

- 2022 kicked off with investors expecting disruptions from economic uncertainty, corporate earnings, rising bond yields, elevated inflation, and global central bank policy.
- As we enter the 2nd half, volatility likely will continue as the Fed pursues its most aggressive tightening cycle in nearly 30 years, while ramifications from the Ukraine-Russia war create additional headwinds.
- Rising rates took a toll as valuations compressed and investor sentiment waned. Small caps lagged large caps, while growth notably trailed value. Defensive sectors and areas tied to commodities outperformed.
- Despite significant uncertainty, the rapid sell-off may create selective opportunities, particularly stocks with a value tilt, healthy balance sheets, and visible upside catalysts. We expect companies that can withstand, or benefit from, sustained inflation and a slowing economy to outperform.
- Developed international and emerging market equities declined on geopolitical and pandemic-related fears. Relative valuations appear more compelling in non-US markets compared to domestic.

- After a difficult 1Q, bond markets struggled in 2Q. Though volatility was expected, the depth and speed of the decline was shocking. Surging inflation remained in focus, prompting the Fed to hike rates three times (so far) in 2022 25 bps, 50 bps, and 75 bps, with more hikes expected in the 2nd half.
- Mixed economic data has created a wide range of expectations as to where we are in the cycle. US leading indicators (e.g., PMIs) are signaling further economic contraction, while aggressive Fed tightening in a slowing growth backdrop may lead to a recession.
- For bonds, tighter monetary conditions could act as a tailwind relative to stocks. If inflation does begin to roll over, upward pressure on bond yields may ease.
- Weakening economic data points to bonds outperforming stocks in the nearterm, specifically, attractively valued areas across credit, while US Treasuries' nominal yields have adjusted higher.
- We expect stock vs. bond correlations to normalize as investors reduce risk exposure, supporting the defensive characteristics bonds have historically played in a well-diversified portfolio.



US Equity Market Snapshot	6/30/22
Sector	3 Month
Sector	Return
Consumer Defensive	-4.2%
Utilities	-5.1%
Energy	-5.5%
Health Care	-6.0%
Real Estate	-14.8%
Industrials	-14.8%
Materials	-15.9%
Financials	-17.5%
Technology	-19.8%
Comm. Services	-20.9%
Consumer Cyclical	-25.5%

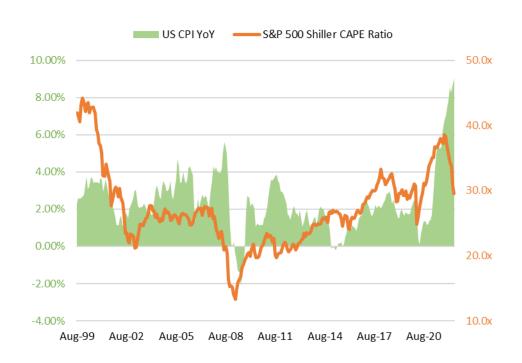
CRSP Equity	6/30/22			
3 Month	Value	Blend	Growth	
Large	-11.6%	-18.1%	-23.7%	
-14.2%		-18.0%	-22.2%	
Small	-15.6%	-18.0%	-21.5%	

Market Indicators							
Name	As of	Last Month**	1 Month Ago	1 Mo. % Change	1 Year Ago	1 Year % Change	Freq.
Key Interest Rates							
1 Month Treasury	6/30/22	1.28%	0.69%	85.5%	0.05%	2 460.0%	Daily
2 Year Treasury	6/30/22	2.92%	2.47%	1 8.2%	0.25%	1 068.0%	Daily
10 Year Treasury	6/30/22	2.98%	2.74%	8.8%	1.45%	1 05.5%	Daily
30 Year Mortgage	6/30/22	5.70%	5.10%	11.8%	3.02%	8 8.7%	Weekly
US Corporate AAA	6/30/22	3.80%	3.46%	9.8%	1.88%	1 02.1%	Daily
US Corporate BBB	6/30/22	5.09%	4.51%	1 2.9%	2.28%	123.2%	Daily
US Corporate CCC	6/30/22	14.95%	12.46%	2 0.0%	6.64%	125.2%	Daily
Effective Federal Funds	6/30/22	1.58%	0.83%	9 0.4%	0.08%	1 875.0%	Daily
U.S. Economy							
Consumer Sentiment	6/30/22	50.00	65.20	-23.3%	85.50	-41.5 %	Monthly
Unemployment Rate	6/30/22	3.60%	3.60%	0.0%	5.90%	▼ -39.0%	Monthly
Inflation Rate	6/30/22	9.06%	8.26%	9 .7%	5.39%	68.0%	Monthly
Manufacturing PMI	6/30/22	53.00	55.40	- 4.3%	60.60	▼ -12.5%	Monthly
Non Manufacturing PMI	6/30/22	55.30	57.10	▼ -3.2%	60.10	▼ -8.0%	Monthly
Retail Sales	11/30/21	587,893	552,617	6.4%	486,833	2 0.8%	Monthly
Building Permits	11/30/21	1,695	1,615	5.0%	1,682	0.8%	Monthly

