Capital Markets

THE RBC MACROSCOPE

Our Monthly US Equity Market Deep Dive

RBC Capital Markets, LLC
Lori Calvasina (Head of U.S. Equity Strategy)
(212) 618-7634 lori.calvasina@rbccm.com

INVESTMENT STRATEGY RESEARCH | June 23, 2020

For required conflicts disclosures, please see page 189.

Disseminated: June 23, 2020 00:45ET; Produced: June 22, 2020 23:59ET

Table of Contents

RBC Capital Markets, LLC

Lori Calvasina (Head of U.S. Equity Strategy) (212) 618-7634 lori.calvasina@rbccm.com

Sara Mahaffy, CFA (US Equity Strategist) (212) 618-7507 sara.mahaffy@rbccm.com

Carlos Torres, CFA (Senior Associate) (212) 618-3312 carlos.torres@rbccm.com

April Lu, CFA (Senior Associate) (212) 428-6350 april.lu@rbccm.com

This report is priced as of market close June 19, 2020 ET.
All values in U.S. dollars unless otherwise noted.

For Required Conflicts Disclosures, please see page 189.

Asking for Your Support in This Year's Institutional Investor Survey

If you find our research helpful, please vote for our team in this year's *All-America Research Survey* by *Institutional Investor.*

Click Here to Vote/Request A Ballot

Click Here For Tips On How to Vote

Under All-America Research: Economics & Strategy,
select Portfolio Strategy and/or Thematic Research,
type RBC,
then select Lori Calvasina and/or Sara Mahaffy.

More stars = a higher vote.

Votes can be added/changed up until June 26th.

The results of this poll are very important to our firm.

We appreciate your support!

Executive Summary

Key Calls

Capital Markets

The Top 10 Things You Need To Know For June 2020

What's New, What Jumps Out, What's Changed, What's Resonating, and What We're Watching

1. **We expect US equity markets to stay choppy in the months ahead.** In the lead essay for this edition of *Macroscope*, we take a detailed look at most of the DRIVERs that we track for US equity market performance. Currently, as we highlight on page 8, three of our DRIVERs are negative while the other three are neutral (with mixed signals within each). There are signs that the healing process has begun throughout much of our work, in terms of corporate confidence, capex expectations, earnings sentiment, institutional investor sentiment, and economic data. But our work also suggests that much of this initial healing is already priced in. The rebound in the S&P 500 since March 23rd has been in line with the average move in the stock market in the six month period following the past three recessions. We believe valuations have also become extremely worrisome again, even taking into account the Fed stimulus that got them there. We see clear risks to the rebound from a rising virus case count in the US ex NY/NJ/CT, 2021 EPS forecasts that still seem too aggressive, the 2020 election, and rotation into non-US equities. Within US equity portfolios, we continue to stress balance. We remain neutral Small Cap relative to Large Cap and Growth relative to Value. There are no changes to our sector views (see page 153 for our latest S&P 500 sector scorecard and recommendations). Note we will not be publishing *Monday Morning Quarterback* this week, since the analysis featured in *Quarterback* is also included in *Macroscope*.
2. **The rebound has stagnated as the news flow around the coronavirus has become more mixed.** On page 13 we plot the path of the S&P 500 in 2020 to date, with key events around the coronavirus, stimulus, and reopening highlighted. The US equity market has been highly sensitive to shifts in news flow on each of these since February. Bad news dominated in February and March as financial markets came to grips with the devastation that the virus would inflict, but good news on stimulus and re-openings helped stocks rebound in late March and April. The rebound took a breather in early May when the news flow turned more mixed, but re-ignited late in the month due to positive developments on vaccines and treatments. In June, the news flow has become mixed again, with positive developments on re-openings offset by concerns about a rise in US cases outside the NY/NJ/CT area, the potential for new lockdowns, and discussion about longer-term damage to the economy from the pandemic.
3. **C-suite confidence is showing some early, modest signs of healing, but further healing may be dependent upon the outlook for the virus.** For now, we view the *Deals & Cash Deployment* backdrop for the broader US equity market as a neutral in our DRIVERs framework. Capex and buyback activity has weakened (pages 22-24). Softer trends on both were evident before the pandemic, making both easy sacrifices when the health crisis emerged and uncertainty in the outlook surged. Though many companies, most notably the Banks, have expressed support for their dividends, the pandemic did produce a spike in the percent of S&P 500 companies that have cut their dividends (page 28). That stat ended May a little over 10%, not nearly as bad as the 14% level seen during the Financial Crisis. These are all admittedly backward looking trends. Looking ahead, there have been some very modest signs that corporate confidence has started the healing process. CEO confidence (according to Chief Executive Magazine) has stabilized in 2Q (page 18). In survey data, capex expectations have moved up off levels that were close to Financial Crisis lows (page 19). High debt levels (which got higher in 1Q for the median company) also appear to be well managed (pages 30-32). One wrinkle in this part of the equity market's narrative is the rise in coronavirus cases that is emerging outside of the NY/NJ/CT area, where the first wave of the virus was most ferocious (page 50). In the early June *PwC US CFO Pulse Survey*, 59% percent cited a 2nd wave of the virus as one of their top concerns at the moment – the most popular choice (page 20).

The Top 10 Things You Need To Know For June 2020 (continued)

4. **Earnings sentiment is at an important crossroads.** 2Q20 reporting season is starting up in a few weeks, and it could prove to be a pivotal one for the US equity market. Like corporate confidence and a number of economic data points, sentiment towards earnings on the sell-side has been healing (page 37). In mid April, the percent of sell-side EPS estimate revisions that were upward revisions hit 8%, a little bit worse than its Financial Crisis low. This ratio has been improving ever since, hitting 48% in mid June. So far, the healing that's taken place as regards to earnings is that the downgrades have gotten less severe (indeed, we've seen little movement in 2020 or 2021 EPS forecasts since the middle of 1Q reporting season). The question, now, is whether we will start to see outright earnings upgrades, and whether the upward revisions ratio will cross the 50% threshold. For our part, we think 2020 numbers may have been pulled down enough, but continue to worry that 2021 EPS forecasts on the sell-side are too high. The bottom up consensus is still looking for S&P 500 EPS to come in at $163 in 2021 – right back to 2018-2019 levels, and well above our own model which anticipates $149. See pages 39-41 for further details. We continue to view *Revisions & Earnings* as a negative for US equities in our DRIVERs scorecard, but are keeping an open mind about the earnings outlook. If we find reason to become more optimistic about 2021 EPS in the upcoming reporting season, we'd consider becoming more constructive on the stock market.
5. **Institutional investor & traditional retail investor positioning remains fairly subdued.** The two weekly sentiment indicators that we track for institutional investors and retail investors suggests that positioning in both camps remains relatively cautious, despite some initial signs of healing. On the institutional side, asset manager positioning in US equity futures, as tracked by CFTC, has been moving up very slowly from its late March 2020 lows (which were in line with Dec 2018 lows, page 51). The improvement has been modest and halting, with signs of yet another setback in the latest data that came out on Friday capturing data as of the June 16th close. In that release, overall positioning in US equity futures fell slightly, driven by reductions in exposure to S&P 500, Russell 2000, and Dow contracts (positioning in Nasdaq contracts, which has seemingly turned into a safe haven, rose – see page 52). On the Retail side, we continue to monitor the AAII survey, where bearishness remained relatively high at nearly 48% as of last week's update (using data captured June 17th, page 53). That was a touch below the 52% high water mark that's been seen several times since February 2020. Note that we suspect this data set is skewed towards traditional retail investors and does not reflect the day trading phenomenon that has become a hot topic in the investment community but has been challenging to track quantitatively. Overall, we view *Investor Sentiment & Positioning* as a neutral DRIVER for the market.
6. **Valuations are a clear negative for the US equity market.** US equities look highly expensive again on 2020 and 2021 EPS, using both our own forecasts and the current bottom up sell side consensus estimates. As of the June 8^{th} high, the S&P 500 was trading at 26x 2020 EPS and 20-21x 2021 EPS (depending on whether one uses our $149 estimate or the consensus of $163). See pages 59 – 60. While we acknowledge that Fed stimulus has inflated P/E multiples and is likely to continue supporting lofty levels, the expansion already seen is on par with what we've seen in most prior QE periods (page 61). Note that our bottom up combo model is also 1.6 standard deviations above its LT average, above the 1.5 reading seen at the end of 2019, and in a range consistent with modest single digit declines in the S&P 500 over the next 12 months (page 62). US equities admittedly look attractive vs. bonds (page 66), but this has been a poor tactical indicator for S&P 500 direction in the post Financial Crisis era. Also, this model is a little below its post Financial Crisis average.

The Top 10 Things You Need To Know For June 2020 (continued)

7. **The economic recovery may already be priced in.** There's been a lot of talk recently about how quickly the US economy entered recession and began the healing process. The same statement applies to the US equity market. One thing we keep talking about in our conversations with investors is how textbook the moves in the S&P 500 around the pandemic have been. Between mid February and late March of 2020, the S&P 500 fell 34% peak to trough – essentially in line with the average recession drawdown of 32% that the index has experienced over the course of all recessions since the 1930's (page 67). Where the drawdown was different is in how long it took. In 2020, it lasted 33 trading days, well below the average of 440 days dating back to the 1930's (and shorter than the 1980 and 1990 recessionary drawdowns). The rebound has also been fast forwarded. Looking back over the past three recession related rebounds, the S&P 500 saw an average gain of 41% within the first six months after the recession ended. That's essentially in line with the 44% move the index saw between late March and early June, trough to peak (page 68). We think it's time for investors to stop thinking so much about recession recovery trades, and to start considering what the next phase of the economy looks like and what that means for the stock market.

8. **We continue to view the 2020 election as a major risk for stocks in the months ahead.** We're written extensively about the US election in recent weeks, but it comes up so frequently in our conversations with investors that our message bears repeating. The betting markets have recently started to expect Biden to take the White House, and for the Democrats to take back the Senate (pages 91 and 92). The latter scenario has been viewed as a negative for stocks in the investor surveys that we've conducted over the past year, and those who viewed Biden as a bearish outcome for the stock market rose in our March survey. We'll have more details on how investors are thinking about this risk soon when we publish the results of our June 2020 RBC US Equity Investor survey, which closed Monday night. For now, we continue to view this as a major hurdle for stocks in coming months.

9. **We see a number of reasons why the recent underperformance of the US relative to non-US equities might persist.** On page 105 we track the performance of the S&P 500 relative to the MSCI World ex US index. The US has enjoyed safe haven status since the pandemic related drawdown in global stocks began. But like many trades, this one flipped in mid May. The timing makes sense, given that this is also when Value began to outperform Growth within the US. Over the past decade, the Growth/Value and US/non-US equity trades have tended to move in tandem with one another (page 107). Beyond the style shift, we think a few things contributed to the shift in geographic leadership. First, the US has been extremely overvalued relative to non-US equities, pushing bargain hunters to look outside the US (page 112). Positioning in asset allocation funds in non-US equities was near historical lows as the 2nd quarter began (page 110), suggesting that as these market participants re-engaged with equities that there was more of a need to look outside the US. Going forward with this trade, the outlook for the virus may also come into play. Europe has flattened its curve, but cases in the US are rising again after a long plateau (page 111).

10. **Growth has survived another failed leadership challenge.** Value has made four serious attempts to assume leadership since the pandemic began, including one starting mid May, but none have stuck (page 125). Growth leadership has taken hold again in recent trading sessions. We remain neutral on a 6-12 month view. Valuations and positioning favor Value (Growth looks overvalued vs. Value, and Nasdaq futures positioning has been elevated among asset managers, pages 144 and 52). But most of our earnings indicators and our expectation that economic growth will be lackluster post pandemic favor Growth (pages 139 – 141).

DRIVERs Scorecard for the Broader US Equity Market and Large Cap Style Trade

Three of the DRIVERs we track for US equity market performance are negative, while the others are neutral (with conflicting signals on the various indicators we track). Our DRIVERs are split between Growth and Value.

		S&P 500	Large Cap Growth vs. Value
D	Deals and Cash Deployment	Neutral	Neutral
R	Revisions/Earnings Trends	Negative	Growth
I	Investor Sentiment and Positioning	Neutral	Value
V	Valuation	Negative	Value
E	Economy and Policy	Neutral	Growth
R	Retail Money Flows	Negative	Neutral

Source: RBC US Equity Strategy

Large Cap Sector Calls

Overweights	Market Weights	Underweights
Health Care	Consumer Staples	Consumer Discretionary
Industrials	Financials	REITs
Utilities	Energy	
	Materials	
	Communication Services	
	Technology	

Source: RBC US Equity Strategy

S&P 500 Outlook

Our Latest Thoughts on the DRIVERs of the
Broader US Equity Market

DRIVERs Rundown for the S&P 500 (Broader US Equity Market Outlook)

Deals and Cash Deployment	***Neutral*** ▪ Corporate confidence was already quite weak before the pandemic due to the trade war, and was near the lows of prior recessions on the Conference Board's gauge. Some stabilization has been seen on the Chief Executive Magazine's gauge, the only one for which we have a 2Q update. ▪ Capex expectations were hit hard in 1Q, approaching Financial Crisis lows on some surveys. Most of the monthly capex surveys we track showed signs of stabilization in their May or June updates. Similar trends are in place for Tech spending expectations. Actual capex spend has been weak, but may be poised to recover in late 2020/early 2021 given the modest uptick seen in ISM new orders, which tends to lead capex by a year. ▪ Buyback activity was already moderating ahead of the pandemic on most of the indicators we track, making it no surprise that buybacks (along with capex) were easily sacrificed by S&P 500 companies in March, April, and May in response to the pandemic. ▪ The dividend yield on the S&P 500 has been fairly stable. Companies cutting their dividend rate has spiked, but isn't quite as bad as what we saw in the Financial Crisis. We think that companies will try to hang on to their dividends as long as it is reasonable to do so, but if the virus starts to look like it will be a prolonged overhang on the US economy, dividends may become vulnerable. ▪ Even with the recent dividend cuts, US stocks still look attractive relative to bonds from a yield perspective. 71% of companies in the S&P 500 still have a dividend yield in excess of the 10 year Treasury yield, a level that tends to be followed by gains in the S&P 500 over the next 12 months. ▪ Net debt to cap has continued to climb for the median company in the S&P 500 to new highs, though this metric is still below past highs on a weighted basis for the S&P 500. We continue to be less concerned about high debt levels than many market participants since interest expense remains manageable relative to sales, and the rise in debt has been mostly driven by long-term debt.
Revisions/ Earnings Trends	***Negative*** ▪ Earnings sentiment (the percent of sell-side EPS estimate revisions to the upside) collapsed due to the pandemic, falling to 8% (slightly below Financial Crisis lows) in early April. But we've seen a dramatic improvement in this indicator ever since, with the percent of upward EPS estimate revisions returning to 48% in mid June. ▪ Bottom up consensus estimates for 2020 have been significantly cut, tracking at $125 as of mid June, down only slightly since mid May. This is close to our own forecast of $126. The overall magnitude of the cut is similar to what happened to EPS forecasts in 2009 and suggests to us that 2020 forecasts may have come down enough. ▪ However, 2021 estimates still seem too high. At $163, 2021 consensus EPS is tracking well above our own $149 EPS forecast. They are also implying 2021 EPS will rebound to 2019 levels, which we have serious doubts about based on recent company commentary.
Investor Sentiment and Positioning	***Neutral*** • The news flow around the virus has been an important driver of US equity market performance. Bad news was dominant during the February-March drawdown, and more good news than bad news emerged during the rebound that took place in late March and April. News flow was mixed in May, contributing to the pause in the rally that occurred, but improved in the 2nd half of the month (driven by optimism on vaccines and treatments), reigniting the rebound. In June, the news flows has been mixed again, as angst about the longer-term economic damage from the pandemic and second wave/extension of 1st wave fears have offset optimism generated by better than expected economic data. • After hitting a new high in February, positioning in US equities in the futures market (tracked weekly by CFTC and a good proxy for institutional investor sentiment) plunged to December 2018 type levels in late March. Institutional investor sentiment (according to this metric) has been on the mend, but does remain quite low. This dovetails with our recent client conversations, in which investors have been skeptical about the rally. • Retail investor bearishness in the AAII survey returned to 52% several times in recent months, in line with its non-Financial Crisis highs. It's been improving at the margin in most of May and June, but did move up in the latest update to ~48%.

Source: RBC US Equity Strategy

DRIVERs Rundown for the S&P 500 (Broader US Equity Market Outlook) – Continued

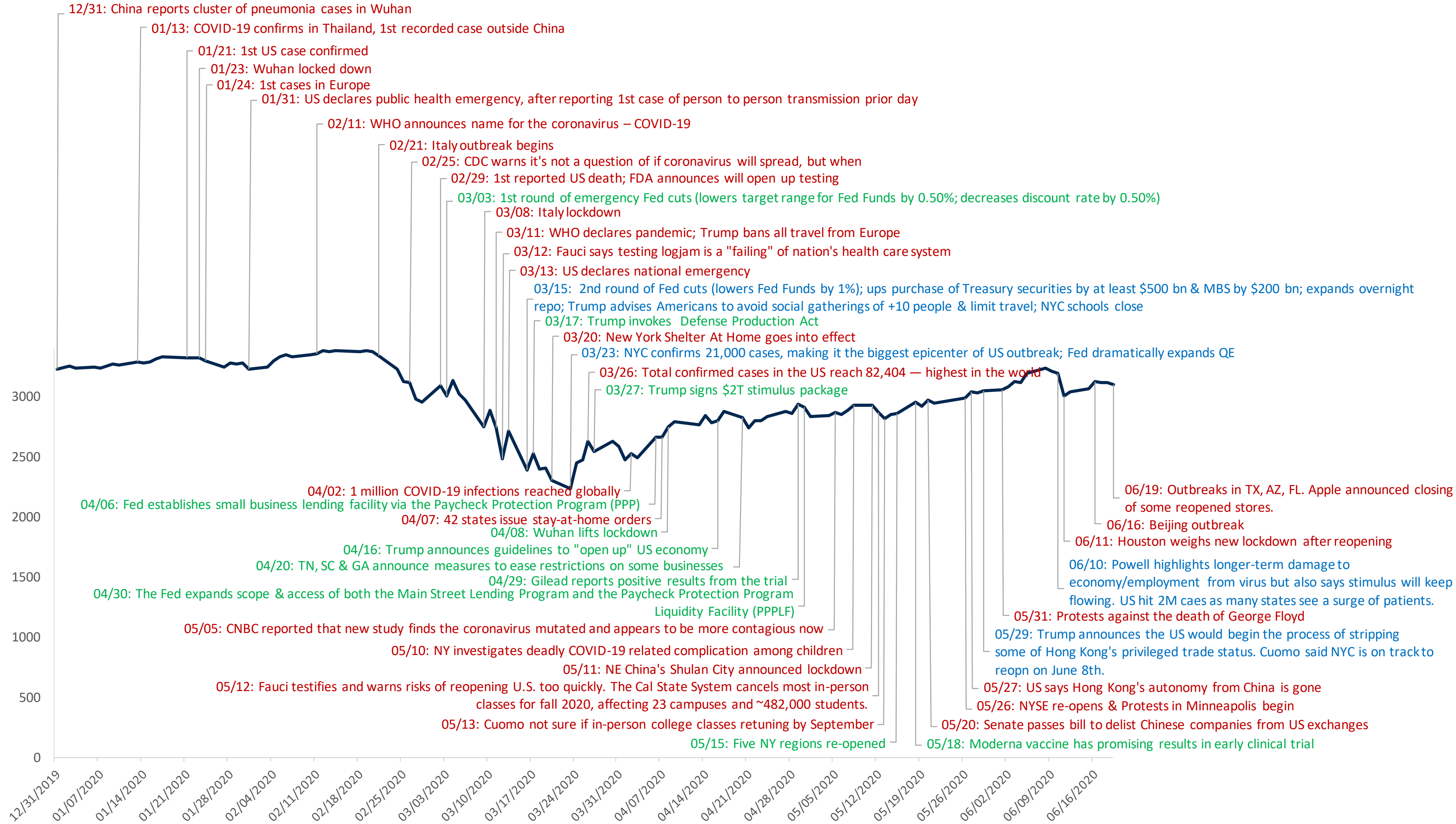
Valuation	***Negative*** ▪ Equity markets look expensive again on 2020 and 2021 EPS, using both our own forecasts and the current bottom up sell side consensus estimates. At recent highs, the S&P 500 has been trading at 26x on current year P/E and 20-21x on next year P/E. At the March 23rd low, the S&P 500 was trading near average on current year P/E and trading near the lows seen during the 2018 Growth Scare and 2015-2016 Industrial Recession on next year P/E. While it's fair to say a valuation opportunity briefly emerged at the March 23rd low based on our next year P/E analysis, it evaporated quickly. ▪ While we acknowledge that Fed stimulus has inflated P/E's and is likely to continue supporting lofty levels, the expansion already seen is on par with what we've seen in most of the prior QE periods. ▪ S&P 500 valuations also look elevated again on our combo model (which takes a bottom-up look at valuations, based on P/E's as well as other metrics using both weighted and unweighted multiples). As of mid June it was 1.6 standard deviations above its LT average, above the 1.5 reading seen at the end of 2019, and in a range consistent with modest single digit declines in the S&P 500 over the next 12 months. Note this model is approaching Tech bubble highs. ▪ Stocks look attractive vs. bonds when we compare earnings yield to the 10-year Treasury, a condition that has been in place over the last decade. The attractiveness of equities relative to bonds is a little below its post Financial Crisis average.
Economy and Policy	***Neutral*** ▪ On the Economic side, the S&P 500 priced in an average recession at the March 23rd low. At the early June high in the S&P 500, the rebound had already matched the average rebound seen coming out of the last three recessions as well. ▪ We think much of the recent rally has been driven by the idea that the economy bottomed in 2Q and that the recession is ending. Many economic data points, particularly those on the industrial side of the economy, returned to Financial Crisis lows before inflecting positively in recent updates. Economic data has also generally been coming in ahead of depressed expectations. Both the inflections and the positive surprises have helped to drive stocks higher. However, we are worried about the fact that the Citi US economic surprise indicator had already returned to past highs as of mid June. If expectations have been reset enough and the trend towards positive surprises dissipates, we believe this will be a clear negative for stock prices. ▪ We continue to worry that the path of the economic recovery will not be a smooth one, particularly now that new virus cases are on the rise again outside of the NY/NJ/CT area. Many companies emphasized that the recovery will be long, slow, and uneven in the last reporting season, a sentiment echoed by the Fed Chairman who has highlighted the longer-term damage to employment the pandemic has done. ▪ One indicator that never fell back to Financial Crisis lows is consumer sentiment, which has been surprisingly resilient. This may be because many Americans view job losses as temporary. We are concerned that labor market expectations may be too optimistic. ▪ In terms of Policy, we view stimulus from the Fed as a positive for the stock market. The recent balance sheet expansion is the most significant we've seen since the Financial Crisis, and in the past QE has helped put a bottom in stocks and produced multiple expansion. ▪ On Politics, we view the 2020 Presidential election as a major risk for the stock market. According to the betting markets, the pandemic has damaged the prospects for Trump's re-election and has also raised the chances that the Democrats will take back the Senate.
Retail Flows	***Negative*** ▪ Flows to US equities have generally been weak, driven by outflows from actively managed funds, according to Morningstar (through May). ▪ Weekly ICI data suggests that the outflows from equities have occurred alongside inflows to bond funds.

Source: RBC US Equity Strategy

Recent S&P 500 Performance With Key Pandemic Events Highlighted

Key Takeaways

- The tape has been highly driven by news flow in recent months on the outlook for the coronavirus, fiscal and monetary stimulus, the economy, and lockdown/reopening. For the most part, the news flow was negative in March, turned positive in April, got more mixed in early May when the rally stalled, and turned positive again in late May. In June, the news flow has turned more mixed/negative again, with positive developments on re-openings offset by concerns about a rise in cases outside the NY/NJ/CT area, the threat of new lockdowns, and discussion about longer-term damage to the economy.

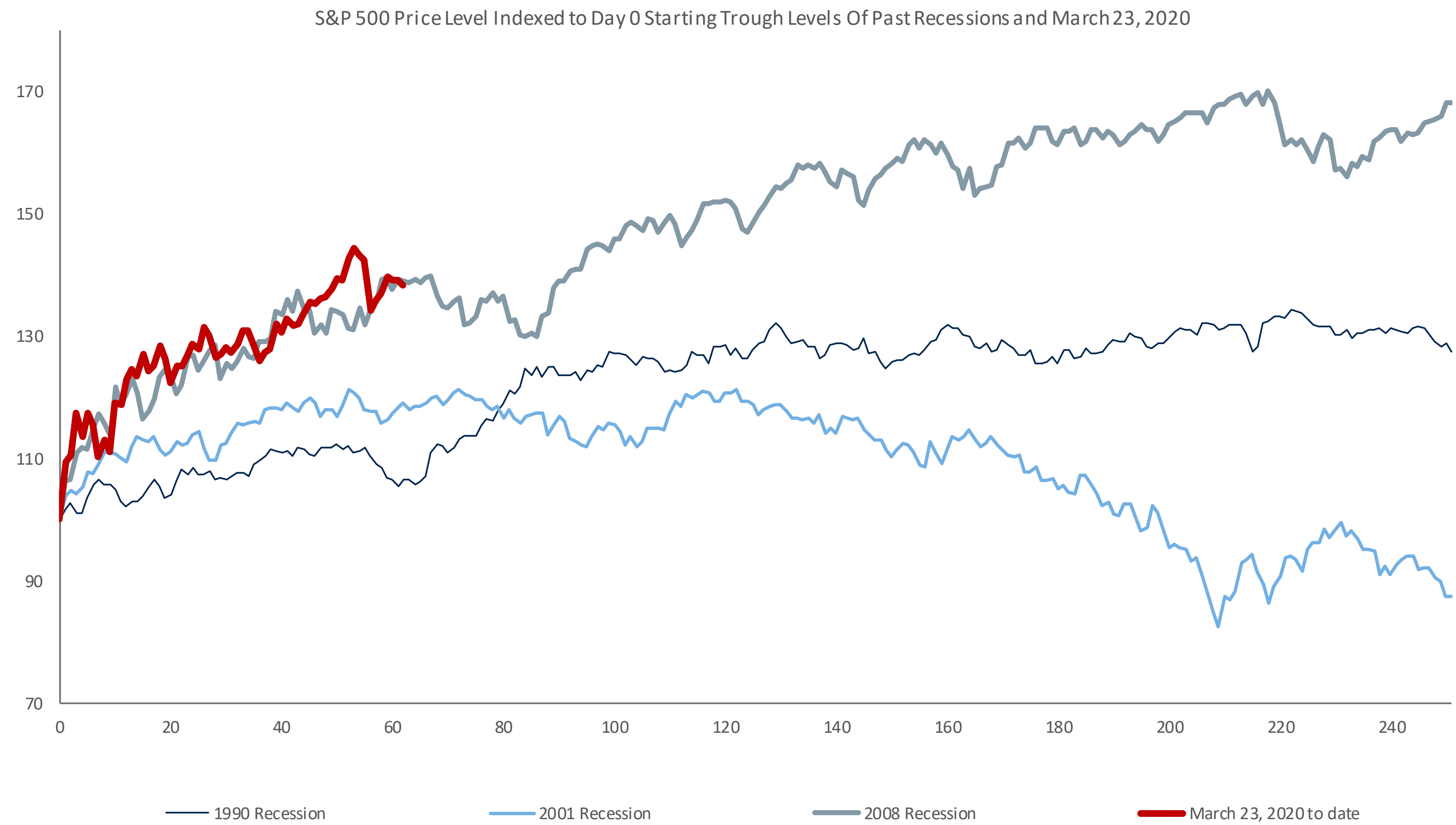


Source: RBC US Equity Strategy, FactSet. Red/green/blue tags represent negative/positive/mixed news; as of 06/19/2020.

In Early June, The Rebound In S&P 500 Was Running Even Hotter Than The 2009 Recovery Trade

Key Takeaways

- In February and March of 2020, the S&P 500 was trading similarly to late 2008, the heart of the Financial Crisis.
- In April and May, it traded more like the spring of 2009, after the equity market found its Financial Crisis low.
- In June, the S&P 500's rally began to track even better than the 2009 rebound at a comparable point in time, suggesting to us that the stock market rally had gotten a bit overextended and was due for a pause. After the mid-June volatility in the stock market, it's now back on the 2009 path.

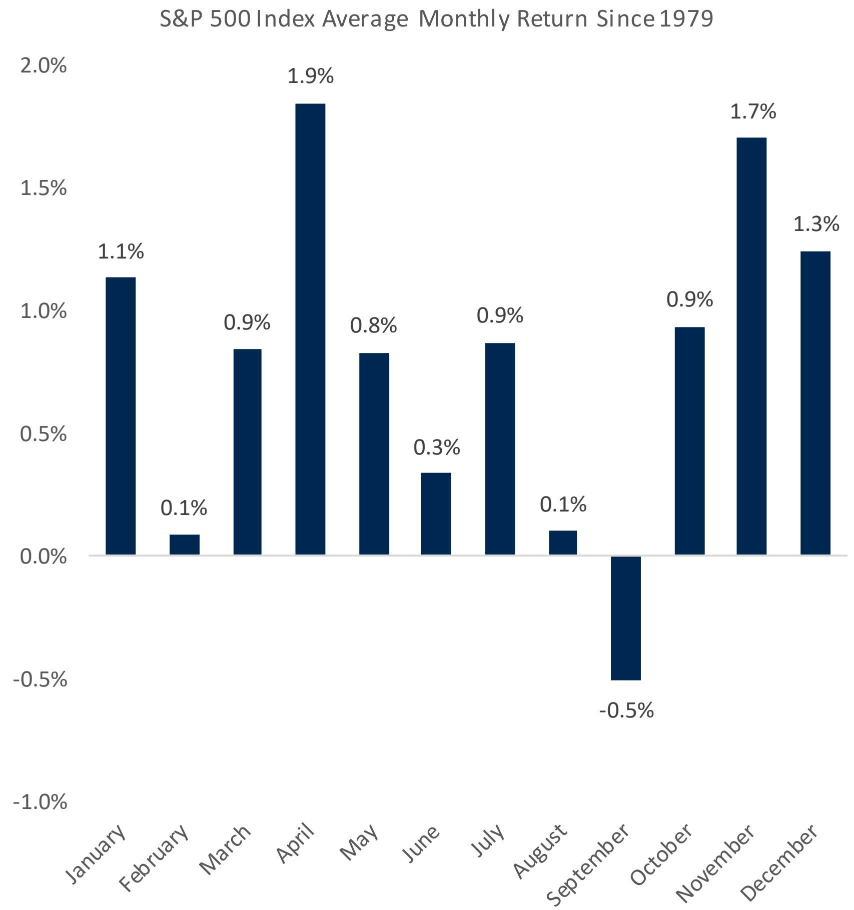


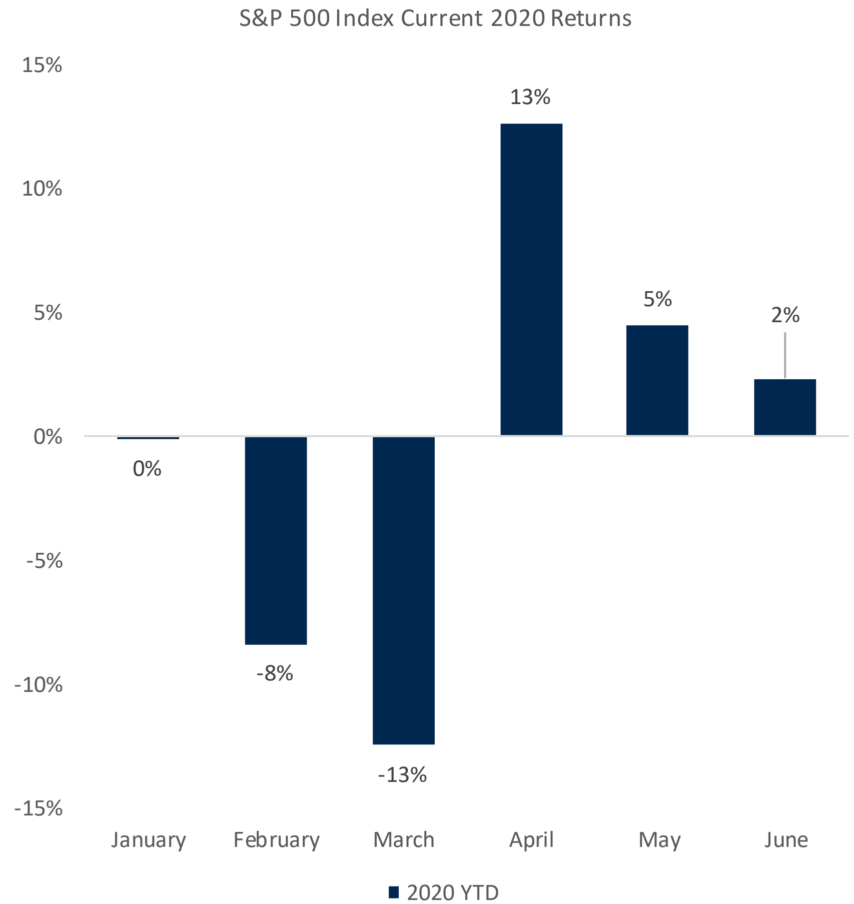
Source: RBC US Equity Strategy, FactSet; as of 06/19/2020.

Historically Late Summer/Early Fall is Unkind to Large Cap, but 2020 Hasn't Been Average

Key Takeaways

- Since 1979, monthly returns for the S&P 500 have been positive, on average, every month for the first 7 months of the year. Returns have been weaker in late summer and early fall, with negative returns seen, on average, in September.
- It's unclear to us whether the S&P 500 will follow the seasonal playbook this summer given how poorly the seasonal playbook has worked in 2020.



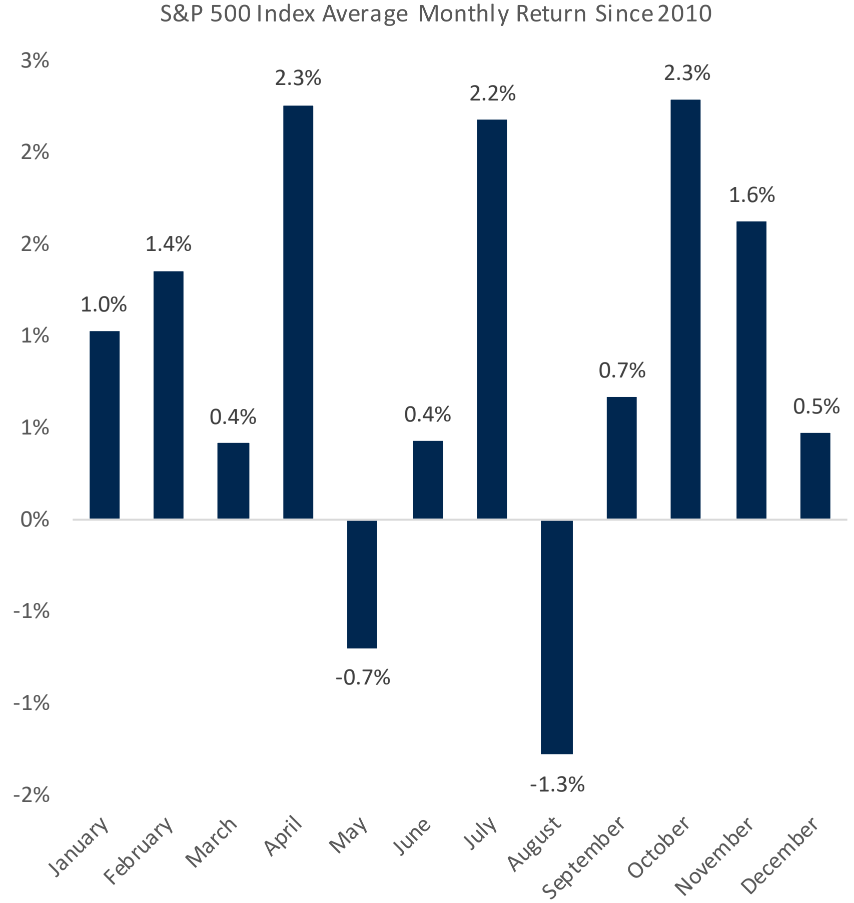


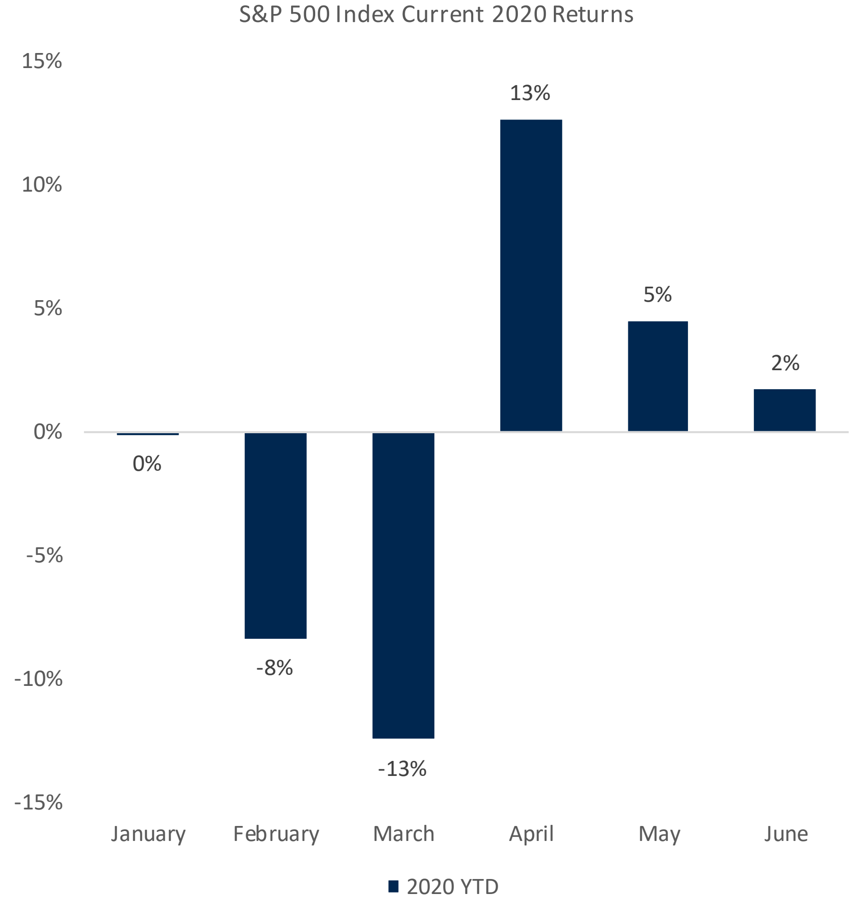
Source: RBC US Equity Strategy, Bloomberg, June 2020 Return as of 06/19/2020

The Seasonal Playbook for Large Caps has Been Different Since the Financial Crisis

Key Takeaways

- Since 2010, the seasonal playbook hasn't differed a bit in the S&P 500 from the one highlighted on the prior page.
- May and August have been the weakest months, with other months usually coming in flat or posting gains.





Source: RBC US Equity Strategy, Bloomberg, June 2020 Return as of 06/19/2020

Down Years in the S&P 500 Are Rare, Tend to Involve Recessions and Growth Scares

Key Takeaways

- Since 1979, the S&P 500 has experienced 31 years of positive returns, and just 10 years of negative returns.
- In only 4 instances has the S&P 500 experienced annual calendar losses of greater than -10% in magnitude, all associated with the Tech bubble or Great Financial Crisis. Most down years (which have involved growth scares or recessions) are in the 0 to -10% range.
- With a YTD decline of 4% in the S&P 500 so far, 2020 is shaping up to be similar to other bad years in the index (such as 2018 and 2011), but not nearly as bad as the extreme periods of distress in the stock market (2008, 2000-2002).

S&P 500 Returns Distribution Since 1979

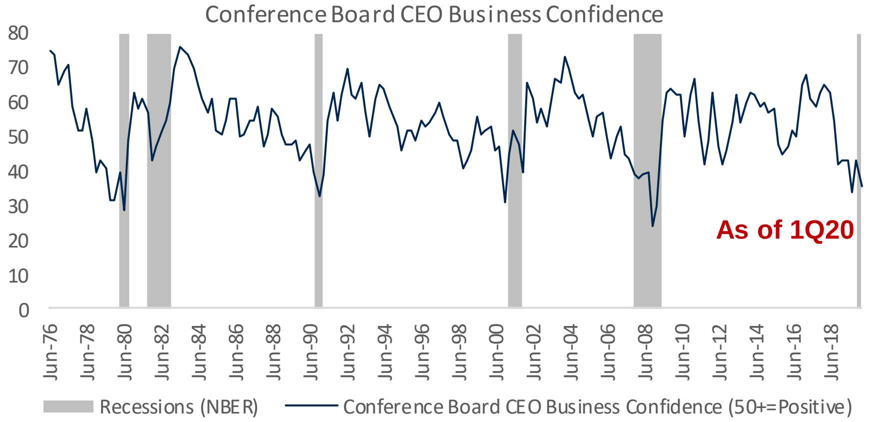
					2014		
					1979	1996	
					1988	2019	
				1984	2010	2009	
			2020*	1987	2012	1980	
			1981	2005	2006	1991	
			1990	2007	1986	1985	
			1994	1992	1982	2003	
			2011	1993	1983	1998	
		2001	2015	2004	2017	1989	1997
2008	2002	2000	2018	2016	1999	2013	1995
1 Year	1 Years	2 Years	6 Years	8 Years	11 Years	10 Years	2 Years
-40% to -30%	-30% to -20%	-20% to -10%	-10% to 0%	0% to 10%	10% to 20%	20% to 30%	30% to 40%

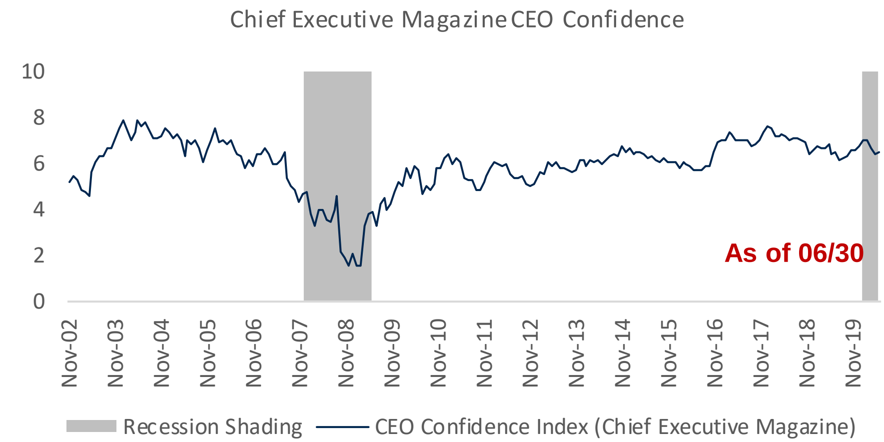
Source: RBC Wealth Management, Bloomberg, 2020 YTD based as of 06/19/2020

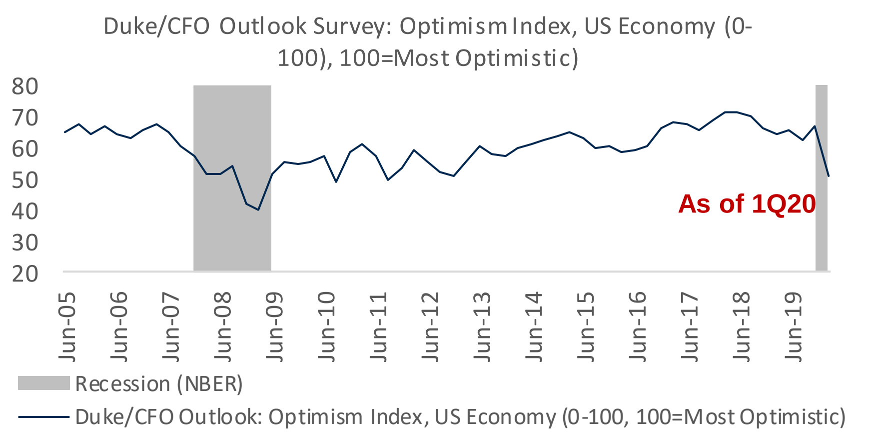
C Suite Confidence Already Weak Before the Pandemic

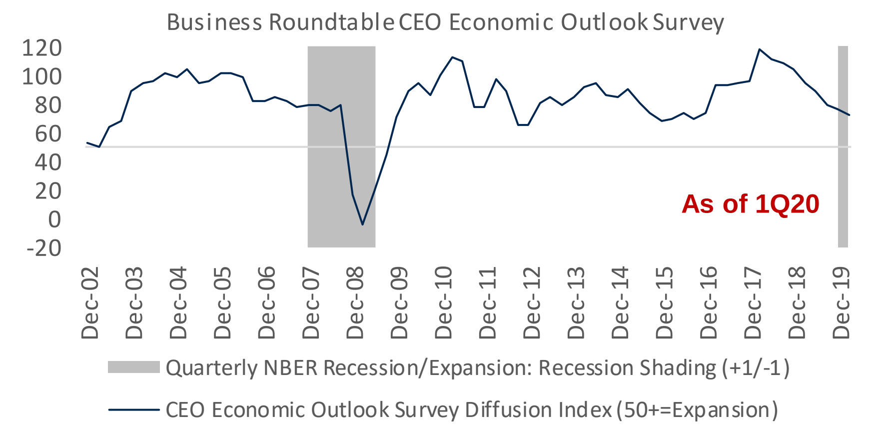
Key Takeaways

- C suite confidence was already quite weak before the pandemic due to the trade war that gripped markets in 2018 and 2019.
- On the Conference Board's gauge, where we have the longest history, confidence was already back to pre pandemic lows coming into the current health crisis, and remains there today. For the other gauges where we have 1st quarter updates in, further deterioration was seen. Chief Executive Magazine's CEO Confidence gauge, which is a more frequently updated indicator, showed some stabilization in June.







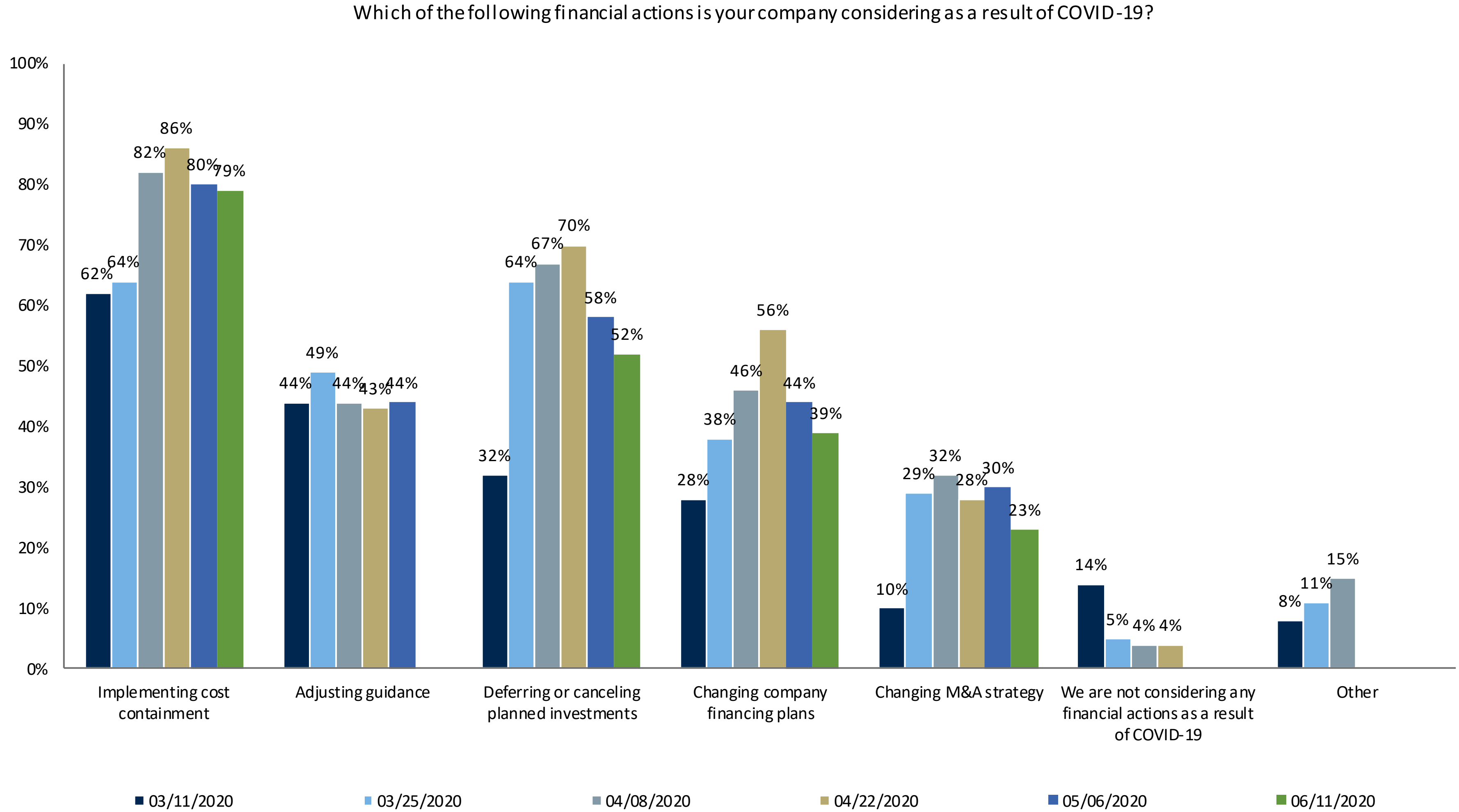


Source: RBC US Equity Strategy, Haver Analytics

Cost Cutting Remains High on the List of Strategies to Manage the Pandemic

Key Takeaways

- Cost containment measures have been high on the priority list since mid April, according to PWC's COVID CFO survey. In the early May survey, there was a bit of a drop off in those anticipating capex cuts, which continued into June. Few anticipate a change in M&A strategy.

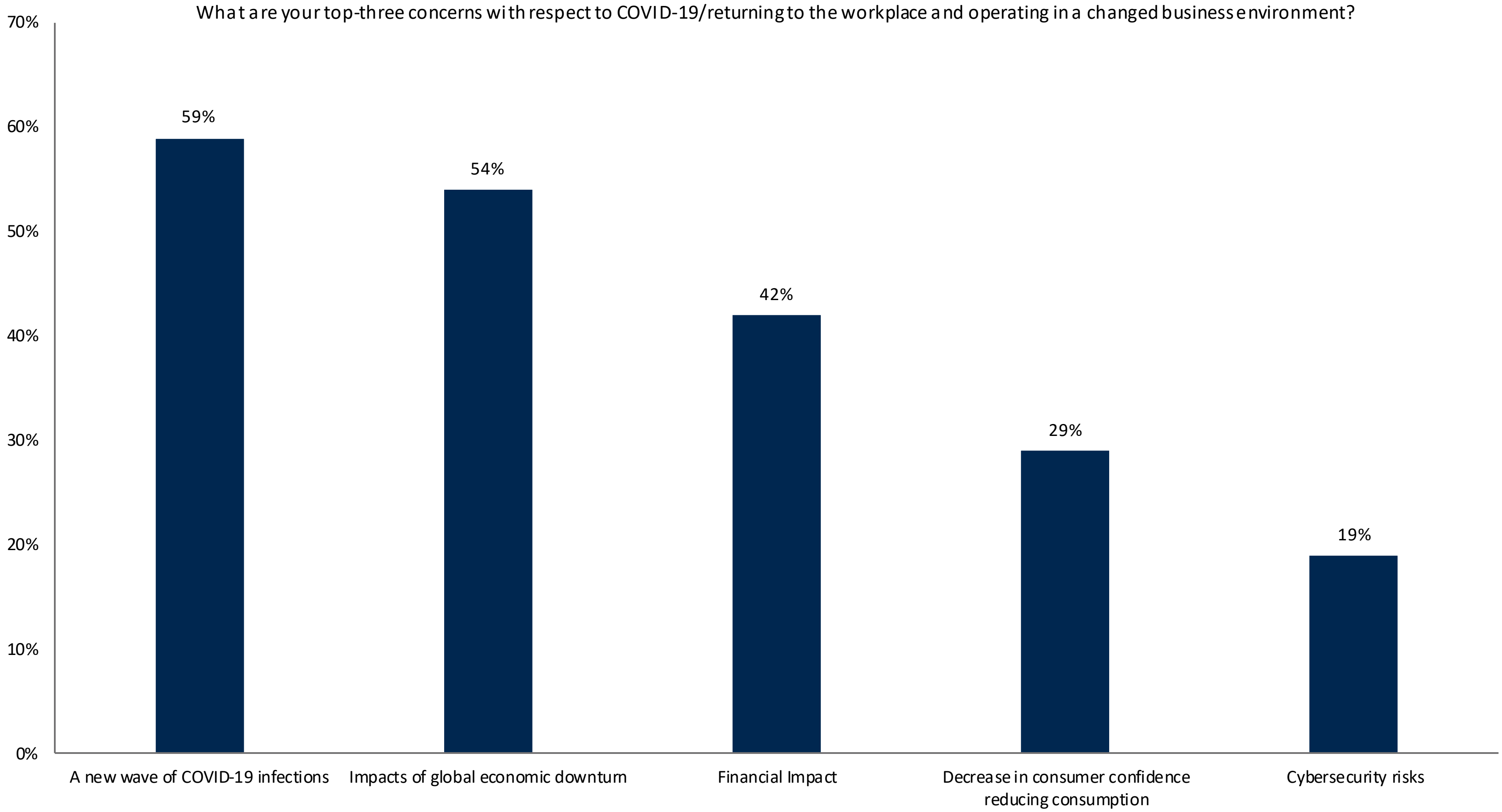


Source: RBC US Equity Strategy, PwC's COVID-19 CFO Pulse Survey. Missing values were not published by PwC.
Sample sizes for 03/11/2020 and 03/25/2020 surveys are 50 and 55, respectively, for US/Mexico. Sample sizes for 04/08/2020 and surveys after are ~300, for US only.,

2nd Wave of COVID-19 has Become the Top Concern of CFOs

Key Takeaways

- In the latest PWC COVID CFO survey, released in June, 59% expressed worry about a new wave of COVID-19 infections. 54% were very worried about the impacts of a global economic downturn, but this was down from 80% in mid March and 70% in early April.
- The financial impact of COVID-19 remains a top concern for 42% of CFOs, down from 75% in April.

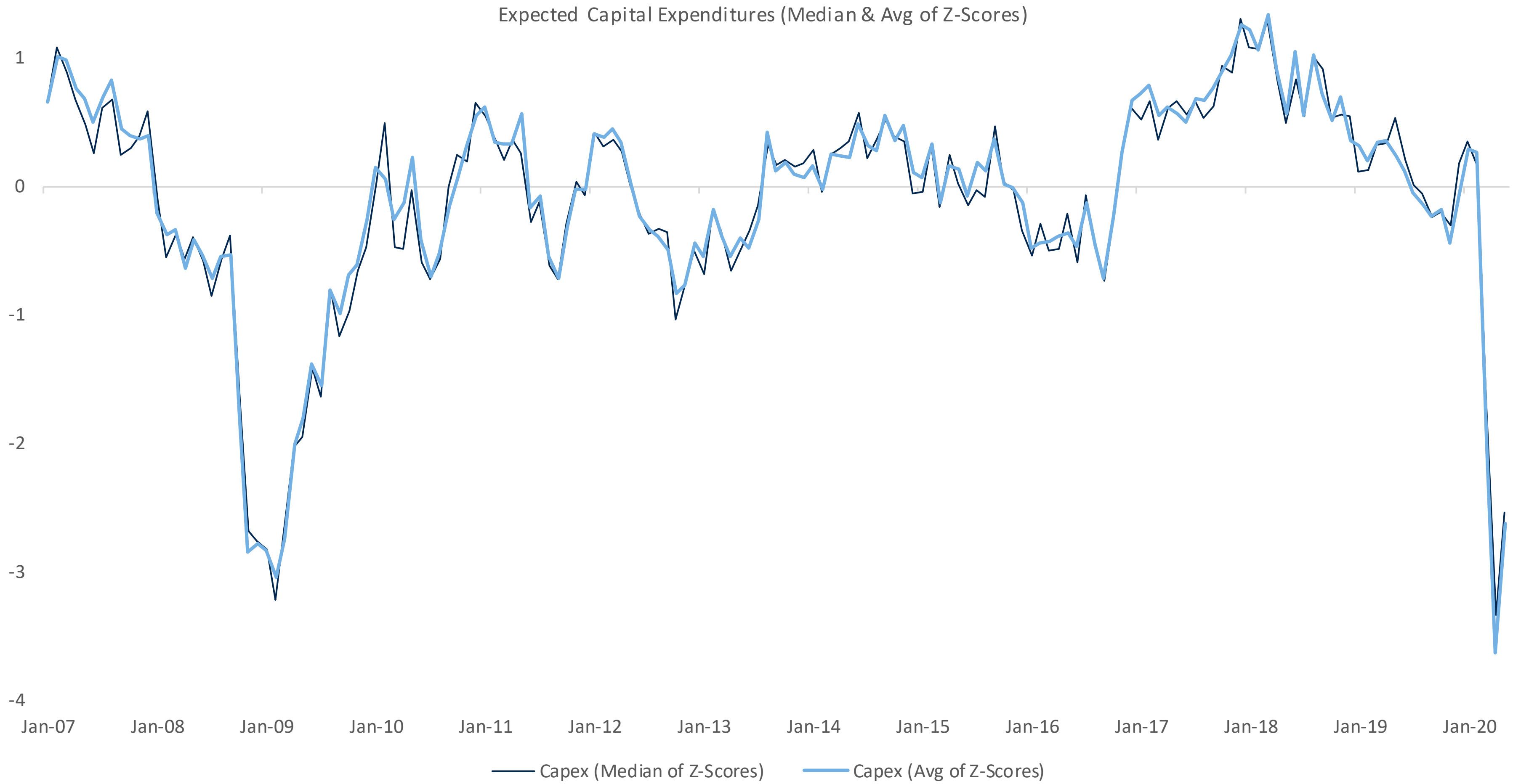


Source: RBC US Equity Strategy, PwC's COVID-19 CFO Pulse Survey, 06/11/2020.

Capex Expectations Have Inflected After Returning to Financial Crisis Lows

Key Takeaways

- We track regional Fed and independent surveys to obtain a gauge of expected spending plans among manufacturing & non-manufacturing companies. We combine these surveys through an average and a median of their corresponding z-scores.
- This particular gauge is pointed to a sharp decrease in future expected capital expenditures as of the end of April, with expectations back to Financial Crisis lows collectively. In may, capex expectations stabilized, one of several indicators that showed a positive rate of change.

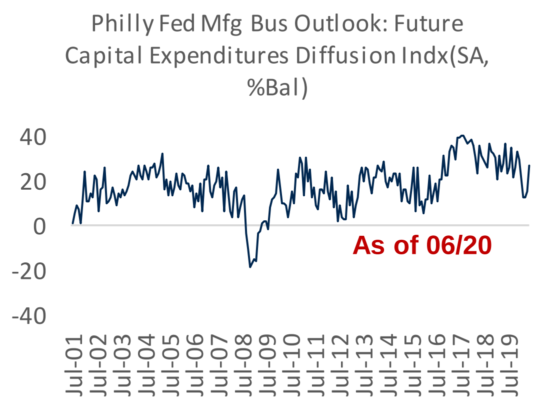


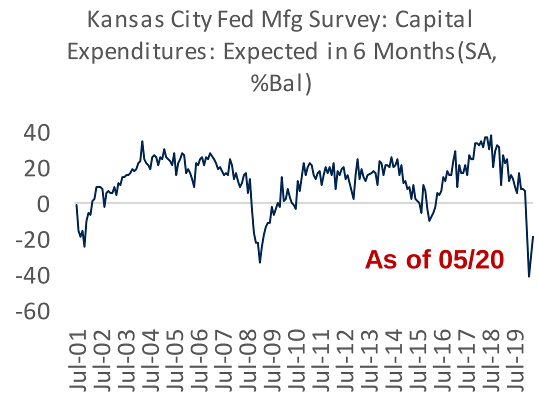
Source: RBC US Equity Strategy, Bloomberg, As of end of May
Expected Capital Expenditures gauge includes 10 different indicators from the following Regional Federal Reserve Banks: NY Fed, Philly Fed, Richmon Fed, Kansas City Fed & Dallas Fed

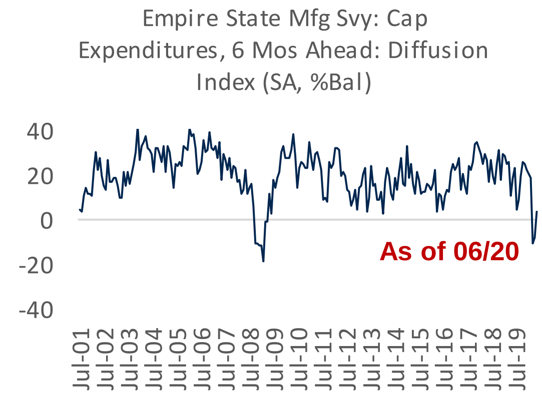
Capex Expectations Have Started to Recover in Recent Surveys

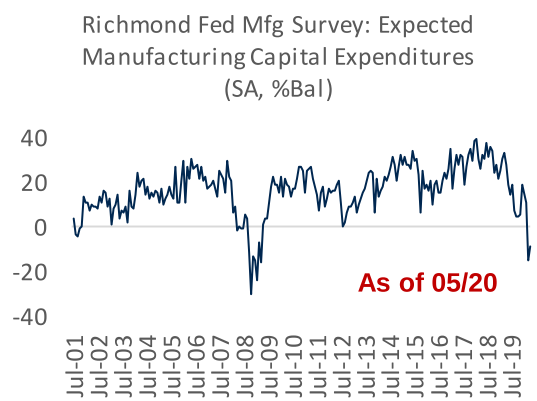
Key Takeaways

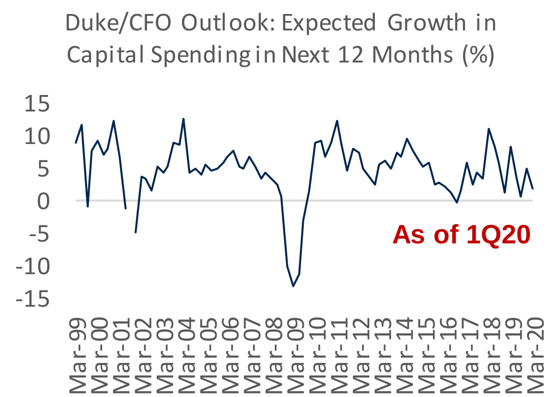
- Capex expectations had been starting to stabilize prior to the pandemic, but have plunged again in recent months for most of the major surveys that we track.
- The Empire State Manufacturing and Philly Fed surveys improved sequentially in June, hinting at a path of stabilization.
- The Kansas City and Richmond Fed survey also showed signs of stabilization in May.

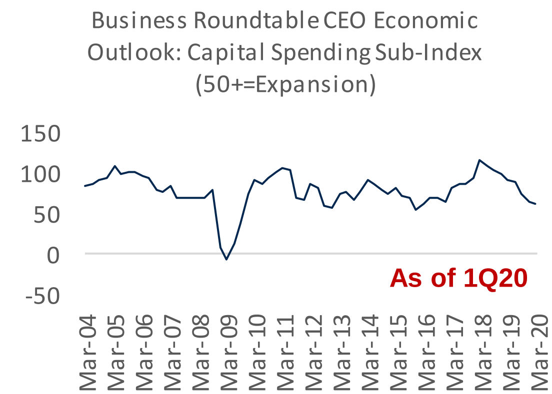










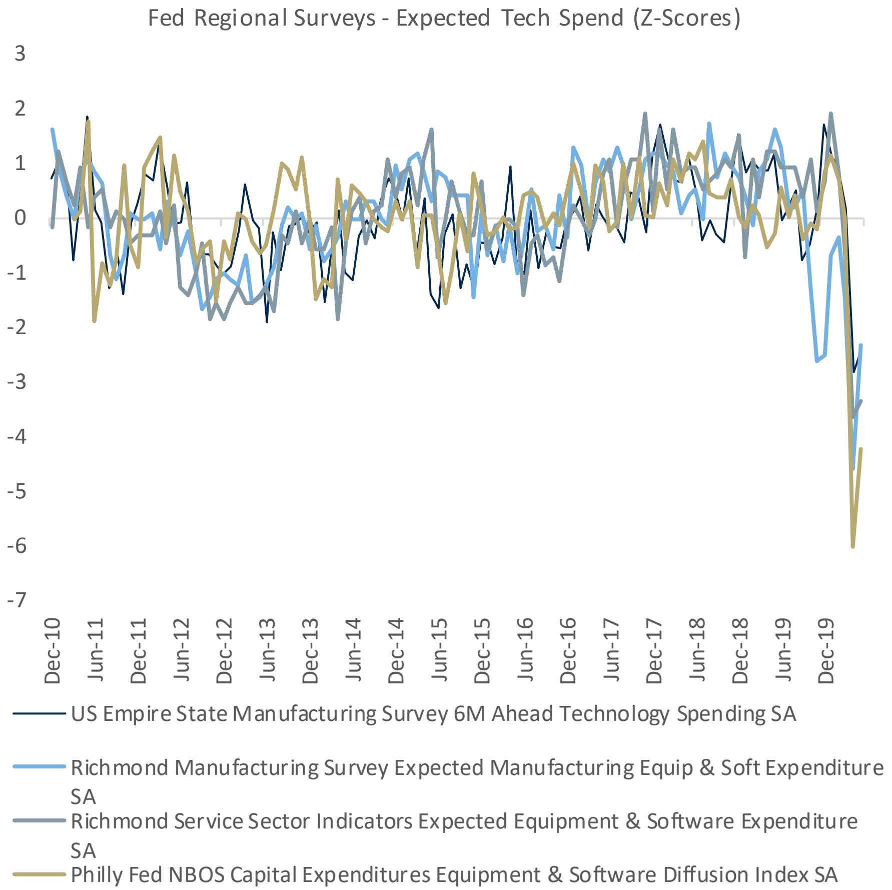


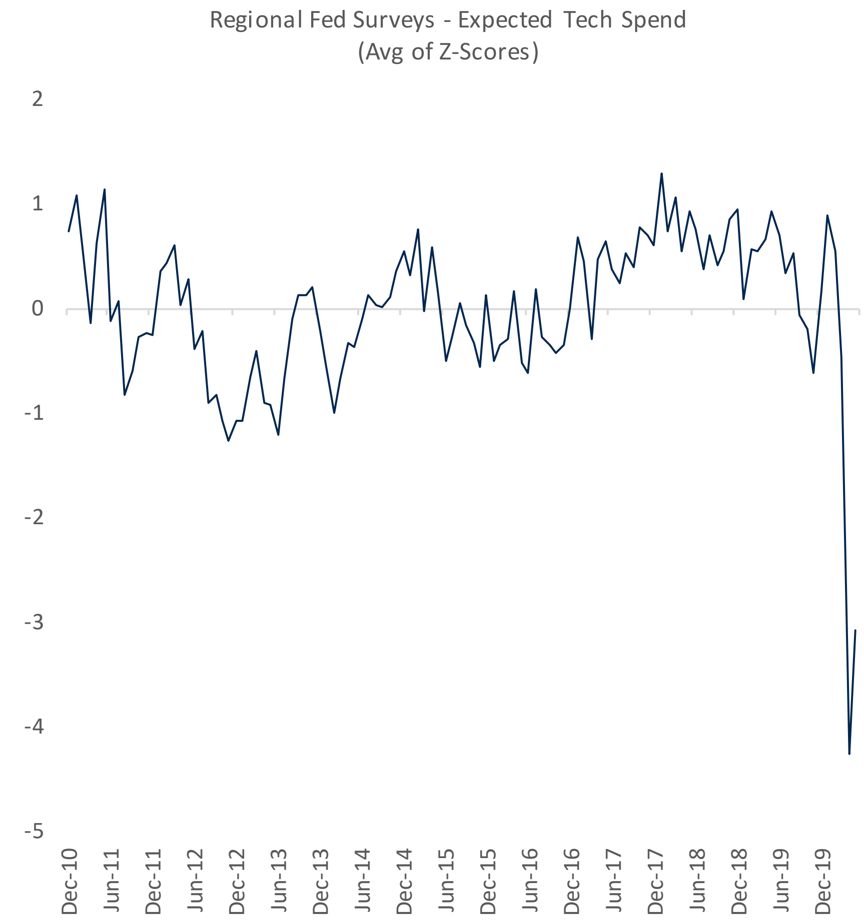
Source: RBC US Equity Strategy, Haver

Expectations for Tech Spending Have Also Started to Inflect Positively After Collapsing in April

Key Takeaways

- Expectations for IT spending collapsed in the regional Fed surveys, through April, hitting new Financial Crisis era lows.
- In May, collectively, they showed a sequential improvement.



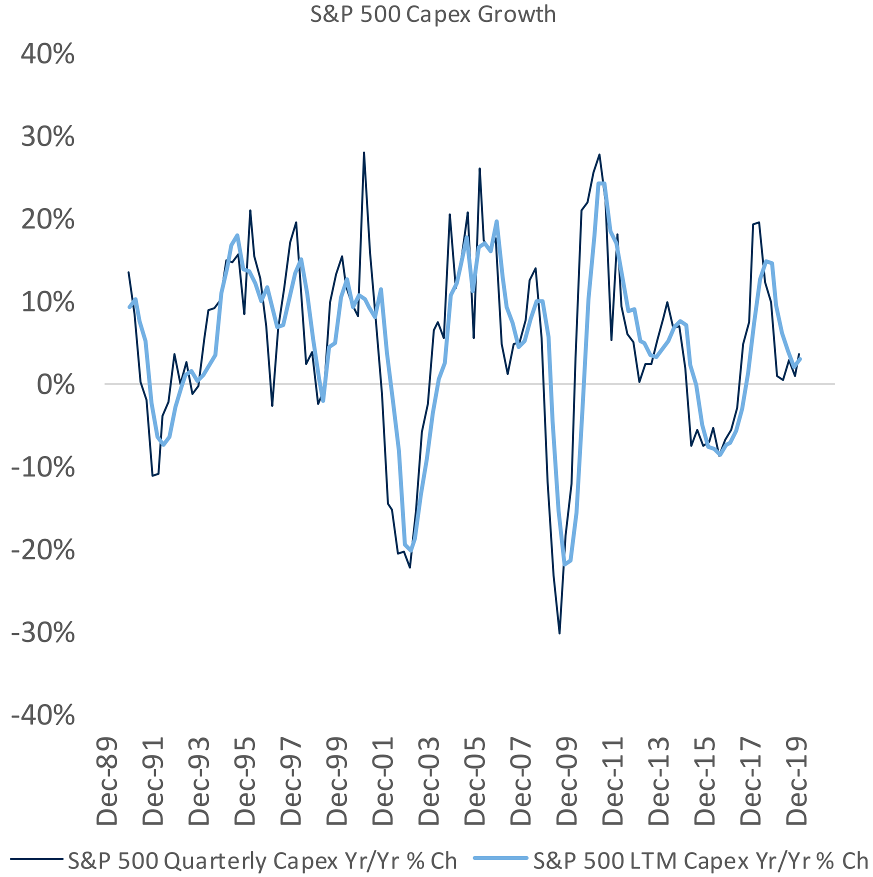


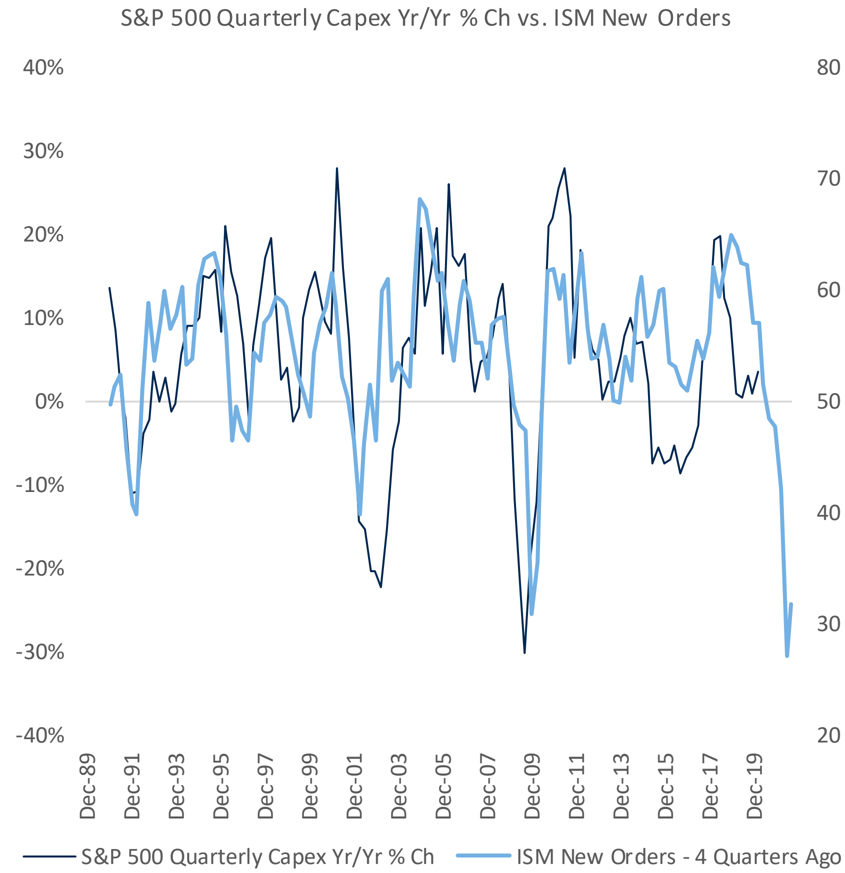
Source: RBC US Equity Strategy, Bloomberg, As of end of May

Actual Capex Trends Were Already Softening Ahead of the Pandemic

Key Takeaways

- Capex growth decelerated in 2019, and has stabilized in recent quarters.
- We expect capex growth to turn negative again in coming quarters based on recent company commentary and deteriorating trends in what we've seen in capex expectations in survey data. Note that ISM new orders, which have weakened substantially before inflecting positively of late, tend to lead actual capex spend by a year.



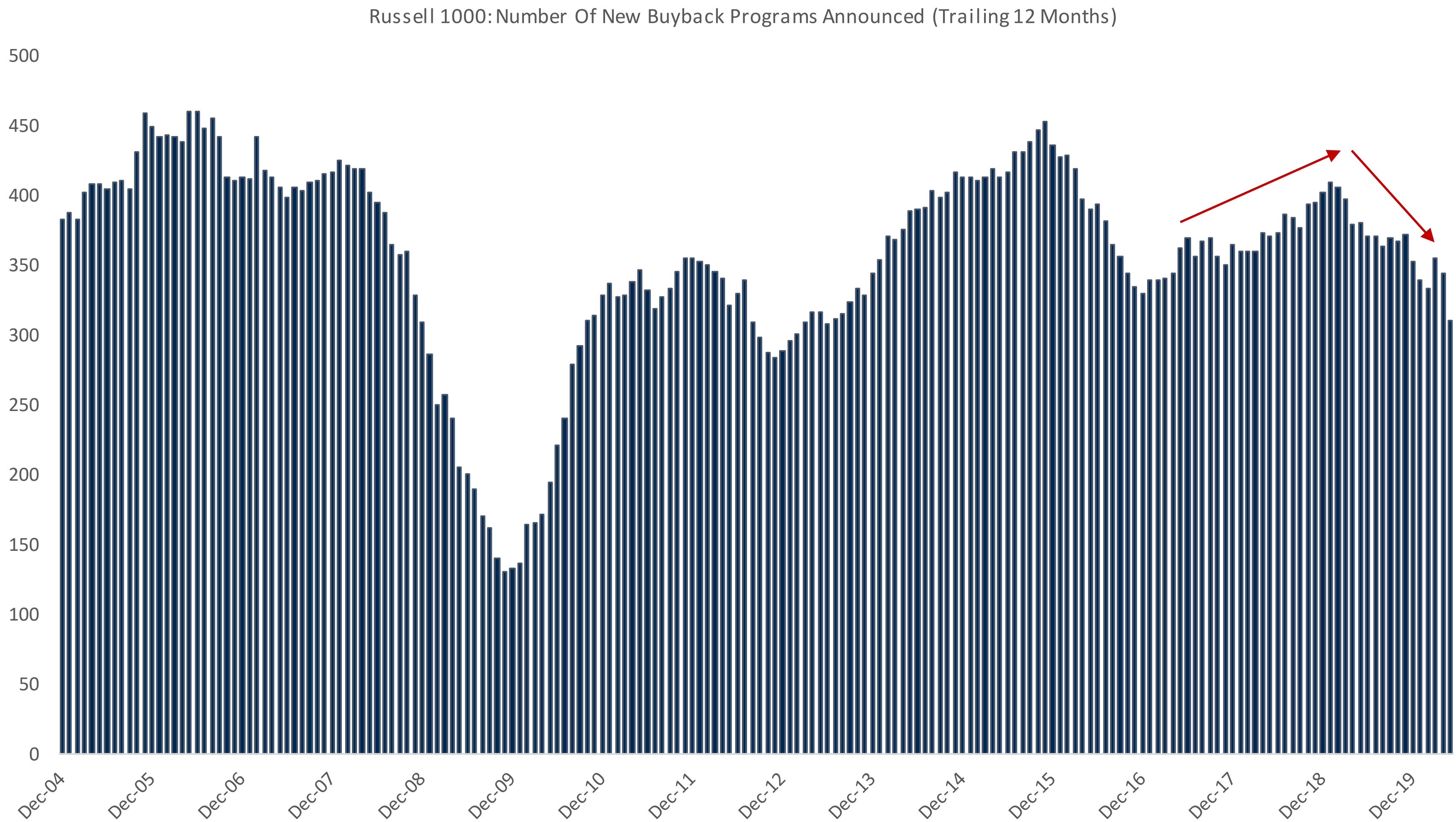


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Haver, Compustat. Latest data point is final for 1Q20

Buyback Announcements Were Already Falling Ahead of the Pandemic, Still in a Downtrend

Key Takeaways

- New buyback announcements had been pointing to a strong pipeline of share repurchases through year-end 2018. They slipped in 2019 and were suggesting that activity would moderate even before the pandemic hit. In early 2020, new buyback announcements continued to fall, with only a handful of companies announcing new programs in April & May. This pushed down the absolute level of the T12M new buyback announcements to a low not seen since 2013.

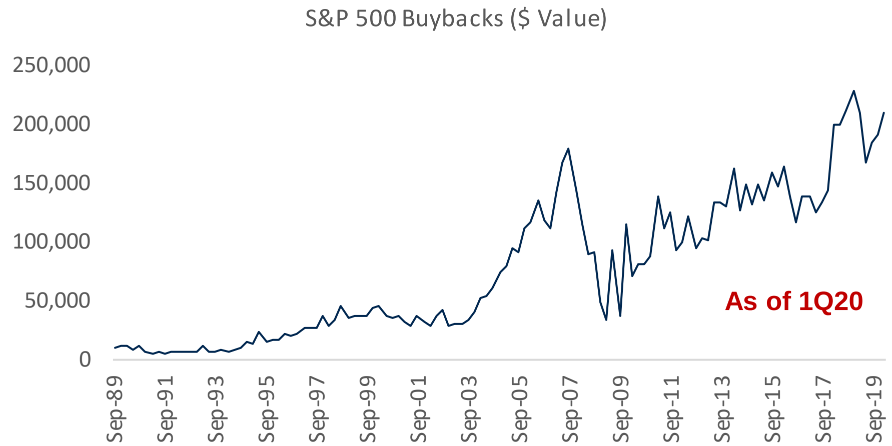


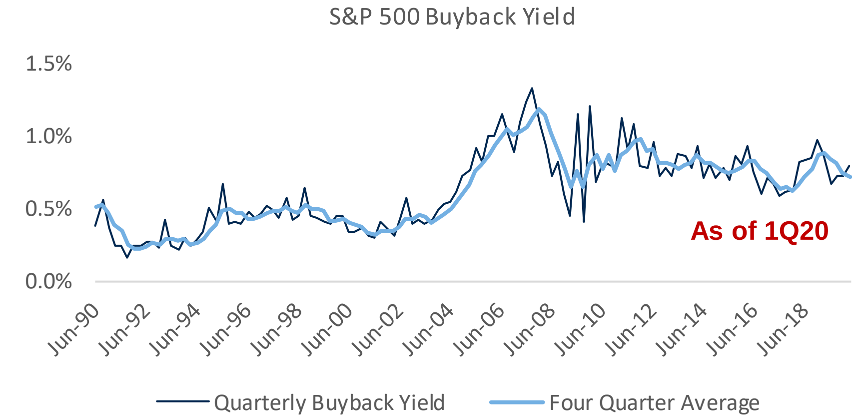
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ Key Developments, Russell; through May 2020.

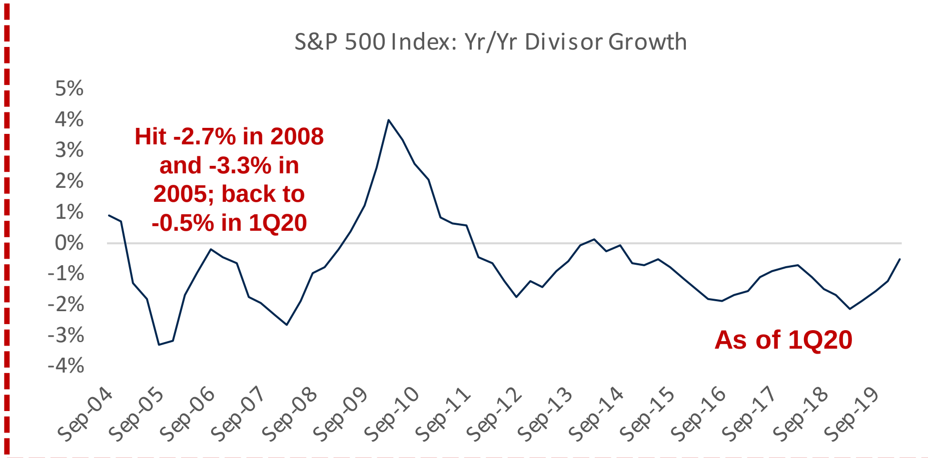
Buyback Impact was Moderating Ahead of the Pandemic

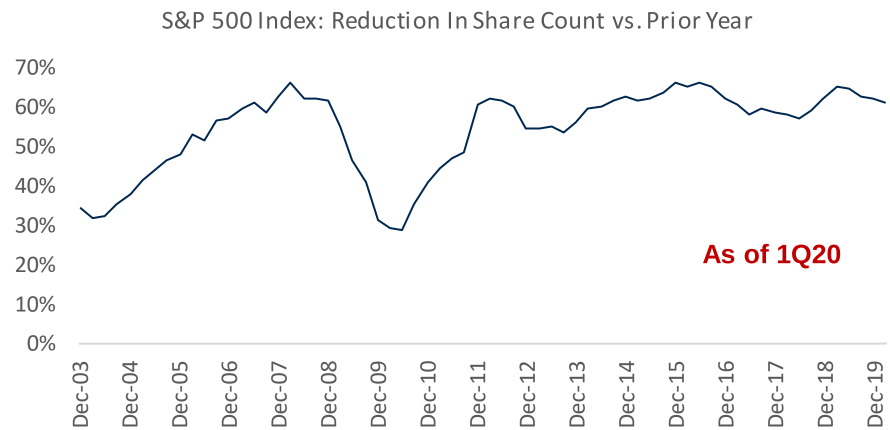
Key Takeaways

- In 1Q20 the net share count reduction in the S&P 500 fell to -0.5% well below levels seen throughout the past few years.
- The percentage of companies doing buybacks has been slipping in recent quarters.
- The dollar value of share repurchases and buyback yield both fell sharply in early 2019, before stabilizing in recent quarters.







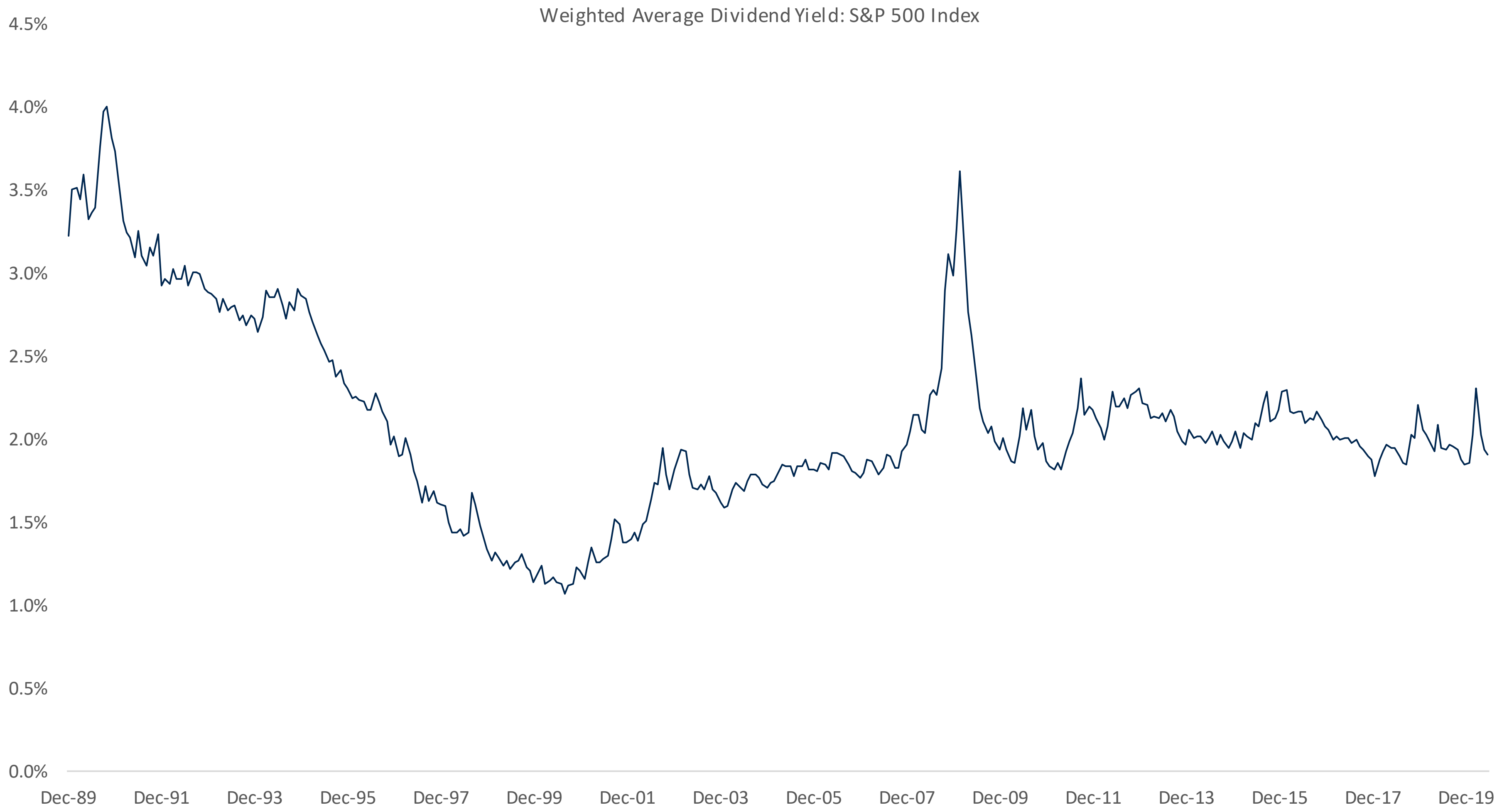


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat. Latest data point is final for 1Q20

Dividend Yield for the S&P 500 has Been Relatively Stable Since the Financial Crisis

Key Takeaways

- The S&P 500's weighted average dividend yield had been on the rise, but slipped in 2019.
- It has been hovering around 2% in mid June.

