

SIFMA Insights

July Market Metrics and Trends

A Look at Monthly Volatility and Equity and Listed Options Volumes

August 2022

Monthly Metrics

- Volatility (VIX): Monthly average 24.87; -11.5% M/M, +41.3% Y/Y
- S&P 500 (Price): Monthly average 3,911.73; +0.3 M/M, -10.4% Y/Y. Performance (month/year): best = consumer discretionary +18.9%/energy 41.6%; worst = consumer staples +3.1%/communications -28.0%
- Equity ADV (billion shares): Monthly average 10.7; -15.8% M/M, +10.3% Y/Y
- Options ADV (million contracts): Monthly average 36.4; -3.9% M/M, -2.9% Y/Y

Monthly Highlight

- Market Performance Factor: Inflation June CPI +9.0%, PCE +6.8%; CPI, food, energy, gas, shelter, & rent at peak levels vs. core CPI, commodities, lumber, & used cars/trucks down from the peak; 2Q22 wages +5.0% Y/Y; avg. monthly rents \$2,016 in June, +27.0% to 2020, +6.6% YTD
- Market Performance Factor: Oil Price Brent Crude oil peaked on Mar 8 at \$127.98, +147.1% to 2021; closing the month at \$110.01, Brent is -14.0% to the peak but +112.4% to 2021
- Market Performance Factor: Earnings 60.5% of S&P 500 companies reported positive top line surprises & 73.7% reported bottom line surprises

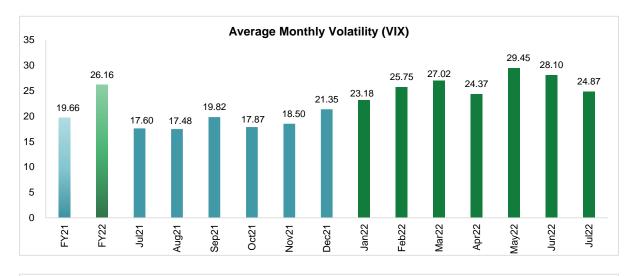


Monthly Market Metrics

In this section, we highlight the monthly market trends for volatility, price, and volumes.

Volatility (VIX)

- Monthly average 24.87
 - -11.5% M/M
 - o +41.3% Y/Y
 - +49.8% from the start of the year
- Monthly peak on the 5th at 27.54, troughed on the 29th at 21.33

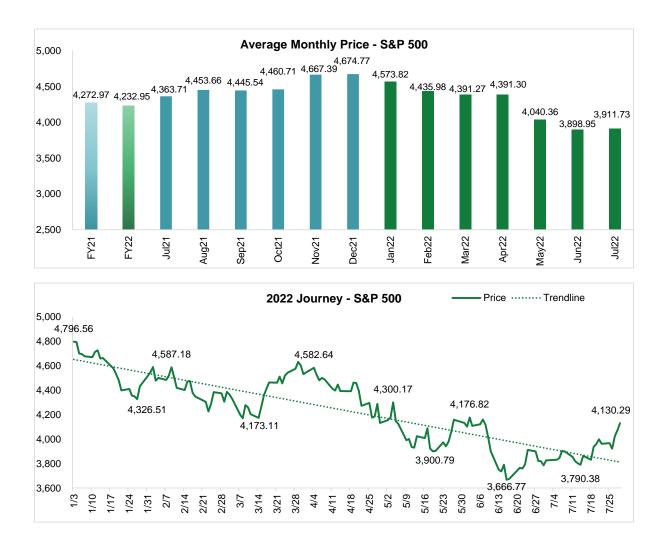




Source: Bloomberg, SIFMA estimates

S&P 500 Index: Price

- Monthly average 3,911.73
 - **+0.3 M/M**
 - o -10.4% Y/Y
 - o -18.4% from the start of the year
- Monthly peak on the 29th at 4,130.29, troughed on the 14th at 3,790.38