Q2'22 TOI: Searching for a bottom



- Recent economic data suggests a high probability of slowing global growth, with a potential recession in the 2nd half of 2022.
- Inflation pressures may begin to ease as demand falters, which could spark short-lived "relief rallies" in equities as investors embrace a pause in policy tightening.
- Consumer and business confidence has collapsed. Leading indicators (e.g., PMI, ISM data) coupled with bearish sentiment suggests a trend of slowing growth.
- The market is weighing a confluence of headwinds, specifically: increasing recession odds, sticky inflation, soaring energy prices, rising rates, and geopolitical uncertainty.

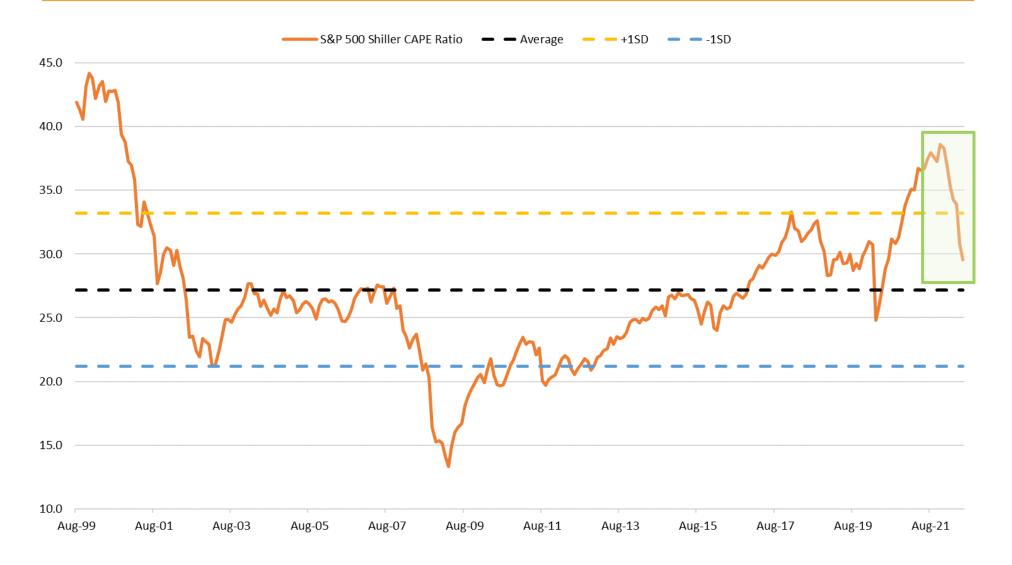




Equity market valuations trend lower



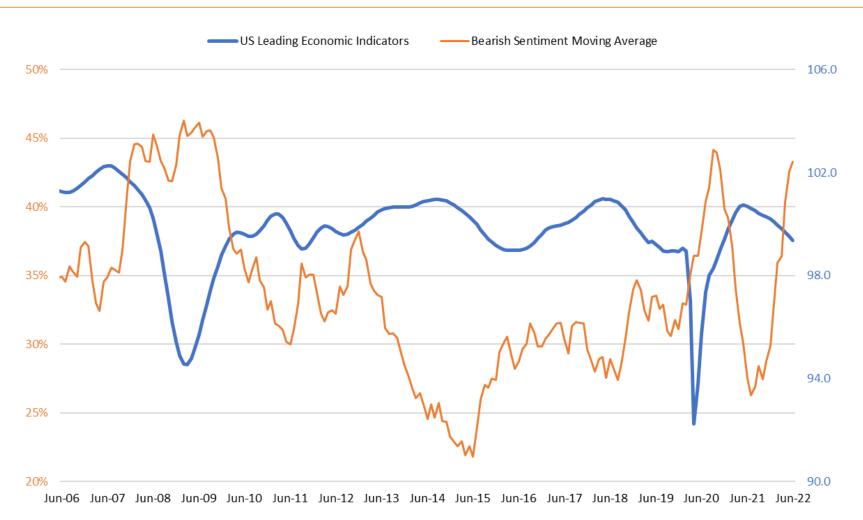
- Stocks have fallen primarily due to rich valuations and inflation weighing real earnings.
- A significant drop in economic growth creates further headwinds for stocks.
- The Schiller CAPE Ratio is an alternative measure to P/E ratios, as CAPE smooths earnings over 10 years to reduce
 "false-positive" signals and is adjusted for inflation.



Bearish sentiment accelerates as economic data slows



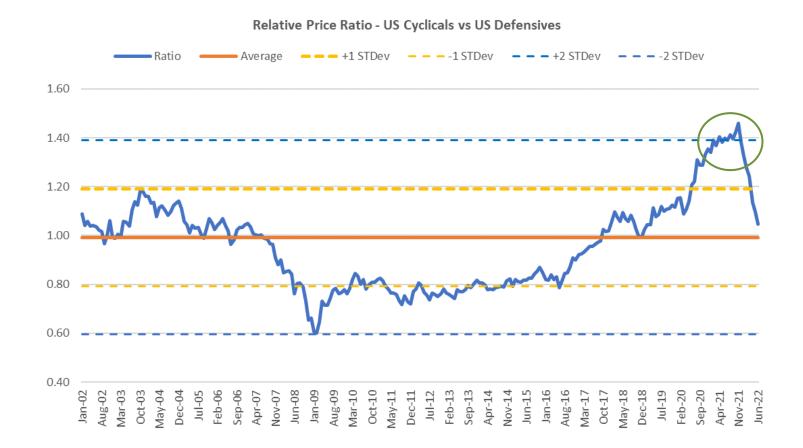