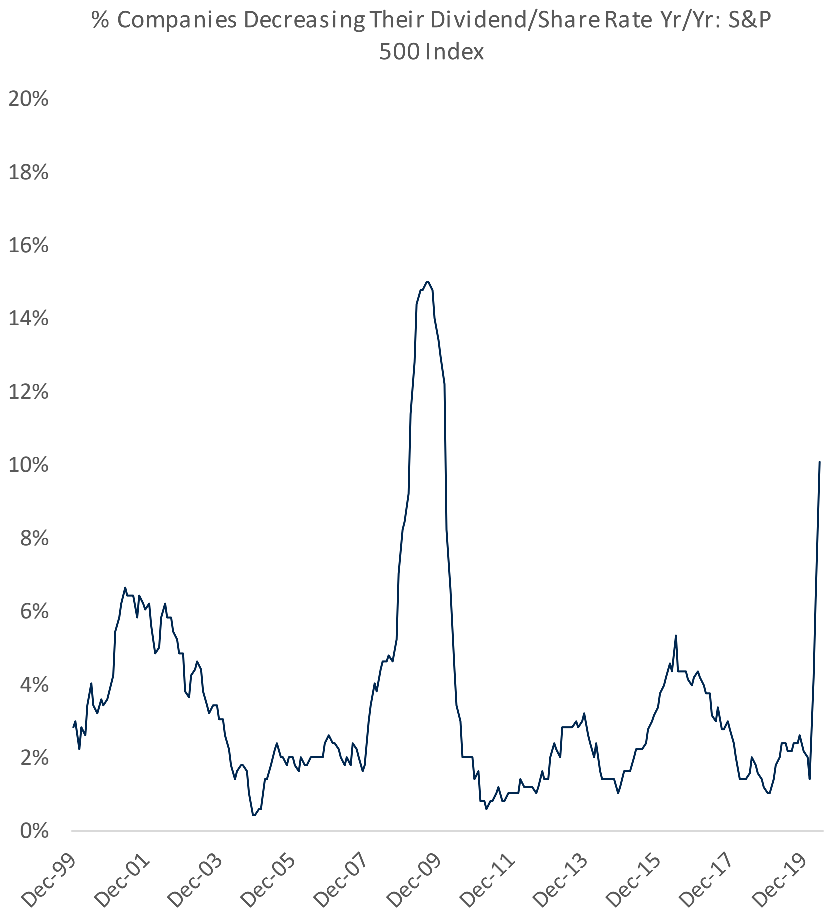


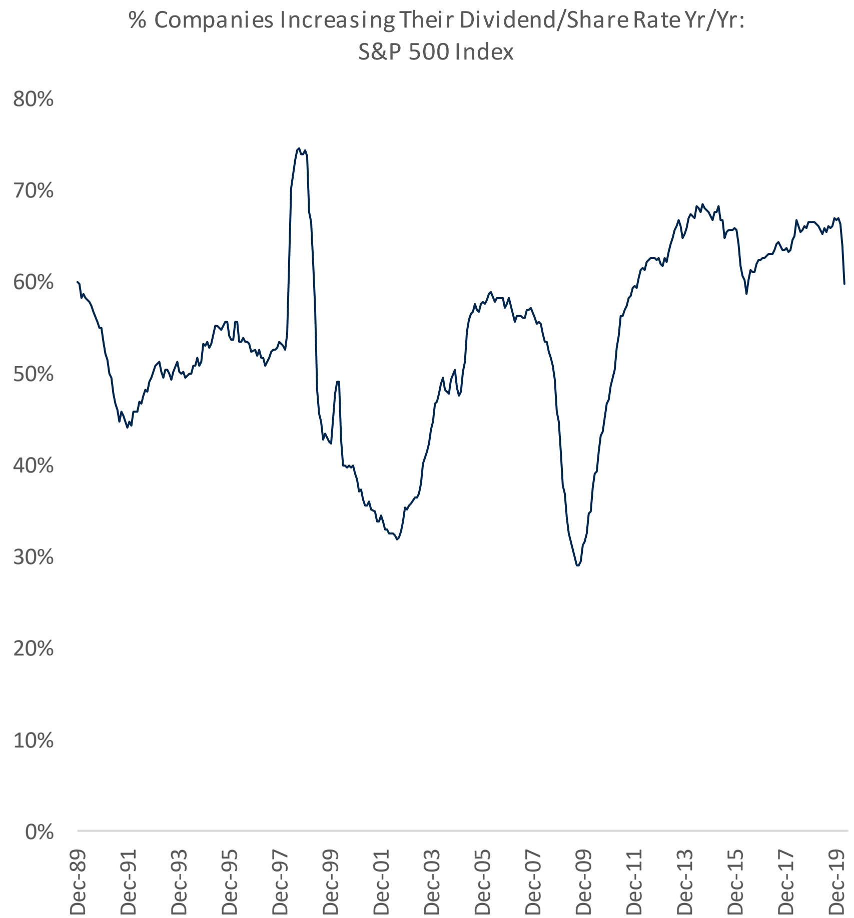
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi; as of 06/12/2020

The Percent of Companies Decreasing Their Dividend has Spiked

Key Takeaways

- The percent of companies lowering their dividend has spiked up to 10%, higher than levels seen during the Tech bubble and the Industrial Recession of 2015-2016, but well below levels seen in the Financial Crisis.
- Meanwhile, the percent of companies growing their dividends has come down to ~60%, similar to mid 2016 levels. This metric has not experienced the drastic pullback seen in the Financial Crisis yet.



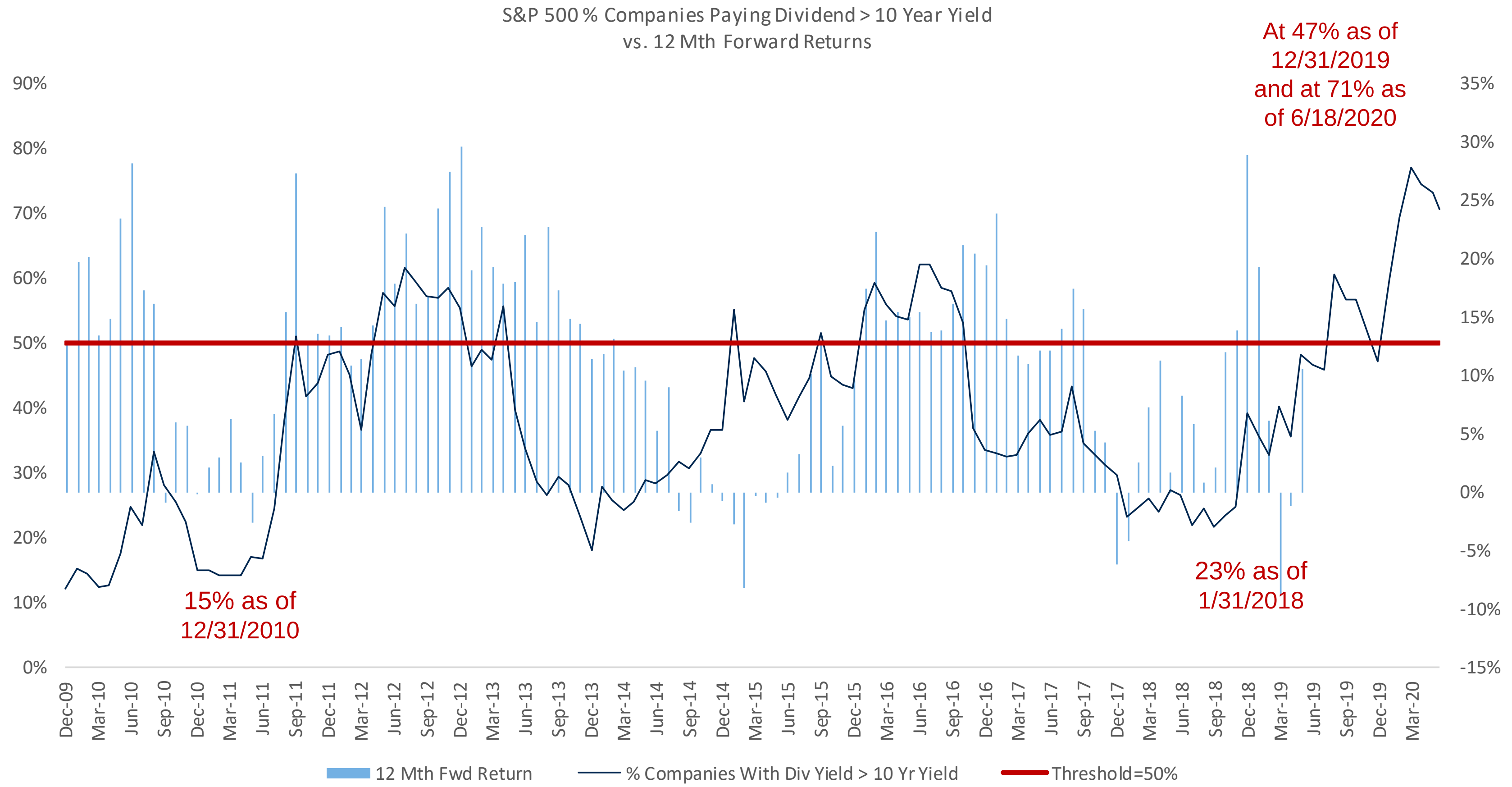


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi; through May 2020

Dividend Yield Still Making a Case for the Stock Market

Key Takeaways

- Since the Financial Crisis, it's generally been a good time to buy US stocks when the percentage of S&P 500 companies with dividend yields above the 10-year Treasury yields has been high, as it has been recently.
- Historically when our indicator is above the 50% threshold mark (which it was in August – Nov and Feb – May 2020), the S&P 500 has been up 95% of the time on a 12-month forward basis with average returns of 18%. Between 40% and 50% of the time (which it was as 2020 began), 12-month forward returns have been 8% on average, with gains 76% of the time.
- When our indicator is in the 20-30% and <20% ranges, average 12-month forward gains of 9% are seen historically. But it's still worth noting that the S&P 500 looked far less appealing on this indicator at the beginning of 2011 and 2018 – years when the S&P 500 was flat (2011) and lost more than 6% (2018). If current dividend yields within the S&P 500 hold steady, our indicator would fall below 25% when the 10-year Treasury yield gets back to 3.8%.

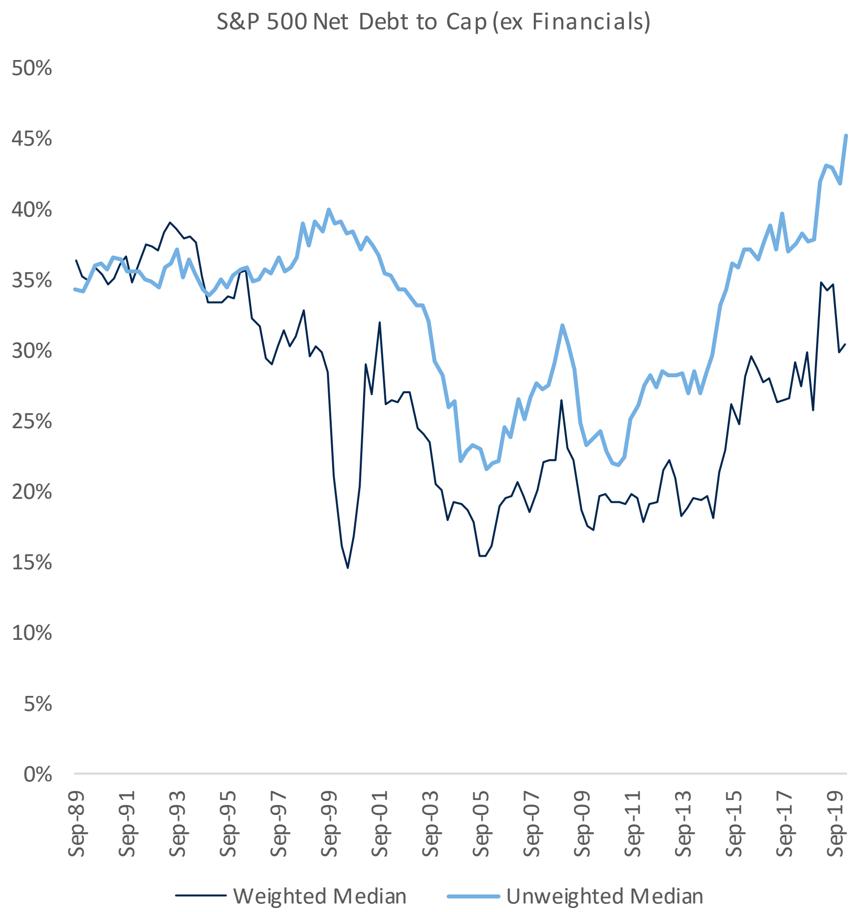


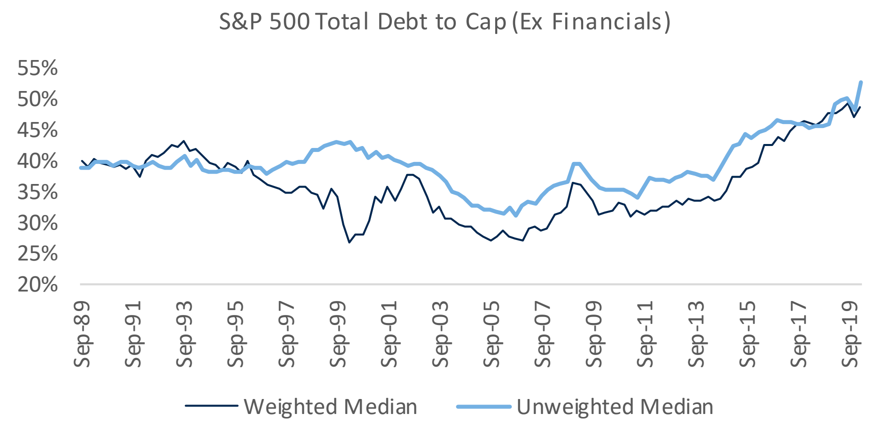
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Bloomberg

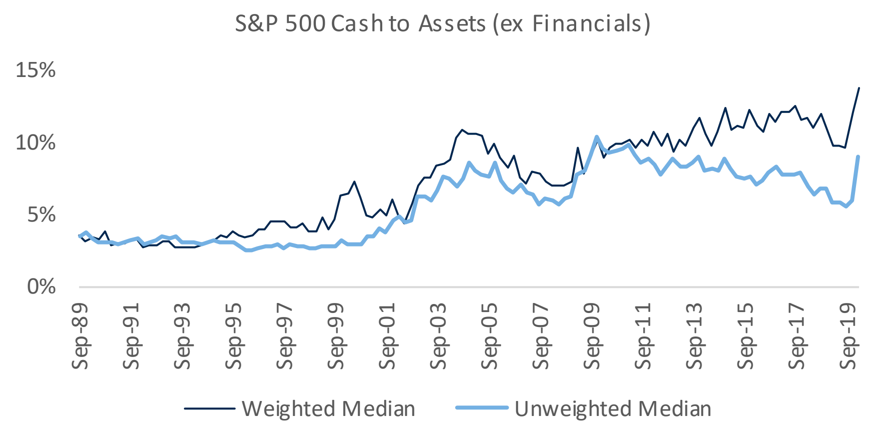
Debt Levels Have Continued to Climb

Key Takeaways

- Net debt to cap has been near historical peak for the median S&P 500 company in recent years and hit a new high in our latest update. It's slightly below peak for the broader index on a market cap weighted basis.
- Total debt is also elevated, but cash levels are also high.





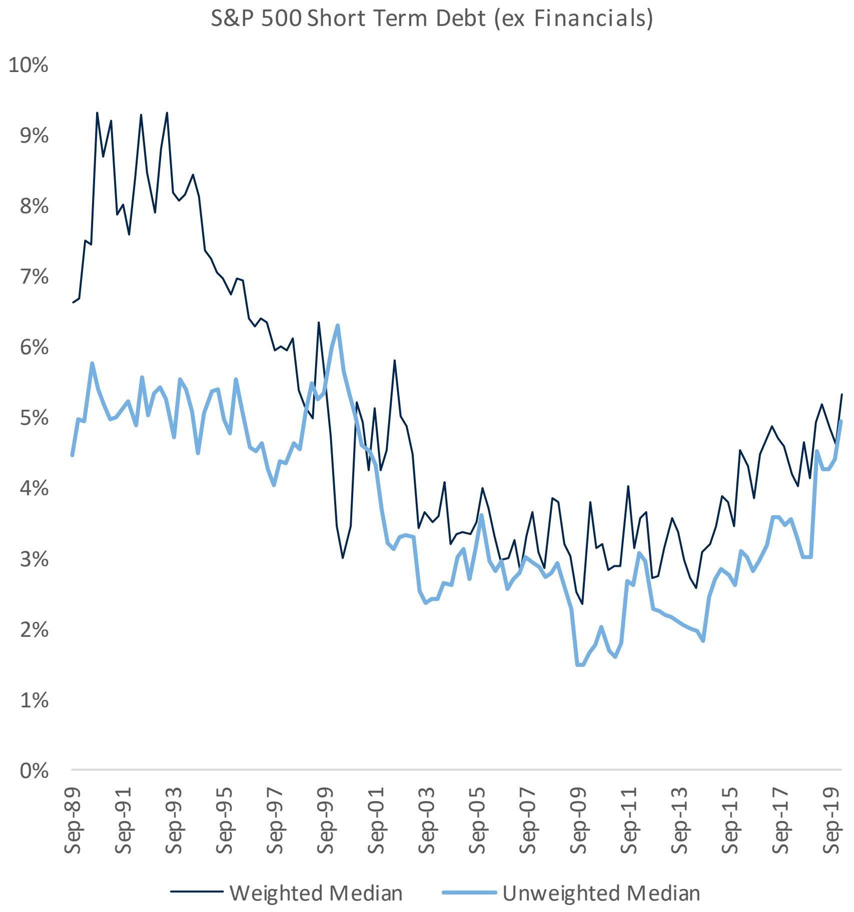


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat. Note that changes to lease accounting procedures took effect in 1Q19. Latest data point is final as of 1Q20

Both Short-Term and Long-Term Debt Have Been Rising

Key Takeaways

- Despite moving up in recent years, short-term debt (due within a year) remains low relative to history, which hints at corporate debt being manageable.
- Long-term debt has been elevated on a median and weighted median basis and has been the main driver behind the increase in leverage.

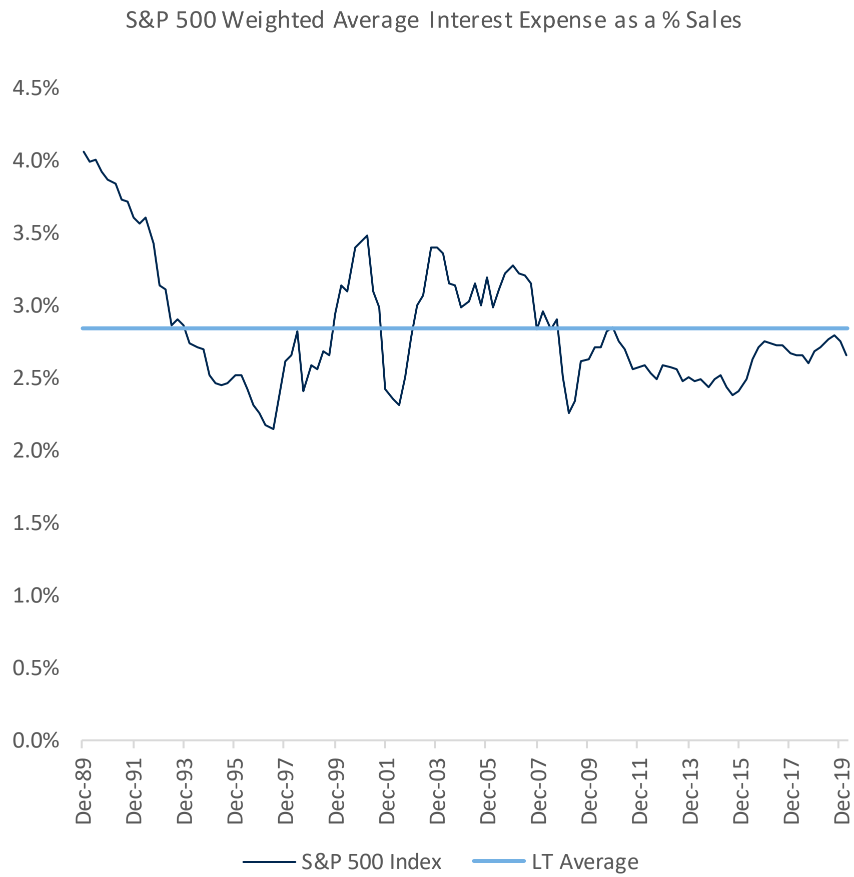


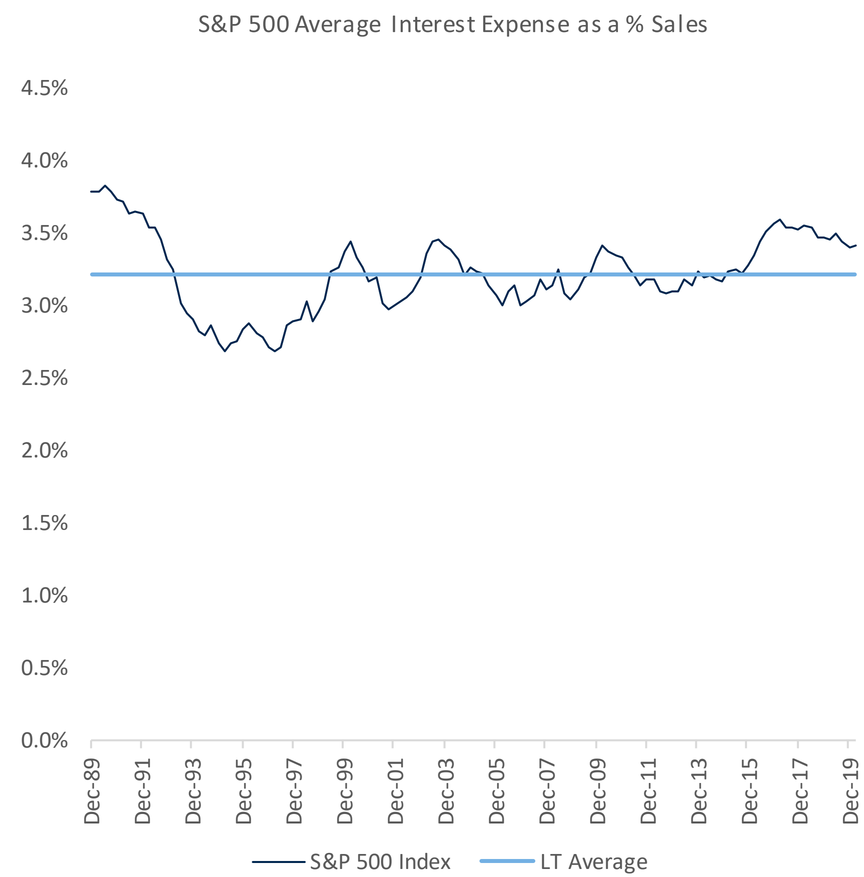
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat. Note that changes to lease accounting procedures took effect in 1Q19. Latest data point is final as of 1Q20

Interest Expense Hasn't Become a Problem Yet

Key Takeaways

- Interest expense relative to sales remains a bit below average on a weighted basis.
- On a pure average, it's actually been declining for the S&P 500, though it's still a bit above average.





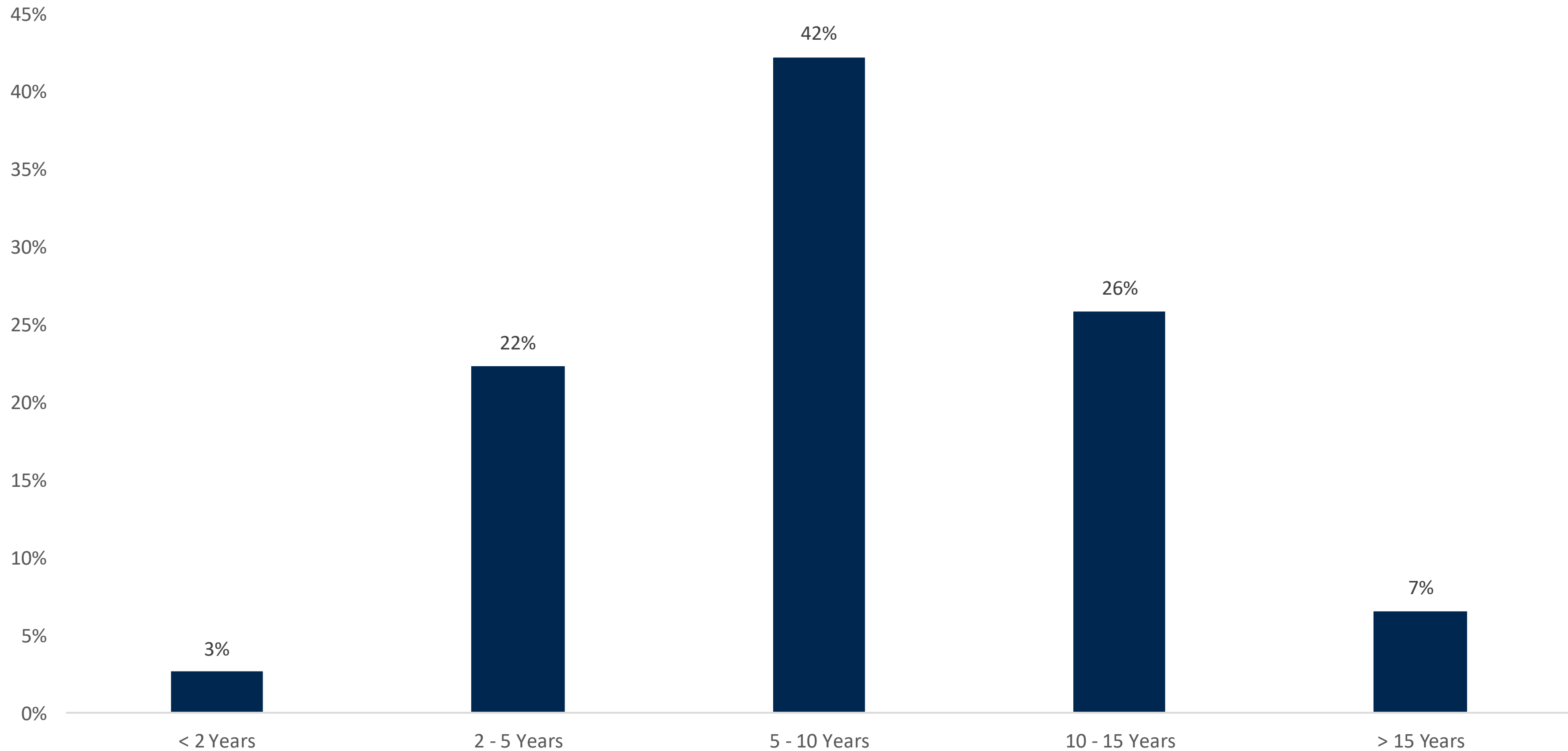
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat. Latest data point is final as of 1Q20

Most Companies Have Long Leads on Repayment

Key Takeaways

- On average, the weighted average maturity date for S&P 500 companies is approximately eight years out.
- Nearly a third of S&P 500 companies have a weighted average maturity 10-plus years out.

S&P 500 Companies: Breakdown of Wgt Average Maturity Dates (% Companies)

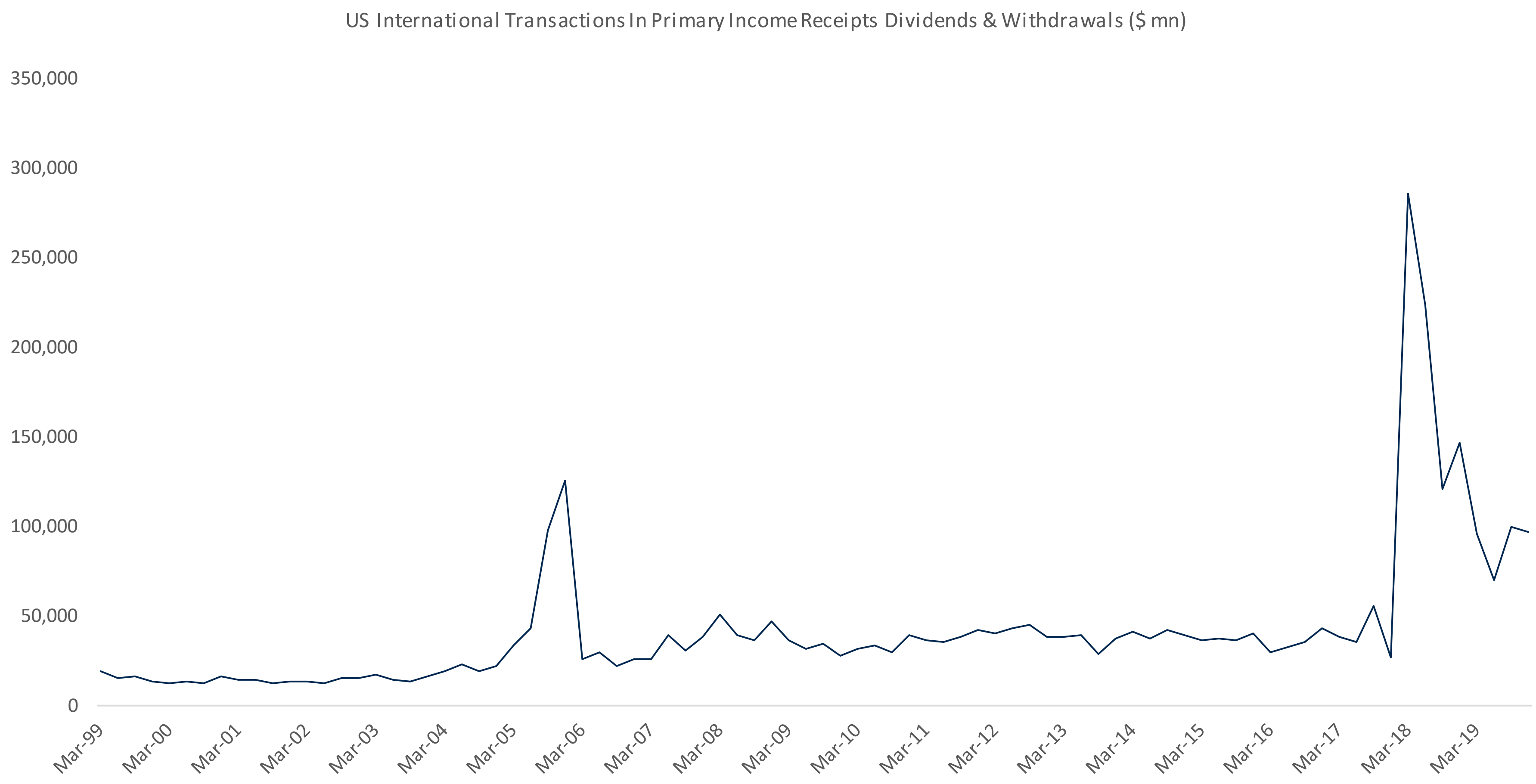


Source: RBC US Equity Strategy, Bloomberg.; as of mid June 2020.

Repatriated Cash Peaked in 1Q18, Fell Sharply in 2019

Key Takeaways

- The amount of overseas cash brought back to the US spiked in 1Q18 after new tax reform laws were enacted.
- However, it slipped meaningfully over the last year.

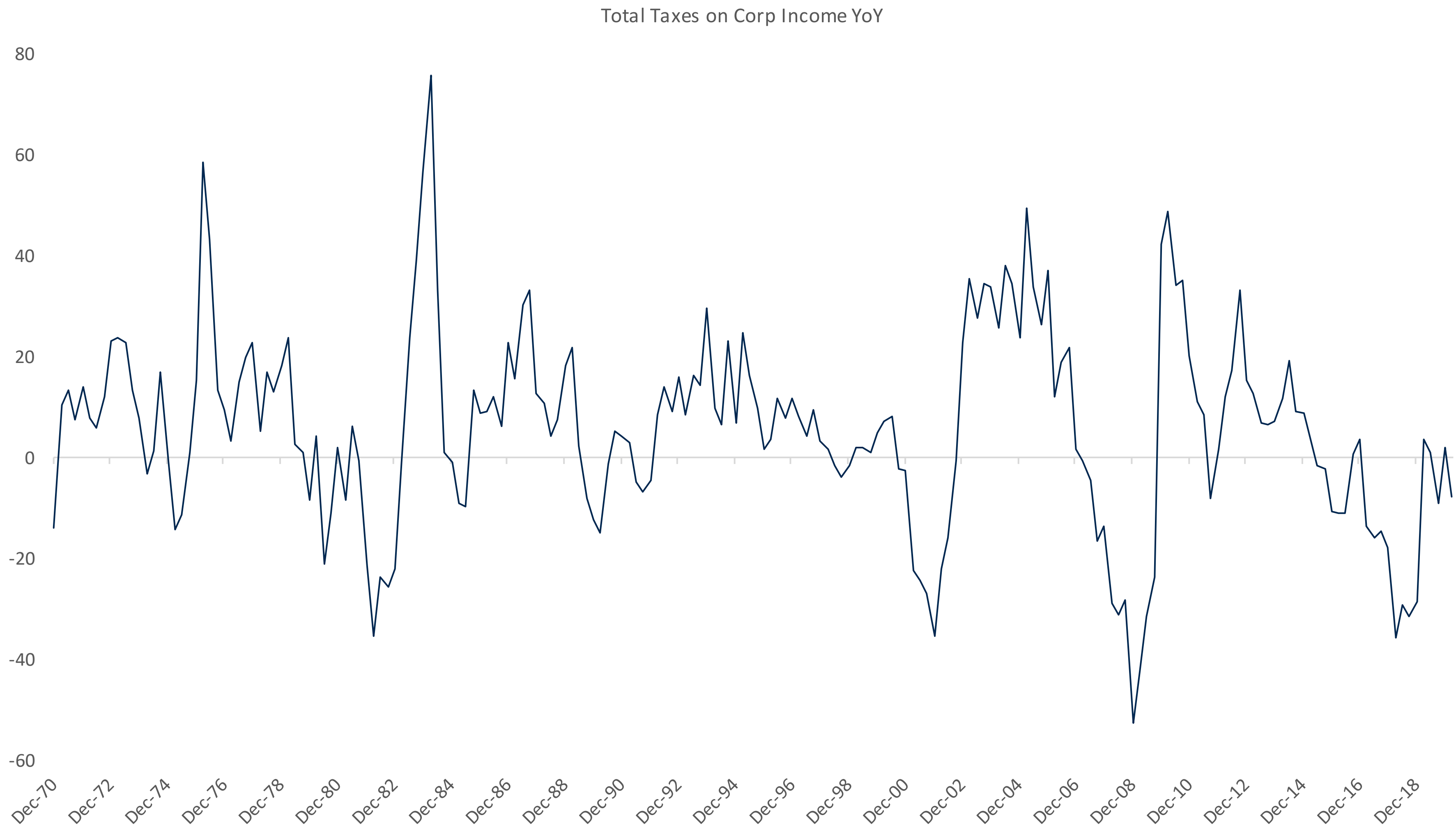


Source: RBC US Equity Strategy, Bloomberg, Bureau of Economic Analysis; as of 4Q19

Tax Tailwind was Meaningful in 2018, Dissipated in 2019

Key Takeaways

- Corporate taxes paid were down substantially in 2018 due to the Tax Reform and Jobs Act. These kinds of declines are typically seen in recessions.
- In 2019, the amount of taxes paid was essentially flat year over year. As of 1Q20, corporate taxes paid were slightly lower than the year prior.

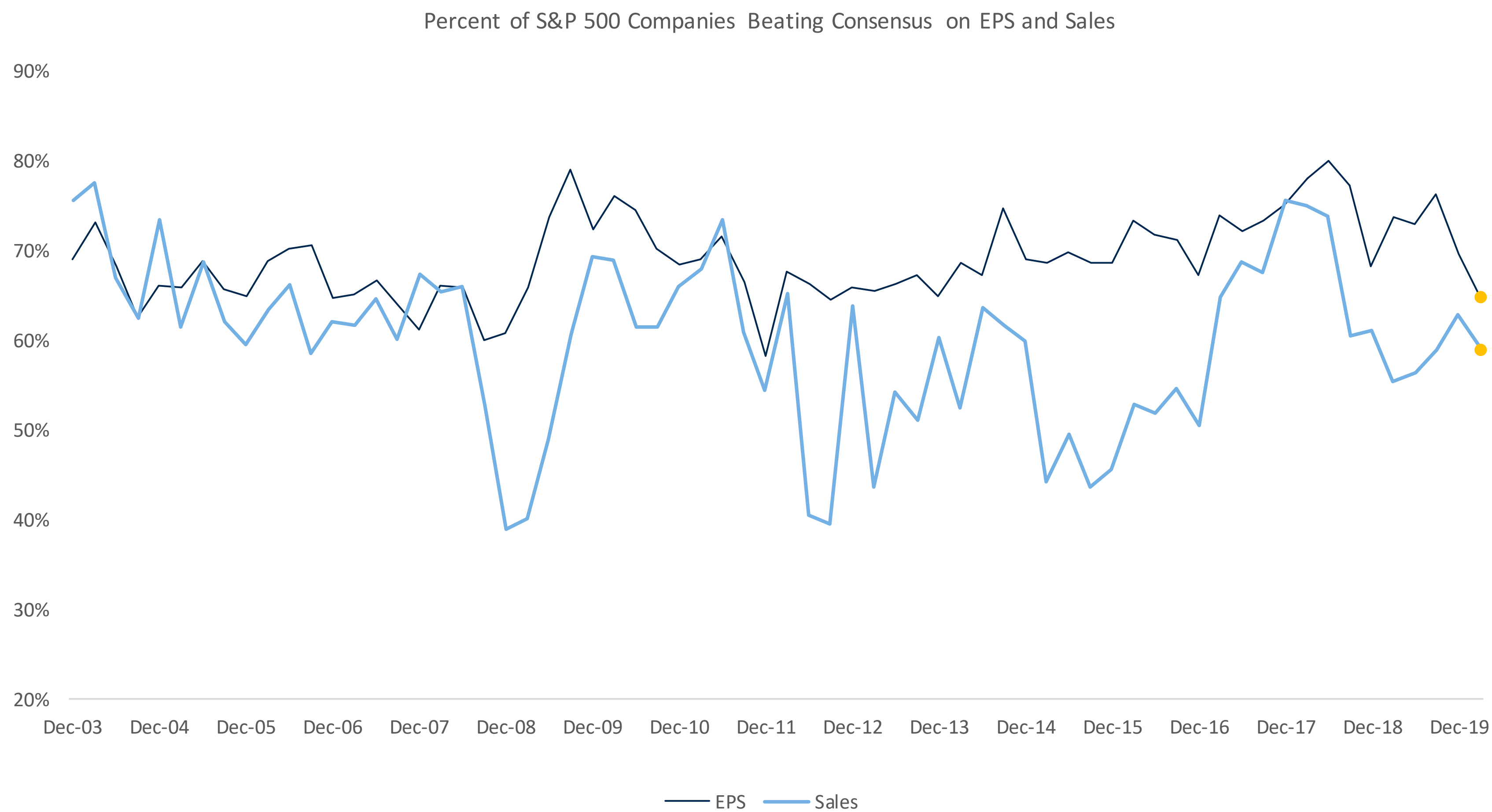


Source: RBC US Equity Strategy, Bloomberg, Bureau of Economic Analysis; as of 1Q20

Beat Rates Deteriorated in 1Q20 Reporting Season

Key Takeaways

- Most companies beat consensus estimates for 1Q20, at a pace slightly below the prior reporting season.



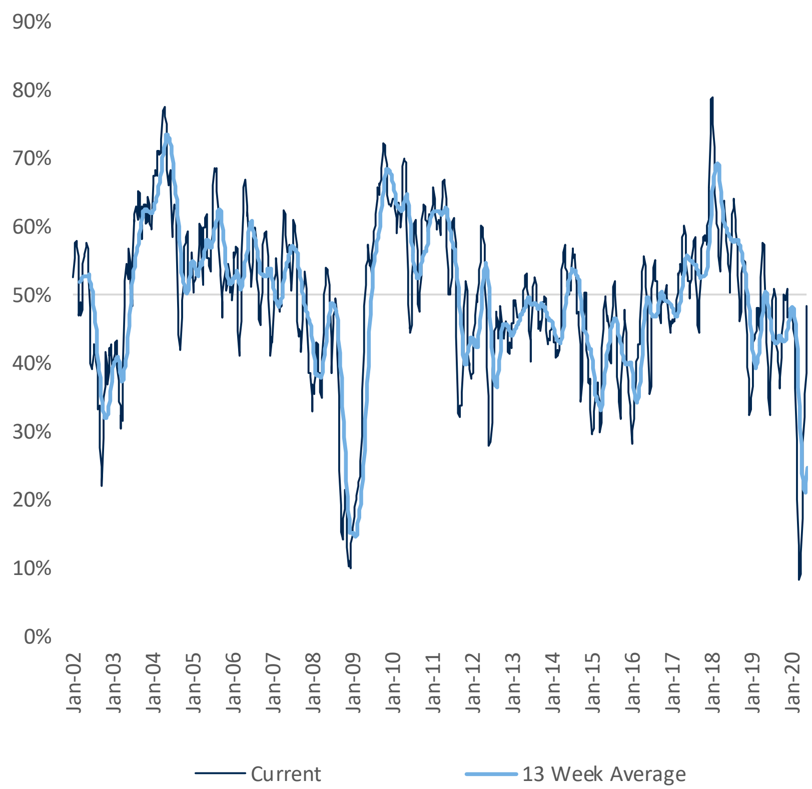
Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi, CIQ estimates, As of June 12th, 2020

Earnings Sentiment has Been Improving

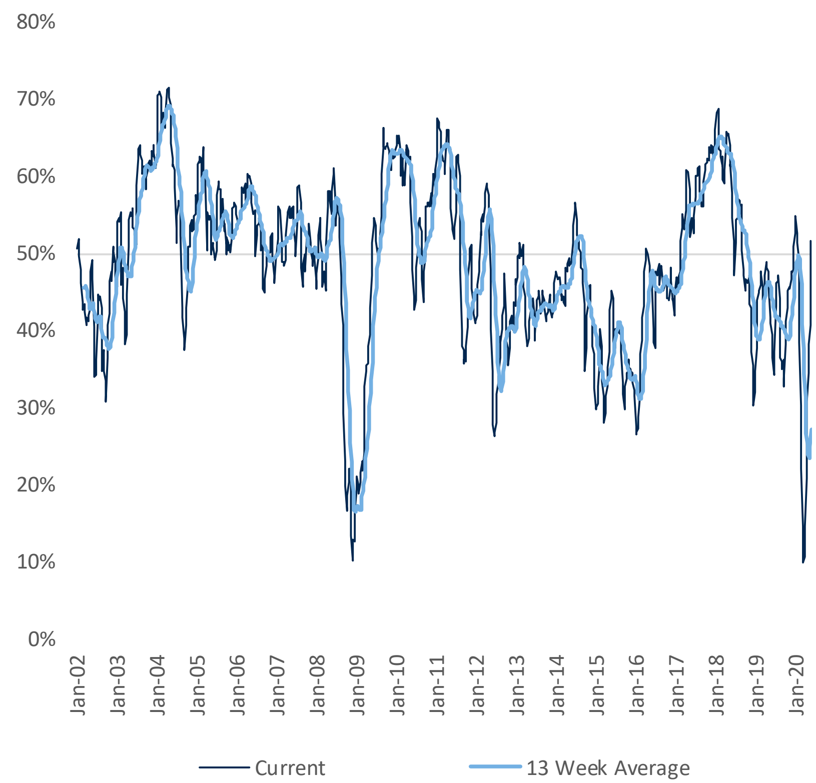
Key Takeaways

- One of our favorite ways to gauge sentiment around earnings is looking at the percent of sell-side EPS estimate revisions to the upside. Essentially, this indicator looks at whether analysts are generally taking estimates on individual companies up or down and how deeply the phenomenon of downward revisions has infiltrated the equity market.
- As of mid June, this indicator had risen to 48%, after falling to 8% in mid-April, below the 10% low watermark seen in past recessions. During the Financial Crisis, this indicator stayed below 20% for 19 of the 21 weeks from 10/10/2008 to 02/27/2009. This time around, earnings sentiment stayed under 20% for just 6 weeks, and has been improving every week since April 17th. The recent rebound resembles what we've seen in a number of industrial-related economic indicators where the levels are still quite bad, but are starting to improve at the margin. This all feeds the "things are getting less bad" narrative that, until last week, was helping drive US equities higher.

S&P 500 Index: % Upward EPS Estimate Revisions
(FY1 & FY2 Estimate Revisions, Up/Up+Down)



S&P 500 Index: % Upward Revenue Estimate Revisions
(FY1 & FY2 Estimate Revisions, Up/Up+Down)

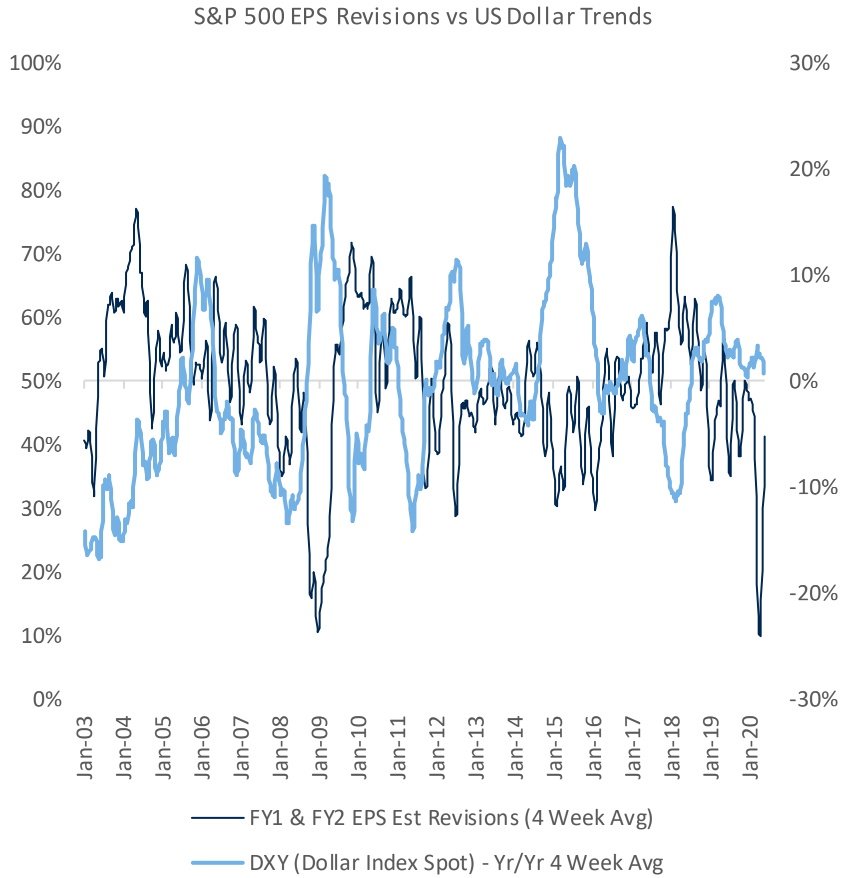


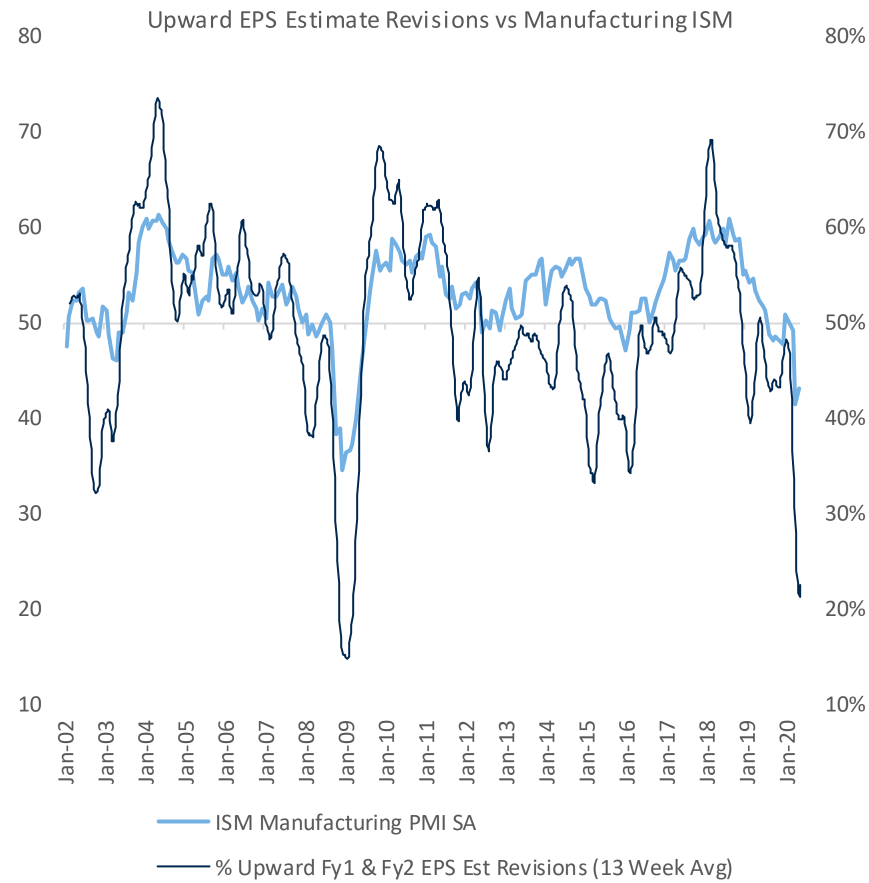
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates. For REITS, FFO/share revisions are used instead of EPS revisions. As of 06/21/2020.

The USD and ISM are Historically Key Drivers of EPS Revisions Trends

Key Takeaways

- Revisions and USD trends move inversely: a weaker USD tends to be accompanied by an acceleration of upward revisions, a stronger USD by deceleration, and ultimately downward revisions. We don't have a strong view on where the Dollar is headed from here, but generally we view a stronger Dollar as mostly negative for the EPS backdrop, and a weaker Dollar as mostly positive for the EPS backdrop. In 1Q20 reporting season, a number of companies with high international exposure cited FX and USD strength as a headwind to earnings.
- Revisions trends also tend to be linked to the ISM. When domestic economic conditions slip on this gauge, earnings expectations tend to come down. If ISM continues to weaken near-term due to coronavirus, further downward revisions seem likely. For the bottom in earnings revisions to stick, ISM's bottom needs to be confirmed.



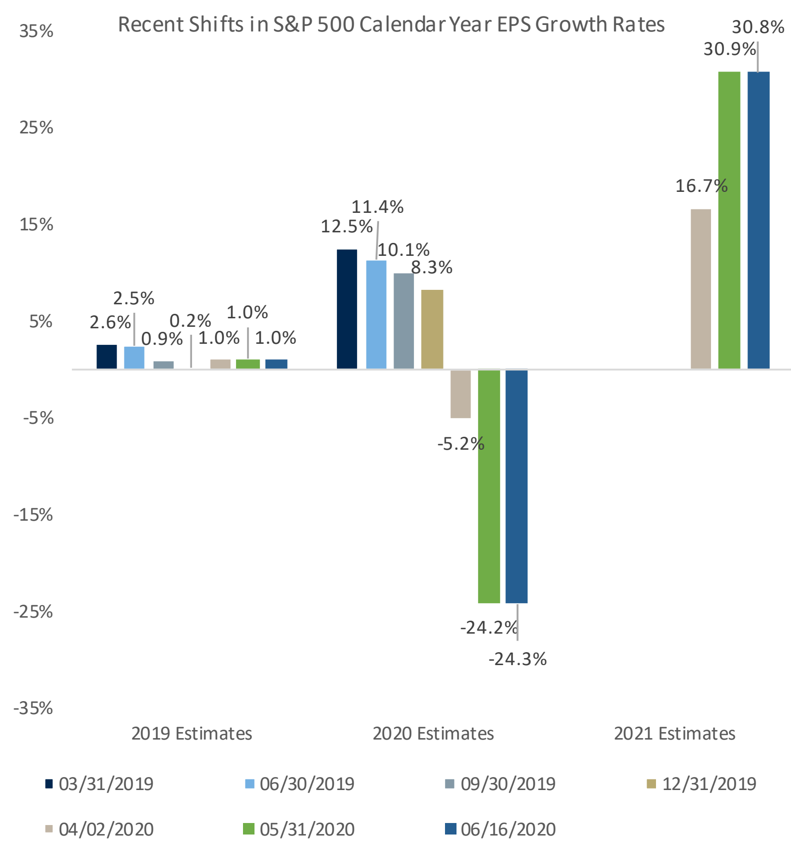


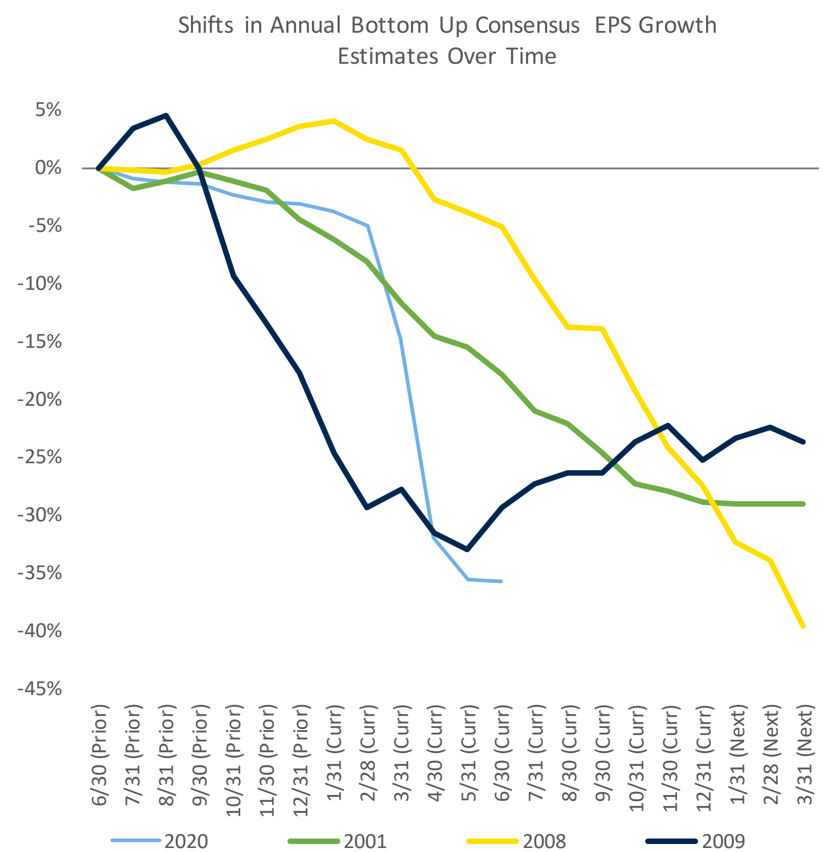
Source: RBC US Equity Strategy, CIQ estimates, S&P Capital IQ/Clarifi, Bloomberg; as of June 21st, 2020 for Revisions.

Drop in 2020 EPS Growth Expectations Similar to 2009

Key Takeaways

- As of mid June, bottom-up sell-side estimates for the S&P 500 were tracking at $125 for 2020, down 29% since the start of the year when they were tracking at $177. The current $125 reading implies a yr/yr decline of 24% vs. 2019, down from a positive 8%-implied growth rate at the beginning of the year. History suggests that these cuts might be enough, but this isn't entirely clear on this point. In 2001, 2008, and 2009 bottom-up, full-year EPS forecasts fell a total of 29.6% (2001), 42% (2008) and 50% (2009) at their low point (using June estimates of the prior year as a starting point). If 2020 estimates were to experience a similar drop, they would fall to a range of $93 - $131, meaning that the drop that's been seen for 2020 is within the range of what we'd expect. Note that 2021 EPS is still tracking at $163, essentially unchanged since last week.
- Interestingly, in 2009 after EPS forecasts fell by a similar amount to what we've seen so far in 2020, they began to creep higher, supporting the March 2009 bottoming in the stock market. We suspect a similar reversion will be needed in 2020 to keep US equities on their upward trajectory.



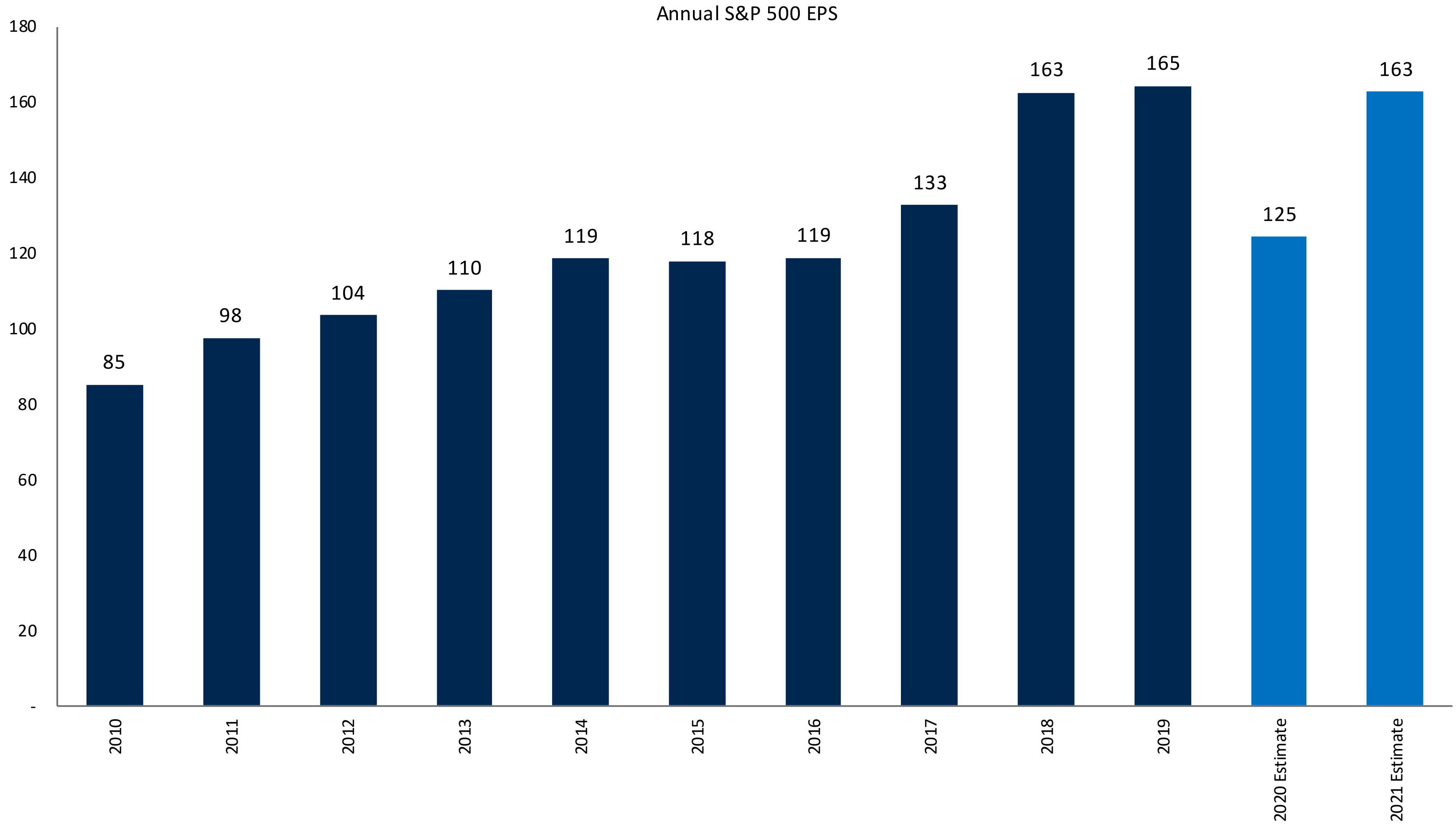


Source: RBC US Equity Strategy, FactSet, Thomson

Current Consensus Expectations Anticipate 2021 EPS Will Rebound to 2019 Levels

Key Takeaways

- We have serious doubts about whether S&P 500 profitability will be able to return to pre-coronavirus crisis levels in 2021. In 1Q20 earnings calls, a number of companies alluded to the idea that the economic recovery will be slow and/or uneven. Some also highlighted an idea that intuitively seems right to us – that it will take considerable time for the US economy to get back to pre-coronavirus levels.

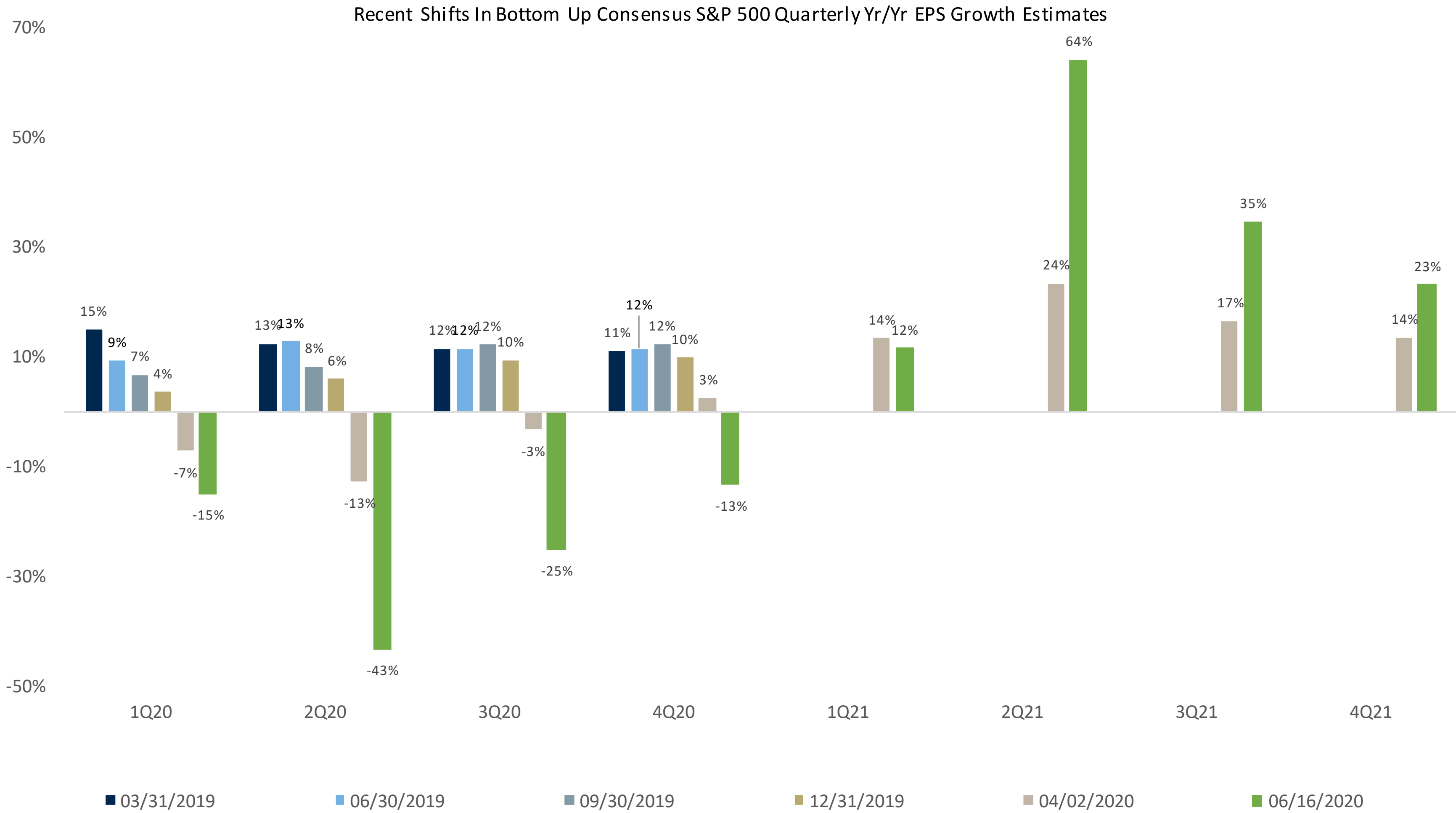


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi, Capital IQ estimates ; as of 06/16/2020

2Q20 Expected to be the Low Point for the Rate of EPS Growth

Key Takeaways

- Beyond the changes in annual expectations for S&P 500 EPS growth, it's important to monitor shifts in expectations regarding the quarterly growth rates.
- Current sell-side estimates anticipate a 15% contraction in EPS growth in 1Q20, with 2Q20 expected to be the worst level in terms of the year-over-year impact with a decline of 43%.

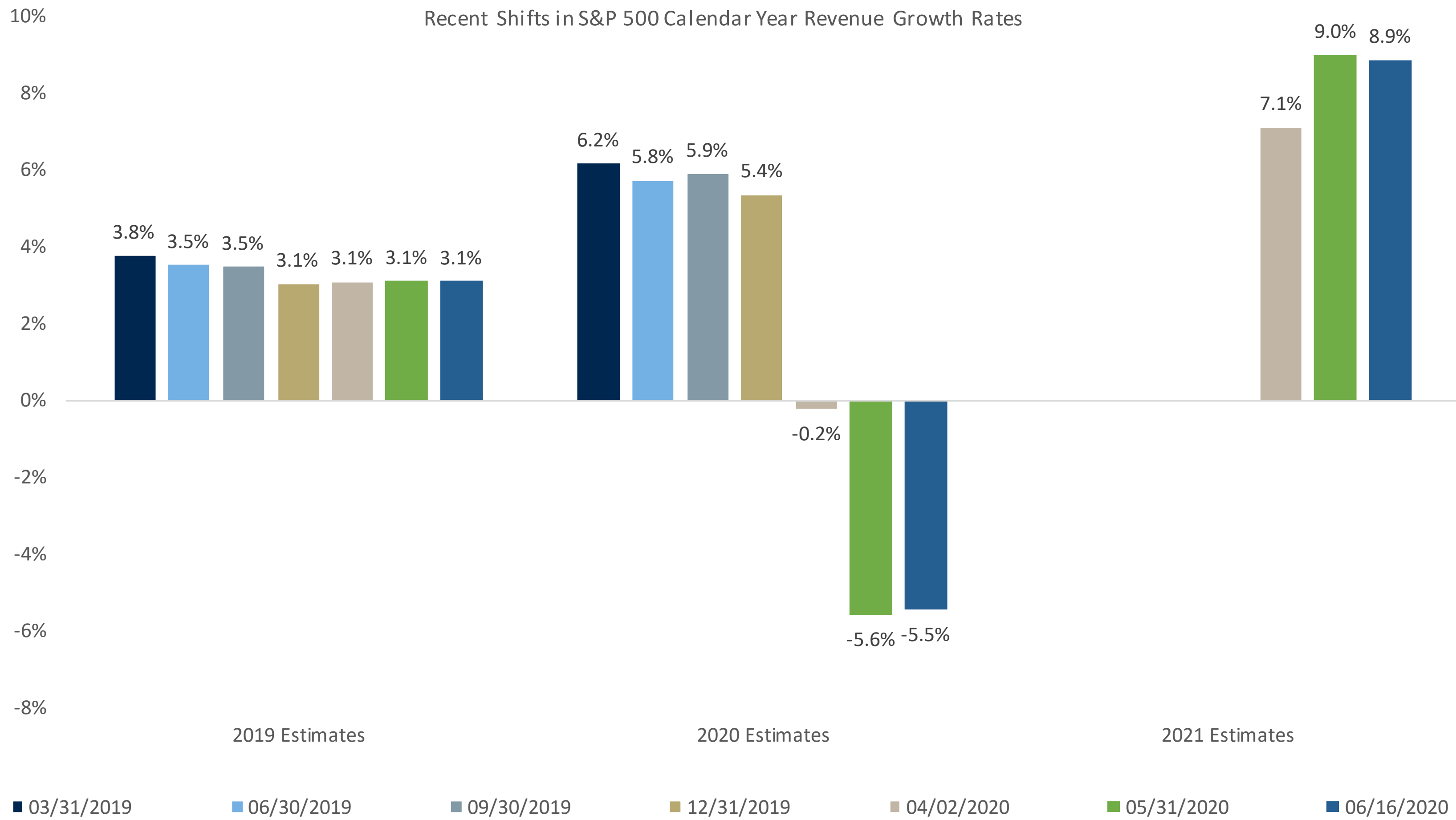


Source: RBC US Equity Strategy, FactSet, Thomson

2020 Revenue Growth Expectations Have Deteriorated, Strong Rebound Expected in 2021

Key Takeaways

- In percentage terms, 2020 revenue growth estimates have also deteriorated from +5.4% at the beginning of the year to -5.5% as of mid-June.

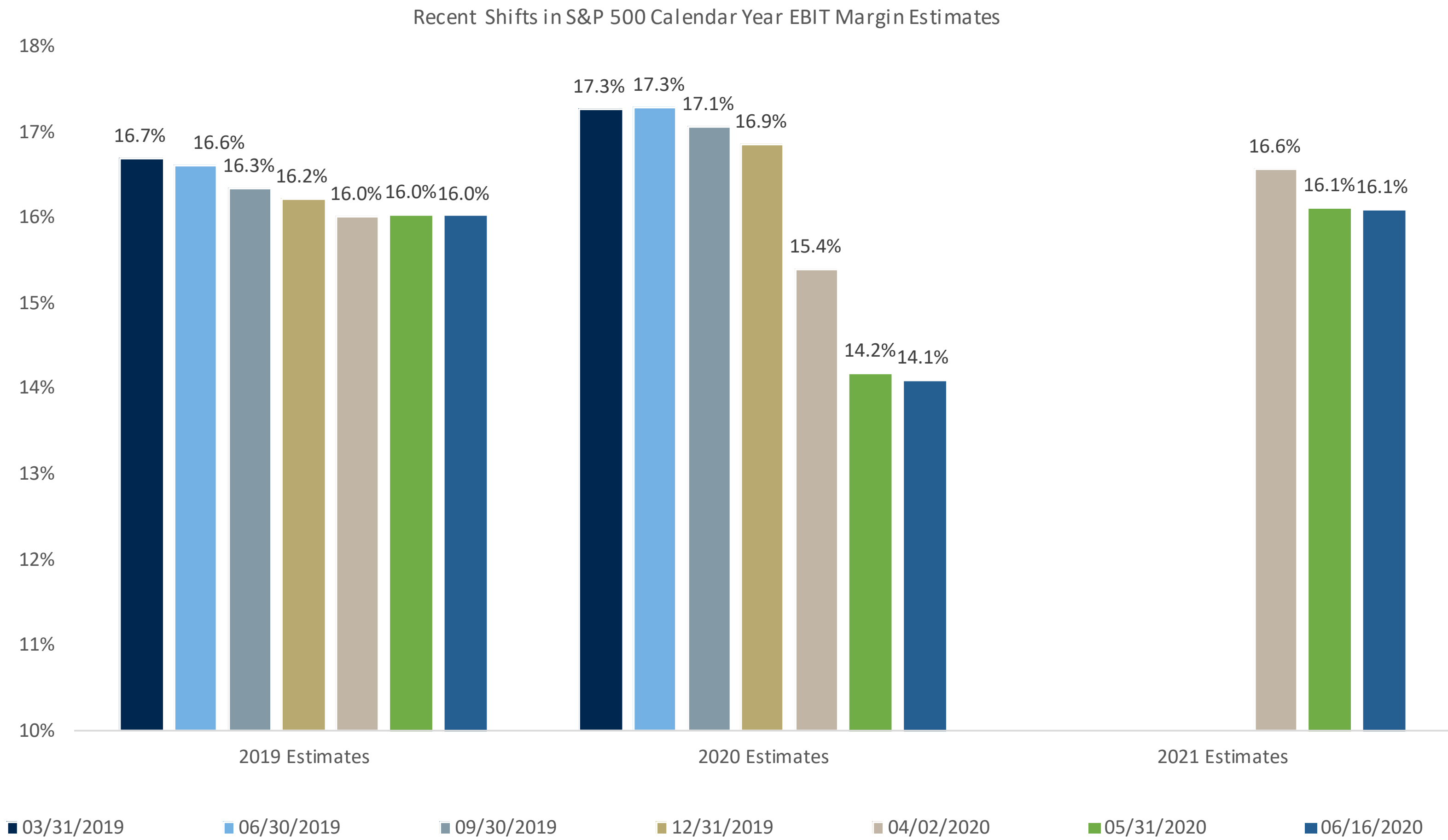


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi, Capital IQ estimates

2020 EBIT Margin Estimates Hit Hard, Expected to Bounce Back in 2021 to 2019 Levels

Key Takeaways

- EBIT margin estimates have also continued to fall.
- Since the beginning of the year, 2020 EBIT margin expectations have dropped 270 bps from 16.8% to 14.1%.
- Significant contraction is expected for 2020, with a return to 2019 levels baked in for 2021.

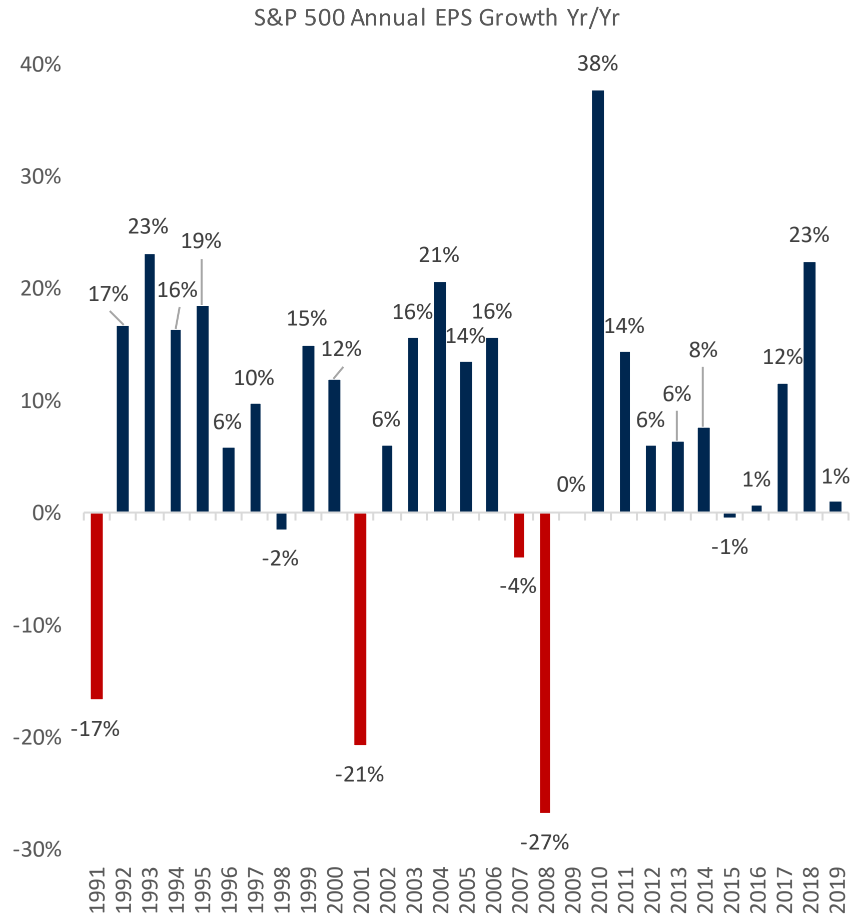


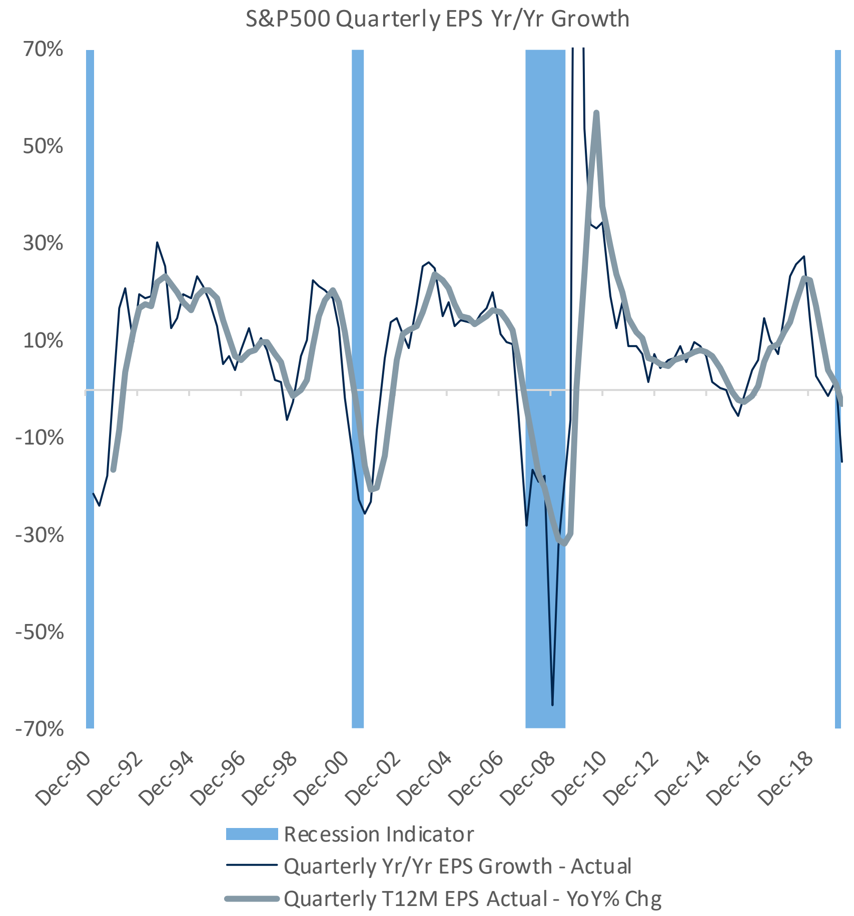
Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi, Capital IQ estimates

Historical S&P 500 EPS Trends During Recessions

Key Takeaways

- The S&P 500's annual EPS has, on average, grown at 7.8% (9.8% on a median basis) since 1991. Throughout this period, there have been 4 years associated with economic recessions (1991, 2001, 2007, 2008 & 2009). During these periods, earnings have contracted on an annual basis by an average of around 14% or 17% on a median basis.
- On a quarterly basis, the worst year over year decline in corporate EPS associated with a recession was 65% in 4Q08 during the Financial Crisis. It is worth pointing out that this particular recession lasted much longer than others since 1991.



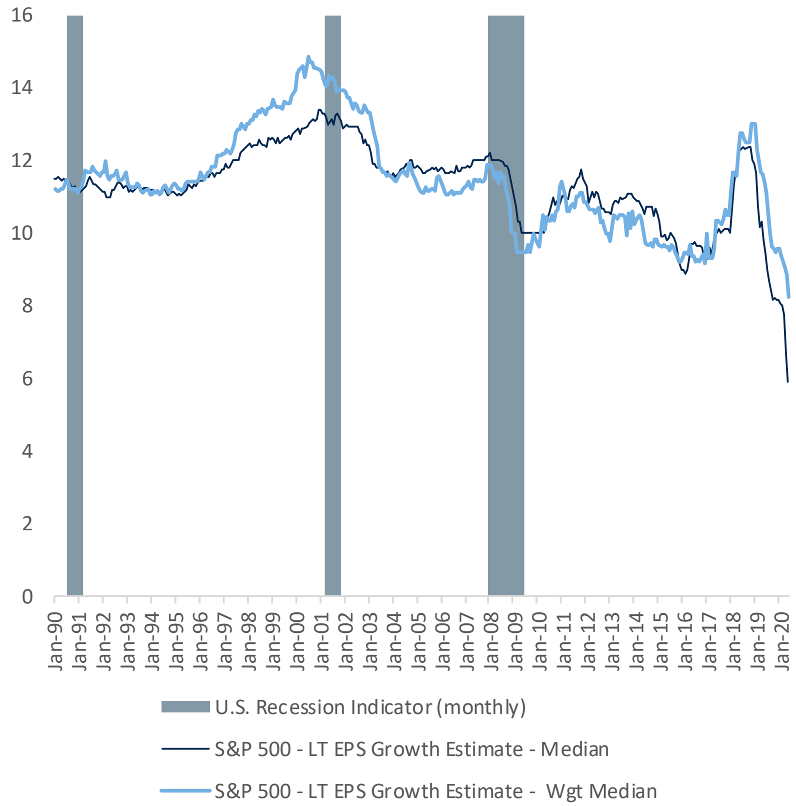


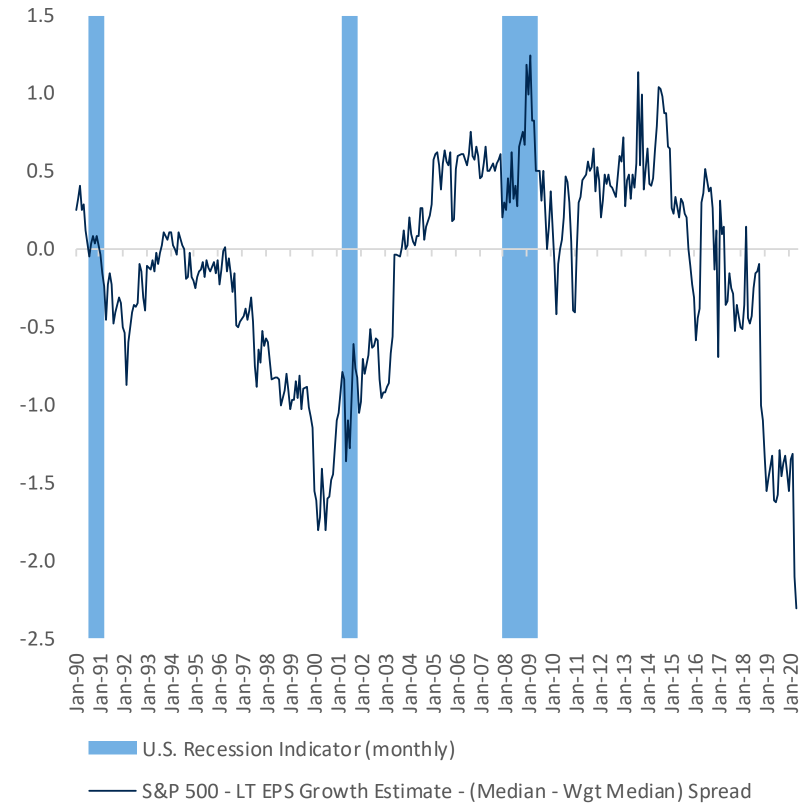
Source: RBC US Equity Strategy, Facset/Thomson

LT Growth Expectations Have Fallen Sharply for S&P 500 Companies, Less so for Biggest Caps

Key Takeaways

- Near-term earnings concerns have taken a toll on longer-term earnings expectations, but more so for the average company in the S&P 500 than the biggest stocks in the index. Longer-term earnings growth expectations from bottom-up sell-side analyst estimates have been falling since mid-January, with the sharp drop accelerating through April for the S&P 500.
- The weighted median growth estimates are holding up much better than the median estimate for the S&P 500, suggesting that larger corporations may have a less challenging time than smaller companies in growing profits for future years.
- It's normal for longer-term growth expectations to take a hit during recessions, but not for the bigger cap companies to display resilience.



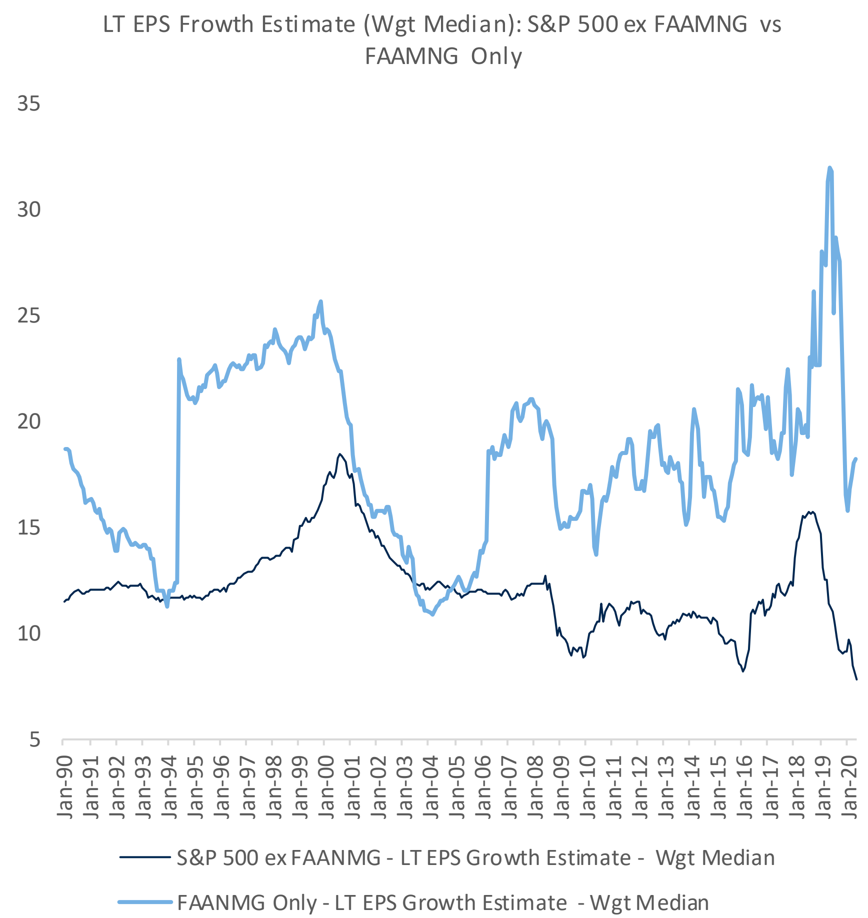


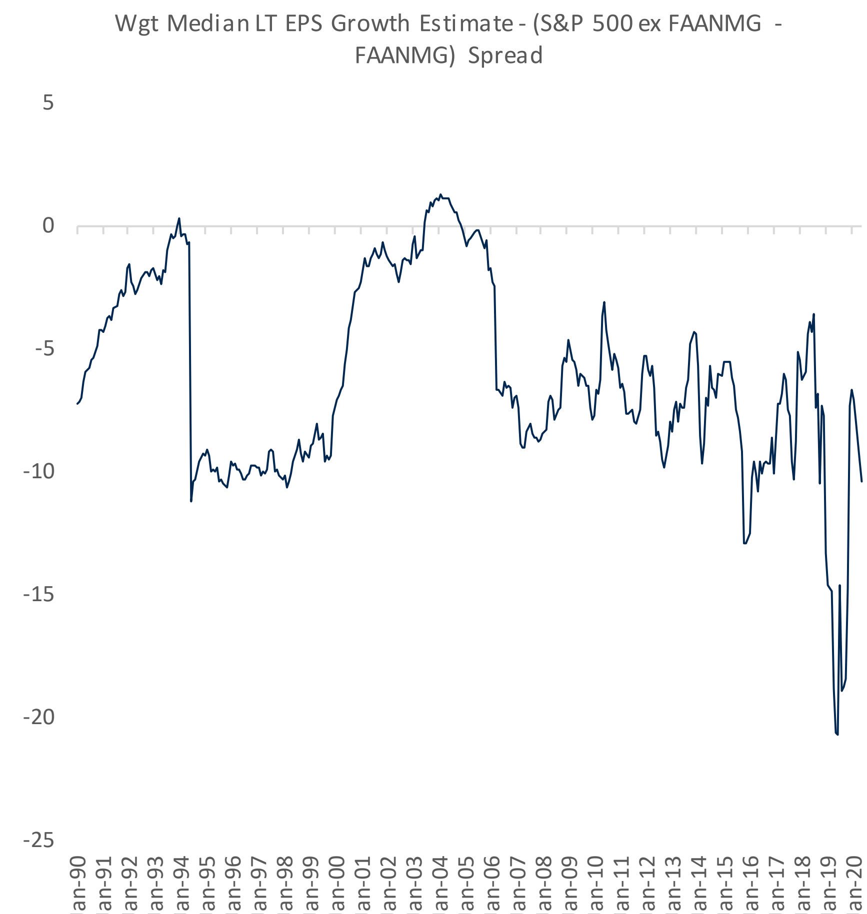
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, IBES Estimates, As of Mid-May, 2020, long term expectations based on 3-5 years outlook

Mega Cap TIMT Stocks Have Offered Superior Longer-Term EPS Growth Expectations

Key Takeaways

- Like the broader market, the popular mega cap “FAANMG” basket has seen its own long-term growth expectations decline sharply. Their long-term growth rate expectation continues to be higher than the rest of the market in absolute terms (on a market cap weighted basis). But the rest of the market has closed the gap significantly, which may explain why investor frustrations with crowding and expensive valuations in these names has started to bubble up.



