SIFMA Insights

May Market Metrics and Trends

A Look at Monthly Volatility and Equity and Listed Options Volumes

June 2021

Monthly Metrics

- Volatility (VIX): Monthly average 19.76 (-32.4% to 2020), peak 27.59 on the 12^{nd}
- S&P 500 (Price): Monthly average 4,163.00 (+29.4% to 2020), peak 4,225.25on the 12^{th}
- Equity ADV (billion shares): Monthly average 10.6 (-2.6% to 2020), peak 12.8 on the 27^{th}
- Options ADV (million contracts): Monthly average 35.4 (+22.0% to 2020), peak 41.7 on the 28^{th}

Monthly Highlight

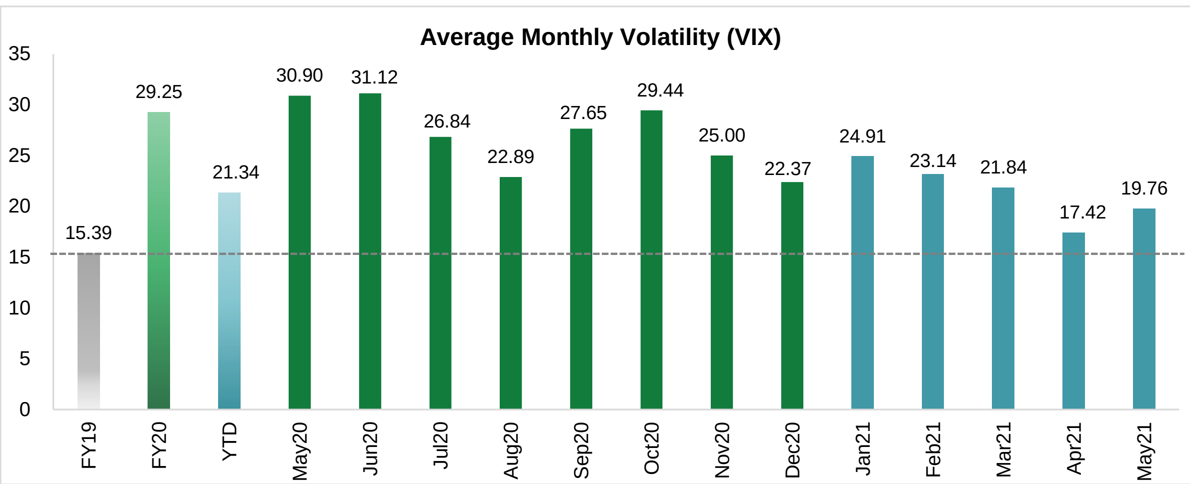
- Inflation remains a hot topic, as market participants try to determine if it is transitory or underlying/structural. Despite inflation concerns, markets have continued to climb throughout 2021, albeit at a slower pace. While market participants do not consider markets cheap, earnings continue to surprise to the upside and analysts' target prices indicate more room to grow. Portfolio rotations continue, with inflation estimates driving sector shifts and the focus on fundamentals enabling value to close the gap on growth.

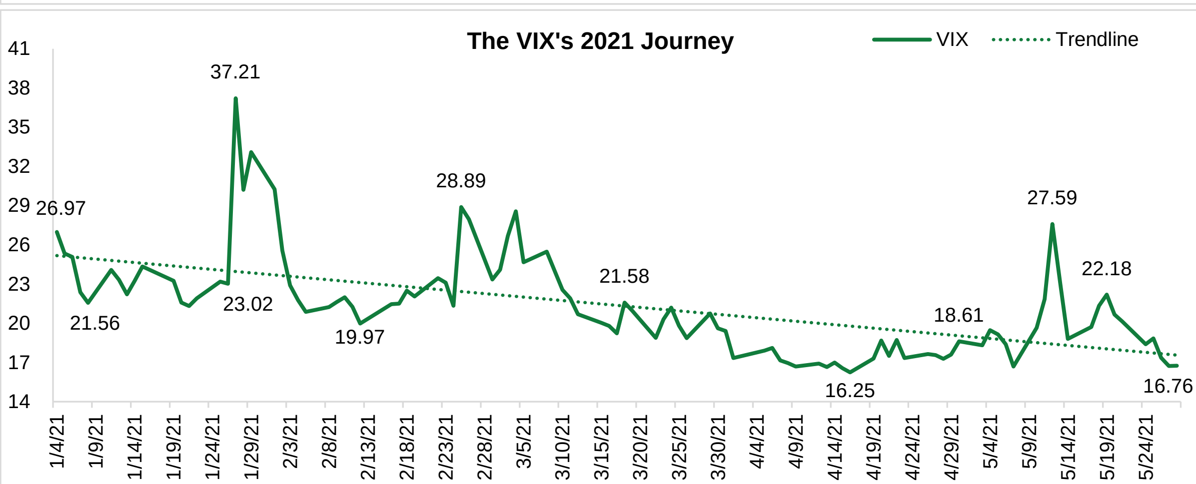
Spotlight: May Market Metrics

With the economic havoc the global pandemic reaped last year, market volatility and volumes in both equities and multi-listed options reached, and remain at, higher than historical levels. Now market participants are wondering what will be the new normal. As such, in this section, we highlight the monthly market trends for volatility, price and volumes as compared to last year's elevated and historical levels.[1]

