SIFMA Insights

November Market Metrics and Trends

A Look at Monthly Volatility and Equity and Listed Options Volumes

December 2022

Monthly Metrics

- Volatility (VIX): Monthly average 23.44; -21.9% M/M, +26.7% Y/Y
- S&P 500 (Price): Monthly average 3,917.49; +5.1% M/M, -16.1%Y/Y
- Performance (month/year): best = energy +24.8%/energy +63.2%; worst = comms -0.1%/comms -39.5%
- Equity ADV (billion shares): Monthly average 11.2; -2.2% M/M, +1.3% Y/Y
- Options ADV (million contracts): Monthly average 43.1; +1.3% M/M, -3.1%Y/Y

Monthly Highlight

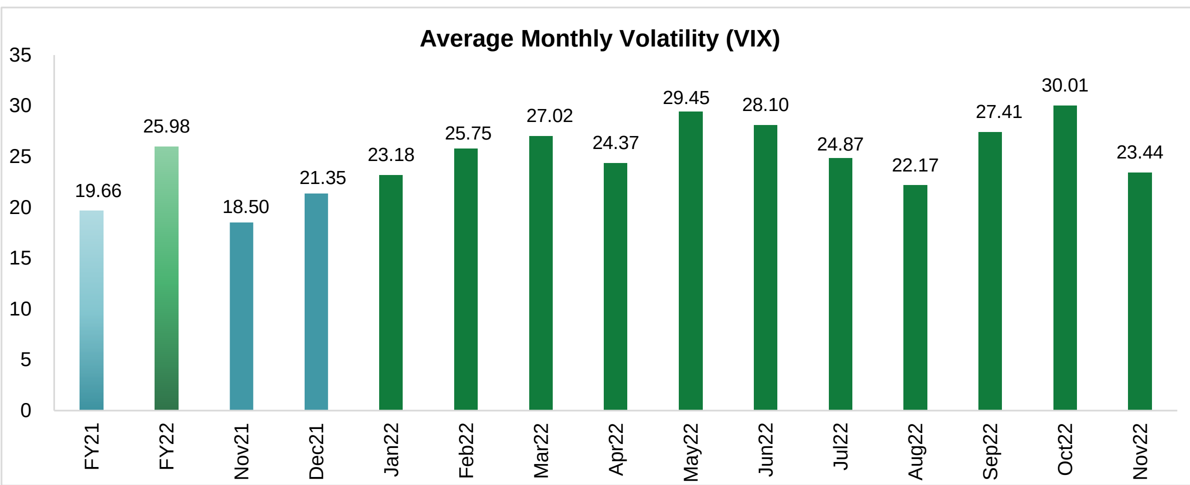
- Markets are closely watching inflation releases and the path back down to the Fed's 2% target. Current inflation picture: CPI +7.8%, -5.8 pps path back to normal; core CPI +6.3%, -4.3 pps; PCE +6.0%, -4.0 pps
- The SPX has been on a downward path for the year. While multiple factors move markets, there is an ebb and flow pattern taking shape – markets try to recover when inflation ticks down, only to retreat when inflation ticks back up
- Nasdaq performing worse than SPX, YTD return -26.7% vs. -14.4% SPX and slope of downward trend -11.469 vs. SPX -2.463, 4.7x steeper
- Nasdaq more negative performance related to index construction – technology 48.5%, +26.4 pps to SPX; T3 sector weight 78.3%, +25.1 pps to SPX, T3 stock weight 29.6%, +14.9 pps to SPX