- Macro and Equity Market sentiment both are trending lower into bearish territory, while risk sentiment is pushing higher.
- Equity fund flows and investor equity positioning are increasingly bearish, signaling potential downside in stocks, while net inflows to bond funds have begun to normalize.
- Markets historically have "bottomed" when confidence plummets, providing potential opportunities.



Defensive stocks in favor over cyclicals



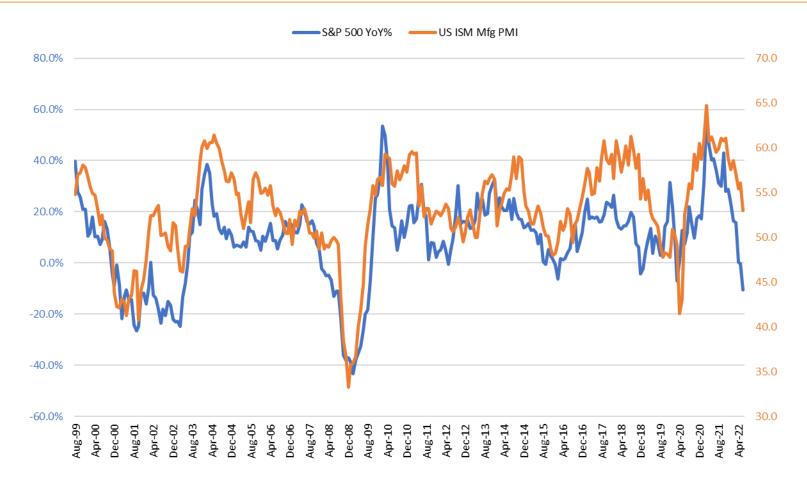
- Growth stocks experienced rapid contraction in price-to-earnings (P/E) multiples in the quarter, as fear of higher interest rates slowed investor appetite for companies and sectors in the more speculative areas of the market, as well as small-and-mid-capitalization indices.
- Defensive sectors (e.g., consumer staples, energy, healthcare) held up relative to cyclical sectors (e.g., consumer discretionary, financials, technology, materials) in 2022, specifically companies with stable operating fundamentals and future earnings that are typically more resilient in a recession.
- Weakness in cyclical growth sectors was attributable to negative guidance from several bellwether companies, as well as from fears associated with rising interest rates and the impact on future growth prospects.