Volatility (VIX)

- Monthly average 19.76, vs. 2020 average 29.25 and 2019 average 15.39 (-32.4% to 2020, +28.4% to 2019)
- Monthly peak on the 12th at 27.59, +2.3% to the start of the year and -5.7% to 2020 average
- Monthly low level of 16.69; down from the end of January surge, yet with a spike in the middle of the month



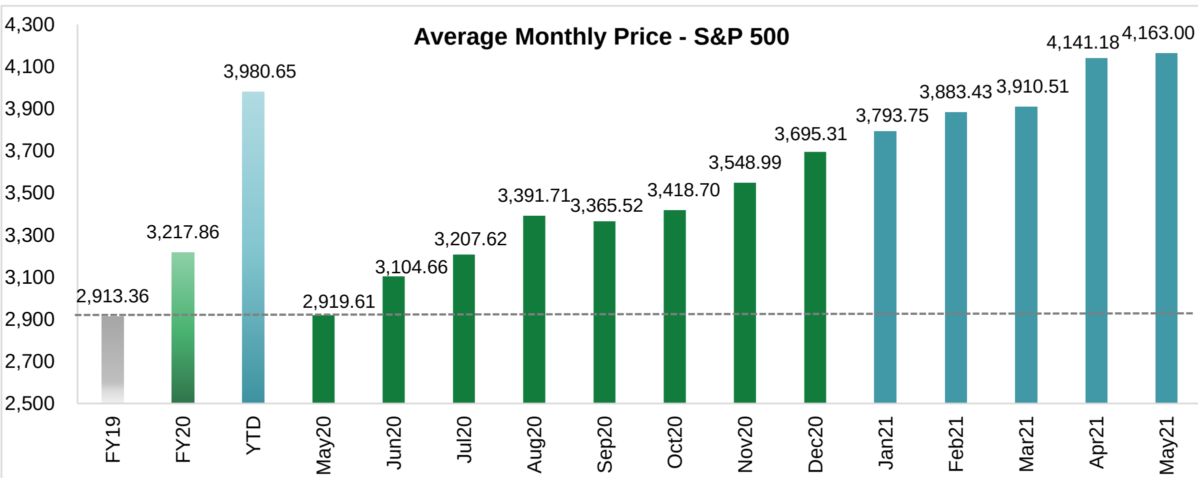


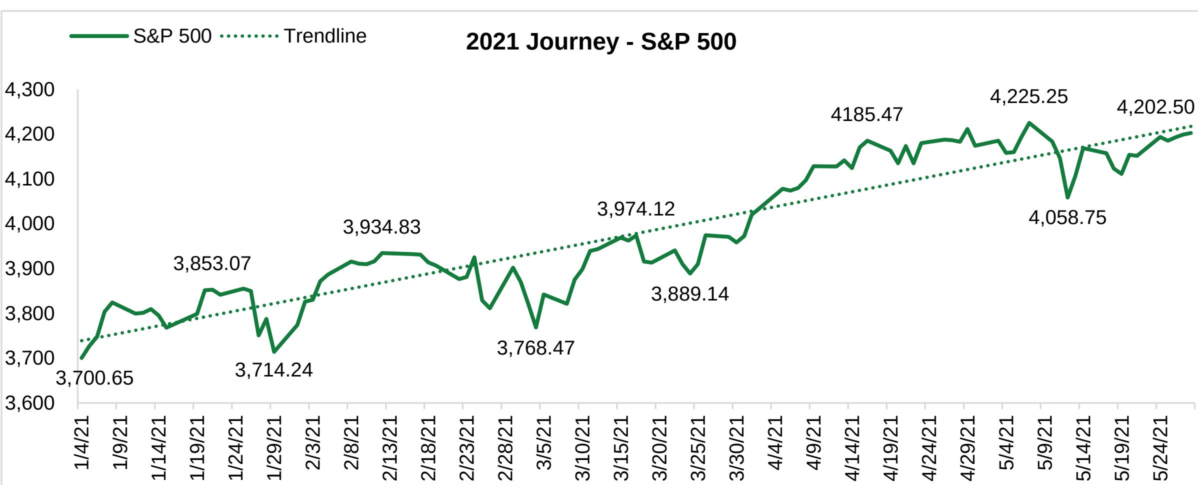
Source: Bloomberg, SIFMA estimates

[1] Please see SIFMA Insights: A Look Back at 2020 Market Structure Themes for a deep dive on last year's market metrics

Index Price (S&P 500)

- Monthly average 4,163.00, versus 2020 average 3,217.86 and 2019 average 2,913.36 (+29.4% to 2020, +42.9% to 2019)
- Monthly peak on the 12th at 4,225.25, +14.2% to the start of the year and +31.3% to 2020 average
- Monthly low price level of 4,058.75 at the start of the month; strong upward trend on average for the year continues