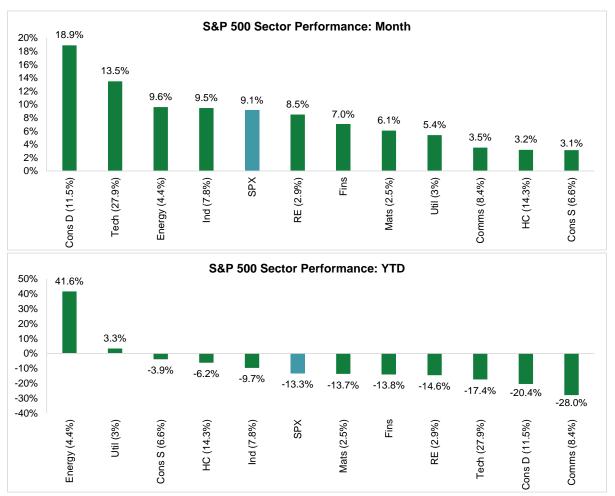


Source: Bloomberg, SIFMA estimates

S&P 500 Index: Sector Breakout

Looking at market performance by sector, we highlight the following:

- Best performing sectors
 - Month = consumer discretionary at +18.9% and technology at +13.5%
 - YTD = energy at 41.6% and utilities at +3.3% (the only other positive sector for the year)
- Worst performing sectors
 - Month = consumer staples at +3.1% and healthcare at +3.2%
 - YTD = communications at -28.0% and consumer discretionary at -20.4%

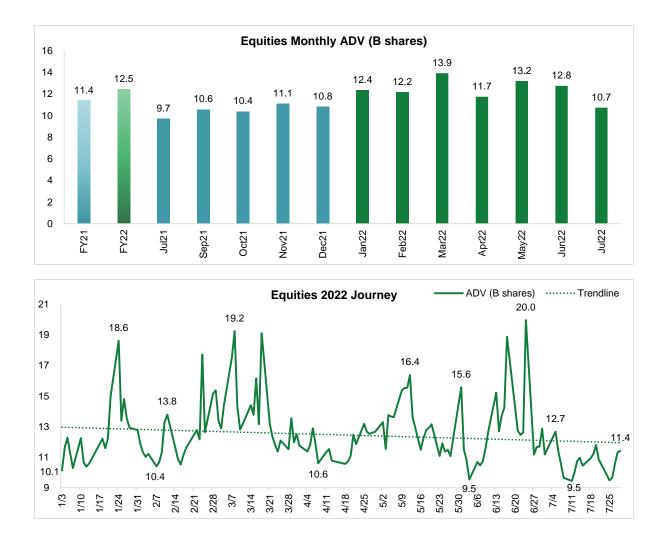


Source: Bloomberg, SIFMA estimates

Note: Parenthesis indicate sector weight in the index. Cons S = consumer staples, HC = healthcare, Mats = materials, RE = real estate, Ind = industrials, Fins = financials, Tech = technology, Cons D = consumer discretionary, Comms = telecommunications, Util = utilities

Equity Volumes (ADV)

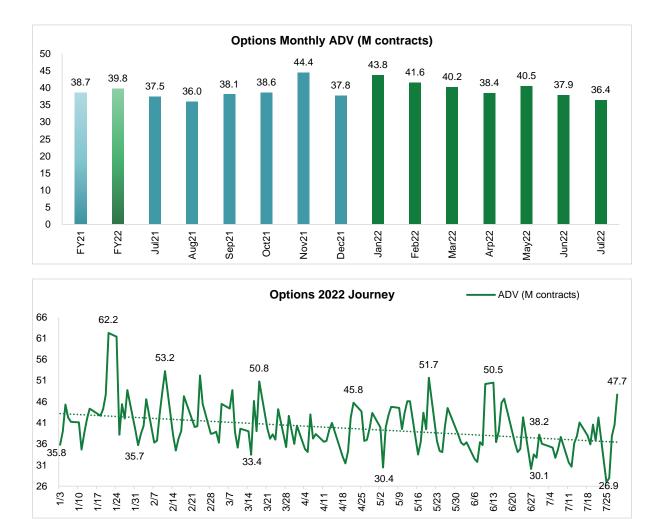
- Monthly average 10.7 billion shares
 - o -15.8% M/M
 - +10.3% Y/Y
 - +6.1% from the start of the year
- Monthly peak on the 5th at 12.7 billion shares, troughed on the 11th at 9.5 billion shares
- Monthly average off exchange trading 44.0%; +2.7 pps M/M, +0.9 pps Y/Y