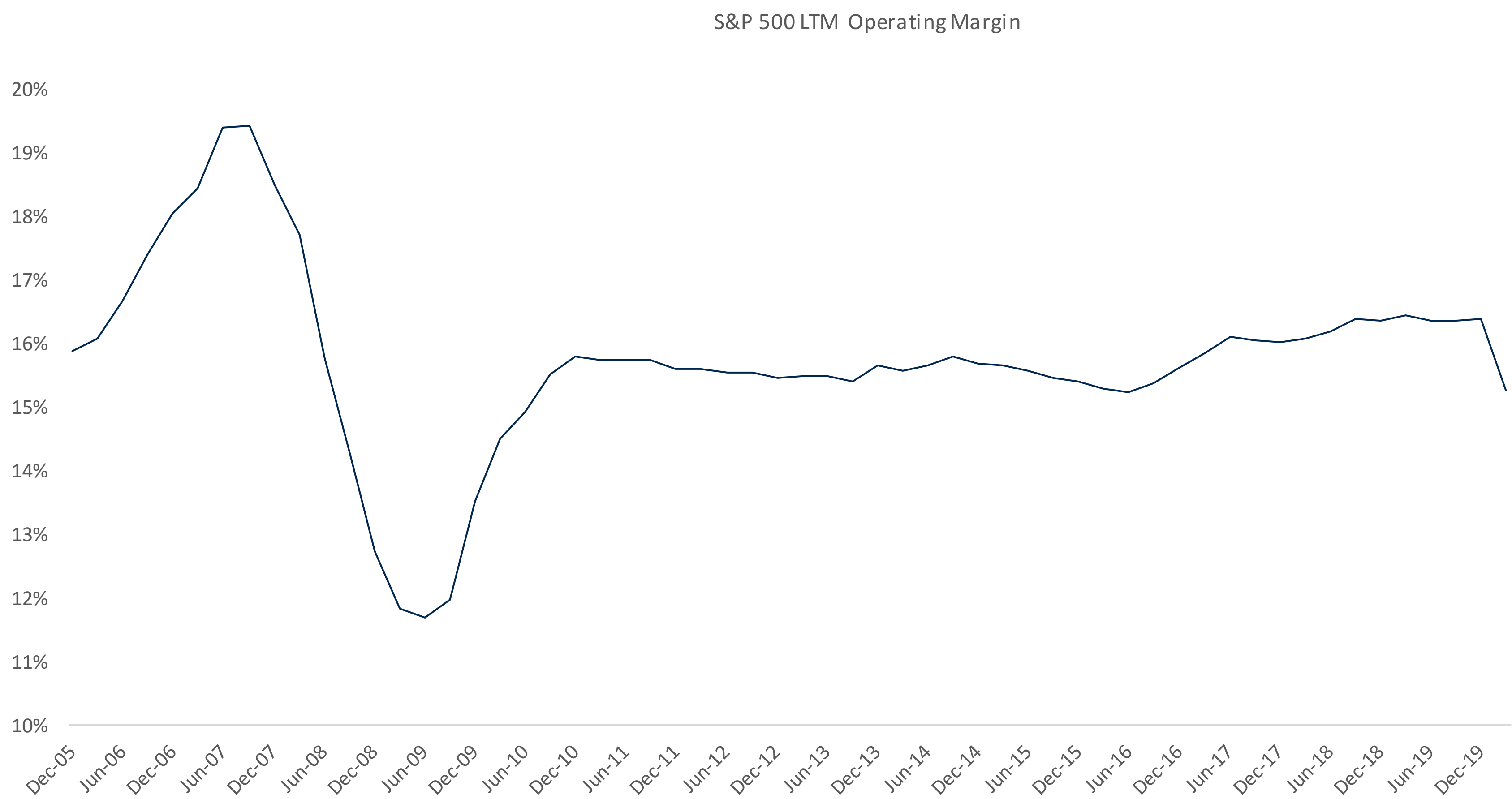


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, IBES Estimates, As of Mid-May, 2020, long term expectations based on 3-5 years outlook

Operating Margins Have Fallen Sharply From Post Financial Crisis Highs

Key Takeaways

- Data for 1Q20 indicates that margins contracted meaningfully after sitting at post financial crisis highs for several quarters.

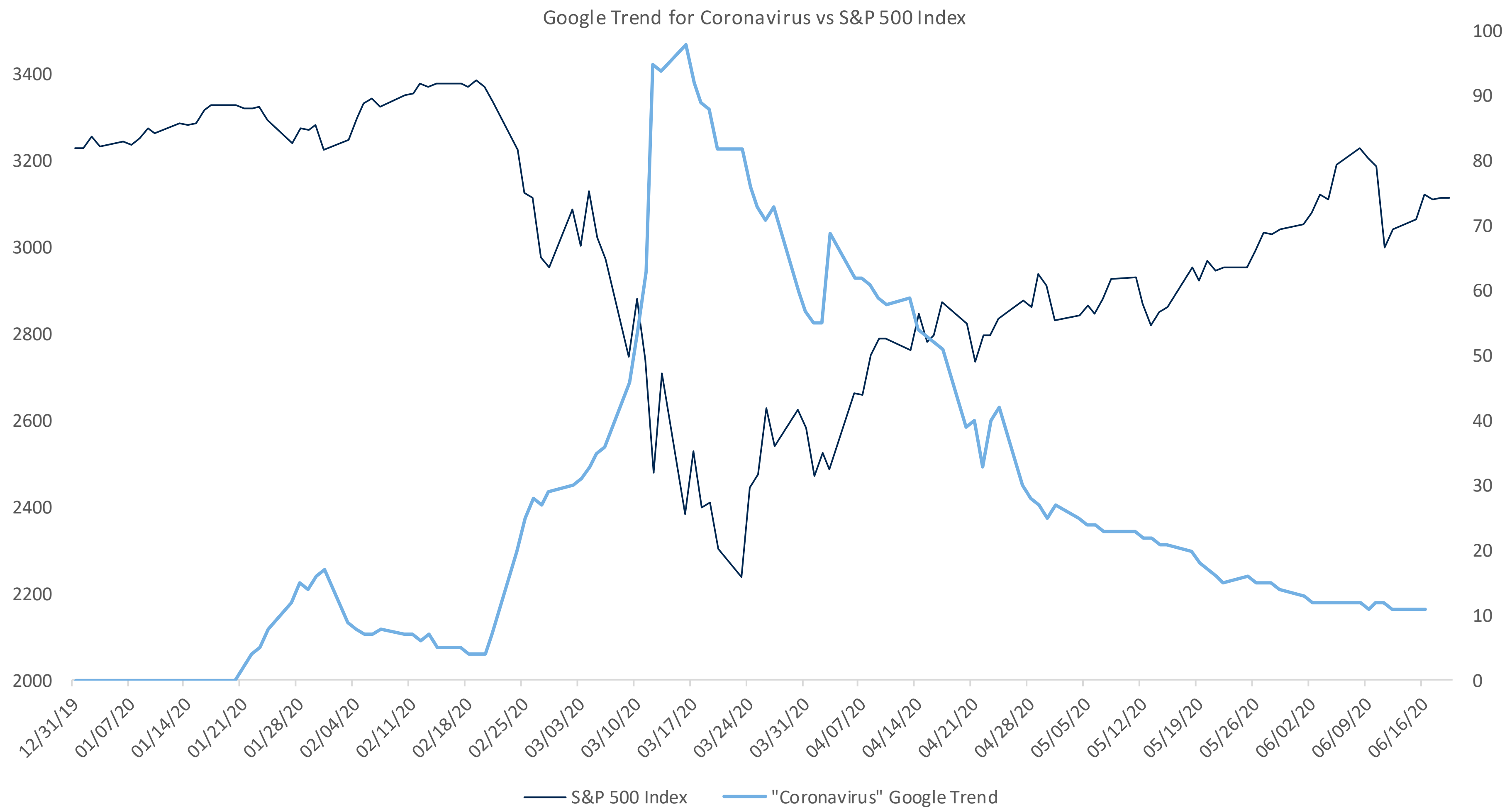


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi. Latest data point is 1Q20

Easing Coronavirus Fears Have Helped Push the S&P 500 Higher Since Late March

Key Takeaways

- S&P 500 performance has been moving inversely with concerns about the coronavirus. To gauge concern about the coronavirus, we used Google Trends to chart searches for the term on a worldwide basis.
- The March 23rd low in the S&P 500 came just after coronavirus concerns peaked on this indicator.

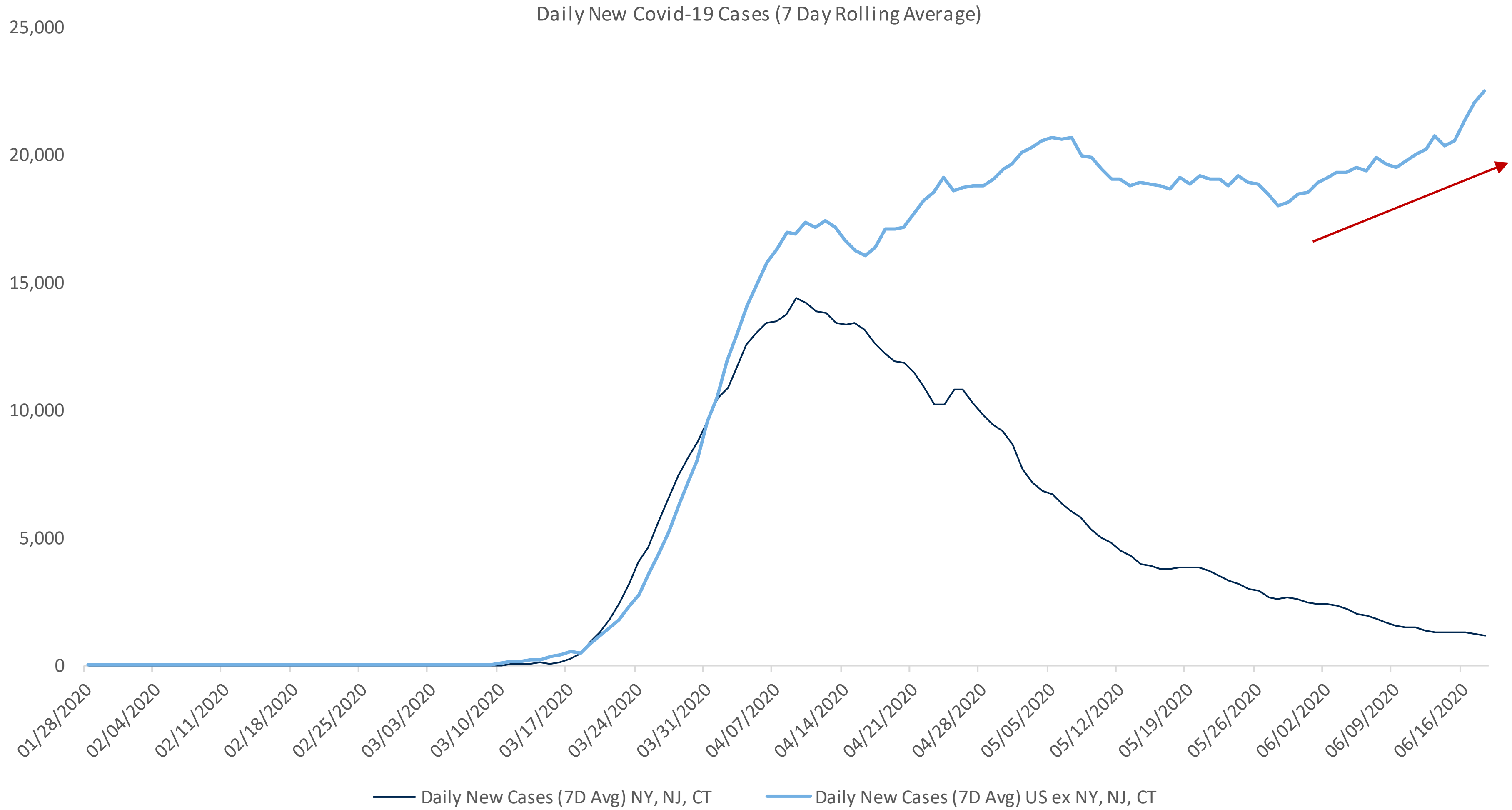


Source: RBC US Equity Strategy, Google, Bloomberg, RBC Banks Strategy, Performance as of June 18th, 2020, Google Trend as of 06/16/2020

New Coronavirus Cases in the United States, Ex NY Area, are Rising Again

Key Takeaways

- The number of new coronavirus cases in the United States hit a plateau as measured by the 7-day rolling average when excluding New York, New Jersey & Connecticut, and has begun to move up again.
- These 3 states have managed to flatten their cumulative curve of daily new cases, as lockdown restrictions have been more strict relative to the rest of the country.

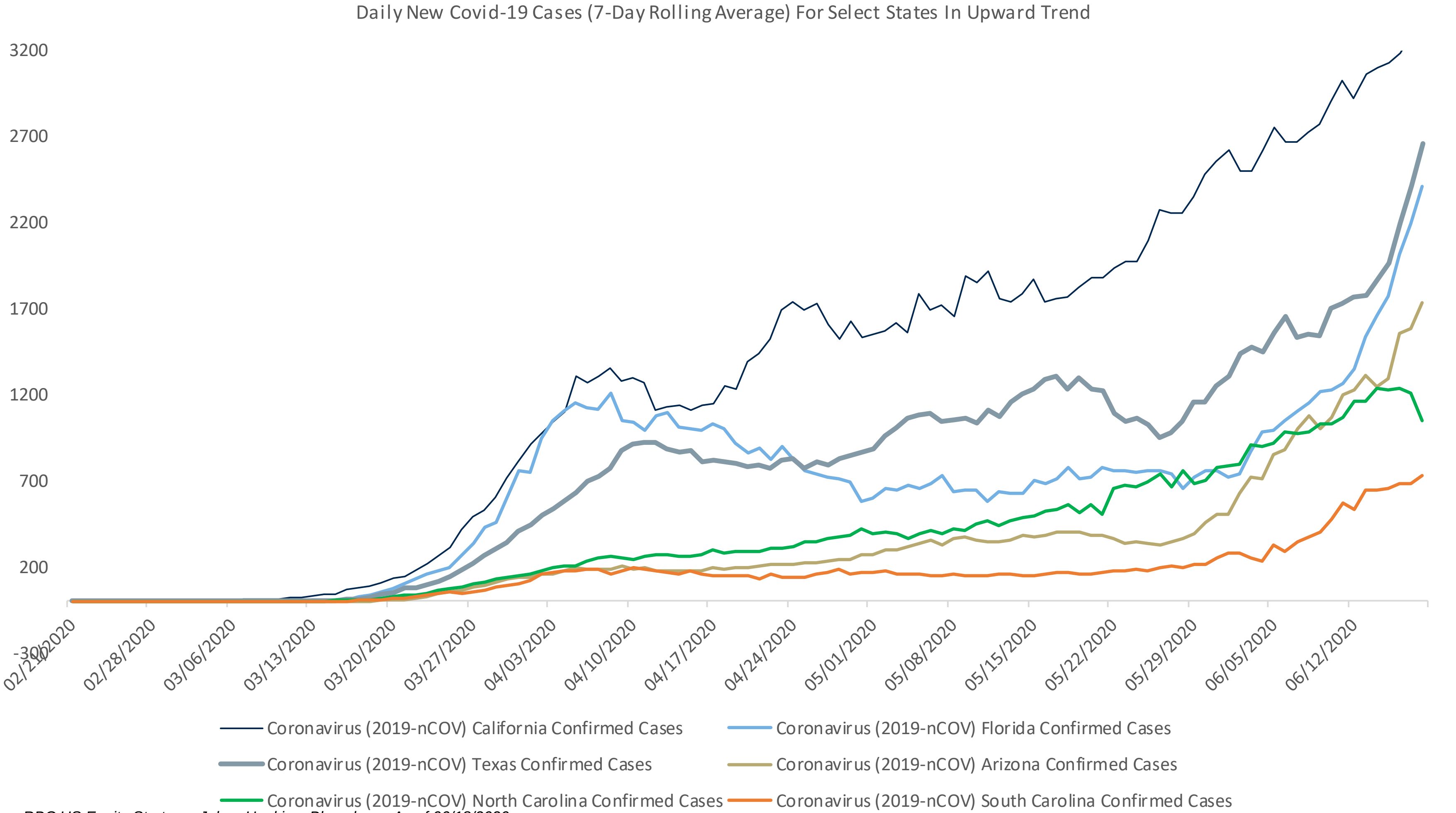


Source: RBC US Equity Strategy, Johns Hopkins, Bloomberg; As of 06/18/2020

Major States are Seeing an Acceleration in New Daily Cases

Key Takeaways

- While northeastern states such as NY, NJ & CT are generally seeing declines in the number of new daily cases, other states such as California, Texas, North Carolina, Florida, Arizona, & South Carolina are seeing an acceleration in their curves.
- When taking a look at the longer-term trend, it appears that most of these states never actually successfully "flattened" or "bent" their respective new daily cases curves. Lockdowns for these states were also lifted much earlier relative to northeast states.

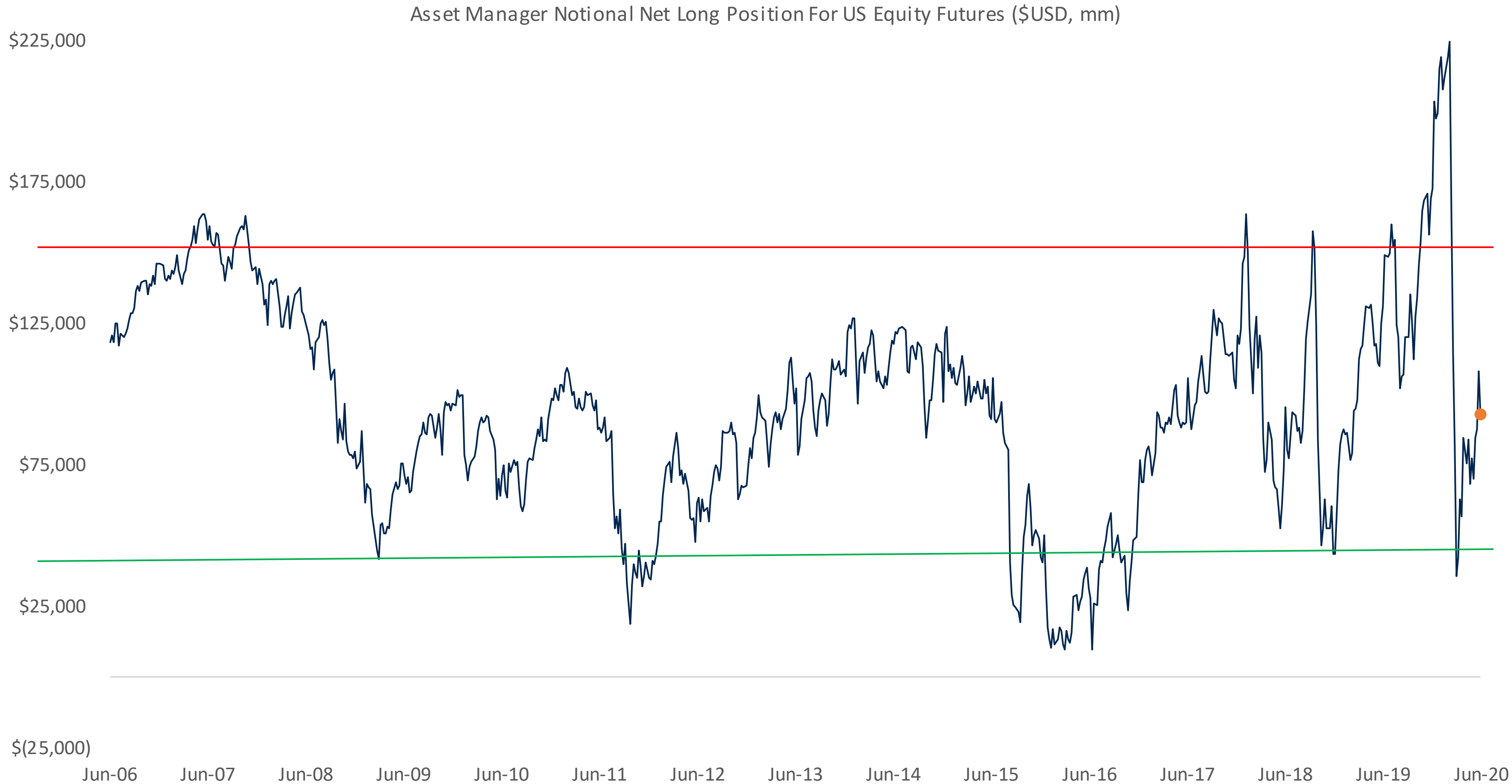


Source: RBC US Equity Strategy, Johns Hopkins, Bloomberg; As of 06/18/2020

Institutional Investor Sentiment has Been Deeply Bearish, Healing Process Underway

Key Takeaways

- We track US equity futures positioning among asset managers to gauge shifts in institutional investor sentiment for the US equity market. In the latest update, for the week ending June 16th, this indicator turned lower vs. the prior week. The improvement off the late March low has been slow, but picked up in the last update.
- In general, what we are seeing in this indicator is that asset manager positioning in US equities via the futures market has been extremely low relative to history, and well below February 2020's all-time high. It's been creeping up since late March, when it returned to December 2018's low. We remain perplexed that it never returned to 2016's low in the pandemic sell-off.

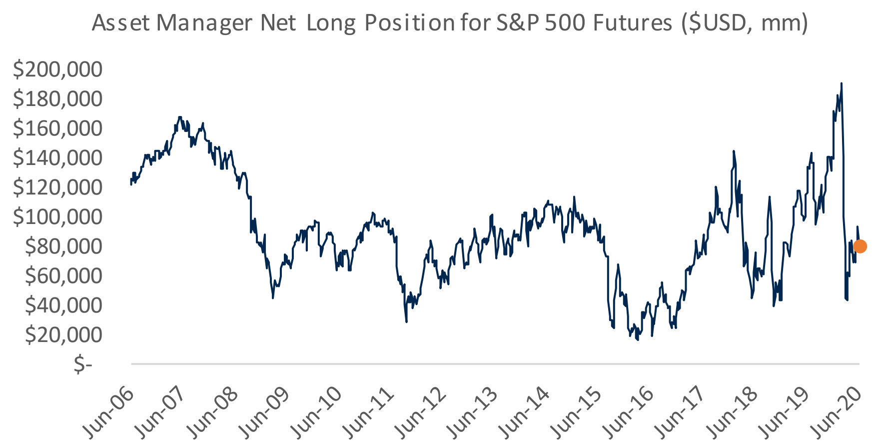


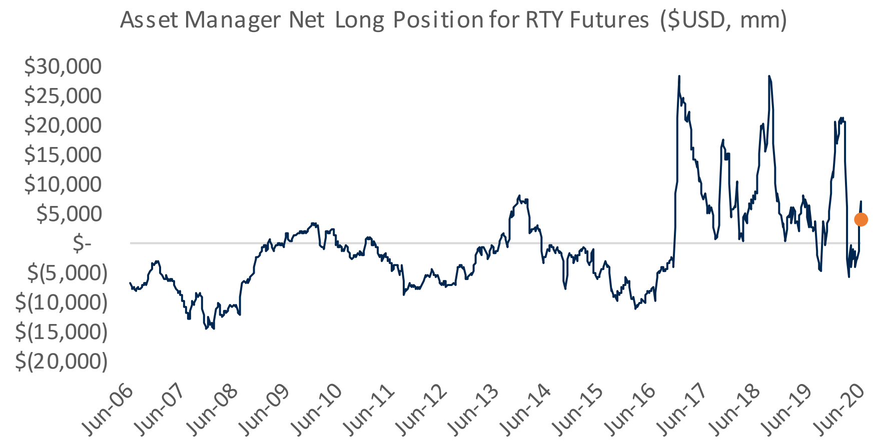
Source: RBC US Equity Strategy, RBC Futures Desk, CFTC. Asset Manager/Institutional: These are institutional investors, including pension funds, endowments, insurance companies, mutual funds, and portfolio/investment managers whose clients are predominantly institutional. As of 06/16/2020

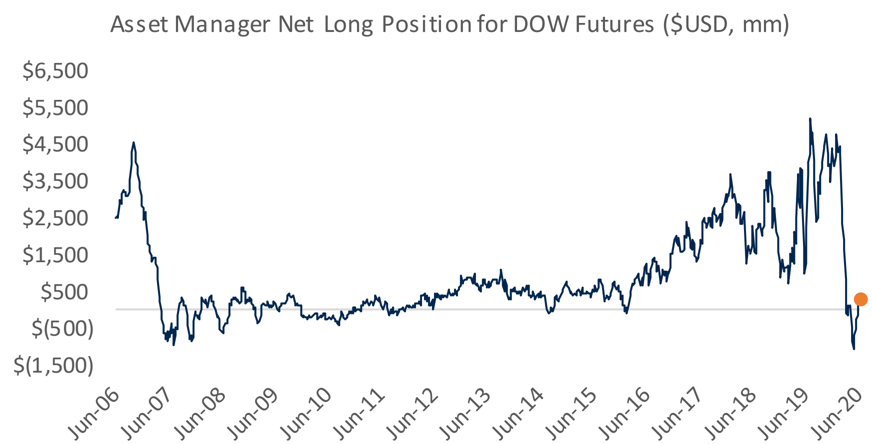
S&P 500, R2000 & Dow Futures Positioning Recovering Off Lows, Nasdaq Positioning Still High

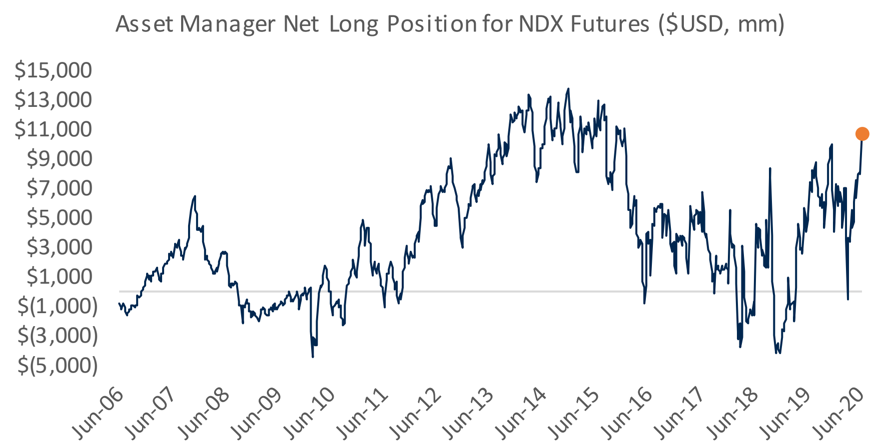
Key Takeaways

- In the latest update, asset managers added to net long positions within Small Cap. Positioning is still low relative to the extreme highs of Feb 2020, fall 2018, and Dec 2016, but starting to heal. Nasdaq futures positioning has been most constructive recently, with levels above the highs seen in last few years. These two charts suggest to us that secular growth/Nasdaq has been crowded, likely as a defensive trade, while other areas like Small Cap have been under owned.
- In the latest update, positioning moved lower in all contracts except Nasdaq, where it increased the most in 13 weeks.







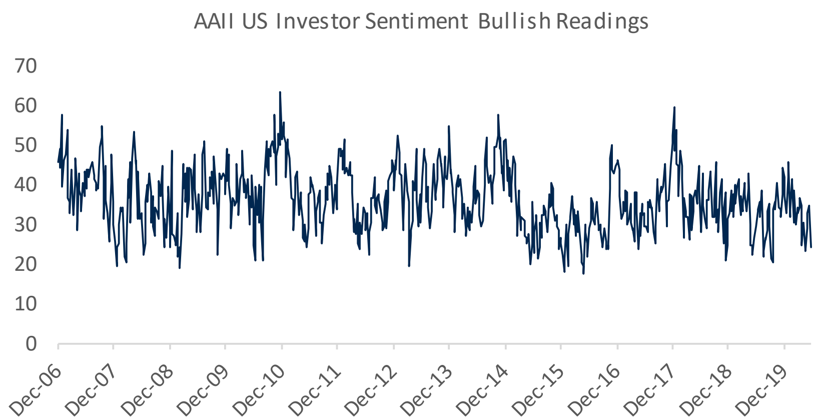


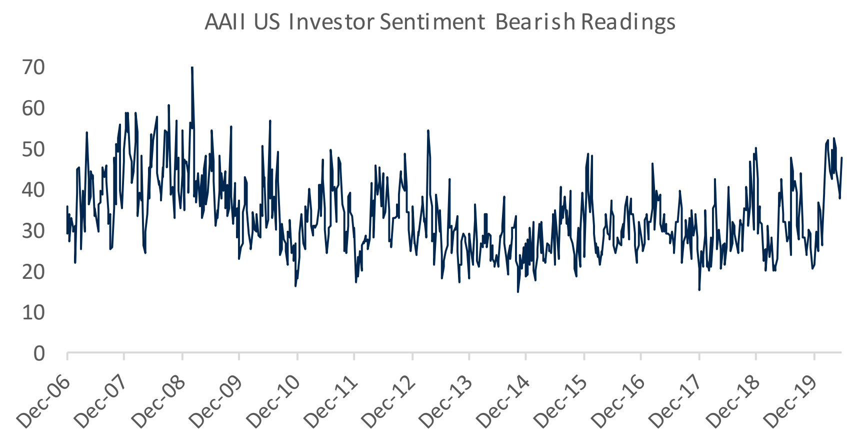
Source: RBC US Equity Strategy, RBC Futures Desk, CFTC. Asset Manager/Institutional: These are institutional investors, including pension funds, endowments, insurance companies, mutual funds, and portfolio/investment managers whose clients are predominantly institutional. As of 06/16/2020

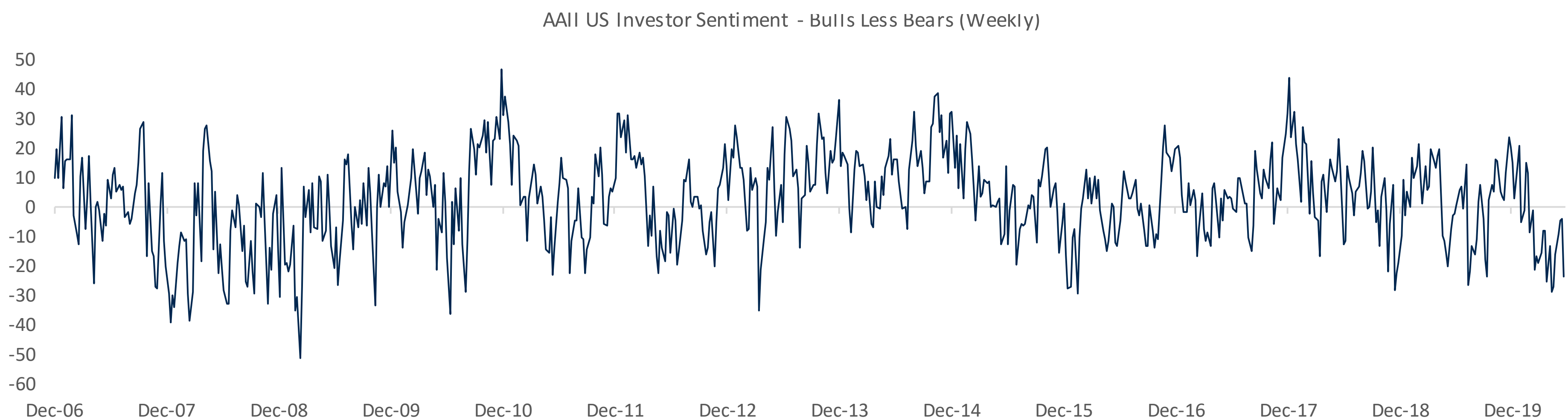
Retail Bears Had Been Slowly Retreating, Until Last Week

Key Takeaways

- Bearishness increased last week (released Thursday morning, with data captured 06/18/2020), coming in at 47.78% vs 38.05% in the prior week. Bearishness hit a peak at 52.66% during the 2020 pandemic in early May. Last week's update represents the first weekly increase in bears in 6 weeks.
- Meanwhile, bulls were tracking at 24.37%, down from the 34.28% level in place the prior week. This is technically the 2nd straight week of bullishness falling, after slightly slipping last week.





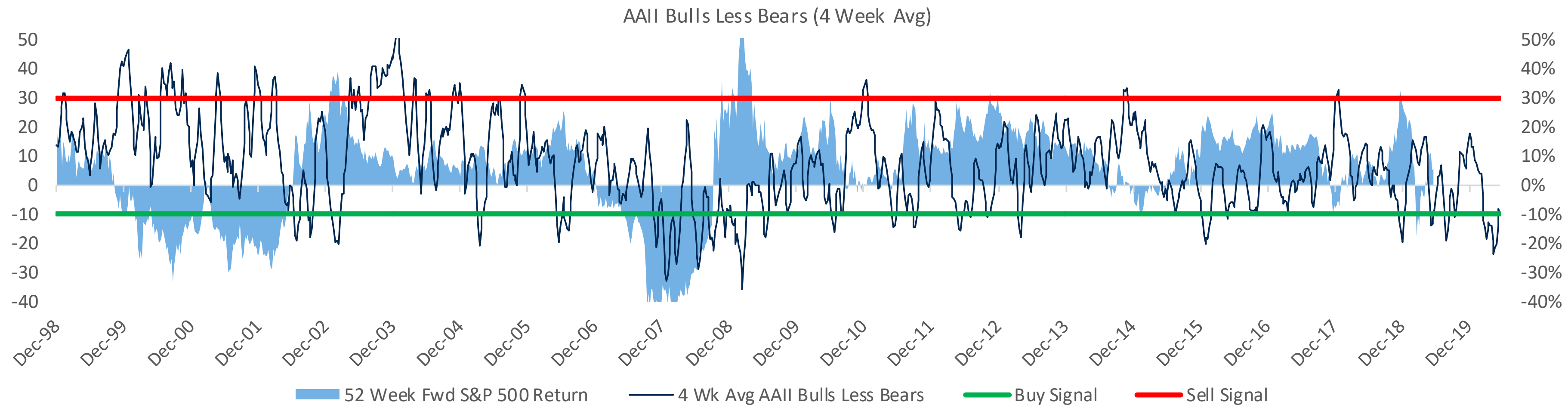


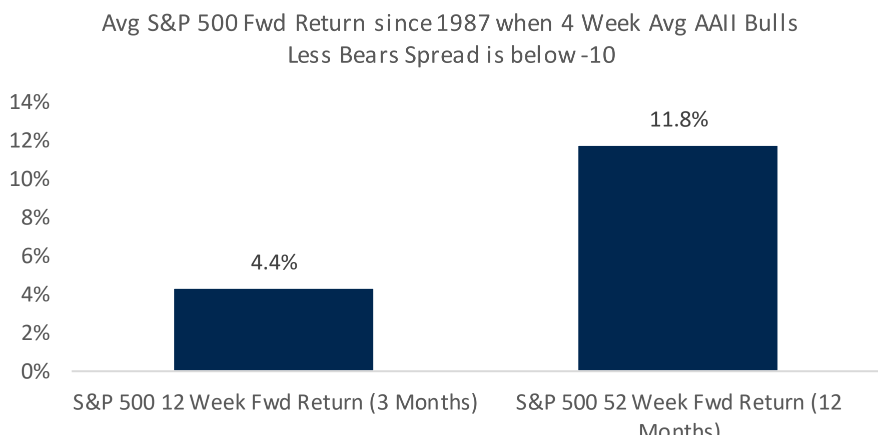
Source: RBC US Equity Strategy, AAII, Bloomberg; as of June 18, 2020

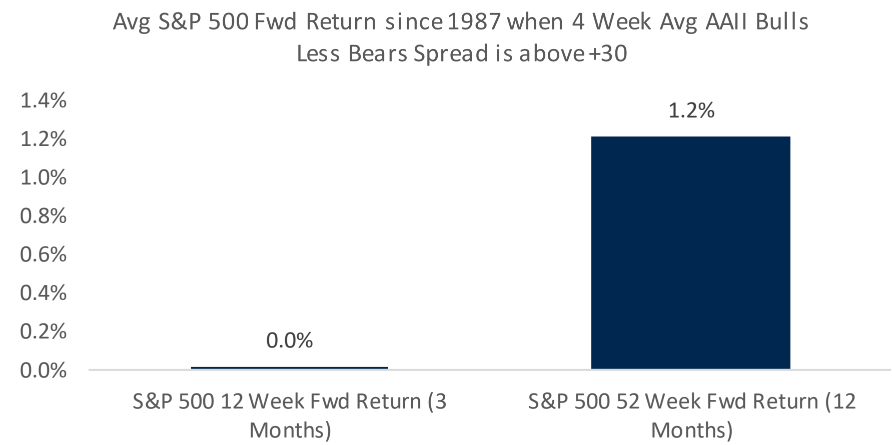
Gap Between Bulls & Bears Sending A Buy Signal

Key Takeaways

- Our model looking at the four-week average gap between the bulls and bears stayed below our 10% threshold for 12 weeks in a row until mid June, when it came in at -8.29% in favor of the bears. The gap was narrowing for several weeks, until the last release, when it was pushed back down to -10.14% in favor of the bears.
- The S&P 500 is typically higher two, three, and 12 months after crossing the -10% threshold on this model. It had been arguing for a constructive stance on stocks, but this is no longer the case after recent moves.





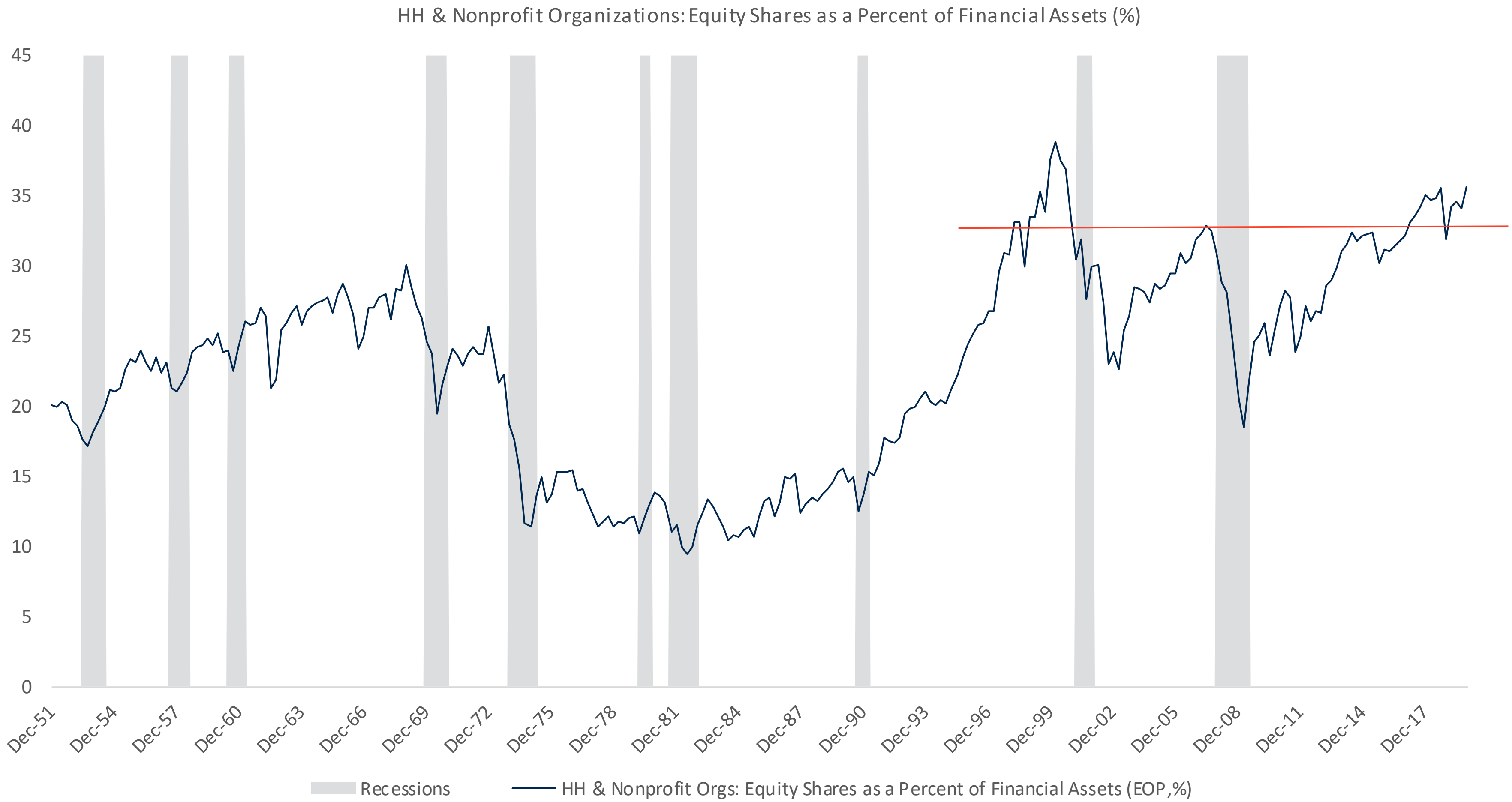


Source: RBC US Equity Strategy, AAII, Bloomberg; Performance as of June 19th, 2020, AAII as of 06/18

Equity Stakes in US Households Were Elevated Ahead of the Pandemic

Key Takeaways

- Equity stakes have been well above average relative to total financial assets, above pre-Financial Crisis highs, casting doubt on the idea that US equities were under owned by retail investors before the pandemic.
- As of 4Q19.



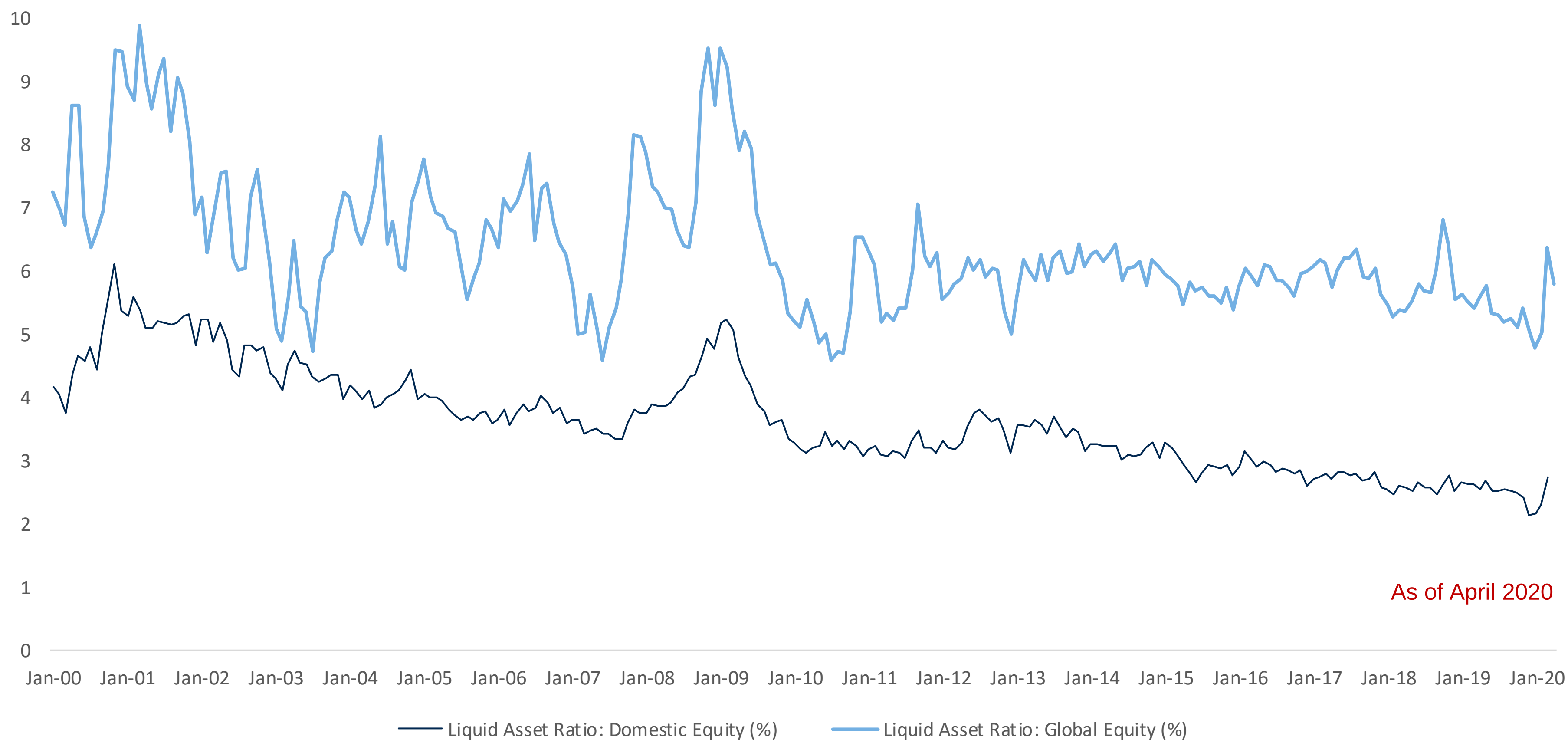
Source: RBC US Equity Strategy, Federal Reserve Flow of Funds, Haver

Cash Levels Moved Up in Domestic & Global Equity Funds in Recent Months

Key Takeaways

- In both domestic and global equity funds, data from ICI suggests that cash levels rose modestly, but failed to each the highs of 2018, the Financial Crisis, or the Tech bubble.
- Through April 2020 – May is not yet available.

Cash Levels In Domestic & Global Equity Funds

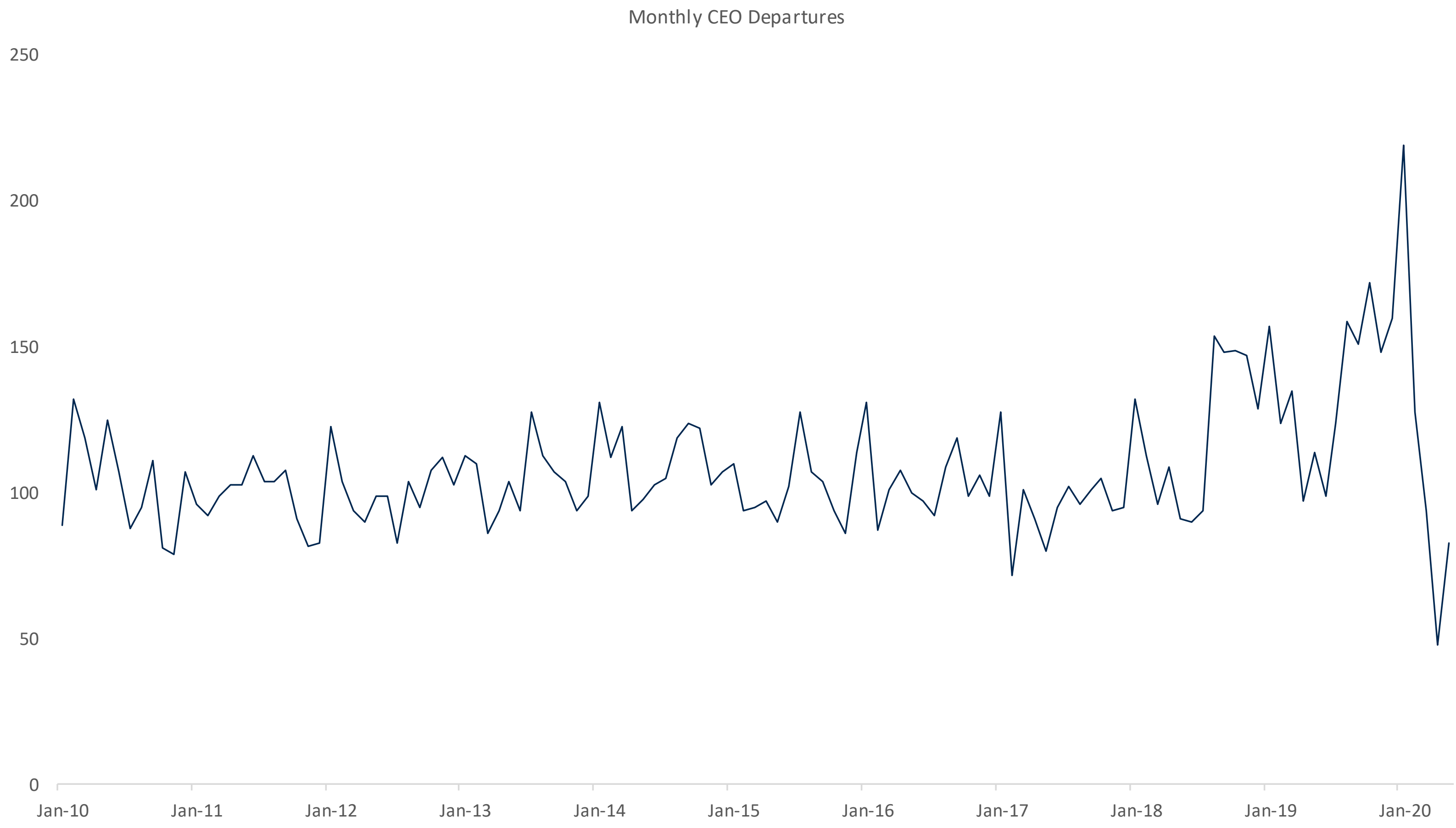


Source: RBC US Equity Strategy, Federal Reserve Flow of Funds, Haver

CEO Departures Plunged in March, After Ramping Up in 4Q19 & January 2020

Key Takeaways

- According to outplacement and executive coaching firm Challenger Gray & Christmas, Chief Executive Officer turnover fell for the third month in a row in April 2020 to 48. In May, this number ticked back up to 83.
- Still, 1Q20 was up 6% year-over-year, making it the highest Q1 total since the firm began tracking in 2002.

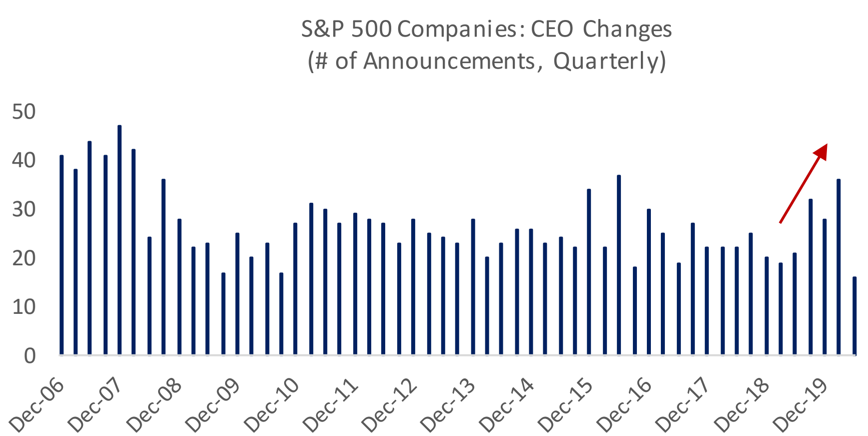


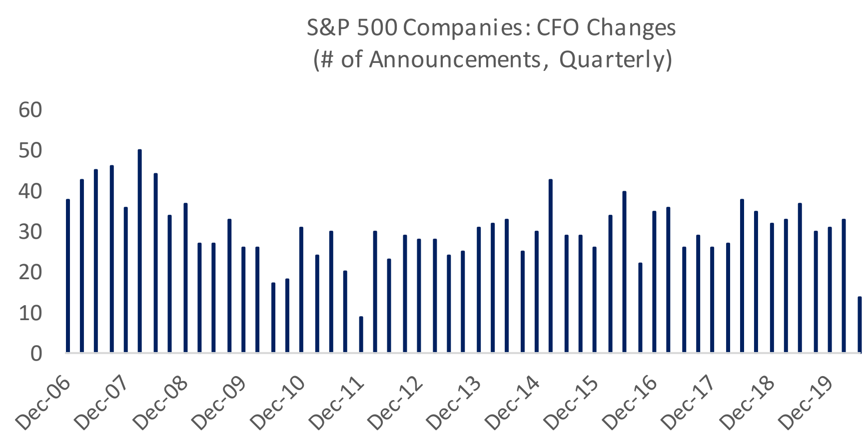
Source: RBC US Equity Strategy, Challenger, Gray, and Christmas, Inc CEO Turnover Report; Using SEC filings, news reports, and company announcements, Challenger tracks CEO changes each month from U.S.-based companies that have been in business for at least two years and employ a minimum of ten employees.

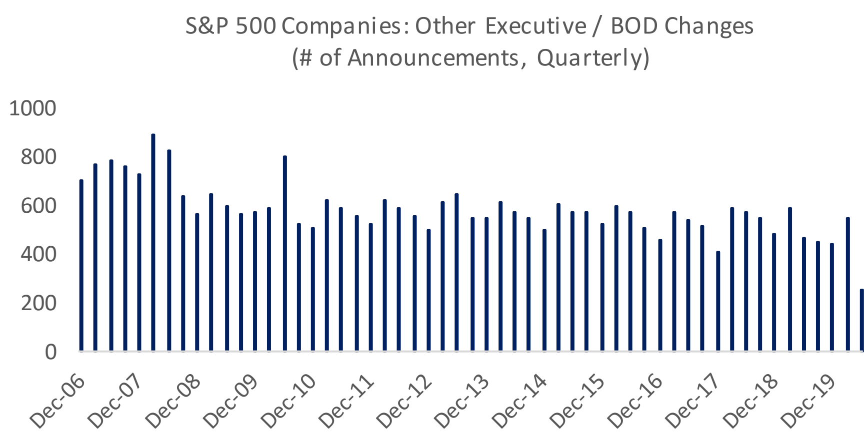
Among S&P 500 Companies, CEO Turnover Picked Up in Late 2019 / Early 2020

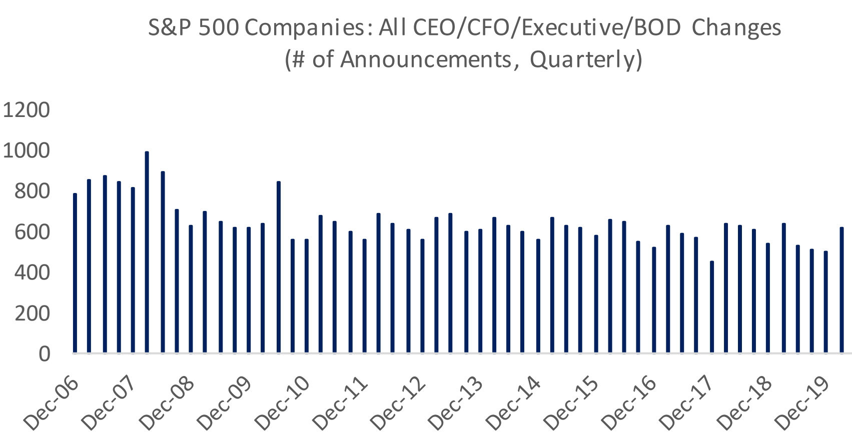
Key Takeaways

- CEO turnover has been picking up for several quarters among S&P 500 companies.
- The latest data point shows preliminary 2Q20 as of end of May.







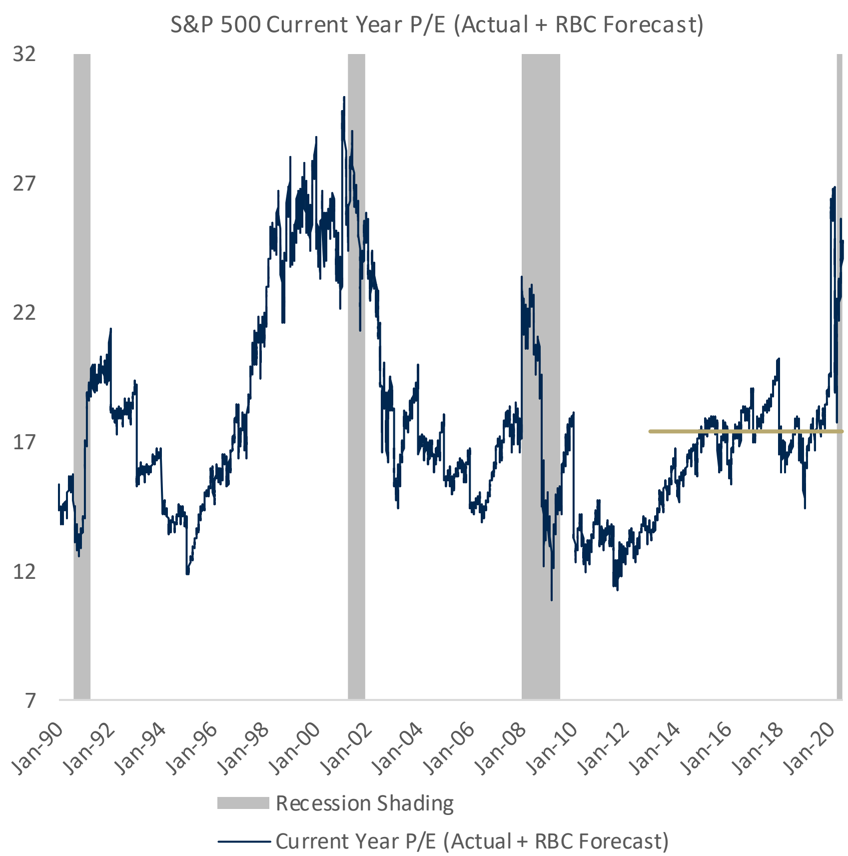


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi;

S&P 500 Looks Expensive Again on 2020 EPS

Key Takeaways

- As of June 18th, the S&P 500 was trading at 24.7x current-year P/E, based on our 2020 EPS forecast of $126. This is well above the highs of its pre-pandemic range, close to its 2020 peak of 27x and above its Financial Crisis high of more than 23x. Stocks returned to their post-2013 average at the March 23rd low, but never became technically attractive from a valuation perspective on current-year P/E. This P/E tends to spike early on in recessions before contracting. Its new high is usually lower than the recent peak.



S&P 500 Current Year P/E Levels	Price Level	Current Year P/E (Based On 2020 RBC EPS Forecast of $126)	Current Year P/E (Based On 2020 Bottom Up Consensus of $125)
Current (as of June 18, 2020)	3115	24.7	24.9
June 8th, 2020 High	3232	25.7	25.9
March 23rd 2020 Low	2237	17.8	17.9

S&P 500 Implied Price Levels	Current Year P/E Level	Implied Level Based On 2020 RBC EPS Forecast of $126	Implied Level Based On 2020 Bottom Up Consensus of $125
Average Since 1990	17.8	2240	2222
Average Since 2013	17.4	2197	2180
Max Since 1990	30.4	3828	3797
Max Since 2013	26.9	3386	3359
Min Since 1990	10.9	1374	1364
Min Since 2013	13.2	1663	1650
Peak Near 1990-1991 Recession (as of July 16th, 1990)	15.8	1985	1969
Peak Near 2001 Recession (as of Jan 30th, 2001)	30.4	3828	3797
Peak Near 2008-2009 Recession (as of Jan 2nd, 2008)	23.4	2948	2925
Peak Near 2015-2016 Growth Scare (as of May 21st, 2015)	18.0	2271	2253
Peak Near 2018 Growth Scare (as of Sept 20th, 2018)	18.0	2267	2249
Low During 1990-1991 Recession (as of Oct 11th, 1990)	12.6	1590	1577
Low During 2001 Recession (as of Sept 21st, 2001)	21.4	2691	2670
2007-2009 Recession Low (as of March 9th, 2009)	10.9	1374	1364
2015-2016 Growth Scare Low (as of Feb 11th, 2016)	15.4	1935	1920
2018 Growth Score Low (as of Dec 24th, 2018)	14.4	1818	1804

Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

The S&P 500 Also Looks Expensive on 2021 EPS

Key Takeaways

- As of June 18th , the S&P 500 was trading at 20.9x next-year P/E, based on our 2021 EPS forecast of $149. Stocks had broken below their recent average at the March 23rd low (15x vs. an average of 16.8x) and got decently close to December 2018's low (14.3x). But that valuation opportunity has evaporated with the recent rally. This version of P/E also tends to spike early in a crisis before contracting. In the 2014-2019 period, it stayed fairly range bound.

S&P 500 Next Year P/E Levels	Price Level	Next Year P/E (Based On 2021 RBC EPS Forecast of $149)	Next Year P/E (Based On 2021 Bottom Up Consensus of $163)
Current (as of June 18, 2020)	3115	20.9	19.1
June 8th 2020 High	3232	21.7	19.8
March 23rd 2020 Low	2237	15.0	13.7

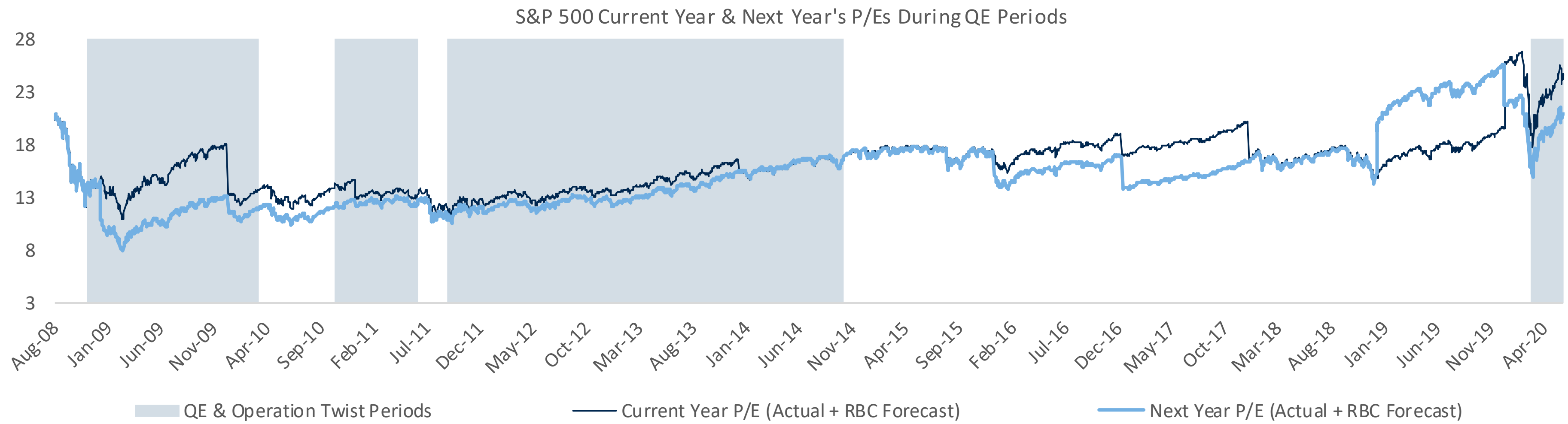
S&P 500 Implied Price Levels	Next Year P/E Level	Implied Level Based On 2021 RBC EPS Forecast of $149	Implied Level Based On 2021 Bottom Up Consensus Of $163
Average Since 1990	17.0	2532	2769
Average Since 2013	17.1	2543	2782
Max Since 1990	33.8	5033	5506
Max Since 2013	25.7	3831	4191
Min Since 1990	7.9	1179	1290
Min Since 2013	12.3	1827	1999
Peak Near 1990-1991 Recession (as of July 16th, 1990)	18.9	2819	3084
Peak Near 2001 Recession (as of March 24th, 2000)	33.8	5033	5506
Peak Near 2008-2009 Recession (as of Oct 9th, 2007)	25.3	3771	4125
Peak Near 2015-2016 Growth Scare (as of May 21st, 2015)	17.9	2666	2917
Peak Near 2018 Growth Scare (as of Sept 20th, 2018)	17.8	2653	2902
Low During 1990-1991 Recession (as of Jan 9th, 1991)	13.7	2038	2230
Low During 2001 Recession (as of Sept 21st, 2001)	20.1	2999	3281
2007-2009 Recession Low (as of March 9th, 2009)	7.9	1179	1290
2015-2016 Growth Scare Low (as of Feb 11th, 2016)	13.8	2050	2242
2018 Growth Score Low (as of Dec 24th, 2018)	14.3	2128	2328

Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

QE Boosts P/E Multiples

Key Takeaways

- S&P 500 P/E multiples typically see meaningful expansion during QE periods. Multiples expanded the most around QE1, with both current-year and next-year P/E's climbing 67% trough to peak. However, multiples also saw significant expansion around QE2, Operation Twist, and QE3, in the 20–49% range.
- So far in 2020, both the current-year and forward-year P/E's have climbed 44% since their March lows (using our 2020 and 2021 forecasts of $126 and $149 and the June 8th high). More expansion is possible though not guaranteed.



S&P 500 P/E Expansion Around QE Announcements Since 2008

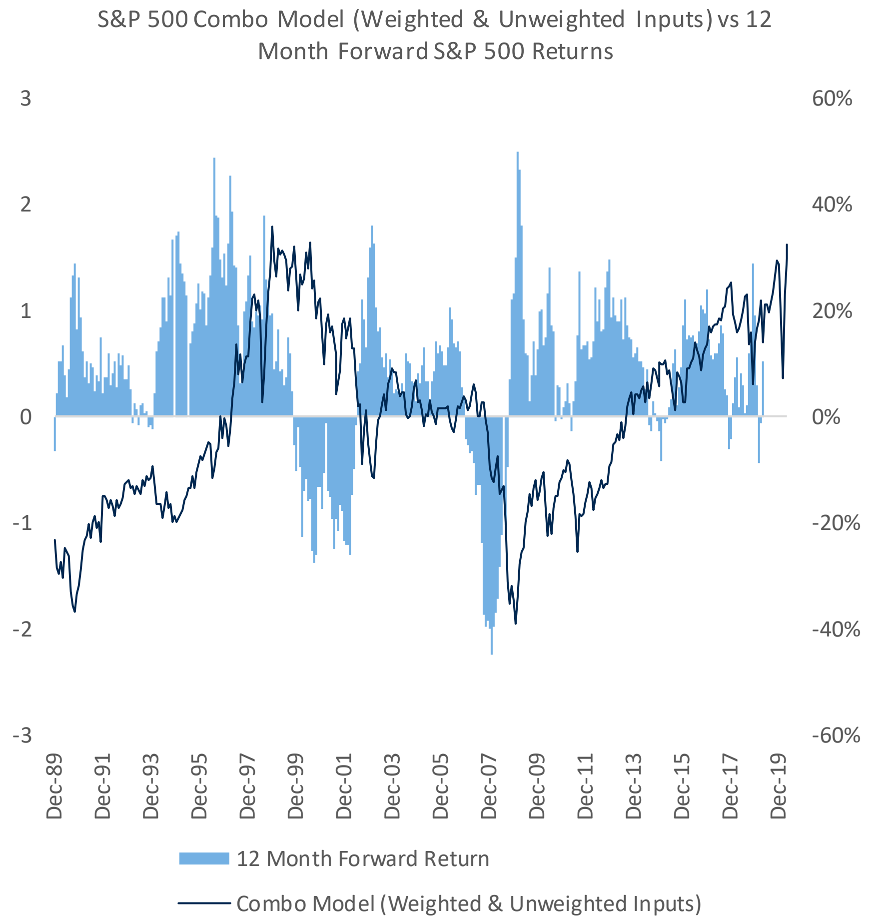
			Current Year P/E					Next Year P/E				
QE Period	QE Start Date	QE Ending Date	Trough Date	Peak Date	Trough Level	Peak Level	Trough To Peak (% Chg)	Trough Date	Peak Date	Trough Level	Peak Level	Trough To Peak (% Chg)
QE1	11/25/2008	03/31/2010	03/09/2009	12/28/2009	10.9	18.2	67%	03/09/2009	12/28/2009	7.9	13.2	67%
QE2	11/03/2010	06/30/2011	08/26/2010	12/29/2010	12.2	14.7	20%	08/26/2010	04/29/2011	10.7	13.1	23%
Twist	09/21/2011	12/31/2012	10/03/2011	03/28/2013	11.2	14.2	27%	10/03/2011	09/14/2012	10.6	13.3	25%
QE3	09/13/2012	10/29/2014	06/13/2012	12/29/2014	12.7	17.6	39%	06/13/2012	12/29/2014	11.9	17.7	49%
Average							**38%**					**41%**
Median							**33%**					**37%**
Current	03/16/2020		03/23/2020	06/08/2020	17.8	25.7	44%	03/23/2020	06/08/2020	15.0	21.7	44%

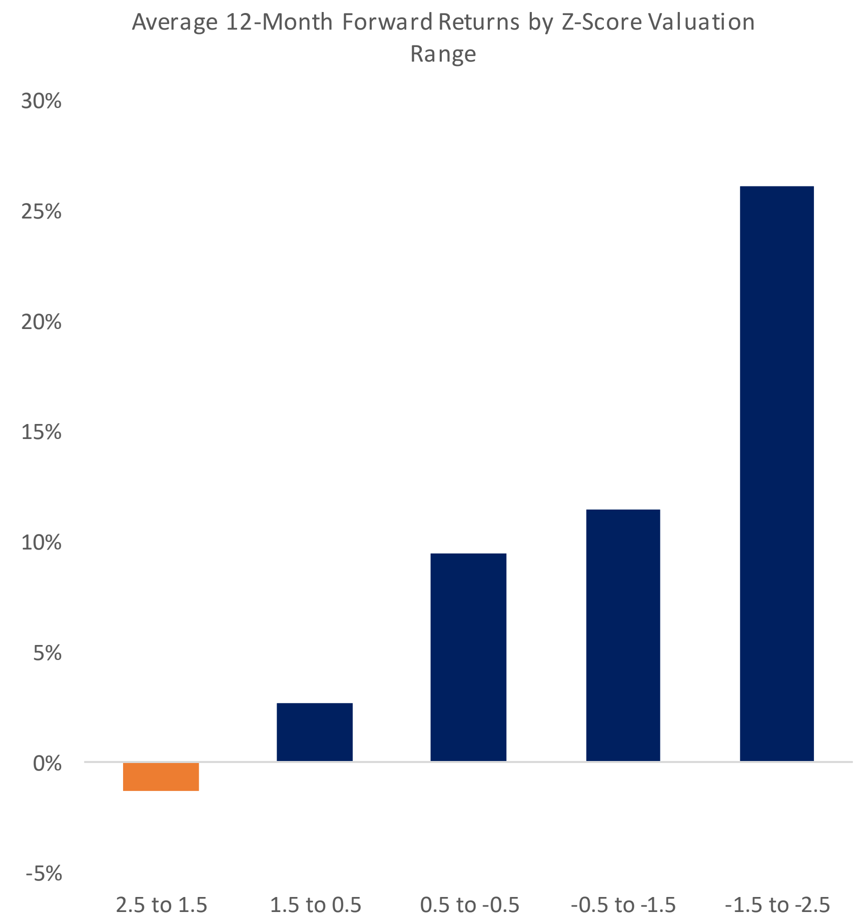
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

S&P 500 Valuations Extremely Elevated Again on our Combo Model

Key Takeaways

- To take into account all weighted and unweighted median metrics, we use our S&P 500 Combo Model.
- As of June 18th, this model was elevated again. It was tracking at 1.64 standard deviations above its long-term average, higher than the 1.5 reading that we saw at the end of 2019 and associated with 12-month forward returns in the negative territory.





Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

S&P 500 Valuations by Major Metric

Key Takeaways

- The S&P 500 looks expensive on most metrics again, both weighted multiples and unweighted multiples.
- As of June 18th, 2020.

S&P 500 Large Cap

Unweighted Medians	LTM P/E ex neg EPS	Norm P/E ex neg - 5 Yr Avg	Norm P/E ex neg - 10 Yr Avg	LTM P/S	LTM EV/S	LTM EV/EBITDA ex neg	LTM P/EBITDA ex neg	LTM EV/EBIT ex neg	LTM P/EBIT ex neg	LTM P/OCF ex neg	LTM P/FCF ex neg	NTM P/E ex neg EPS	FY1 P/E ex neg EPS	FY2 P/E ex neg EPS	NTM P/S	NTM P/CF ex neg CF	FY2 PEG ex neg	Price/ Book
Current	**22.4**	**25.3**	**28.9**	**2.3**	**3.1**	**12.9**	**10.2**	**18.9**	**14.1**	**12.9**	**19.1**	**22.2**	**22.7**	**18.4**	**2.5**	**14.3**	**2.8**	**2.8**
Z Score	1.2	0.6	0.4	1.5	1.9	2.1	1.6	2.6	1.9	0.9	(0.2)	3.0	2.8	2.0	1.6	1.6	5.9	0.5
Avg	19.1	23.1	27.2	1.5	2.0	9.5	7.6	13.3	10.6	11.2	19.7	16.2	16.8	14.7	1.9	10.2	1.3	2.6
Median	19.0	24.1	28.2	1.5	2.0	9.6	7.6	13.3	10.5	11.3	19.7	16.1	17.1	15.0	1.9	10.9	1.3	2.6

S&P 500 Large Cap

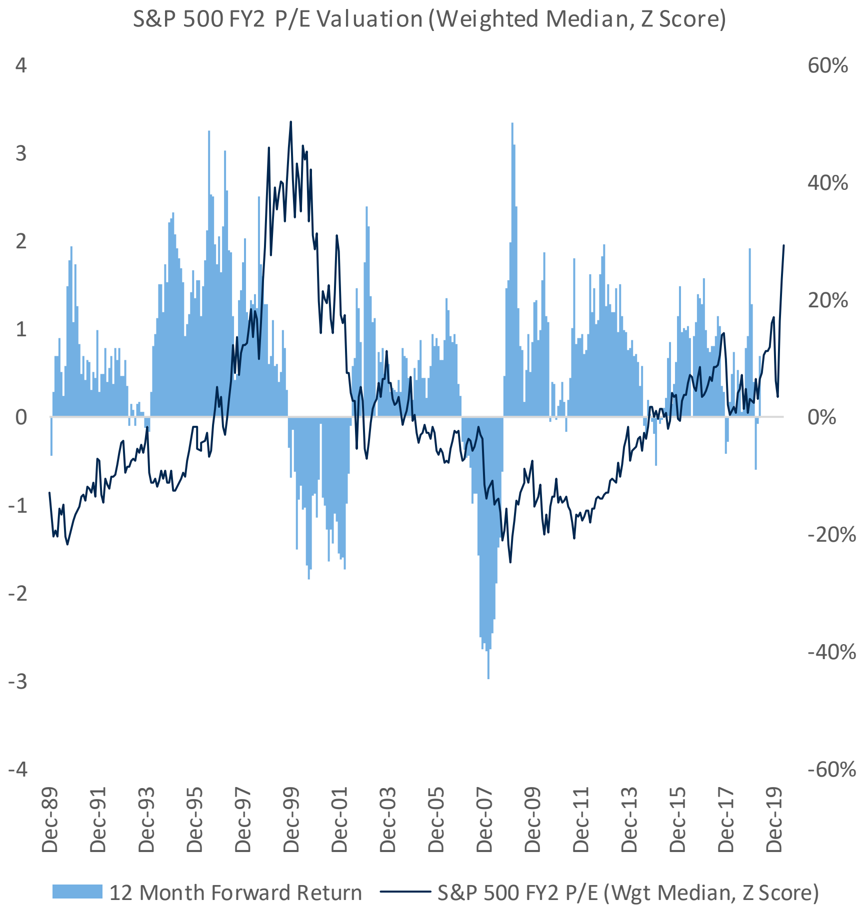
Weighted Medians	LTM P/E ex neg EPS	Norm P/E ex neg - 5 Yr Avg	Norm P/E ex neg - 10 Yr Avg	LTM P/S	LTM EV/S	LTM EV/EBITDA ex neg	LTM P/EBITDA ex neg	LTM EV/EBIT ex neg	LTM P/EBIT ex neg	LTM P/OCF ex neg	LTM P/FCF ex neg	NTM P/E ex neg EPS	FY1 P/E ex neg EPS	FY2 P/E ex neg EPS	NTM P/S	NTM P/CF ex neg CF	FY2 PEG ex neg	Price/ Book
Current	**27.6**	**34.3**	**38.5**	**4.2**	**4.7**	**16.9**	**15.1**	**22.4**	**20.8**	**18.0**	**22.8**	**26.6**	**26.6**	**22.9**	**4.1**	**19.5**	**2.3**	**5.2**
Z Score	1.4	1.5	1.0	2.8	2.3	2.3	2.3	2.3	2.5	1.4	0.0	2.3	2.0	2.0	1.2	0.9	4.0	1.5
Avg	20.5	24.9	30.3	2.1	2.7	10.8	9.1	14.5	12.4	12.8	22.8	17.4	18.1	15.9	2.8	12.5	1.4	3.5
Median	19.2	24.1	28.3	2.1	2.7	10.5	8.8	13.5	11.7	12.1	20.8	16.4	17.1	15.3	2.5	12.0	1.4	3.3

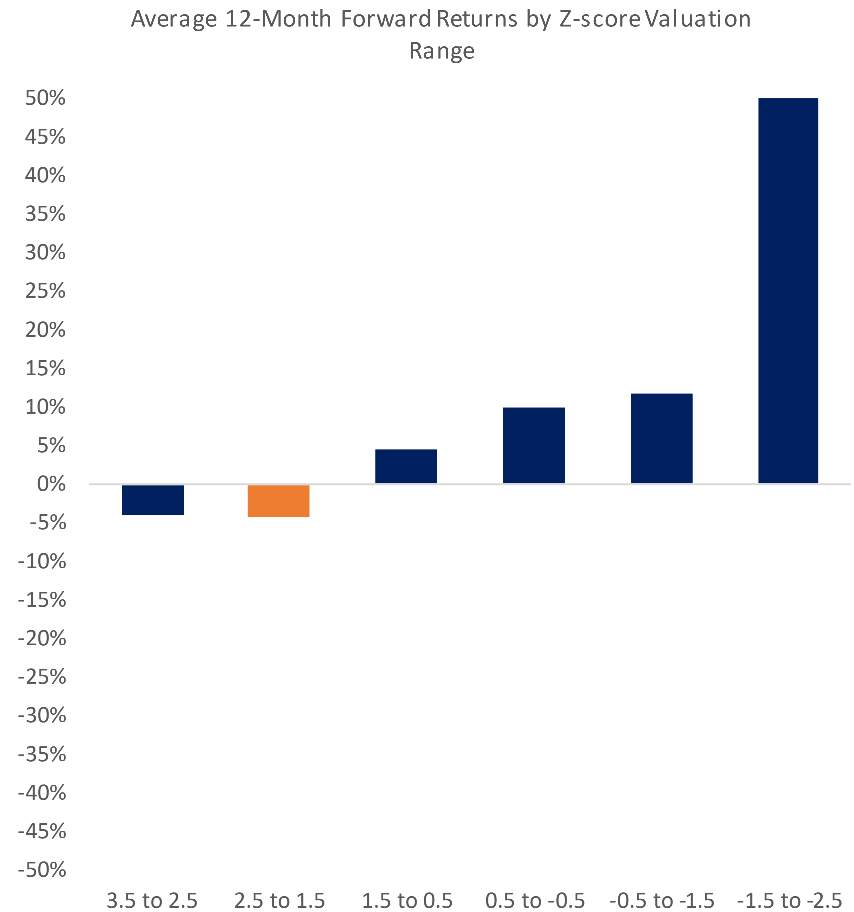
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

The S&P 500 has Spiked Sharply on a Bottom-Up, Market-Cap Weighted Forward P/E

Key Takeaways

- The bottom up S&P 500 FY2 P/E was at 22.9x on June 18th, well above its long-term average of 15.8x and the highest seen since the Tech bubble.
- At 2 standard deviations above it's long-term average, this model is at a level historically associated with negative stock market gains on a 12-month forward basis.



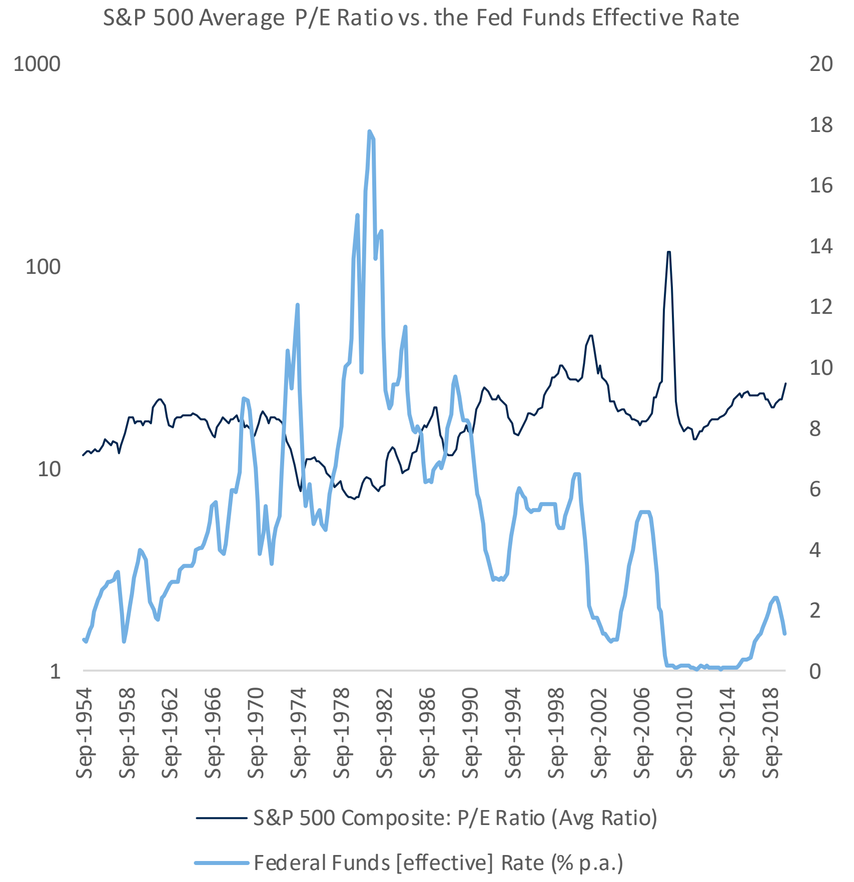


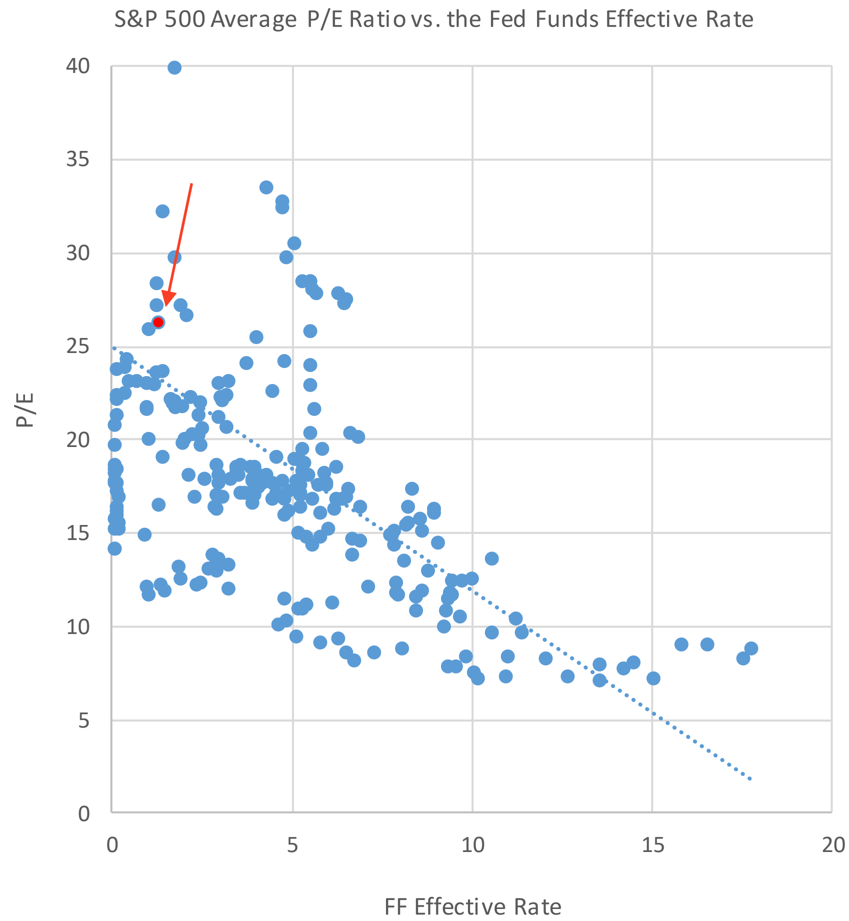
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, IBES estimates

Low Short Term Rates Suggest Average P/E Multiples can Remain High

Key Takeaways

- Over time, there's been an inverse relationship between the average P/E for the S&P 500 and levels of short-term interest rates. While this relationship broke down around the Financial Crisis, in recent years the P/E has been close to where levels of rates argued that it should have been. Higher rates from the Fed also clearly contributed to contraction in the multiple in 2018. Going forward, low rates should keep multiples elevated, though the multiple still looked a bit stretched on this analysis at the end of 1Q20.



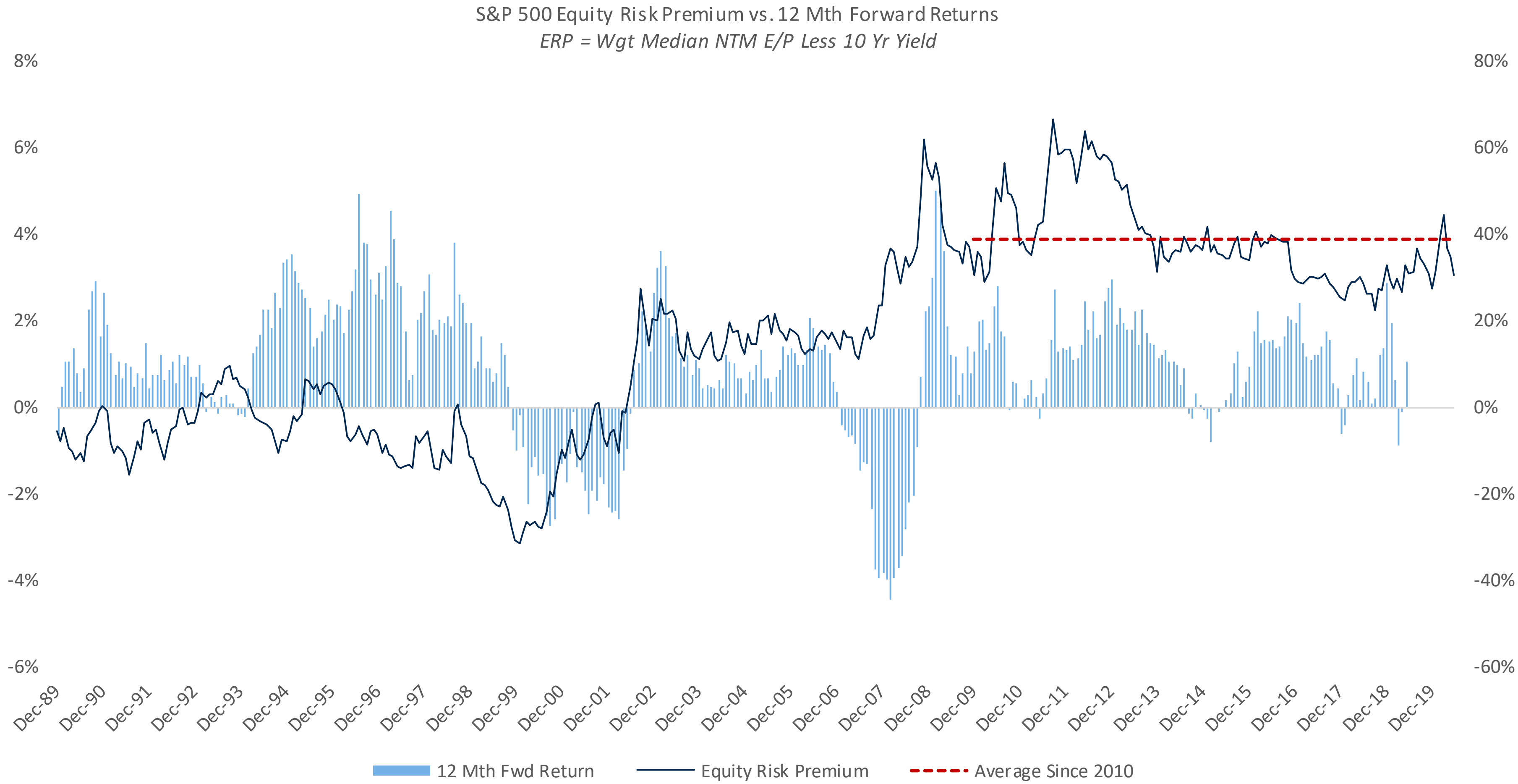


Source: RBC US Equity Strategy, Haver Analytics, S&P

US Equities Still Attractive Relative to Bonds

Key Takeaways

- When we compare the S&P 500 earnings yield to the 10-year Treasury yield, stocks look attractive relative to bonds. This has generally been the case since the Financial Crisis, and since the Tech bubble.
- The attractiveness of equities relative to bonds is below its post-Financial Crisis average.



Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Bloomberg; as of June 12th, 2020

The S&P 500 Priced in an Average Recession at the March 23rd Low

Key Takeaways

- At the March 23rd low, the S&P 500 was down 34% from it's February 19th peak. That was roughly in line with the average drop that has been seen in the index, peak to trough, in recessions dating back to the 1930's.

S&P 500 Peak To Trough Declines Around Recessions

Recession Dates	S&P 500 Peak Date	S&P 500 Trough Date	S&P 500 Peak Level	S&P 500 Trough Level	S&P 500 Peak To Trough Decline (% Chg)	S&P Pullback Duration (# Calendar Days)	Estimated end of Recession Month	Estimated Trough Month	Estimated # of Months Stocks Bottomed Before Recession Ended
May 1937 - June 1938	03/10/1937	03/31/1938	19	9	-54%	386	06/30/1938	03/31/1938	-3
Nov 1948 - Oct 1949	06/15/1948	06/13/1949	17	14	-21%	363	10/31/1949	05/31/1949	-5
July 1953 - May 1954	01/05/1953	09/14/1953	27	23	-15%	252	05/31/1954	08/31/1953	-9
Aug 1957 - April 1958	07/15/1957	10/22/1957	49	39	-21%	99	04/30/1958	11/30/1957	-5
April 1960 - Feb 1961	08/03/1959	10/25/1960	61	52	-14%	449	02/28/1961	10/31/1960	-4
Dec 1969 - Nov 1970	11/29/1968	05/26/1970	108	69	-36%	543	11/30/1970	05/31/1970	-6
Nov 1973 - Mar 1975	01/11/1973	10/03/1974	120	62	-48%	630	03/31/1975	09/30/1974	-6
Jan 1980 - July 1980	02/13/1980	03/27/1980	118	98	-17%	43	07/31/1980	03/31/1980	-4
July 1981 - Nov 1982	11/28/1980	08/12/1982	141	102	-27%	622	11/30/1982	07/31/1982	-4
July 1990 - Mar 1991	07/16/1990	10/11/1990	369	295	-20%	87	03/31/1991	09/30/1990	-6
Mar 2001 - Nov 2001	03/24/2000	10/09/2002	1527	777	-49%	929	11/30/2001	09/30/2002	10
Dec 2007 - June 2009	10/09/2007	03/09/2009	1565	677	-57%	517	06/30/2009	02/28/2009	-4
Feb 2020 - TBD	02/19/2020	03/23/2020	3386	2237	-34%	33	TBD	03/31/2020	TBD
Average ex 2020					**-32%**	**410**		**Average ex 2001**	**-5**
Median ex 2020					**-24%**	**418**		**Median ex 2001**	**-5**

We excluded the 1945 recession as there was no clear stock market pullback around it. Stats for Estimate # of Months Stocks Bottomed Before Recession Ended excludes 2001 recession.
2001 recession pullback stats are based on March 2000 peak / Oct 2002 low. The market hit a low in Nov 01, which was the retested and surpassed in 2002.

Source: RBC US Equity Strategy, Haver

Stocks Tend to Bottom Well Before Recessions End, With Powerful Initial Rebounds

Key Takeaways

- A quick look back at the recovery trades in the S&P 500 associated with the last three recessions in the US (1990–91, 2001, and 2008–09) reminds us that bottoms in the stock market tend to occur shortly before recessions end.
- On average, in the last three recessions the bottom in the S&P 500 has come around four months before the end of the economic contraction. In 2001, the September low in the stock market (which would prove to be temporary, giving way to a new low in 2002) came about two months before the end of the recession. In the 1990–91 recession, the trough came nearly six months before the economic downturn was over.
- The initial rallies (within the first six months) off all three of the last mid-recession troughs have been powerful, with a median gain of 34% and average move of 41%.
- The S&P 500 has moved up 44% since the March 23rd low, meaning that the rebound has already been in line with the average recession rebound. If the rebounds ends up matching the 2009 move, the S&P 500 could trade as high as 3735.

Recession Dates	S&P 500 Trough Date	Estimated end of Recession Month	Estimated # of Months Stocks Bottomed Before Recession Ended	S&P 500 Peak Date Within Six Months After Recession	S&P 500 Trough Level	S&P 500 Recovery Peak Level	S&P 500 Recovery Return (% Chg)
July 1990 - Mar 1991	10/11/1990	03/31/1991	5.7	08/28/1991	295	397	34%
Mar 2001 - Nov 2001	09/21/2001	11/30/2001	2.3	03/19/2002	966	1170	21%
Dec 2007 - June 2009	03/09/2009	06/30/2009	3.8	12/28/2009	677	1128	67%
Feb 2020 - TBD	03/23/2020	TBD	TBD	06/08/2020	2237	3232	44%
Average ex 2020			**3.9**				**41%**
Median ex 2020			**3.8**				**34%**

Source: RBC US Equity Strategy, Haver

Stocks are Usually up in Negative GDP Years as Investors Price In Recovery Ahead of Time

Key Takeaways

- Stocks tend to do well when real GDP is above 2% in any given year.
- Beyond that, history suggests that sluggish economic growth and the fear of tipping into recession tend to be more problematic backdrops for stocks than the onset of recession. In negative real GDP years, stocks are normally up. In the 0–2% range, where 2020 estimates are currently stuck, stocks often struggle.
- Stocks tend to be up in negative GDP years, as investors start to price in economic recovery. Currently, data from Bloomberg suggests that the sell-side economic consensus is looking for -5.7%, with the lowest forecast tracking at -10.5%.

S&P 500 Returns During Different GDP Environments

Real GDP Range	# Instances	Average Return (Prior Year)	Median Return (Prior Year)	Average Return (Current Year)	Median Return (Current Year)
<0%	11	-10.9%	-9.7%	13.4%	23.5%
0 - 2%	8	4.0%	6.0%	0.0%	0.0%
2 - 4 %	27	9.4%	8.5%	10.0%	11.4%
>4%	28	16.0%	16.9%	8.6%	10.4%
All Years (1947-2019)	*73*	*8.1%*	*9.5%*	*8.9%*	*10.8%*

Negative Real GDP Years

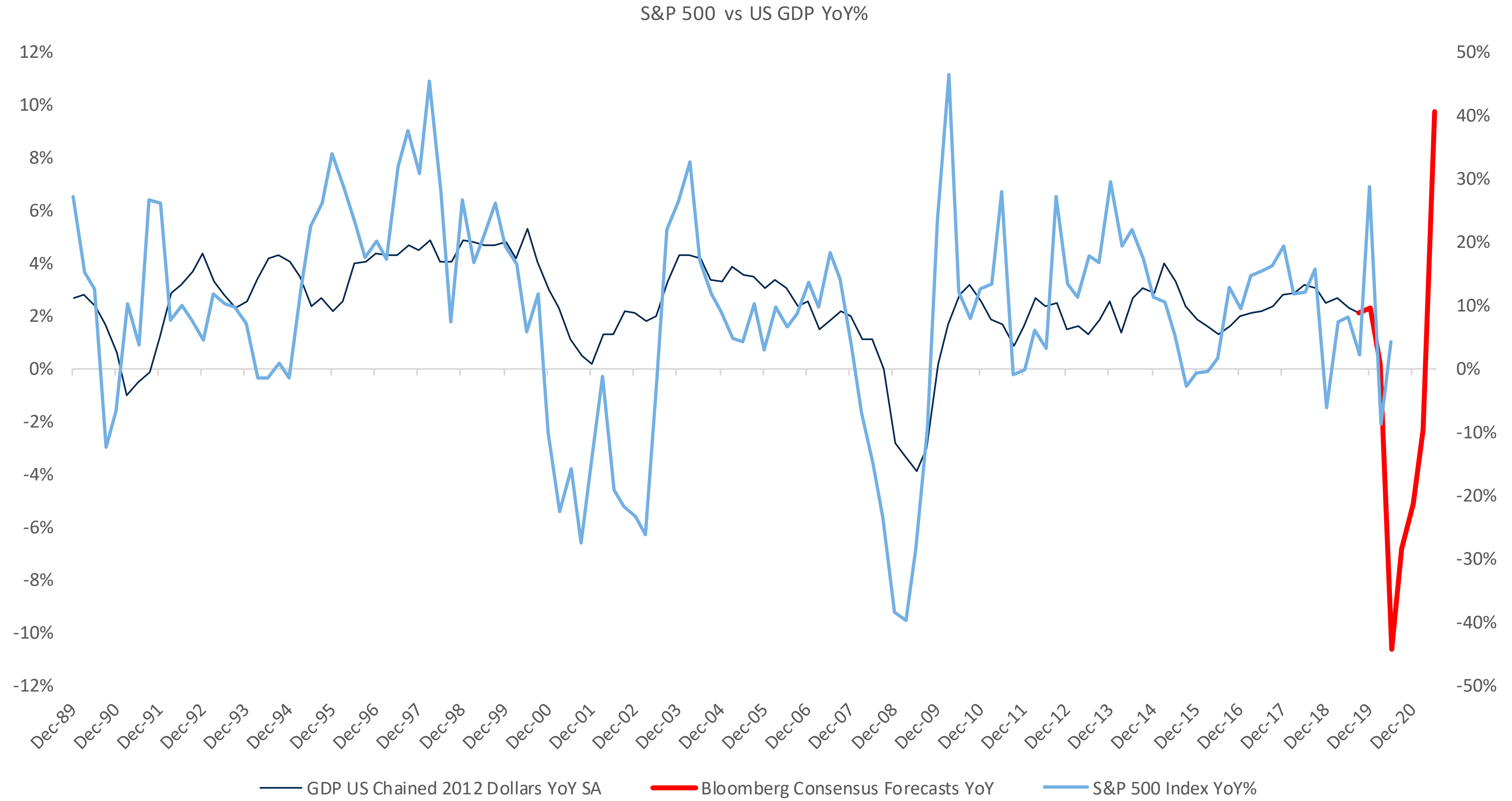
Year	Real GDP	Current Year Return
1947	**-1.1**	0.0%
1949	**-0.6**	10.3%
1954	**-0.6**	45.0%
1958	**-0.7**	38.1%
1974	**-0.5**	-29.7%
1975	**-0.2**	31.5%
1980	**-0.3**	25.8%
1982	**-1.8**	14.8%
1991	**-0.1**	26.3%
2008	**-0.1**	-38.5%
2009	**-2.5**	23.5%
% Times Down or Flat		**27%**

Source: RBC US Equity Strategy, Haver, S&P; through 2019, Consensus forecasts are as of 06/16/2020

Recent Price Action in the S&P 500 Anticipates a Strong Reacceleration in the US Economy

Key Takeaways

- Real economic growth is a key driver for equity market returns in the long term, as it captures an economy's labor, capital and productivity factors, which all affect corporate profits.
- The current sell-side consensus for GDP growth is baking in a sharp reacceleration in GDP in 2021, similar to what was seen after the extended period of malaise associated with the Tech bubble and the Financial Crisis.

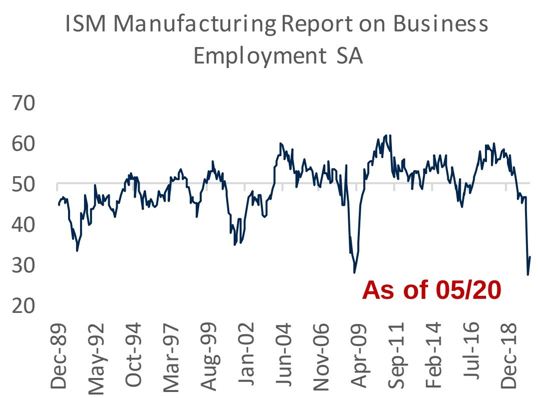


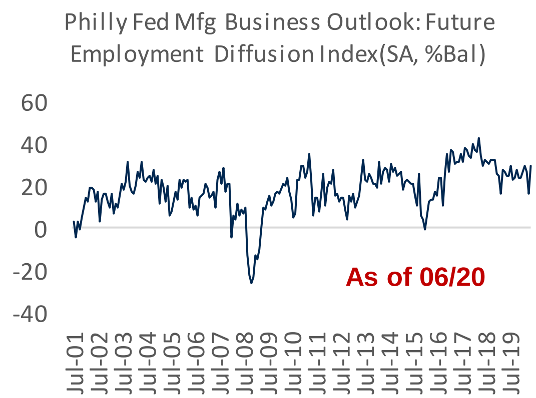
Source: RBC US Equity Strategy, Bloomberg; as of June 15, 2020

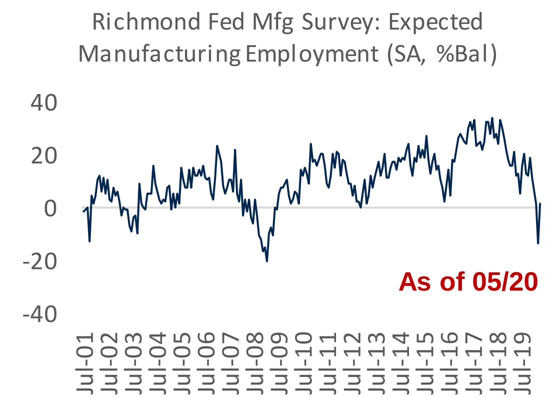
Expectations For Future Employment Trends Have Stabilized

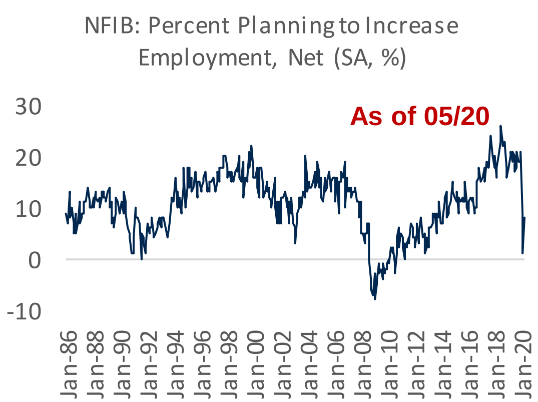
Key Takeaways

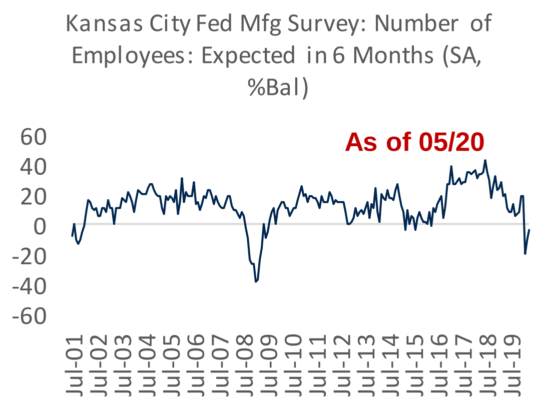
- Expectations for future employment trends fell sharply in April in all of the major surveys we track due to the pandemic.
- In the case of the ISM survey, employment expectations returned to Financial Crisis lows.
- The latest reads from Empire State's Manufacturing Survey as well as the Philly Fed Manufacturing survey showed sequential improvement in June. The Kansas City and Richmond Fed surveys began to inflect in May.

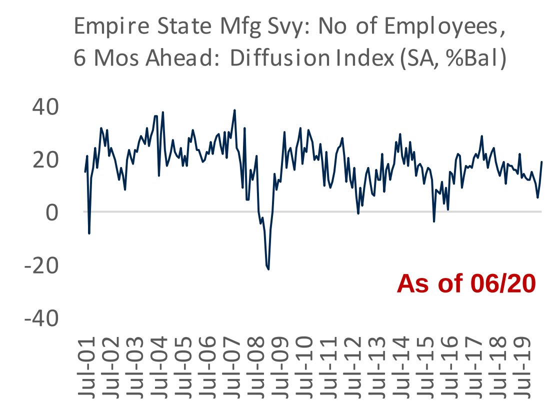










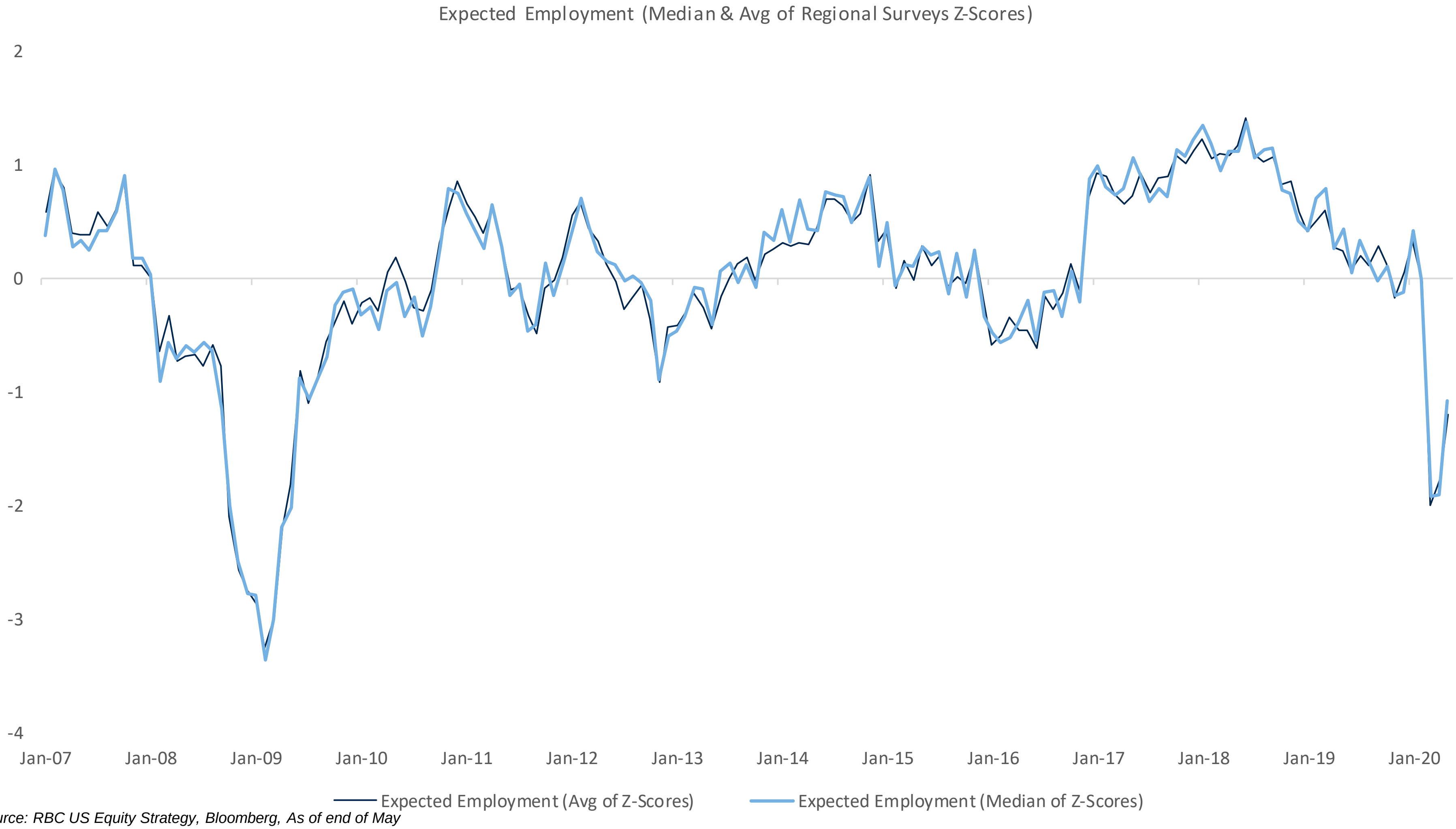


Source: RBC US Equity Strategy, Haver

Employment Expectations Show Signs of Hope

Key Takeaways

- As is the case with the expected capital expenditure plans from the regional Fed surveys we track, expected employment trends in the regional Fed surveys have also begun to turn up, despite remaining at very weak levels.

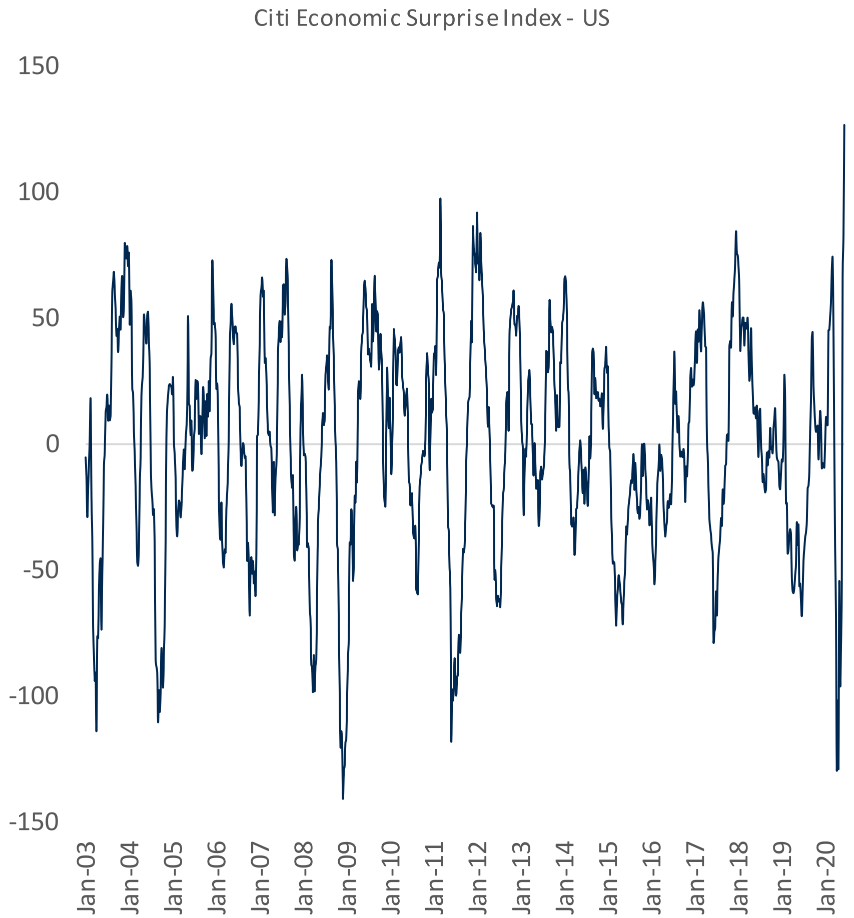


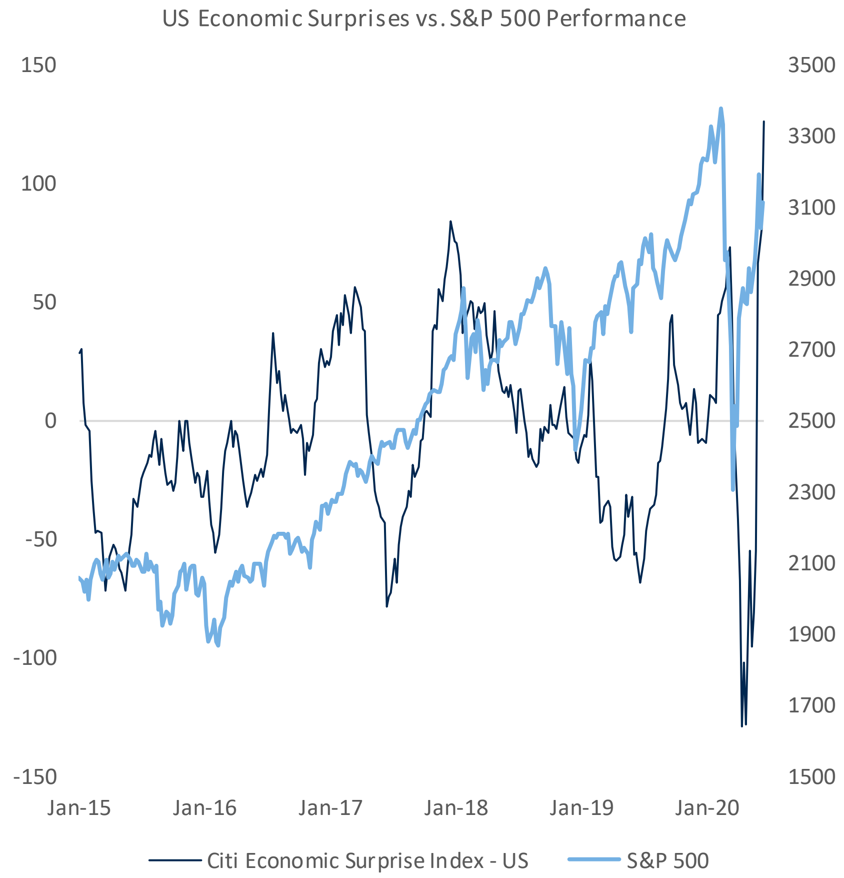
Source: RBC US Equity Strategy, Bloomberg, As of end of May
Expected Employment gauge includes 8 different indicators from the following Regional Federal Reserve Banks: NY Fed, Philly Fed, Richmond Fed, Kansas City Fed & Dallas Fed

Positive Economic Surprises for the US May Have Peaked

Key Takeaways

- Several weeks ago, aggregate economic surprises for the US, as measured by Citi's economic surprise index, turned net positive for the first time in 11 weeks. Even before that week's jobs report, this indicator had been improving after hitting levels in line with those that had marked extreme lows in the past. The return of positive surprises to economic data helped boost US equity market performance in late May and early June. With recent improvement, the rate of positive surprises has climbed above levels where it has peaked in the past. It suggests that positive economic surprises may be harder to come by. If so, the US equity market will need a new catalyst to keep moving higher.



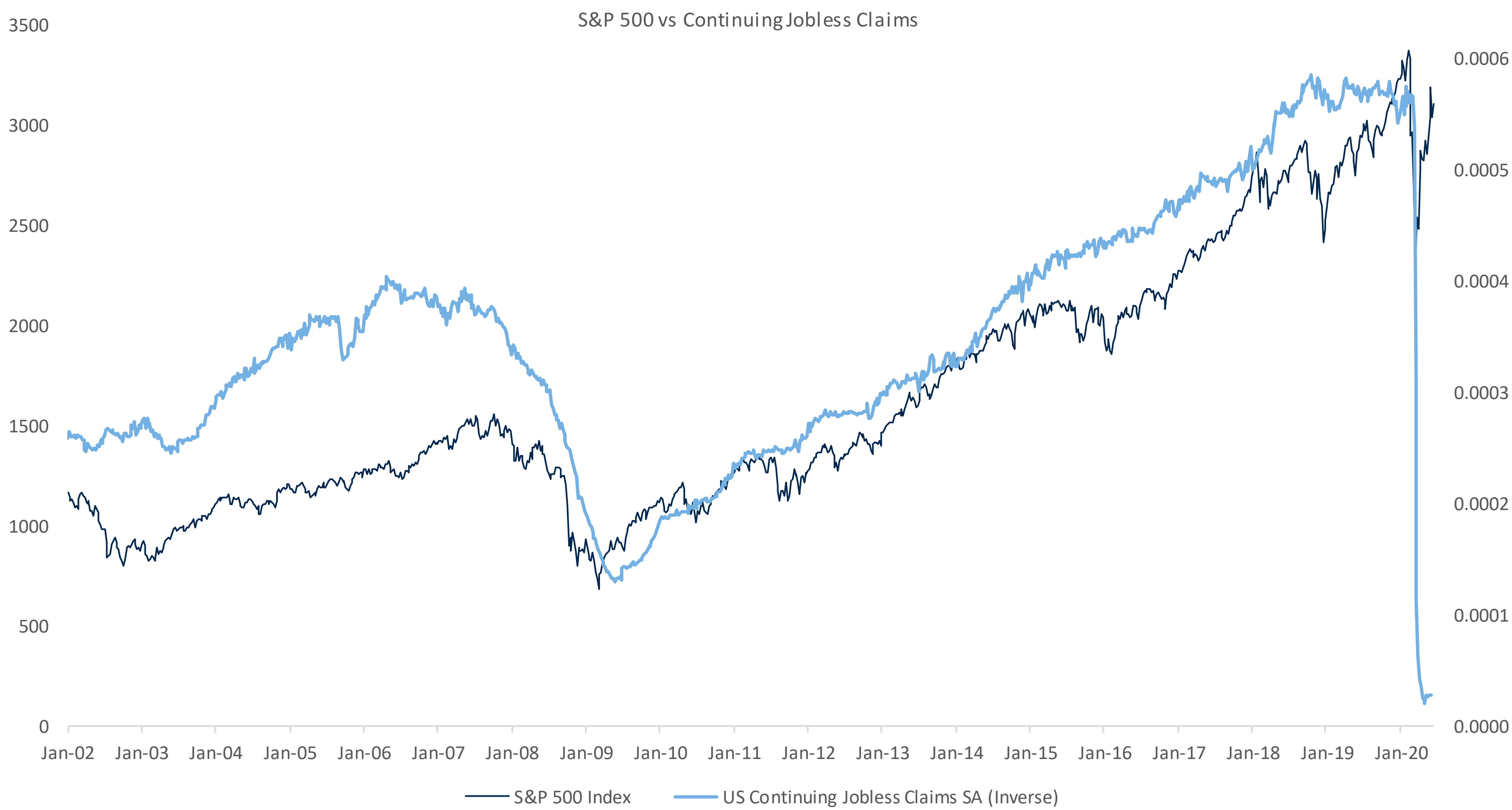


Source: RBC US Equity Strategy, Bloomberg; as of June 12th, 2020

S&P 500 Price Action Hasn't Reflected the Severe Weakness Already Seen in the Labor Market

Key Takeaways

- S&P 500 performance generally moves inversely with continuing jobless claims.
- The recent rebound in the S&P 500 appears to have anticipated the marginal improvement this indicator that has been seen recently. But it's still fair to say that the S&P 500's price action has been out of sync with the pain the labor market has experienced.

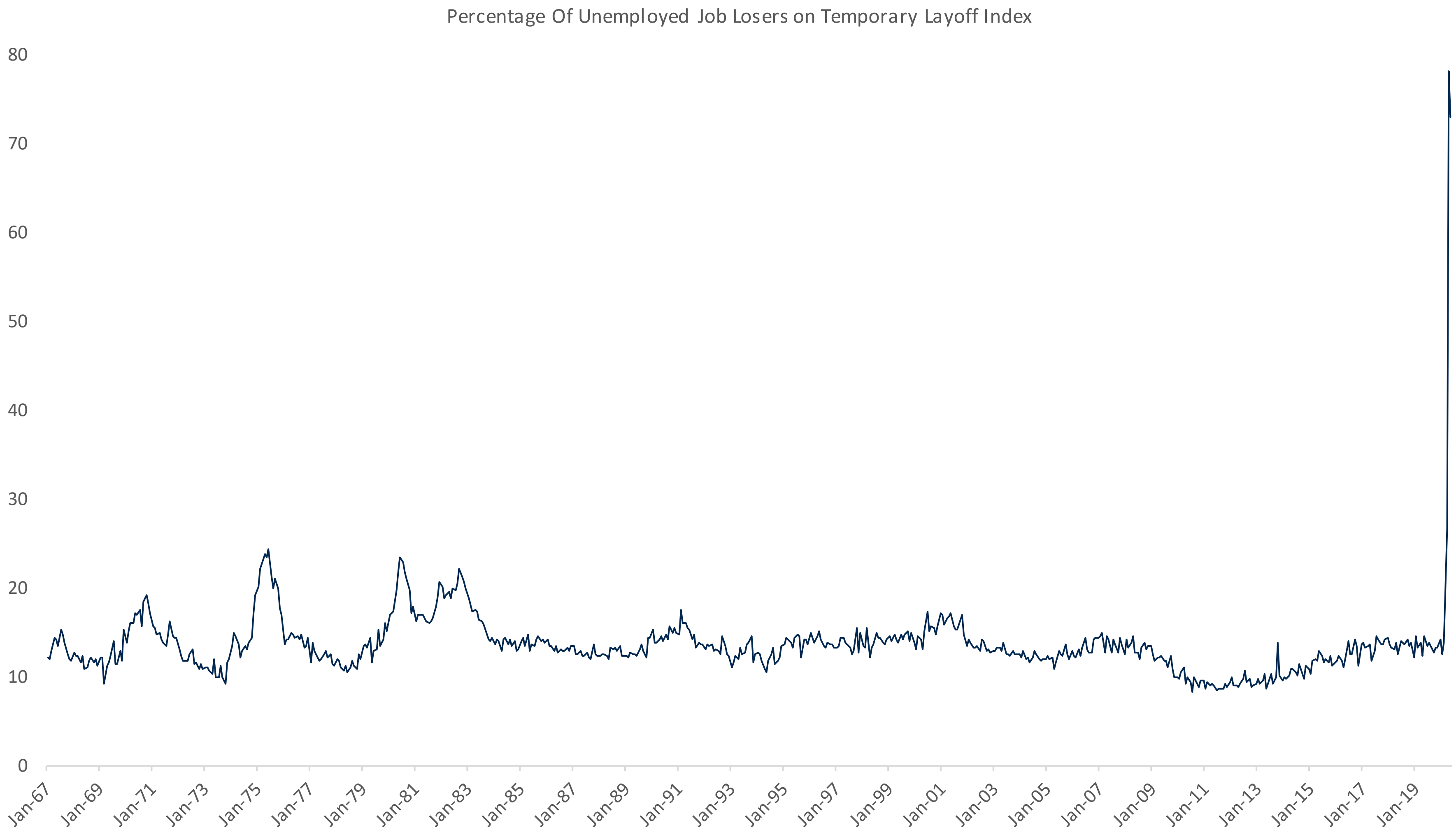


Source: RBC US Equity Strategy, Bloomberg, S&P 500 Price as of 06/18, Continuing Claims as of 06/05

Many Americans Believe Pandemic Related Job Losses will be Temporary

Key Takeaways

- The vast majority of laid-off or furloughed workers expect to be rehired by their previous employer once the stay-at-home orders in their area are lifted.
- We think this belief has helped to support consumer confidence.

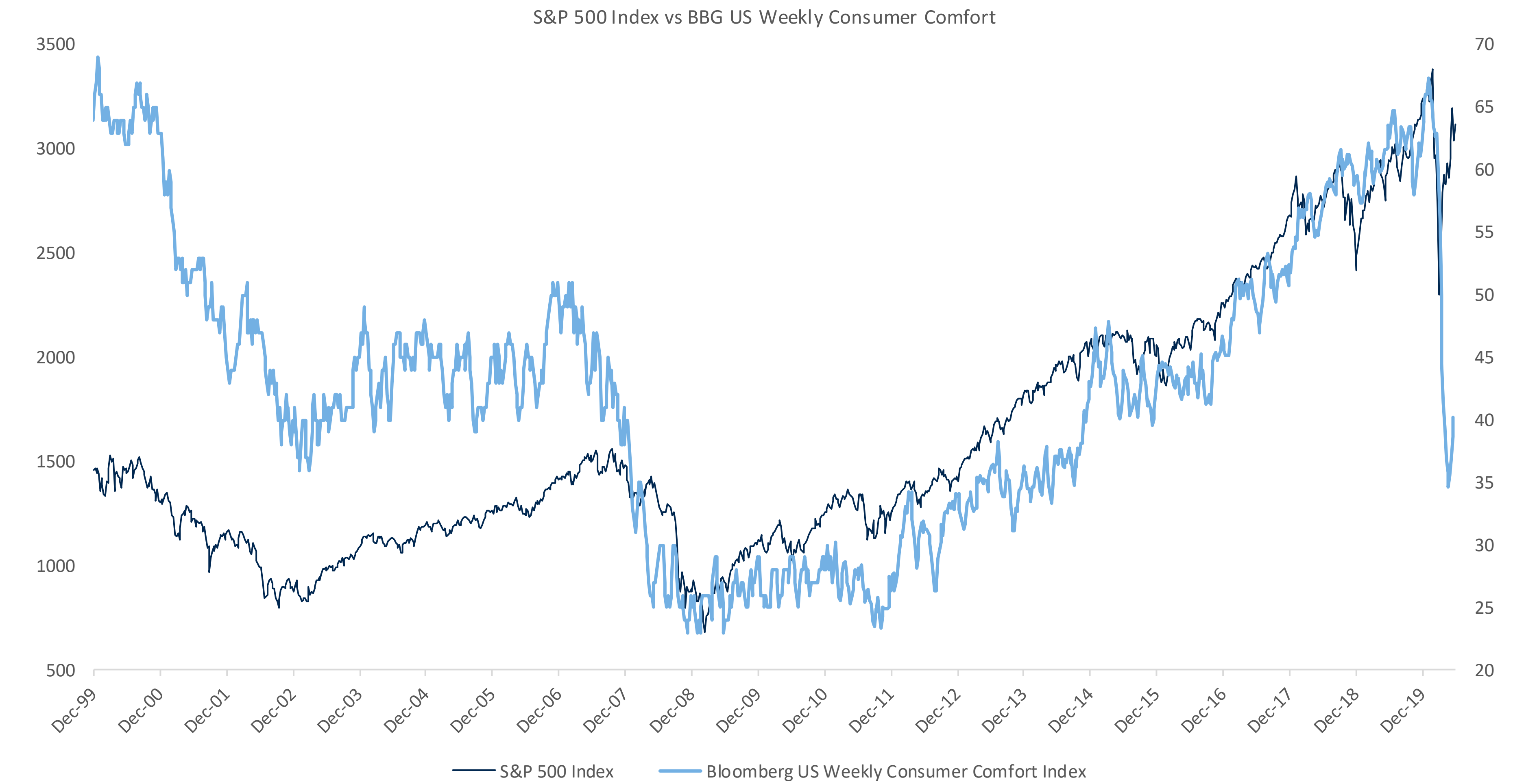


Source: RBC US Equity Strategy, BLS, Bloomberg

Consumer Sentiment has been Surprisingly Resilient & has Started to Stabilize

Key Takeaways

- Over time, the link between the sentiment of the US consumer and equity returns has grown as the US economy has transformed itself into a consumer-led economy. Various gauges of consumer sentiment, including the weekly gauge tracked by Bloomberg, never fell back to Financial Crisis lows in early 2020. This is likely because many Americans have viewed pandemic-related job losses as temporary. The recent upward move in the S&P 500 has anticipated the stabilization in consumer sentiment that's been seen recently. But it's still fair to say that the stock market never fully reflected the hit to confidence that did occur.

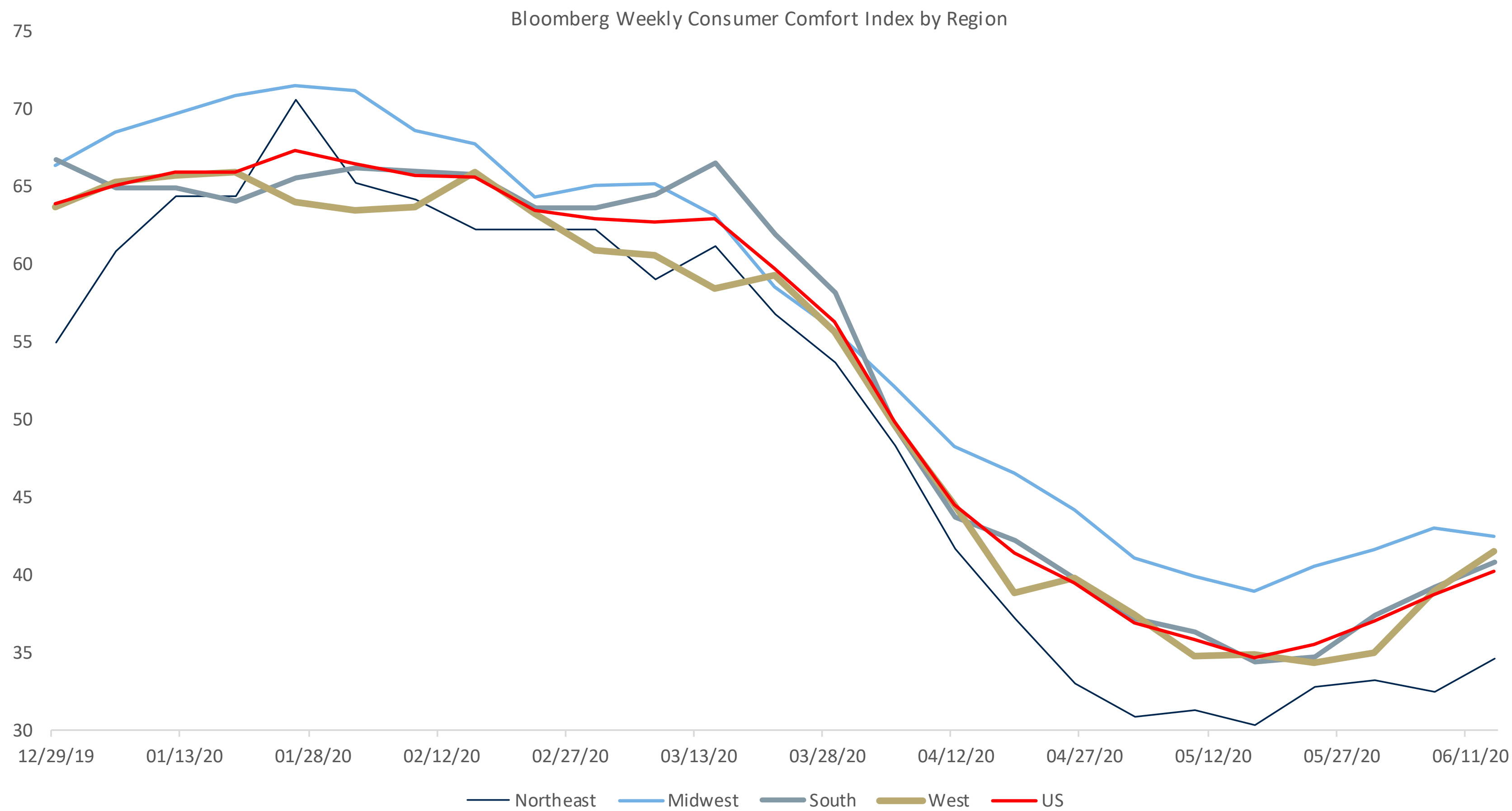


Source: RBC US Equity Strategy, Bloomberg, Consumer Comfort as of 06/14, S&P 500 as of 06/18

Consumer Sentiment has Stabilized Across Regions, Remains Most Resilient in the Midwest

Key Takeaways

- Sentiment in the Northeast has generally been worse than in other major regions of the country, not surprising since this is the part of the country where the impact of the coronavirus was most severe. Sentiment in this region has generally been stabilizing in recent weeks, and ticked slightly higher in last week's update (as of 6/14/20) and bears watching closely.
- Sentiment in the US has generally held up best in the Midwest, and a steady improvement has been seen here.
- The West and South have been closer to the national average, and like the Midwest are slowly but steadily improving.

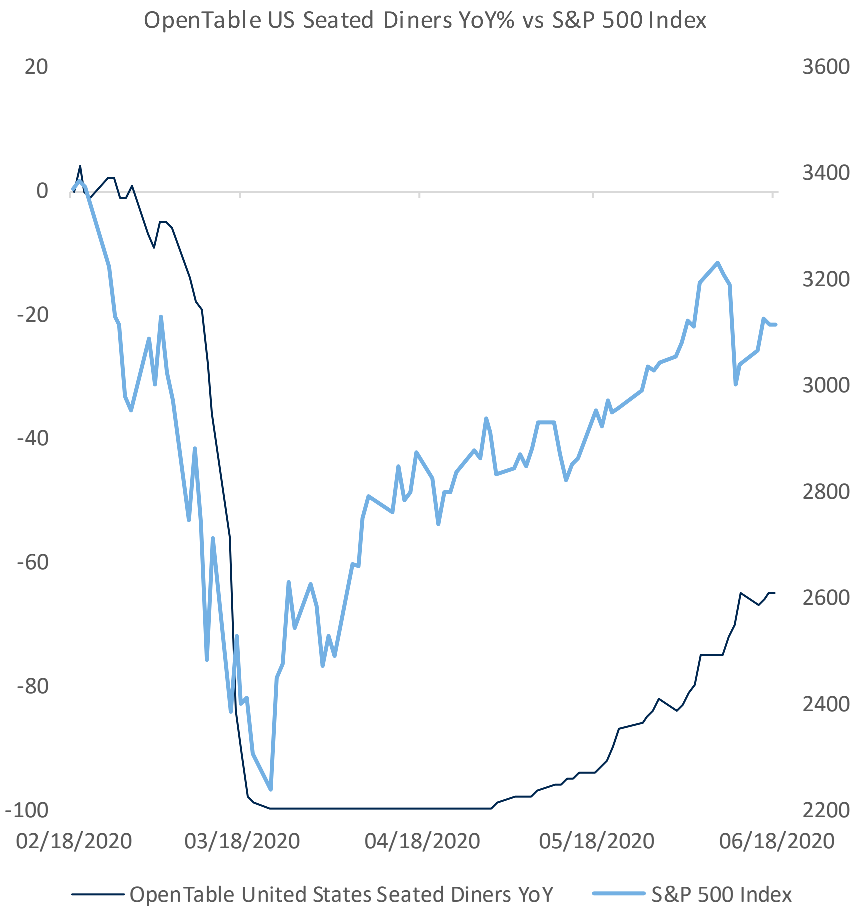


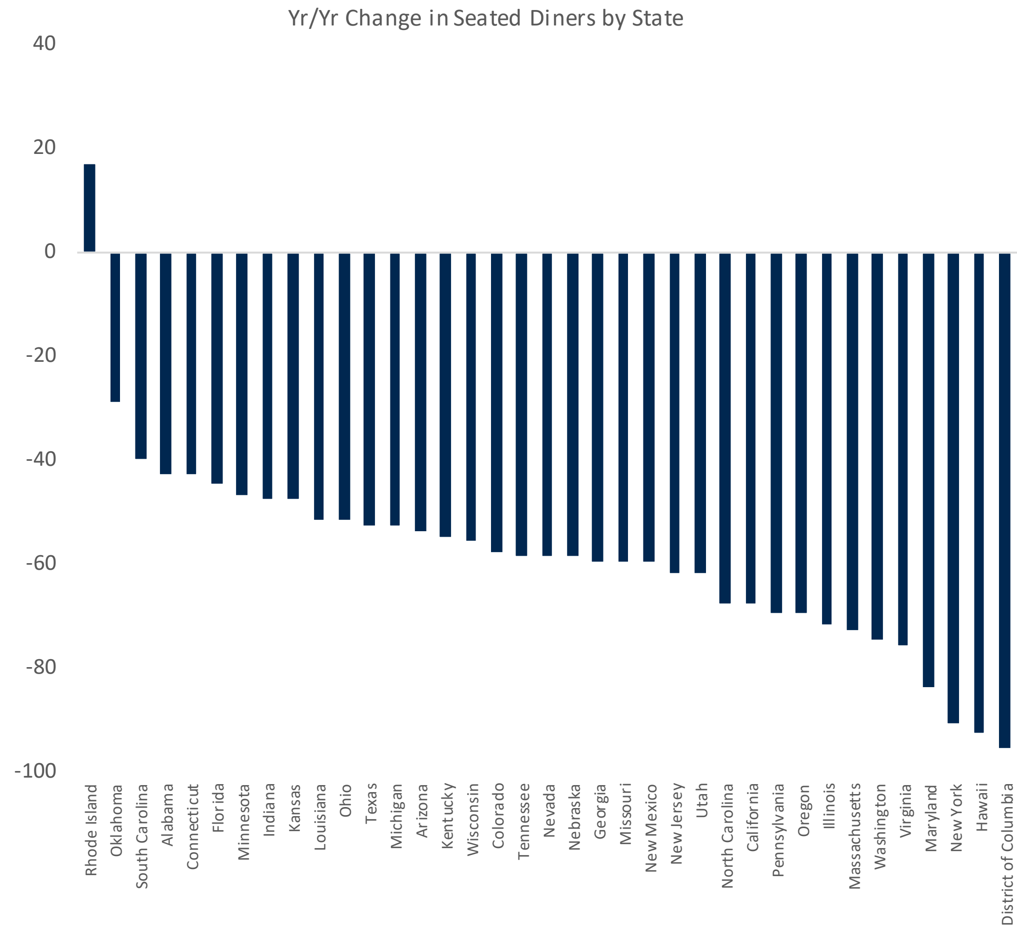
Source: RBC US Equity Strategy, Bloomberg; through June 14th, 2020

Restaurants Bookings Have Been Improving, Driven Mostly by States in the South & West

Key Takeaways

- Aside from Rhode Island and Connecticut, most of the states that are seeing improvements in restaurant bookings are located in the South and West.
- The states where restaurant bookings remain deeply negative year-over-year mostly represent major population centers in the Northeast.



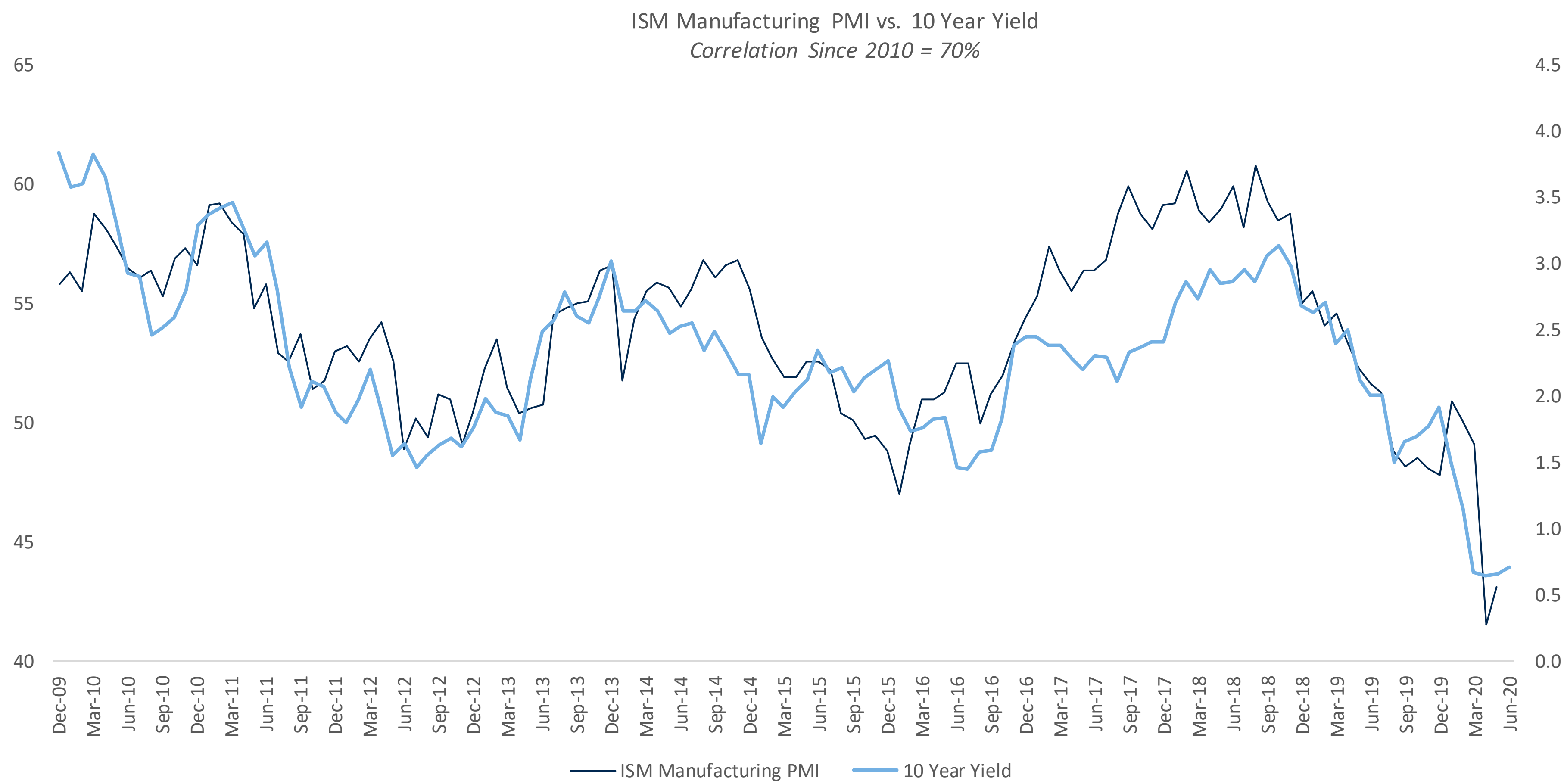


Source: RBC US Equity Strategy, OpenTable. Data covers 37 US states, As of 06/18/2020
Data shows year-over-year (the same day of the week over the same week YA) seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins.

Recent Stabilization in 10-Year Treasury Yields may be Anticipating a Bottom in ISM

Key Takeaways

- Since the Financial Crisis, 10-year Treasury yields have more or less moved in tandem with trends in ISM, a widely watched barometer of the health of the manufacturing sector. We think yields have become a reflection of where near-term shorter cycle economic trends are headed.
- Yields fell sharply in early 2020, anticipating the severe contraction in industrial activity. Recent stabilization in the yield may now be reflecting hope that ISM is bottoming.

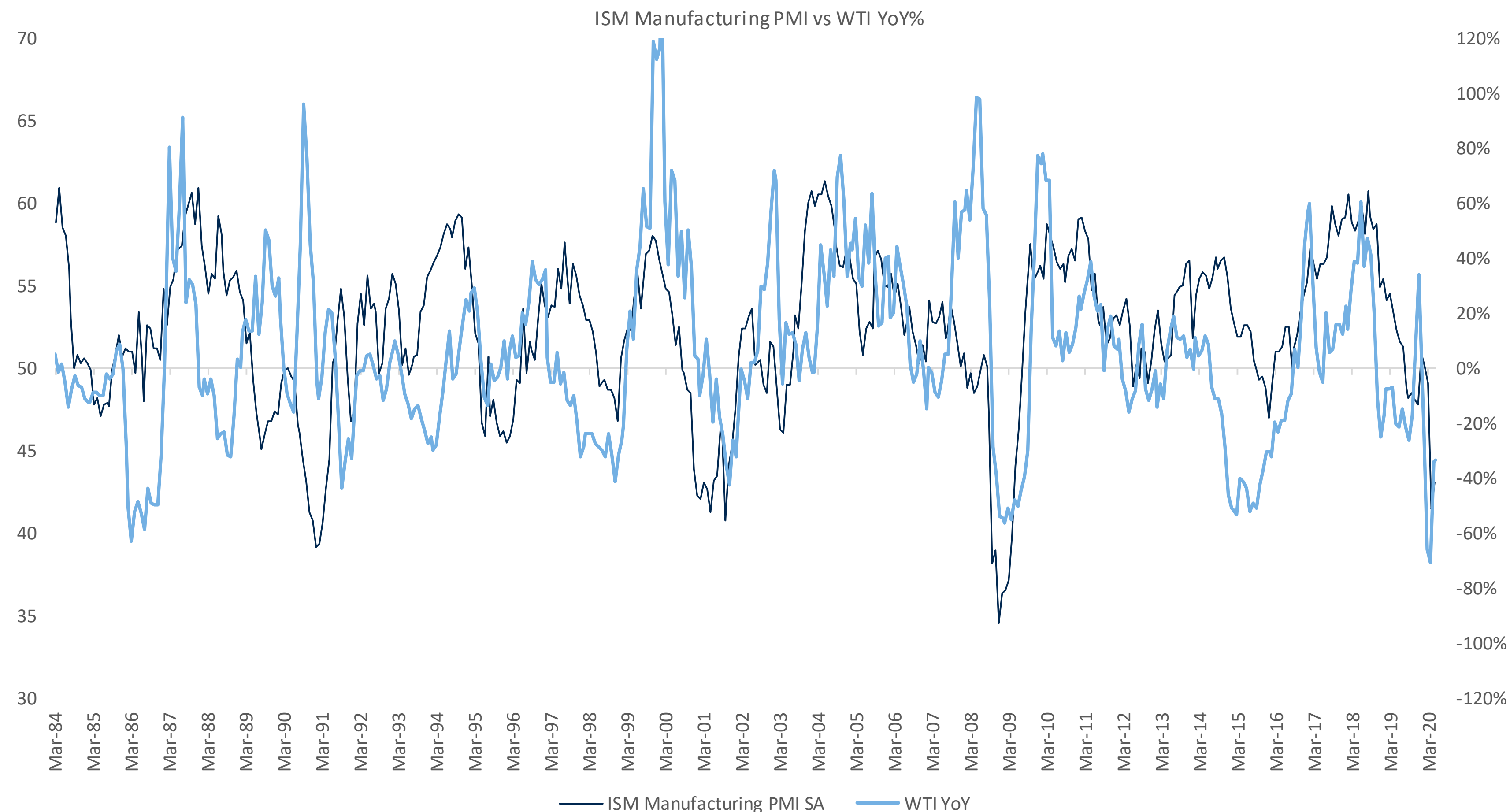


Source: RBC US Equity Strategy, Bloomberg; as of June 10th, 2020

Decline in Crude Oil Prices Reflected ISM Weakness, Inflection in Both Reflects Building Optimism

Key Takeaways

- The cyclical nature behind the ISM Manufacturing PMI moves along with the broader business cycle, which is also reflected in oil prices.
- Historically, the yearly change in prices of WTI has moved in sync with ISM manufacturing PMI. Although there are many different variables affecting the price of oil at this time, it is tough to ignore the relationship between the two. Currently, oil's recent drop in prices is consistent with the sharp deceleration in the manufacturing activity gauge. Both are starting to inflect positively, reflecting building economic optimism.

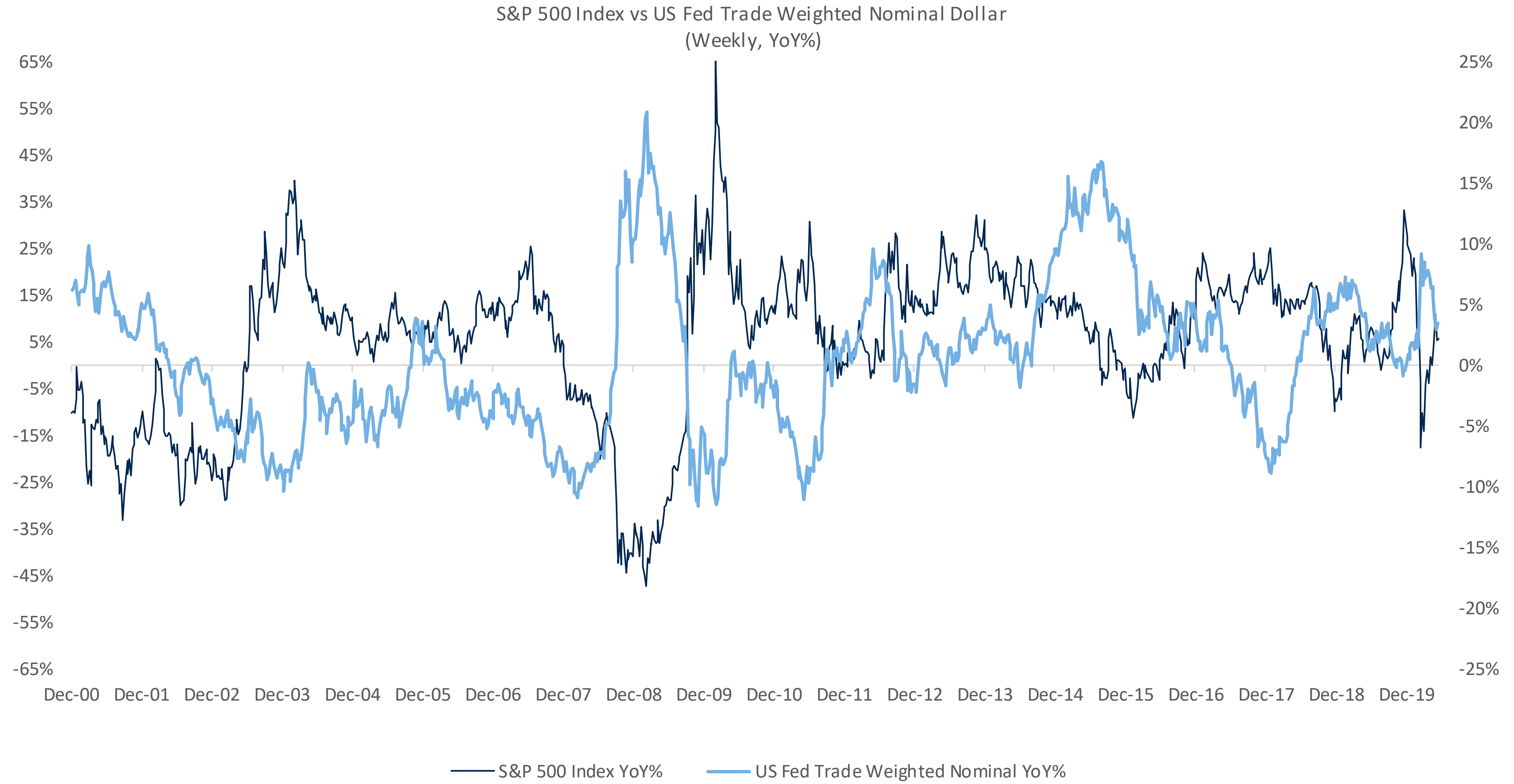


Source: RBC US Equity Strategy, Bloomberg; as of June 10th, 2020

Stronger Dollar Typically Bad for US Equities, While a Weaker Dollar is Good

Key Takeaways

- During the Financial Crisis, demand for the US Dollar spiked as investors chose relatively safer currencies, despite the amount of QE in place at the time. Early on during the Coronavirus crisis, the Dollar has surged and once again has seen an uptick in demand for hard currency assets from investors globally.
- As globalization picked up in the last 10+ years, companies in the S&P 500 have become more sensitive to the dollar's swings, with the S&P 500 as a whole, at times, moving inversely to the moves in the dollar.

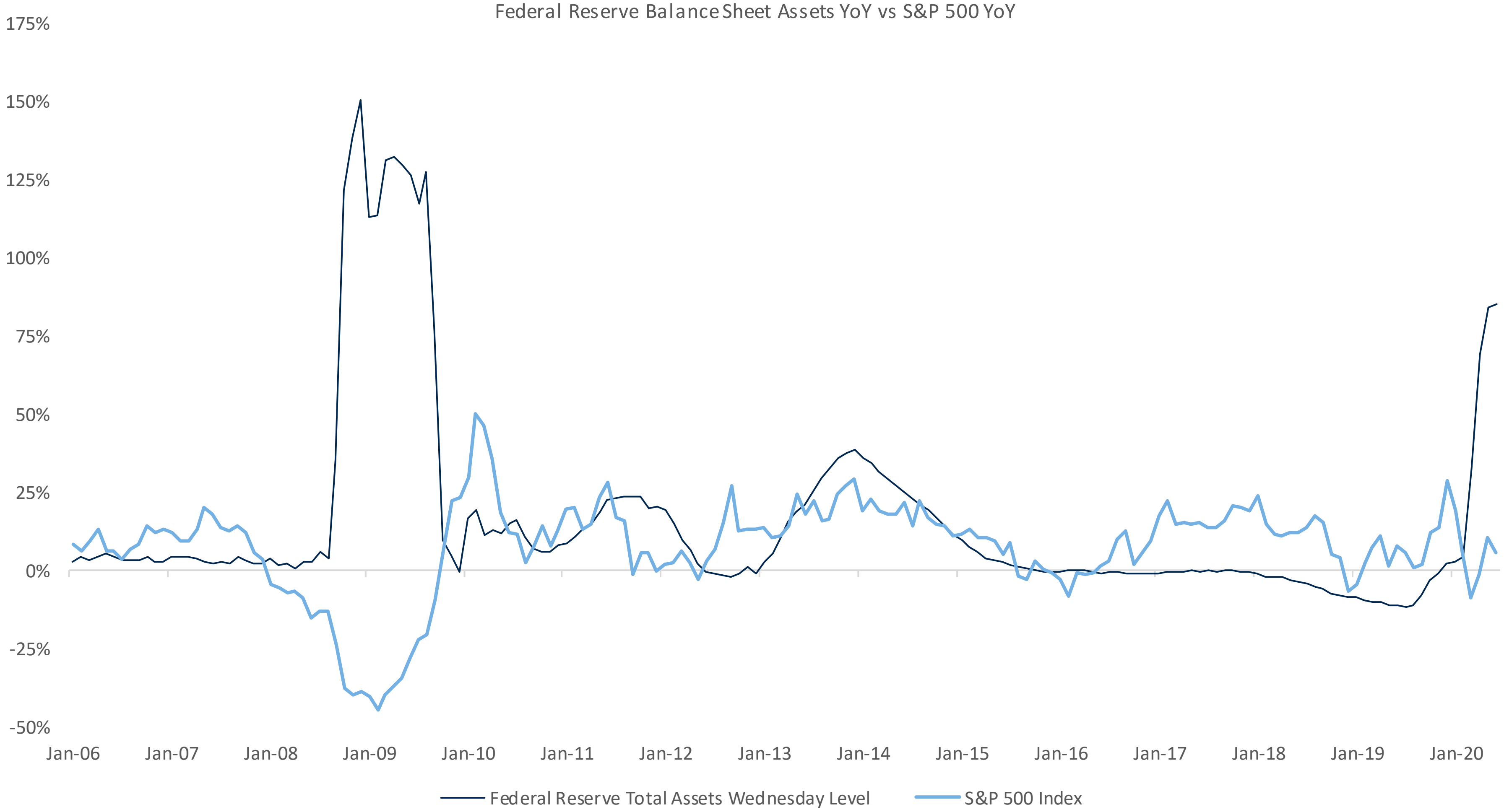


Source: RBC US Equity Strategy, Bloomberg, S&P 500 Performance as of 06/18 / USD gauge as of 06/12

Dramatic Fed Balance Sheet Expansion Underway

Key Takeaways

- In the aftermath of the Financial Crisis, from 2010-2015, there was a clear link between US stock market performance and the expansion of the Fed's balance sheet/QE.
- The recent balance sheet expansion is the most significant that we've seen since the heart of the Financial Crisis, and has helped to propel US equities higher once again.

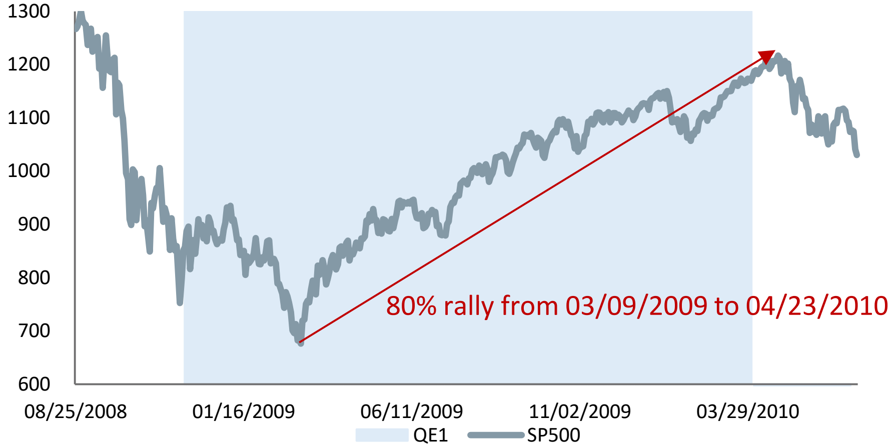


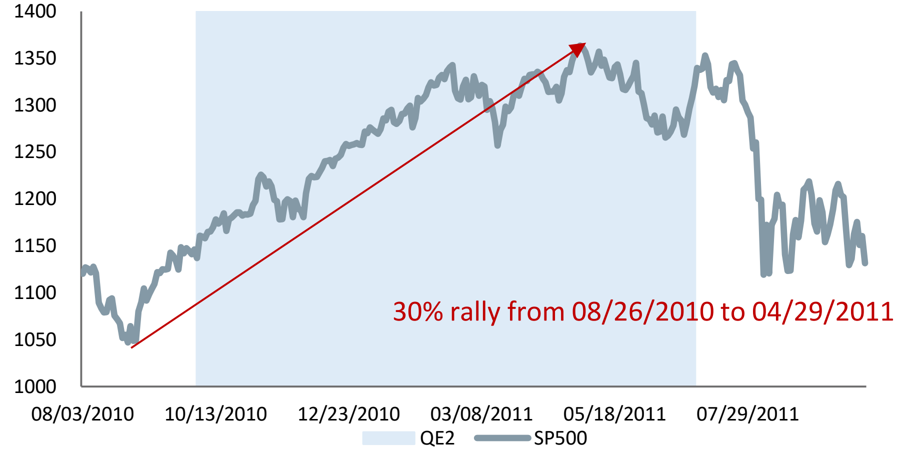
Source: RBC US Equity Strategy, Bloomberg, S&P 500 as of 06/18, Balance Sheet as of 06/17

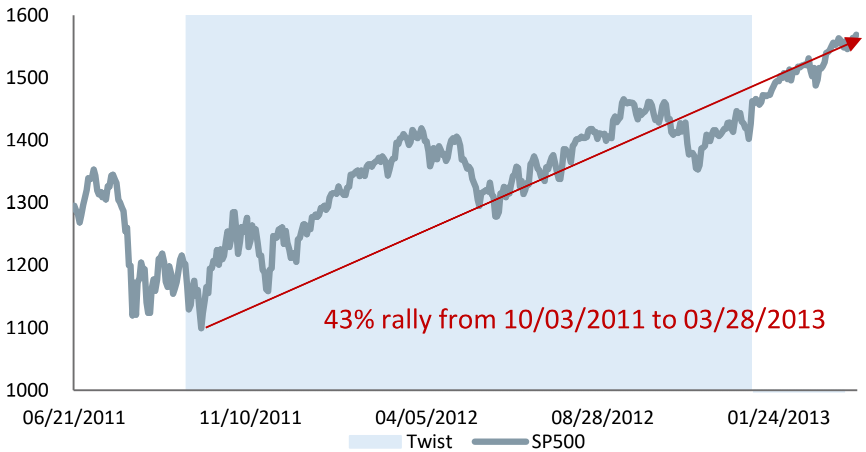
QE has Helped Put Bottoms in Stocks & Propel Them Higher in the Past

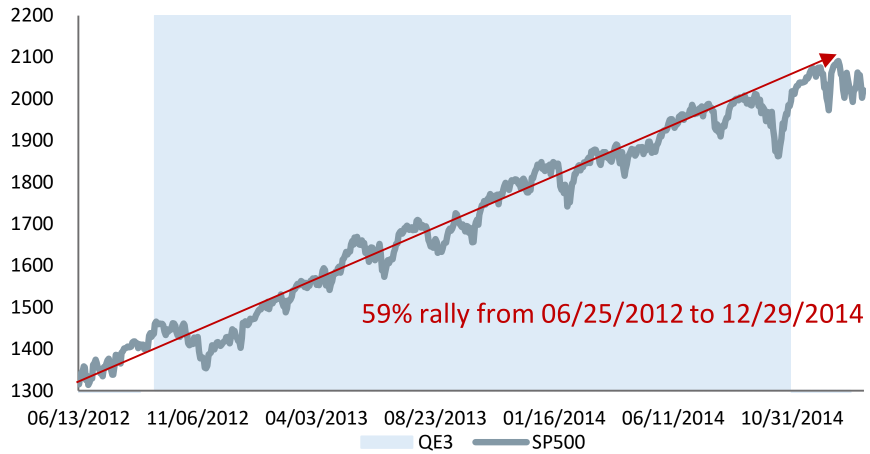
Key Takeaways

- During QE1 and Operation Twist, the stock market tended to post a bottom within several months after QE programs were announced, while for QE2 and QE3, the stock market actually bottomed a little before the announcement. Rallies during the QE period were powerful and ranged in magnitude.
- After QE1 and QE2, the equity rally lost steam shortly after the programs ended. After Operation Twist and QE3, stocks kept chugging higher.









Source: RBC US Equity Strategy, FactSet. Shading represents QE announcement dates to official end dates.

Rebound in S&P 500 Since March 23rd Already Within Range of Past QE Phases

Key Takeaways

- The 44% move in the S&P 500 between March 23rd and June 8th was largely though not entirely driven by Fed stimulus, in our view.
- Following the Financial Crisis, equities rallied in a range of 30% to 80% during the Fed's different QE phases.
- The rebound in US equities is deserved from a QE / Fed stimulus perspective, but the historical playbook doesn't tell us how much farther equities deserve to rally on the basis of Fed stimulus alone.

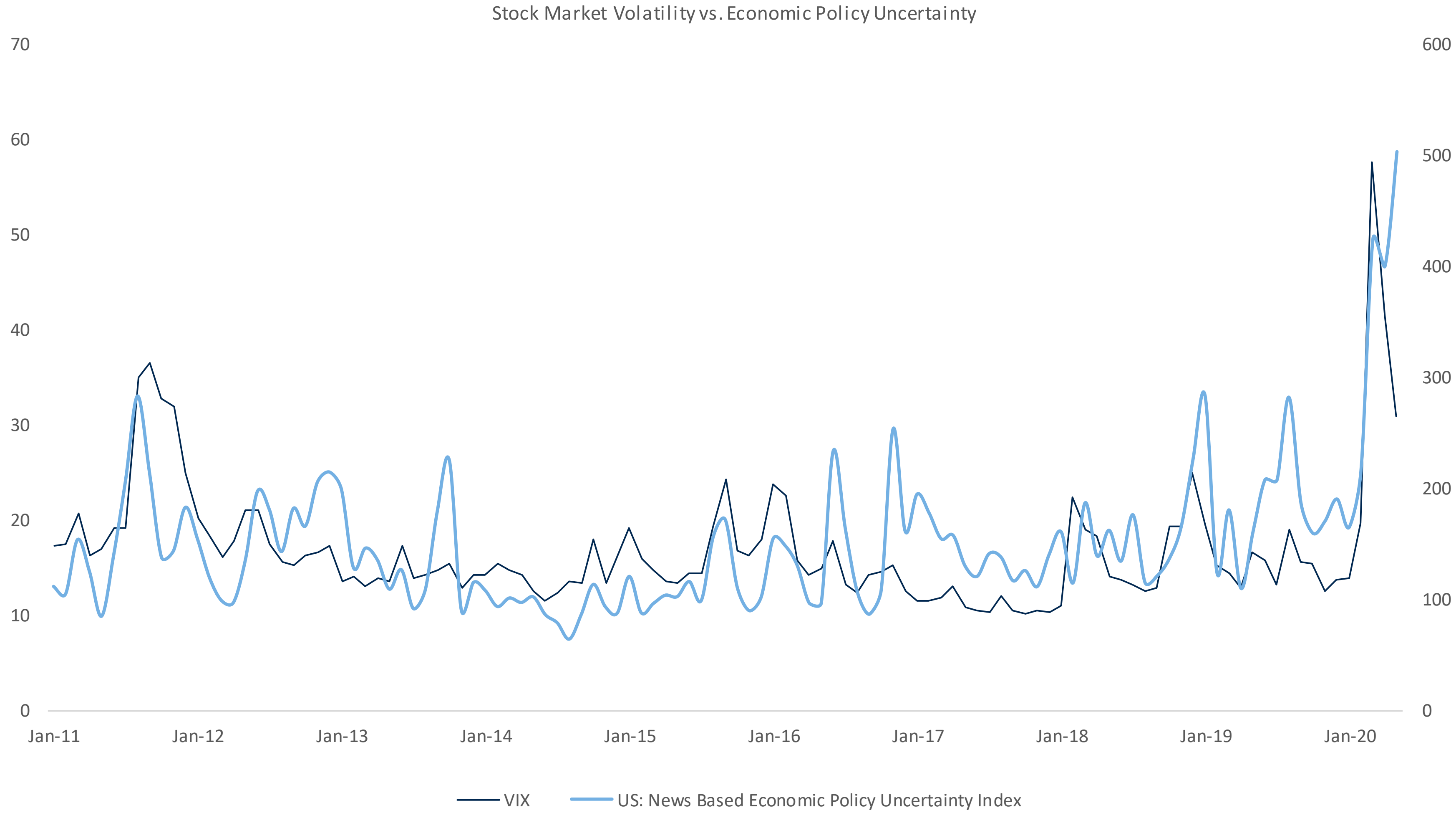
QE Periods	From Announcement To End	S&P 500 Trough Date	# of Months S&P 500 Bottomed After QE Began	S&P 500 Peak Date Within 3 Months After QE Ends	# of Months S&P 500 Peaked After QE Ended	S&P 500 Trough Level	S&P 500 Peak Level	S&P 500 Trough To Peak Increase (% Chg)
QE1	Nov 2008 - Mar 2010	03/09/2009	3.5	04/23/2010	0.8	677	1217	80%
QE2	Nov 2010 - Jun 2011	08/26/2010	-2.3	04/29/2011	-2.1	1047	1364	30%
Twist	Sept 2011 - Dec 2012	10/03/2011	0.4	03/28/2013	2.9	1099	1569	43%
QE3	Sept 2012 - Oct 2014	06/25/2012	-2.7	12/29/2014	2.0	1314	2091	59%
Average			**-0.3**		**0.9**			**53%**
Median			**-1.0**		**1.4**			**51%**

Source: RBC US Equity Strategy, FactSet. Trough and peak levels are during the periods between three months before QE beginning announcements and three months after QE ending announcements.

Heightened Policy Uncertainty Tends to be Accompanied by Higher Stock Market Volatility

Key Takeaways

- Historically, elevated economic policy uncertainty has been associated with higher levels of stock market volatility.
- Economic policy uncertainty eased back in 2019 as the US approached the phase 1 trade deal with China. But it picked up sharply again in early 2020 due to the pandemic.
- In May, economic policy uncertainty surged to a new high, making the May dip in the VIX unusual.

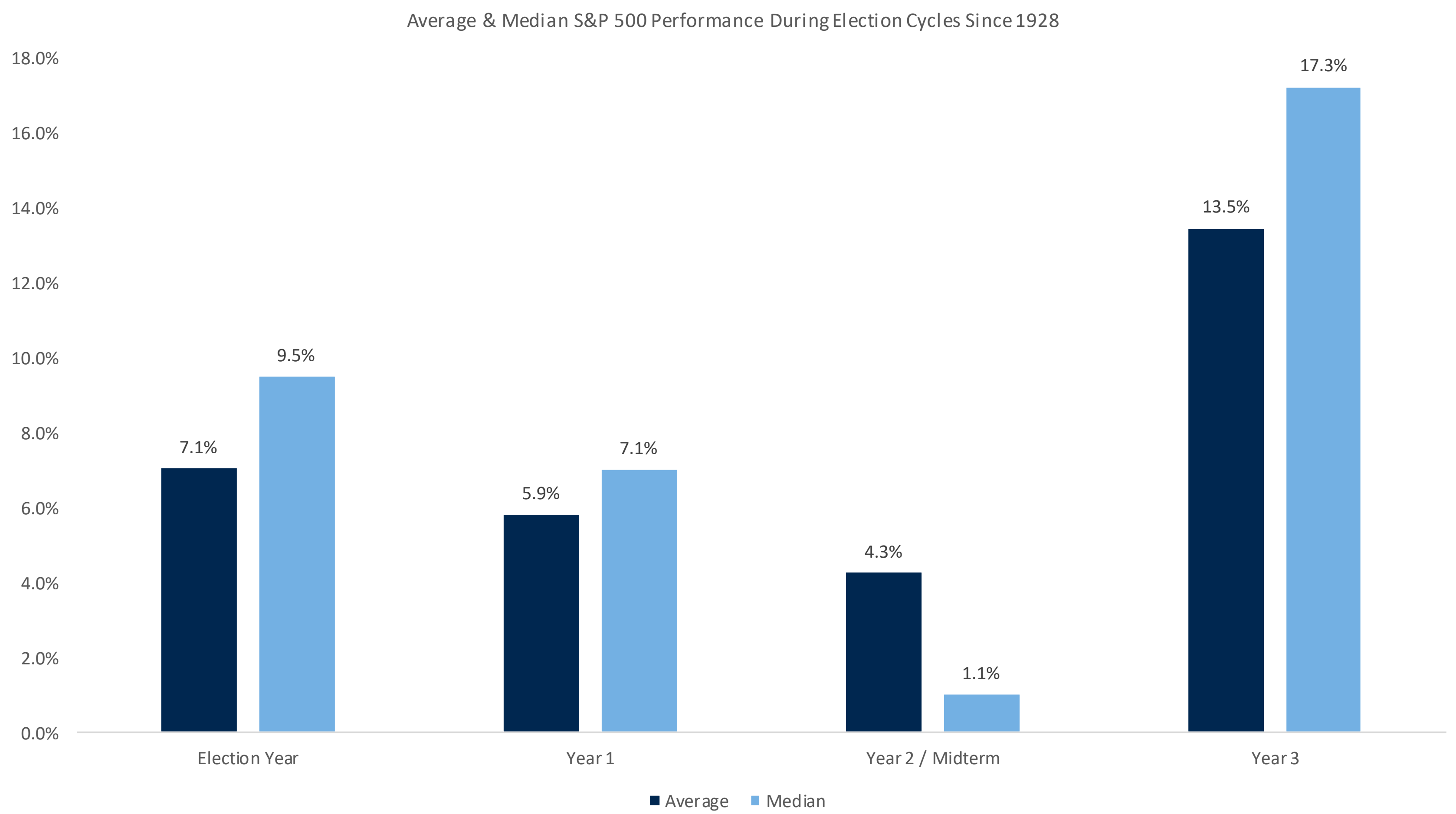


Source: RBC US Equity Strategy, Haver

Presidential Election Years Typically Have Trend-Like Returns

Key Takeaways

- Year 3 of the Presidential cycle, the year that precedes the Presidential election, tends to be the strongest in the election cycle for stocks. In 2019 the playbook generally worked, with 2019 seeing gains of nearly 29%.
- Mid term election years (which 2018 was) tend to be the weakest. The playbook also worked that year, with the S&P 500 losing more than 6%.
- The Presidential election year tends to be solid, but less robust than Year 3, with average/median returns close to trend.

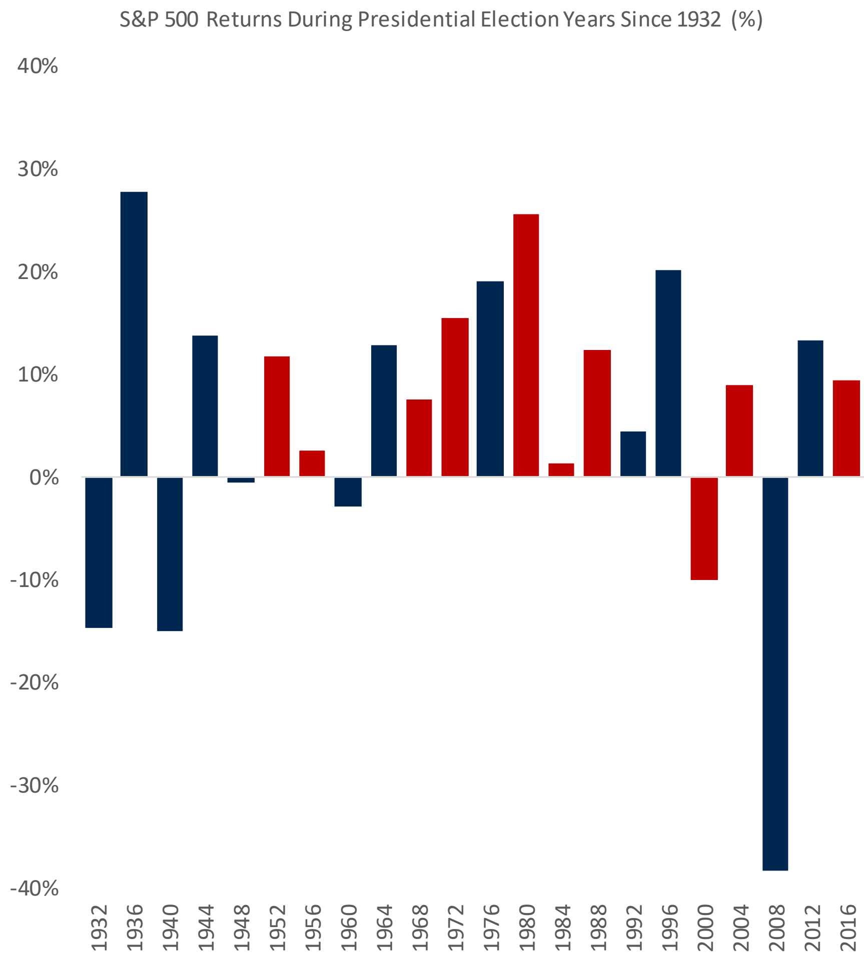


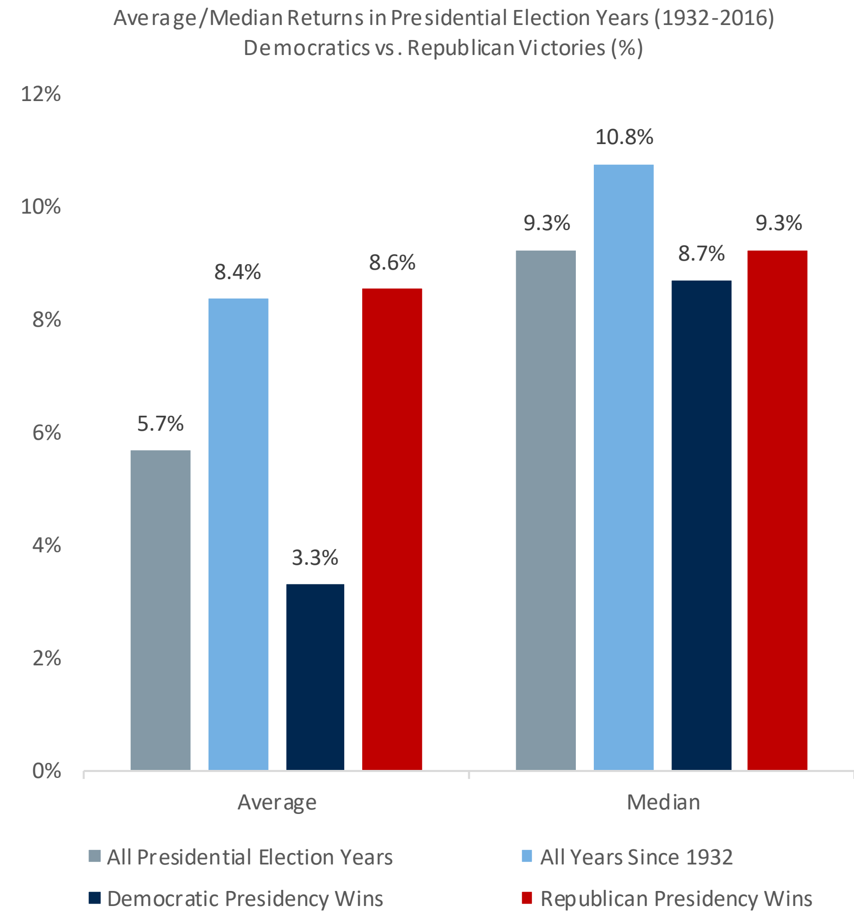
Source: RBC US Equity Strategy, Bloomberg

Historical Full Year S&P 500 Performance in Presidential Election Years

Key Takeaways

- During the Presidential election years from 1932-2016, the average return on the stock market has been positive, but a bit weaker than the average of all years in the stock market. The same is true using medians.
- If 2000 is included, Presidential election years in which Democrats win are weaker than those that see Republicans emerge victorious. But that gap disappears if we look at a median, which reduces the impact of 2008 (a clear outlier).