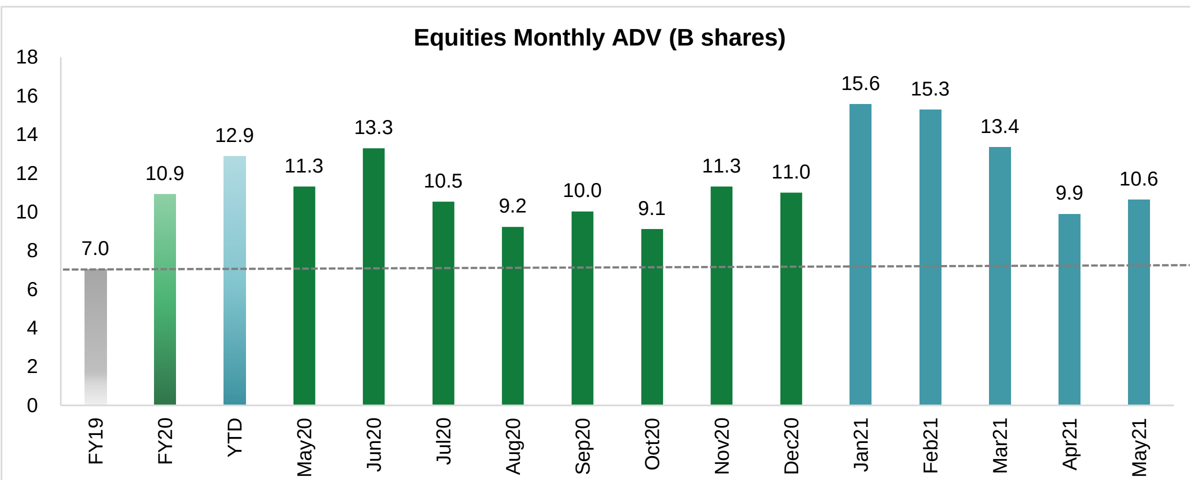


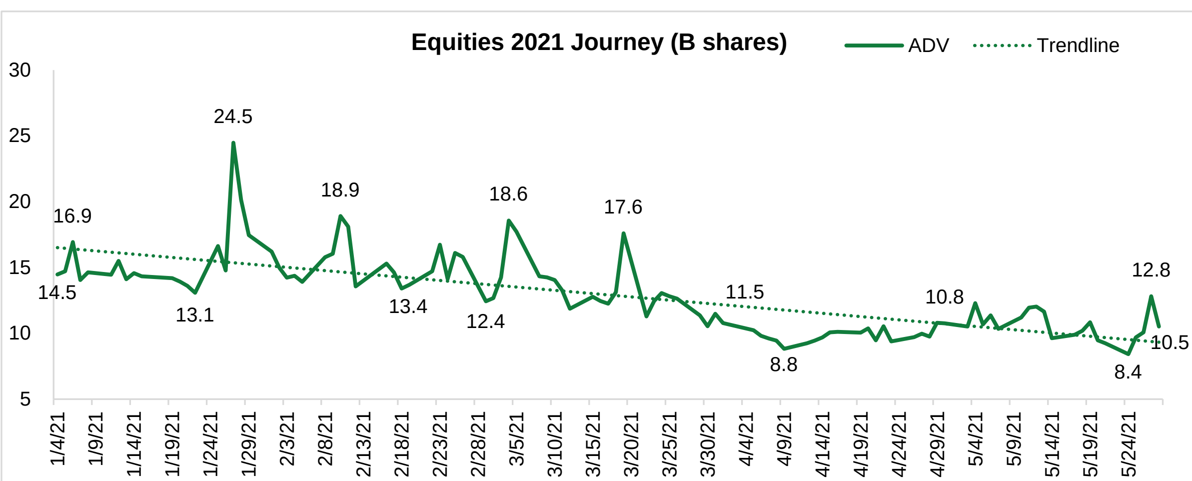


Source: Bloomberg, SIFMA estimates

Equity Volumes (ADV)

- Monthly average 10.6 billion shares, versus 2020 average 10.9 billion shares and 2019 average 7.0 billion shares (-2.6% to 2020, +51.3% to 2019)
- Monthly peak on the 27th at 12.8 billion shares, -11.4% to the start of the year and +17.4% to 2020 average
- Monthly low level of 8.4 billion shares also below the 2020 average (-23.0%)
- Monthly average off exchange trading 42.4%, versus 41.5% 2020 average and 37.3% 2019 average (+0.9 pps to 2020, +5.1 pps to 2019)

