



SIFMA Insights

March Market Metrics and Trends

A Look at Monthly Volatility and Equity and Listed Options Volumes

April 2021

Monthly Metrics

- Volatility (VIX): Monthly average 21.84 (-25.3% to 2020), peak 28.57 on the 4th
- S&P 500 (Price): Monthly average 3,910.54 (+21.5% to 2020), peak 3,974.54 on the 26th
- Equity ADV (billion shares): Monthly average 13.4 (+22.3% to 2020), peak 18.6 on the 4th
- Options ADV (million contracts): Monthly average 38.5 (+32.7% to 2020), peak 53.9 on the 4th

Monthly Highlights

- We thought it would be interesting to put some numbers and charts around the disconnect between markets and the real world. Economic data shows the divergence between performance of goods versus services, with sectors like accommodation hard hit. Yet, >85% of the T10 stocks in the S&P 500 are technology plays, driving markets higher on aggregate.



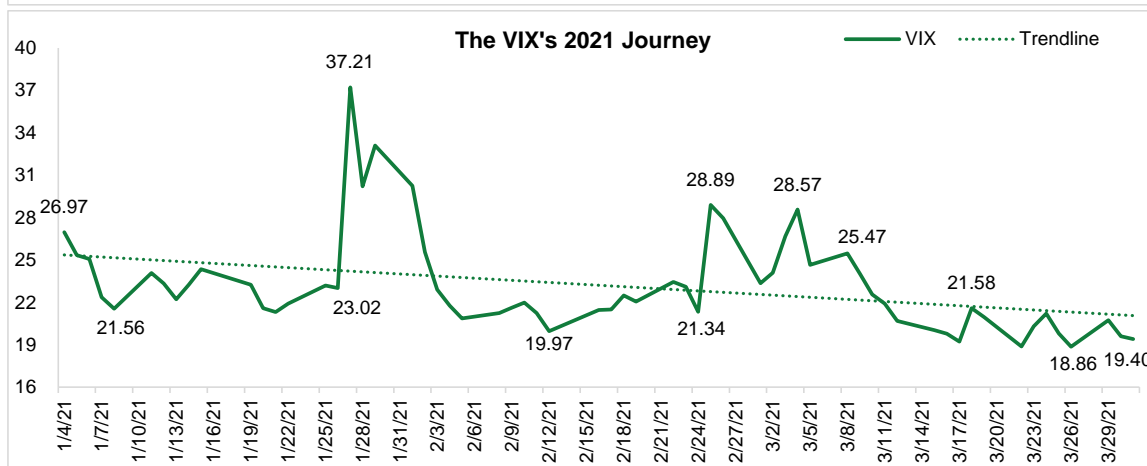
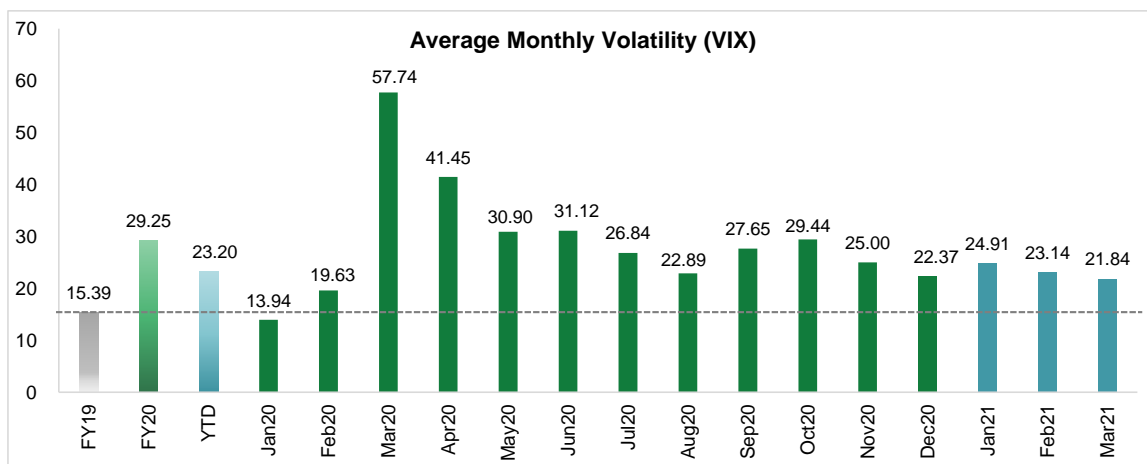
Spotlight: March Market Metrics