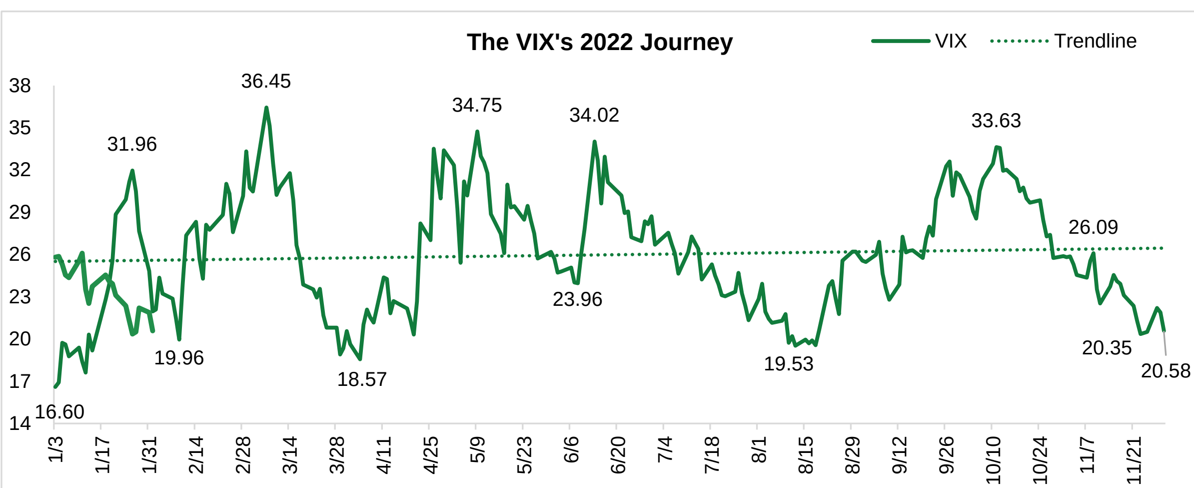
Monthly Market Metrics

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

Volatility (VIX)

- Monthly average 23.44
  - -21.9% M/M
  - +26.7% Y/Y
  - +41.2%% from the start of the year
- Monthly peak on the 9th at 26.09, troughed on the 23rd at 20.35