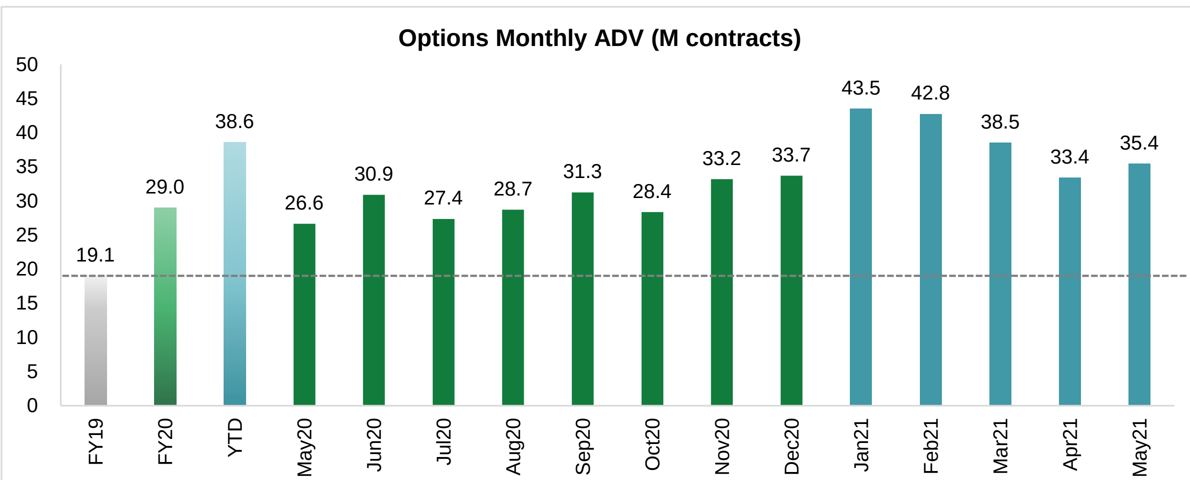


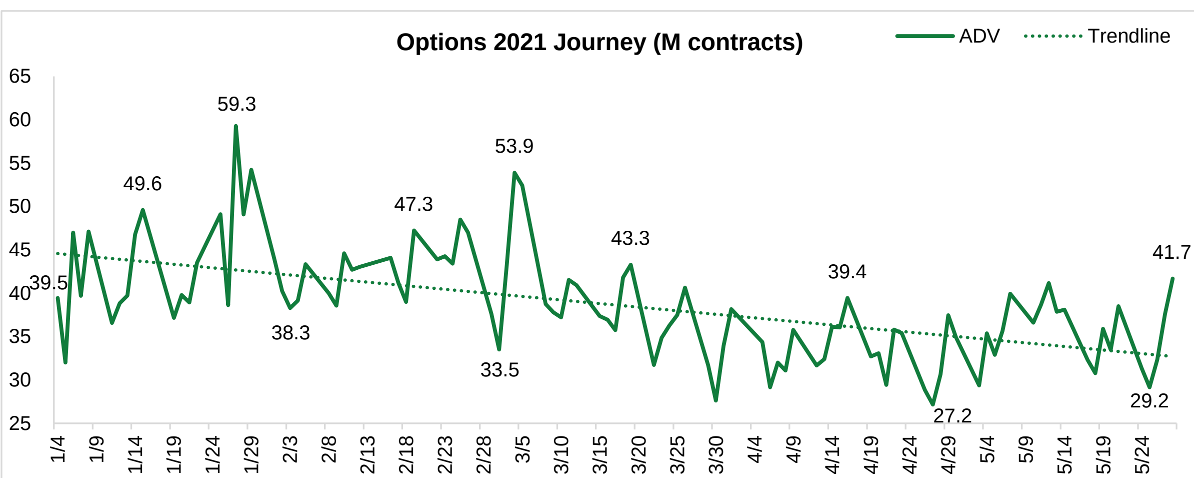


Source: Cboe Global Markets, SIFMA estimates

Multi-Listed Options Volumes (ADV)

- Monthly average 35.4 million contracts, versus 2020 average 29.0 million contracts and 2019 average 19.1 million contracts (+22.0% to 2020, +86.0% to 2019)
- Monthly peak on the 28th at 41.7 million contracts, +105.7% to the start of the year and +143.6% to 2020 average
- Monthly low level of 29.2 million contracts dropped below the 2020 average (+0.4%)
- Options continue to show strong growth in equities (monthly average 33.4 million contracts, +22.7% to 2020 average); but index options volumes were also up this month (monthly average 2.0 million contracts, +11.9% to 2020)





Source: Cboe Global Markets, SIFMA estimates

Monthly Highlight

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

Inflation – Transitory or Underlying?

As discussed in last month's publication, a main theme in markets is around inflation and bond yields. Markets continue to focus on the inflation question of transitory – temporary price increases driven by COVID-related supply chain issues and a reopening-related increase in demand – or underlying (or structural) – sustained upward movement in the overall level of prices. (Please see SIFMA Insights Spotlight: Inflation 101.)

The outcome will determine when the Fed may begin to raise interest rates and therefore the timing of any impact on equity valuations. Bond yields are used as the risk-free rate when calculating the cost of capital. When bond yields go up, the cost of capital increases and future cash flows are discounted at a higher rate. This in turn compresses stock valuations. As such, all eyes are on inflation numbers and any corresponding rate hike(s).

