

Monthly Market Metrics and Trends: September

Analyzing Volatility, Market Performance, and Equity and Listed Options Volumes

Plus a Look at a Key Equity Markets Theme for the Month

October 2023

Monthly Metrics

- Volatility (VIX): Monthly average 15.24; -3.9% M/M, -44.4% Y/Y
- S&P 500 (Price): Monthly average 4,409.10; -1.1% M/M, +14.5% Y/Y
- Performance (month/year): best = energy/communications +0.4%/+39.4%; worst = real estate/utilities -7.8%/-16.5%
- Equity ADV: Monthly average 10.3 billion shares; -1.8% M/M, -9.3% Y/Y
- Options ADV: Monthly average 41.4 million contracts; -4.7% M/M, -3.1% Y/Y

Monthly Highlight

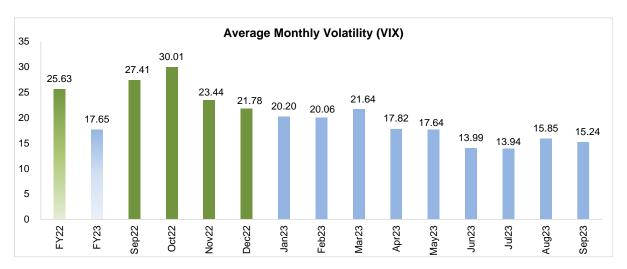
- Inflation, rising rates, recession, regional bank turmoil, debt ceiling debate, and a U.S. sovereign debt downgrade by a ratings agency, yet markets remain in positive territory.
- Seven stocks are driving this performance, representing 26.1% of total SPX market cap on average for the year (through September), or 28.5% on average for September. Top 7 stocks +31.7% to +97.7% YTD vs, SPX +11.7%.
- However, performance trends have worsened as we moved through the year. Top 7 stocks: 1H23 +35.7% to +189.5%, 3Q23 -11.0% to +9.1%, and September -10.3% to +2.1%.
- The equal weighted index, the SPW is flat for the year, +0.3%: 1H23 +6.0%, 3Q23 -5.7%, & September -5.6%.
- An increasingly important factor is the rise in long rates: UST 10-year at 4.688, +188.0% since 2022, +18.4% since July. With this increase, the SPX declined more sharply in August/September.

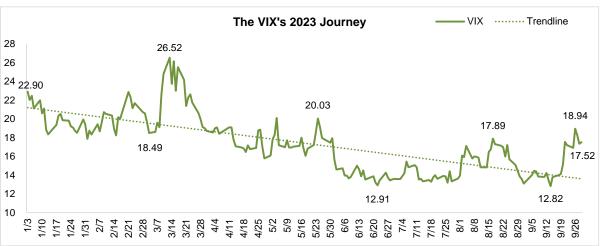
Monthly Market Metrics

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

Volatility (VIX)

- Monthly average 15.24
 - o -3.9% M/M
 - o -44.4% Y/Y
 - o -33.4% from the start of the year
- Monthly peak on the 26th at 18.94, troughed on the 14th at 12.82

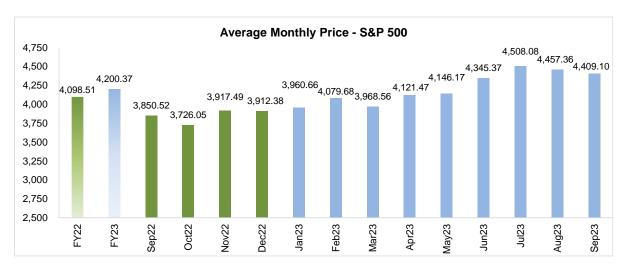


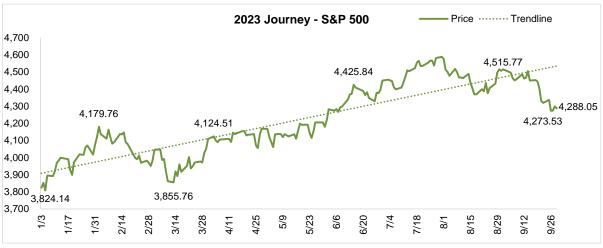


Source: Bloomberg, SIFMA estimates

S&P 500 Index: Price

- Monthly average 4,409.10
 - o -1.1% M/M
 - o +14.5% Y/Y
 - +15.3% from the start of the year
- Monthly peak on the 1st at 4,515.77, troughed on the 26th at 4,273.53