Decelerating economic activity could weigh on earnings



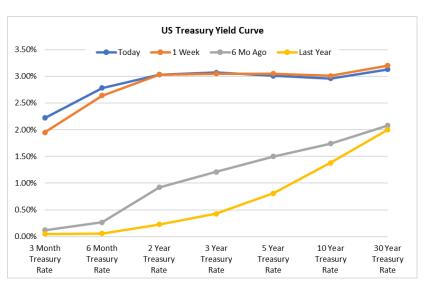
- The chance of recession is rising as multiple leading indicators point toward growth deterioration and economic slowdown.
- As seen below, the ISM Manufacturing Index (also known as the Purchasing Managers' Index "PMI") has started to trend downward. Note, the ISM Index is a monthly indicator of U.S. economic activity based on a survey of +300 manufacturing companies that is often cited as a key leading indicator to gauge the health of the U.S. economy.
- With decelerating economic activity, we expect a "risk-off" environment in the near-term with selling pressure
 across equity markets as investors "de-risk" portfolios in favor of areas with stable yields or segments where the
 market has overreacted.

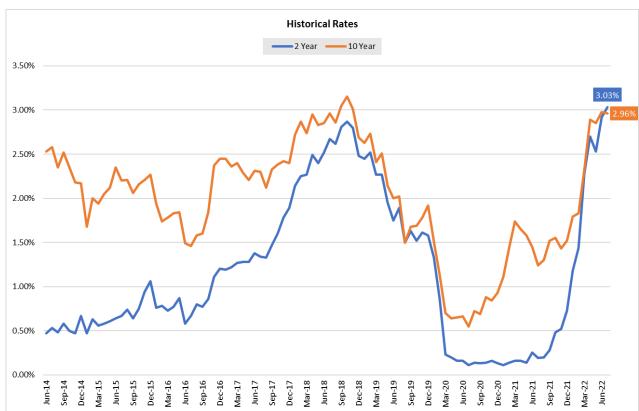


US Treasury Yield Curve



					2 Years
	Today	1 Week	6 Mo Ago	Last Year	Ago
3 Month Treasury Rate	2.22%	1.95%	0.12%	0.05%	0.13%
6 Month Treasury Rate	2.78%	2.64%	0.27%	0.06%	0.15%
2 Year Treasury Rate	3.03%	3.03%	0.92%	0.23%	0.16%
3 Year Treasury Rate	3.07%	3.05%	1.21%	0.43%	0.19%
5 Year Treasury Rate	3.01%	3.05%	1.50%	0.81%	0.30%
7 Year Treasury Rate	3.01%	3.07%	1.67%	1.13%	0.49%
10 Year Treasury Rate	2.96%	3.01%	1.74%	1.38%	0.65%
20 Year Treasury Rate	3.37%	3.45%	2.13%	1.93%	1.12%
30 Year Treasury Rate	3.13%	3.20%	2.08%	2.00%	1.33%