Source: Cboe Global Markets, SIFMA estimates

Multi-Listed Options Volumes (ADV)

- Monthly average 36.4 million contracts
 - o -3.9% M/M
 - o -2.9% Y/Y
 - +1.7% from the start of the year
- Monthly peak on the 29th at 47.7 million contracts, troughed on the 25th at 26.9 million contracts
- Monthly equity options 33.8 million contracts (-3.6% M/M, -4.5% Y/Y), index options 2.6 million contracts (-7.6% M/M, +23.5% Y/Y)



Source: Cboe Global Markets, SIFMA estimates

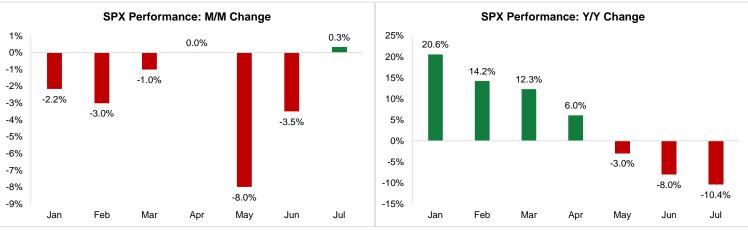
Monthly Highlight

In this section we drill down into an interesting trend that market participants are following.

S&P 500 Performance – Bear Bounce or For Real?

The S&P 500 index (SPX) posted its first positive month for the year in July, +0.3% M/M. This came after five months posted negative M/M changes and one flat month. Counterintuitively, this came after the U.S. hit the technical description historically used to define a recession, two quarters of negative GDP growth (1Q22 -1.6%, 2Q22 -0.9%). While economists debate whether or not we are actually in a recession, we looked at market performance and whether this is a bear bounce or the start of an ongoing up trend.

We begin by noting that the market exuberance post Fed Chair Powell's recent speech came into play at the end of the month. The second negative GDP growth report was taken to imply that the Fed would have to slow down rate increases, whether in size (50 bps, 75 bps), quantity, or both. As a reminder, increasing rates drives down stock valuations, with high growth stocks and sectors more heavily impacted than others. Therefore, tech stocks and heavily-weighted consumer discretionary stocks rallied on the GDP data release (Amazon/AMZN and Tesla/TSLA are both in the top 10 stocks for the S&P 500). These sectors together represent 39.4% of the total market, meaning upward movement here typically drives markets up on the whole.

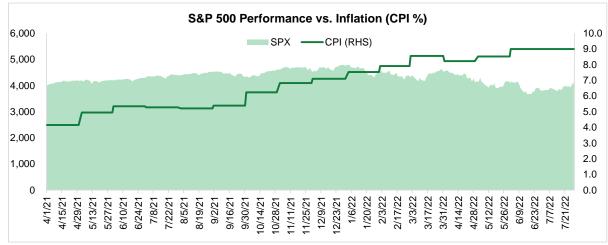


We explore other factors driving market performance on the following pages.

Source: Bloomberg, SIFMA estimates

Market Performance Factor: Inflation

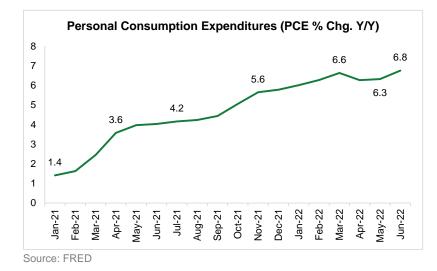
A large part of the Fed's decision on interest rate increases involves monitoring inflation, currently at historical highs after reaching 9.0% in June (CPI, Y/Y change).



Source: Bloomberg, FRED

Note: July inflation data is carried over from June, data to be released Aug 10

What is the Fed looking at when assessing inflation? First, we note that the inflation measure the Fed uses to set monetary policy is the Personal Consumption Expenditure index. This came in at 6.8% in June, +0.5 pps M/M and +4.8 pps from the 2% target. There is a lot of work to be done to get back down to this 2% target.