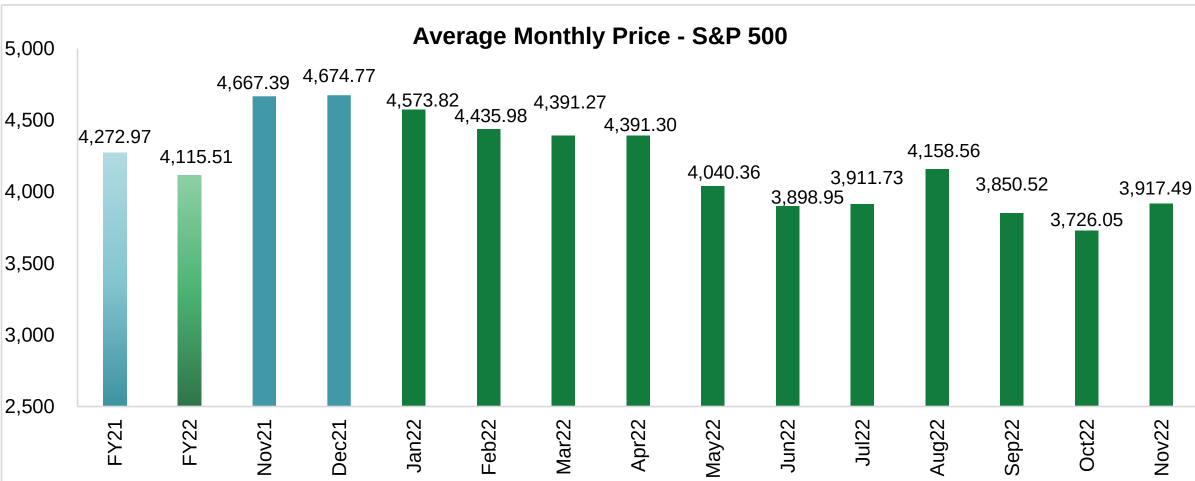


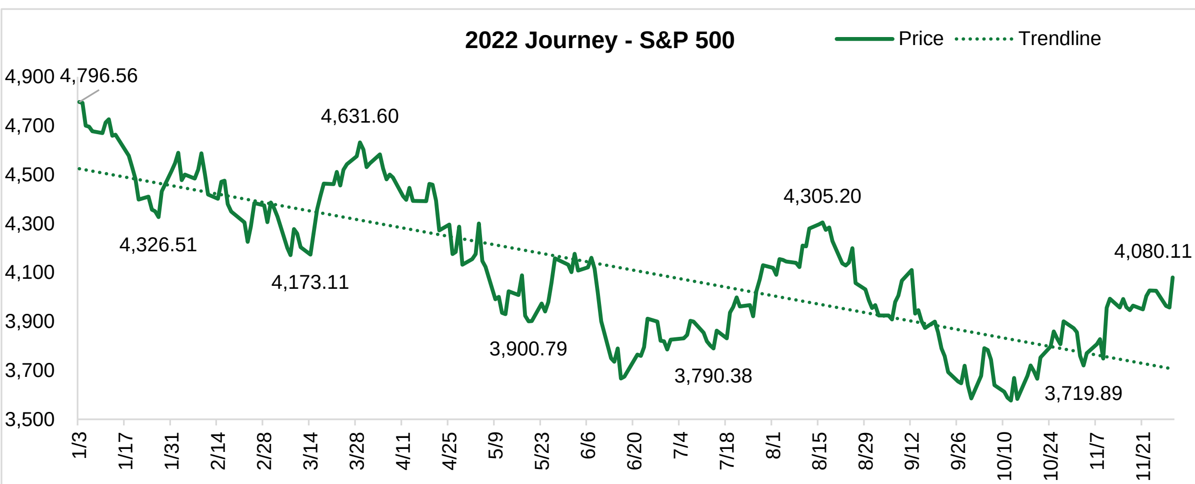


Source: Bloomberg, SIFMA estimates

S&P 500 Index: Price

- Monthly average 3,917.49
    - +5.1% M/M
    - -16.1% Y/Y
    - -18.3% from the start of the year
- Monthly peak on the 30th at 4,080.11, troughed on the 3rd at 3,719.89