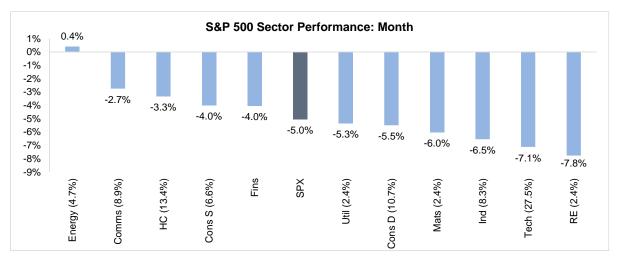


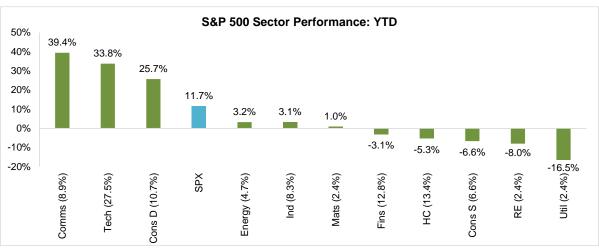
Source: Bloomberg, SIFMA estimates

S&P 500 Index: Sector Breakout

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

- Best performing sectors
 - Month = energy at +0.4% and communications at -2.7%
 - YTD = communications at +39.4% and technology at +33.8%
- Worst performing sectors
 - Month = technology -7.1% and real estate at -7.8%
 - YTD = real estate at -8.0% and utilities at -16.5%



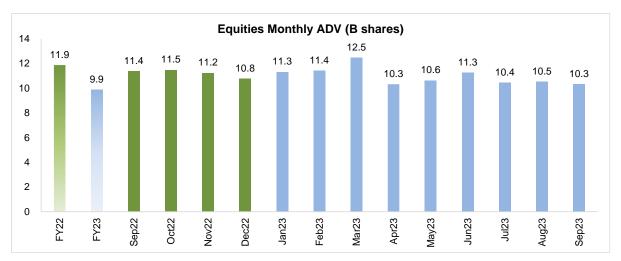


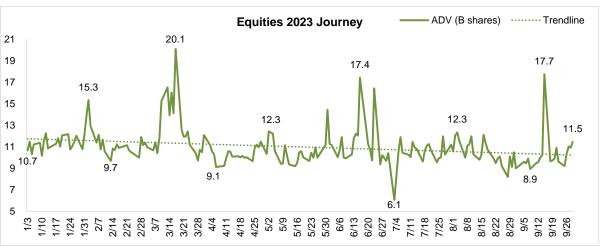
Source: Bloomberg, SIFMA estimates

Note: Parenthesis indicate sector weight in the index. Cons S = consumer staples, HC = healthcare, Mats = materials, RE = real estate, Ind = industrials, RE = real estate, Ind = industrials, RE = real estate, RE = real estate,

Equity Volumes (ADV)

- Monthly average 10.3 billion shares
 - o -1.8% M/M
 - o -9.3% Y/Y
 - o -3.2% from the start of the year
- Monthly peak on the 15th at 17.7 billion shares, troughed on the 8th at 8.9 billion shares
- Monthly average off exchange trading 44.1%; -1.3 pps M/M, +2.5 pps Y/Y

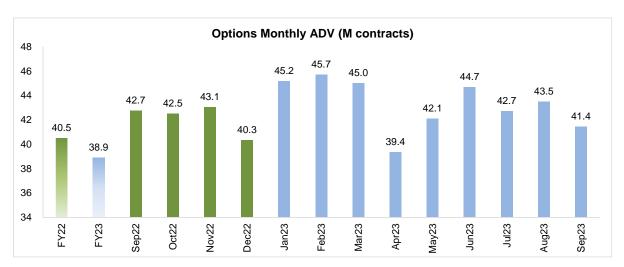


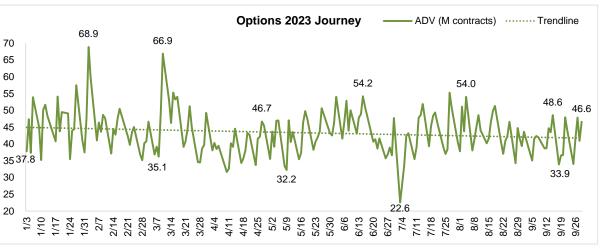


Source: Cboe Global Markets, SIFMA estimates

Multi-Listed Options Volumes (ADV)