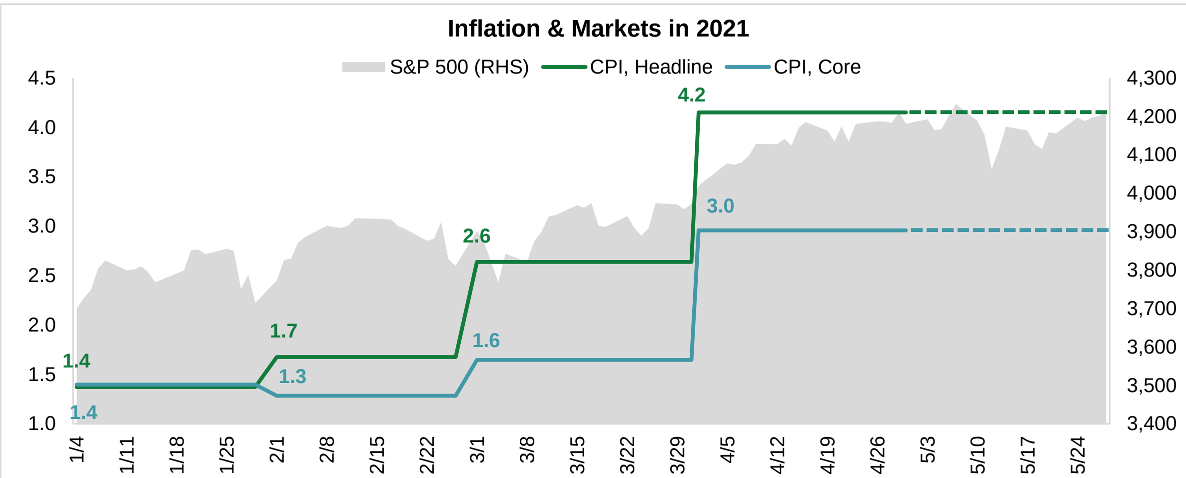
Fed Chairman Powell has called the April surge in inflation transitory. As the economy begins its reopening, we compare current price levels to last year's significant drops in prices seen at the height of the pandemic. Since last year's reference months displayed sharp drops, we see the opposite effect this year – a significant jump in price levels as compared to last year's depressed levels. This type of inflation is called the base effect. We are also experiencing a dual impact on price levels. On the supply side, we are seeing labor and material shortages as supply chains are challenged by the stronger than anticipated demand. It will take time to work through COVID-driven bottlenecks and temporary restrictions in supply chains and adapt to the reopening of the economy, such as opening new or formerly closed restaurants. Additionally, on the demand side, consumers are fueled by fiscal transfers of money (stimulus checks) ramping up demand for everything from travel to dining out. We are also experiencing the impacts of return to work for both currently employed people heading back to physical offices – with the ancillary demand that causes – and the rehiring of the unemployed.

As the economy recalibrates its new post-pandemic equilibrium, we can expect to see at least temporary higher prices across multiple segments in inflation indexes. It will take time to determine if these price increases will be sustained longer term, moving from transitory to underlying inflation.

Another piece of the puzzle in gauging the timing of a rate hike is the Fed's approach to its inflation target. The Fed's new framework includes a "broad-based and inclusive" approach to full employment and an *average* 2% inflation target. Adopting the average inflation target provides room for the Fed to operate without viewing 2% as a hard ceiling for inflation. Fed Chairman Powell noted the Fed could look through inflation readings above its 2% target for some period of time and keep rates near zero, as it watches the employment data, awaiting full employment. He also noted that if inflation moves "persistently and materially above 2% in a manner that threatened to move longer-term inflation expectations materially above 2% the Fed would use its tools to bring inflation expectations down to mandate consistent levels," i.e. a potential rate hike.

Inflation Impact on Markets

While many factors influence market moves, we took a look just at the inflation impact. Despite inflation concerns, markets have continued to climb throughout 2021. We show in the chart below Y/Y percent changes for monthly CPI data (May CPI data to be released June 10) versus the S&P 500 price.



Source: Source: FRED Economic Data, SIFMA estimates
Note: Note: CPI = all urban consumers, U.S. city average, percent change from year ago, monthly, seasonally adjusted. Headline = all items, core = all items less food and energy

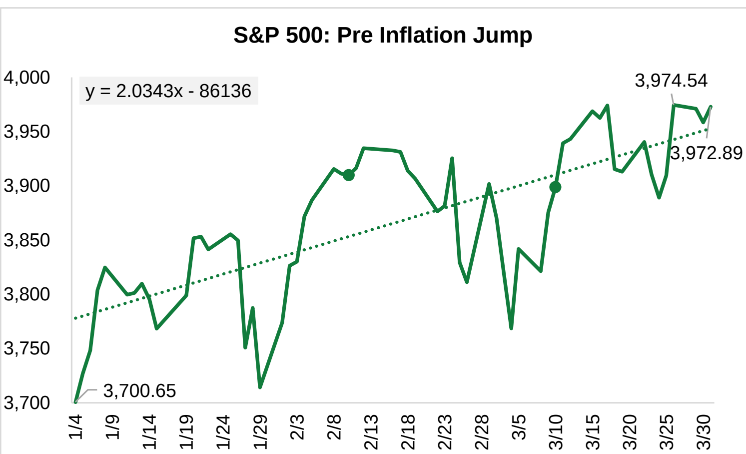
However, the CPI data is not released until the middle of the next month and is only a monthly data point. This causes ebbs and flows in markets around inflation whisper numbers prior to releases and the actual inflation data updates.