On average in March, markets (in terms of S&P 500 price) were up 21.5% to the 2020 average, on top of a 10.5% Y/Y rise in 2020. Average volumes for the month included: multi-listed options +32.7% to the 2020 average (+52.5% Y/Y in 2020); and equities +22.3% to the 2020 average (+55.4% Y/Y in 2020). While volumes remain elevated to historical levels, they have come down since the start of the year. Volatility has settled since the start of the year as well, with the monthly average -25.3% to the 2020 average (the VIX increased +90.1% Y/Y in 2020 on average).

In this report, we highlight the monthly market trends for volatility, price and volumes.¹

Volatility (VIX)

- Monthly average 21.84, vs. 2020 average 29.25 and 2019 average 15.39 (-25.3% to 2020, +41.9% to 2019)
- Monthly peak on the 4th at 28.57, +5.9% to the start of the year and -2.3% to 2020 average
- Monthly low level of 18.86; down from the end of January surge, but ticked up a bit at the end of the month

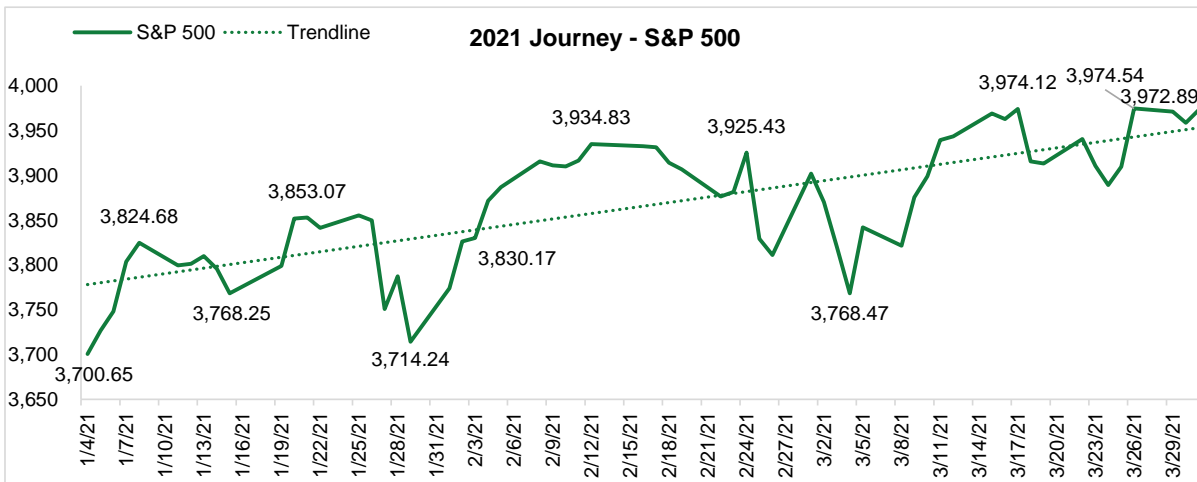
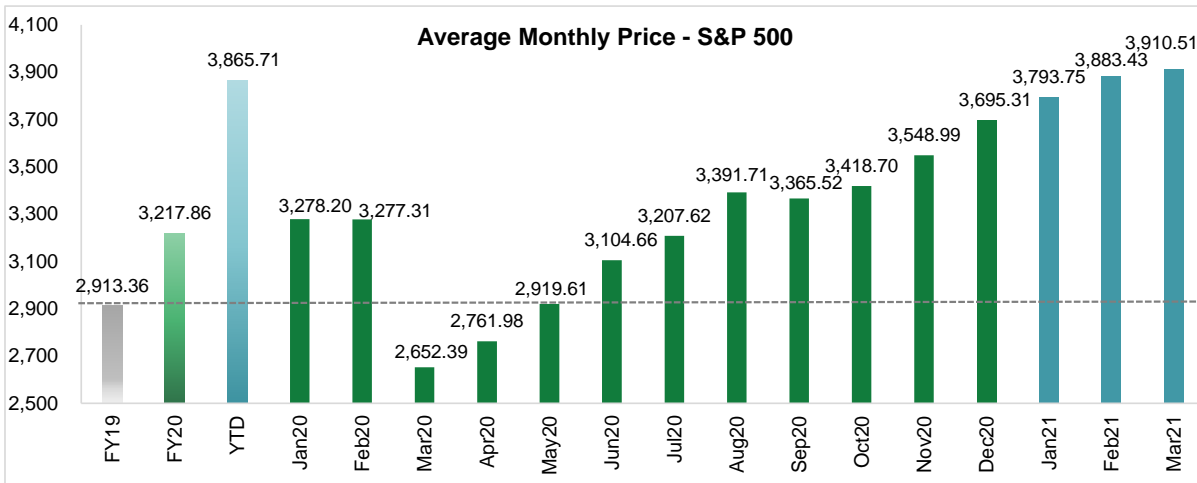