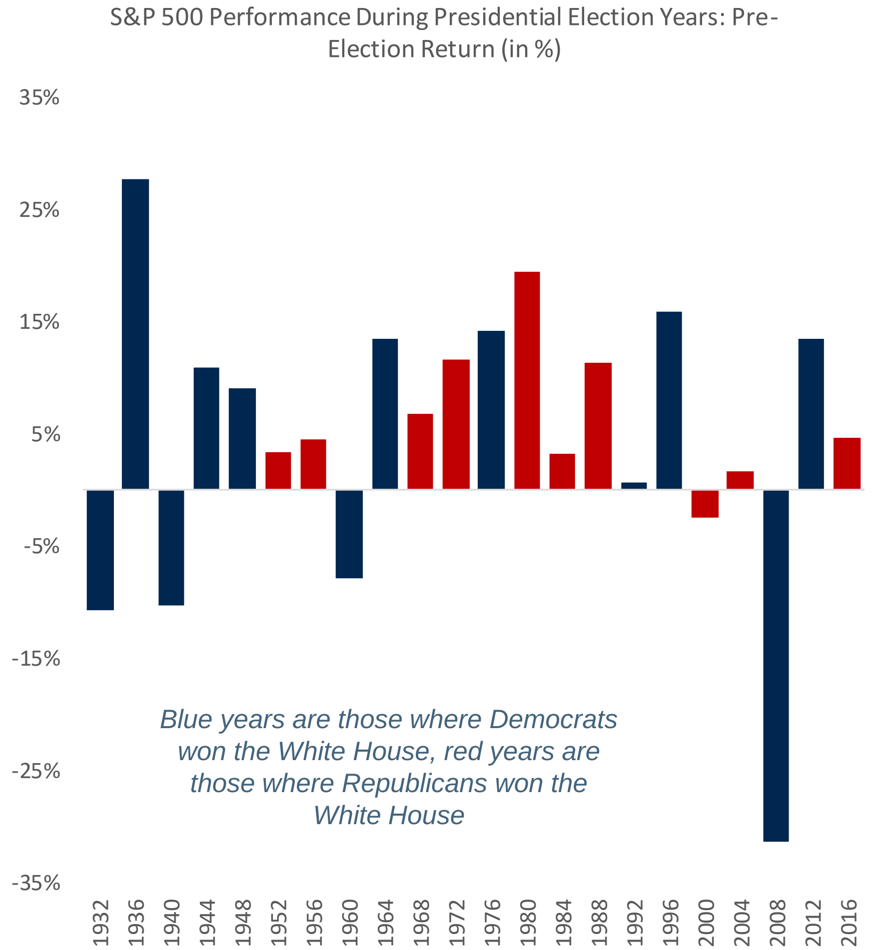


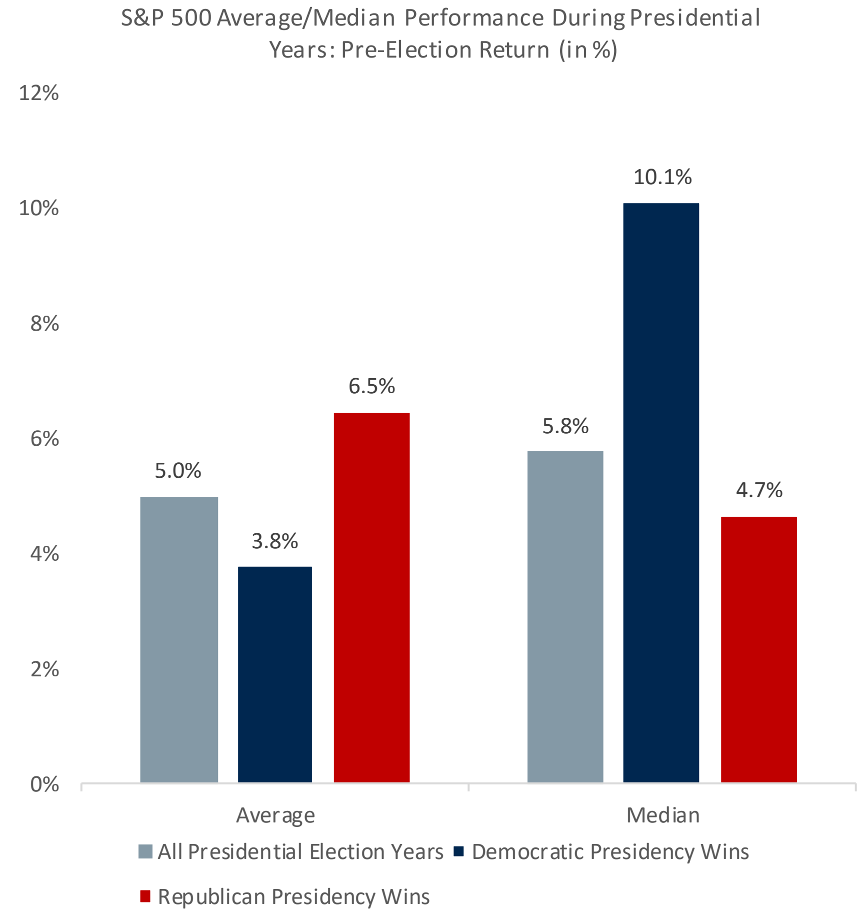
Source: RBC US Equity Strategy, Bloomberg

S&P 500 Performance Tends to be Strong Ahead of Election Day

Key Takeaways

- Historically, the stock market tends to be strong head of Election day. The historical playbook hasn't worked well over the past two decades, however, with weak pre-Election returns seen in 1992, 2000, 2004, and 2008.
- The weaker pre-election moves from the past two decades have been split between years in which Republicans and Democrats ended up being victorious.



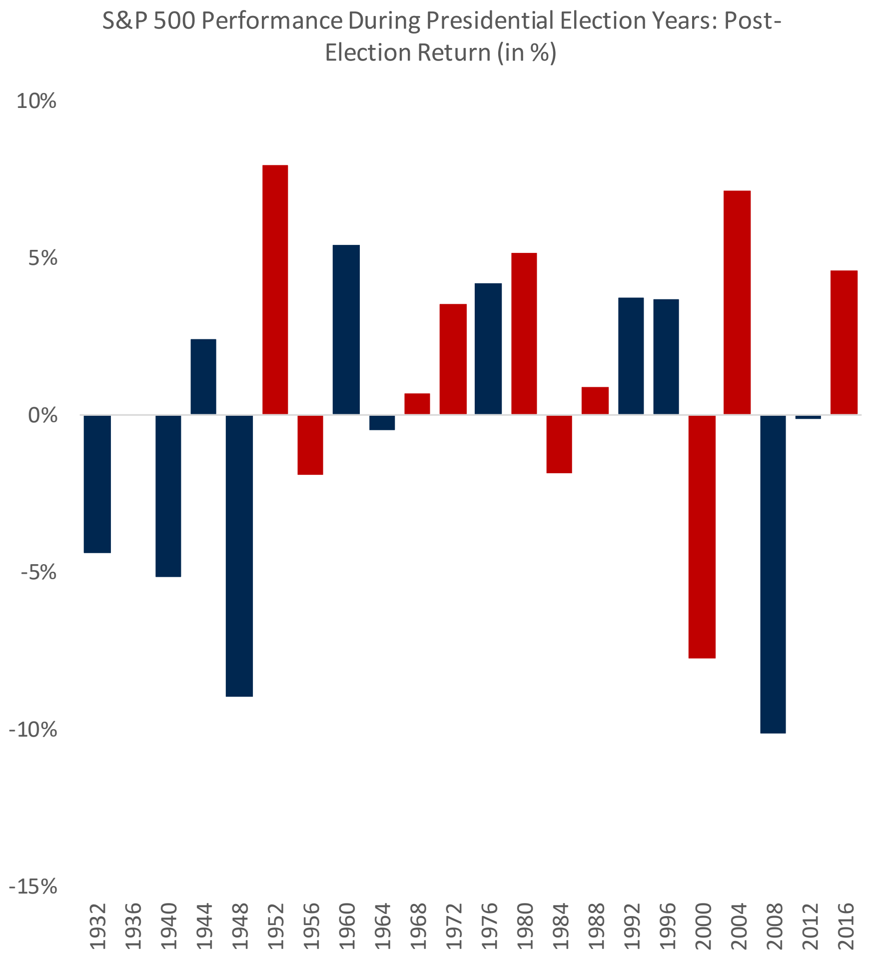


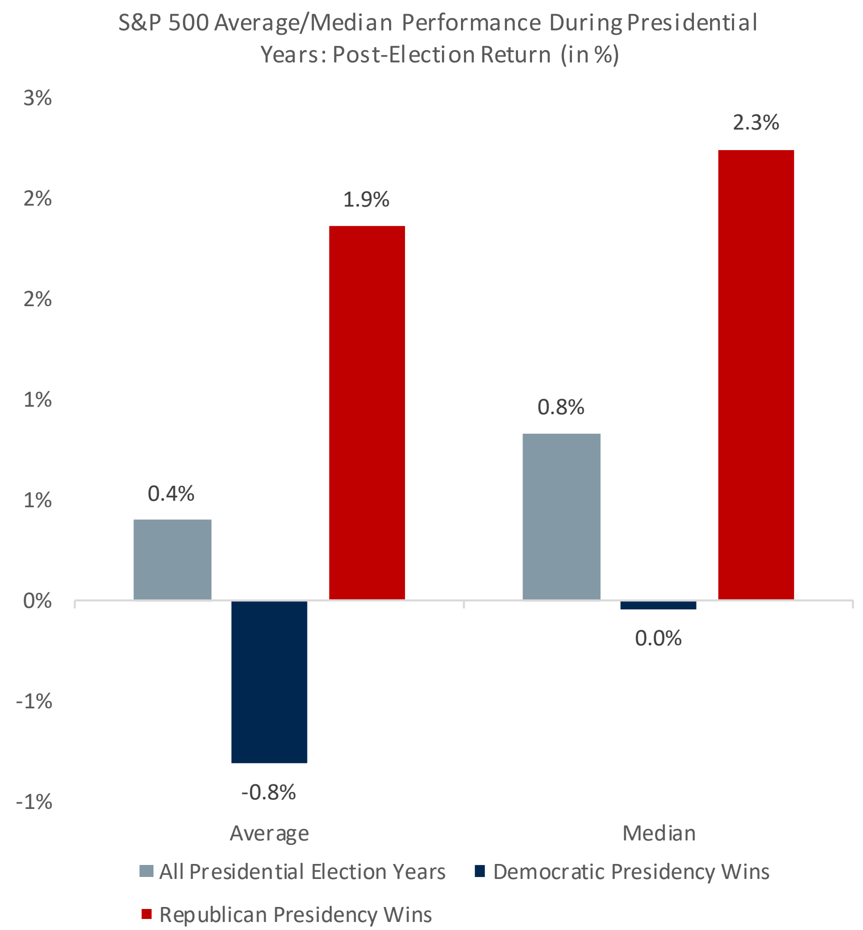
Source: RBC US Equity Strategy, Bloomberg, Pre-Election return captures performance from the close on Dec 31st of the prior year, through the Election Day close.

S&P 500 Performance Tends to be Weak After Election Day if Democrats Win

Key Takeaways

- Post election returns, through year-end, tend to be positive, using both averages and medians.
- Post election gains tend to be more common in years when Republicans win the White House than those in which Democrats when the White House. That pattern has been intact over the past four Presidential election years.



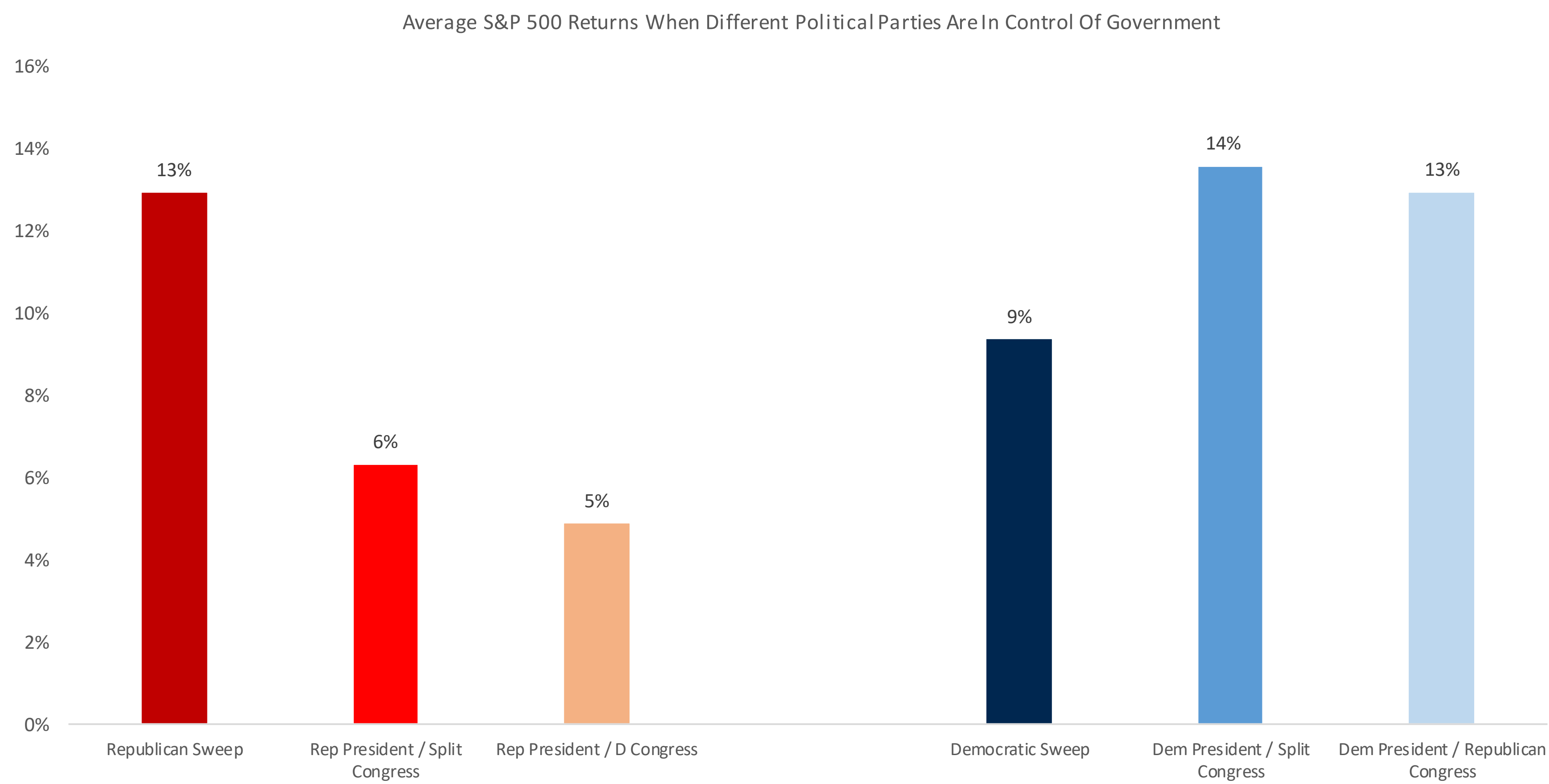


Source: RBC US Equity Strategy, Bloomberg, Post-Election return captures performance from the Election Day close through year end

Historical Stock Market Returns Under Different Political Leadership Environments

Key Takeaways

- A Republican President with a split or Democratic Congress – as is the case today – is often challenging for stocks. Average returns have been best under a unified Republican government or a government with a Democratic President and split or Republican Congress.
- A Democratic President with a Democratic Congress falls in the middle – average returns are close to historical trend.

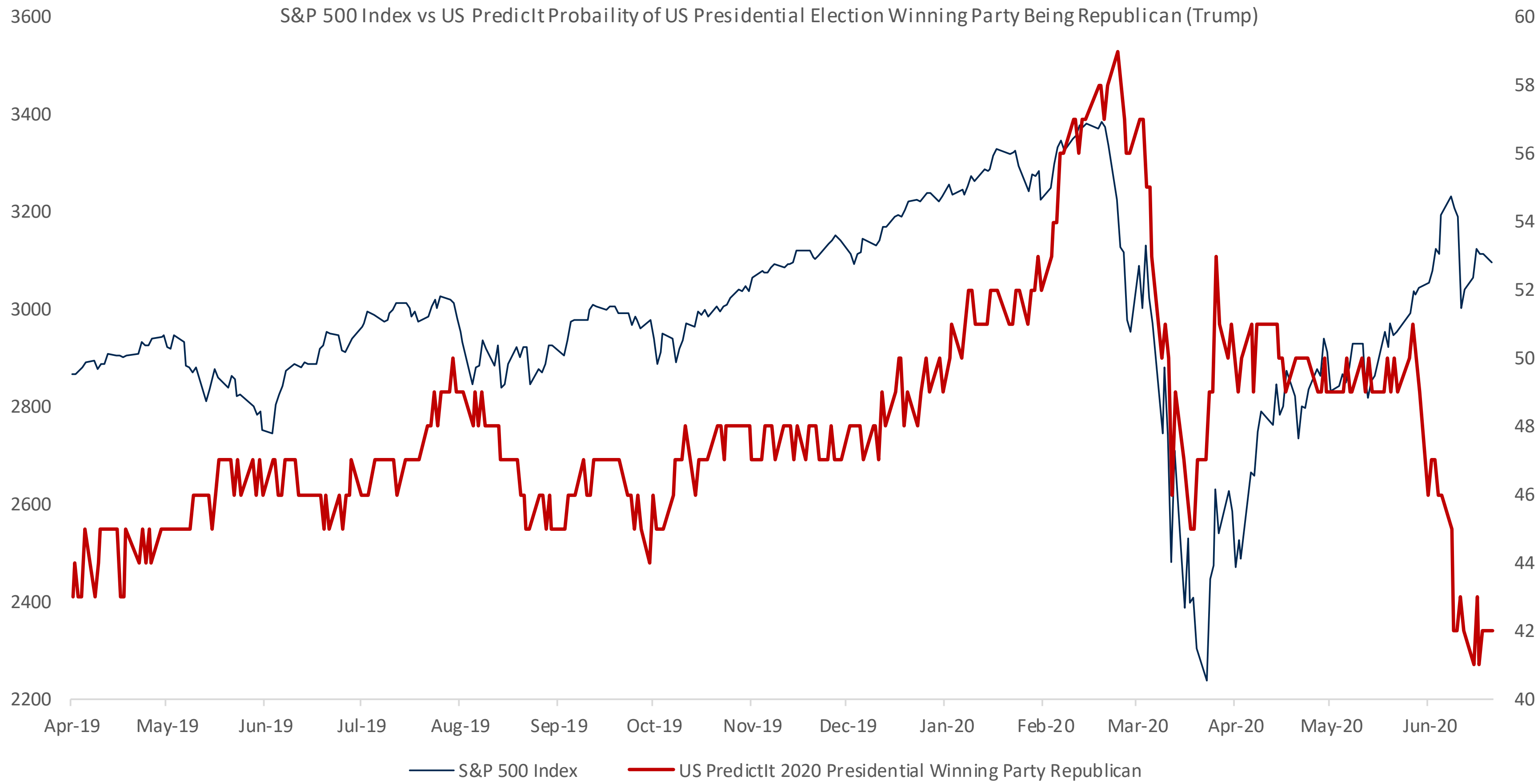


Source: RBC US Equity Strategy, Haver, Includes years since 1933; the 2000 election resulted in a 50/50 tie in the Senate (with a Republican VP acting as the deciding vote after inauguration). However, midway through 2001 one Republican Senator left to become an independent and caucus with the Democrats.

US Equity Market Performance Decoupled From Trump's Re-Election Prospects In Early June

Key Takeaways

- Since last summer, S&P 500 performance has essentially moved in sync with expectations regarding Trump's re-election in the betting market. In late 1Q20, the betting markets turned pessimistic that Trump would win again as stocks fell sharply. In April and May as stocks rallied back, the betting markets became more optimistic on Trump, but did not recapture their early 2020 peak.
- In late May and early June, stocks climbed despite further declines in expectations that Trump would win again. This could be because markets are comfortable with the idea that Harris rather than Warren will be the VP pick, or no longer prefer Trump. Or the market could be anticipating a shift in Trump's chances due to improving economic data.



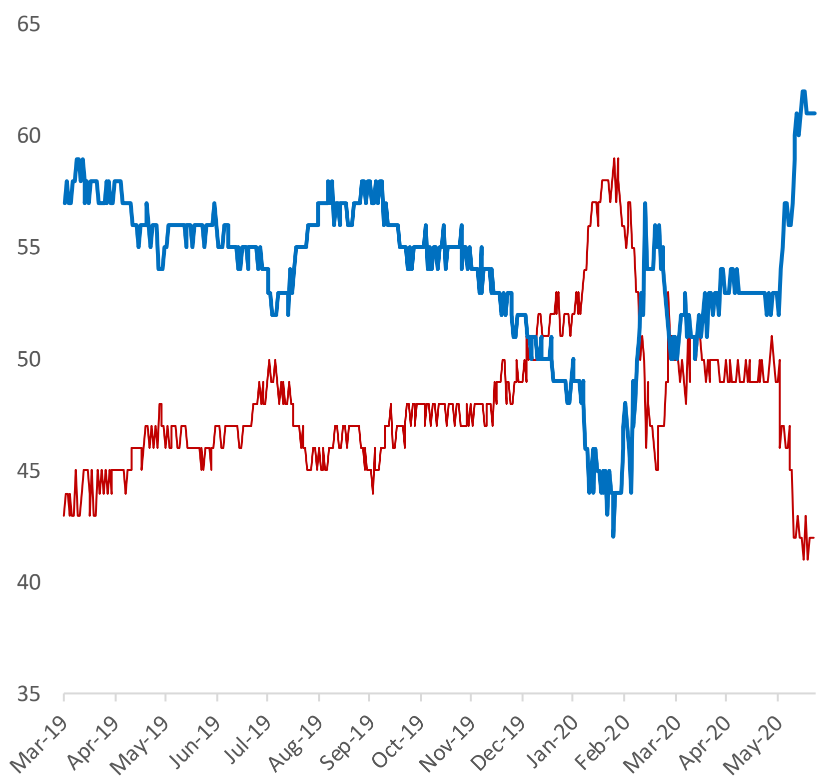
Source: RBC US Equity Strategy, Bloomberg, PredictIt, Probabilities derived by betting market; S&P 500 as of 06/19/2020 / PredictIt Data as of 06/21/2020

Betting Markets now Believe Biden will Win in November

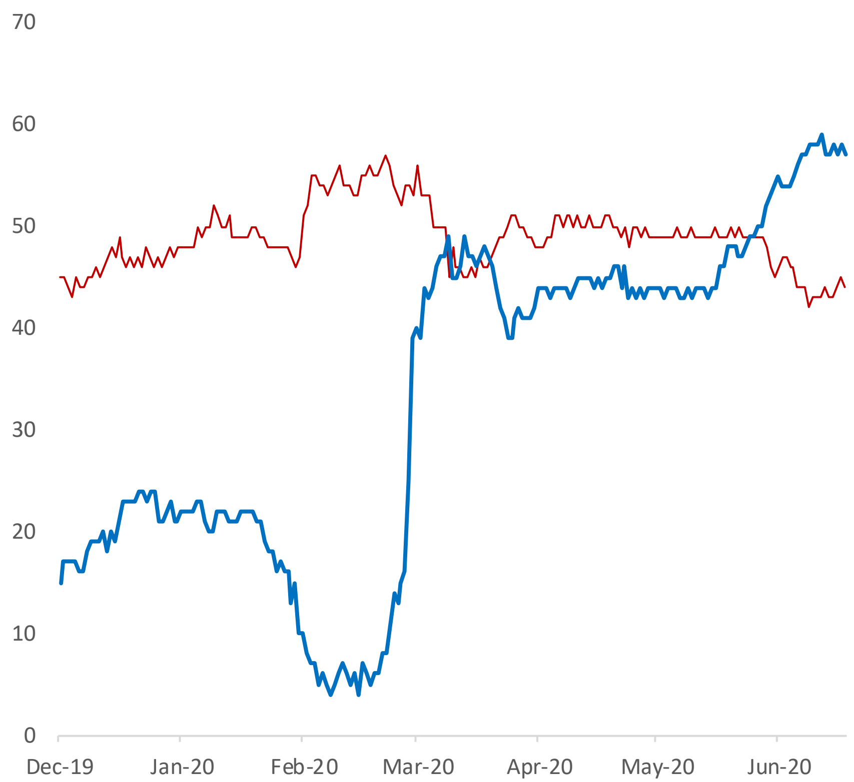
Key Takeaways

- When asked about which party will win the Presidency in November, the betting markets currently favor the Democrats over the Republicans, a gap that has been in place since March. When asked about which specific candidate will win the Presidency in November, the betting markets had continued to favor Trump over Biden until recently. But Biden took the lead in this market in late May. Biden/Democrats had been slowly taking the lead on both questions in late May and early June, but the gap has widened sharply over the past few weeks.

US PredicIt: 2020 US Presidential Winning Party



US PredictIt: Who will win the US Presidential Election?



Source: RBC US Equity Strategy, Bloomberg, PredictIt, Probabilities derived by betting markets; as of June 21, 2020

The States We're Watching Closely in the 2020 Election

Key Takeaways

- In our view, the Democrats' path back to the White House is not as difficult as many investors believe it to be.
- Electoral college results determine the winner in the Presidential election, not the popular vote. In total, 270 electoral votes are needed to win the Presidency. Trump won 306 in 2016 while Clinton won 232. Assuming they win all of the states that they won in 2016, the Democrats would need to flip 38 electoral votes to take the White House.
- Below we list the states that had a margin of 10% or less in the 2016 race. These are the ones that could potentially flip.
- Half of the ones that voted for Trump in 2016 picked a Democrat for Senate in 2018.

States That Voted For Trump in 2016, Margin Less Than 10%

State	Electoral Votes	2016 Presidential Race (Party)	2016 Presidential Margin (Trump)	2018 Senate Race	2018 House Race: Net Gain/Loss For Dems vs. 2016	Primary Date	Democratic Results (Winner)
Michigan	16	Republican	0.3	Democrat	2	Mar-10	Biden
Wisconsin	10	Republican	1	Democrat	0	Apr-07	Biden
Pennsylvania	20	Republican	1.2	Democrat	4	Jun-02	Biden
Florida	29	Republican	1.3	Republican	2	Mar-17	Biden
North Carolina	15	Republican	3.8	N/A	0	Mar-03	Biden
Arizona	11	Republican	4.1	Democrat	1	Mar-17	Biden
Georgia	16	Republican	5.7	N/A	1	Jun-09	Biden
Ohio	18	Republican	8.6	Democrat	0	Mar-17	Biden
Texas	38	Republican	9.2	Republican	2	Mar-03	Biden
Iowa	6	Republican	9.6	N/A	2	Feb-03	Buttigieg

States That Voted For Clinton in 2016, Margin Less Than 10%

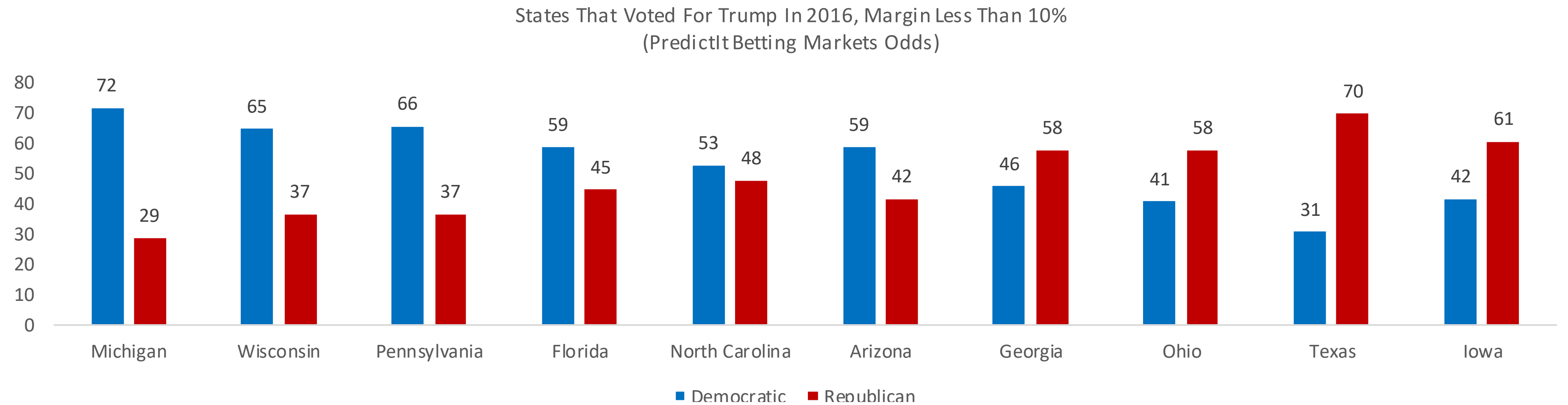
State	Electoral Votes	2016 Presidential Race (Party)	2016 Presidential Margin (Trump)	2018 Senate Race	2018 House Race: Net Gain/Loss For Dems vs. 2016	Primary Date	Democratic Results (Winner)
New Hampshire	4	Democrat	-0.4	N/A	0	Feb-11	Sanders
Minnesota	10	Democrat	-1.5	Democrat	0	Mar-03	Biden
Nevada	6	Democrat	-2.4	Democrat	0	Feb-22	Sanders
Maine	4	Democrat	-2.7	Independent	1	Mar-03	Biden
Colorado	9	Democrat	-2.8	N/A	1	Mar-03	Sanders
Virginia	13	Democrat	-4.9	Democrat	3	Mar-03	Biden
New Mexico	5	Democrat	-8.3	Democrat	1	Jun-02	Biden

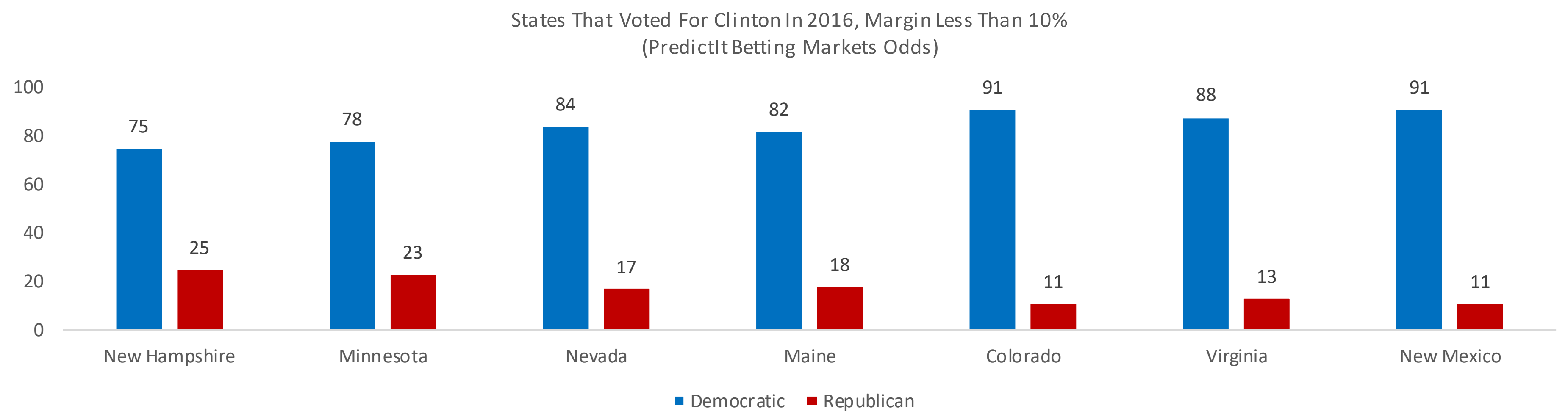
Source: RBC US Equity Strategy, Politico, NCSL, CNN, Britannica; note that in 2016, 1 of Maine's electoral votes went to Trump while the other three went to Clinton

Betting Markets Expect Biden to Win Key States That Voted for Trump in 2016

Key Takeaways

- The betting markets currently assume that Biden will win Michigan (16 electoral votes), Wisconsin (10 votes), Pennsylvania (20 votes), and Arizona (11 votes), and to a lesser degree Florida (29 votes) and North Carolina (15 votes). These are all states that voted for Trump in 2016, have sizable electoral college votes, and went to Trump in 2016 by a margin of 10% or less. If the Democrats need to flip 38 electoral votes (turn them from Republican to Democratic) and hold on to every state they won in 2016, they can take back the White House.
- Betting markets think Biden will hold all of the states that the Democrats won in 2016 by a 10% margin or less.



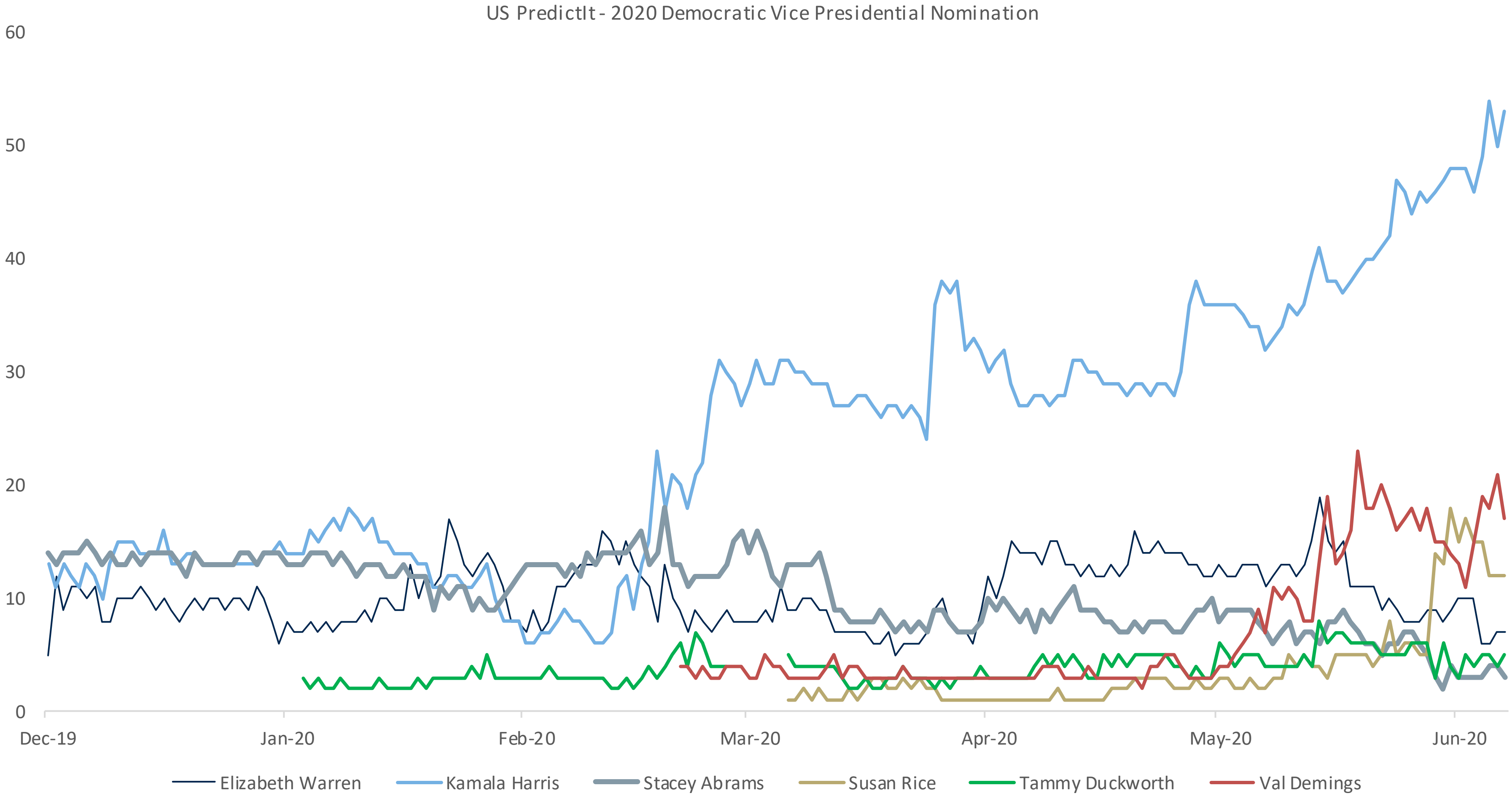


Source: RBC US Equity Strategy, Bloomberg, PredictIt, Probabilities derived by betting markets, as of June 22, 2020

Betting Markets Continue to Expect Harris to be the Vice Presidential Nominee

Key Takeaways

- The betting markets continue to expect former Presidential nominee and current California Senator Kamala Harris to be Joe Biden's running mate. Val Demings has jumped to 2nd on the list. Several political polls released in May suggested Warren was the top pick for VP among Democratic voters at the time. Crisis management experience and economic expertise were two traits that most participants said were very important for the job.
- The view that Warren won't be the nominee may be one reason why stocks have decoupled from declining expectations for Trump's re-election recently.

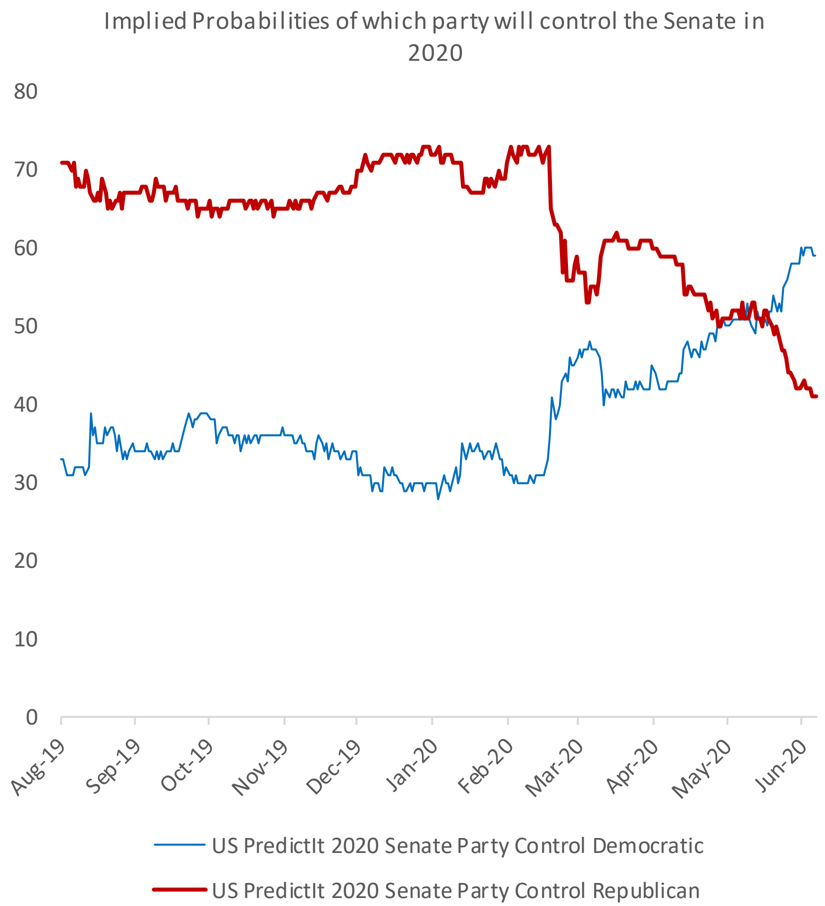


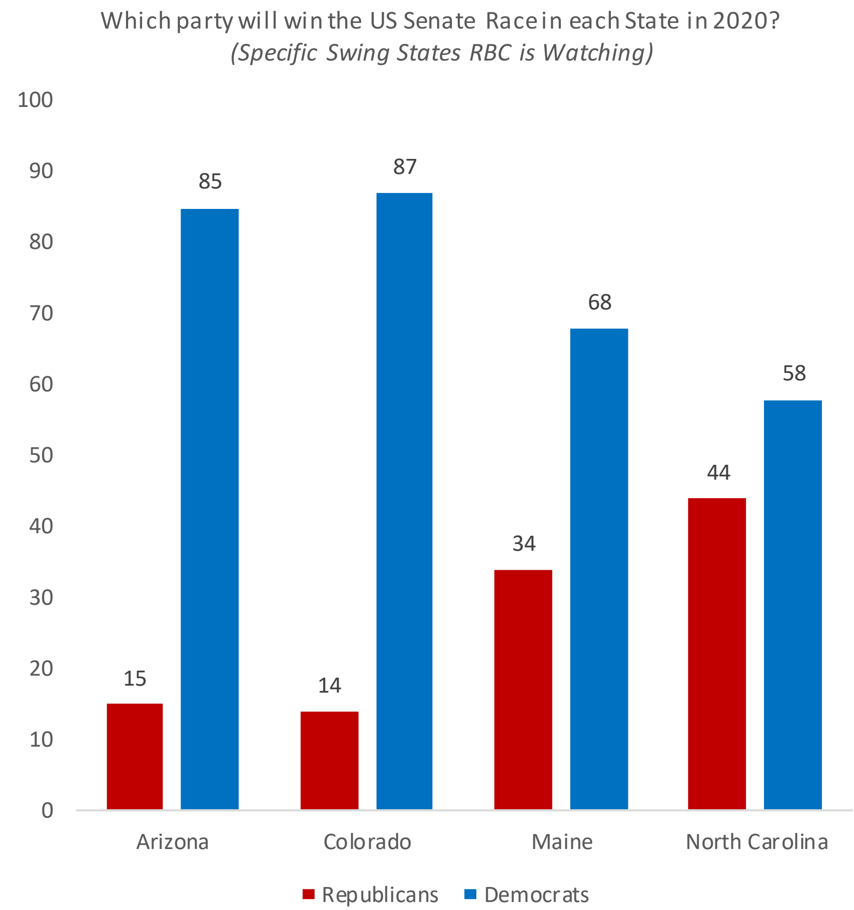
Source: RBC US Equity Strategy, Bloomberg, PredictIt, Probabilities derived by betting markets, as of June 21, 2020

Betting Markets Think the Democrats Could Win the Senate

Key Takeaways

- The betting market no longer has conviction that the Senate will stay under Republican control. The race for control of the Senate became a close one in the betting market in late May/early June as expectations for the Democrats to take control rose while falling for the Republicans. The possibility that Republicans will lose control of the Senate is also highlighted by the latest analysis from the non-partisan *Cook Political Report*. Recent ratings of the individual Senate races suggest that the Democrats could get to 50 if they win all four toss-up seats (AZ, CO, ME, and NC), with the tie-breaking vote going to the VP. The betting markets currently expect the Democrats to take all four of Cook's toss-up states.



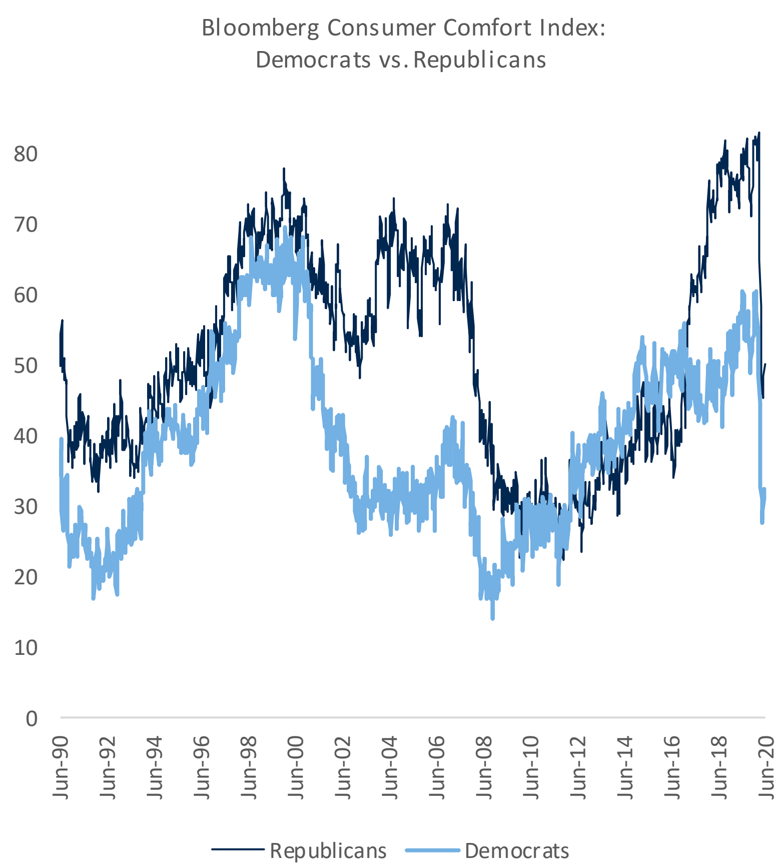


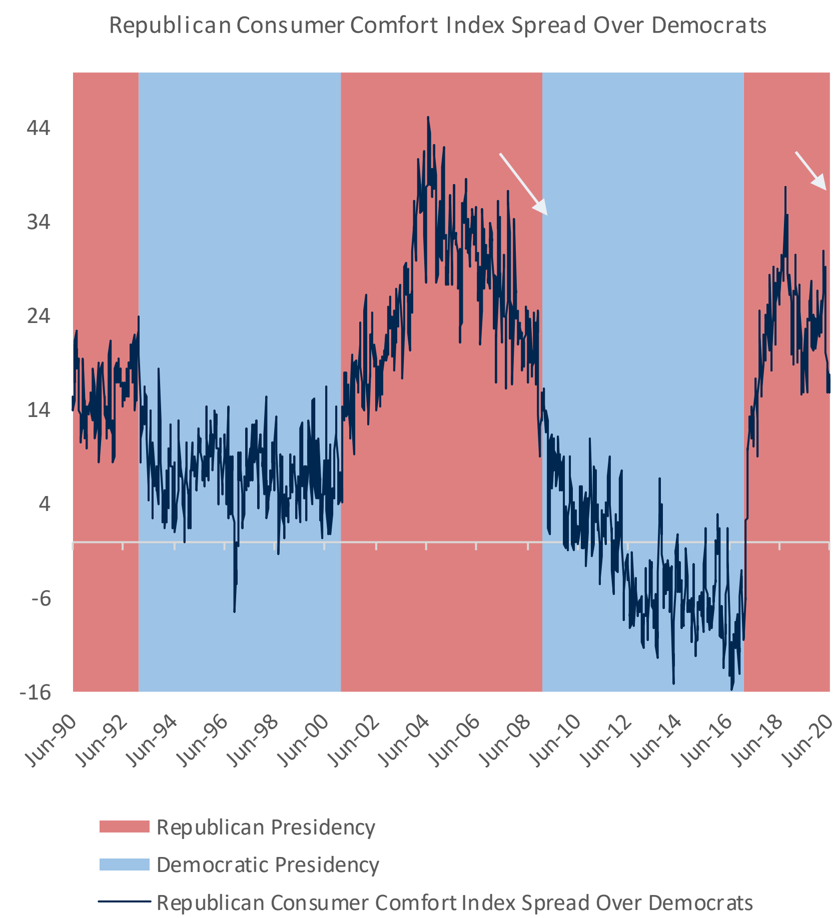
Source: RBC US Equity Strategy, Bloomberg, PredictIt, Probabilities derived by betting markets, left chart as of 06/21/2020, right chart as of 06/22/2020

Sentiment for Both Republicans & Democrats has Plunged

Key Takeaways

- The decline in consumer sentiment since the pandemic hit the US has occurred among both Republicans and Democrats. It is much lower among Democrats than Republicans.
- In recent years, the gap in sentiment between Republicans and Democrats has shrunk - something also seen ahead of the 2008 election when the Democrats took back the White House. A similar closing of the gap has been seen recently.





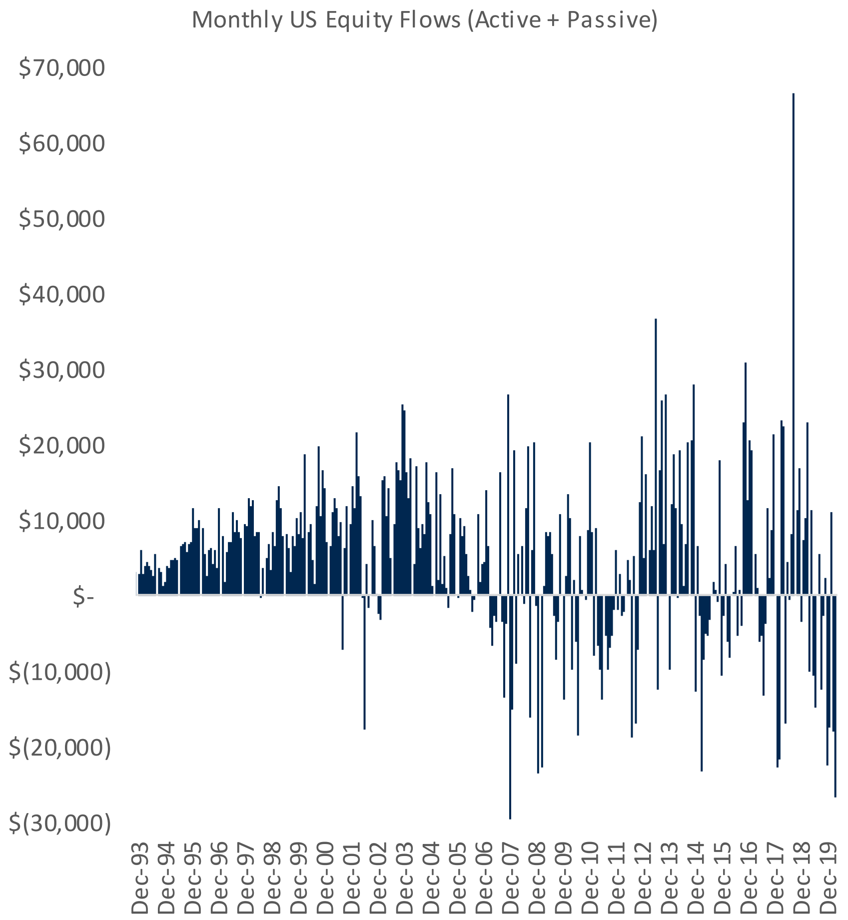
Source: RBC US Equity Strategy, Bloomberg; as of June 14th, 3030

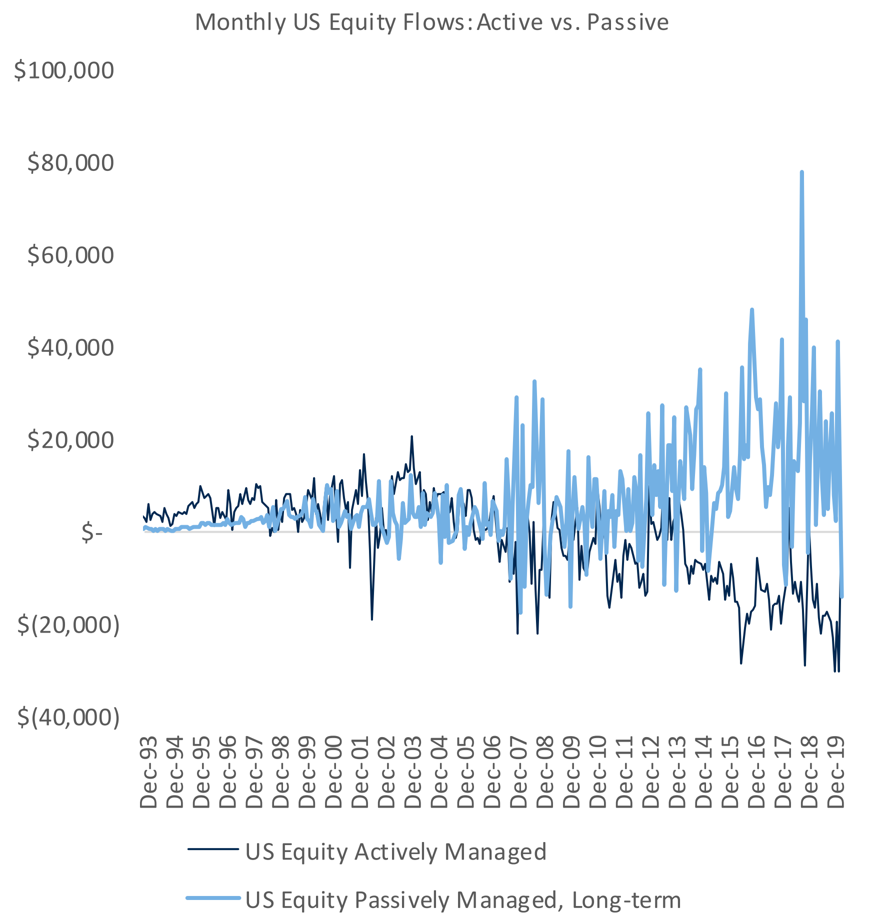
Broader US Equity Market / Retail Money Flows

Flows to US Equity Funds Have Generally Been Weak

Key Takeaways

- Outflows from US equity funds have generally been seen over the last year, with outflows seen in 4 of the first 5 months of 2020. This trend has been driven by actively managed funds. Passively managed funds have generally seen inflows over the last year.
- In May outflows remained in place for actively managed funds, but did ease. Flows deteriorated for passively managed funds, with outflows returning.



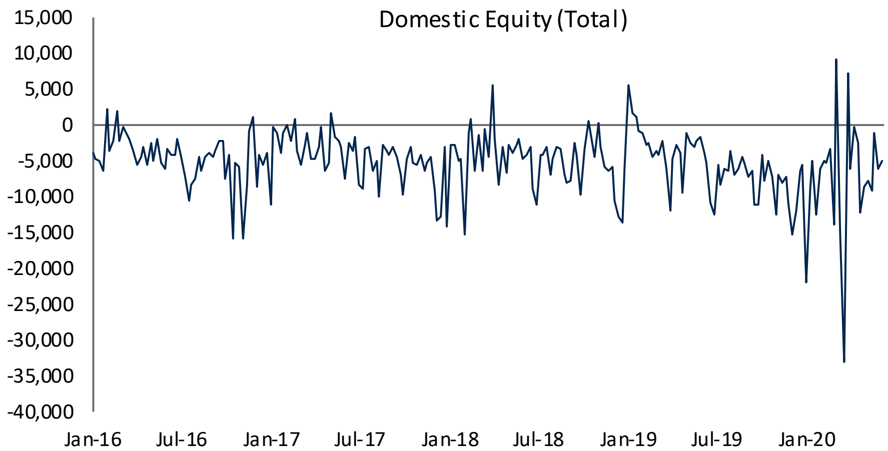


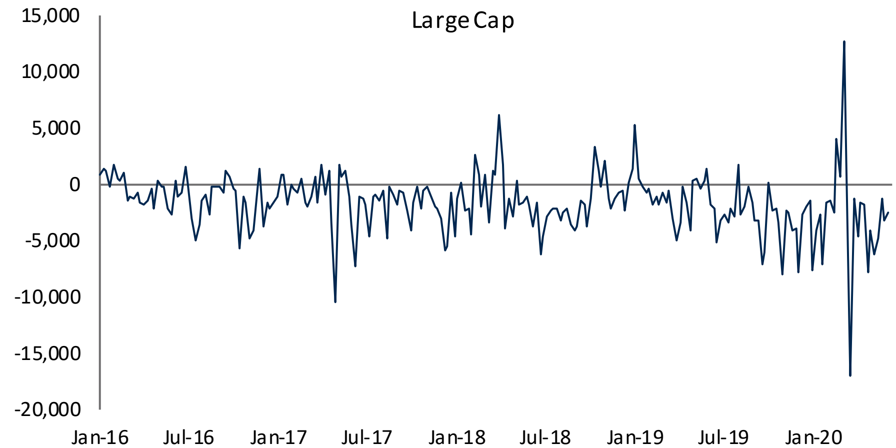
Source: RBC US Equity Strategy, Morningstar

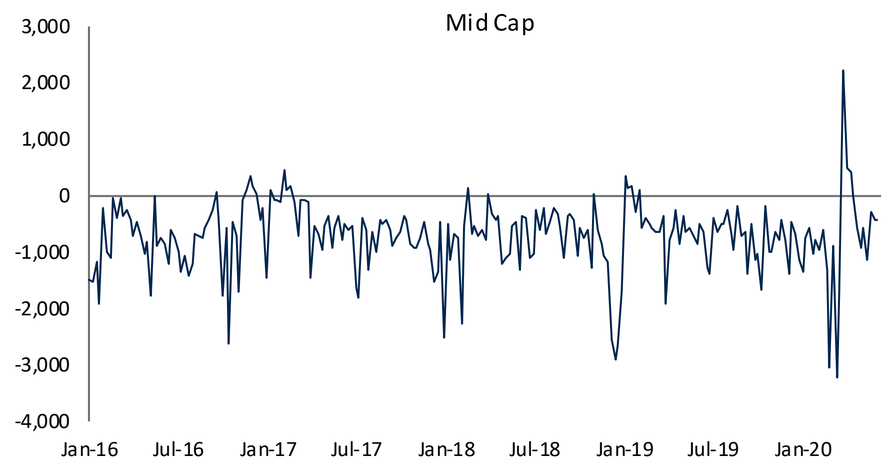
Long-Term Mutual Fund Flows (Ex ETFs) Have Been Volatile Recently

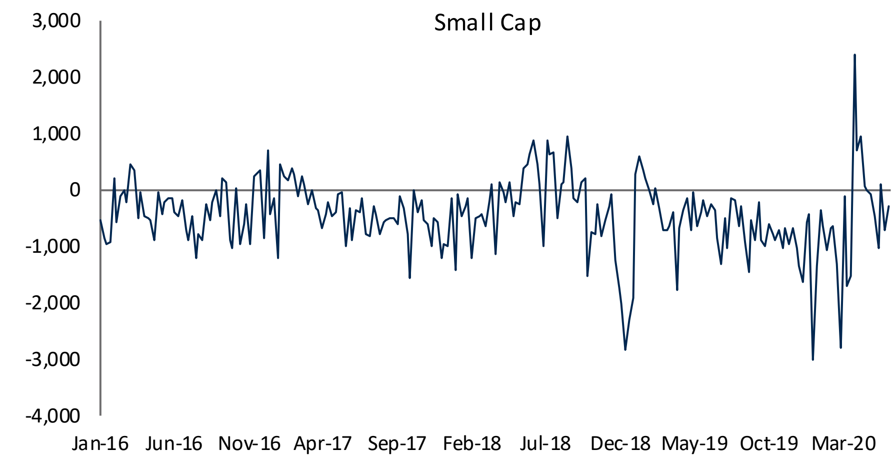
Key Takeaways

- ICI Long-term mutual fund flows – which give us more up to date reads than Morningstar – shows extreme volatility in domestic equity funds recently, both broadly and in all major market cap segments.
- Large cap equity saw decent inflows followed by deep outflows. They've stabilized in recent weeks with slight negative outflows.
- Mid Cap and Small Cap have seen milder outflows in recent weeks on this data set.







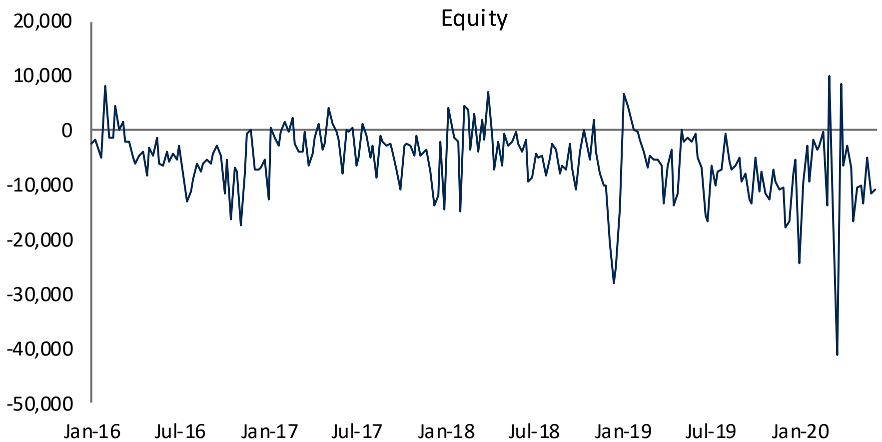


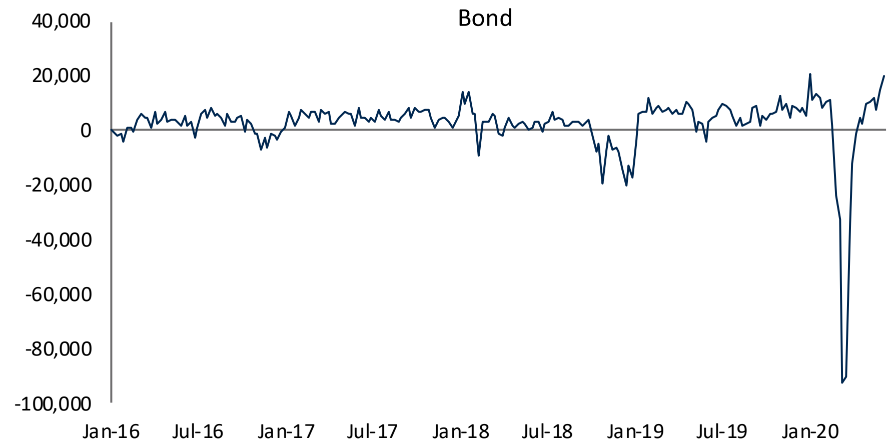
Source: RBC US Equity Strategy, Haver Analytics; as of 06/10/2020

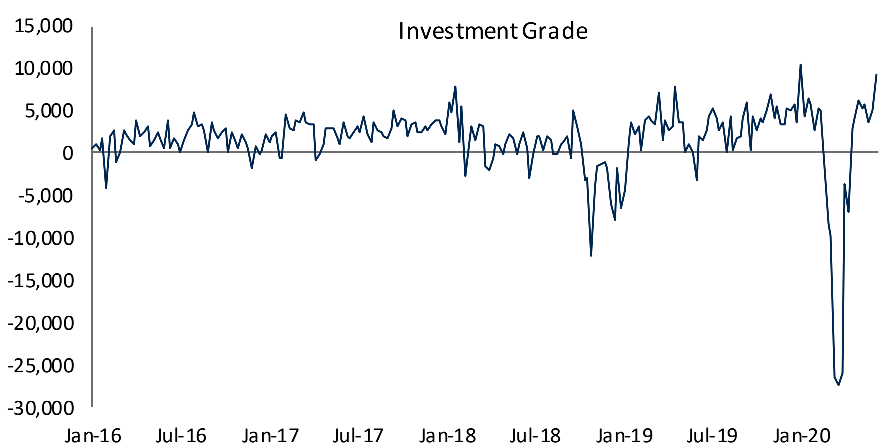
Long-Term Mutual Fund Flows (Ex ETFs) Highlight Re-Engagement With Bond Funds

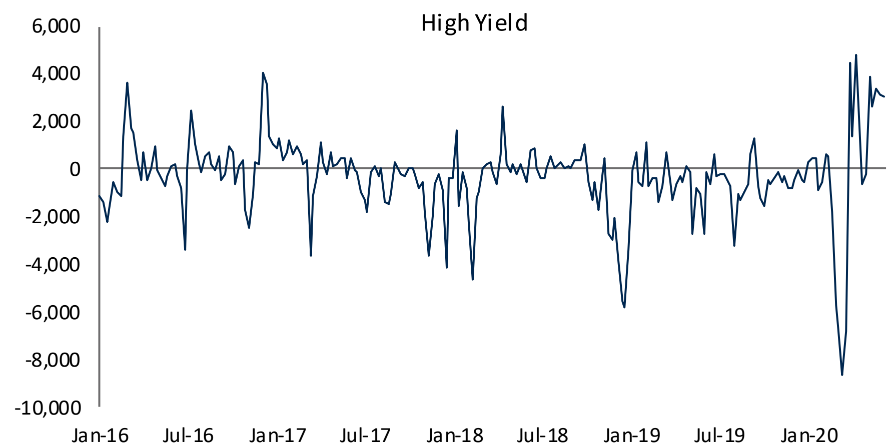
Key Takeaways

- Equity flows briefly turned positive, then weakened again on the weekly ICI data.
- Bond funds, including both investment grade and high yield have seen flows turn positive again recently.







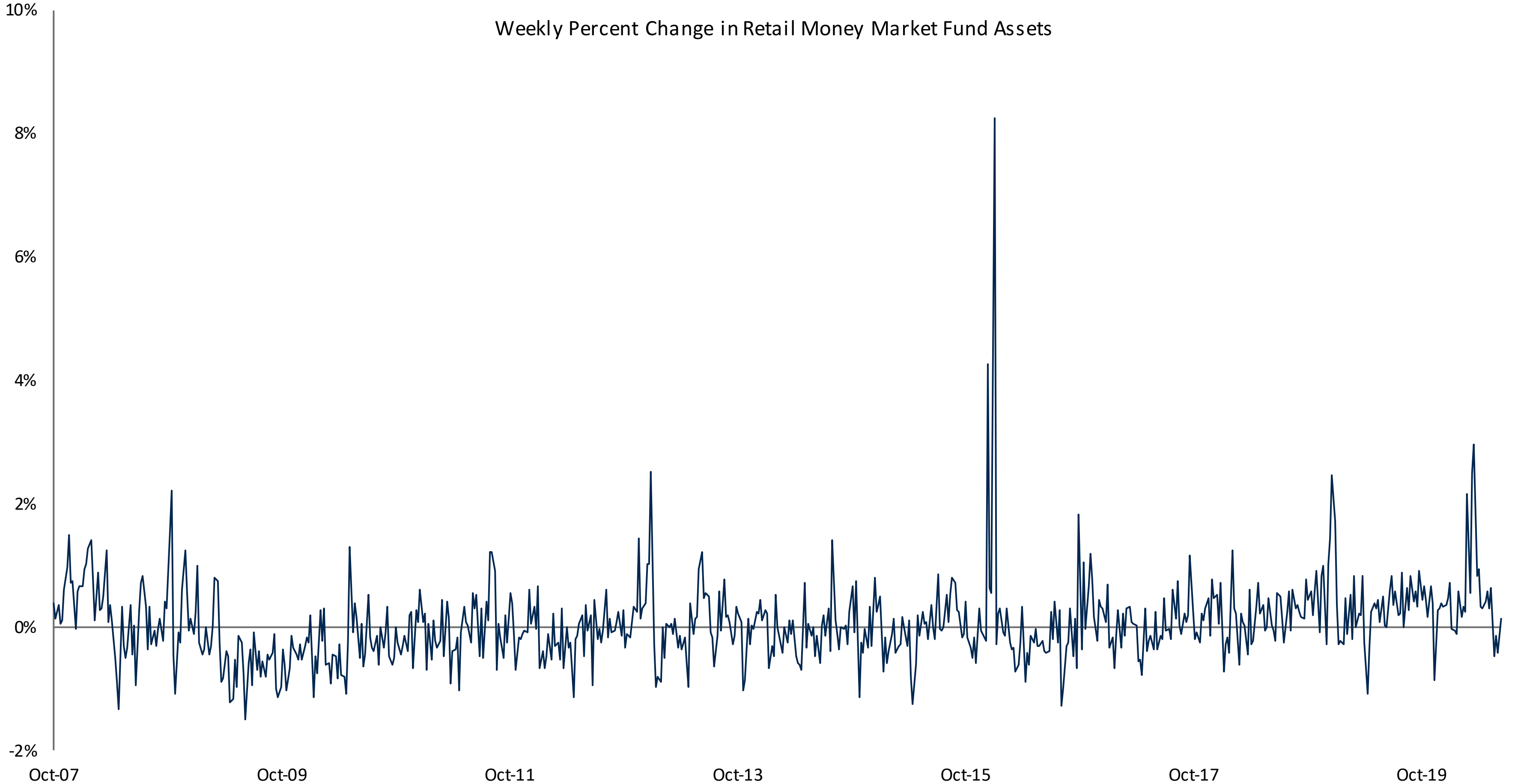


Source: RBC US Equity Strategy, Haver Analytics; as of 06/10/2020

Retail Investors Raised Cash Early in the Pandemic

Key Takeaways

- One place where we saw signs of retail investor stress in March was in the weekly update from the Investment Company Institute on the level of assets in money market funds, among retail investors specifically.
- Several times in March, the week-over-week increase in money market fund assets for retail investors rose 2% or more. That's similar to trends seen in December 2018, but pales in comparison to the levels of cash raised in early 2016.
- In recent weeks, cash levels have declined modestly.

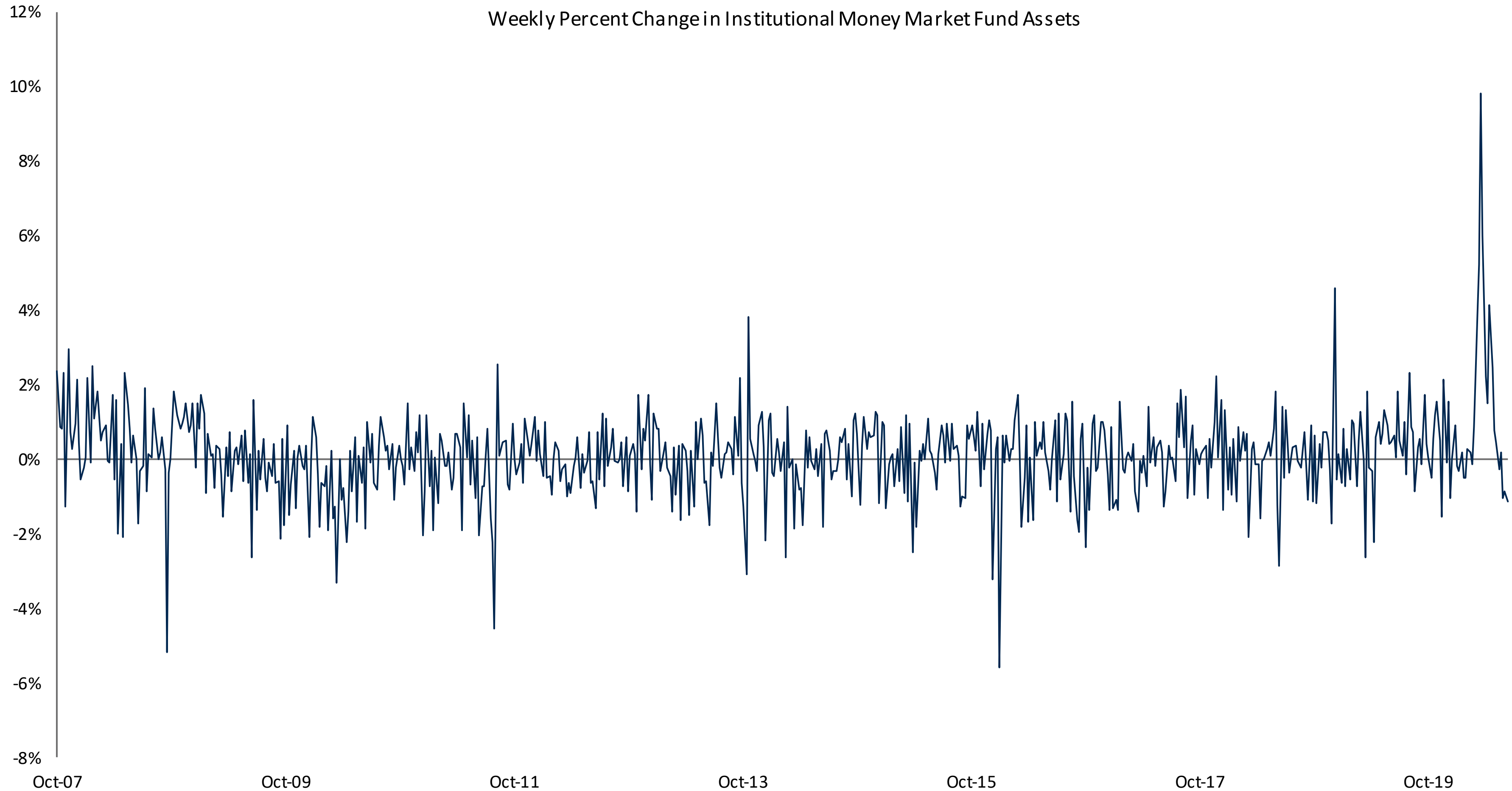


Source: RBC US Equity Strategy, Haver, investment Company Institute; as of 06/17/2020

Institutions Were Even More Aggressive in Raising Cash Early in the Pandemic

Key Takeaways

- Since March, there have been a number of weeks where institutional money market fund assets increased by 3% or more on a week-over-week basis. The biggest cash raising occurred the week of March 25th, when AUM rose 9.8%.
- This is the most aggressive degree of cash raising that we've seen since this data series began to be tracked.
- Cash levels have also started to decline among institutions, similar to what we seen in retail accounts.

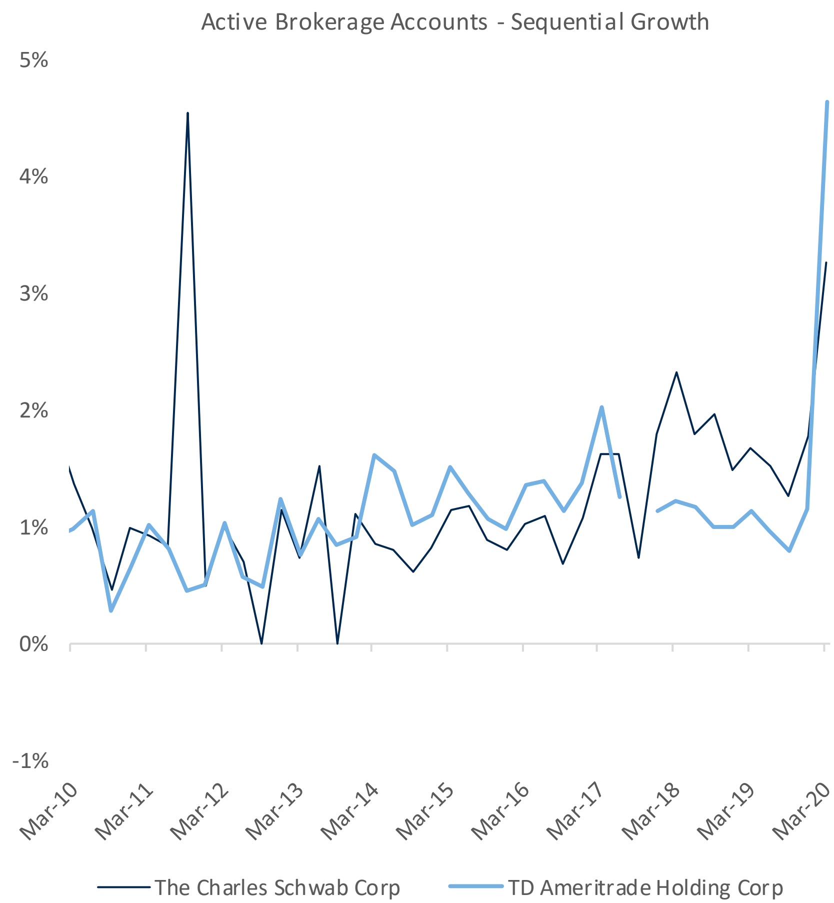


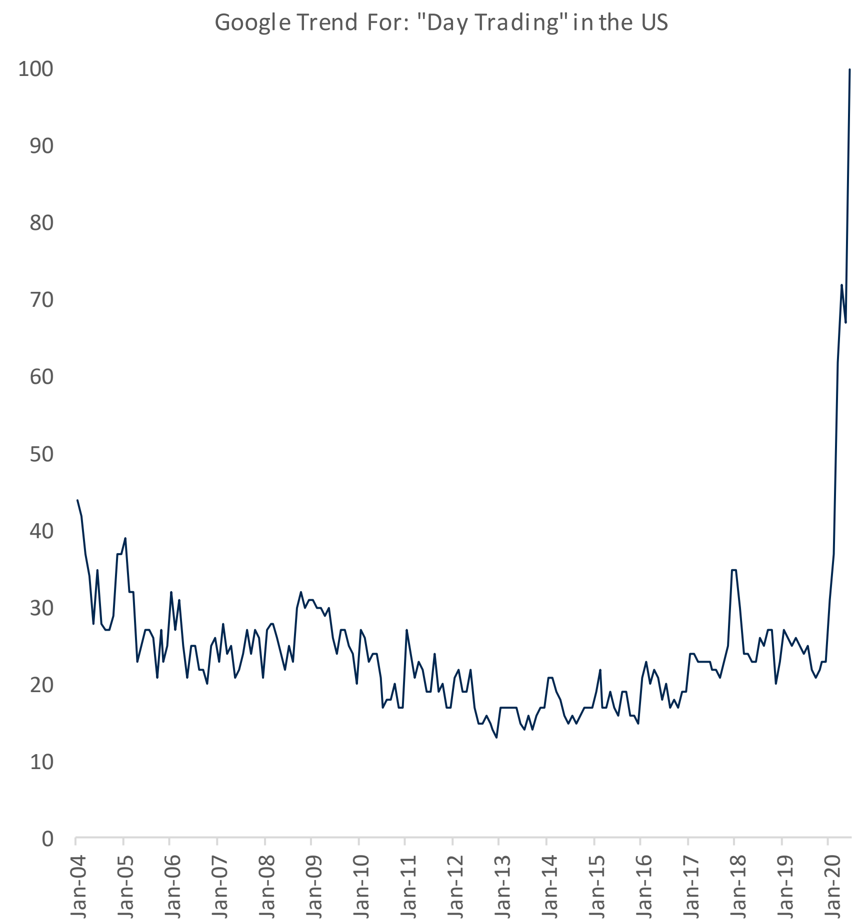
Source: RBC US Equity Strategy, Haver, investment Company Institute; as of 06/17/2020

Day Traders Have Helped Drive the S&P 500 Higher Recently

Key Takeaways

- The sequential growth in "active brokerage accounts" from companies such as Charles Schwab and TD Ameritrade, which hold specific business lines catering to retail investors, was remarkable at the end of 1Q20, the latest data available. The growth showed a major surge in account growth.
- While we are conscious that this is not a perfect way to measure the full impact that retail investors are having in the market, it is one of many measures that points to an acceleration in their engagement. It also coincides with interest on "Day Trading" in the US, as captured by Google Trends. Many factors may be contributing to this uptick, whether it be lower trading fees, or a stay-at-home orders in 1Q20, investing in public equity markets in the US has only been made easier.





Source: RBC US Equity Strategy, Bloomberg, Company Filings, Both companies may define "Active Brokerage Accounts" differently, 3Q17 omitted from TD Ameritrade due to outlier in data, Google Trends as of 06/18

Global Context

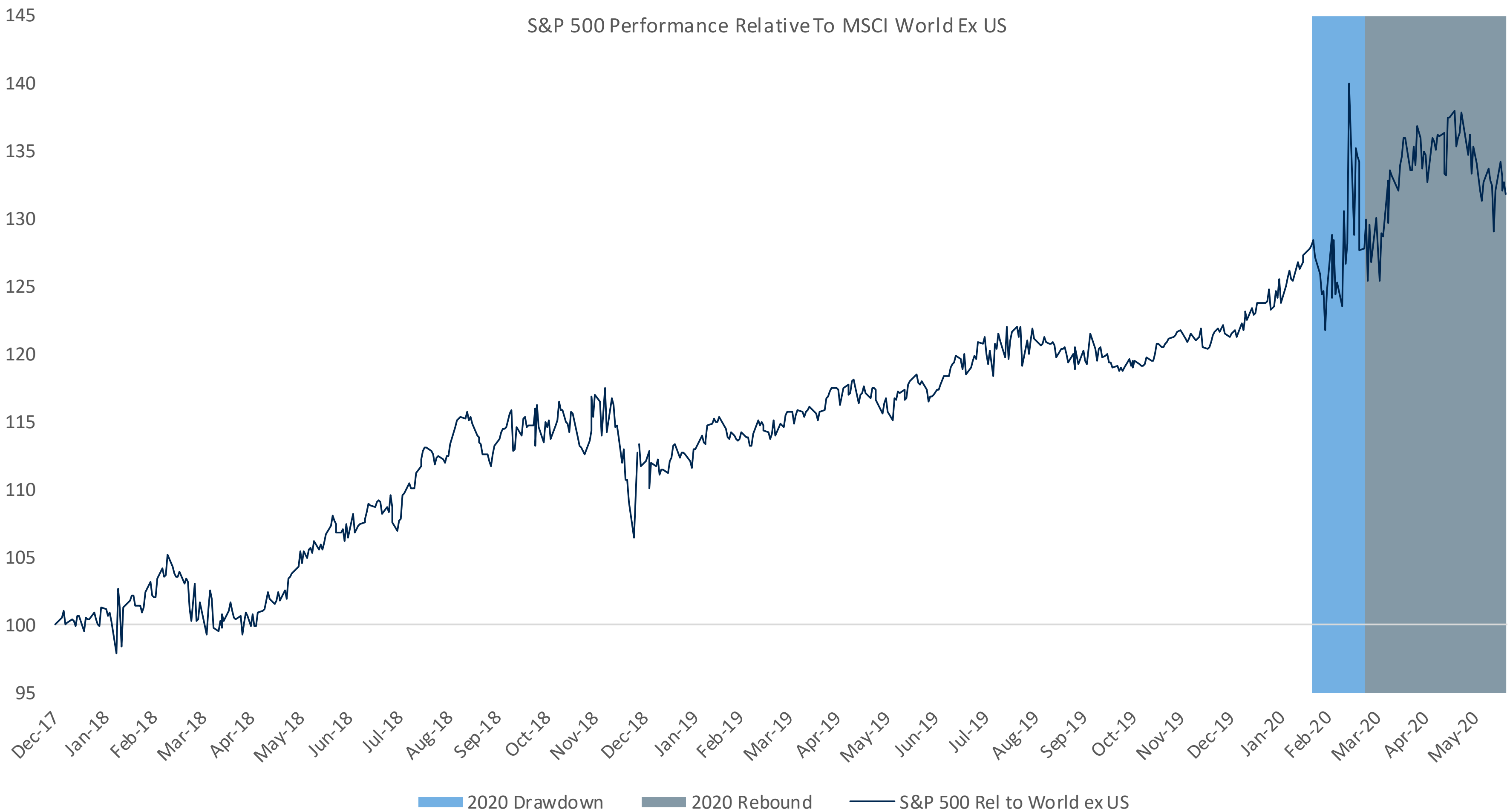
How the S&P 500 Compares to Non-US Equities

RBC Capital Markets

The US is Starting to Underperform Global Peers

Key Takeaways

- The US has remained dominant in early 2020, in part due to safe haven seeking amid the global pandemic.
- The US managed to hang on to its leadership during both the drawdown in the S&P 500 in late February and March and the initial phase of the rebound in late March and April.
- Since mid May, however, non-US equities have outperformed the S&P 500.

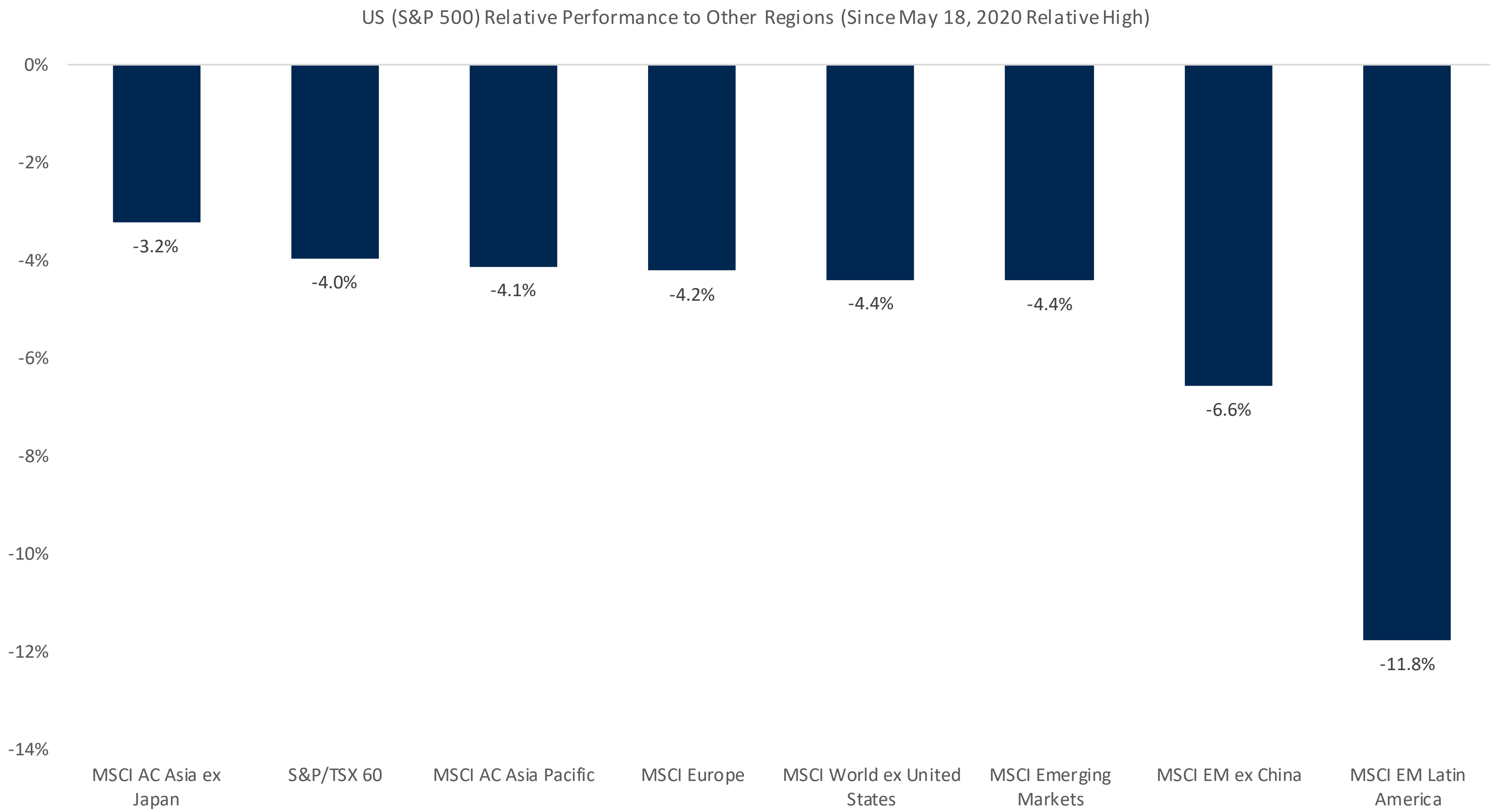


Source: RBC US Equity Strategy, Bloomberg; as of June 19th, 2020

The US Is Lagging Major Regions Over The Past Month

Key Takeaways

- Since the US' (S&P 500's) peak relative performance against the Rest of the World (on May 18th, 2020), the US is underperforming most regions, globally, including developed markets such as Europe, and lagging Emerging economies the most, such as Latin America.