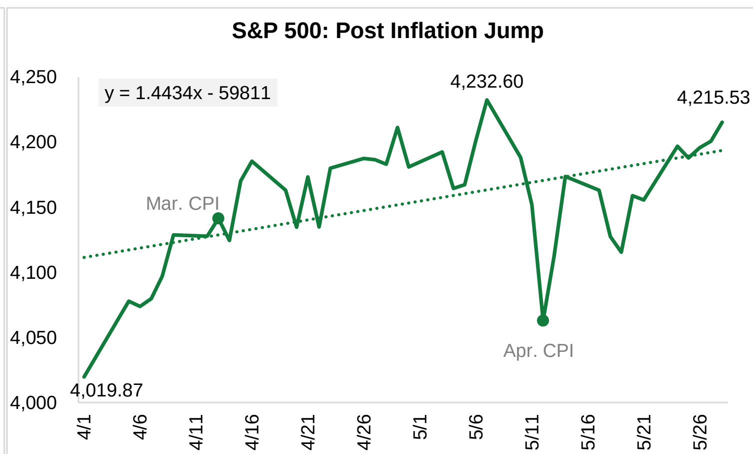
As such, we account for this in the next two charts, splitting the S&P 500 performance into pre and post the April inflation spike. We note that we have drawn this line at the end of March, but as noted above the CPI release dates are in the middle of the following month.

We highlight the following in the overall growth rate:

- A slower upward trend – slope (shown by the "y" equation in each chart) declines 0.5909 across the two periods; start-to-end price differential declines 76.58 across the two periods
- Lower gap between the peak and trough for the periods, -61.16

Again we note the noise – declines in the index prior to data releases followed by recoveries. While markets remain focused on and worried about inflation, really whether it is transitory or underlying, there are many other factors keeping markets climbing higher, even if at a slower pace.

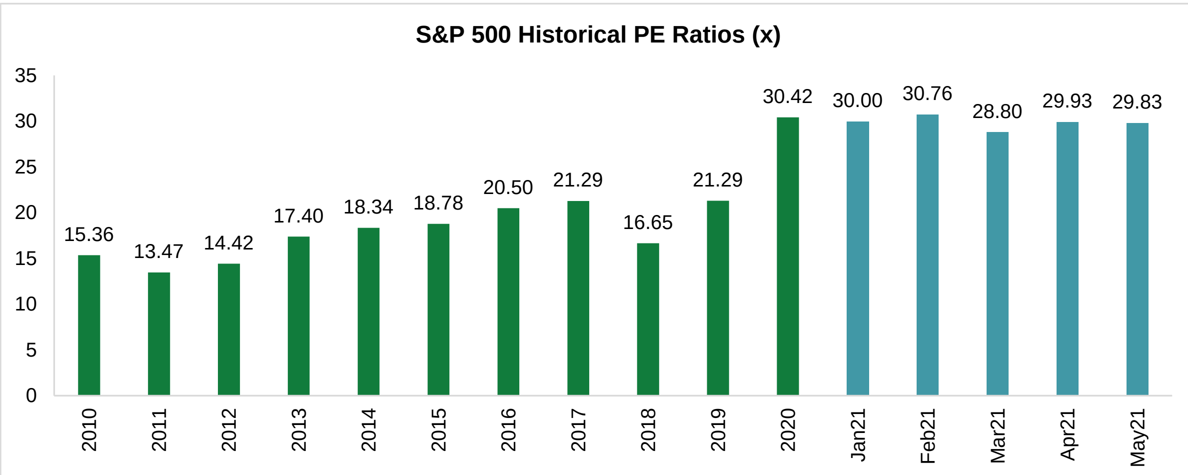




Source: Source: FRED Economic Data, SIFMA estimates
Note: Note: CPI = all urban consumers, U.S. city average, percent change from year ago, monthly, seasonally adjusted. Headline = all items, core = all items less food and energy. CPI releases: January on February 10; February on March 10; March on April 13; April on May 12; May scheduled for June 10