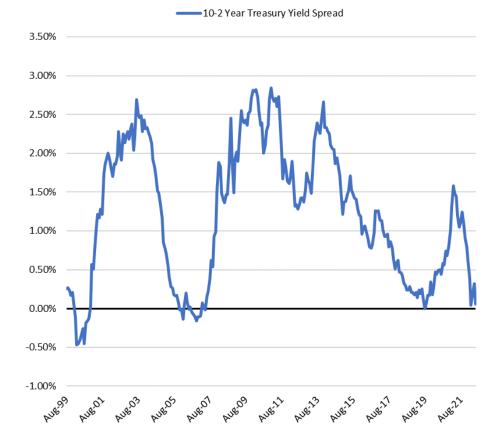


Monetary policy and the Fed



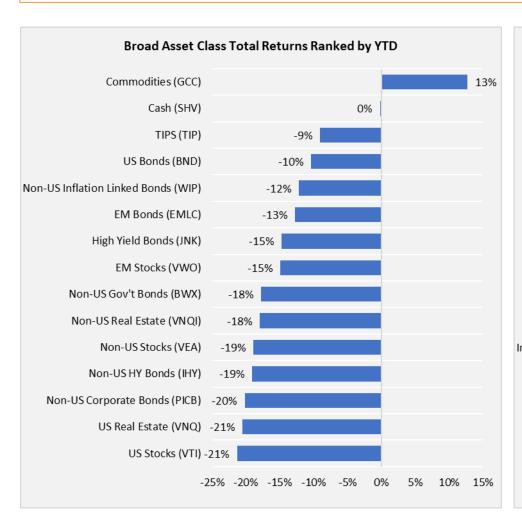
- Despite aggressive Fed moves, many investors believe the Fed remains behind the curve on inflation.
- A few things to consider regarding Fed policy: (1) Supply issues dissolve if demand subsides, and (2) A surge in inflation can trigger higher inflation expectations, which becomes a self-reinforcing feedback loop.
- The Fed wants to avoid the risk of tightening too fast. Many investors are of the belief that if the Fed truly wants to get inflation under control, they will ultimately trigger a recession.
- Markets are pricing in this concern as reflected in flattening yield curves, with the 10-2 Year Treasury Yield Spread hovering around inversion.

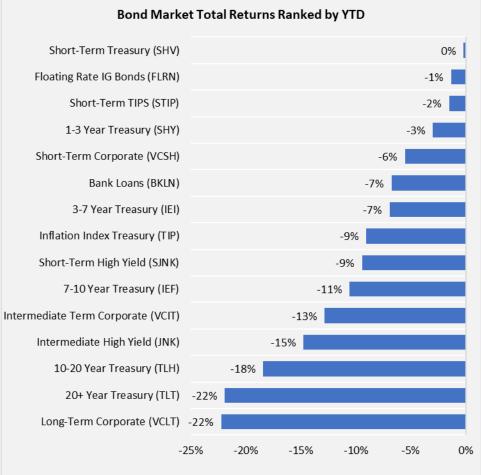




Asset class returns in 2022

- <u>Global Asset Classes</u> Commodities have been the clear bright spot in the first half of 2022, while higher beta segments posted double-digit declines. Stocks have fallen on excessive valuations and inflation impacting real earnings. The global pivot to stimulus removal and tightening poses risks to most asset classes, as evident in the performance charts below.
- <u>Bond Market</u> Though bonds typically are defensive in nature, the difficult backdrop in 2022 created broad-based selling pressure, with shorter-duration and floating rate credit holding up relatively well compared to their long-duration and fixed rate counterparts. High yield bonds notably declined as recession fears increased the perceived risk of defaults.