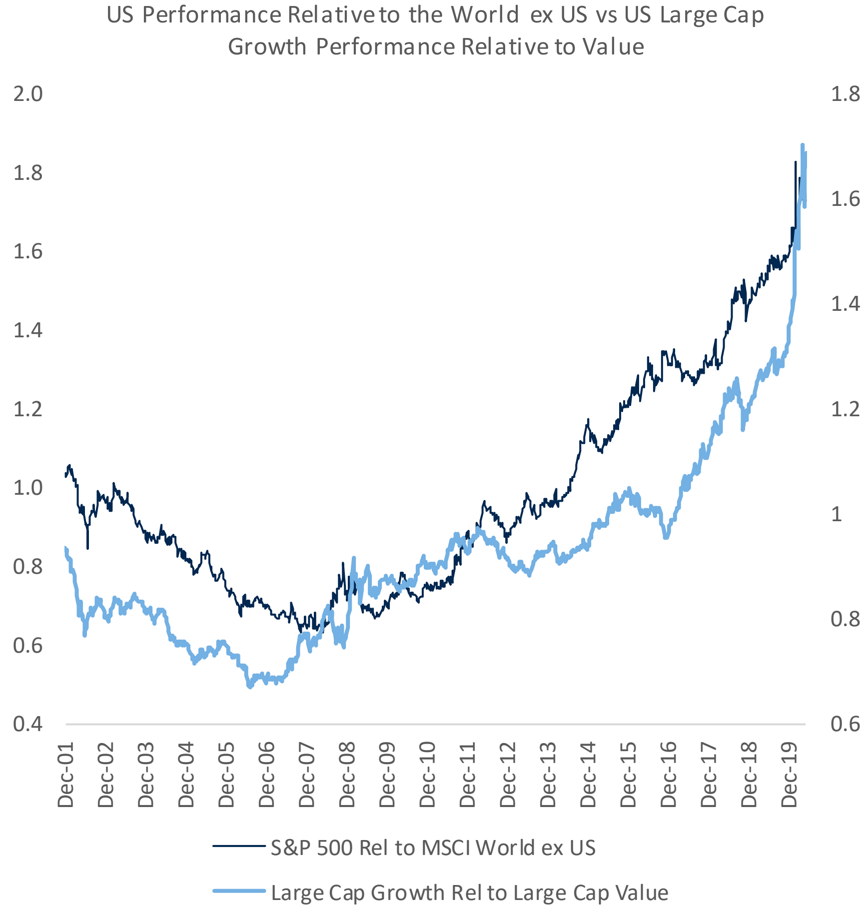


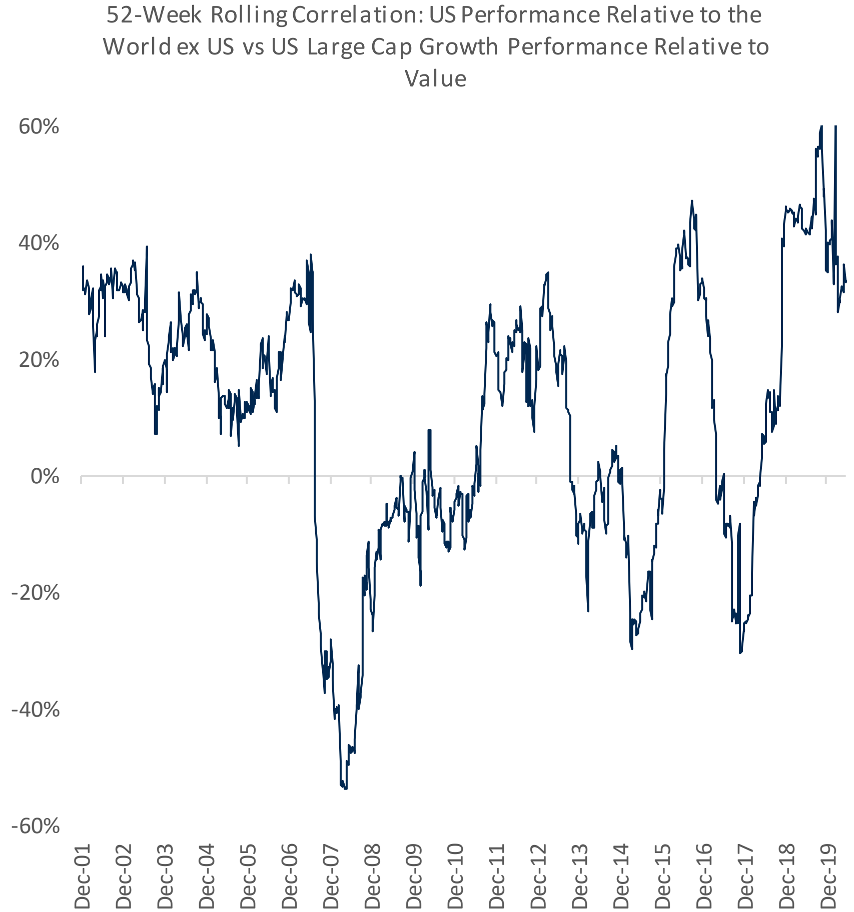
Source: RBC US Equity Strategy, Bloomberg, MSCI, All Returns are in USD, as of 06/19/2020

The Growth Trade Usually Benefits the US, While the Value Trade Usually Benefits Non-US Stocks

Key Takeaways

- The outperformance from the US relative to the rest of the world over the past decade has followed the same long term trend that the Growth over Value trade within the US has taken.
- The linear correlation between the 2 pairs has also picked up since bottoming out in December 2017. It's recently returned to all time highs.
- If Value takes the lead within the US, the US is likely to underperform its global peers. If the Growth trade continues to dominate, the US is also likely to maintain its leadership.



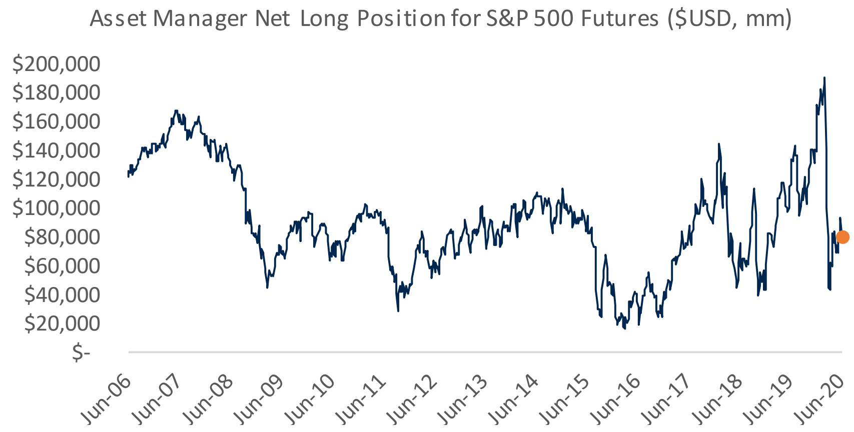


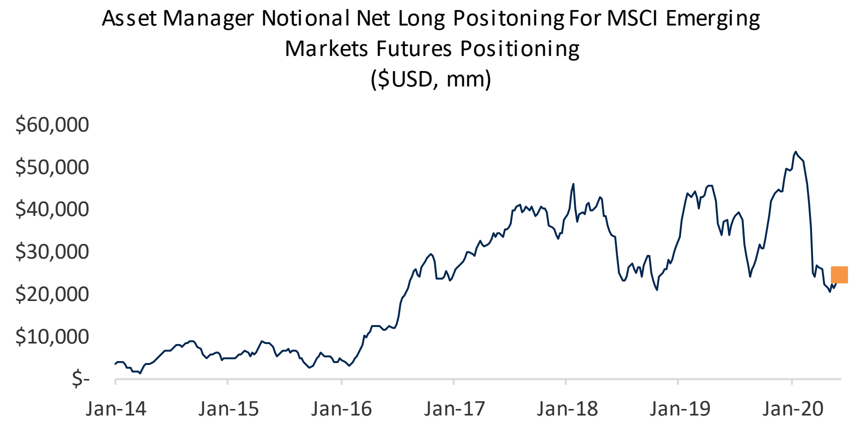
Source: RBC US Equity Strategy, Bloomberg, MSCI; as of June 18th, 2020

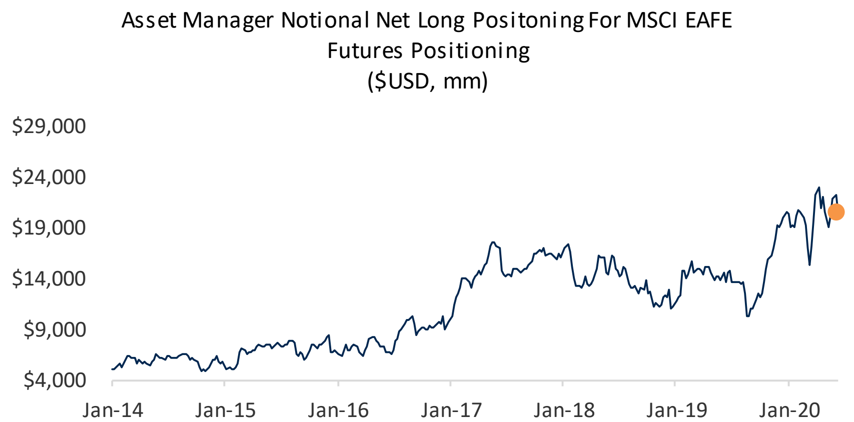
Futures Positioning Slowly Picking Up for US, EM & Japan Equities

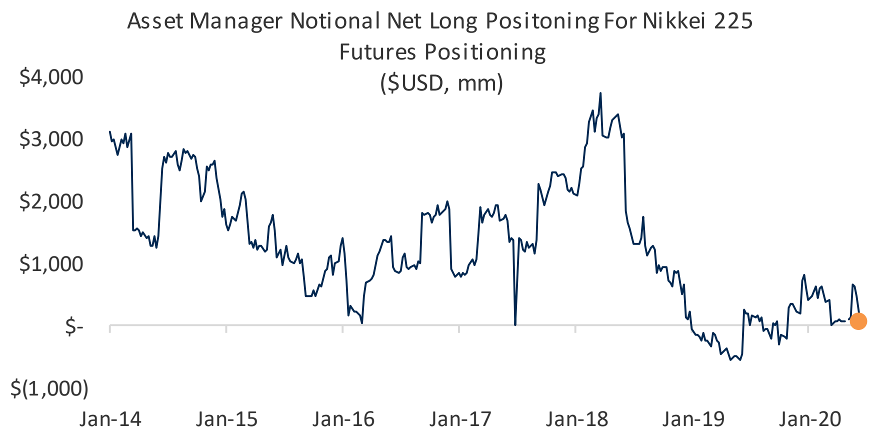
Key Takeaways

- According to data from CFTC, US equity futures positioning among asset managers (a good proxy for institutional investor sentiment) retreated sharply from all time highs in March, and has been slowly healing ever since.
- Futures positioning in EM also fell sharply from extreme highs, but has started to stabilize.
- Futures positioning in EAFE remains elevated – unlike other regions it never collapsed.
- Futures positioning for Japan has been low, but like the US and EM has started to creep up.
- Update as of June 16th, 2020.







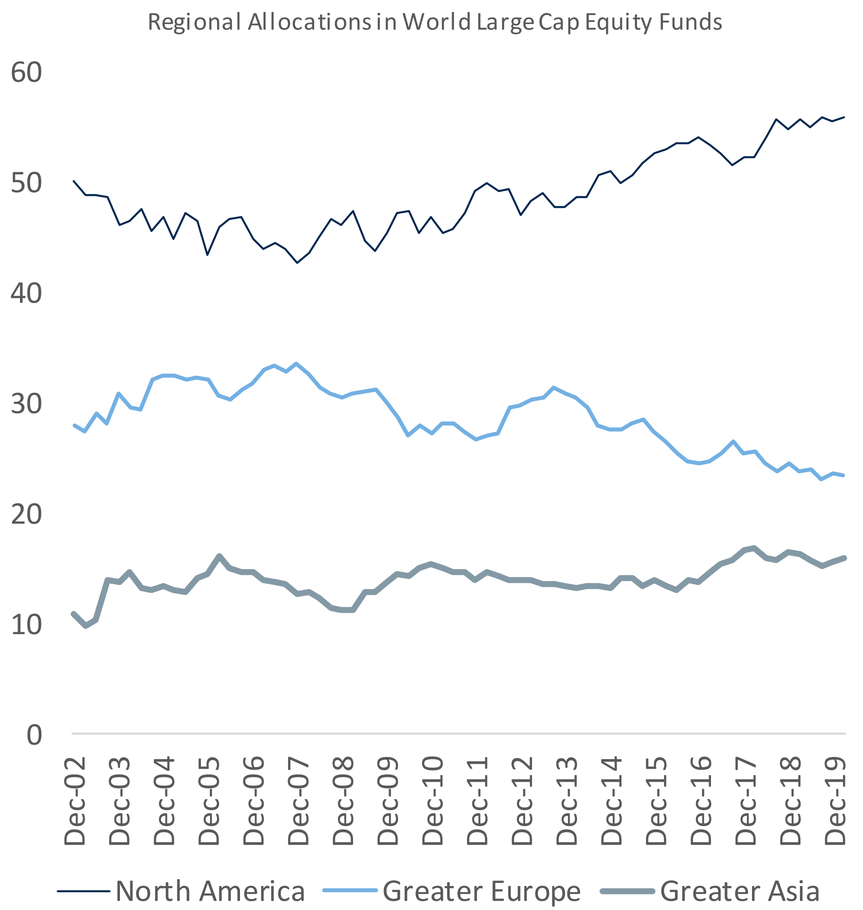


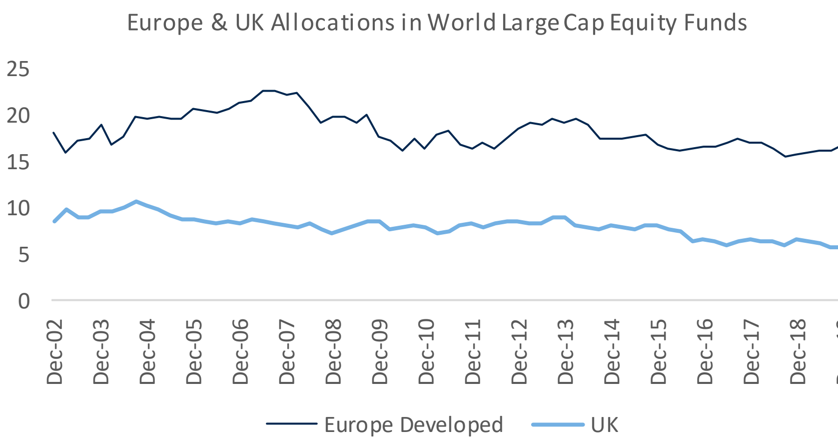
Source: RBC US Equity Strategy, RBC Futures Desk, CFTC. Asset Manager/Institutional: These are institutional investors, including pension funds, endowments, insurance companies, mutual funds, and those portfolio/investment managers whose clients are predominantly institutional; Nikkei 225 Futures Positioning combines JPY & USD based contracts, converting JPY based contracts into USD using as of date JPY/USD FX Spot Prices

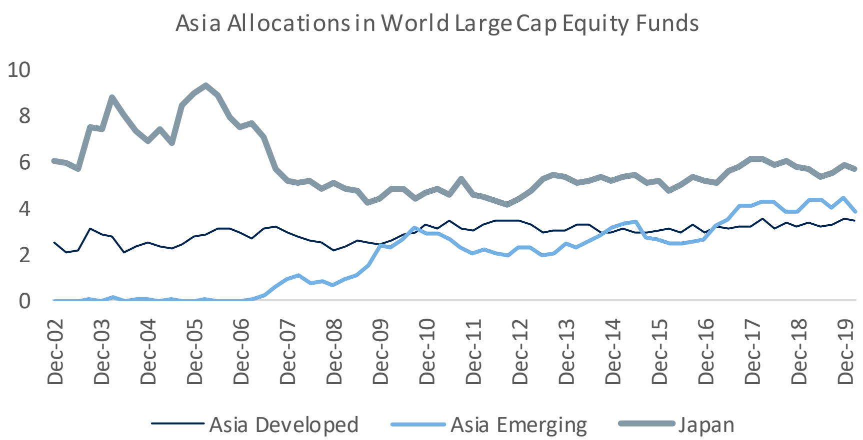
North American Stakes Around All-Time Highs in Global Large Cap Equity Funds

Key Takeaways

- Median stakes in North American equities ended 3Q18 at an all-time high in global large cap equity funds. They've been hovering near those levels ever since.
- Stakes in Europe have been hovering near historical lows.
- Stakes in Asia have been near the high end of their historical range.





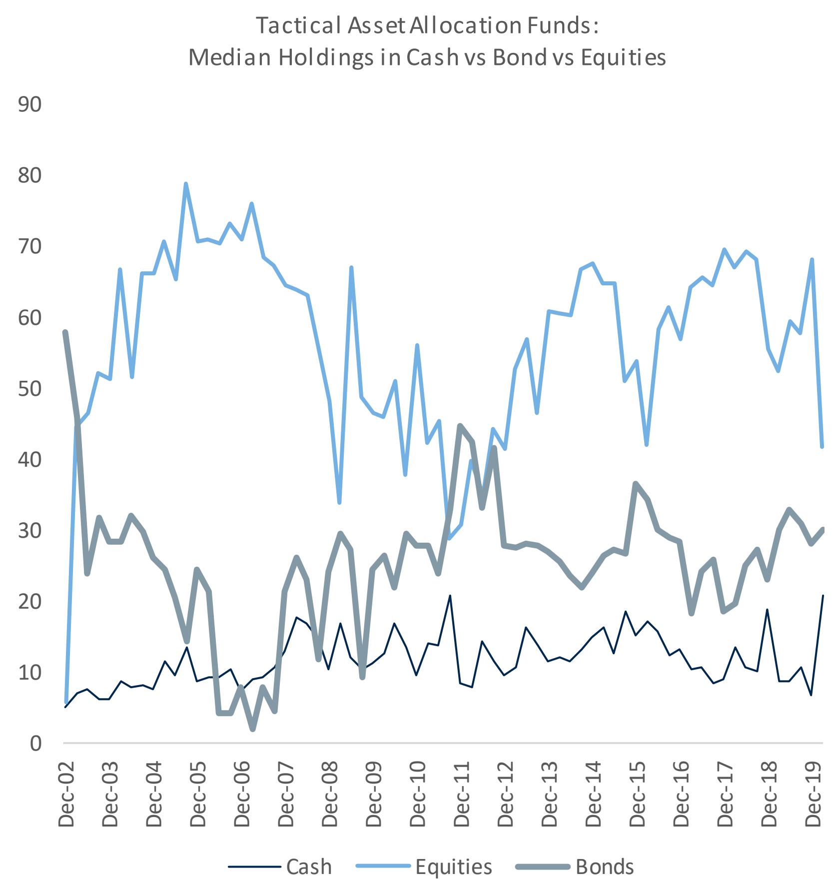


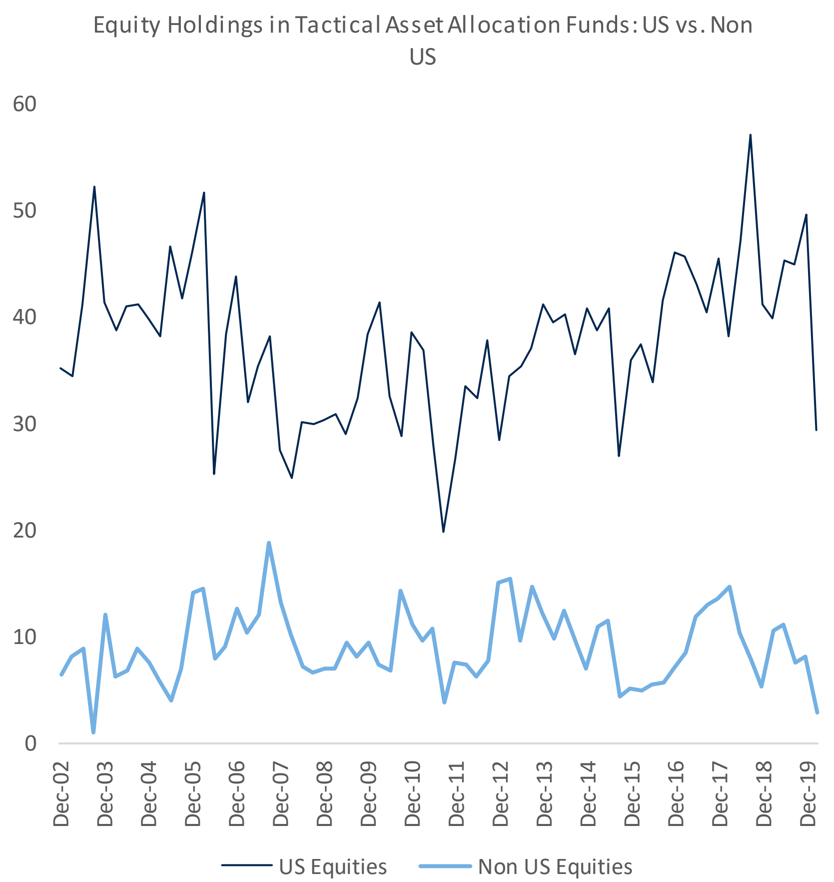
Source: RBC US Equity Strategy, Morningstar; preliminary data through 1Q20 with 99% of funds reporting

Equity Stakes Fell Sharply in Asset Allocation Funds in 1Q20, After Surging in 4Q19

Key Takeaways

- Final data for 4Q19 indicates that equity allocations (across all regions) were back to post Financial Crisis highs in asset allocation funds. Data for 1Q20 indicates that this positioning reversed course sharply, with stakes in cash rising sharply and bond allocations inching up as well. We suspect a reversal of 1Q trends has occurred in early 2Q. At the end of 1Q, bond stakes and cash stakes were near historical or recent highs. Both US and non-US equity stakes were low coming into 2Q, but non-US equity allocations were closer to historical lows.



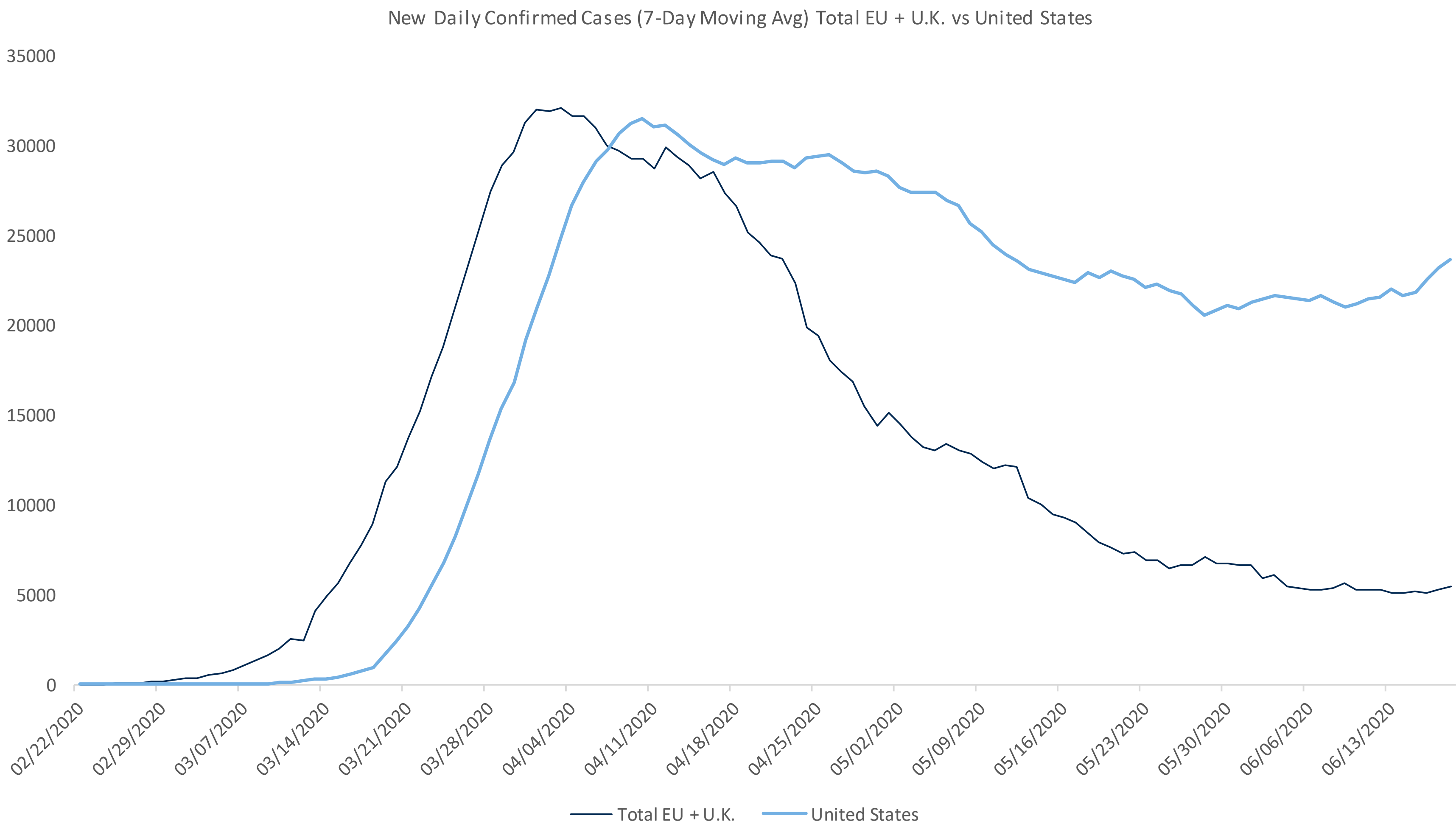


Source: RBC US Equity Strategy, Morningstar; preliminary through 1Q20 with 90% of funds reporting

Europe Has Done a Better Job of Combating the Coronavirus Than the US Has

Key Takeaways

- When taking into account the 27 countries that are in the European Union plus the UK, the 7-day moving average of new daily confirmed cases has been decreasing sharply since late March.
- This is in contrast to what we are seeing in the US, where the trend of new daily confirmed cases appears to have hit a plateau. This could be signaling a better economic growth trajectory in Europe than the US down the road.

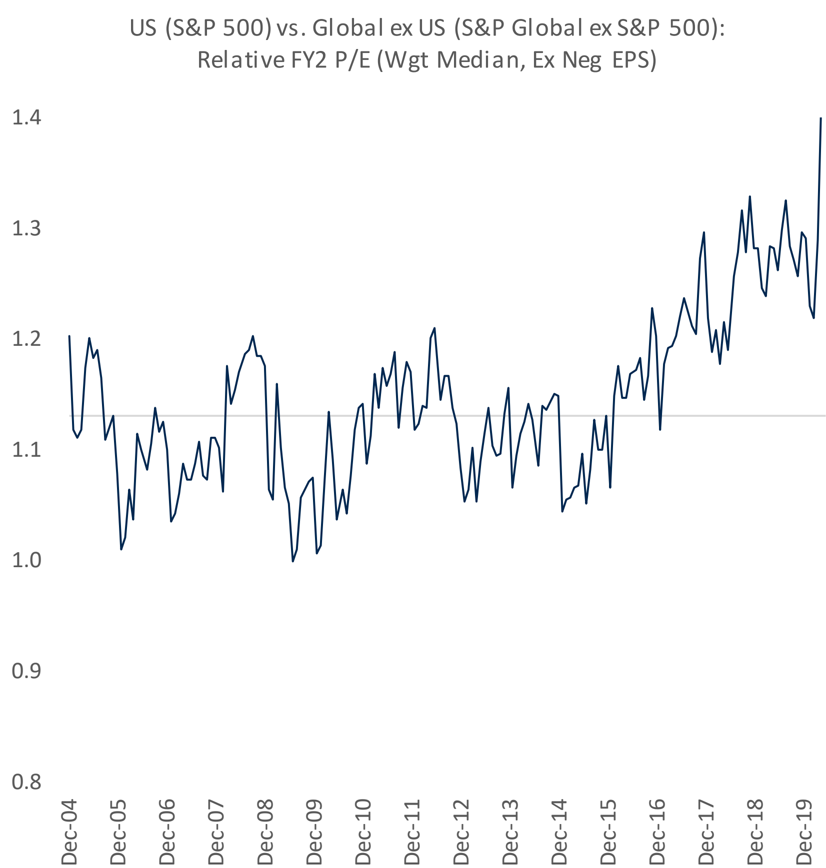


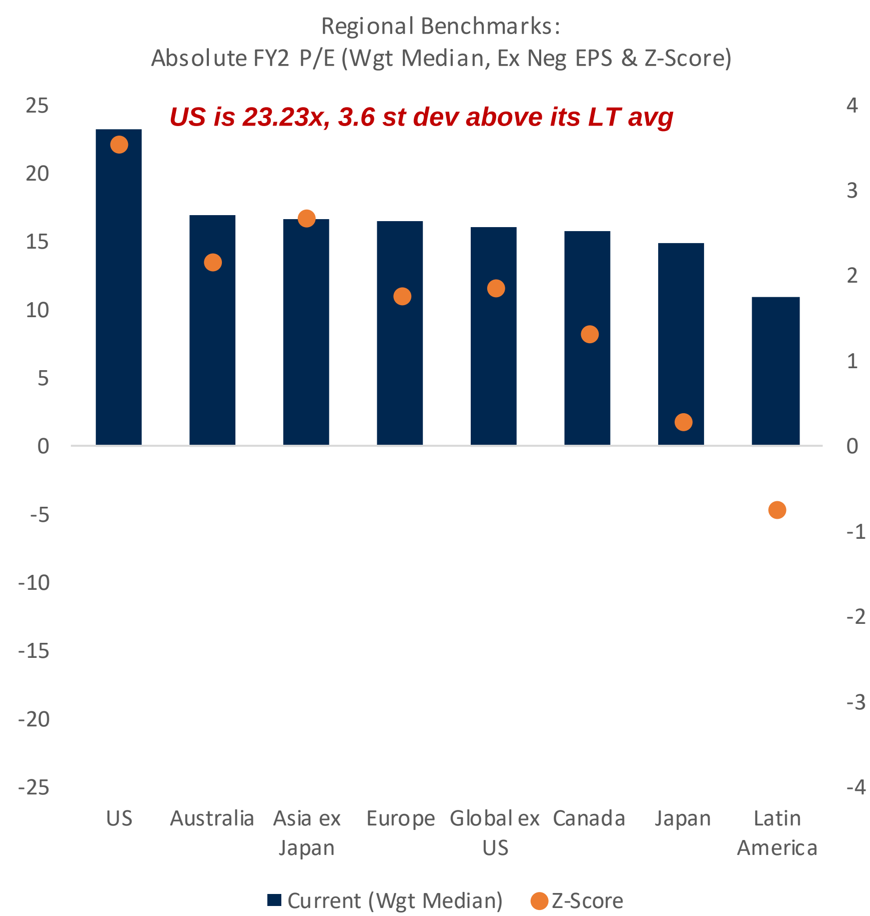
Source: RBC US Equity Strategy, Johns Hopkins, Bloomberg; As of 06/18/2020

US Equities Remain Highly Overvalued Relative to Non-US Equities

Key Takeaways

- As of mid June 2020, the US continued to look highly overvalued relative to non-US stocks and all major regions.
- LatAm looks most undervalued on an absolute basis while the US looks most expensive.



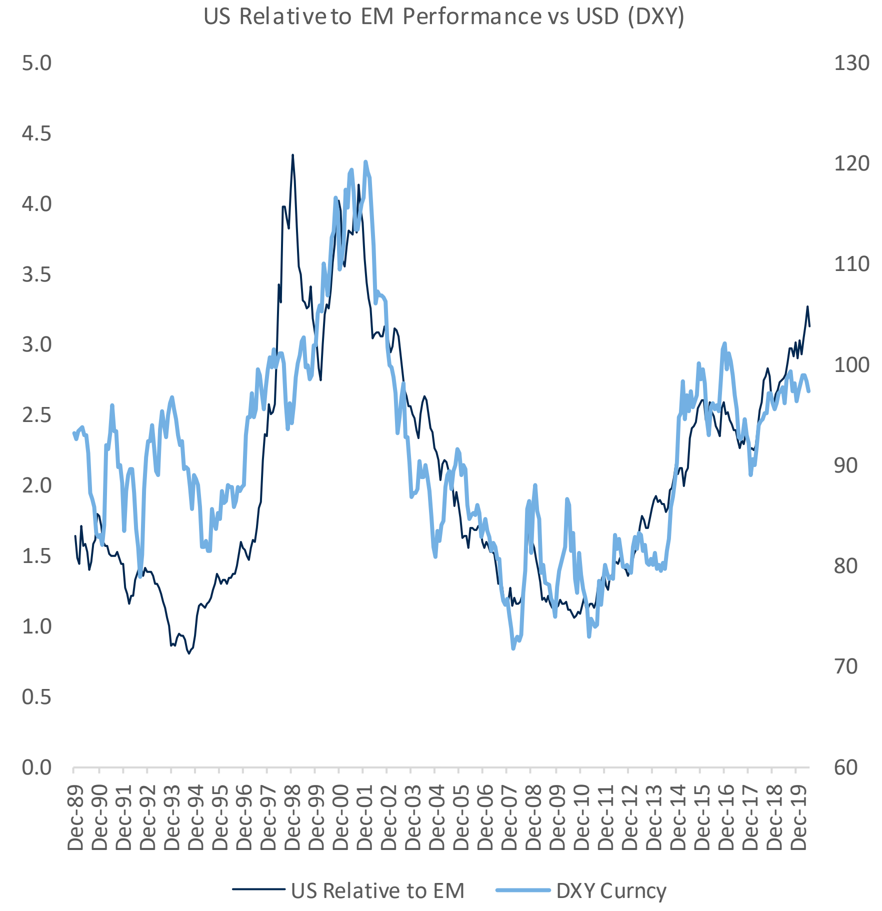


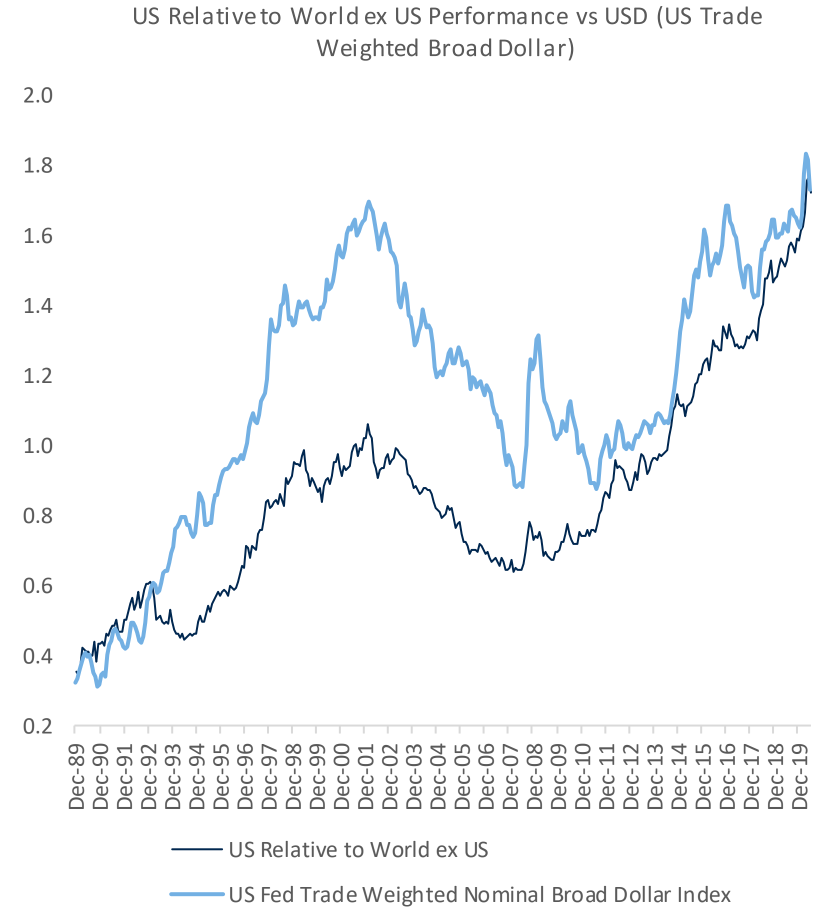
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi. Z-Scores calculated since 2004; as of June 18th, 2020

The US Dollar Continues to Reflect US Performance Relative to ROW

Key Takeaways

- Over the last 30 years, the US Dollar has influenced US performance relative to international markets. Whether we look at the USD's performance through the lens of the DXY basket or a Trade Weighted basket, the dollar has moved in sync with the US's performance over Emerging Markets and the Developed Markets ex US.
- As the US Dollar has strengthened, the US equity market has outperformed its global peers and underperformed when it has weakened. That relationship has remained intact in early 2020.



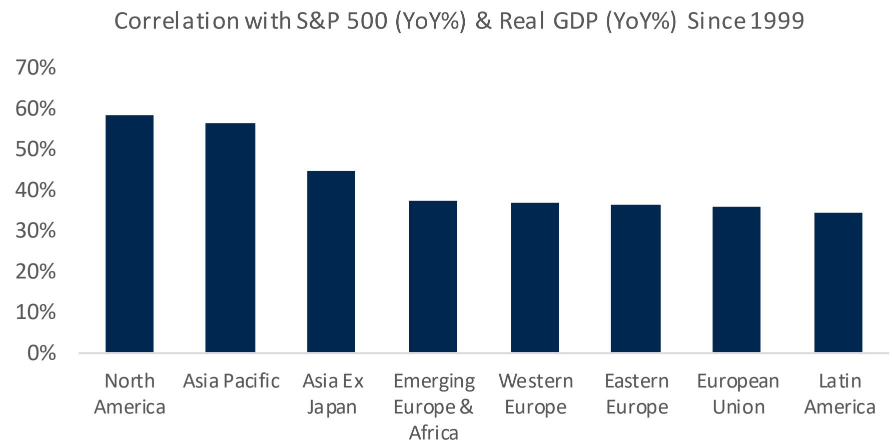


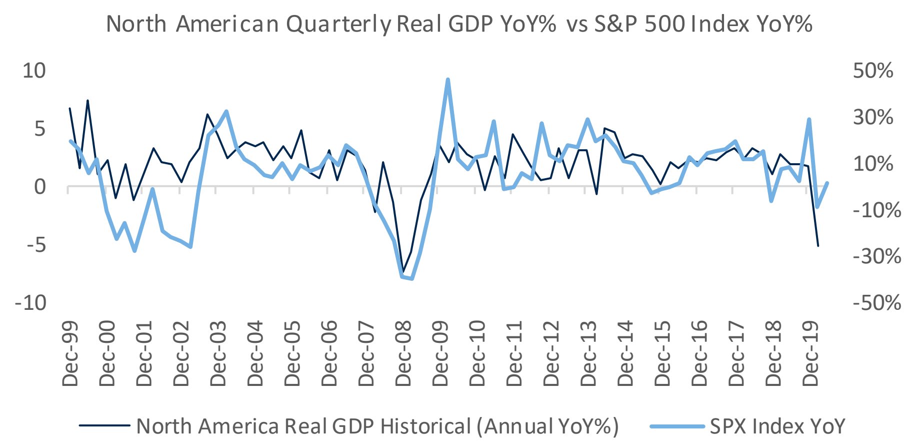
Source: RBC US Equity Strategy, Bloomberg; as of June 18th, 2020

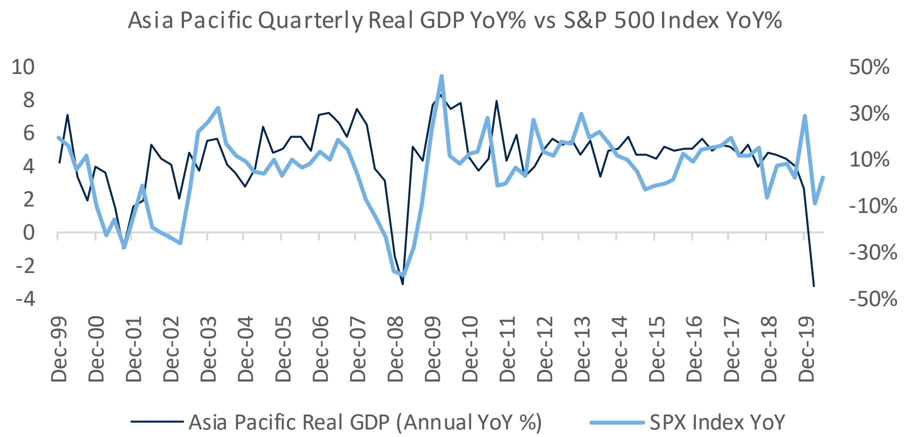
US Equities Driven by Domestic and Asia-Pacific GDP

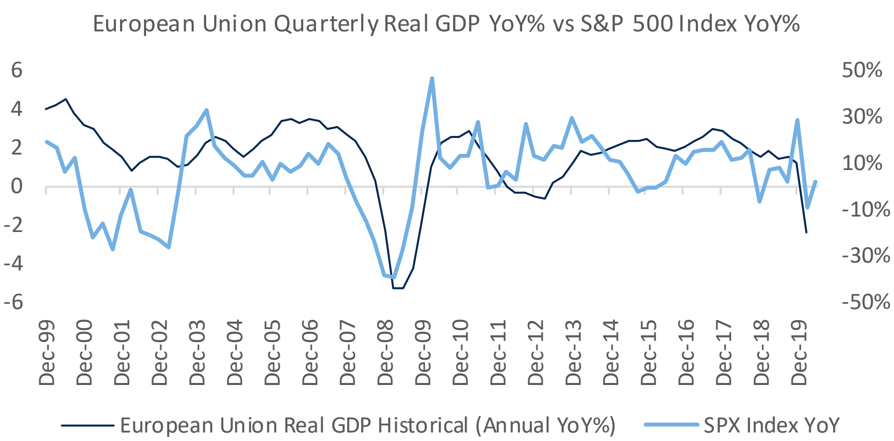
Key Takeaways

- US equity market performance has a strong relationship with North American GDP trends.
- However, it also moves pretty closely with Asia (to a lesser extent with Europe).
- Early 2020 equity market weakness reflected the GDP hits currently underway in the global economy. The recent rebound reflects the anticipated recovery.







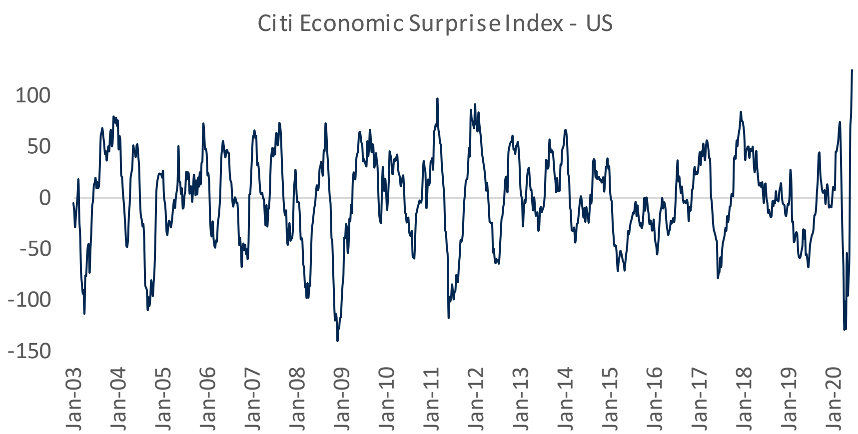


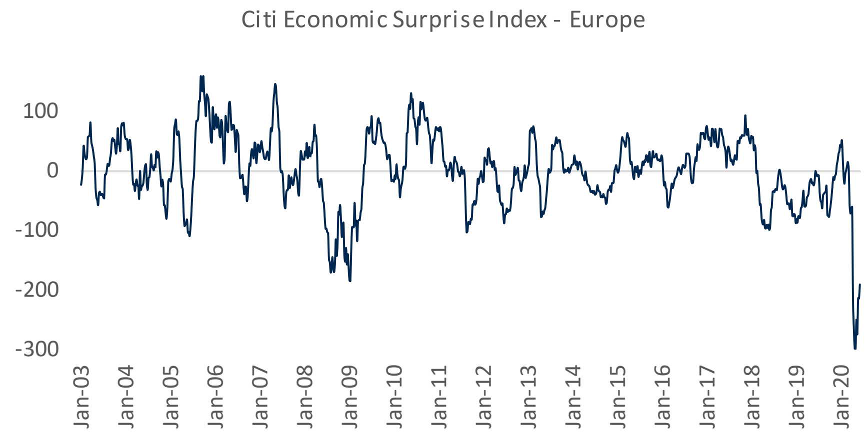
Source: RBC US Equity Strategy, Bloomberg; as of Jun 11th, 2020

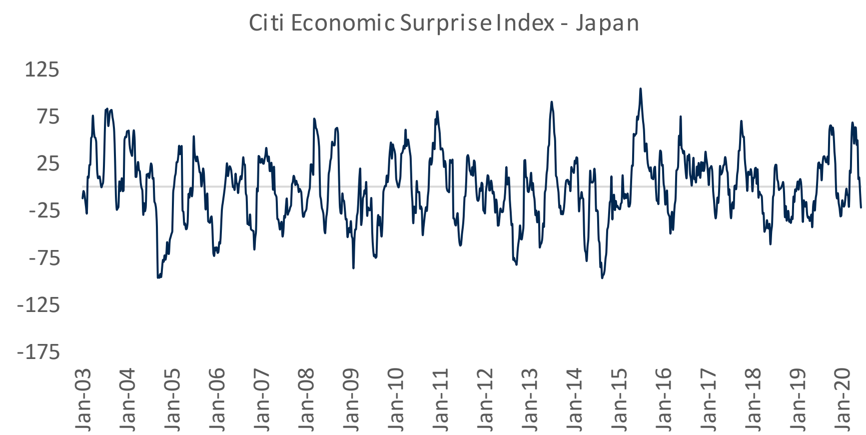
Positive Economic Surprises Returned to the US but may be Peaking, Earlier Days for Europe

Key Takeaways

- Positive economic surprises have returned to the US, and China. However, in the US they've returned to levels that tend to mark the top.
- Economic surprises have remained negative for Europe and Japan. The trend is improving for Europe but deteriorating for Japan.





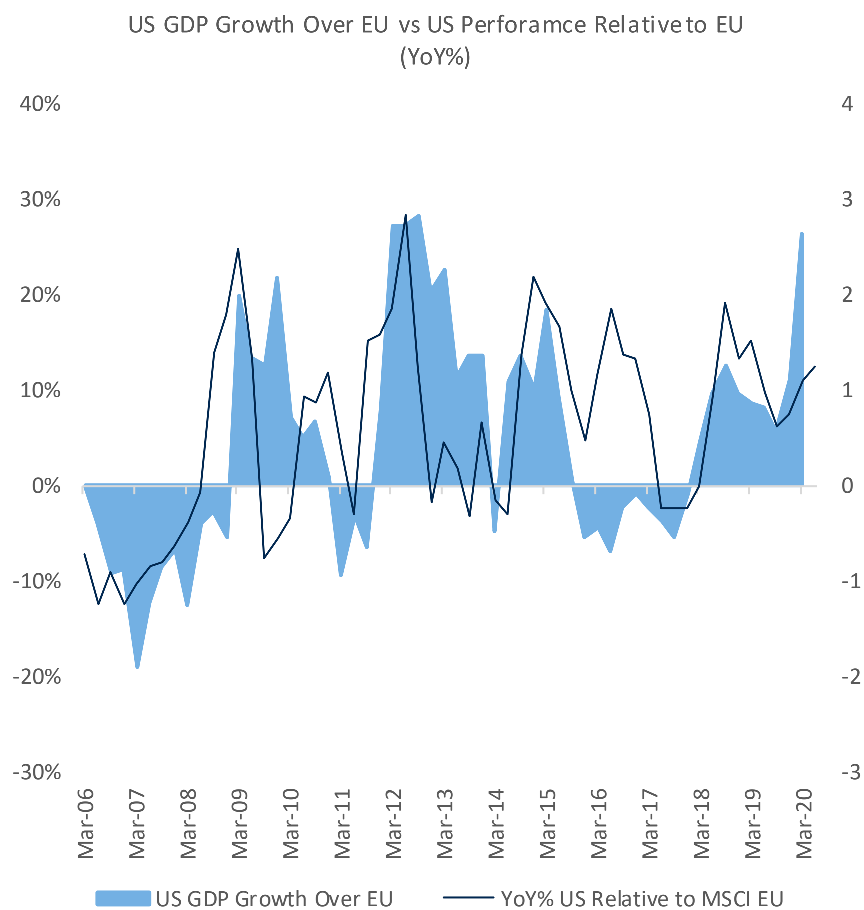


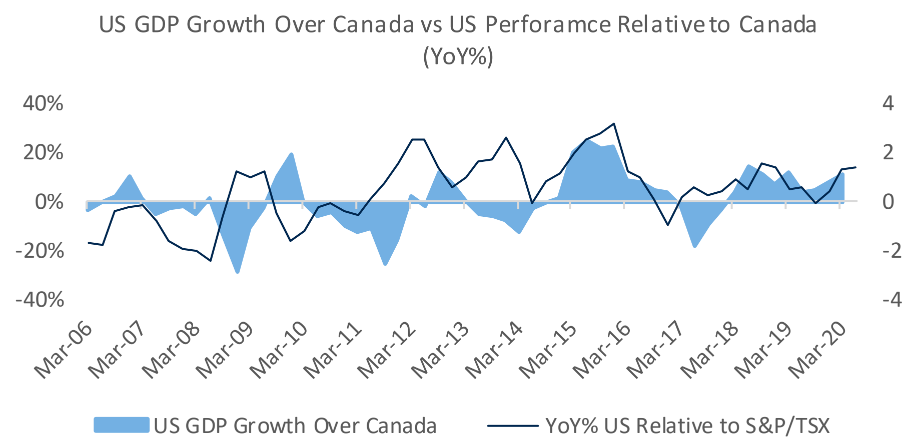
Source: RBC US Equity Strategy, Bloomberg; as of June 19th, 2020

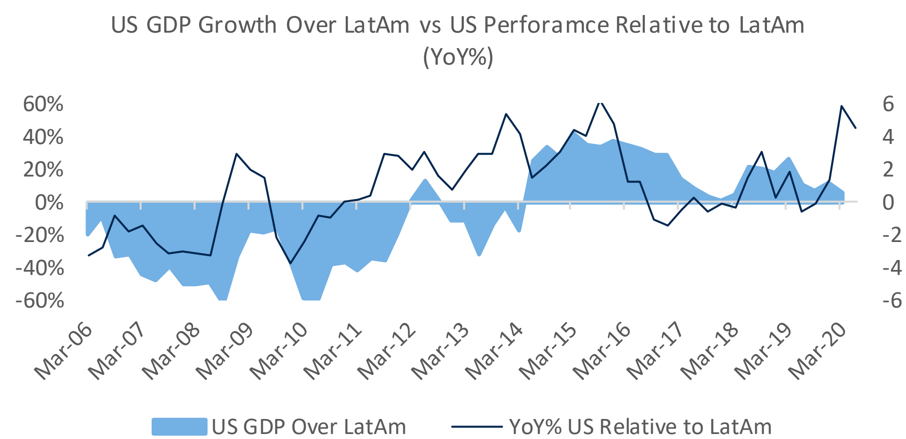
Superior Economic Growth in the US has Driven Better Equity Returns

Key Takeaways

- The relationship between long term economic growth (output) and equity returns can be observed on a regional level. As the US' economic growth has outpaced the EU's economic growth, US equity returns have also outpaced those of European stocks. This relationship also seems to hold in the long term when comparing regions such as Canada and Latin America to the US. Since the start of 2018, we have seen the economic relationship favor the US over these two regions, and equity market performance has also been superior.





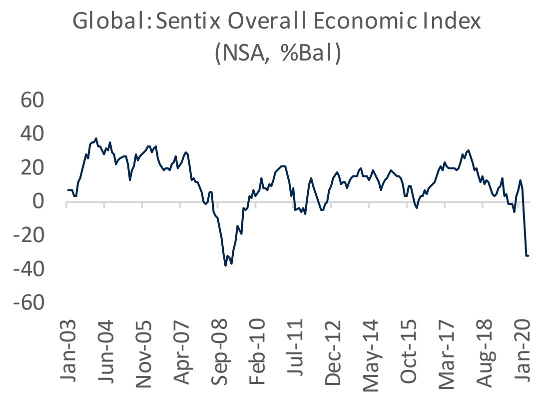


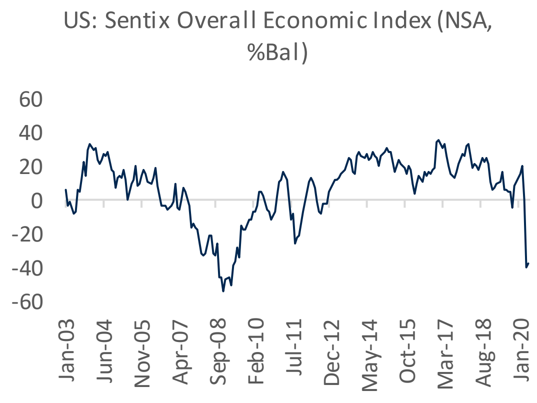
Source: RBC US Equity Strategy, Bloomberg, Performance as of 06/11/2020

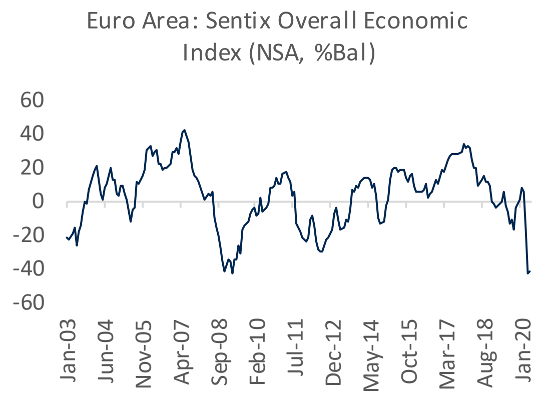
Global Economic Surveys Have Fallen Sharply

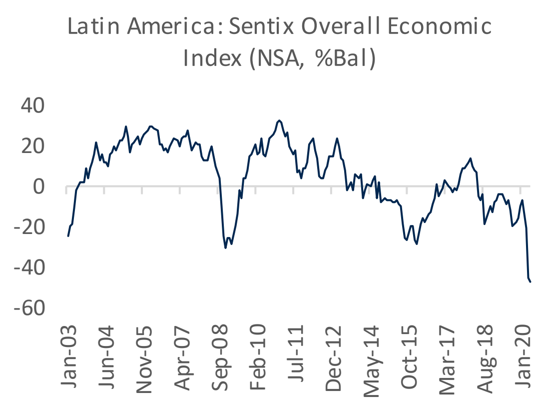
Key Takeaways

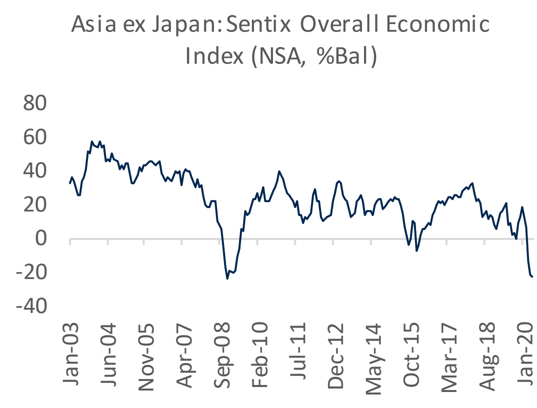
- The global aggregate economic gauge provided by the Sentix surveys turned deeply negative on a global basis, and fell sharply in every major region that we track. Most are close to Financial Crisis lows but aren't quite back to them.

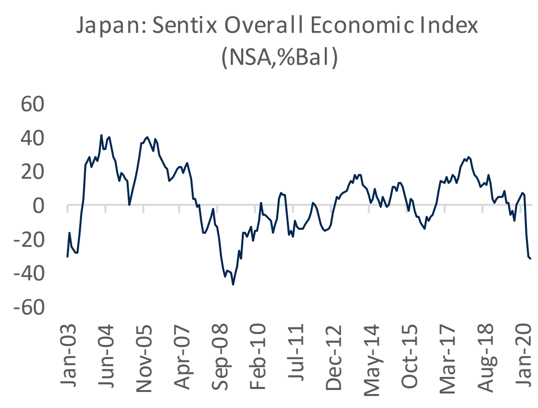










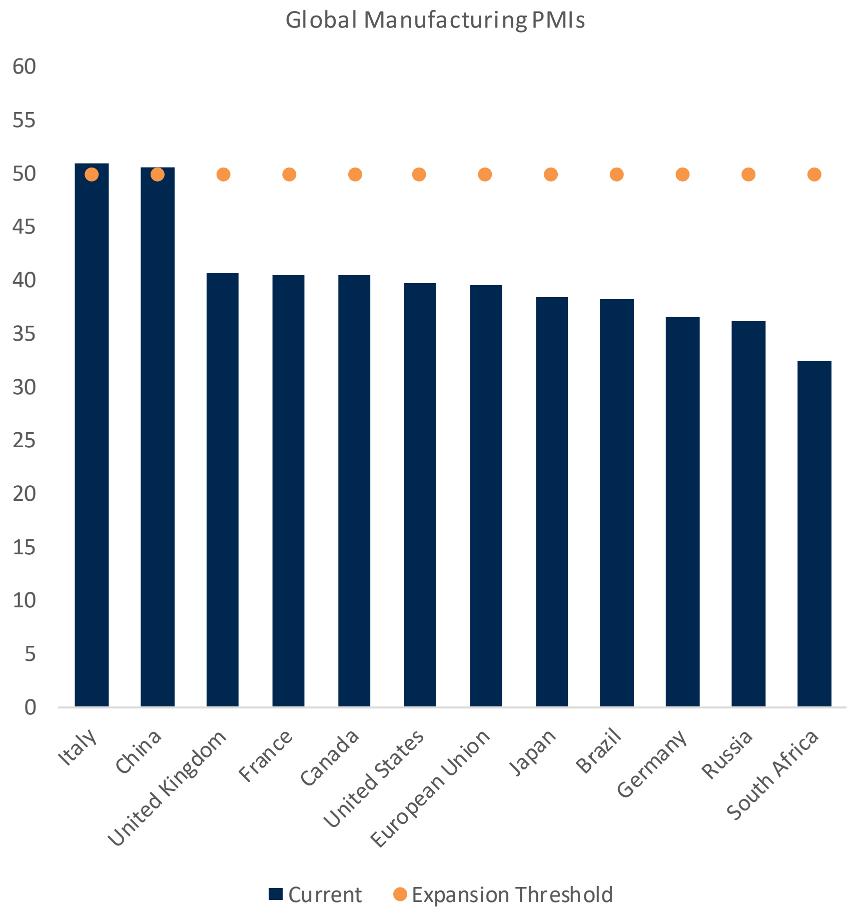


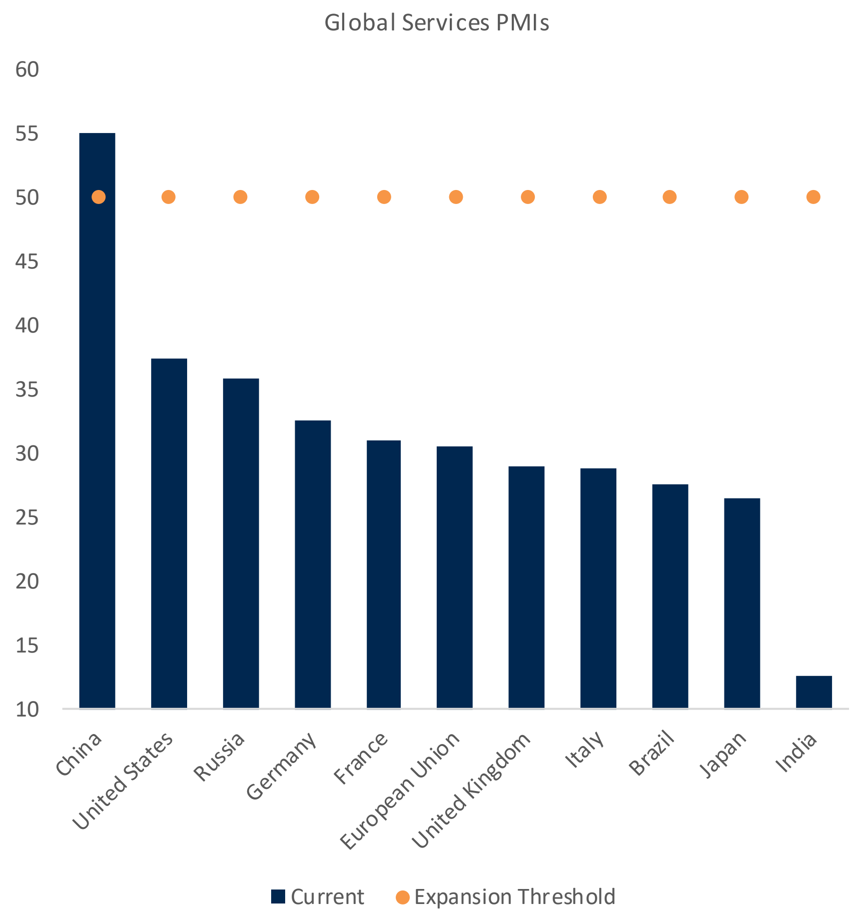
Source: RBC US Equity Strategy, Haver, Sentix, Sentix Overall Economic Indices are based on monthly surveys of around 4500 respondents (over 1,000 institutional and almost 4000 individual investors) on their expectations for economic developments. The Sentix survey results are representative of a broadly diversified group of investors.

Global PMIs Look Better for Manufacturing Than Services

Key Takeaways

- As of the end of May, third party PMIs for the manufacturing industry and services were in contraction territory (below 50) for almost every country that we track, with the exception of China and Italy. Generally, however, levels were higher for manufacturing than Services, which have been deeper in contraction territory.
- The US has been middle of the pack on manufacturing and resilient on Services.





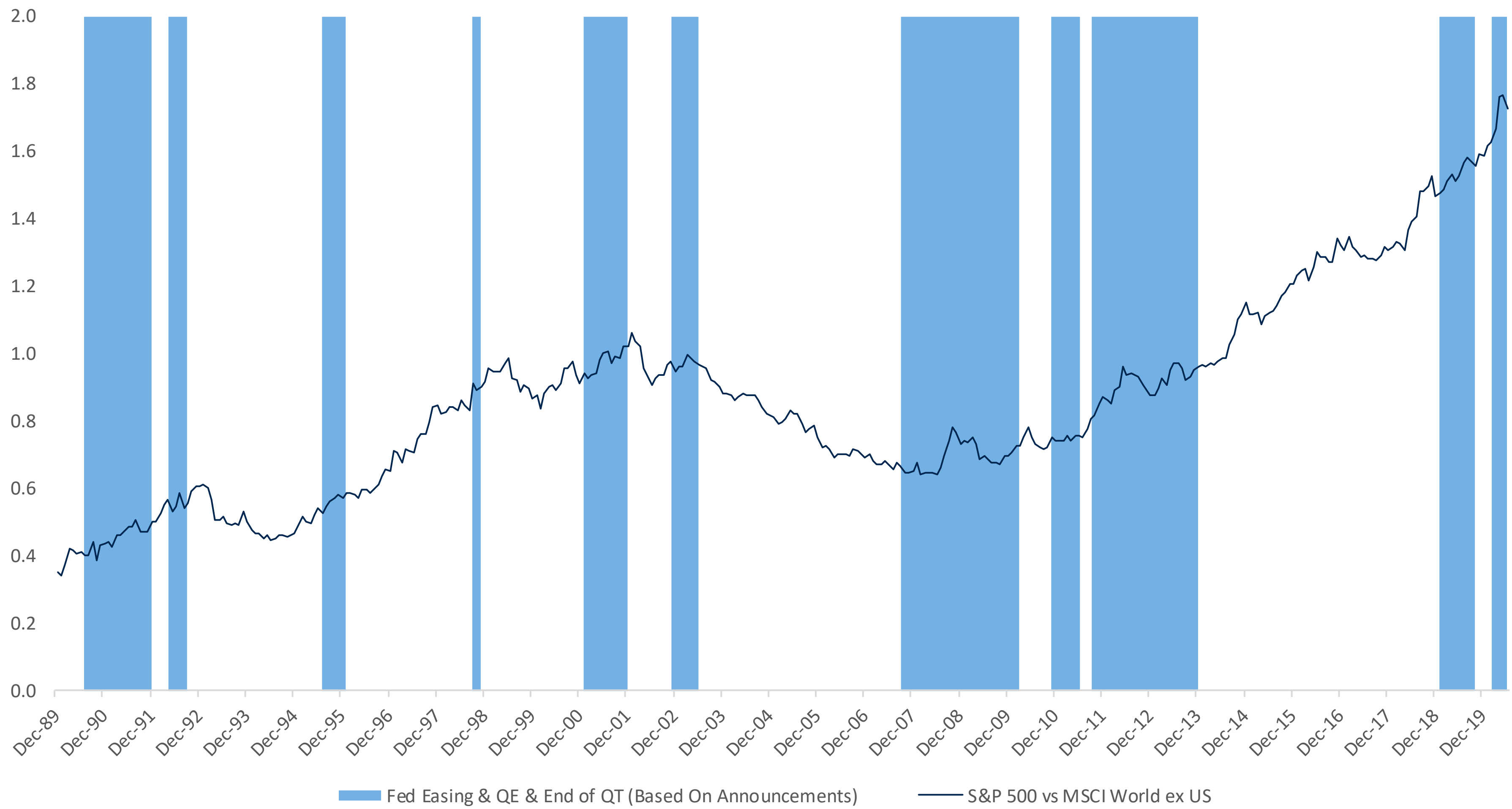
Source: RBC US Equity Strategy, Bloomberg, IHS Markit, Regions in focus shown for G10 + BRICS countries, where available. As of end of May

US Equities Tend to Outperform Non-US Equities When the Fed is Easing or in QE Mode

Key Takeaways

- Amid the cutting/easing of the early 1990s, the mid 1990s, the early 2000s, and the Financial Crisis era, the S&P 500 generally outperformed non-US stocks. After pausing for several months, the Fed is back in easing mode again, with 50 bps of emergency cuts in early March 2020 and new rounds of QE. Powell has indicated that policy is likely to stay accommodative for quite some time.

S&P 500 Performance Relative to MSCI World ex US During Fed Easing/QE Cycles

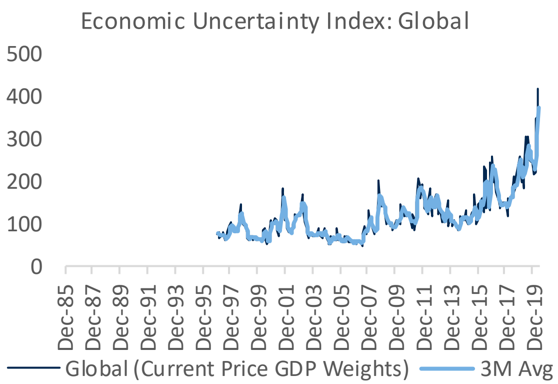


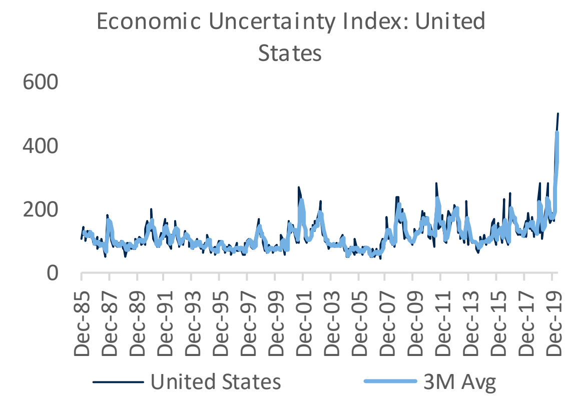
Source: RBC US Equity Strategy, Bloomberg, MSCI, Haver; as of June 11th, 2020

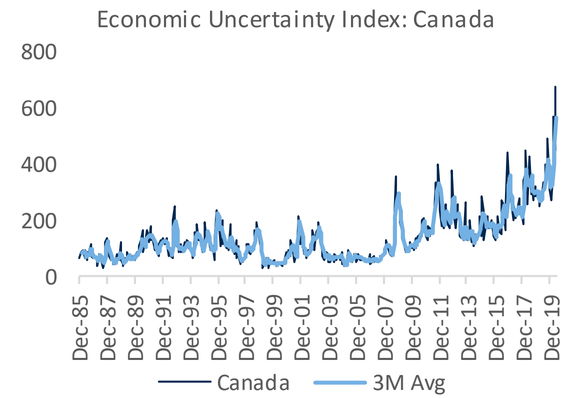
Economic Uncertainty has Risen Sharply Around the Globe due to the Pandemic

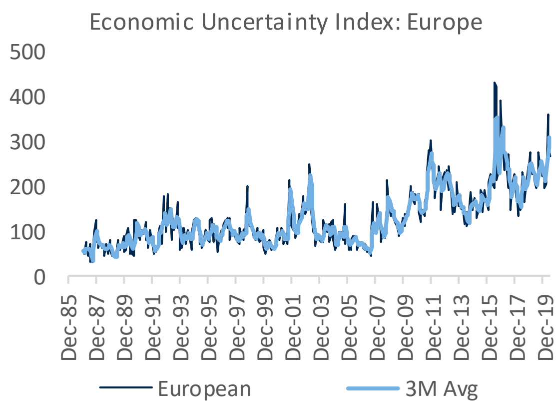
Key Takeaways

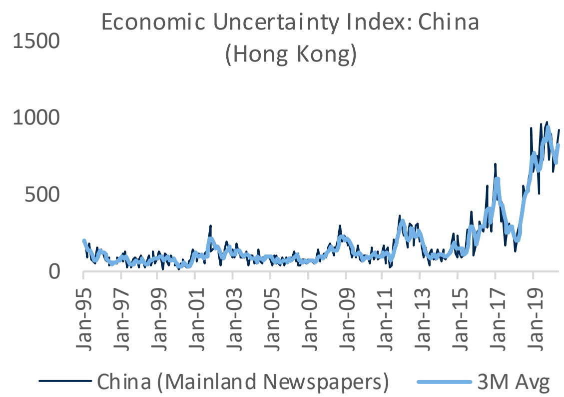
- For the most part, economic uncertainty decreased for most of the regions that we track in January and February, but remained elevated relative to history globally and in China.
- They surged again in recent months, ex China, amidst the pandemic.

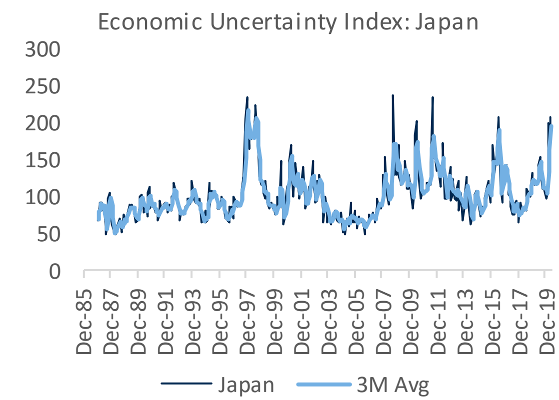










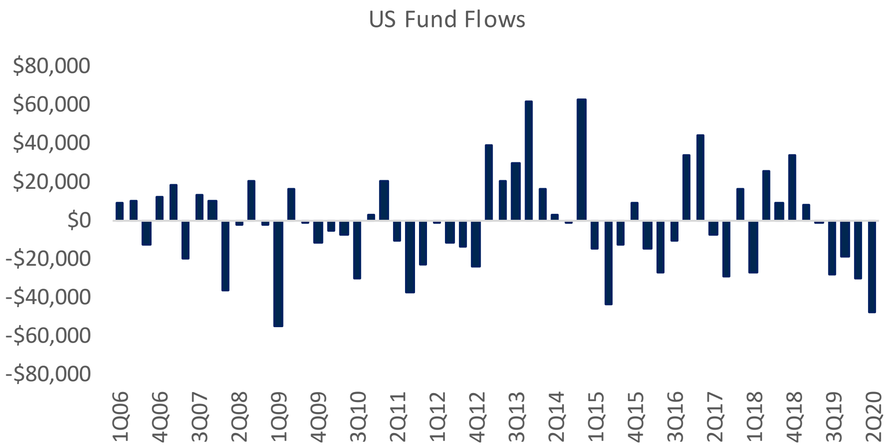


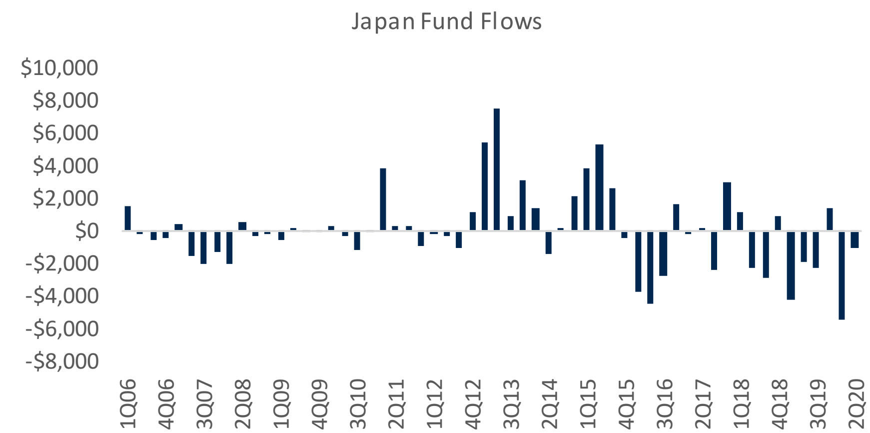
Source: RBC US Equity Strategy, Bloomberg, Baker, Bloom & Davis

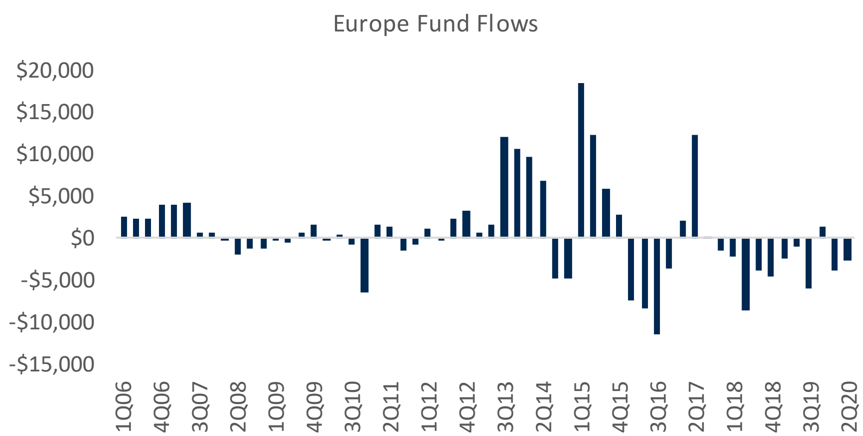
Outflows From US Equity Funds Have Persisted on Morningstar's Data; Non-US Flows Also Weak

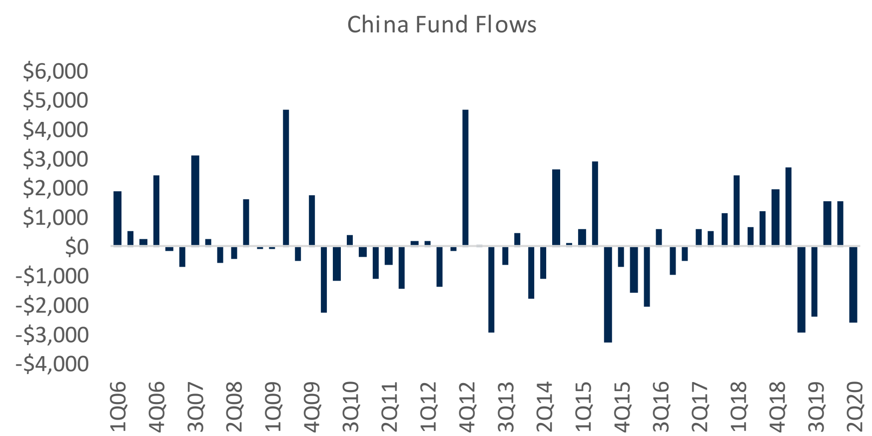
Key Takeaways

- This data captures flows to both actively managed and passively managed funds.
- Outflows returned to US equity funds in late 2019. They've persisted so far in early 2020 (through May).
- Outflows have also been present among non-US equity funds.







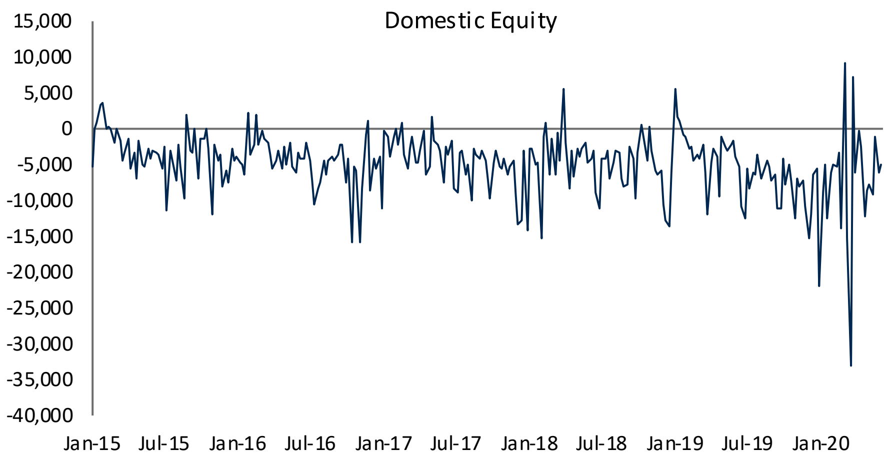


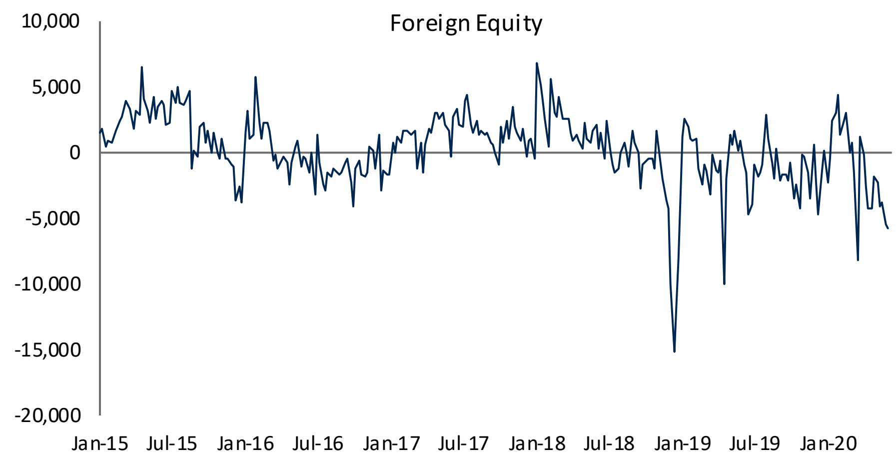
Source: RBC US Equity Strategy, Morningstar

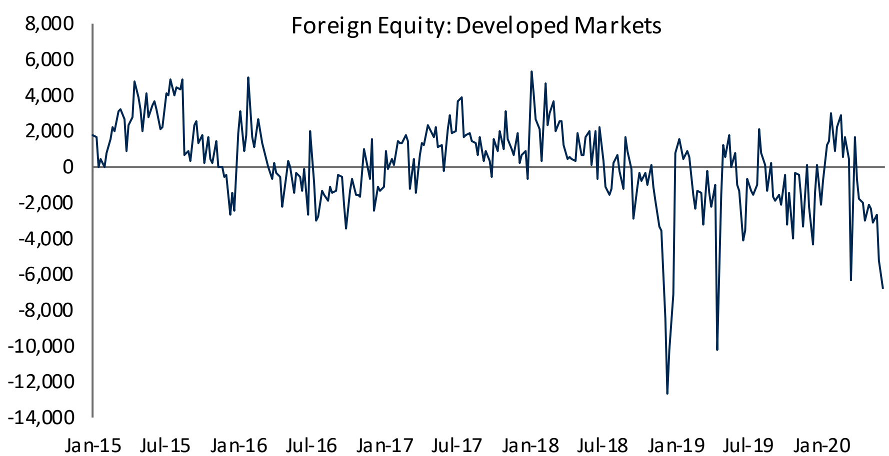
Equity Outflows Have Been Seen Recently Both Domestically & Abroad in Weekly ICI Data

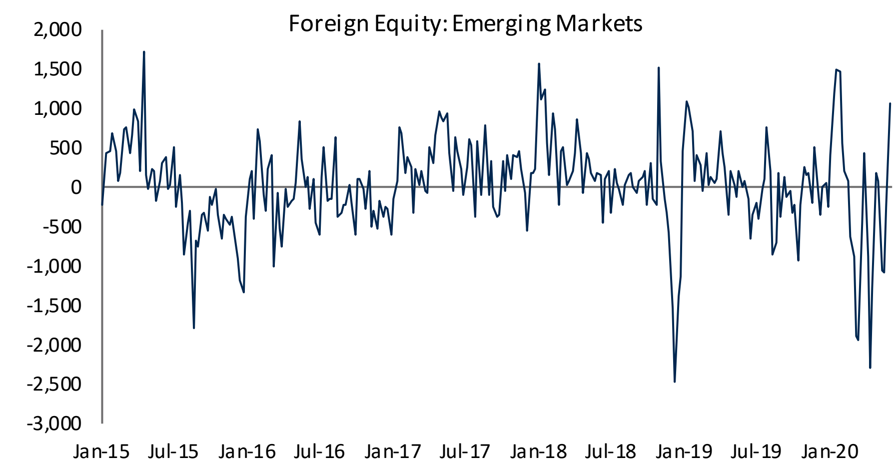
Key Takeaways

- ETFs are not included in these data series. Long-term mutual funds are captured.
- According to the weekly data series from the Investment Company Institute, long-term equity funds have seen outflows, both domestically focused funds and foreign focused funds.
- Outflows have been more severe in funds that focus on Developed Markets than Emerging Markets focused foreign equity funds in recent weeks, though EM flows did turn positive in the latest update.







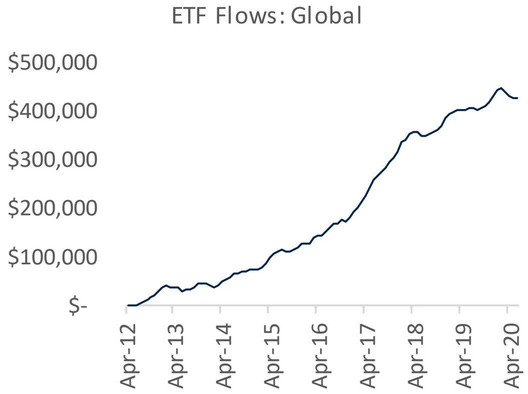


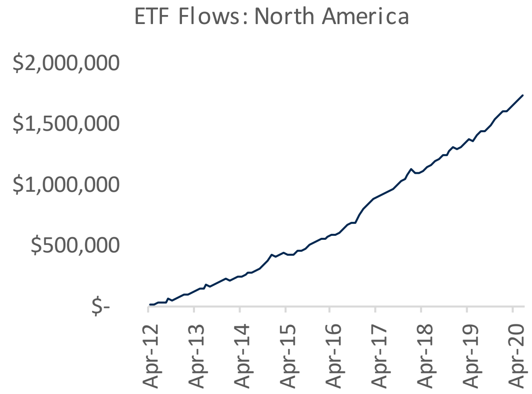
Source: RBC US Equity Strategy, Haver Analytics, ICI. As of 06/10/2020.; Does not include data on Exchange-Traded Funds (ETFs)

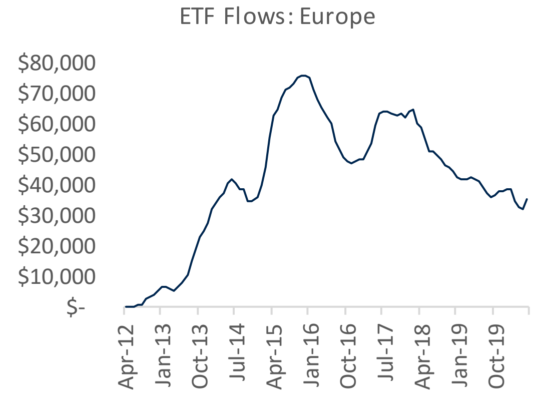
North American ETF Flows Still Strong; Europe, Asia, EM, & Lat Am Deteriorating

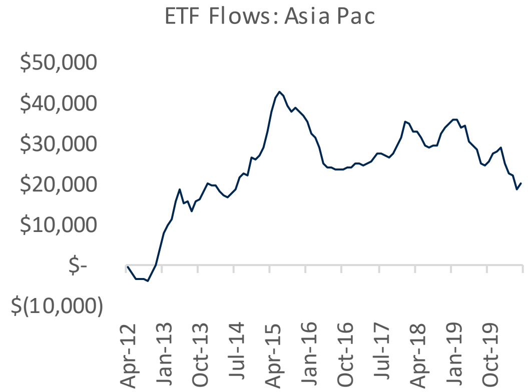
Key Takeaways

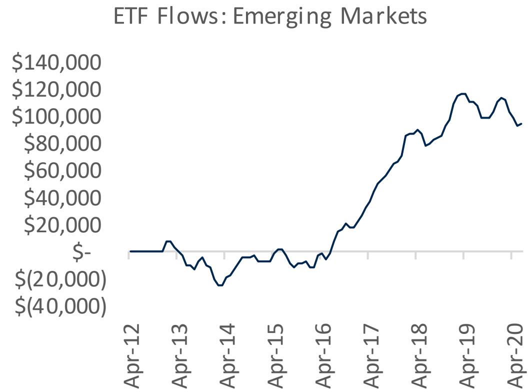
- Cumulative flows into regional ETFs have increased for almost all regions since early 2012, across all asset classes, as the investment vehicle has made investing in different markets more accessible.
- All of the major non-US regions are showing signs of deterioration very recently, while the US has stayed strong.