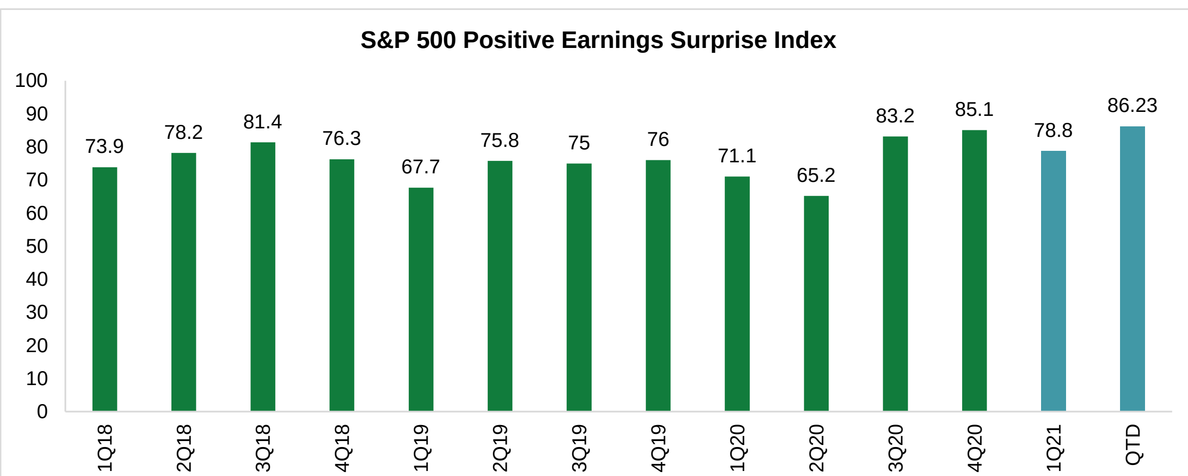
What Does This Mean for Markets?

Market participants acknowledge the market is not cheap, in terms of stock valuations, with the S&P 500 index average PE 28.80x for 1Q21:



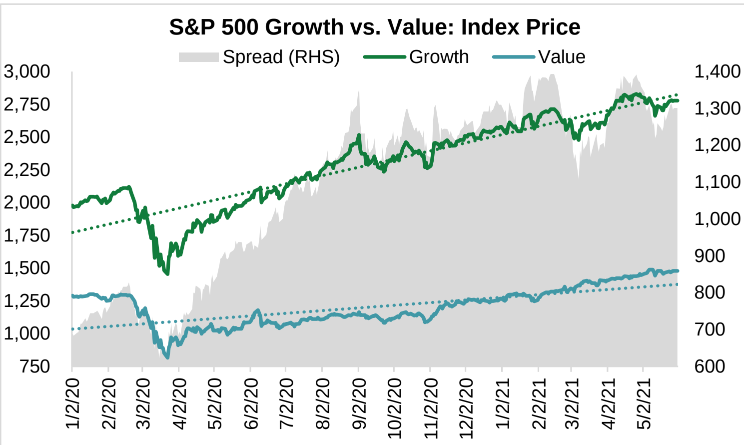
Source: Bloomberg, SIFMA estimates

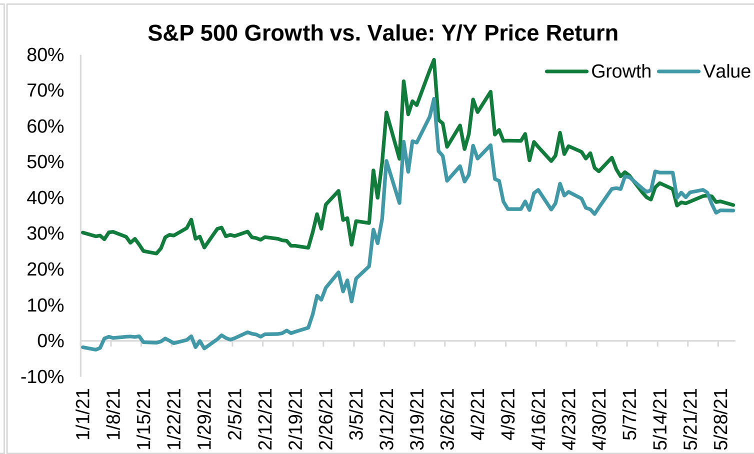
Despite this, participants cite the significant amount of liquidity in the system as one reason markets continue to expand. Another reason is fundamentals. Earnings continue surprise to the upside, indicating strong corporate fundamentals (among other factors, such as strong cash positions given the amount of liquidity):



Source: Bloomberg, SIFMA estimates

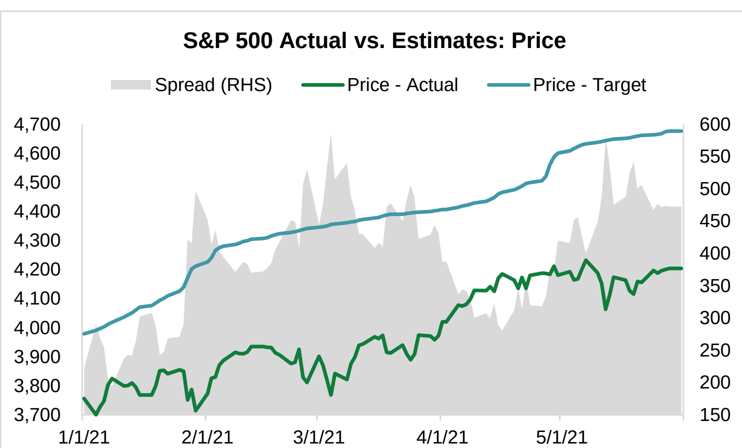
You see the focus on fundamentals in growth versus value charts. While growth clearly outperformed last year and the start of this one – see the more sharply upward sloping trendline in the chart on the left – value has caught up. Looking at the right hand chart, the Y/Y price appreciation for the value index has closed the gap and even accelerated above the growth index at one point.