- Monthly average 41.4 million contracts
 - o -4.7% M/M
 - o -3.1% Y/Y
 - +9.5% from the start of the year
- Monthly peak on the 15th at 48.6 million contracts, troughed on the 18th at 33.9 million contracts
- Monthly equity options 37.5 million contracts (-5.5% M/M, -4.6% Y/Y), index options 4.0 million contracts (+3.4% M/M, +14.6% 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.

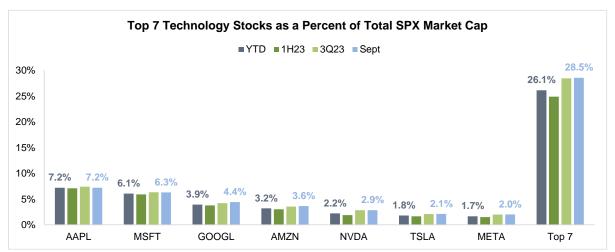
Seven Stocks Driving S&P 500 Performance

This year, stocks have weathered inflation, rising interest rates, recession, regional bank turmoil, a debt ceiling debate/potential U.S. Government default, and a U.S. sovereign debt downgrade by a ratings agency. Looking at that list of hurdles, it may seem surprising that markets remain in positive territory.

Looking closer at the numbers, you see that seven stocks continue to drive the S&P 500 (SPX) performance this year, classified as the following:

- Technology (total sector represents 27.5% of total SPX market cap): Apple (AAPL), Microsoft (MSFT), and Nvidia (NVDA)
- Consumer discretionary (total sector represents 10.7% of total SPX market cap): Amazon (AMZN) and Tesla (TSLA)
- Communications (total sector represents 8.9% of total SPX market cap): Alphabet (GOOGL, GOOG) and Meta (META)

As shown in the chart below, these stocks represented 26.1% of total S&P 500 market cap on average for the year (through September), or 28.5% on average for September.



Source: Bloomberg, SIFMA estimates

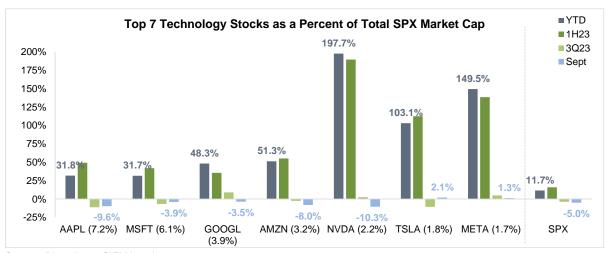
Note: Apple (AAPL), Microsoft (MSFT), Alphabet (GOOGL, GOOG), Amazon (AMZN), Nvidia (NVDA), Tesla (TSLA), and Meta (META)

While these seven stocks may be classified differently, they all trade as a technology play. Technology stocks in general have benefitted from the artificial intelligence (AI) enthusiasm, and many technology companies have undergone cost cutting and other efforts to drive efficiencies.

Year to date, these seven stocks are up 31.7% to 197.7%, while the SPX is only up 11.7%. However, the stock performance trend worsened as we moved through the year:

- 1H23 ranged from +35.7% to +189.5%; all seven stocks and the market positive
- 3Q23 ranged from -11.0% to +9.1%; only three stocks were positive, the others and the total market were in negative territory
- September ranged from -10.3% to +2.1%; only two stocks were positive, the others and the total market were negative

Should the down trend in the performance of the top technology stock plays continue, this could further weigh down the overall market.