Source: Bloomberg, SIFMA estimates

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)

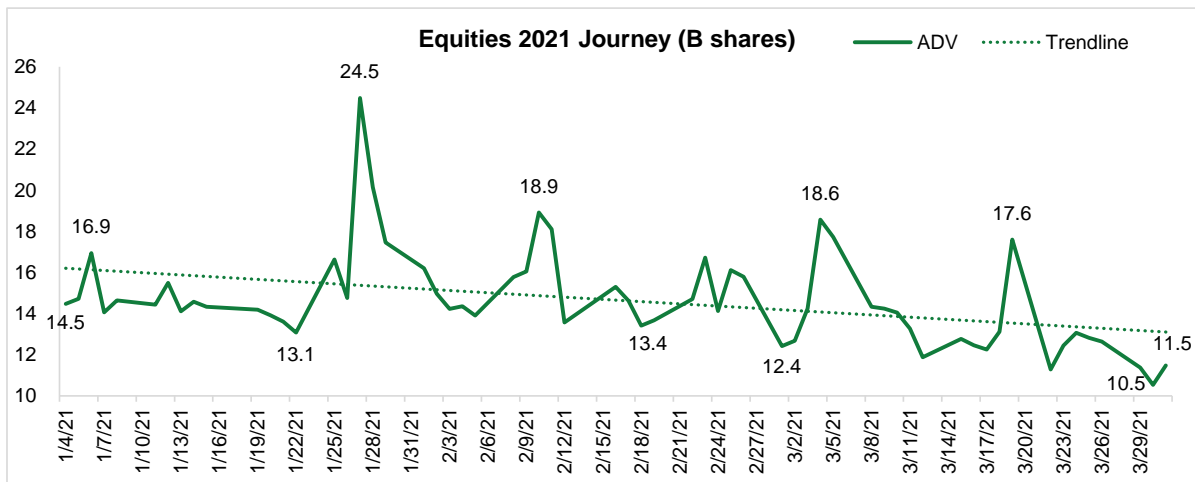
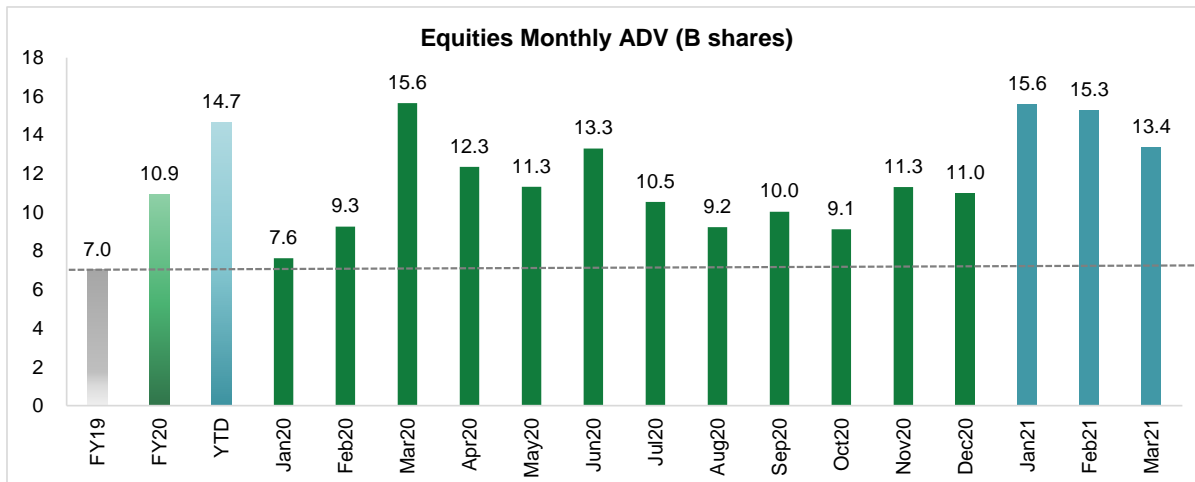
- Monthly average 3,910.54, versus 2020 average 3,217.86 and 2019 average 2,913.36 (+21.5% to 2020, +34.2% to 2019)
- Monthly peak on the 26th at 3,974.54, +7.4% to the start of the year and +23.5% to 2020 average
- Monthly low price level of 3,768.47 at the start of the month; strong upward trend on average for the year continues