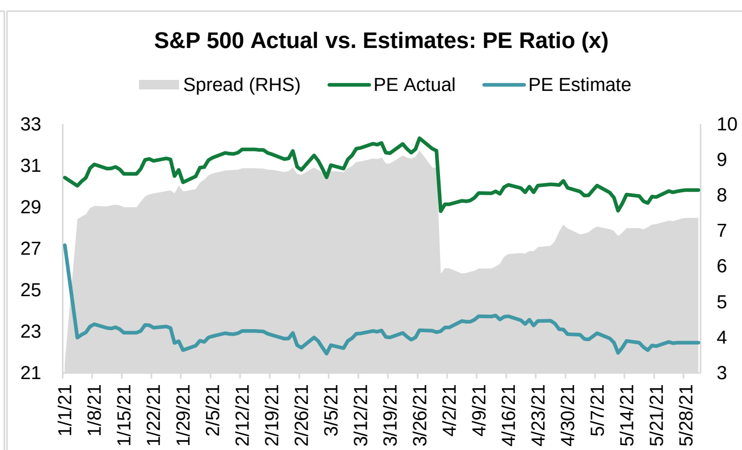




Source: Bloomberg, SIFMA estimates

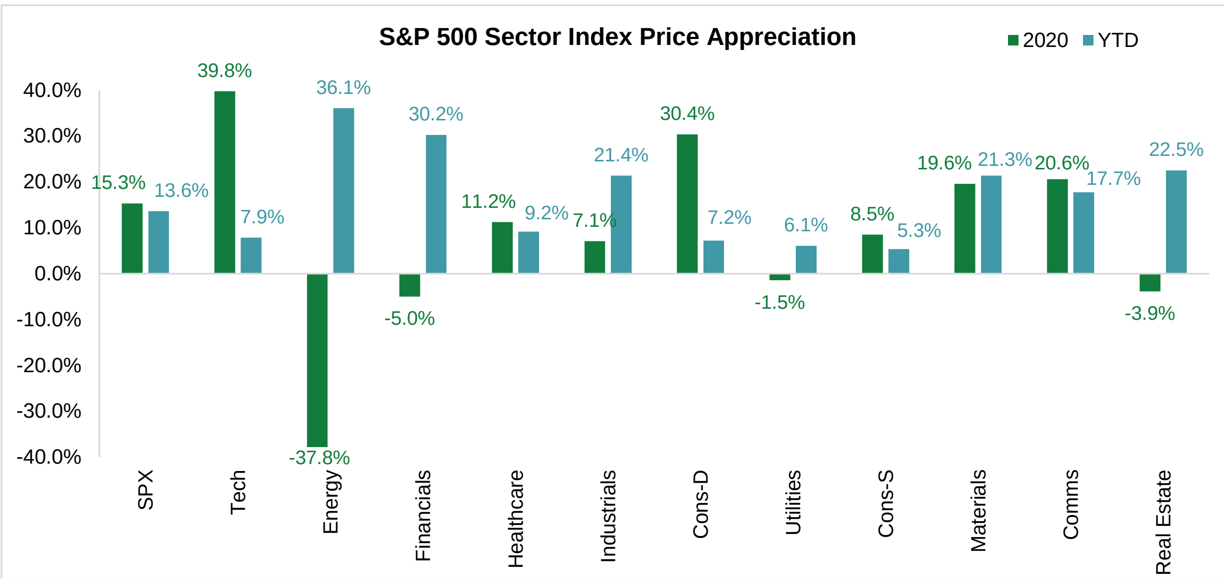
Next, we look at analyst estimates for the S&P 500 index versus actuals, as well as the spread between the two. Analyst target prices remain above actual market price, with the spread between the two (= target – actual) remaining elevated. Actual PE ratios remain above analyst estimates, with the spread between the two (= actual – estimate) narrowed from the start of the year but ticking up in May. Estimates would indicate markets could continue to grow, even if at the slower pace discussed earlier.





Source: Bloomberg, SIFMA estimates

Finally, we see the sector rotation continue. As we discussed last month, investors have repositioned portfolios to include some reopening trades, as well as adjusting for inflation expectations. 2020 favorites like technology have yielded to inflation plays like financials and real estate. Energy also continues to perform well this year after a challenging 2020.



Source: Bloomberg, SIFMA estimates

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