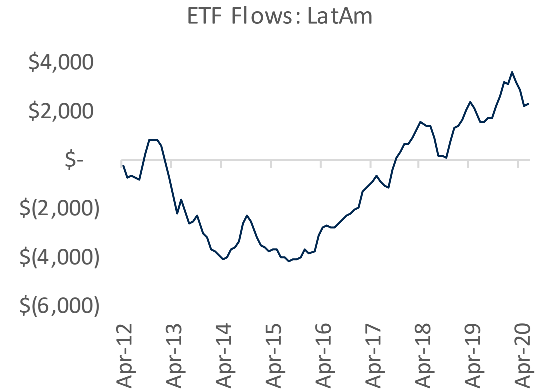












Source: RBC US Equity Strategy, Bloomberg; as of June 18th, 2020

Large Cap Growth/Value Outlook

Our Latest Thoughts on the DRIVERs of the Style Trade

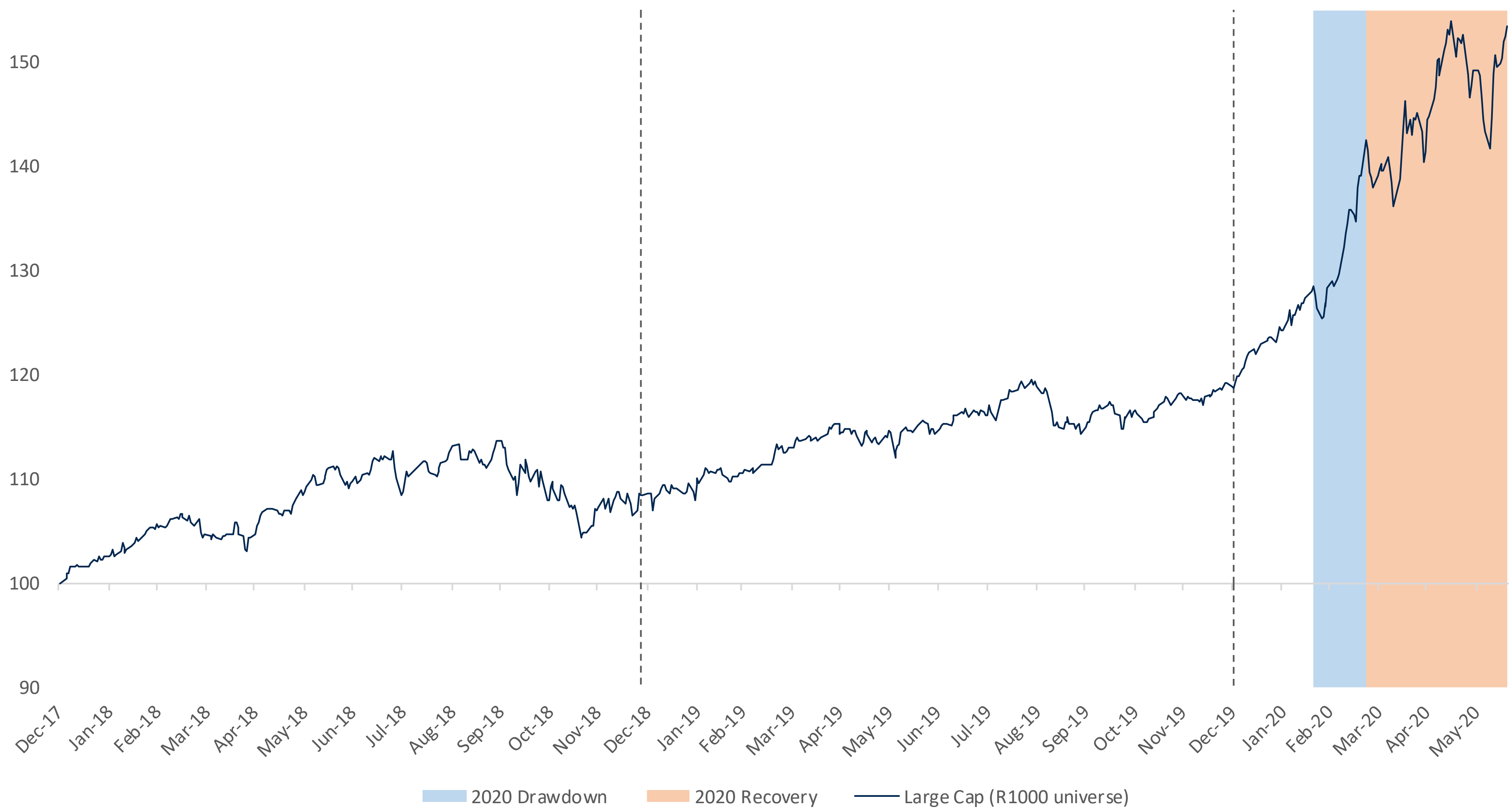
Capital Markets

Growth Leadership has Persisted in Early 2020, Despite Several Takeover Attempts by Value

Key Takeaways

- Growth outperformed fairly consistently throughout the early 2020 pandemic drawdown. In the rebound since March 23rd, Value has made several attempts to assert leadership, even posting its largest weekly outperformance over Growth in the first week of June. But this outperformance did not last more than one week.
- Twists and turns in the Growth/Value trade, with ultimate leadership from Growth, was also something that happened in the post Financial Crisis QE era. We expect further choppiness in this trade going forward.

Large Cap (R1000) Growth Performance Relative to Value

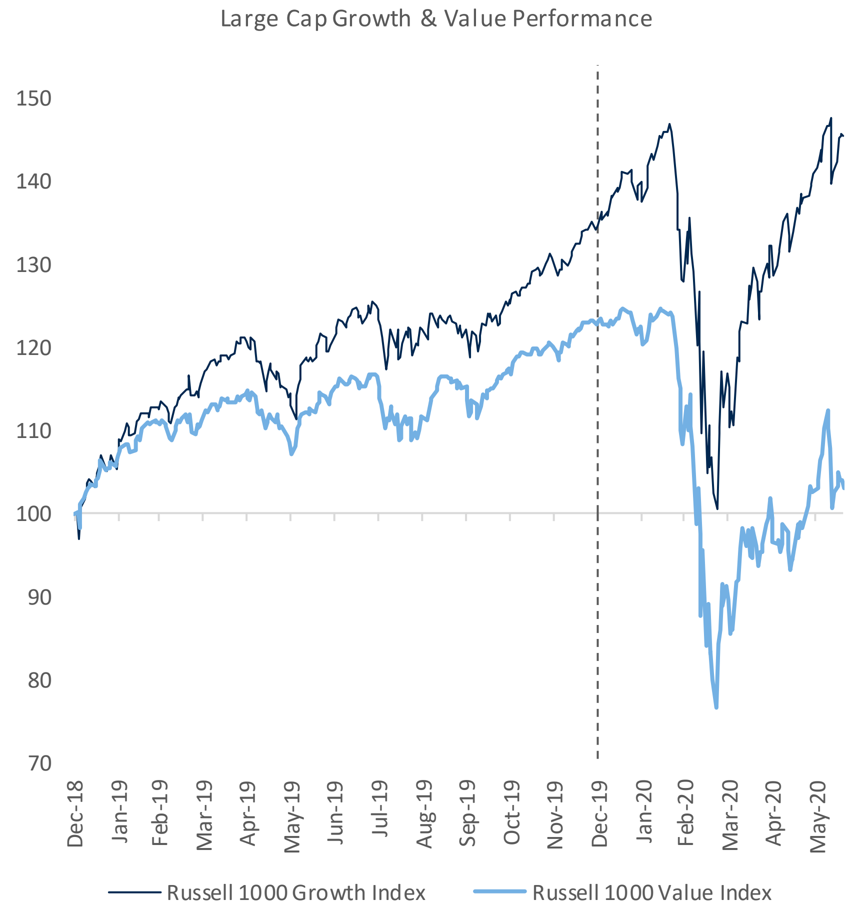


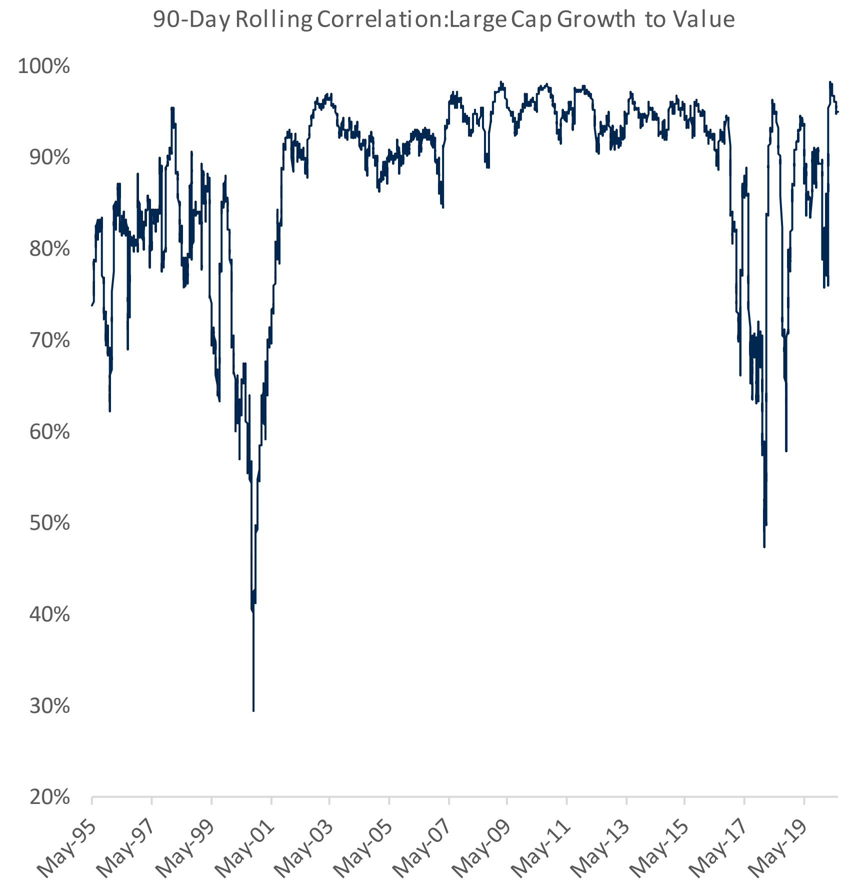
Source: RBC US Equity Strategy, Russell, Bloomberg;; as of June 19th, 2020

Breakdown in Trend Between Growth & Value was Signaling Trouble Ahead

Key Takeaways

- Normally, Growth and Value performance tends to be fairly well correlated. We did see a breakdown in the correlation between the two, however, in recent years.
- The last time that occurred in a major way was in the late 90's and during the Financial Crisis.





Source: RBC US Equity Strategy, Russell, Bloomberg;; as of June 19th, 2020

DRIVERs Rundown for the Large Cap Style Trade – Mixed Signals

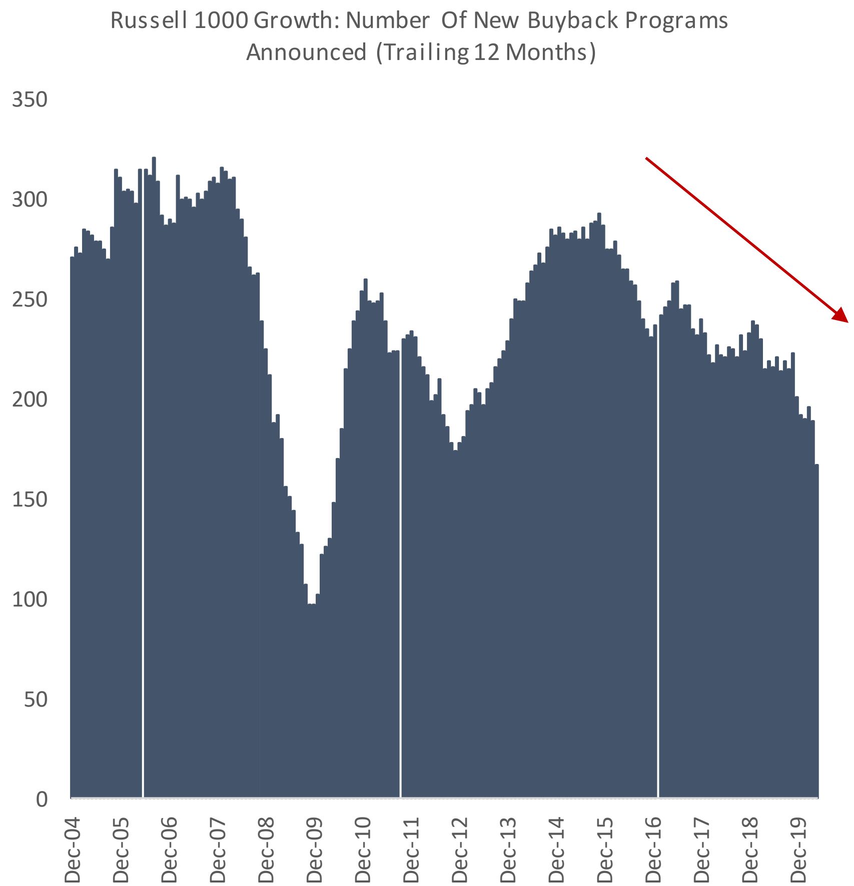
Deals and Cash Deployment	***Neutral*** ▪ Buyback announcements and the percent of companies reducing share counts were slipping in both styles even before the pandemic. ▪ Dividends are more appealing in Value than Growth on yields. Both styles are seeing a spike in companies cutting their dividend rate. ▪ Capex trends (through 1Q20) have weakened for both styles, with greater deterioration in Growth. ▪ Debt levels and interest expense are higher in Value than Growth, and we see more evidence of debt pay-down in Growth than Value. Still, debt maturities are shorter in Growth than Value.
Revisions/ Earnings Trends	***Slightly favors Growth*** ▪ Earnings sentiment (the percent of revisions to the upside) collapsed for both Growth and Value in March and April to Financial Crisis lows. Both have since rebounded sharply, with a slightly better recovery in Growth. ▪ Long-term EPS growth expectations have continued to shift in favor of Growth. ▪ Through 1Q20, margins have been fairly stable in Growth, while contracting for Value.
Investor Sentiment and Positioning	***Slightly Favors Value*** ▪ Sell-side sentiment (net buy ratings) has favored Growth. ▪ Asset manager positioning in Nasdaq futures (a proxy for secular Growth) has been elevated near the highs of the past few years, evidence of crowding, but has been extremely low for the Russell 2000, a proxy for Value. ▪ The performance of popular hedge fund longs (another proxy for the Growth trade) deteriorated in late May/early June, but has bounced back in mid June, suggesting active managers are eager to stick with the secular Growth theme.
Valuation	***Slightly Favors Value*** ▪ The Growth trade lacks the deep valuation appeal relative to Value that has been in place for most of its bull run since the Financial Crisis. We see this in our Combo model (which incorporates 34 different weighted and unweighted metrics) as well as a simple relative FY2 P/E. Growth's overvaluation is not as extreme as 1999-2000, but has been at the highest levels seen since the Financial Crisis.
Economy and Policy	***Slightly Favors Growth*** ▪ Normally at the end of a bull market style leadership shifts. The Tech bubble peak saw leadership shift from Growth to Value, and the Financial Crisis marked a shift from Value to Growth. This hasn't happened in 2020, as Growth has survived several takeover attempts by Value. ▪ Growth beat Value within Large Cap in 2 of the past 3 recession recovery trades. ▪ Historically, a steeper yield curve (which usually signals a reinvigoration of economic expectations) is needed to get Value outperforming. ▪ For Value to lead, Financials need to outperform and this seems unlikely without a sustained upward move in the 10 year yield. ▪ Fed stimulus benefited the Growth trade in the post Financial Crisis period, despite a number of twists and turns in the style trade. ▪ In recent years, investors have flocked to Growth whenever economic growth has been expected to be positive but sluggish, and that's what we expect the post pandemic economy in the US to look like.
Retail Money Flows	***Neutral*** ▪ Both Growth and Value have seen outflows YTD when actively managed funds and passively managed funds flows are combined. But monthly trends indicate that trends have been improving for Growth recently, driven by inflows to actively managed funds. ▪ On the ETF side, Value had gotten some support from stronger ETF flows trends in the 2nd half of 2019. So far in 2020, trends between the two styles have been similar, with Growth showing some modest relative strength in the first half of June.

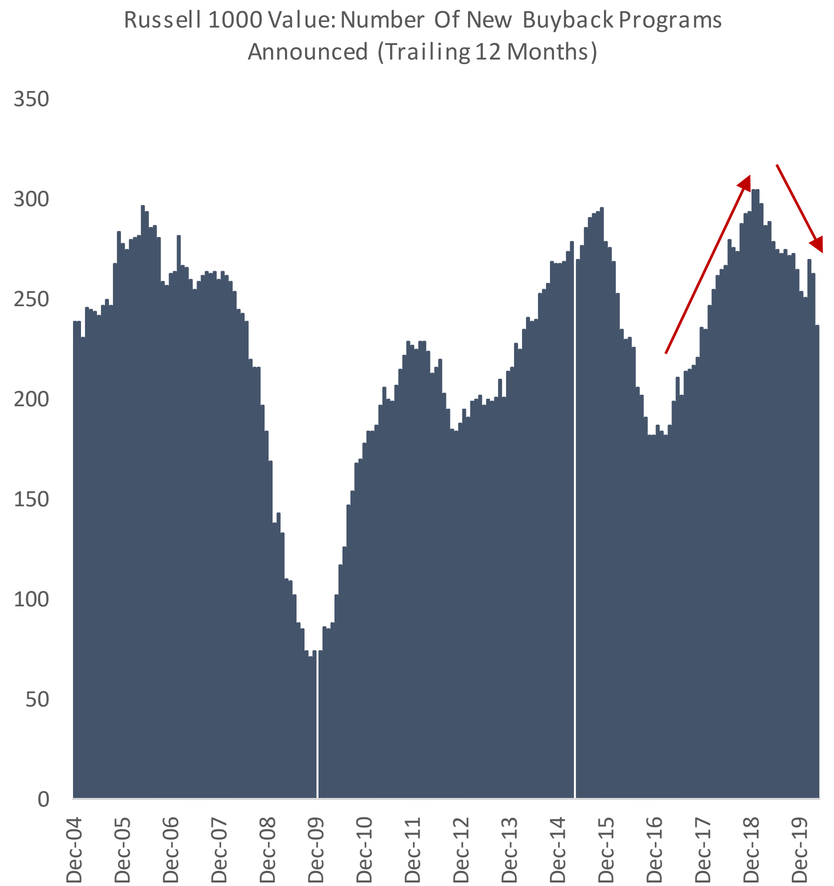
Source: RBC US Equity Strategy

New Buyback Announcements Were Already Slipping in Both Styles Before the Pandemic

Key Takeaways

- New buyback announcements have been in a downtrend for Growth for several years, confirming to us that use of buybacks was poised to fade even before the pandemic.
- Until recently, they were in an uptrend for Value, but they have started to fall there as well.
- Through May 2020.



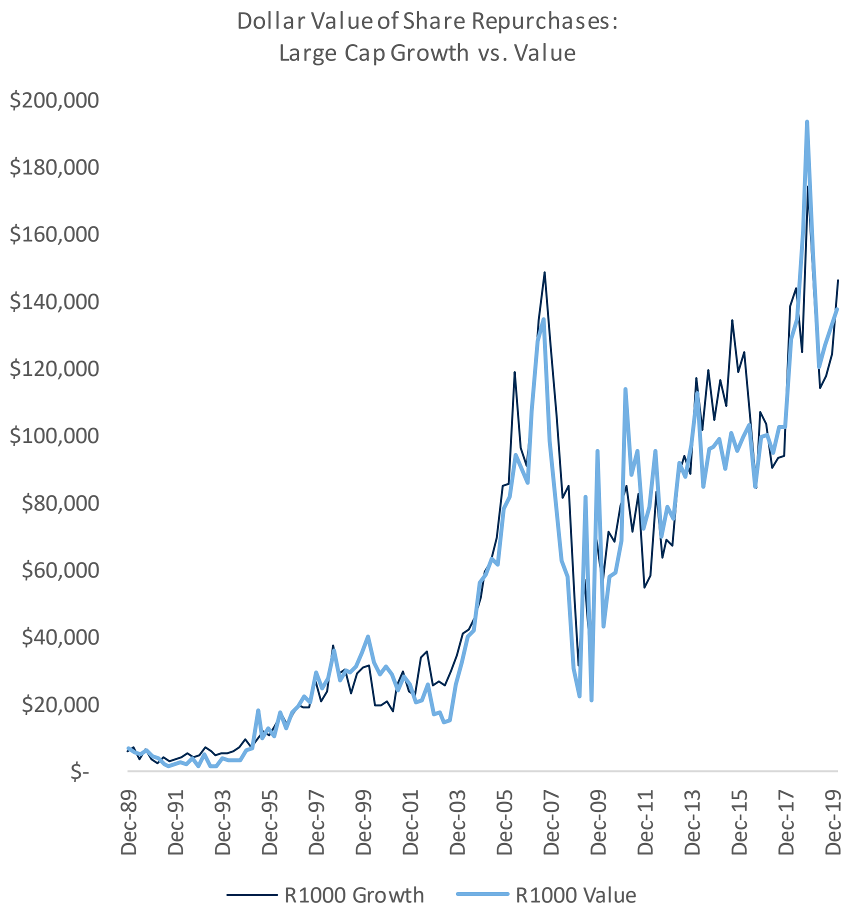


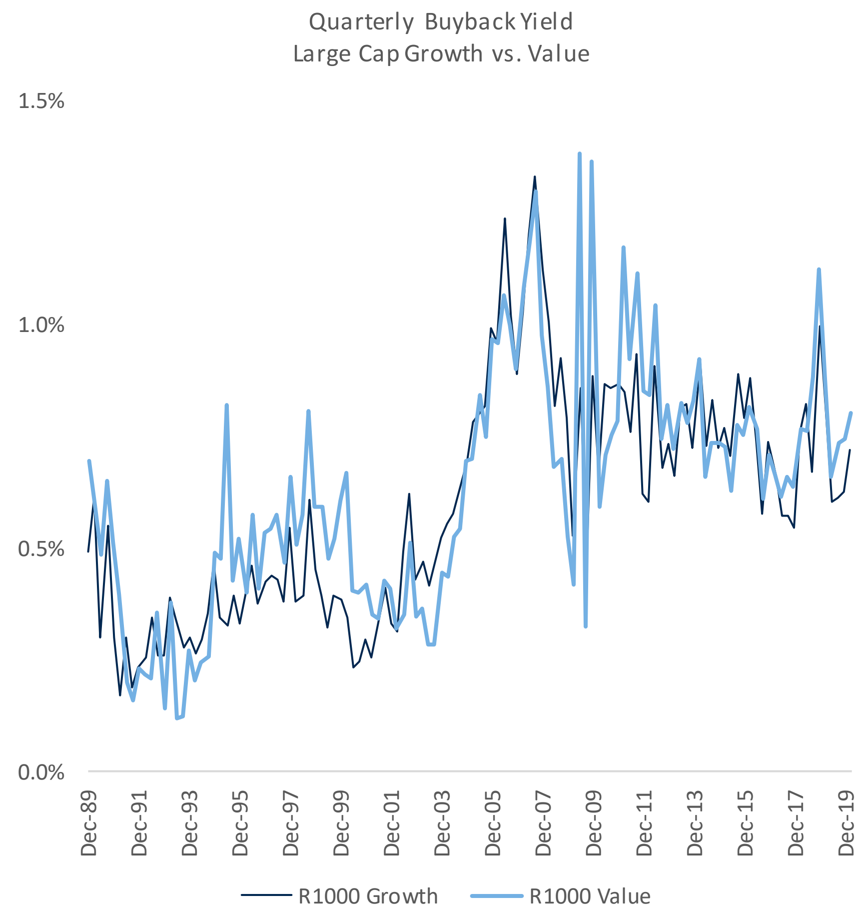
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell

Buyback Impact Lessened in Both Styles in 2019

Key Takeaways

- The Dollar value of share repurchases and buyback yield both fell sharply in early 2019, before stabilizing in the later part of the year.
- Data for 1Q20 revealed more stabilization in these indicators, but these numbers do not capture anything after the end of March.



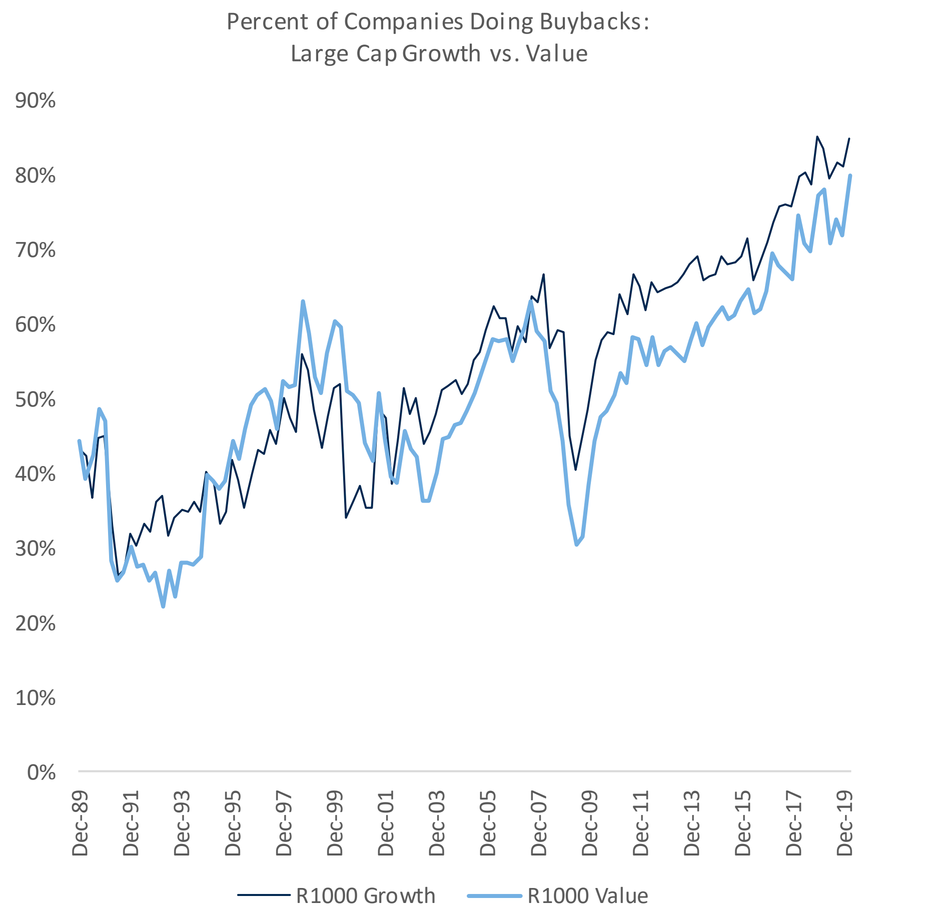


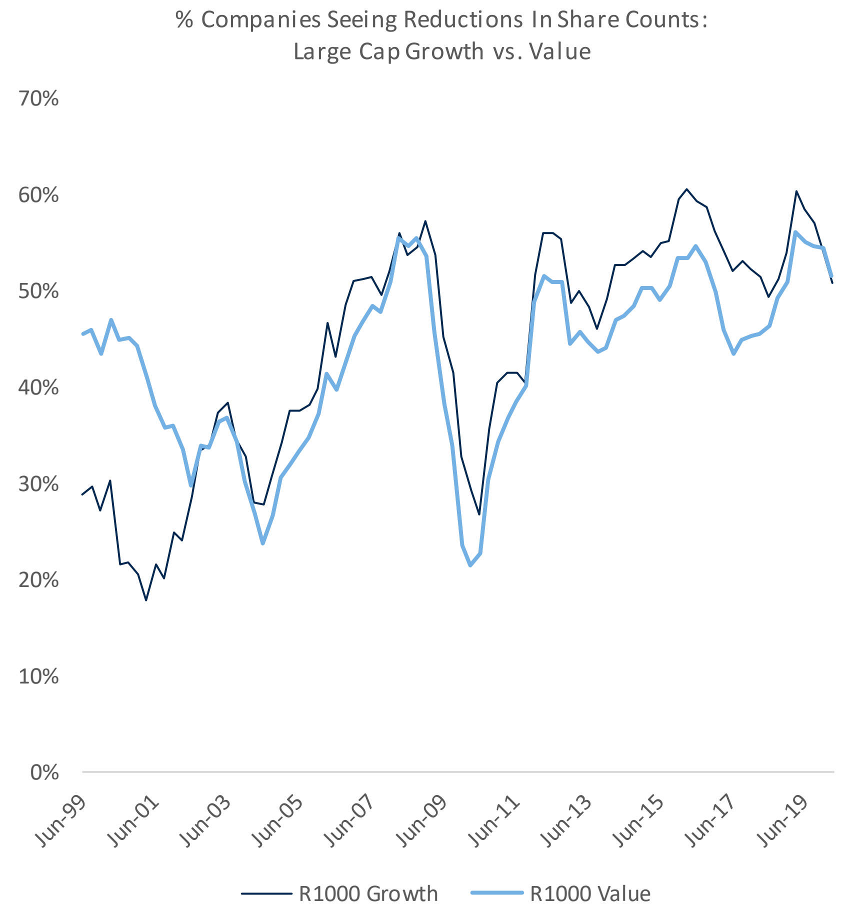
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, Latest data point is final for 1Q20

Some Evidence That Buyback Activity was Slipping in Both Styles Ahead of the Pandemic

Key Takeaways

- Technically, the percent of companies doing share buybacks has been in an upslope for quite some time in both styles, and that trend remained intact in 1Q20.
- But the percent of companies reducing their share counts year-over-year has been slipping for several quarters, a trend that persisted in 1Q20. This is signalling that buybacks have not been enough to offset share issuances.



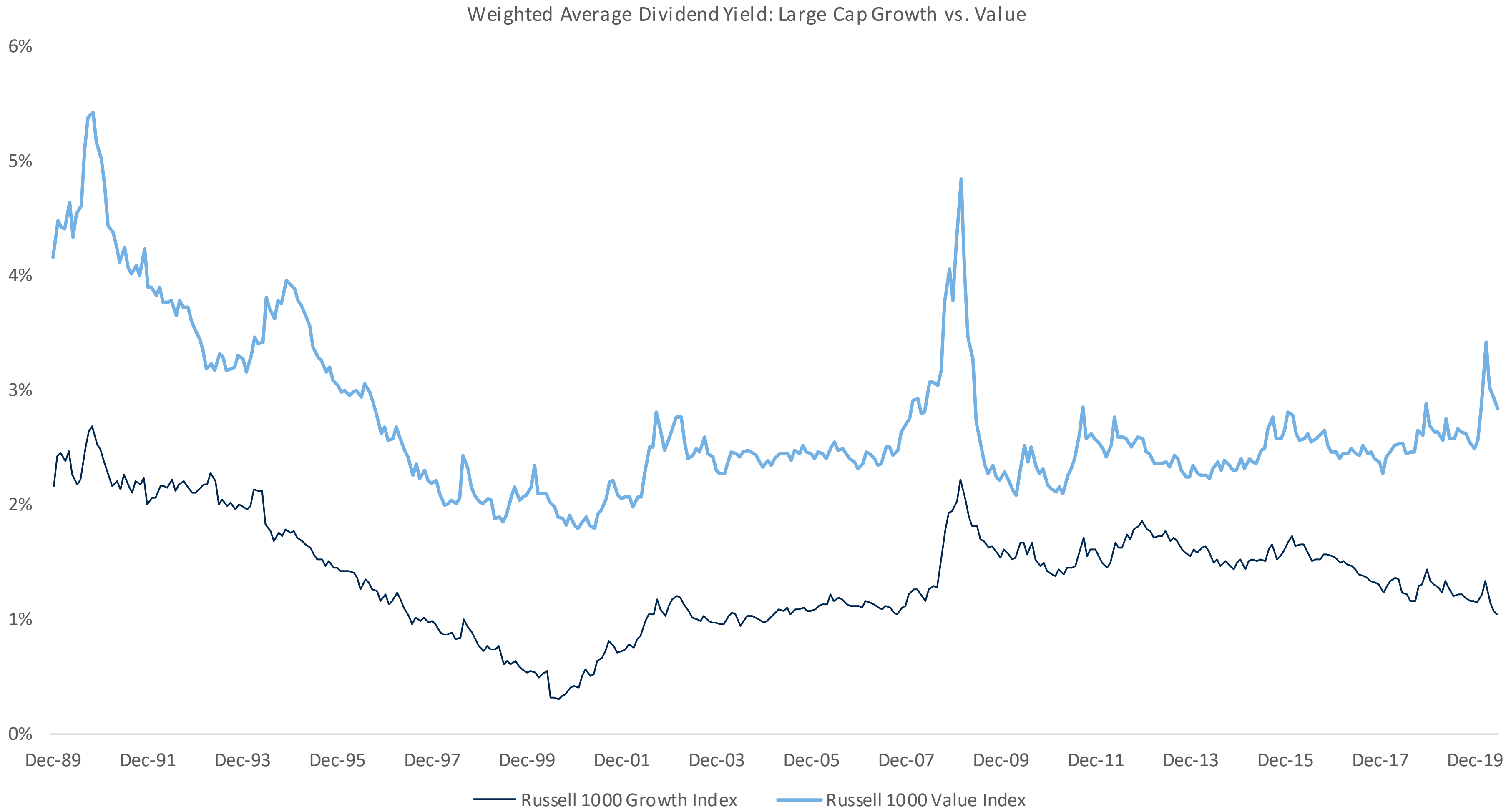


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, Latest data point is final as of 1Q20

Dividend Appeal Higher in Value than Growth

Key Takeaways

- The weighted average dividend yield is higher for Large Cap Value than for Large Cap Growth.
- The trend has also been more favorable for Value than Growth — rising in the former (until recently) and slipping in the latter.

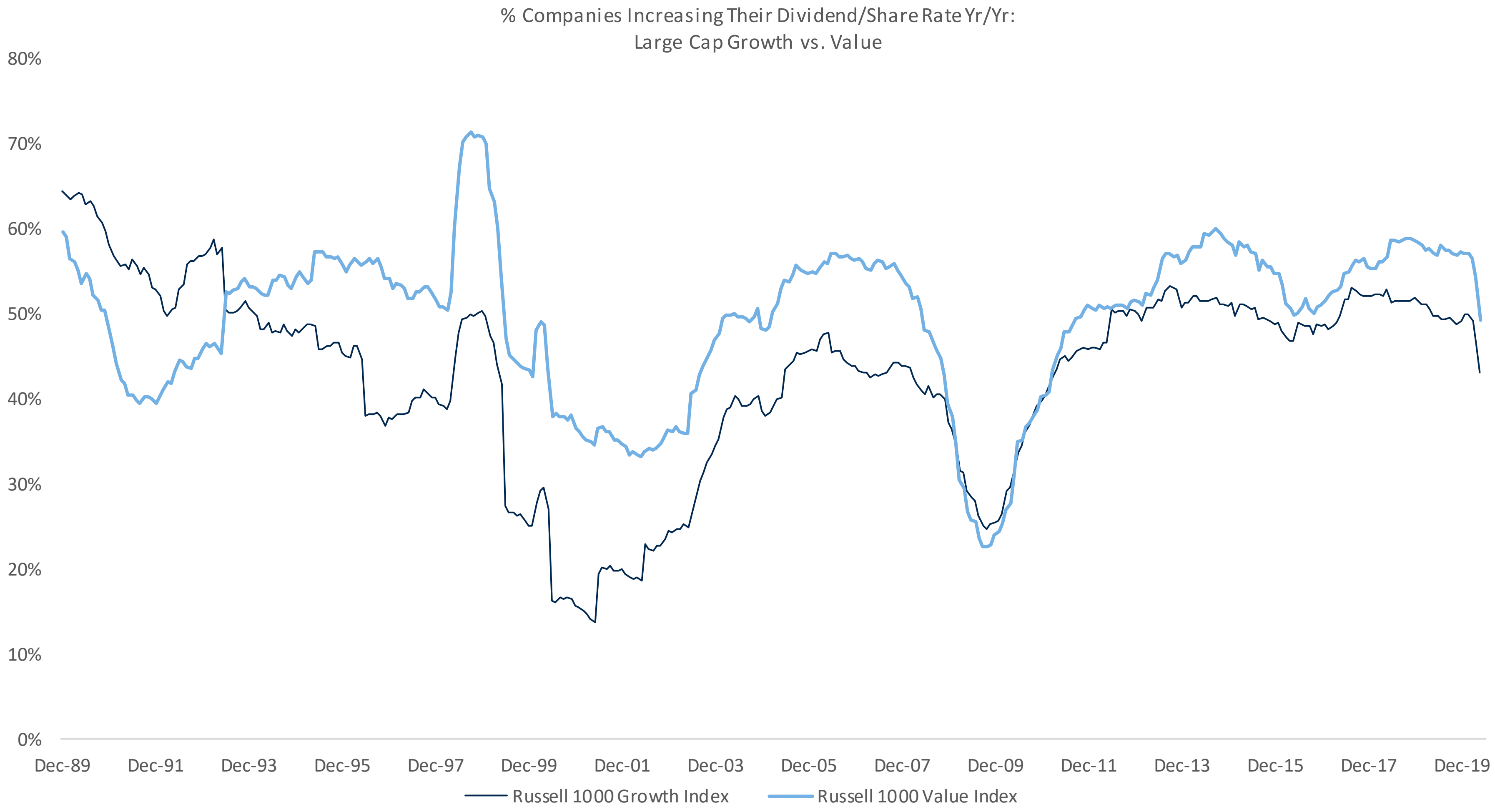


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell; as of June 18th, 2020

Percent of Companies Increasing Their Dividends Falling in Value & Growth

Key Takeaways

- Even before the pandemic, the percent of companies increasing their dividends had stalled for Value and started to slip for Growth.
- Both styles saw dividend increases decline during the industrial recession of 2015-2016 and during the Financial Crisis and Tech bubble. Through the end of May of this year, both styles are seeing a steep deterioration in the number of companies increasing their dividends.

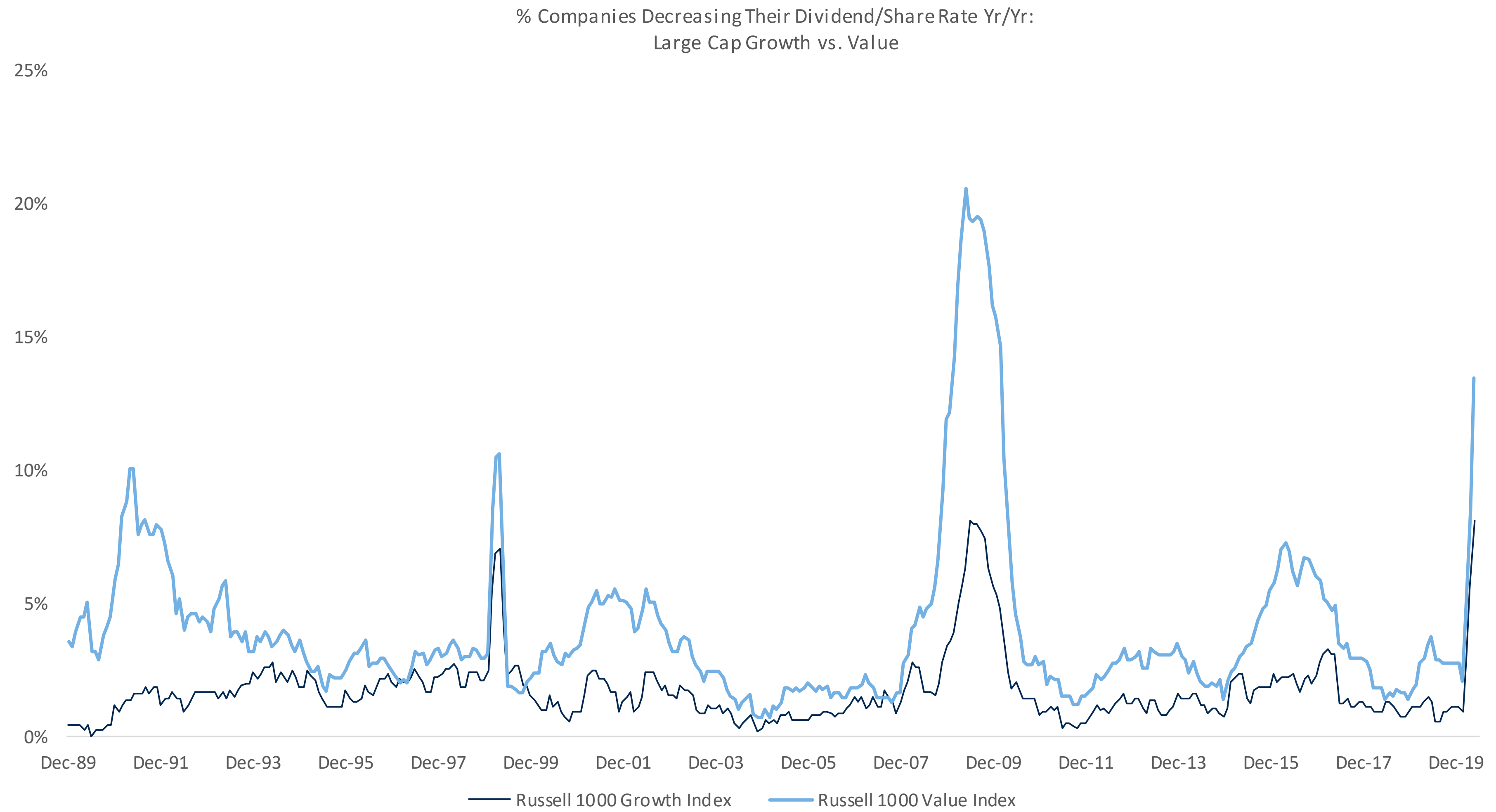


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell

Percent of Companies Decreasing Their Dividends has Spiked Sharply in Both Value & Growth

Key Takeaways

- Historically, companies have reduced or cut their dividends in major crisis periods like the industrial recession of 2015-2016, the Financial Crisis, the Tech bubble, around LTCM, and in the recession of the early 1990's.
- As of the end of May, a spike in the percentage of companies reducing their dividends relative to the prior year has been observed. We are closely monitoring the duration of this spike for temporary or permanent trends.

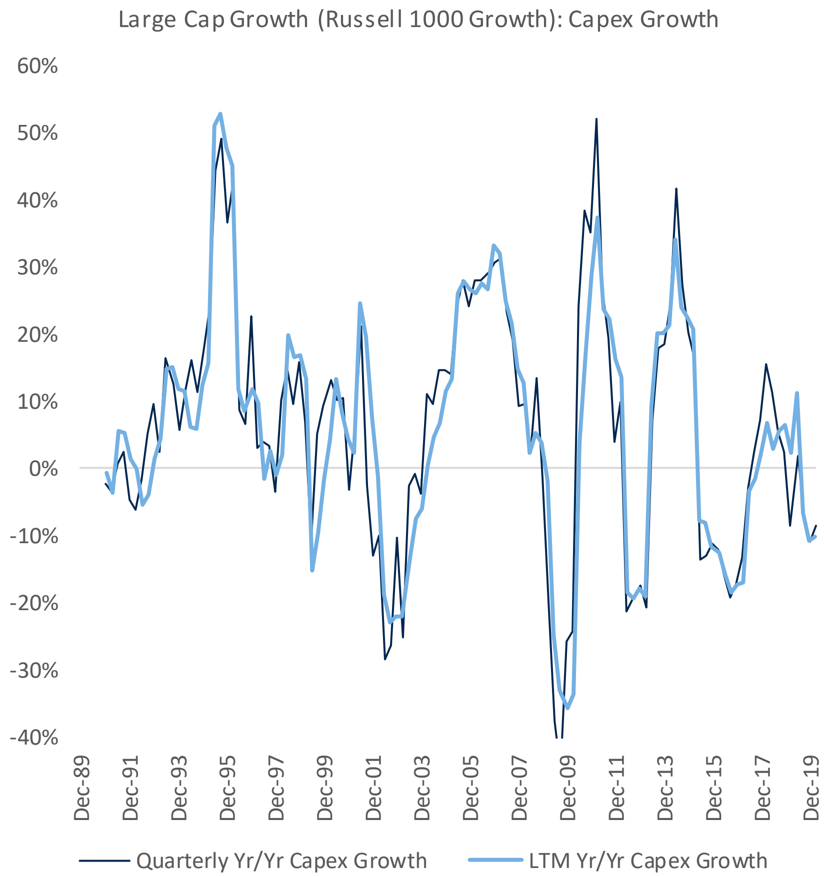


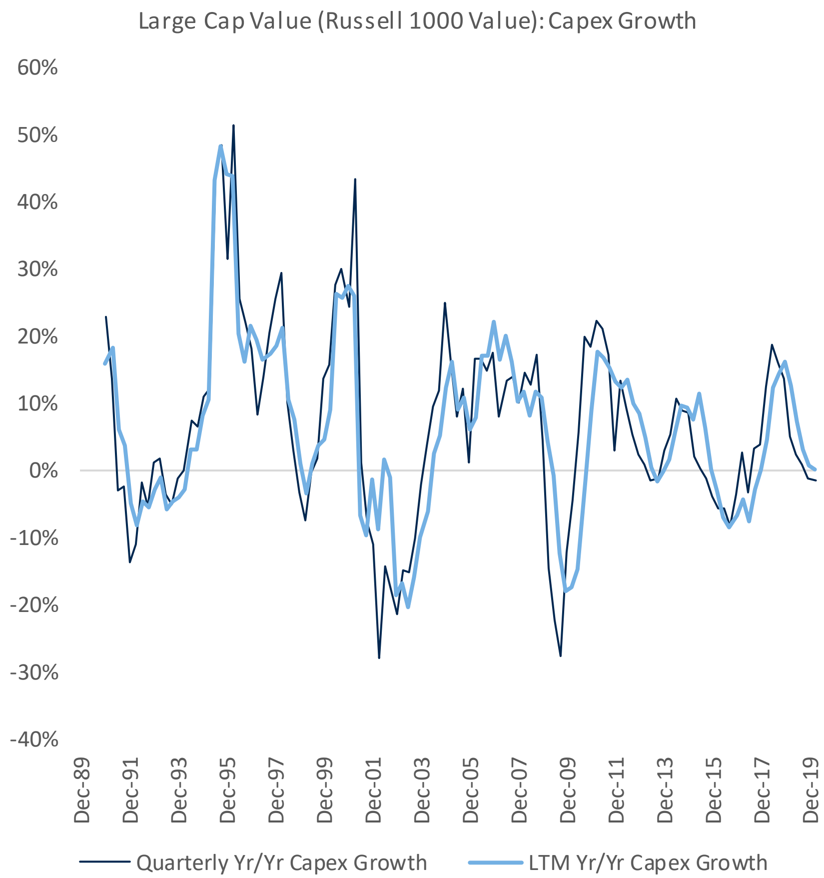
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell

Capex is Contracting for Growth Companies, Remains Weak for Value Companies

Key Takeaways

- Spending weakened in both Growth and Value in late 2019, turning negative in Growth, while trends were more flat in Value.
- Data for 1Q20 showed that this trend continued. Note that any action taken by companies after the end of March is not captured in this data.



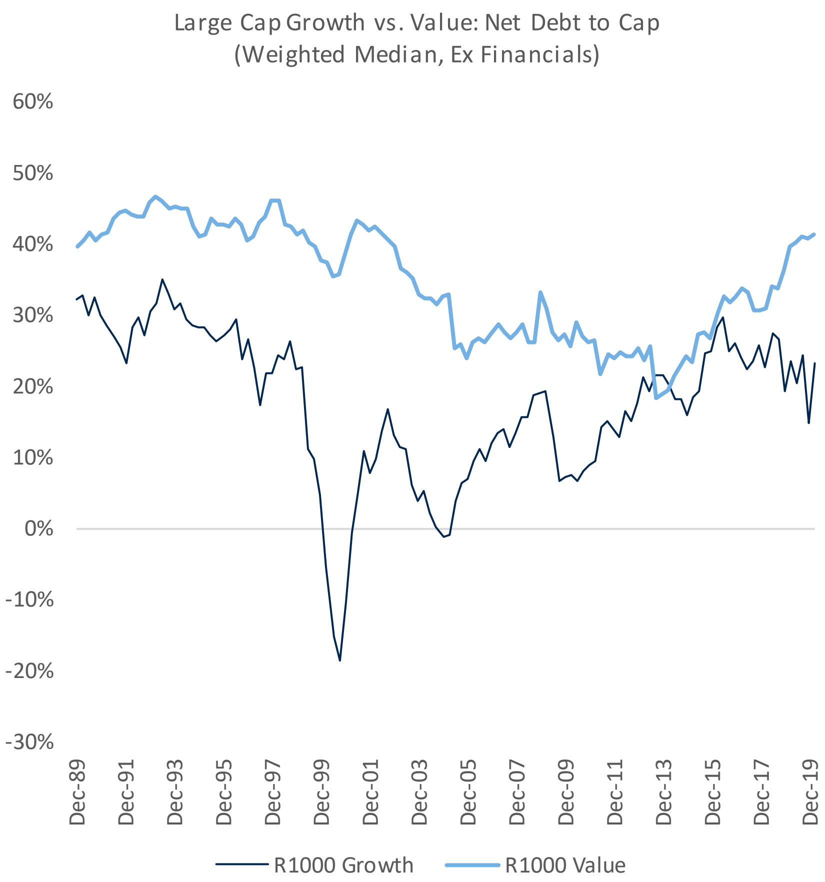


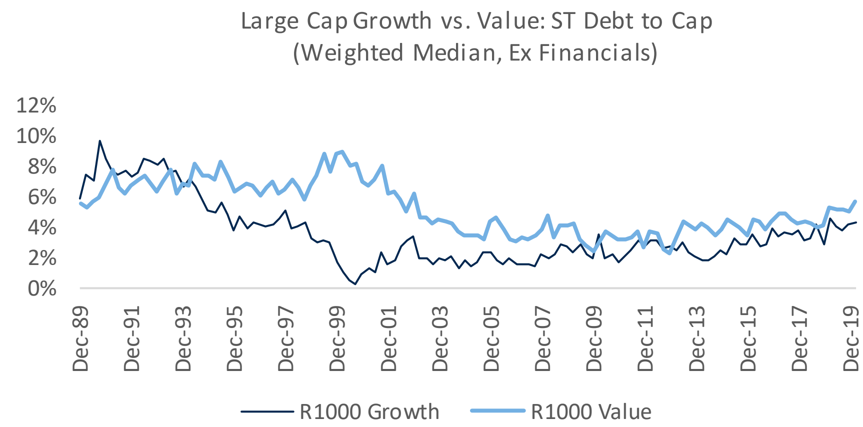
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, Latest data point is final as of 1Q20

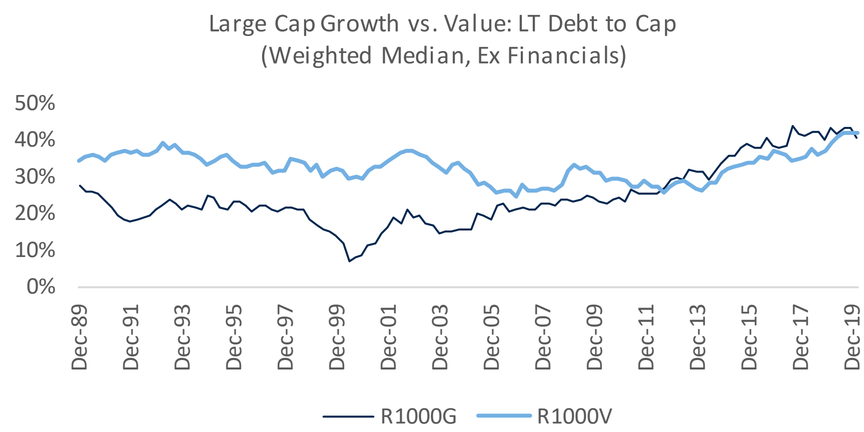
Debt Pay-Down Underway in Growth

Key Takeaways

- Ex Financials, net debt /cap has been on the rise for Value but is still a bit below prior peaks. For Growth, net debt to cap has been easing from near-peak levels.
- In both size segments, short-term debt has been low while long-term debt has risen meaningfully over the past few years.





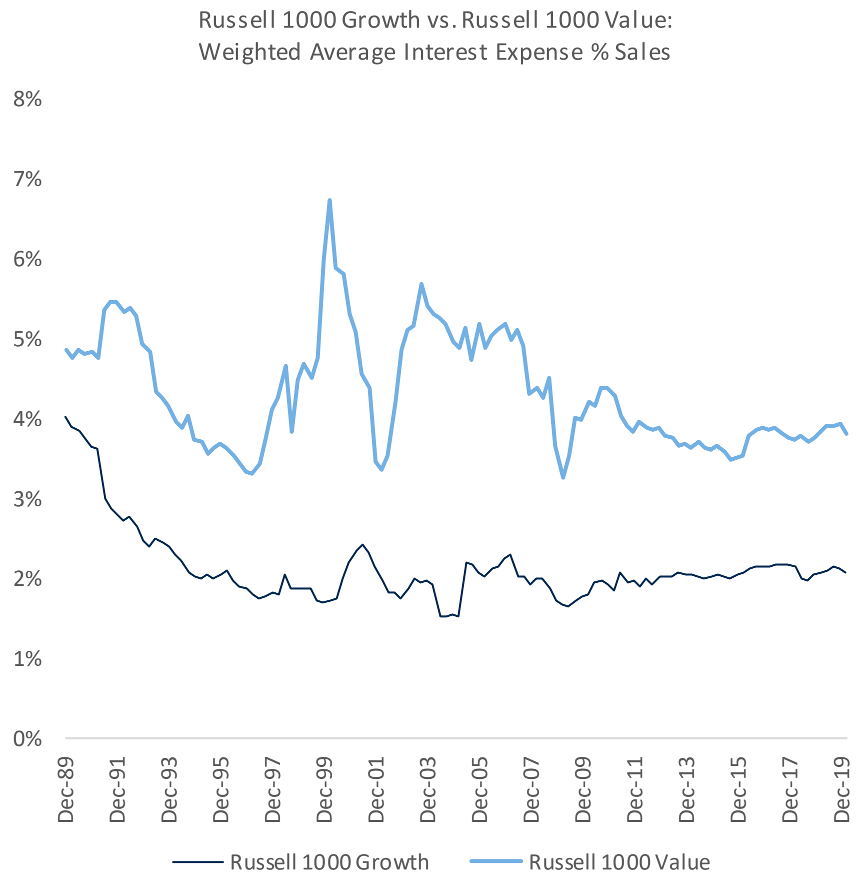


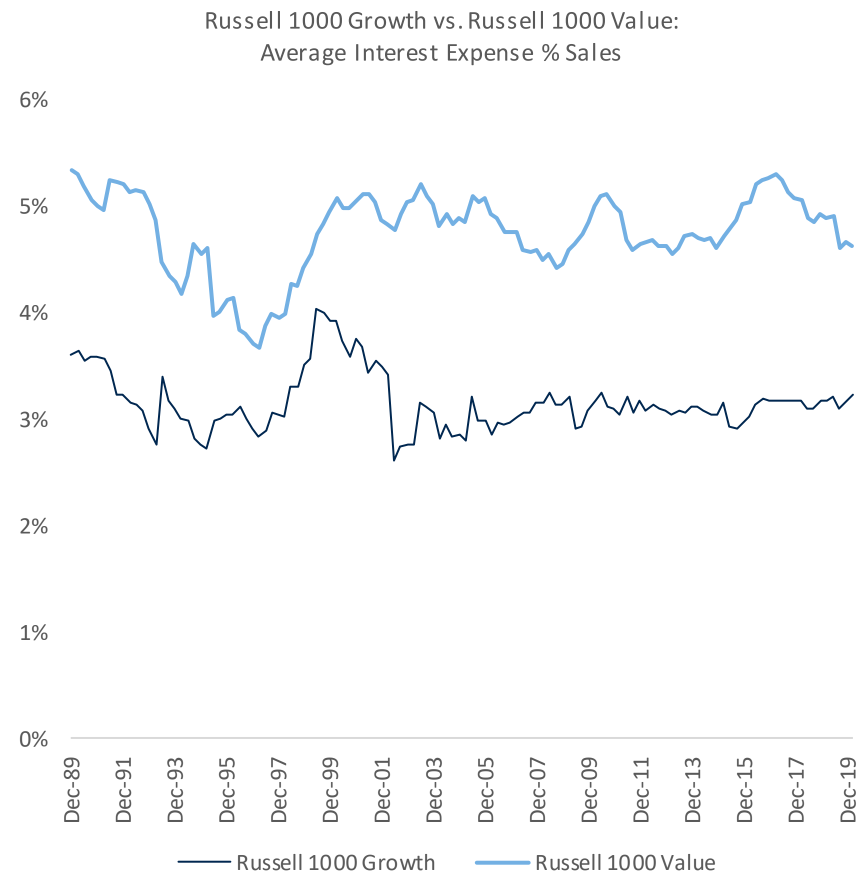
Source: RBC US Equity Strategy, S&P Capital IQ / Clarifi, Russell, Compustat, Latest data point is final as of 1Q20

Interest Expense Relative to Sales is Higher for Value, but has Been Declining for Most Names

Key Takeaways

- Data for 1Q20 shows that interest expense (relative to sales) is higher in Value than Growth on both a weighted average and average basis, but this is typically the case.
- On average, Value companies have been managing interest expense down significantly in recent years while levels for Growth companies have been stable.



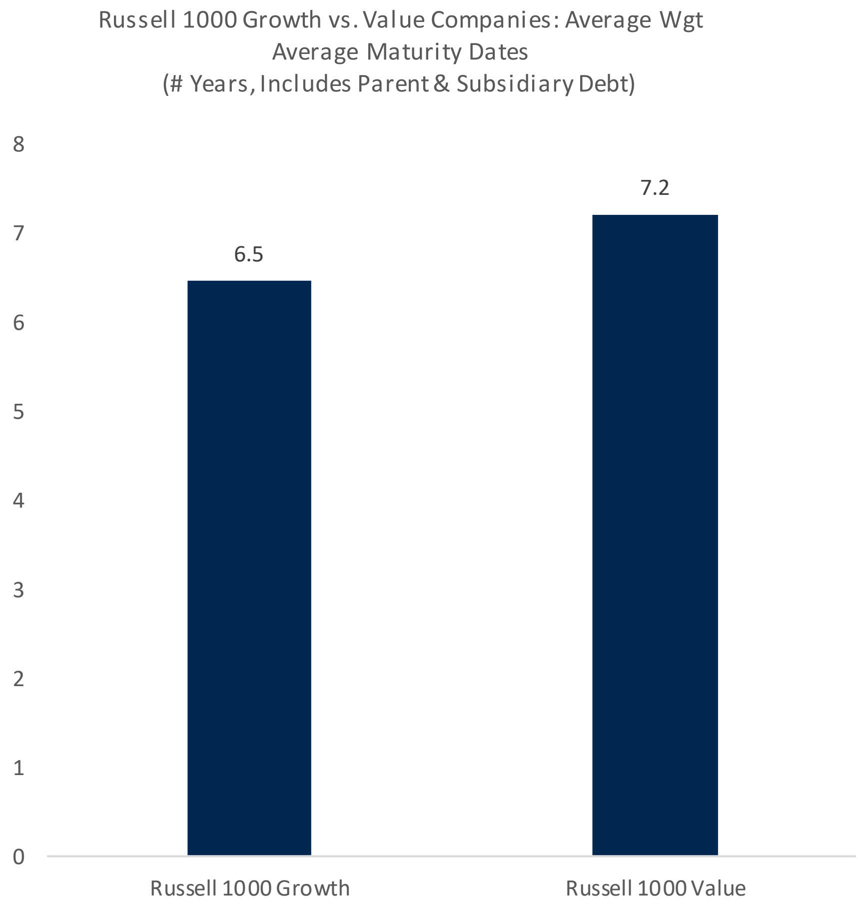


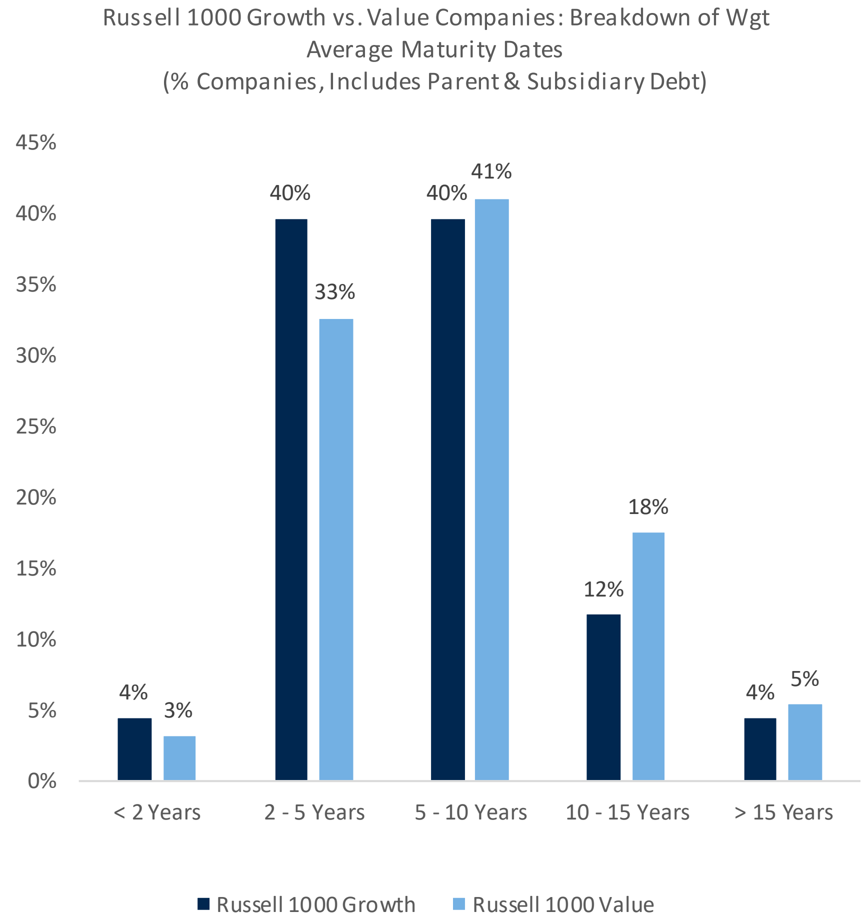
Source: RBC US Equity Strategy, S&P Capital IQ / Clarifi, Russell, Compustat. Latest data point is final as of 1Q20

Growth Balance Sheets Look Slightly Worse Than Value Due to Shorter Debt Maturities

Key Takeaways

- On average, Value companies have slightly higher weighted average debt maturities than Growth companies (an advantage for Value companies in the eyes of investors worried about debt burdens).
- Current levels are 7.2 years for Value companies vs. 6.5 years for Growth companies.



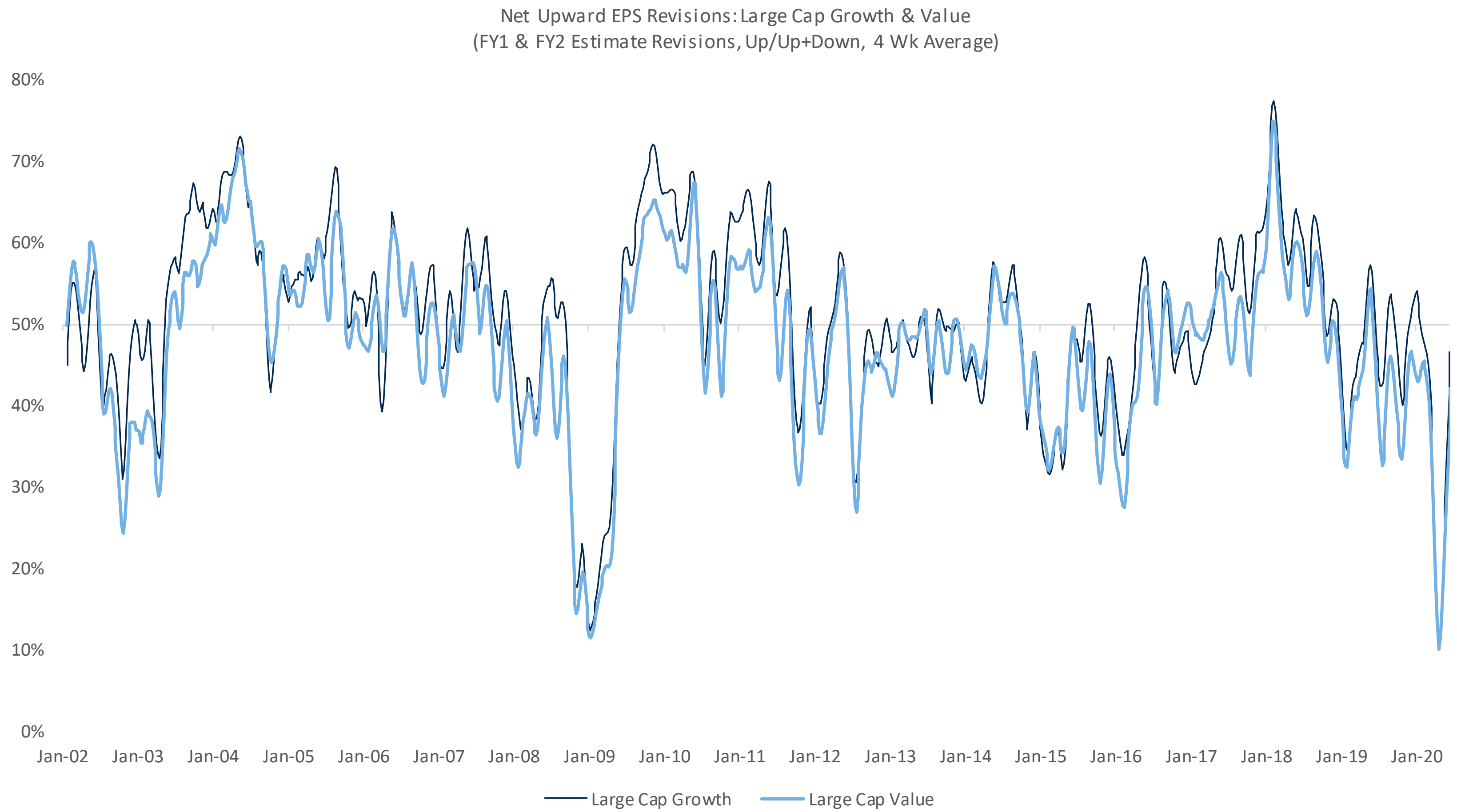


Source: RBC US Equity Strategy, Russell, Bloomberg. Frozen as of June 11th, 2020

Earnings Sentiment Has Rebounded In Both Growth & Value

Key Takeaways

- The percent of sell-side EPS estimate revisions to the upside, our favorite gauge of sentiment around earnings, fell sharply for both Growth and Value in March and April. For both styles, this indicator returned to Financial Crisis lows.
- As of mid-June, both styles had rebounded sharply from Financial Crisis lows, with revisions for Growth companies coming in slightly higher than Value.

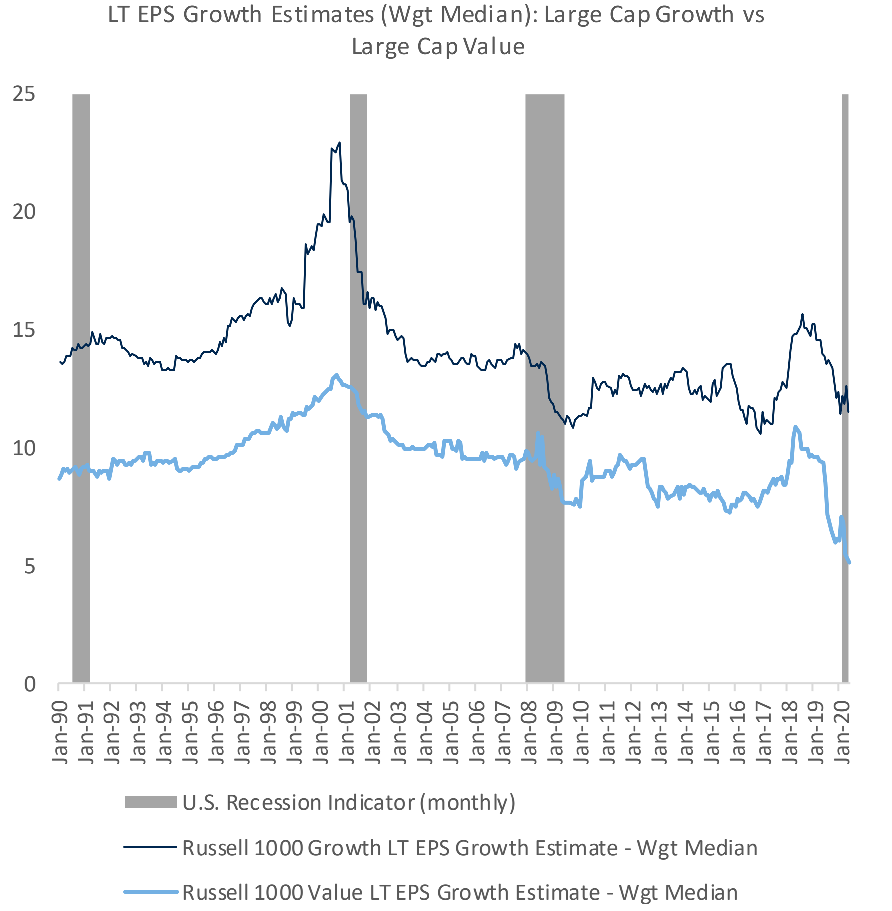


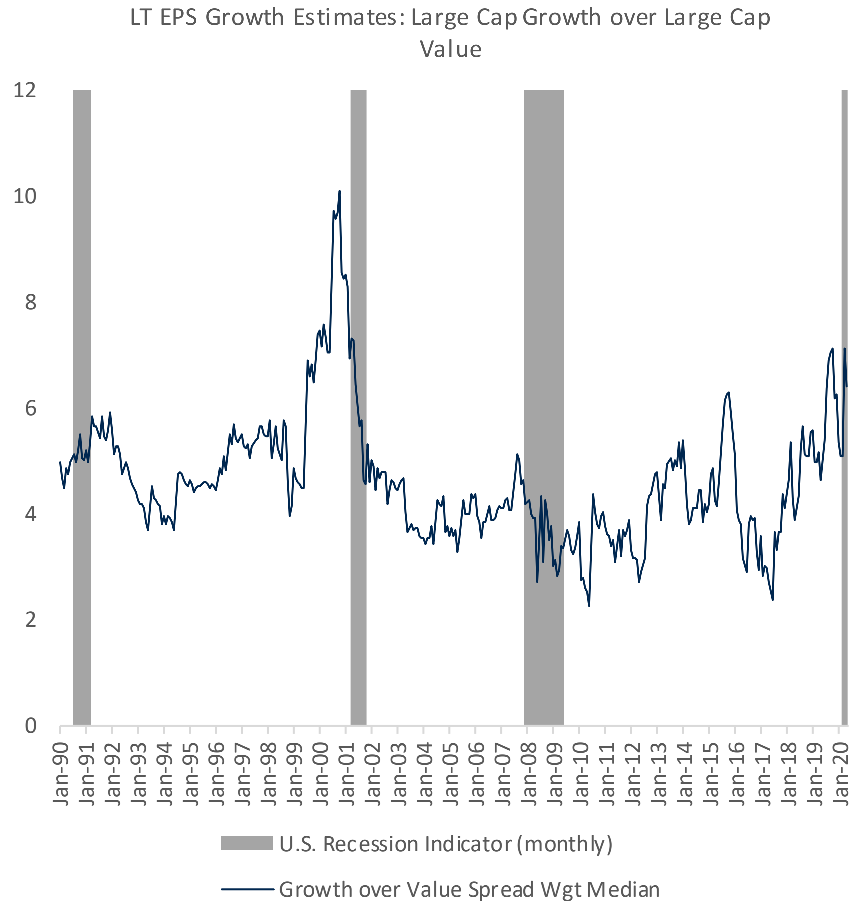
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates, Russell, As of 06/21/2020

Long Term EPS Growth Expectations Favor Growth In A Bigger Way

Key Takeaways

- Given the nature of the style, long term growth expectations for earnings are higher on an absolute basis for large cap Growth than Value. Although this trend has mostly been in place for at least 3 decades, the growth premium that Growth companies offer has widened since mid 2017, and the gap continued to expand in April and May. Historically, during most recessions, we have seen this spread shift in favor of Value, but this hasn't occurred this time around.





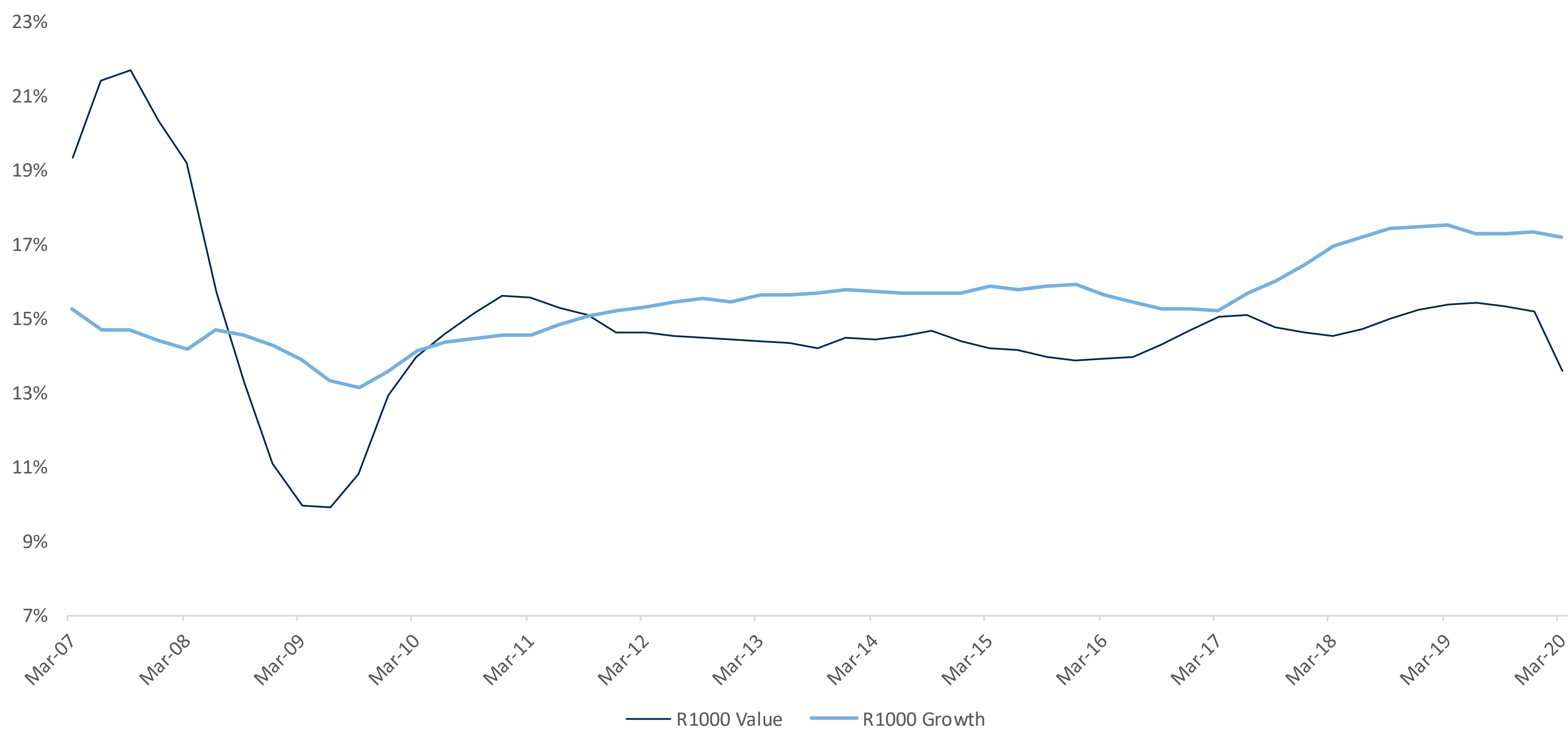
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, IBES Estimates, as of mid-May, long term expectations based on 3-5 year outlook

Margins Have Been Higher in Growth than in Value, Dropping in the Latter

Key Takeaways

- EBIT margins have been higher in Growth than in Value.
- As of 1Q20, Growth margins are stable near decade-plus highs.
- Value margins are falling from post Financial Crisis highs.

Large Cap Growth vs Value: LTM EBIT Margins

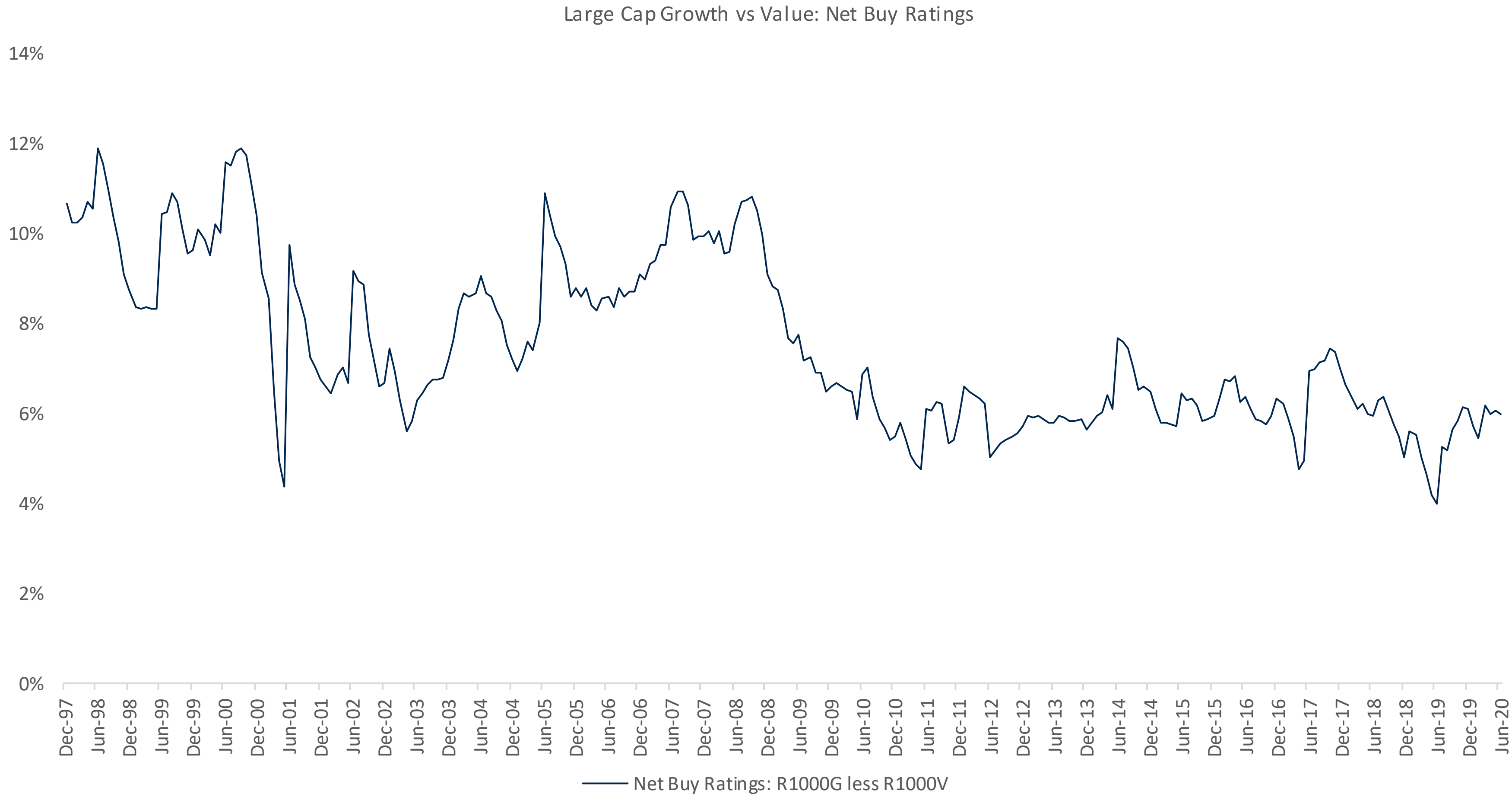


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell. Latest data point is final as of 1Q20

Growth Remains in Favor

Key Takeaways

- There are more buy ratings in place for Growth companies than Value companies. This has been true for quite some time, and the gap has been building in favor of Growth recently.

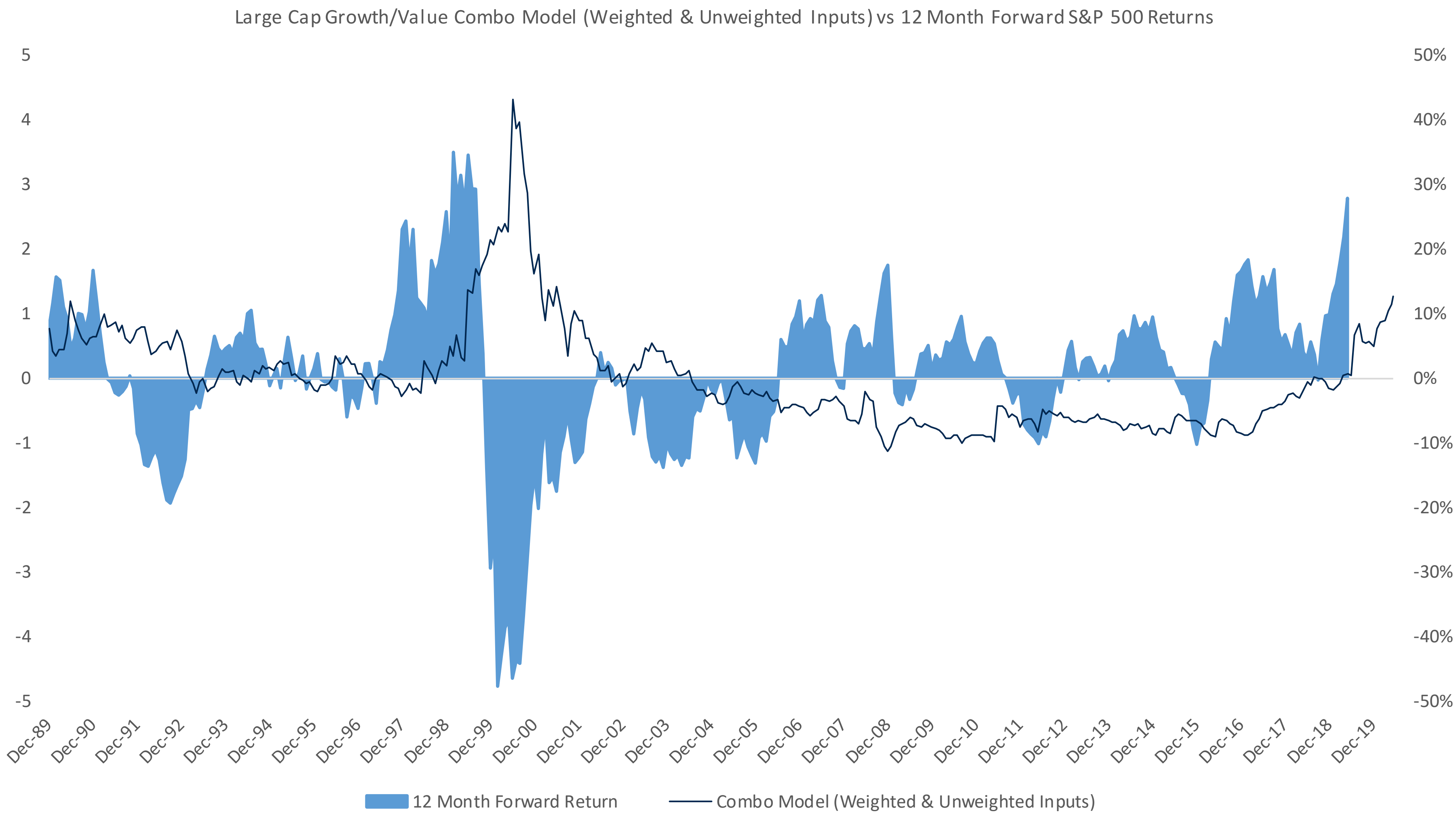


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, CIQ estimates; as of June 18th, 2020

Growth Looks Expensive vs. Value on our Combo Model

Key Takeaways

- To take into account all weighted and unweighted median metrics, we use our Combo Model for the Russell 1000 Growth and Value. Growth looked undervalued vs. Value on this metric from 2006 to 2018, helping to explain its decade-plus of leadership. Growth no longer appears undervalued on this model, however. At 1.26 standard deviations as of June 18th, this metric is the most expensive we've seen since the Tech Bubble.



Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, CIQ estimates, IBES estimates

Growth/Value Relative Valuations by Metrics

Key Takeaways

- On both a weighted and unweighted basis, Growth looks expensive or fairly valued vs. Value on most metrics.
- Ex FY2 PEG, these are all inputs into our combo model.

Russell 1000 Growth vs. Russell 1000 Value (Relative Multiples)

Unweighted Medians	LTM P/E ex neg EPS	Norm P/E ex neg - 5 Yr Avg	Norm P/E ex neg - 10 Yr Avg	LTM P/S	LTM EV/S	LTM EV/EBITDA ex neg	LTM P/EBITDA ex neg	LTM EV/EBIT ex neg	LTM P/EBIT ex neg	LTM P/OCF ex neg	LTM P/FCF ex neg	NTM P/E ex neg EPS	FY1 P/E ex neg EPS	FY2 P/E ex neg EPS	NTM P/S	NTM P/CF ex neg CF	FY2 PEG ex neg	Price/ Book
Current	**1.4**	**1.6**	**1.7**	**2.1**	**1.7**	**1.5**	**1.9**	**1.2**	**1.6**	**1.8**	**1.6**	**1.4**	**1.3**	**1.3**	**1.9**	**1.6**	**1.0**	**2.9**
Z Score	0.5	0.2	0.2	1.5	1.8	1.9	1.3	0.6	0.5	1.0	0.6	0.5	0.3	0.5	1.8	1.7	1.4	3.2
Avg	1.3	1.5	1.6	1.6	1.3	1.3	1.6	1.2	1.5	1.6	1.4	1.3	1.3	1.3	1.4	1.3	0.9	1.9
Median	1.3	1.4	1.5	1.5	1.3	1.2	1.5	1.1	1.4	1.5	1.3	1.2	1.3	1.2	1.3	1.3	0.9	1.9

Russell 1000 Growth vs. Russell 1000 Value (Relative Multiples)

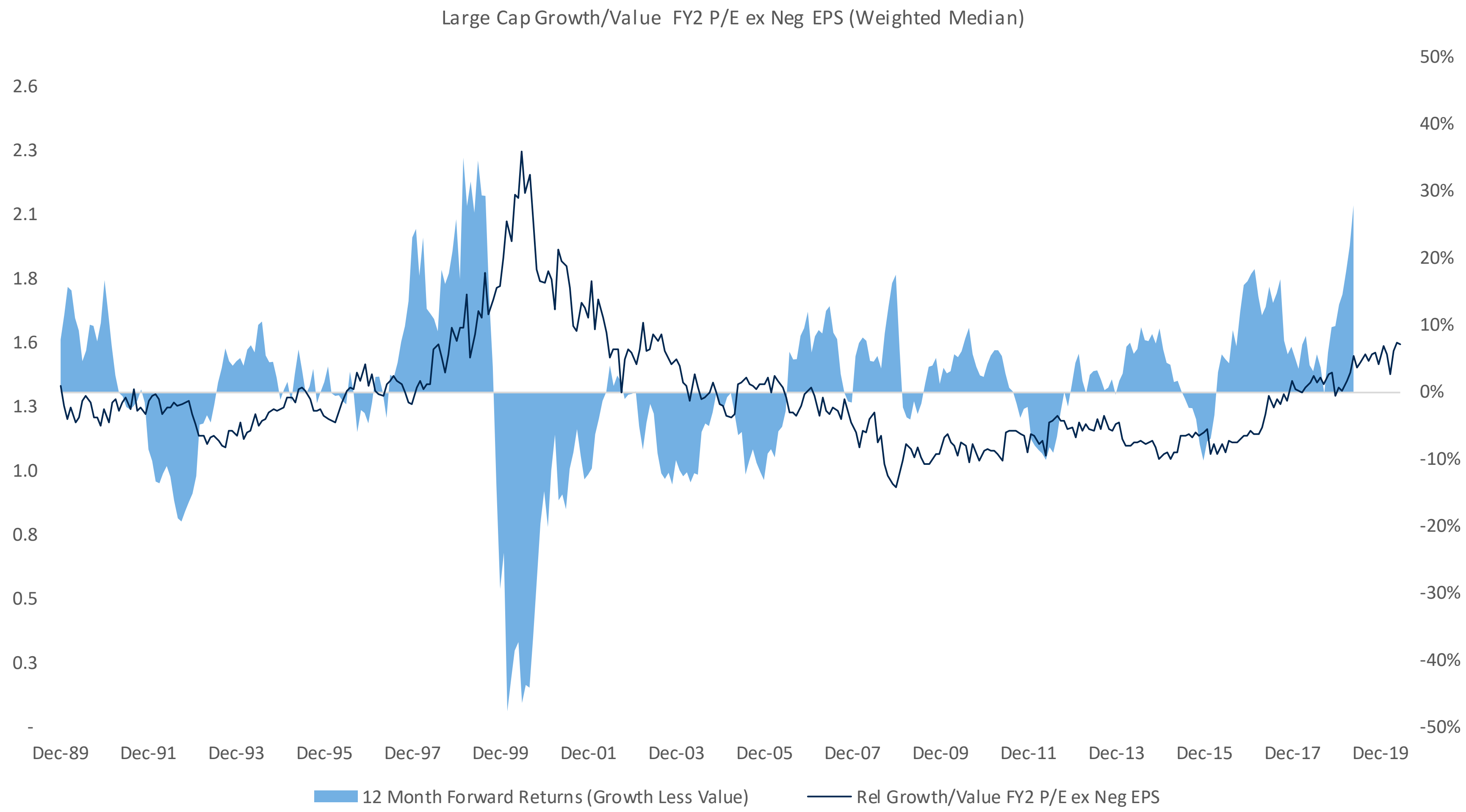
Weighted Medians	LTM P/E ex neg EPS	Norm P/E ex neg - 5 Yr Avg	Norm P/E ex neg - 10 Yr Avg	LTM P/S	LTM EV/S	LTM EV/EBITDA ex neg	LTM P/EBITDA ex neg	LTM EV/EBIT ex neg	LTM P/EBIT ex neg	LTM P/OCF ex neg	LTM P/FCF ex neg	NTM P/E ex neg EPS	FY1 P/E ex neg EPS	FY2 P/E ex neg EPS	NTM P/S	NTM P/CF ex neg CF	FY2 PEG ex neg	Price/ Book
Current	**1.7**	**2.2**	**2.1**	**2.6**	**1.9**	**1.7**	**2.3**	**1.4**	**1.9**	**1.8**	**1.9**	**1.7**	**1.7**	**1.6**	**2.1**	**1.8**	**0.7**	**6.0**
Z Score	1.1	2.2	0.9	2.3	1.8	1.4	1.2	0.4	0.8	0.3	1.8	1.3	1.4	1.0	0.9	0.5	(1.7)	5.4
Max	2.4	3.2	3.9	3.9	2.5	2.8	4.3	2.6	3.7	3.0	3.4	2.4	2.6	2.3	5.7	4.9	1.5	6.0
Min	1.0	1.2	1.3	1.2	0.9	1.0	1.3	0.9	1.1	1.2	1.1	1.0	1.0	1.0	1.1	0.5	0.6	1.5
Avg	1.4	1.6	1.8	1.8	1.4	1.4	1.8	1.3	1.6	1.7	1.4	1.4	1.4	1.3	1.6	1.5	0.9	2.3
Median	1.4	1.6	1.7	1.7	1.4	1.4	1.8	1.2	1.6	1.7	1.3	1.3	1.4	1.3	1.5	1.5	0.9	2.1

Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, CIQ estimates, IBES estimates; as of June 12th, 2020

Growth Looks Also no Longer Attractive vs. Value on P/E

Key Takeaways

- On a weighted basis, the Growth/Value relative FY2 P/E was at 1.6x as of June 18th, 2020, very slightly above its historical average. This is an important change from conditions of the past decade when Growth looked deeply undervalued vs. Value on this indicator.