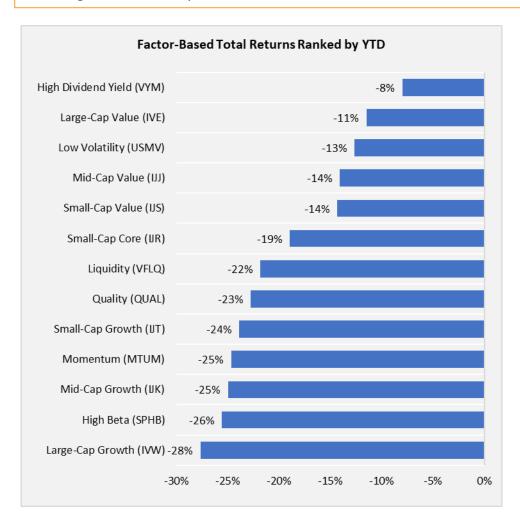


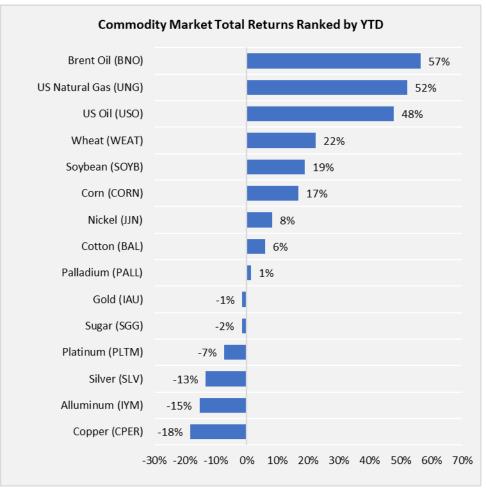


Factor and Commodity returns in 2022



- <u>Factors</u> Mounting uncertainty, rising rates, and rich valuations have resulted in growth and high beta segments to underperform more defensive and value-oriented asset classes.
- <u>Commodity Market</u> Commodities posted positive nominal returns, specifically within energy and agriculture where supply/demand imbalances supported price action. On the other end, metals declined, specifically Copper, which is often considered a "macro bell-weather" with greater sensitivity to broader economic conditions.





Periodic Table of Asset Class Performance



Asset Class Trailing Total Returns (as of June 30, 2022)								
YTD	1 Month	3 Month	6 Month	1 Year	3 Year	5 Year	10 Year	
Commodities 35.8%	US Treasuries -0.9%	Commodities 2.0%	Commodities 35.8%	Commodities 45.0%	Commodities 14.7%	US Growth 14.3%	US Growth 14.8%	
Muni Bonds -9.0%	Aggregate Bonds -1.6%	Muni Bonds -2.9%	Muni Bonds -9.0%	US Value -6.8%	US Growth 12.6%	Commodities 11.7%	S&P 500 13.0%	
US Treasuries -9.1%	Muni Bonds -1.6%	US Treasuries -3.8%	US Treasuries -9.1%	US Real Estate -7.6%	S&P 500 10.6%	S&P 500 11.3%	US Value 10.5%	
Aggregate Bonds -10.3%	60/40 Sample Portfolio -5.3%	Aggregate Bonds -4.7%	Aggregate Bonds -10.3%	Muni Bonds -8.6%	US Value 6.9%	US Value 7.2%	US Small 9.4%	
US Value -12.9%	Emerging Markets -6.6%	60/40 Sample Portfolio -10.5%	US Value -12.9%	US Treasuries -8.9%	US Real Estate 4.4%	US Real Estate 6.2%	US Real Estate 7.7%	
60/40 Sample Portfolio -15.5%	US Real Estate -6.9%	Emerging Markets -11.3%	60/40 Sample Portfolio -15.5%	Aggregate Bonds -10.3%	US Small 4.2%	US Small 5.2%	60/40 Sample Portfolio 6.3%	
Emerging Markets -17.5%	Commodities -7.6%	US Value -12.2%	Emerging Markets -17.5%	S&P 500 -10.6%	60/40 Sample Portfolio 3.8%	60/40 Sample Portfolio 4.9%	World exUSA 5.9%	
World exUSA -18.4%	US Growth -7.9%	World exUSA -14.4%	World exUSA -18.4%	60/40 Sample Portfolio -13.2%	World exUSA 2.2%	World exUSA 3.2%	Emerging Markets 3.4%	
S&P 500 -20.0%	US Small -8.2%	US Real Estate -14.5%	S&P 500 -20.0%	World exUSA -16.3%	Emerging Markets 0.9%	Emerging Markets 2.5%	Muni Bonds 2.4%	
US Real Estate -20.0%	S&P 500 -8.3%	S&P 500 -16.1%	US Real Estate -20.0%	US Growth -18.8%	Muni Bonds -0.2%	Muni Bonds 1.5%	Aggregate Bonds 1.5%	
US Small -23.4%	US Value -8.7%	US Small -17.2%	US Small -23.4%	Emerging Markets -25.0%	US Treasuries -0.9%	Aggregate Bonds 0.9%	US Treasuries 1.0%	
US Growth -28.1%	World exUSA -9.4%	US Growth -20.9%	US Growth -28.1%	US Small -25.2%	Aggregate Bonds -0.9%	US Treasuries 0.7%	Commodities -1.8%	

- We anticipate high uncertainty and volatility for at least the next 9 – 12 months.
- In this environment, uncorrelated and shortterm trading strategies remain useful, as does raising cash, which provides:
 - a buffer against elevated market volatility, and
 - additional "dry powder" to put capital to work as opportunities arise.
- The second half is likely to be difficult, but difficult periods are those in which the foundations of potential long-term returns are built.