Source: Bloomberg, SIFMA estimates

Equity Volumes (ADV)

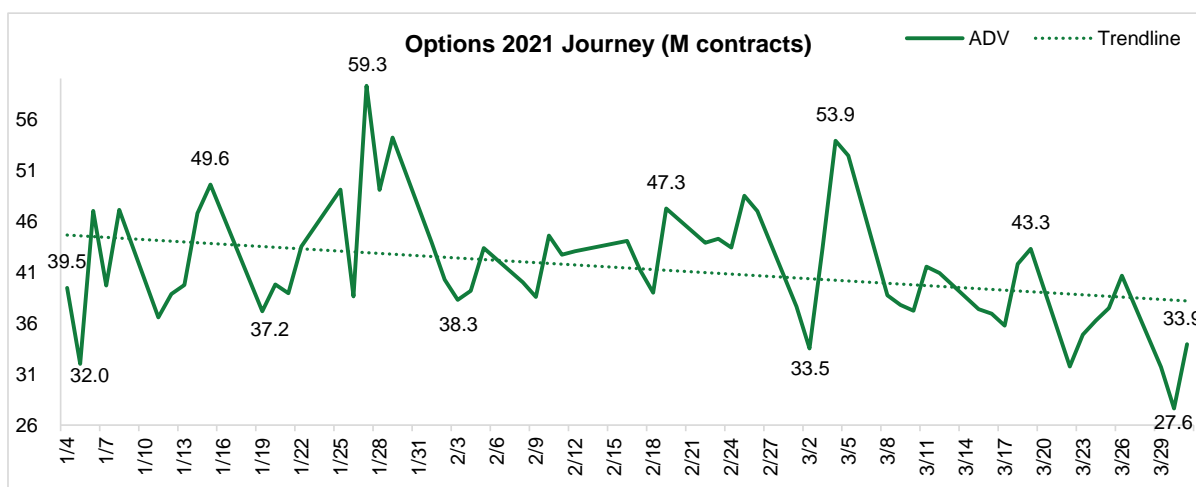
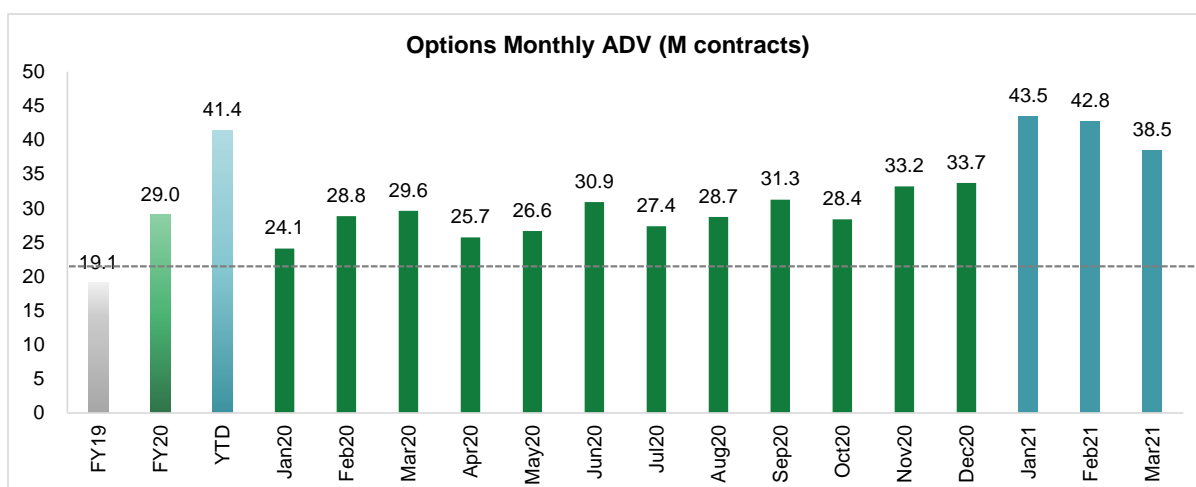
- Monthly average 13.4 billion shares, versus 2020 average 10.9 billion shares and 2019 average 7.0 billion shares (22.3% to 2020, +90.0% to 2019)
- Monthly peak on the 4th at 18.6 billion shares, +28.4% to the start of the year and +70.0% to 2020 average
- Monthly low level of 10.5 billion shares dropped below the 2020 average (-3.6%)
- Monthly average off exchange trading 41.8%, versus 41.5% 2020 average and 37.3% 2019 average (+0.4 pps to 2020, +4.6 pps to 2019)



Source: Cboe Global Markets, SIFMA estimates

Options Volumes (ADV)

- Monthly average 38.5 million contracts, versus 2020 average 29.0 million contracts and 2019 average 19.1 million contracts (+32.7% to 2020, +102.3% to 2019)
- Monthly peak on the 4th at 53.9 million contracts, +136.6% to the start of the year and +185.5% to 2020 average
- Monthly low level of 27.6 million contracts dropped below the 2020 average (-4.9%)
- The options action remains on the equity side (monthly average 36.7 million contracts, +34.9% to 2020 average); with index options volumes down from last month (monthly average 1.8 million contracts, +0.3% 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.

Markets vs. The “Real” World

Market participants commonly reference the disconnect between markets and the real world, more aptly market performance. As such, we thought it would be interesting to put some numbers and charts around this discussion. It is well known that the U.S. economy is recovering – bolstered by fiscal stimulus – but the recovery has not been equal across all sectors. Service areas affected by social distancing (travel, entertainment, hospitality) continue to struggle. Conversely, some technology companies, plays on the migration to the suburbs from urban centers and various physical, mostly delivered goods (online retail, grocery, used cars, home sales) have flourished.

