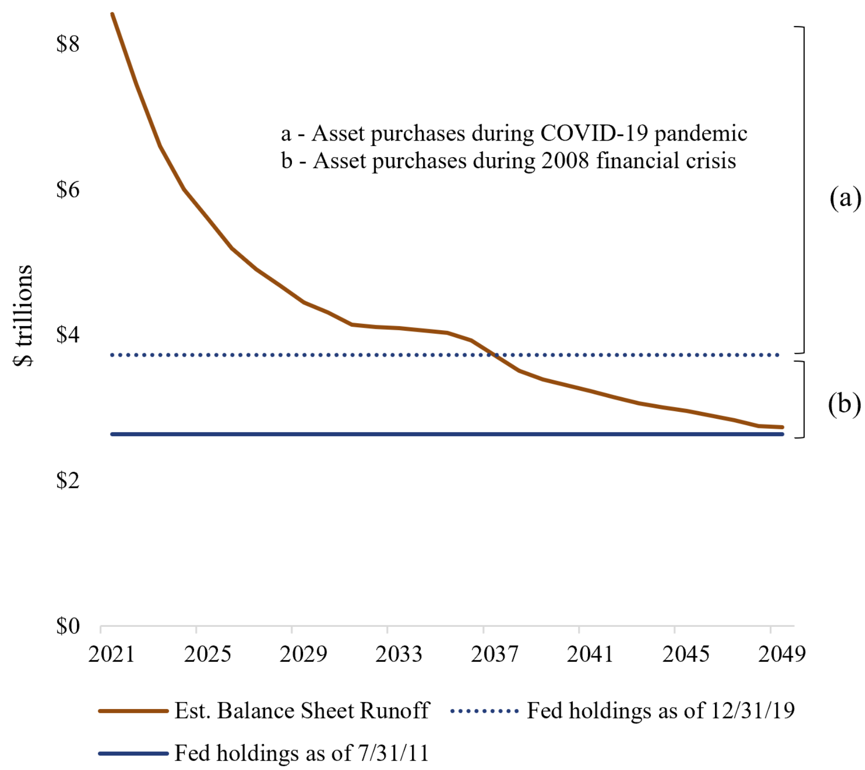
- Persistent supply chain issues continue to underpin higher goods prices. Domestic and foreign supplier delays have contributed towards both production and delivery delays.
- Thus far the demand for products has outpaced available supply and in turn resulted in a prolonged period of higher prices.

Source: Bloomberg, U.S. Census Bureau

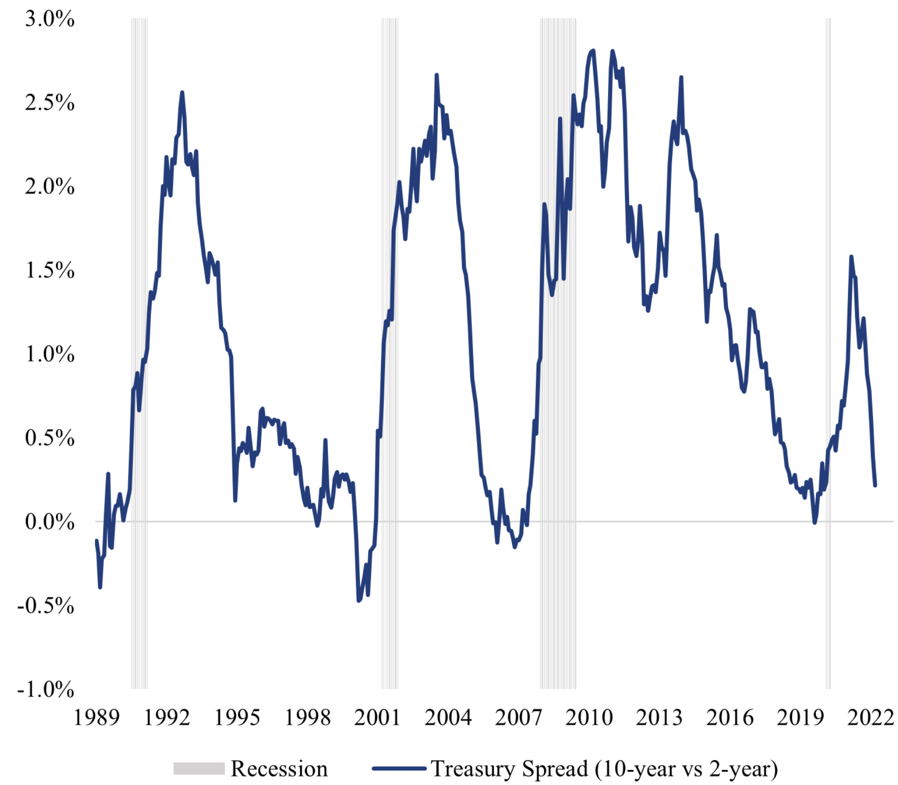
CAN THE FED ORCHESTRATE A SOFT LANDING AS THE CENTRAL BANK SIMULTANEOUSLY RAISE RATES AND REDUCES ITS BALANCE SHEET