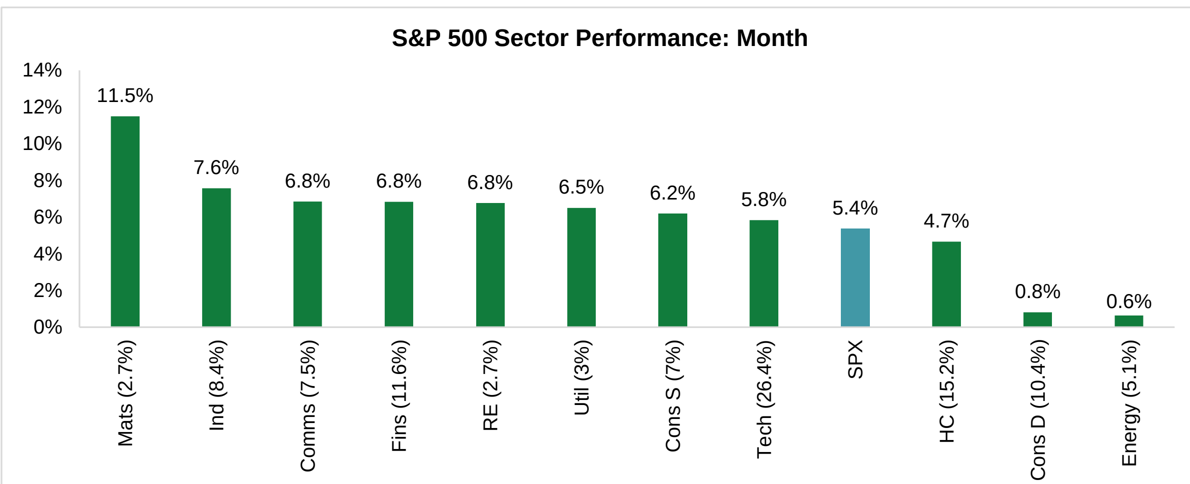


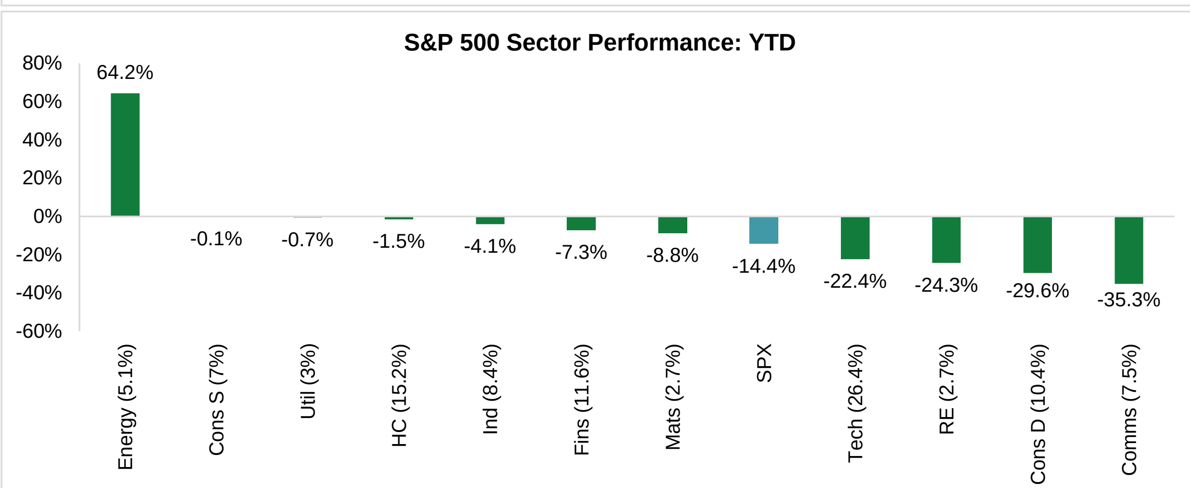
Source: Bloomberg, SIFMA estimates

S&P 500 Index: Sector Breakout

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

- Best performing sectors
  - Month = materials at +11.5% and industrials at +7.6%
  - YTD = energy at +64.2% and consumer staples at -0.1%
- Worst performing sectors
  - Month = energy at +0.6% and consumer discretionary at +0.8%
  - YTD = communications at -35.3% and consumer discretionary at -29.6%