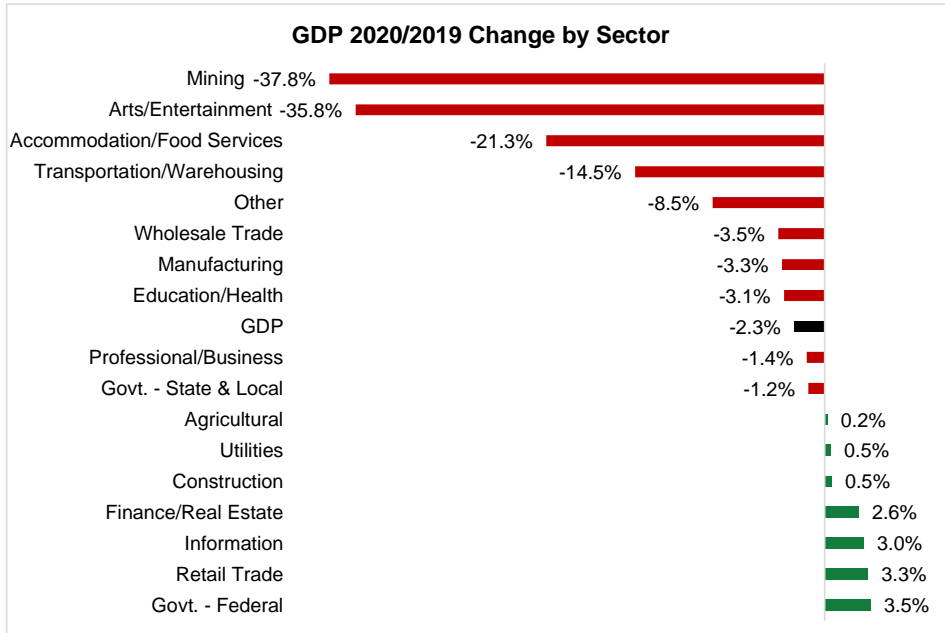
This is articulated quite well when breaking out GDP numbers by segment. Looking at personal consumption expenditures, there is a reverse image across goods versus services, +1.2% versus -1.5% respectively (2020 to 2019 change):

US GDP Breakout

	2019		2020		YY Change	
	\$T	% Total	\$T	% Total	\$T	% Total
Total GDP	21.4	na	20.9	na	-2.3%	na
Personal Consumption Expenditures - Goods	4.5	21.1%	4.7	22.3%	3.2%	1.2%
Personal Consumption Expenditures - Services	10.0	46.8%	9.5	45.3%	-5.4%	-1.5%
Gross Private Domestic Investment	3.8	17.5%	3.6	17.2%	-3.9%	-0.3%
Net Exports of Goods & Services	(0.6)	-2.8%	(0.6)	-3.1%	na	-0.2%
Government Consumption Expenditures & Gross Investment	3.7	17.5%	3.8	18.3%	2.2%	0.8%

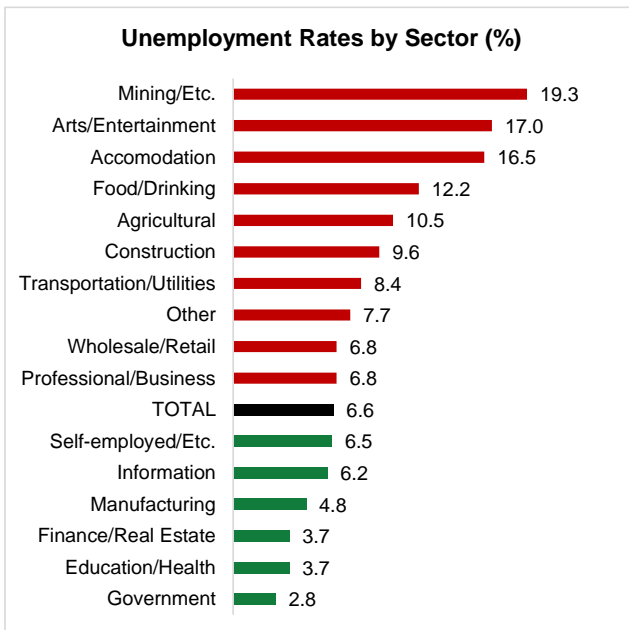
Source: BEA, SIFMA estimates

Diving more deeply into the 2020 to 2019 change by sub sector, the chart below shows that the service sectors have been much harder hit. For example, art, entertainment, and recreation is down 35.8%, while retail trade (where people can safely shop online) is up 3.3%:



Source: BEA, SIFMA estimates (as of FY20). Agriculture = agriculture, forestry, fishing, & hunting; Finance/Real estate = finance, insurance, real estate, rental, and leasing; Education/Health = educational services, health care, and social assistance; Arts/Entertainment = arts, entertainment, and recreation

Finally, we look at unemployment by sector. Again, pandemic hit sectors like arts (17.0%) and accommodation (16.5%) continue to have unemployment rates much higher than the 6.6% national average:

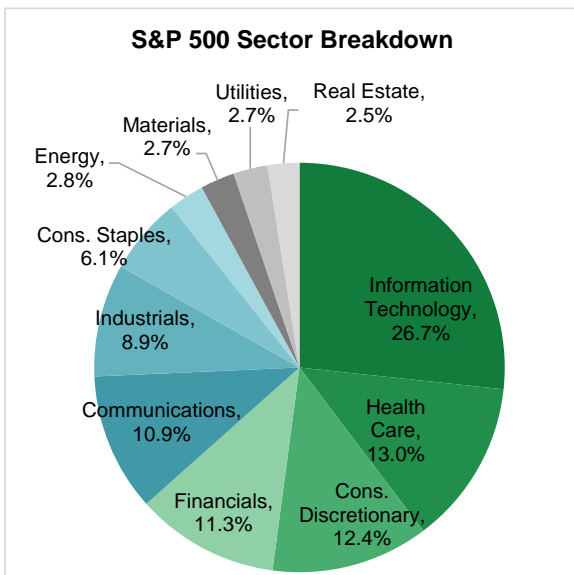


Source: BLS (as of Feb. '21). Mining = mining, quarrying, oil & gas extraction; agriculture = agricultural & related; finance includes insurance

However, this is not the picture shown by stock markets. This is because markets as a whole are, despite the shift of late to economic reopening trades, is still being driven up by technology and growth story names. The stocks are in the same sectors as those performing better in the economic data.

Using the S&P 500 as a proxy², the top 10 stocks represent 26% of the total \$35.4 trillion market capitalization (as of March 31, 2021): AAPL, MSFT, AMZN, FB, GOOGL, GOOG, TSLA, BRK.B, JPM, JNJ.³ Of these stocks, over one-third are in the technology sector (AAPL, MSFT) around one-third communications (FB, GOOGL, GOOG), around 20% consumer discretionary (AMZN, TSLA), around 9% financials (BRK.B, JPM) and about 4% health care (JNJ).

If you step away from the GICS⁴ classifications and group companies in terms of how stocks trade, over 85% of the aggregate market cap for top 10 names are technology stocks. The communications names (FB, GOOGL), AMZN and TSLA are often thought of as technology plays.