Madison INVESTMENTS

Passive Runoff of Fed's Domestic Security Holdings
(excludes runoff of mortgage-backed securities)



Uncertainty About the Speed of Likely Rate Hikes has
Caused the Treasury Curve To Flatten Substantially



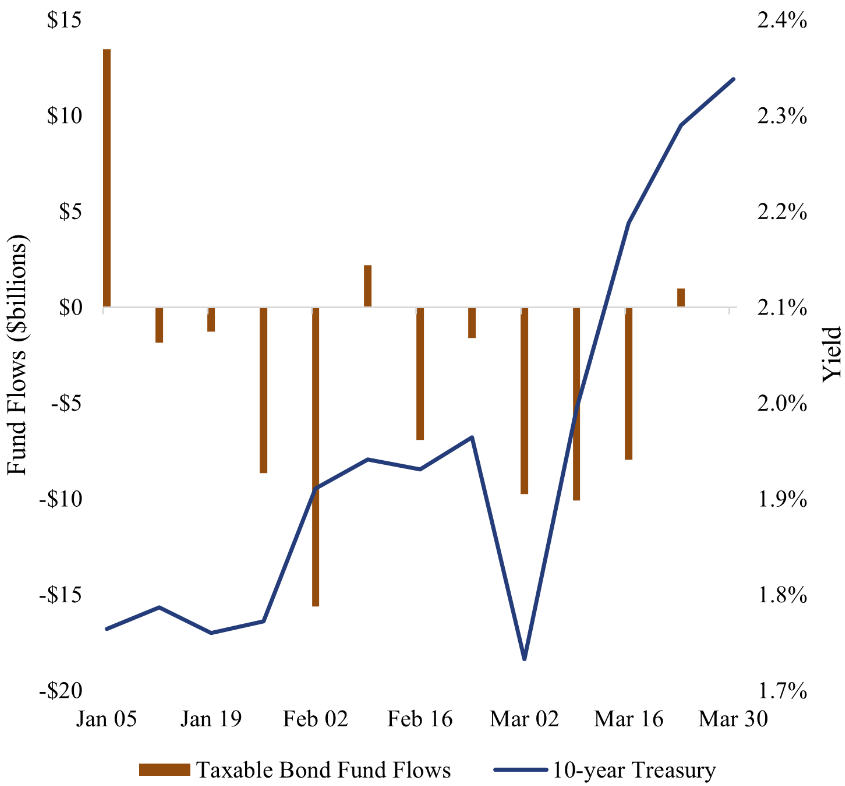
- This rate hike cycle is unprecedented given the Fed's plan to reduce the size of its enormous balance sheet while raising rates.
- We anticipate the central bank will allow its asset holdings to begin shrinking (by not reinvesting proceeds from maturities and prepayments) this summer.
- Since 2008, the Fed has been a major buyer of both Treasuries and mortgage-backed securities. There absence as a reliable buyer could cause rates on longer maturities to move upward.

- During March the Treasury curve flattened tremendously, thereby causing some investors to wave a cautionary flag about prospects for a recession.
- Though previous recessions have always been preceded by the 10-year Treasury yield falling below the 2-year yield, there have been episodes when such an inversion did not lead to a recession.
- We do not think a recession is imminent and would become more concerned if the 10-year yield fell below the 3-month yield. At quarter-end, the 10-year versus 3-month yield difference was positive 1.86%.