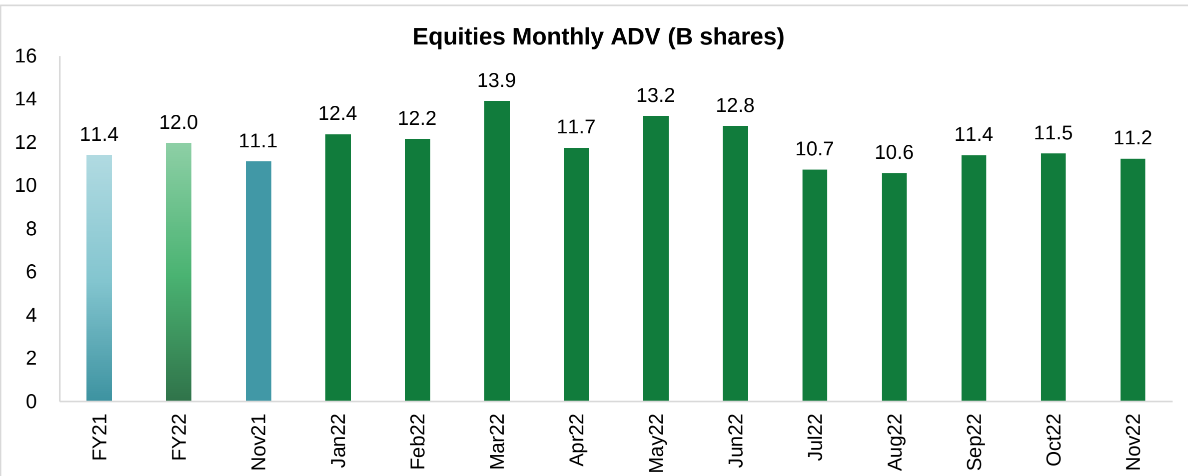


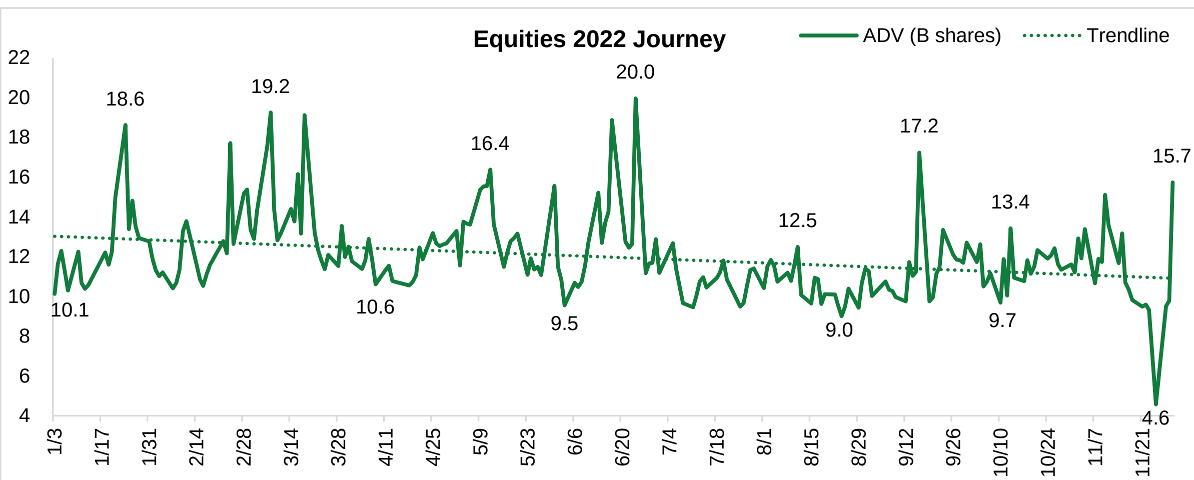
Source: Bloomberg, SIFMA estimates

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 11.2 billion shares
  - -2.2% M/M
  - +1.3% Y/Y
  - +11.0% from the start of the year
- Monthly peak on the 30th at 15.7 billion shares, troughed on the 25th at 4.6 billion shares (we note that markets closed early this day for the holiday)
- Monthly average off exchange trading 43.1%; +1.0 pps M/M, -0.2 pps Y/Y