Inflation data is pulled from a basket of goods, and the different basket categories have followed different paths. Looking more closely across segments of inflation, we separate out several main – food, energy, commodities – and select categories that market participants have followed over the past few years – lumber (a popular metric to watch as demand for new homes spiked), gas, used cars/trucks(a popular metric to watch as people worked from home and moved to the suburbs), shelter, and rent. We note the following:

- At peak levels headline CPI, food, energy, gas, shelter, and rent
 - o Consumers continue to face pain at the pump, at the dinner table, and in their homes
- Down from the peak core CPI (excludes food and energy), commodities, commodities excluding food and energy, lumber, and used cars/trucks
 - The stay-at-home plays have settled back down from peaks, but remain elevated to historical levels

Jun22	Peak	Change
9.0	9.0	at peak
5.9	6.4	(0.5)
10.4	10.4	at peak
41.5	41.5	at peak
13.4	14.2	(0.8)
7.1	12.4	(5.3)
(27.4)	119.0	(146.4)
59.9	59.9	at peak
7.1	45.3	(38.2)
5.6	5.6	at peak
5.7	5.7	at peak
	9.0 5.9 10.4 41.5 13.4 7.1 (27.4) 59.9 7.1 5.6	$\begin{array}{cccc} 9.0 & 9.0 \\ 5.9 & 6.4 \\ 10.4 & 10.4 \\ 41.5 & 41.5 \\ 13.4 & 14.2 \\ 7.1 & 12.4 \\ (27.4) & 119.0 \\ 59.9 & 59.9 \\ 7.1 & 45.3 \\ 5.6 & 5.6 \end{array}$

Source: FRED, SIFMA estimates

When looking across inflation categories, we can look at the data in three main sectors:

- Supply chain
- Commodity prices
- Wages

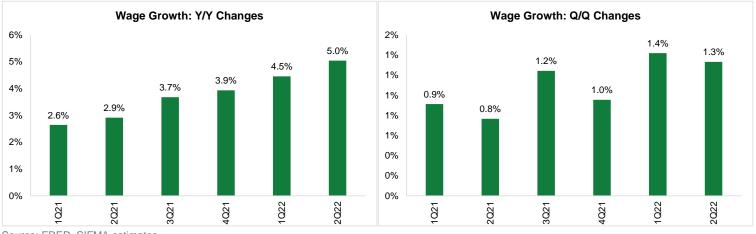
For the positives, supply chain conditions have continued to improve. The ports of Los Angeles/Long Beach now report ships in queue plus at the dock at 39, with 26 of those in queue. This number is down from over 100 seen in late 2021. However, China remains a wild card, with COVID-related shutdowns unpredictable.

Additionally, commodity prices have come down (yet remain elevated to historical levels), -0.8 pps from the peak or -5.3 pps when excluding food and energy. This decline includes prices consumers pay for gasoline at the pump. The current average price for regular gas across the U.S. is now \$4.21, -3.3% W/W and -13.0% M/M. While people were happy to pay less last week to fill up their car – and prices are down 16.0% from the peak of \$5.02 on June 14 – prices are still up 32.7% Y/Y. This cuts into workers' earnings.

	Regular	Mid-Grade	Premium
Current Avg.	\$4.21	\$4.65	\$4.95
Week Ago Avg.	\$4.36	\$4.81	\$5.10
% change	-3.3%	-3.2%	-3.0%
Month Ago Avg.	\$4.84	\$5.26	\$5.56
% change	-13.0%	-11.6%	-10.9%
Year Ago Avg.	\$3.17	\$3.52	\$3.80
% change	32.7%	32.1%	30.5%

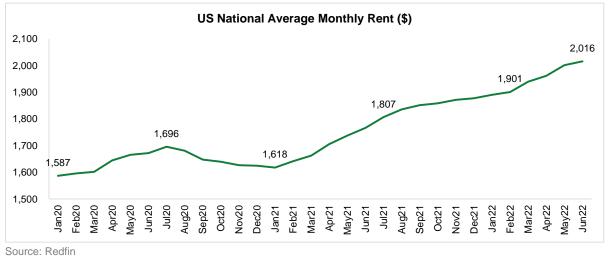
Source: AAA, SIFMA estimates (as of Aug 1)

On the negative side of inflation data, wages and rents continue to increase. While wage growth is a positive for consumers who earn more – which helps them cover rising costs of goods and services – it is a negative for employers who must pay more. These costs typically get pushed through to consumers via price increases. In 2Q22, average wages for all workers in the U.S. increased 5.0% Y/Y. And the upward trend has held steady, as this metric increased 1.3% Q/Q.