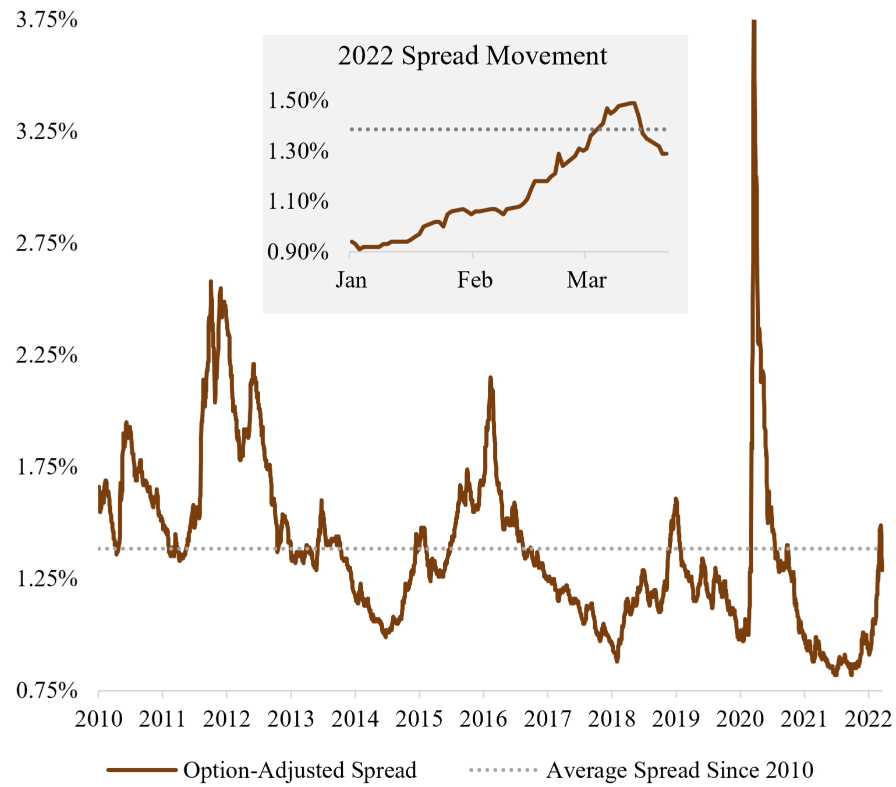
Source: Bloomberg, Federal Reserve

CREDIT SPREADS HAVE WIDENED AS INVESTORS REDUCED EXPOSURE TO BONDS

During 2022 Investors Have Made Net Withdrawals from Taxable Fixed Income Mutual Funds and ETFs



Risk Premiums Are Near Long-Term Averages



- Corporate bond spreads increased during the first quarter as investors reduced fixed income exposure in response to rising rates and concerns about future economic conditions.
- Thus far in 2022, investors have withdrawn about $47 billion from taxable fixed income mutual funds and ETFs.
- Notwithstanding the painful bond price erosion that occurred during the quarter, we believe corporate valuations have become much more attractive.

- As shown above, risk premiums steadily increased through early March before retreating by nearly 30 basis points.
- Spread volatility is often prevalent during times of uncertainty and investors are presently grappling with how to interpret potential fallout from the Russian/ Ukraine war as well as domestic issues including inflation, rising rates, and political stalemate specific to the Administration's economic agenda.
- The recent instability may offer investors an opportunity to purchase corporate bonds at appealing levels, especially as it pertains to less volatile sectors.

Source: Madison, Bloomberg

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The Bloomberg U.S. Municipal 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 prefunded bonds.

The Bloomberg Emerging Markets Local Currency Government Index measures the performance of local currency Emerging Markets (EM) debt.

Bloomberg U.S. Government/Credit Bond Index includes securities in the Government and Corporate Indices. Specifically, the Government Index includes treasuries (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year) and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government).

The Bloomberg U.S. Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, mortgage backed securities, asset-backed securities and corporate securities, with maturities greater than one year.

The Bloomberg Global Aggregate Bond Index is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

The Bloomberg Intermediate Govt/Credit Bond Unmanaged index that tracks the performance of intermediate term US government and corporate bonds.

The Bloomberg US Treasury Inflation-Linked Bond Index measures the performance of the US Treasury Inflation Protected Securities (TIPS) market.

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The Russell 3000 Index measures the performance of the largest 3,000 U.S. companies representing approximately 98% of the investable U.S. equity market. The Russell 3000 Index is constructed to provide a comprehensive, unbiased and stable barometer of the broad market and is completely reconstituted annually to ensure new and growing equities are reflected.

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The Russell 2000® Value Index is designed to track those securities within the broader Russell 2000 Index that FTSE Russell has determined exhibit value characteristics.

The Russell 2000®Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 11% of the total market capitalization of the Russell 3000® Index.

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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.

October 12, 2021