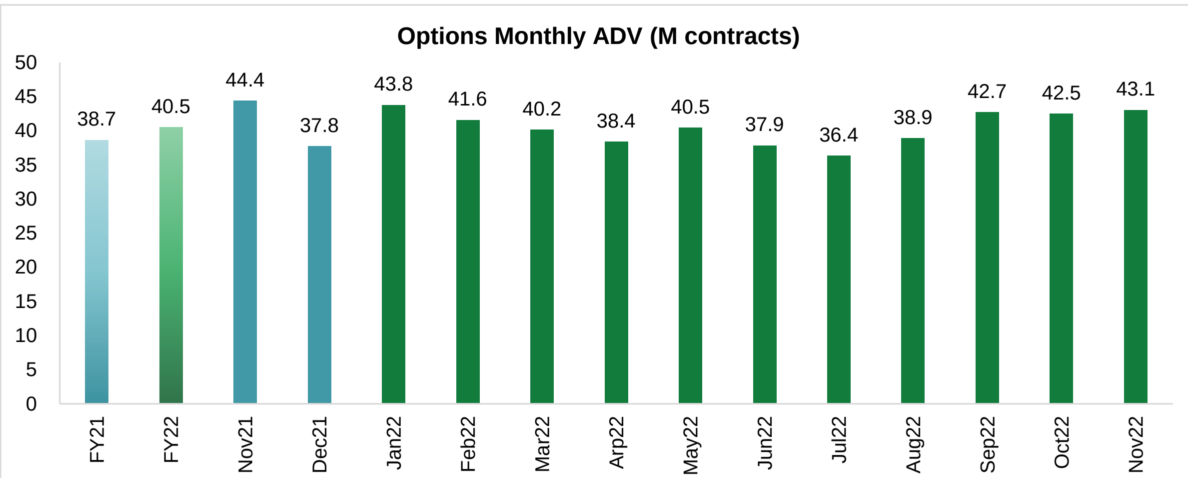


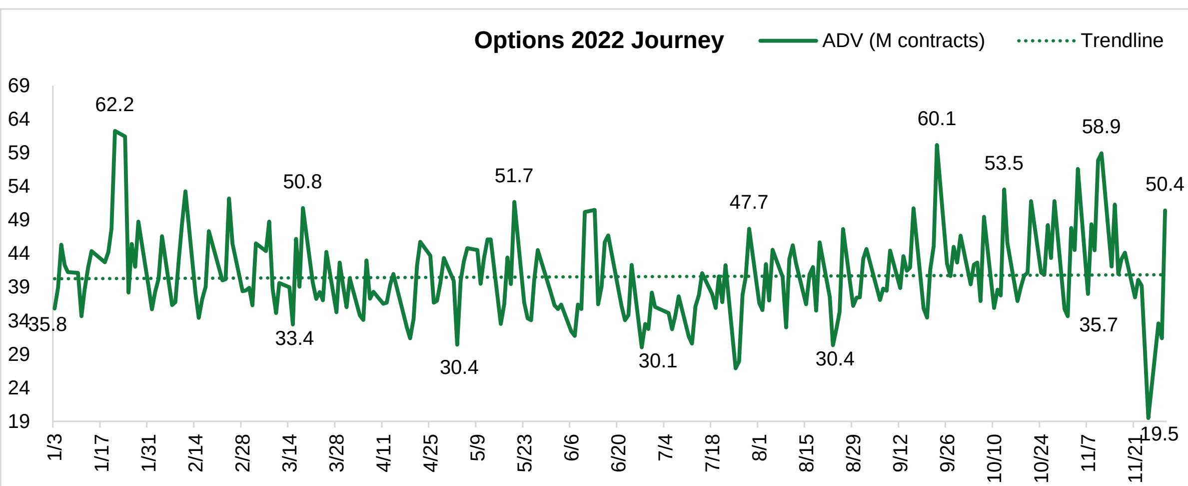


Source: Cboe Global Markets, SIFMA estimates

Multi-Listed Options Volumes (ADV)

- Monthly average 43.1 million contracts
  - +1.3% M/M
  - -3.1% Y/Y
  - +20.3% from the start of the year
- Monthly peak on the 11th at 58.9 million contracts, troughed on the 25th at 19.5 million contracts (we note that markets closed early this day for the holiday)
- Monthly equity options 39.8 million contracts (+2.3% M/M, -5.8% Y/Y), index options 3.3 million contracts (-9.0% M/M, +49.3% Y/Y)





Source: Cboe Global Markets, SIFMA estimates

Monthly Highlight

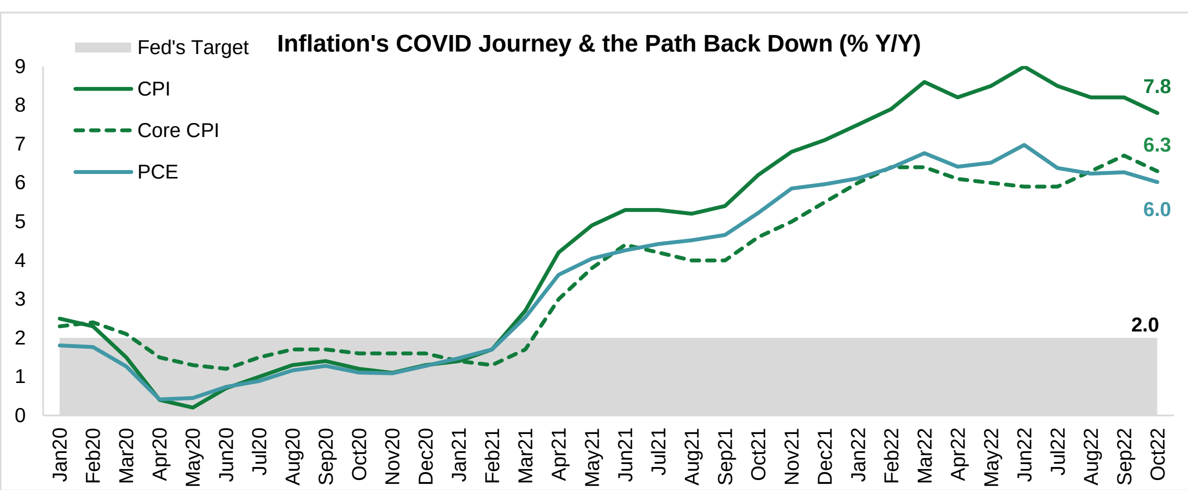
In this section we drill down into an interesting trend that market participants are following.