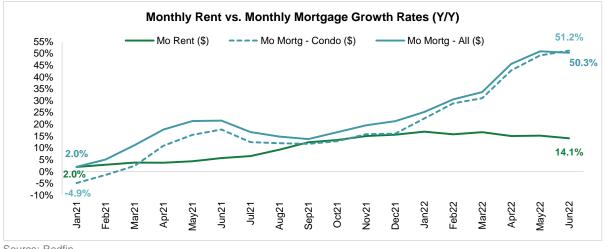
Source: FRED, SIFMA estimates

Rents also continue to climb. As per the Bureau of Labor Statistics data, the average monthly rent increase on a Y/Y change basis was +2.6% for 2020 and 2021. This year, the average is +5.1%, starting the year at +4.4% and peaking in June at +5.7%. June represents the peak as of now, until we see if the upward trend continued in July (data to be released Aug 10). Looking at this rise in dollars, as per Redfin data, the average monthly rent for the U.S. was \$2,016 in June, +27.0% since January 2020 and +6.6% since the start of this year. Looking at the graph, the slope of the line has increased sharply this year, implying the increases could continue.



Note: Monthly national averages

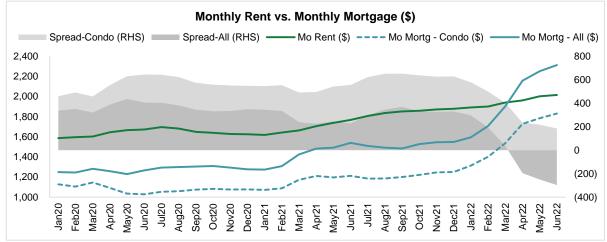
Monthly mortgage payments have been increasing as well and at a faster pace than rents. The average monthly mortgage for all residential in the U.S. was \$2,313 in June, +85.2% since January 2020 and +45.0% since the start of this year. Looking just at condos/co-ops, the cost was \$1,831 (+62.5% and +39.5%).



Source: Redfin

Note: Monthly national averages. Mortgage calculation uses 5% down payment. Condo = condo and co-op, all = all residential

As such, spreads between costs to rent versus own have narrowed. This spread, calculated as rent minus mortgage payment, shows how much more a consumer pays to rent versus own (note: this excludes all other payments for home owners, such as property taxes, maintenance, and home owners association fees). The average rent to mortgage spread for all residential mortgages dropped from \$301 in 2021 to -\$36 YTD. It now costs more to own than rent, if looking at all home types. For condos/co-ops, the rent to own spread moved from \$584 to \$353. The cost differential is narrowing for this type of home. This could keep people in rental homes, thereby keeping vacancy rates low and rents rising. However, increasing housing supply could cause a decrease in home prices and shift this picture. Something to watch here.



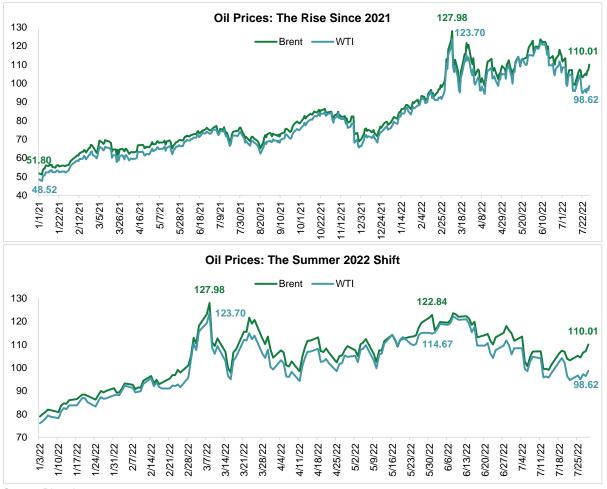
Source: Redfin

Note: Monthly national averages. Mortgage calculation uses 5% down payment. Condo = condo and co-op, all = all residential. Spread = monthly rent minus monthly mortgage

Market Performance Factor: Oil Prices

Next, we drill down into oil prices. The price of oil impacts many pieces of the economy. It is an important factor for companies in calculating input costs. It is an important factor for consumers as it translates into prices at the pump. It is also important from a psychological standpoint. After all, rapidly rising oil prices have been a contributing factor to every recession since World War II.