Source: Bloomberg, SIFMA estimates

Note: S&P 500 Index (SPX), Apple (AAPL), Microsoft (MSFT), Alphabet (GOOGL, GOOG), Amazon (AMZN), Nvidia (NVDA), Tesla (TSLA), and Meta (META)

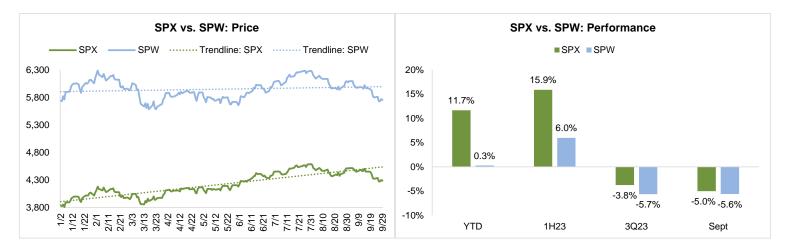
Market Cap vs. Equal Weighted

Traditionally, we look at the S&P 500 performance through the SPX Index. This is a market cap weighted index, which is why the top seven stocks have such a dominant hold on total market performance. The SPW Index – which has the same constituents as the SPX – is an equal weighted index. Looking at market performance from this view removes the skew of the top weighted stocks.

As shown below, the SPW (purple line) is essentially flat year to date, +0.3% versus +11.7% for the SPX (green line). Both indices show the same negative trend across the year:

- 1H23 SPW +6.0% versus SPX +15.9%
- 3Q23 SPW -5.7% versus SPX -3.8%
- September SPW -5.6% versus SPX -5.0%

Trends for the SPW declined faster than the SPX. Looking at the slopes of the lines, the SPX slope is 6.9x that of the SPW. The SPX remains upward sloping for the year, while the SPW is flat for the year. Again, it is the top seven technology stock plays driving total market performance, while the other 496 (there are 503 stocks in the index) stocks are either flat or down.



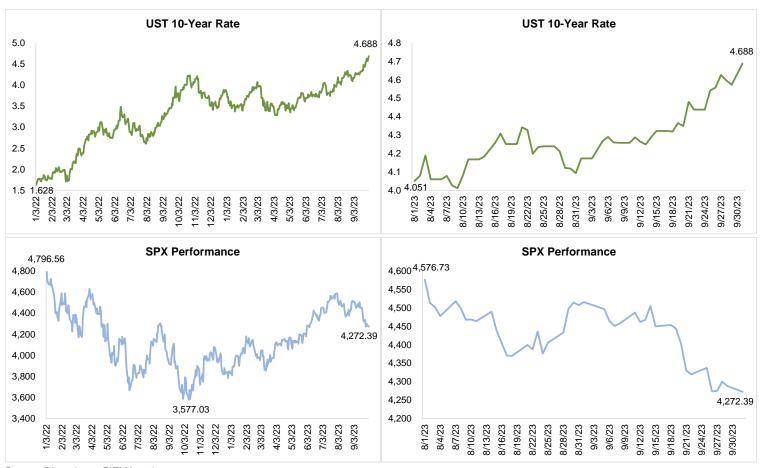
Source: Bloomberg, SIFMA estimates S&P 500 Indices: SPX = market cap weighted, SPW = equal weighted

The Impact of US Treasury Rates (UST)

Since the Fed began raising rates in 2022, the equity market performed well overall – yes, it had some dips across the journey – as company balance sheets remained strong and the consumer kept spending. There are growing concerns about corporations refunding at the current higher interest rates, and declining savings and increasing consumer credit delinquencies – among other factors such as the resumption of student loan repayments – are making market participants rethink the consumer spending picture going forward.

Another factor that has been increasingly impacting equity market performance is the rise in long interest rates. Many factors have driven this rise, including an expected decrease in Treasury buying from two large players (Japan given its exit from yield curve control, China as lower exports translates to lower investable dollars), Fed quantitative tightening, negative US government factors (budget deficit, rating downgrade), and the upcoming large scale Treasury issuance.

As of the writing of this report, the 10-year UST was 4.688. This is a 188.0% increase since the start of 2022. Once we hit August – the first month the 10 year did not drop below 4% – the increase steepened. The 10 year is up 18.4% since the end of July. As shown below, you see the impact this has had on equity market performance. The SPX declined more sharply in August/September. As market participants expect rates to remain elevated, this should continue to weigh on growth stocks – such as the top seven – and equity markets in aggregate.



Source: Bloomberg, SIFMA estimates

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