Source: S&P Dow Jones Indices

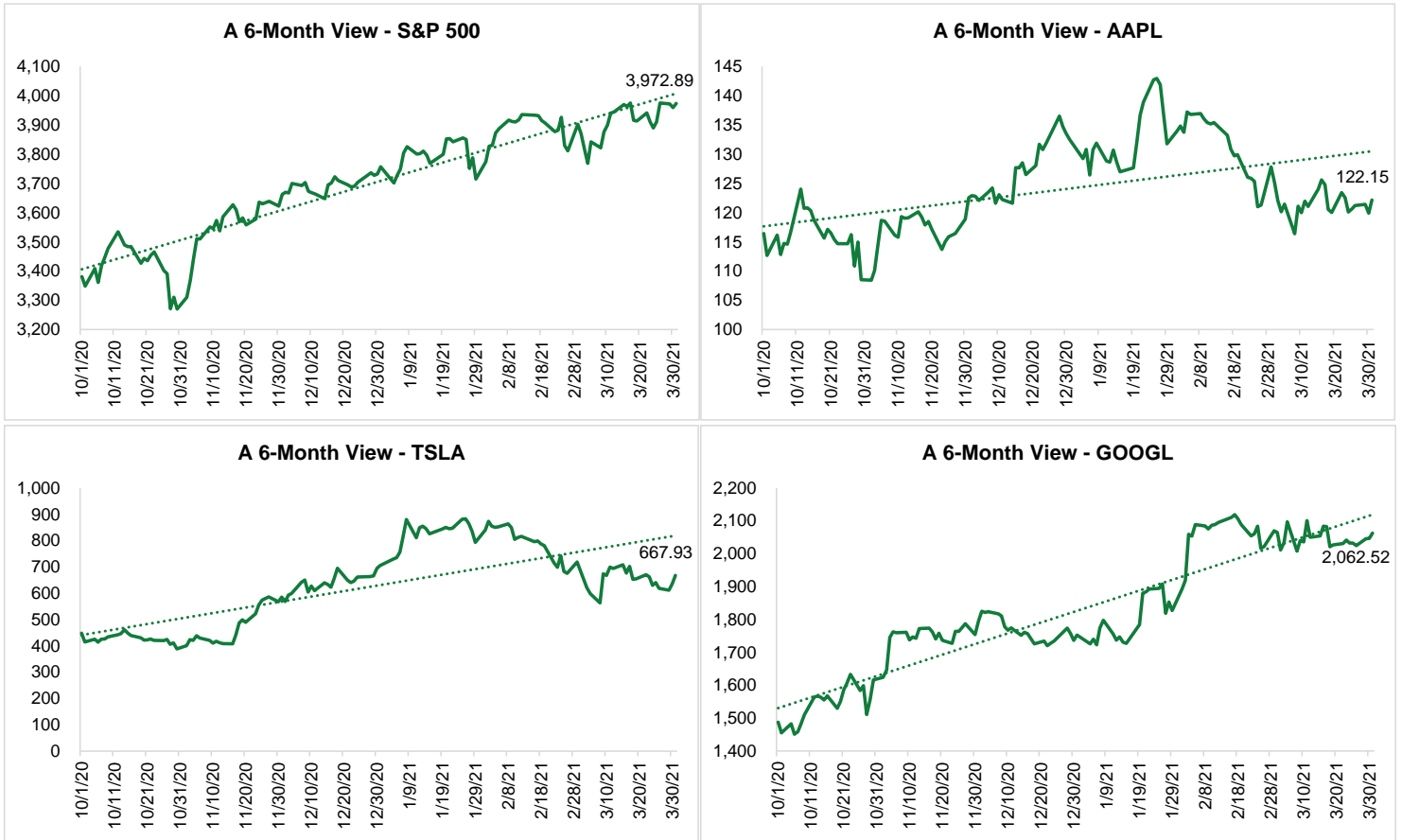
Note: As of March 31, 2021. Cons = consumer

² S&P 500 is a float-adjusted market cap weighted index with 505 constituents; it represents ~80% of total US market cap

³ Apple; Microsoft Corp; Amazon.com; Facebook A; Alphabet A; Alphabet C; Tesla; Berkshire Hathaway B; JP Morgan Chase & Co; Johnson & Johnson

⁴ Global Industry Classification Standard = taxonomy developed in 1999 by MSCI and Standard & Poor's; 11 sectors, 24 industry groups, 69 industries and 158 sub-industries into which S&P has categorized all major public companies

Since these stocks are higher priced and therefore have larger market caps, their upward stock price trends bring the whole S&P 500 with it. Below, we look at a six-month view of the price for the S&P 500 versus charts for a select few of the popular technology names: AAPL (~\$2.0 trillion market cap), TSLA (~\$640 billion market cap), and GOOGL (~\$1.4 trillion market cap).



Source: Bloomberg, SIFMA estimates (October 1, 2020 to March 31, 2021)

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