Current Inflation Picture

At levels not seen since the 1980s, people are feeling inflation everywhere. Markets are ebbing and flowing – mostly in the downward direction – based on inflation reports. And, importantly, the Fed is basing its monetary policy on inflation data. The conversation has shifted from “are we at peak levels” to when will the Fed be comfortable that they are achieving their goals? And by goal, we mean reaching a 2% range on the PCE, the Fed’s preferred inflation measure and the one typically used to set monetary policy.

Markets are closely watching inflation releases and the path back down to the Fed’s 2% target. Before we look at market reactions to inflation releases, we recap where we are in the inflation picture.

- **CPI +7.8%** (Y/Y, as of October)
  - Prior month +8.2%; peak +9.0% in June
  - Path to 2% = -5.8 pps
- **Core CPI +6.3%** (Y/Y, as of October)
  - Prior month +6.7%; peak +6.7% in September
  - Path to 2% = -4.3 pps
- **PCE** (the metric used by the Fed to set monetary policy) **+6.0%** (Y/Y, as of October)
  - Prior month +6.2%; peak +7.0% in June
  - Path to 2% = -4.0 pps

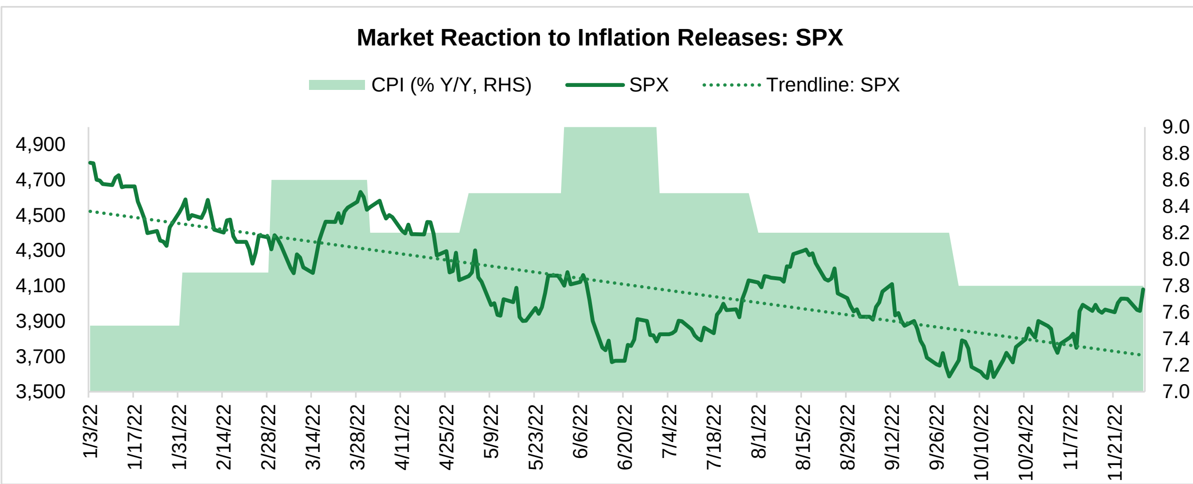


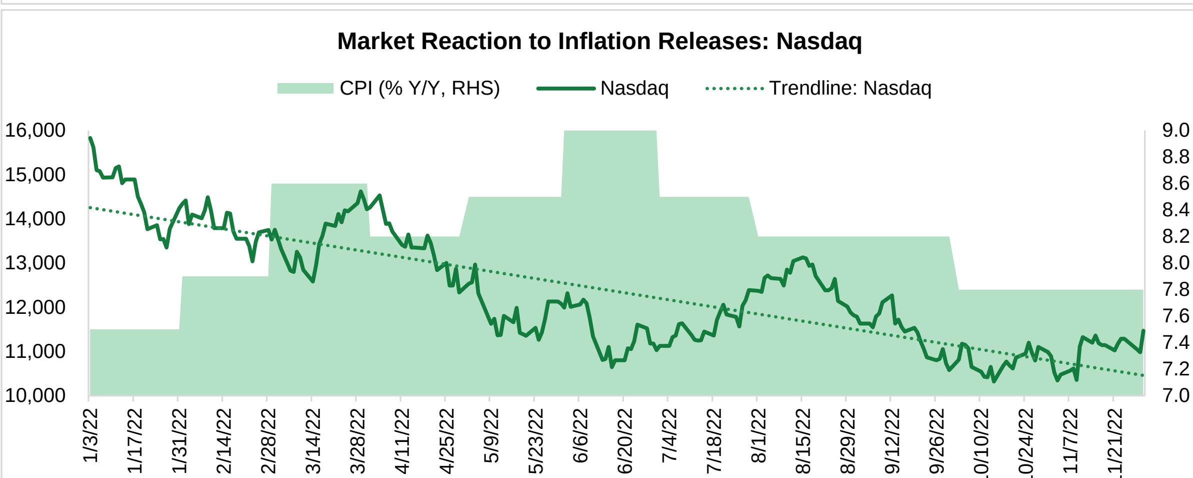
Source: FRED, SIFMA estimates

Market Reactions to Inflation

Looking at the S&P 500 (SPX Index) as a proxy for markets, there is a clear downward sloping trend for the year. While multiple factors move markets – inflation, Fed rate hikes, earnings, etc. – here we will focus on inflation. The SPX began the year in a decline, after the sharp increase in inflation in the prior year's fall, +210 bps from September 2011 to January 2022. Markets tried to recover after the Fed began to raise rates in March, in hopes this would curb inflation. Then you see the ebb and flow pattern take shape – markets try to recover when inflation ticks down M/M, only to retreat when inflation ticks back up.