Oil prices increased steadily throughout 2021, with the increase taking a sharper slope in 2022. Brent Crude oil peaked on March 8, 2022 at \$127.98, +147.1% since the start of 2021. However, closing the month at \$110.01, Brent is down 14.0% from the peak. This in part contributed to July market performance, albeit this price level remains +112.4% to 2021 levels. Some market participants argue that oil is off of its high because many people believe there either already is or will be a recession (oil prices typically decline in a recession as consumer demand slows). However, the Russia/Ukraine war remains a wild card here.



Source: Bloomberg

Market Performance Factor: Company Earnings

What is the old saying for analysts? Always go back to fundamentals. As such, our final look is at company earnings. 2Q22 was expected to be the worst quarter for earnings. However, with 56.6% of companies reporting by the close of July, 60.5% of companies in the S&P 500 reported positive top line surprises (actual sales or revenues figures versus estimates) and 73.7% reported bottom line surprises (earnings).

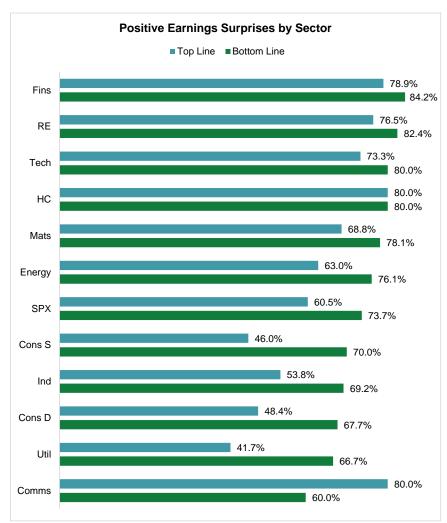
We highlight the following (please see chart on next page):

- Best performers
 - Top line healthcare and communications at 80.0%
 - Bottom line financials at 84.2%
- Worst performers
 - Top line utilities at 41.7%
 - Bottom line communications at 60.0%

		Index		Top Line (Sales/Revenue)		Bottom Line (Earnings)			
Sector	For Chart	Weight	% Reported	Positive	Inline	Negative	Positive	Inline	Negative
Financials	Fins	10.6%	54.3%	78.9%	0.0%	21.1%	84.2%	5.3%	10.5%
Real Estate	RE	2.9%	54.8%	76.5%	17.6%	5.9%	82.4%	11.8%	5.9%
Technology	Tech	27.9%	53.6%	73.3%	6.7%	20.0%	80.0%	0.0%	20.0%
Healthcare	HC	14.3%	43.5%	80.0%	0.0%	20.0%	80.0%	10.0%	10.0%
Materials	Mats	2.5%	50.0%	68.8%	6.3%	25.0%	78.1%	3.1%	18.8%
Energy	Energy	4.4%	66.7%	63.0%	10.9%	26.1%	76.1%	8.7%	15.2%
SPX	SPX		56.6%	60.5%	12.8%	26.7%	73.7%	5.0%	21.4%
Consumer Staples	Cons S	6.6%	83.6%	46.0%	14.0%	40.0%	70.0%	0.0%	30.0%
Industrials	Ind	7.8%	50.0%	53.8%	20.5%	25.6%	69.2%	5.1%	25.6%
Consumer Discretionary	Cons D	11.5%	56.4%	48.4%	19.4%	32.3%	67.7%	0.0%	32.3%
Utilities	Util	3.0%	48.0%	41.7%	25.0%	33.3%	66.7%	0.0%	33.3%
Communications	Comms	8.4%	34.5%	80.0%	10.0%	10.0%	60.0%	30.0%	10.0%

Source: Bloomberg, SIFMA estimates

Note: As of 7/29/22; 2Q earnings season from May 15-Aug 15



Source: Bloomberg, SIFMA estimates (as of 7/29/22)

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