The Nasdaq has performed even worse. While following a similar ebb and flow pattern overall, its annual decline is more exaggerated than that of the S&P 500. The YTD return for the Nasdaq was -26.7%, versus -14.4% for the SPX. The slope of the downward trend is also greater for the Nasdaq. The trendline slope for the Nasdaq was -11.469, versus -2.463 for the SPX. The trendline slope for the Nasdaq was 4.7x steeper than the slope for the SPX.





Source: Bloomberg, FRED, SIFMA estimates

The more negative performance for the Nasdaq is related to index construction, which we detailed in last month's Monthly Metrics. While both indexes are similar in market cap – SPX $35.6 trillion, Nasdaq $33.6 trillion – the Nasdaq is more technology heavy. The Nasdaq, in general, is also more top heavy than the SPX. As such, the performance of the top stocks and technology names – AAPL, MSFT, etc. – have a higher impact on overall index performance.

And this concentration makes it more exposed to inflation and the corresponding Fed rate hikes needed to curb inflation.

- Nasdaq exposure to technology 48.5% of total market cap, +26.4 pps to the SPX
- Nasdaq weight of top three and top five sectors 78.3% and 89.1% of total market cap, +25.1 pps and +17.1 pps to the SPX
- Nasdaq weight of top three and top five stocks 29.6% and 37.8% of total market cap (+14.9 pps and +19.4 pps), despite having over 3,700 stocks in the index versus 503 for the SPX

	SPX	Nasdaq
YTD Return	-14.4%	-26.7%
Market Cap ($T)	35.6	33.6
Sector Weights		
Technology	26.4%	48.5%
Top 3	53.2%	78.3%
	Tech, HC, Fins	Tech, Cons D, HC
Top 5	72.0%	89.1%
	T3 + Cons D, Ind	T3 + Ind, Fins
Stock Weights		
Top 3	14.7%	29.6%
	AAPL, MSFT, AMZN	AAPL, MSFT, AMZN
Top 5	18.4%	37.8%
	T3 + TSLA, GOOGL	T3 + TSLA, GOOG

Source: Index provider websites, Bloomberg, SIFMA estimates
Note: SPX as of 11/30/22, Nasdaq – market cap, # constituents as of 11/30/22, weights as of 9/30/22. Tech = technology, HC = healthcare, Fins = Financials, Cons D = consumer discretionary, Ind = industrials. AAPL = Apple, MSFT = Microsoft, AMZN = Amazon, TSLA = Tesla, GOOGL/GOOG = Alphabet (formerly Google; GOOGL = Class A, GOOG = Class C with no voting rights)

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