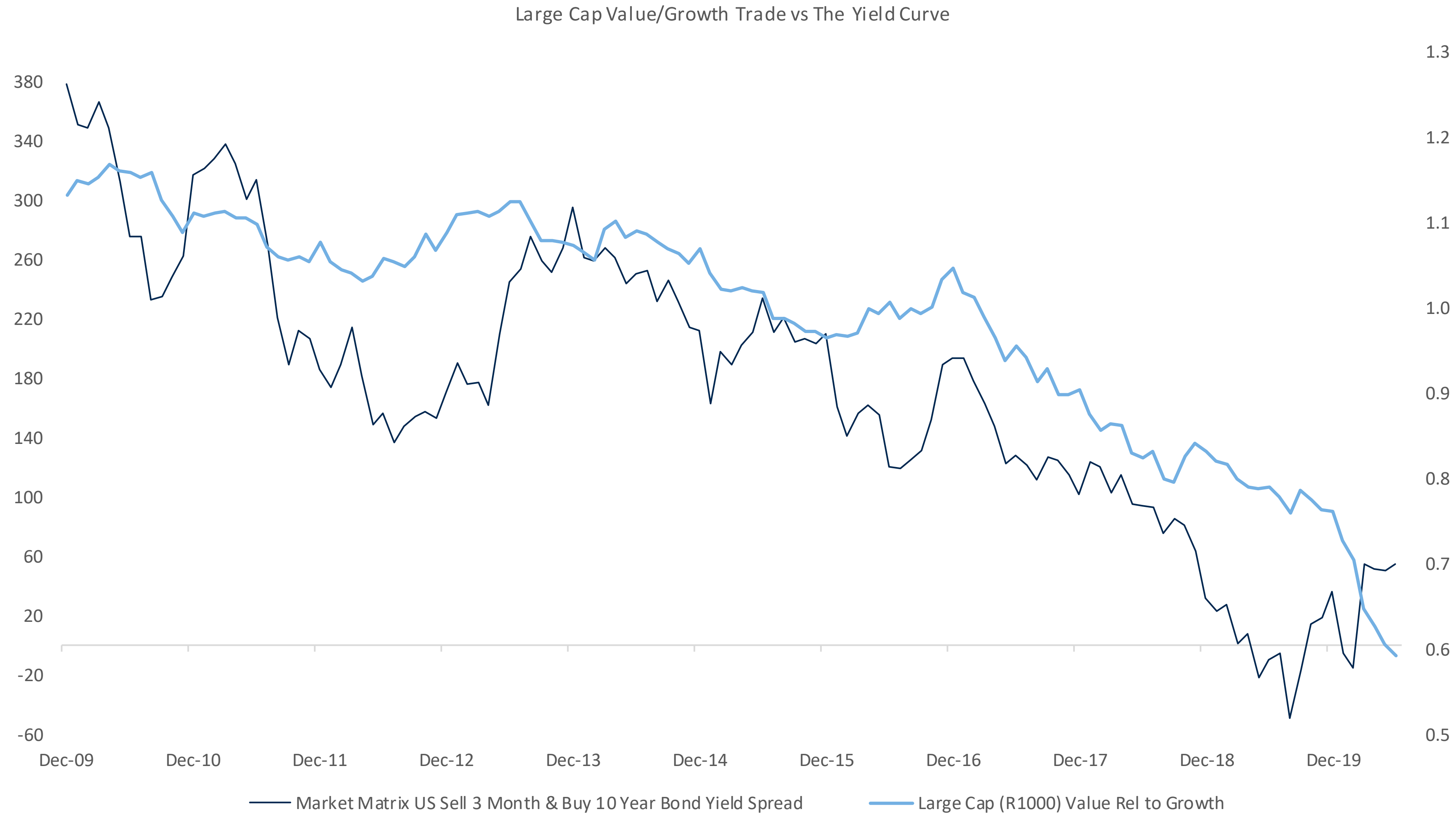


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Russell, Compustat, CIQ estimates, IBES estimates

Value/Growth Trade Not Currently in Sync with the Yield Curve

Key Takeaways

- Since the Financial Crisis, the style trade has moved in tandem with shifts in economic growth expectations, as represented by movements in the yield curve. Value outperforms when the curve is steepening while Growth outperforms when the curve is flattening. Recent steepening has not been accompanied by Value leadership, we think because doubts about the economic recovery linger.



Source: RBC US Equity Strategy, Haver Analytics, Russell, Bloomberg; as of June 18th, 2020

Growth Has Outperformed in two of the Last Three Recession Recoveries Within Large Cap

Key Takeaways

- In past recessionary pullbacks, Value has outperformed Growth in 2 of the last 3 recessions, with the 2001 recession posting its largest gain of Value over Growth.
- The style trade hasn't been completely consistent in past recovery trades, but it's worth noting that in two of the three most recent recovery trades Growth has outperformed Value within the Russell 1000 universe. Growth is leading again in 2020.

Performance During Recessionary Pullback Periods - Large Cap Style Trade - Growth Relative to Value

	Large Cap Growth	Large Cap Value	Growth Relative to Value
July 1990 - Mar 1991	-15.7%	-15.0%	-0.7%
Mar 2001 - Nov 2001	-55.3%	-15.0%	-40.3%
Dec 2007 - June 2009	-52.0%	-61.7%	9.7%
Average	-41.0%	-30.6%	-10.5%
Median	-52.0%	-15.0%	-0.7%
Feb 2020 - March 2020	-31.1%	-38.1%	7.0%

Performance During Recessionary Recovery Periods - Large Cap Style Trade - Growth Relative to Value

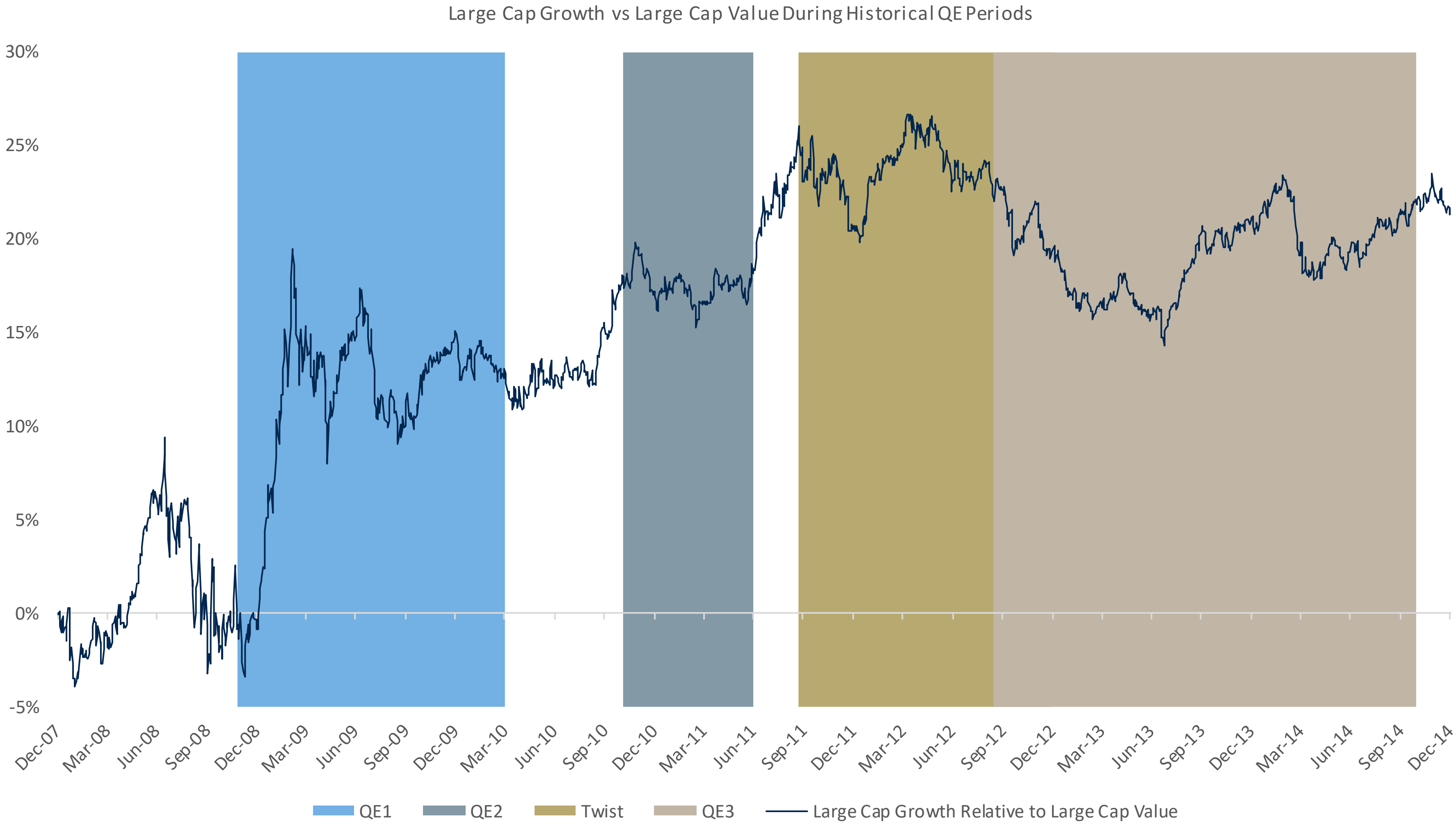
	Large Cap Growth	Large Cap Value	Growth Relative to Value
July 1990 - Mar 1991	38.4%	24.8%	13.6%
Mar 2001 - Nov 2001	23.3%	20.4%	2.9%
Dec 2007 - June 2009	66.0%	71.5%	-5.5%
Average	42.6%	38.9%	3.6%
Median	38.4%	24.8%	2.9%
March 2020 - TBD	38.9%	31.5%	7.4%

Source: RBC US Equity Strategy, RBC US Equity Strategy, Bloomberg. Based on a universe of Russell 1000 stocks.
Recovery periods leverage S&P 500 peak and troughs (10/11/1990–08/28/1991, 09/21/2001–3/19/2002, 03/09/2009–12/28/2009, 02/18/2020 – 03/23/2020)
Recessionary periods leverage S&P 500 peak and troughs (07/16/1990 - 10/11/1990, 03/24/2000 - 09/21/2001, 10/09/2007 - 03/09/2009, 03/23/2020-06/08/2020)
Peaks in the S&P 500 determined up to six months after recessions ended

The Style Trade was Choppy During Post Financial Crisis QE, but Growth Ultimately Won

Key Takeaways

- We find the behavior of the style trade during the QE periods that followed the Financial Crisis fascinating. Looking at the QE period as a whole, we note that Growth outperformed strongly, particularly during QE1. But within each QE period, leadership between Growth and Value trade alternative frequently.

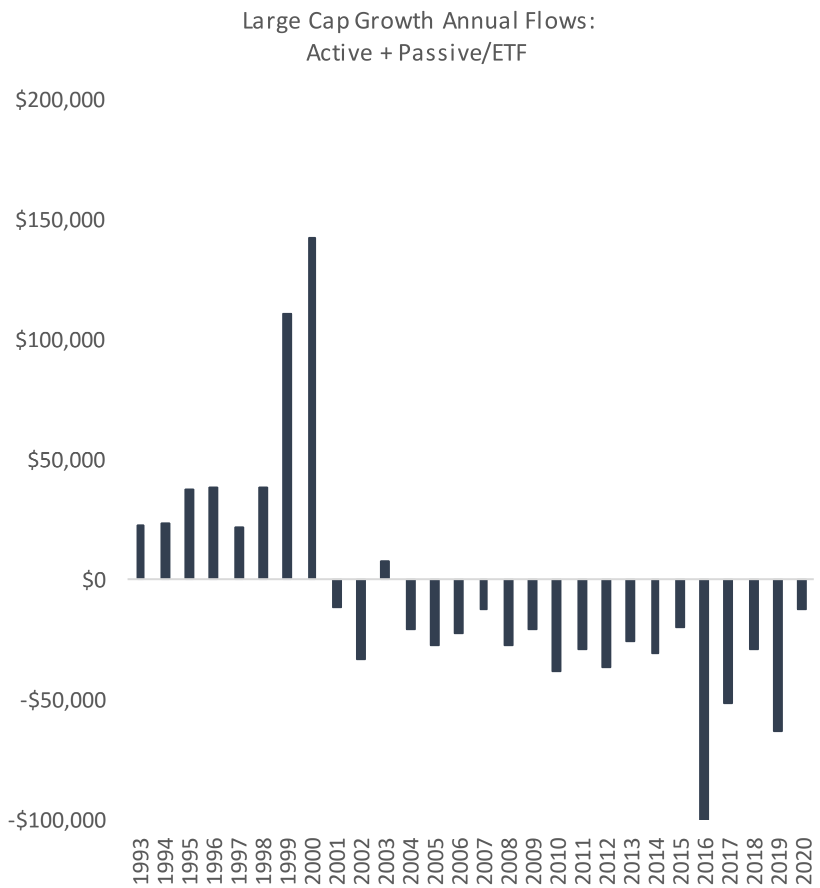


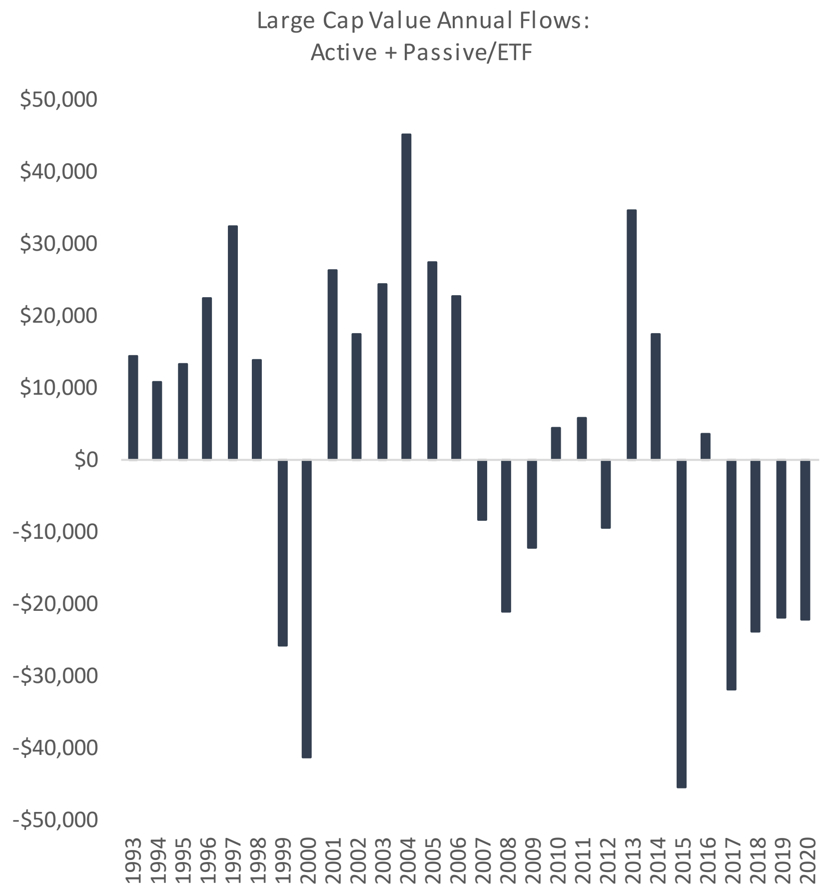
Source: RBC US Equity Strategy, Bloomberg

Both Growth and Value Funds Saw Outflows in 2019, Which Have Persisted in Early 2020

Key Takeaways

- In 2019, outflows deepened in Growth but got less negative in Value.
- Through the first five months of 2020, both Growth & Value are seeing outflows – they've been deeper in Value.



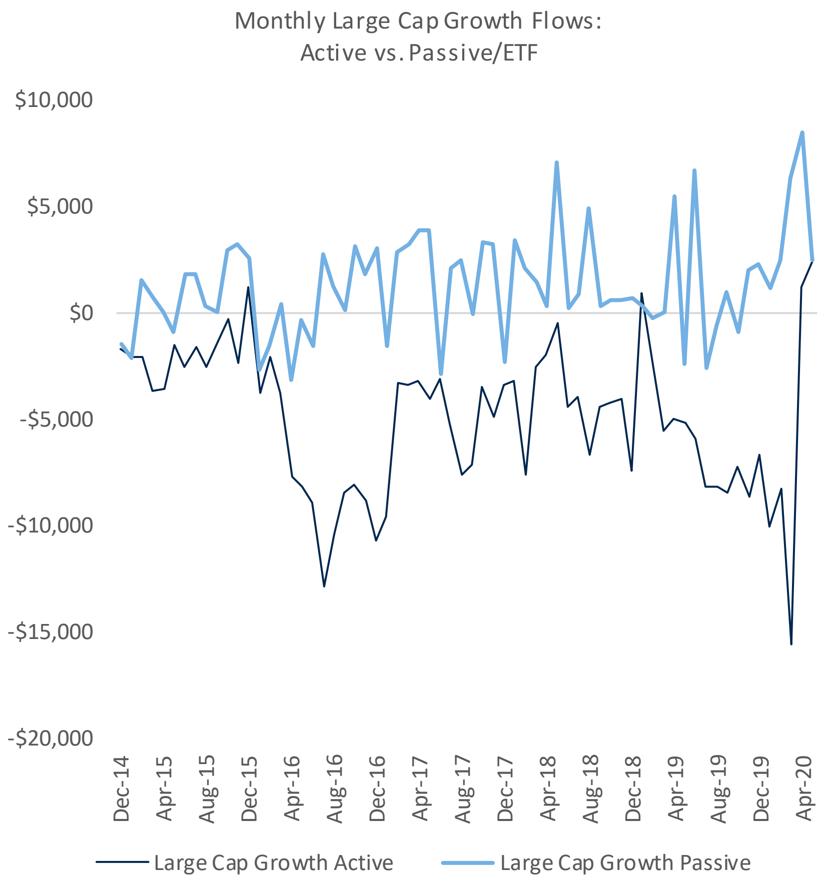


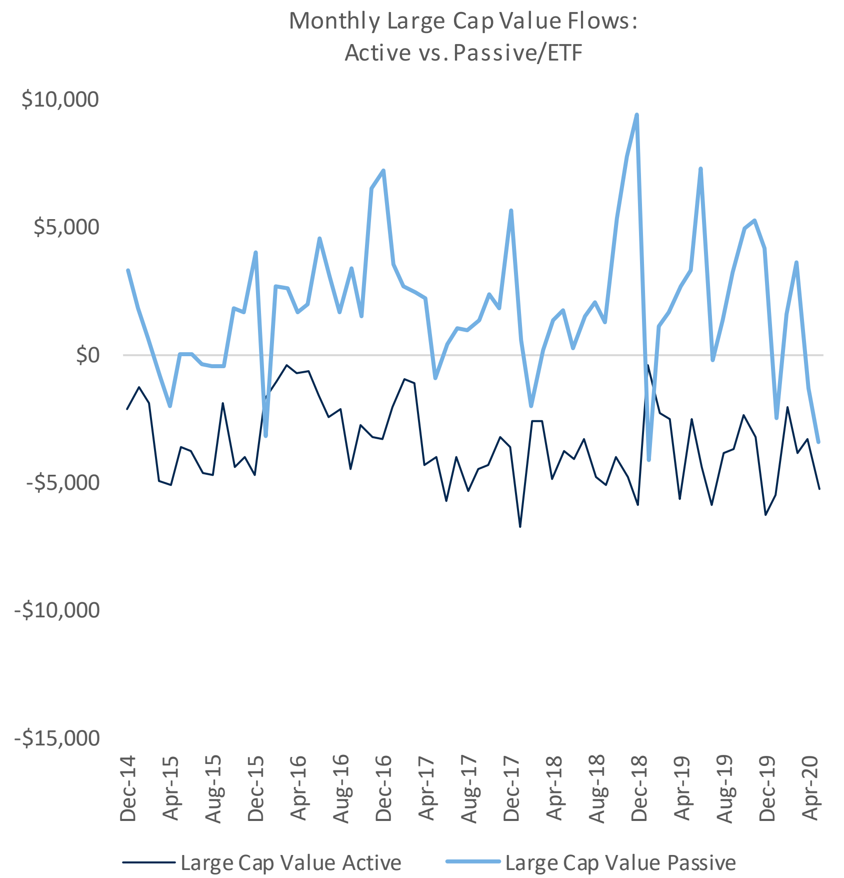
Source: RBC US Equity Strategy, Morningstar

Active Flows Improved for Growth Funds Recently

Key Takeaways

- In late 2019, inflows returned to passively managed Growth funds and this has persisted in early 2020. Trends have also improved on the active side, with slight inflows returning in April & May. Note that active outflows returned to 2016 lows in early 2020.
- Passive flows have been choppy for Value funds in 2020 – outflows returned in April & May after briefly turning positive in February and March. On the active side, outflows remain the norm.



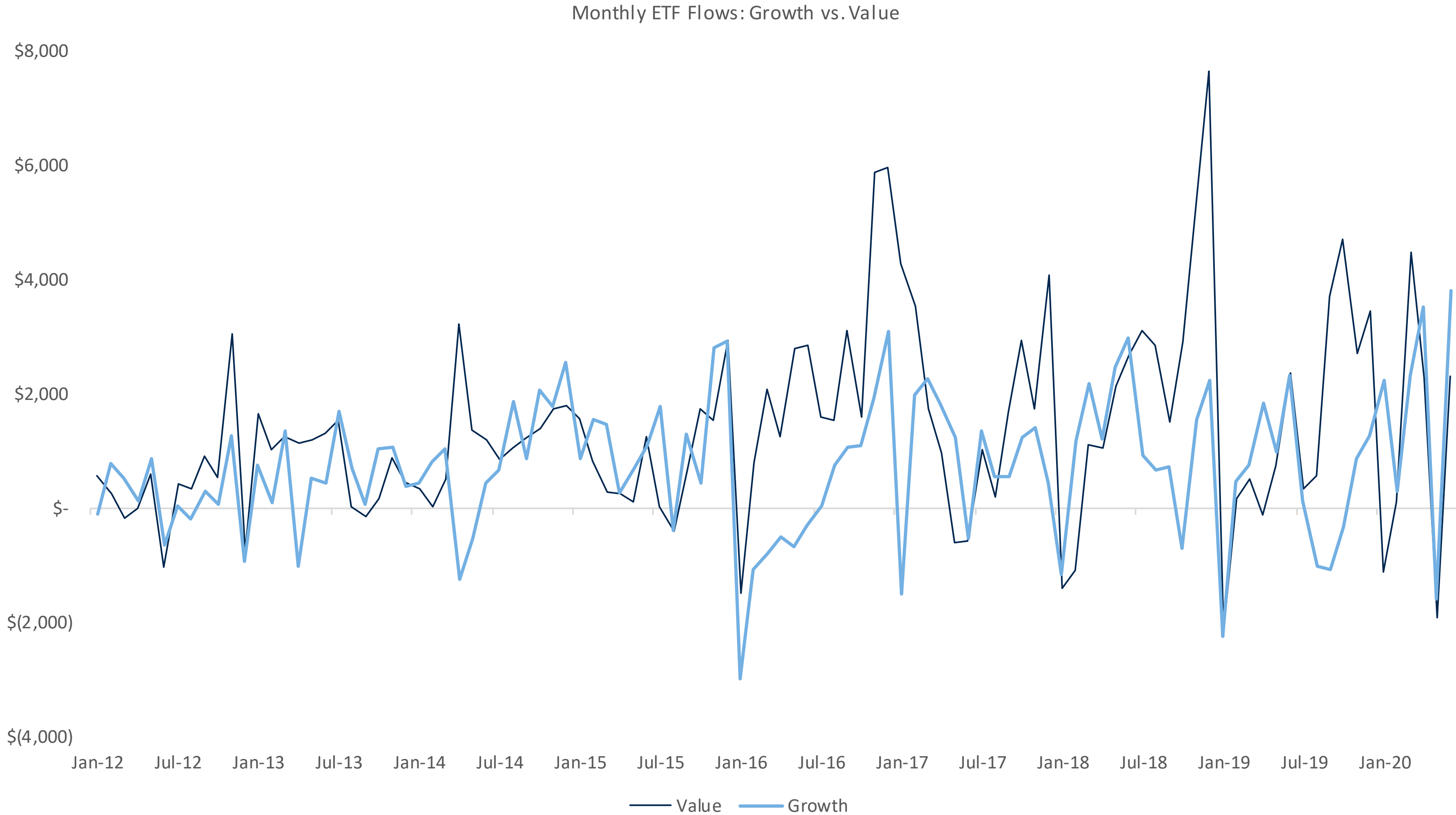


USD millions
Source: RBC US Equity Strategy, Morningstar

ETF Flows No Longer a Significant Advantage for Value

Key Takeaways

- Trends have been choppy for both styles recently.
- Most recently Growth has had an edge, but it's been very slight.



Source: RBC US Equity Strategy, Bloomberg; as of June 12th, 2020

Large Cap Sector Outlook

Our Latest Thoughts on the DRIVERs of
S&P 500 Sector Performance

S&P 500 Heat Map / Overall Thoughts

	% Upward EPS Revisions	Valuations vs. S&P 500	Recession Playbook	Recovery Playbook	Recommendation	Our Take
Consumer Staples	=	✔	✔	✘	Market Weight	*Middle of the pack on revisions, attractively valued*
Utilities	✘	✔	✔	✘	Overweight	*Weaker revisions, attractive valuations*
REITs	✘	✘	N/A	N/A	Underweight	*Weak on revisions & expensive valuations*
Health Care	=	✔	✔	✘	Overweight	*Favorite secular growth sector, attractively valued, less political risk from Biden*
Energy	✔	✘	✔	✘	Market Weight	*Expensive relative valuations, strong revisions, lack of long-term catalysts, ESG headwind*
Materials	✘	=	=	✔	Market Weight	*Reasonable valuations, challenging revisions, tends to outperform in recovery periods.*
Financials	=	✔	✘	✔	Market Weight	*Attractive valuations, but we worry any recovery outperformance could fade quickly since rates are likely to stay lower for longer*
Industrials	=	✔	✘	✔	Overweight	*Favorite cyclical / recovery play, deeply attractive valuations*
Consumer Discretionary	=	✘	=	✔	Underweight	*Potential for lasting wounds to impact the US consumer in this recovery, lack of valuation appeal on aggressive 2021 estimates*
Comm Services	=	=	=	✘	Market Weight	*Reasonable valuations, resilient revisions, and policy risks are less of a concern to us going forward*
Technology	=	=	✘	✔	Market Weight	*May not lead in the rebound given its resiliency in the drawdown, but we like its secular growth appeal since we think economic growth will stay sluggish for some time*

Source: RBC US Equity Strategy

Dissecting 2020 S&P 500 Sector Performance

Key Takeaways

- YTD performance generally reflects relative strength during the drawdown that occurred from February 19th to March 23rd, when defensive sectors and secular growers outperformed.
- The rebound in place since March 23rd generally represents a reversal of the drawdown in terms of sector performance with defensive areas lagging and cyclicals and secular growers and commodities outperforming.
- There are some exceptions – Discretionary has been a drawdown and rebound outperformer, while Utilities has lagged in both phases.

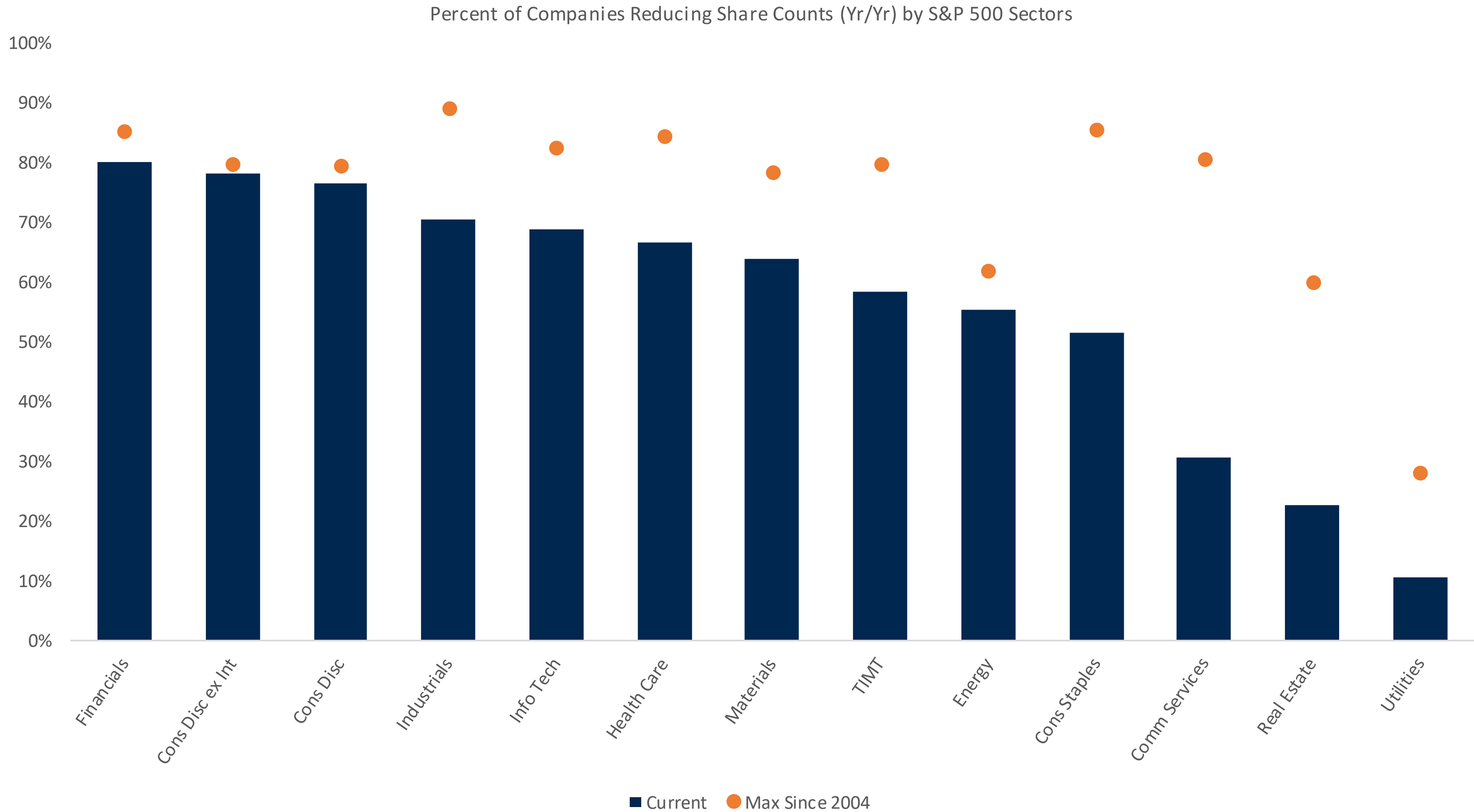
Sectors\Trading Period	YTD	Drawdown	Rebound
Energy	-30.4%	-33.4%	35.5%
Cons Discretionary ex Internet	-6.6%	-11.1%	11.1%
Industrials	-10.0%	-11.9%	9.1%
Materials	-4.9%	-3.5%	7.7%
Financials	-18.8%	-13.8%	4.5%
Consumer Discretionary	9.4%	2.0%	3.1%
Real Estate	-4.5%	-6.0%	2.3%
Info Tech	16.0%	4.0%	-0.2%
TIMT	15.0%	7.2%	-2.5%
Utilities	-5.2%	-2.8%	-3.2%
Health Care	1.1%	8.9%	-4.1%
Communication Services	4.8%	7.9%	-6.0%
Consumer Staples	-1.8%	14.7%	-13.8%
S&P 500	**-2.7%**	**-33.8%**	**45.1%**

Source: RBC US Equity Strategy, ClariFi. Drawdown period is from 02/19/2020 to 03/23/2020. Rebound period is from 03/23/2020 to 06/08/2020. Ranked by rebound performance. As of 06/18/2020.
Green shading indicates outperforming S&P 500 (data > 0); red shading indicates underperforming S&P 500 (data < 0).

Share Count Reductions by Sector

Key Takeaways

- Most Financials and Consumer Discretionary companies have been reducing their share counts, while relatively few companies in more defensive sectors like Utilities and REITs have done so.
- Captures trends through March 2020.

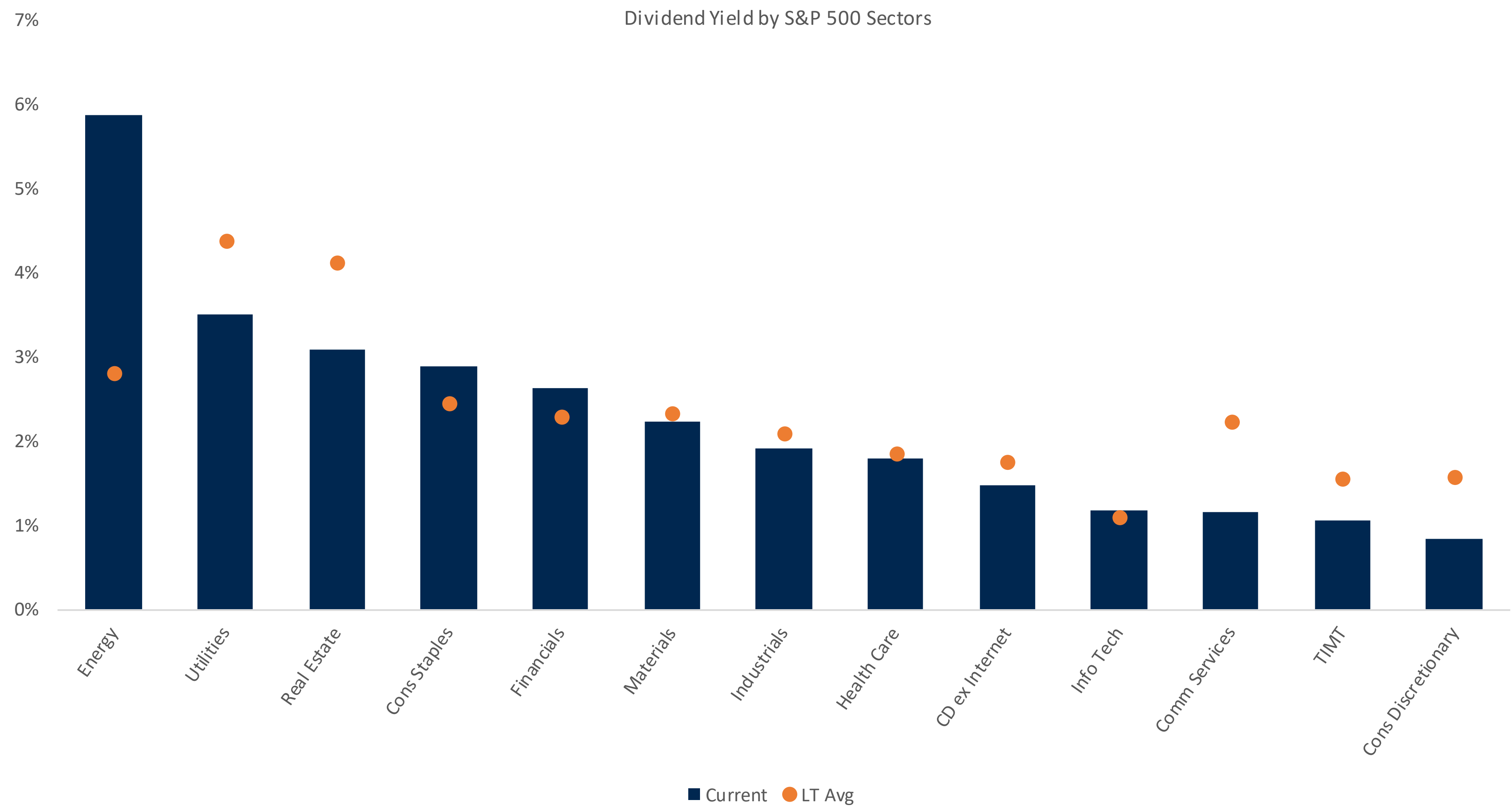


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi; as of 1Q20

Dividend Yield by Sector

Key Takeaways

- Dividend yields are generally at or below average in most sectors. Of the higher-yield sectors, Staples, Financials, and Energy stand out, as their current dividend yields are above the long-term average.
- Dividend yields for Consumer Discretionary (including Internet Retail), Communication Services, and TIMT are low relative to other sectors and history.

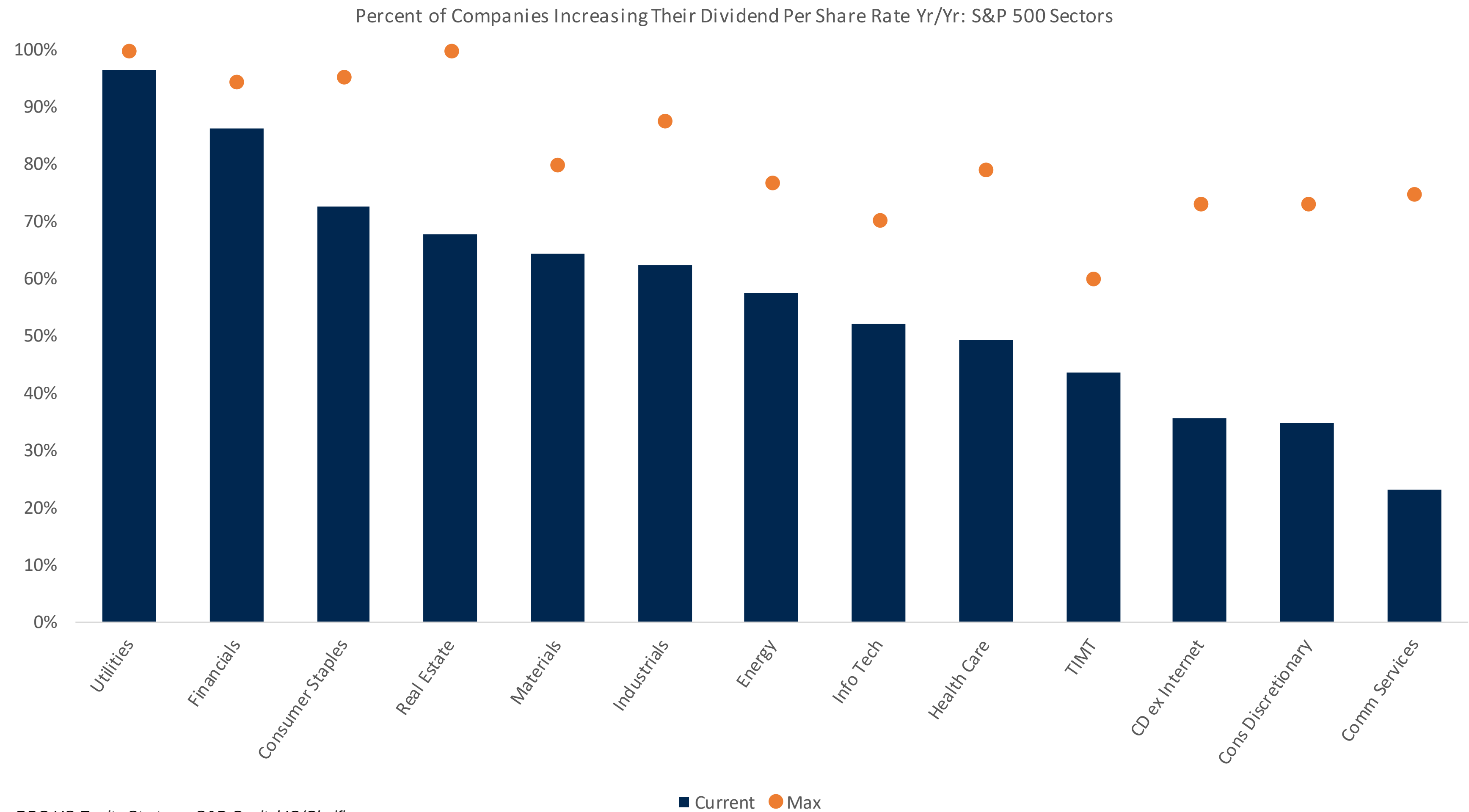


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi. As of 06/16/2020.

Percent of Companies Raising Their Dividends by Sector

Key Takeaways

- Most companies in Utilities, Financials, Staples, REITs, and Materials have been raising their dividends, while relatively few have been doing so in Communication Services, Consumer Discretionary, and Health Care.
- Data captured as of May 2020.

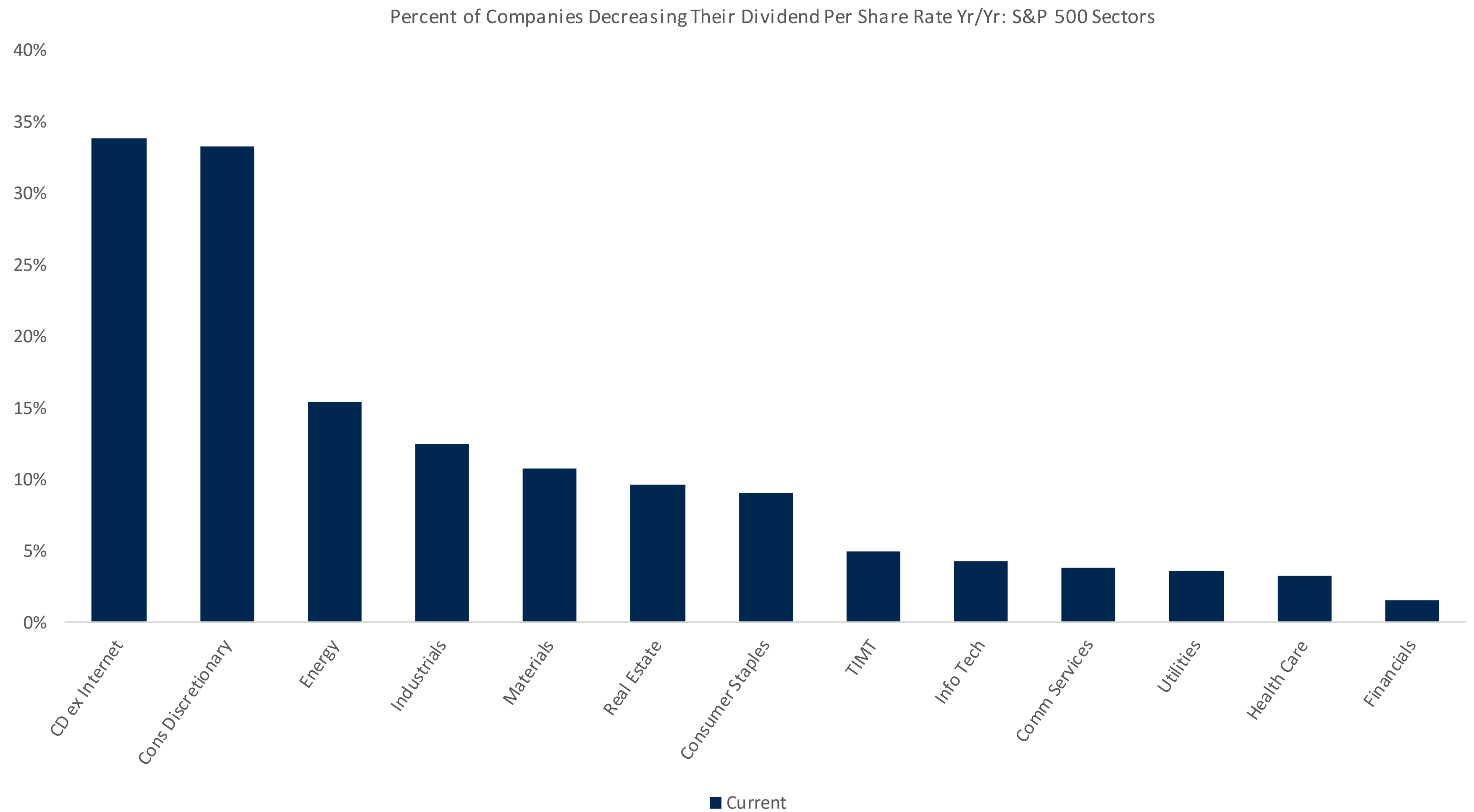


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi

Percent of Companies Decreasing Their Dividends by Sector

Key Takeaways

- Consumer Discretionary has been most aggressive in lowering its dividends at the sector level. Dividend decreases have been relatively rare in other sectors.
- Data captured as of May 2020.



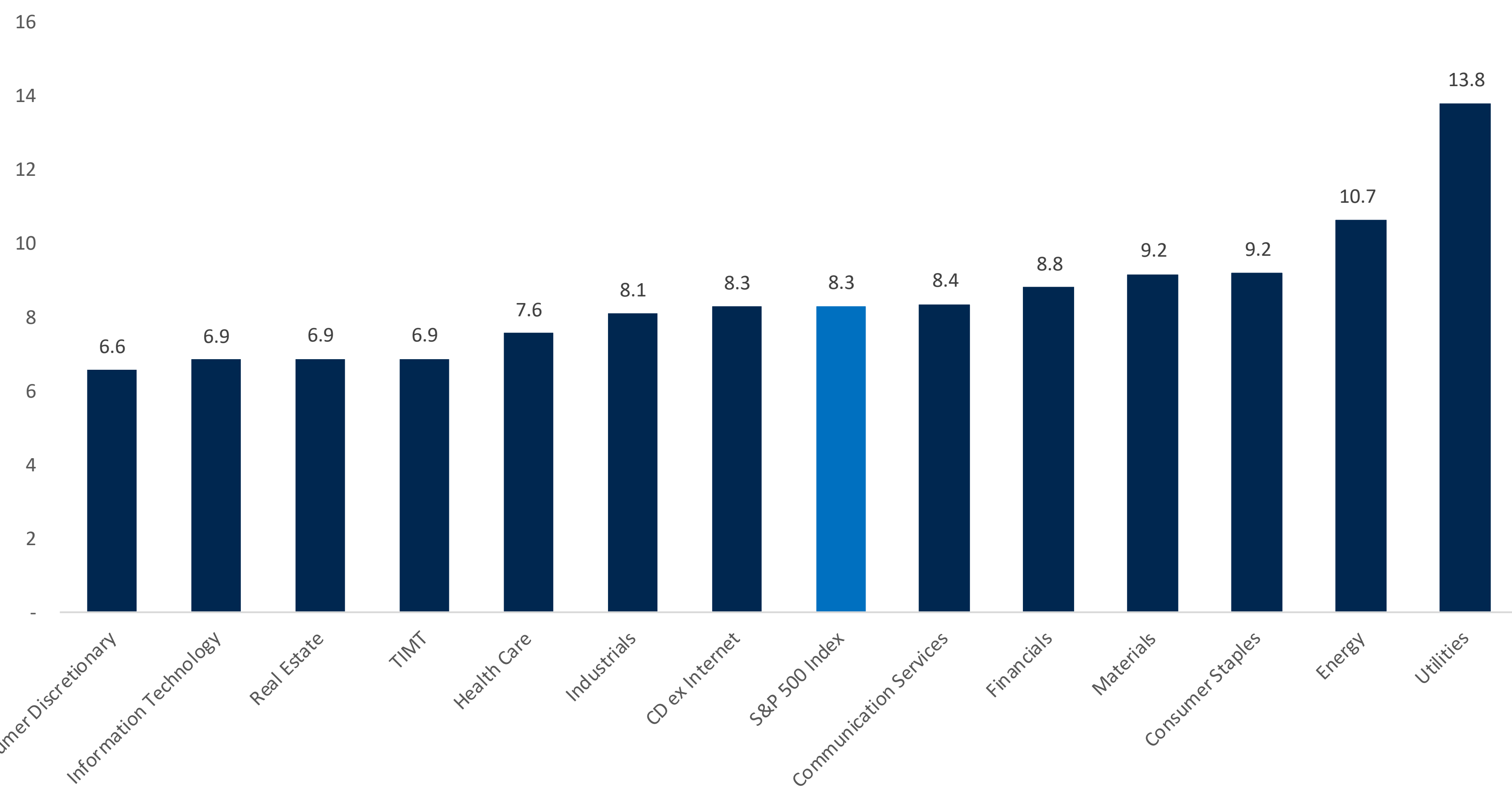
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi

Debt Maturity by Sector

Key Takeaways

- Below we highlight the weighted average debt maturity for S&P 500 sectors.
- On average, Consumer Discretionary stocks have the lowest weighted average debt maturity while Utilities has the highest.

S&P 500 Sectors Ranked by Avg Debt Maturity (# Years, Includes Parent & Subsidiary Debt)

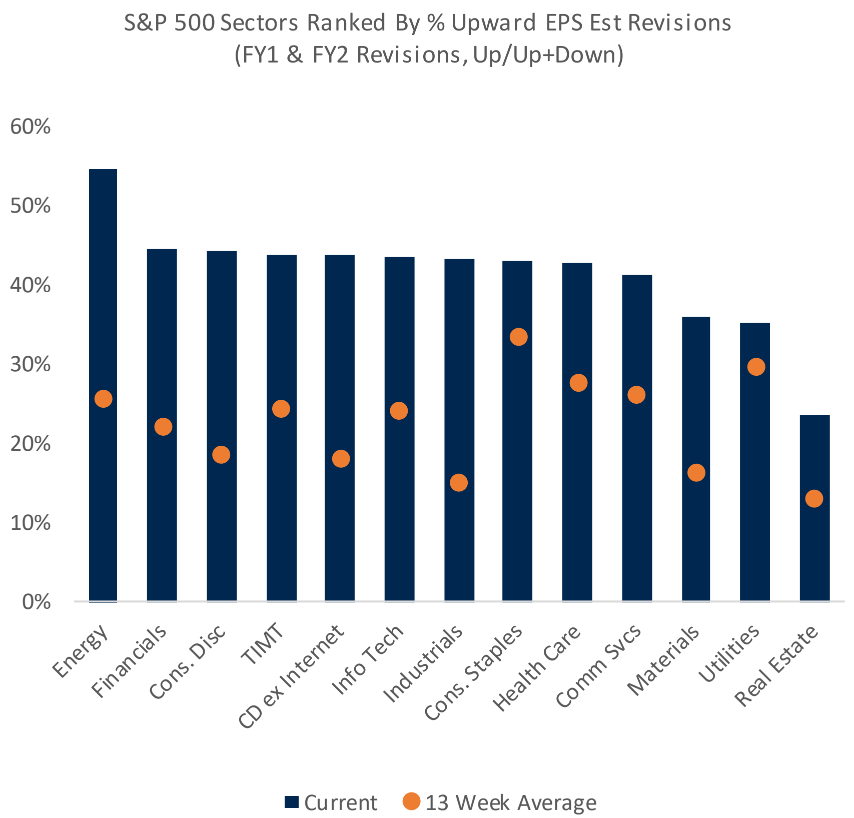


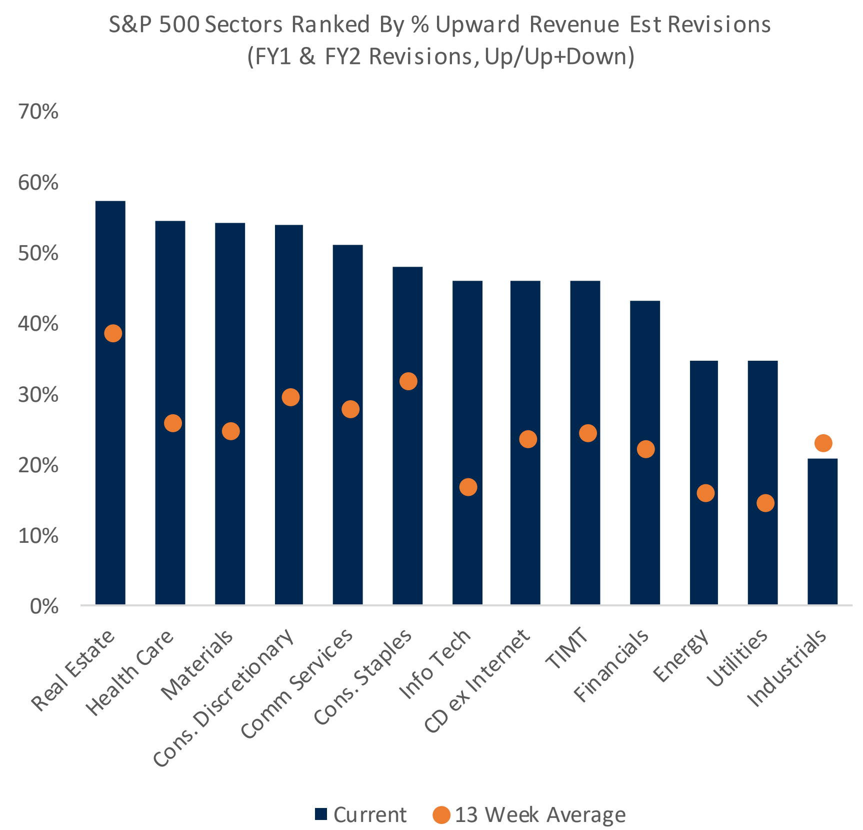
Source: RBC US Equity Strategy, Bloomberg. Frozen as of June 10th, 2020

Revisions Trends by Sector

Key Takeaways

- Every major sector in the S&P 500 has been subject to downward EPS estimate revisions recently, though most sectors have rebounded on this metric as well.
- When we look at the percent of EPS revisions to the upside, trends have been strongest in Value oriented sectors like Energy and Financials, followed by Consumer Discretionary, and weakest in REITs and Utilities.
- Tech, Staples, and Health Care have been middle of the pack on EPS revisions trends.





For REITs, FFO/share revisions are used instead of EPS revisions.
Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates; as of 06/21/2020

Recent Shifts in Consensus 2020 EPS/Revenue Growth, and EBIT Margin Estimates by Sector

Key Takeaways

- When we look at changes to 2020 forecasts in percentage terms, we see resilience for defensive sectors like Consumer Staples, Utilities, and Health Care plus Technology. 2020 cuts have been less severe than other sectors.
- The worst hits have also come to certain cyclicals like Industrials, Financials, and Consumer Discretionary, plus Energy.
- Materials has been surprisingly resilient in the cyclical/commodity category.

	Current Level			Recent Shift (Since 03/23/20)		
	2020 Revenue Growth	2020 EBIT Margin	2020 EPS Growth	2020 Revenue Growth	2020 EBIT Margin	2020 EPS Growth
Official GICS Sectors						
Consumer Staples	1.2%	1.2%	-3.6%	-1.9%	-1.9%	-6.7%
Utilities	0.6%	0.6%	1.7%	-1.5%	-1.5%	-1.6%
Health Care	6.7%	6.7%	-1.7%	-2.4%	-2.4%	-8.1%
Energy	-32.2%	-32.2%	-108.2%	-18.6%	-18.6%	-58.3%
Materials	-8.8%	-8.8%	-21.5%	-8.6%	-8.6%	-22.4%
Financials	-3.4%	-3.4%	-36.3%	-5.2%	-5.2%	-36.2%
Industrials	-15.9%	-15.9%	-50.4%	-14.2%	-14.2%	-41.1%
Consumer Discretionary	-6.4%	-6.4%	-55.5%	-8.4%	-8.4%	-48.2%
Communication Services	-1.6%	-1.6%	-19.9%	-8.2%	-8.2%	-22.1%
Technology	0.7%	0.7%	-0.9%	-4.5%	-4.5%	-7.7%

Threshold for shading: Shift is lower than S&P 500 estimate revisions shift

Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates. As of 06/16/2020.

2020 & 2021 Consensus EPS Growth Expectations by Sector

Key Takeaways

- Almost every major sector in the S&P 500 is currently expected to post a strong recovery in EPS growth in 2021.
- The recovery is expected to be the strongest in Industrials and Consumer Discretionary, followed by Materials and Financials.
- Consumer Staples and Utilities are expected to see more modest EPS growth.
- Health Care, Tech, and Communication Services are middle of the pack.

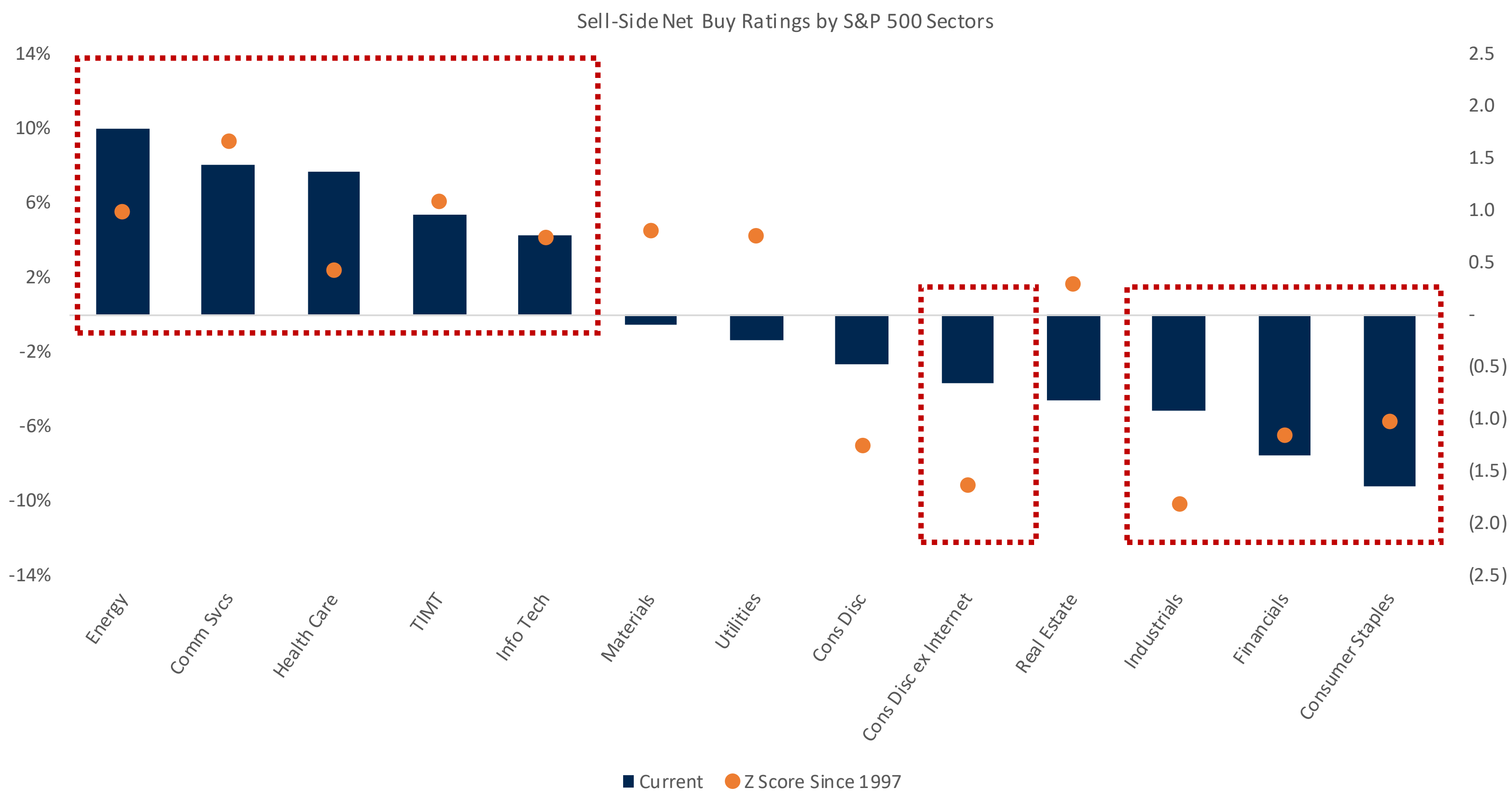
Official GICS Sectors	**2020 EPS Growth**	**2021 EPS Growth**
Consumer Staples	-3.6%	9.0%
Utilities	1.7%	5.8%
Health Care	-1.7%	17.5%
Energy	-108.2%	NA
Materials	-21.5%	31.8%
Financials	-36.3%	34.8%
Industrials	-50.4%	74.2%
Consumer Discretionary	-55.5%	113.1%
Communication Services	-19.9%	25.3%
Technology	-0.9%	18.2%

Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, CIQ estimates; as of 06/16/2020

Sell-Side Sentiment by Sector

Key Takeaways

- Sell-side net buy ratings are high relative to other sectors and history for Energy, and Communication Services/Tech/TIMT, plus Health Care and Tech. These have been the most in favor areas on the sell-side.
- The opposite has been true for Staples, Financials, Industrials, and Consumer Discretionary ex Internet. Net buys are low vs. other sectors and history. These have been the most out of favor areas on the sell-side.

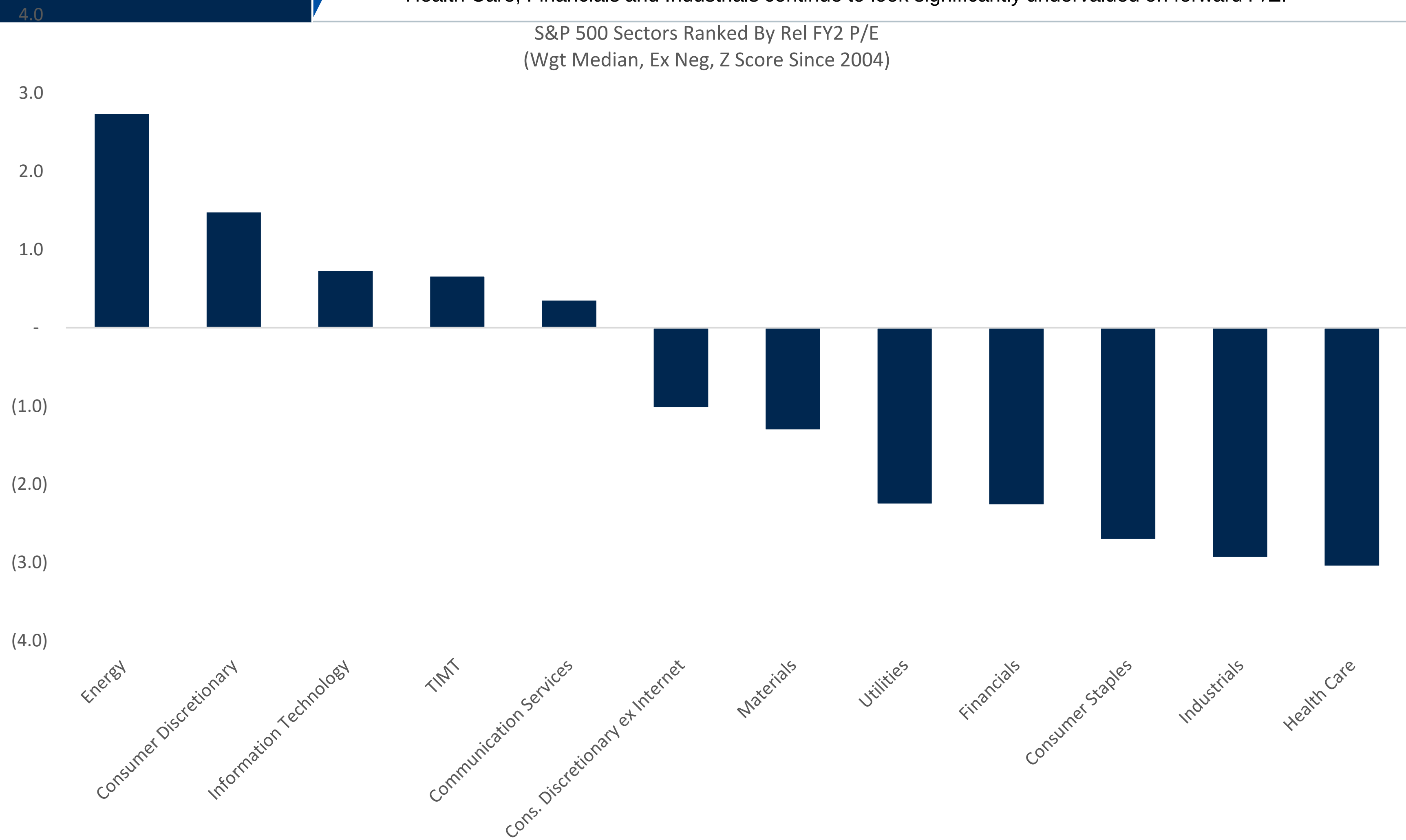


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi; as of 06/12/2020

Valuations by Sector

Key Takeaways

- Consumer Discretionary (inclusive of Internet) and Energy continue to look most overvalued today on forward P/E.
- Technology remains slightly overvalued on forward P/E, though less so than it had in recent months.
- Utilities and Staples now look undervalued on forward P/E, a change from the start of the year.
- Health Care, Financials and Industrials continue to look significantly undervalued on forward P/E.

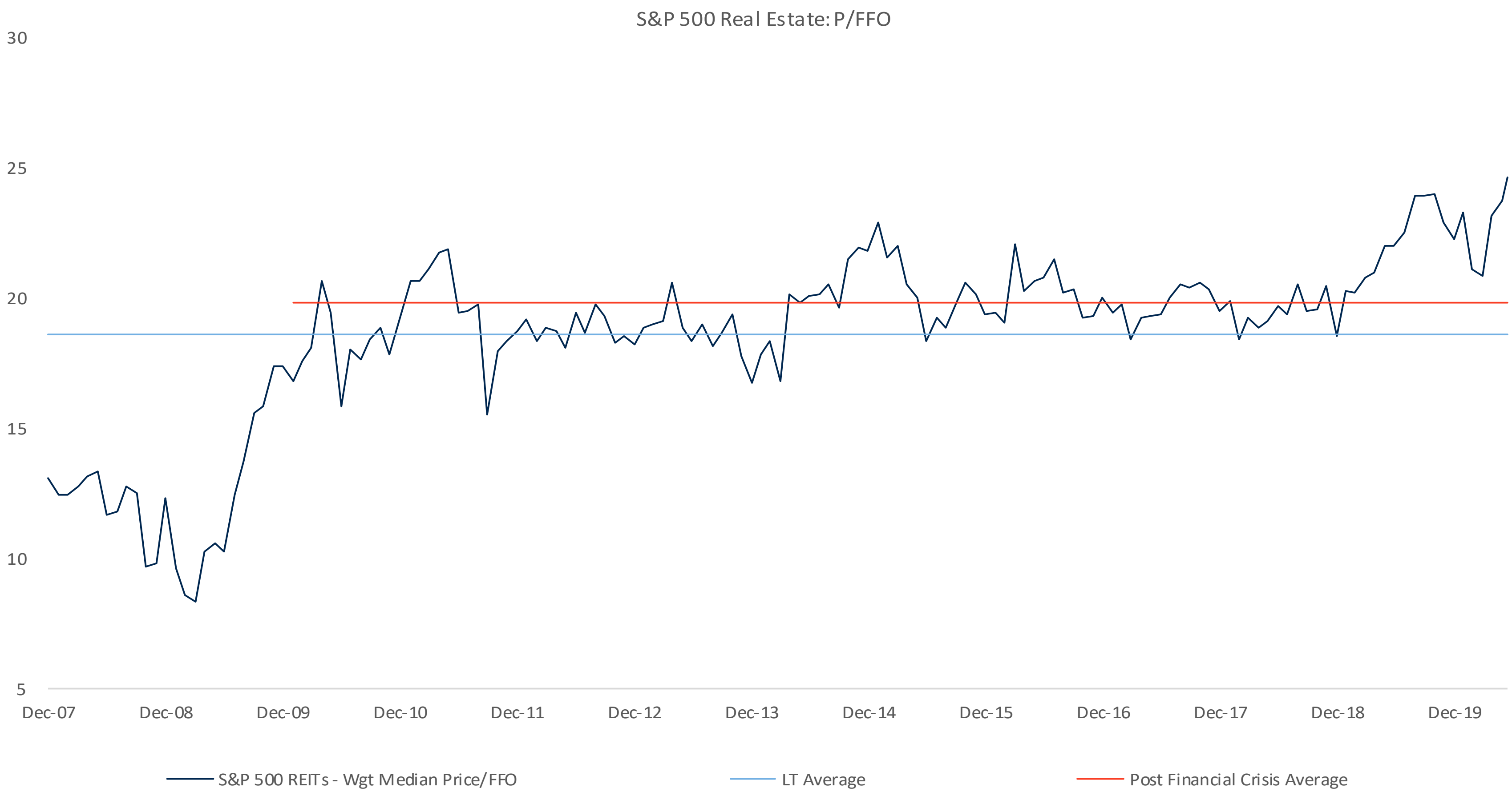


Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat, CIQ estimates, IBES estimates; as of 06/18/2020

REITs Valuations

Key Takeaways

- Since forward P/E is not a relevant metric for REITs, we evaluate this sector's valuations using Price/FFO.
- REITs continue to look overvalued relative to history and recently reached their highest level since 2007.



Source: RBC US Equity Strategy, S&P Capital IQ/Clarifi, Compustat, CIQ estimates, IBES estimates; as of 06/18/2020

Historical S&P 500 Sector Performance in Recessions

Key Takeaways

- Consumer Staples, Health Care, Utilities and Energy tend to outperform during recessions. Communication Services and Consumer Discretionary excluding Internet also outperformed in two of the three recessions.
- Financials, Tech, and Industrials underperformed the S&P 500 on both average and median terms in the last three recessions.

Sectors\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Consumer Staples	6.9%	96.2%	60.0%	***54.4%***	***60.0%***
Health Care	8.0%	74.6%	38.6%	***40.4%***	***38.6%***
Utilities	22.2%	72.8%	27.7%	***40.9%***	***27.7%***
Energy	18.9%	46.8%	22.1%	***29.2%***	***22.1%***
Comm Svcs	8.1%	-18.8%	2.2%	***-2.8%***	***2.2%***
Cons Disc ex Internet	-16.7%	13.7%	1.0%	***-0.6%***	***1.0%***
TIMT	0.0%	-48.5%	5.7%	***-14.2%***	***0.0%***
Cons Disc	-16.7%	13.7%	-0.3%	***-1.1%***	***-0.3%***
Materials	-4.4%	29.2%	-5.6%	***6.4%***	***-4.4%***
Industrials	-10.3%	18.7%	-18.6%	***-3.4%***	***-10.3%***
Info Tech	-13.8%	-59.0%	8.5%	***-21.4%***	***-13.8%***
Financials	-16.6%	41.0%	-60.2%	***-11.9%***	***-16.6%***
Real Estate	NA	NA	-34.8%	***NA***	***NA***
S&P 500	**-19.9%**	**-49.1%**	**-56.8%**	***-41.9%***	***-49.1%***

Source: RBC US Equity Strategy, ClariFi
Data showing trough-to-peak performance relative to S&P500 during recessions (07/16/1990 – 10/11/1990, 03/24/2000–09/21/2001, 10/09/2007–03/09/2009).
Green shading indicates outperforming S&P 500 (data > 0); red shading indicates underperforming S&P 500 (data < 0).

Historical S&P 500 Sector Performance in Recession Related Recovery Trades

Key Takeaways

- Looking back over the last three recessions, Financials, Consumer Discretionary (both including and excluding Internet), Materials, Industrials, and Tech tended to outperform in recovery trades.
- We don't think investors should blindly follow this playbook, however. Consumer Discretionary has outperformed in the late-March/April 2020 rebound, but many investors with whom we've spoken have expressed doubts about how soon daily life in the US will return to normal and how soon the US consumer will bounce back. The potential for lasting wounds and scars to impact the US consumer after this crisis passes makes it different from prior recessions, in our view.

Sectors\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Financials	23.4%	4.1%	39.5%	***22.3%***	***23.4%***
Consumer Discretionary	20.0%	19.4%	11.6%	***17.0%***	***19.4%***
Cons Discretionary ex Internet	20.0%	19.4%	8.4%	***15.9%***	***19.4%***
Materials	5.9%	12.9%	10.8%	***9.9%***	***10.8%***
Industrials	1.4%	9.1%	11.5%	***7.3%***	***9.1%***
Info Tech	-6.2%	8.3%	10.7%	***4.3%***	***8.3%***
TIMT	-12.9%	-3.3%	7.6%	***-2.9%***	***-3.3%***
Consumer Staples	6.4%	-5.0%	-15.8%	***-4.8%***	***-5.0%***
Health Care	8.8%	-8.3%	-13.2%	***-4.2%***	***-8.3%***
Utilities	-14.1%	-22.4%	-13.9%	***-16.8%***	***-14.1%***
Energy	-18.0%	0.1%	-15.9%	***-11.3%***	***-15.9%***
Communication Services	-16.2%	-19.0%	-1.1%	***-12.1%***	***-16.2%***
Real Estate	NA	NA	130.3%	***NA***	***NA***
S&P 500	**38.4%**	**22.0%**	**69.7%**	***43.4%***	***38.4%***

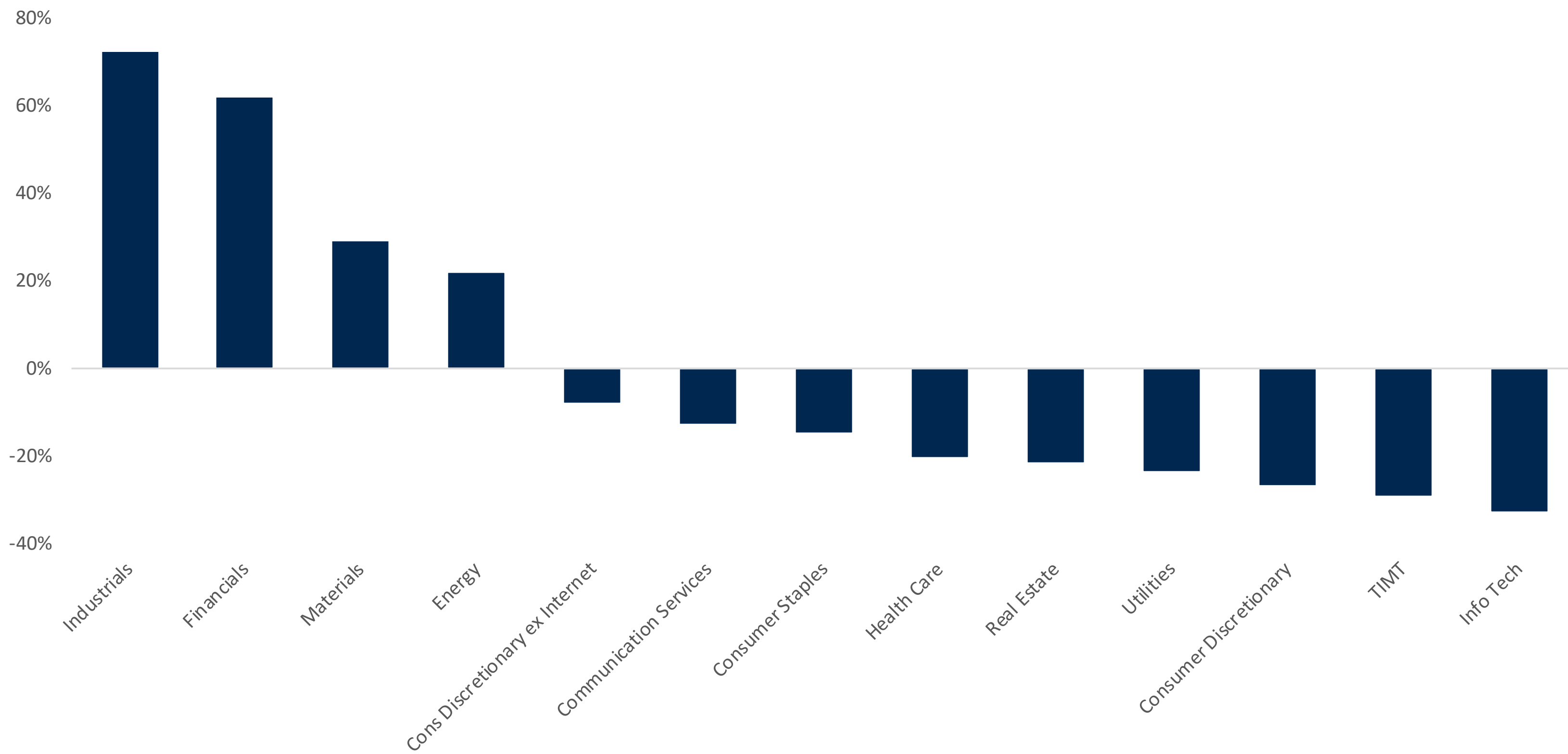
Source: RBC US Equity Strategy, ClariFi
Data showing trough-to-peak performance relative to S&P500 during recession recoveries (10/11/1990–08/28/1991, 09/21/2001–03/19/2002, 03/09/2009–12/28/2009).
Peak dates are based on highest closing price six months after the recessions ended on March 1991, November 2001, and June 2009
Green shading indicates outperforming S&P 500 (data > 0); red shading indicates underperforming S&P 500 (data < 0).

Sector Sensitivities to ISM New Orders

Key Takeaways

- If ISM new orders pick up, history suggests Utilities, Consumer Discretionary, and Tech are likely to lag, as their performance has tended to move inversely with ISM new orders.
- Meanwhile, Industrials and Financials seem most likely to outperform if ISM new orders rise, given positive correlations with trends in new orders—we view these as the most economically sensitive areas in the current stock market/economic cycle.
- Note that Health Care has been trading less defensively. We think it has moved into a third category of secular growth.

Correlation Between S&P 500 Sector Performance (Relative to the S&P 500) & ISM New Orders Since 2010

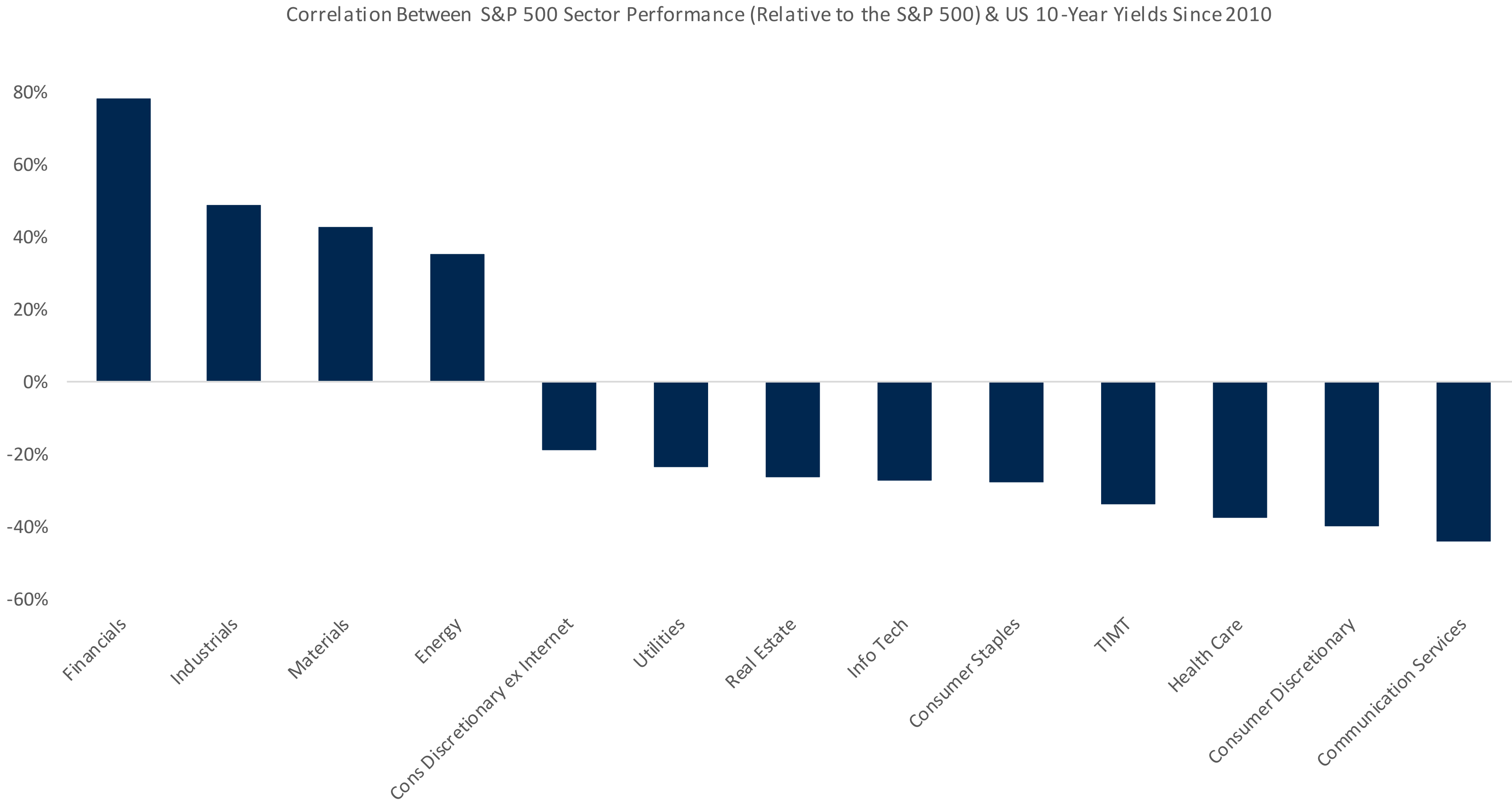


Source: RBC US Equity Strategy, Haver. As of 06/15/2020

Sector Sensitivities to 10-Year Treasury Yields

Key Takeaways

- Financials performance, relative to the broader US equity market, moves closely with trends in the 10-year Treasury yield. We need to see a pick up in yields for this sector to start leading again.
- Health Care, Consumer Discretionary, and Communication Services trade most inversely with 10-year yields.
- This analysis generally mimics what we see on our ISM study as both move on similar cycles.

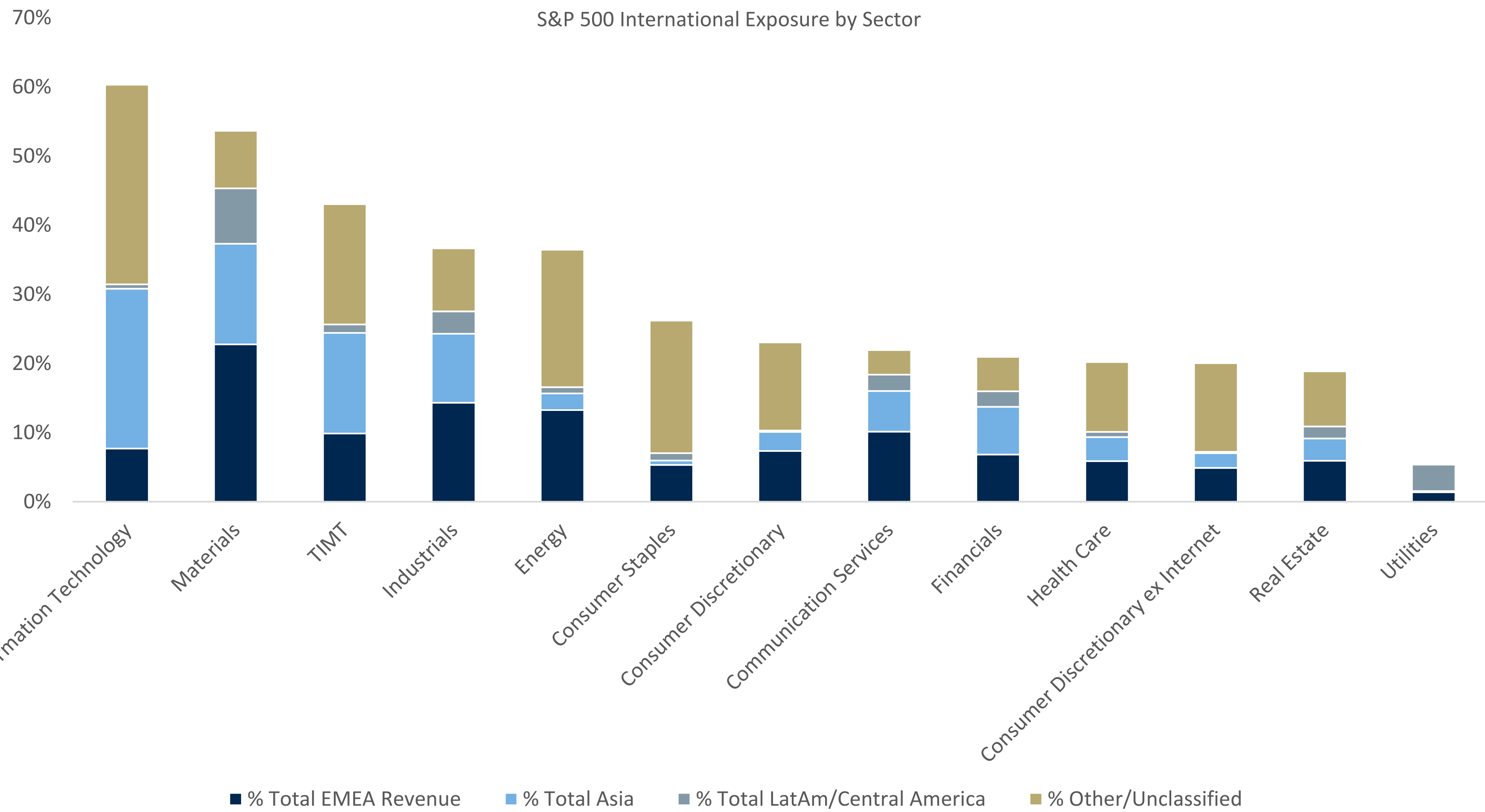


Source: RBC US Equity Strategy, Haver

International Revenue Exposure by Sector

Key Takeaways

- International revenues are highest for Tech, Materials and Industrials, pointing to stronger headwinds to these sectors from a stronger US Dollar and stronger tailwinds for these sectors from a weaker US Dollar.



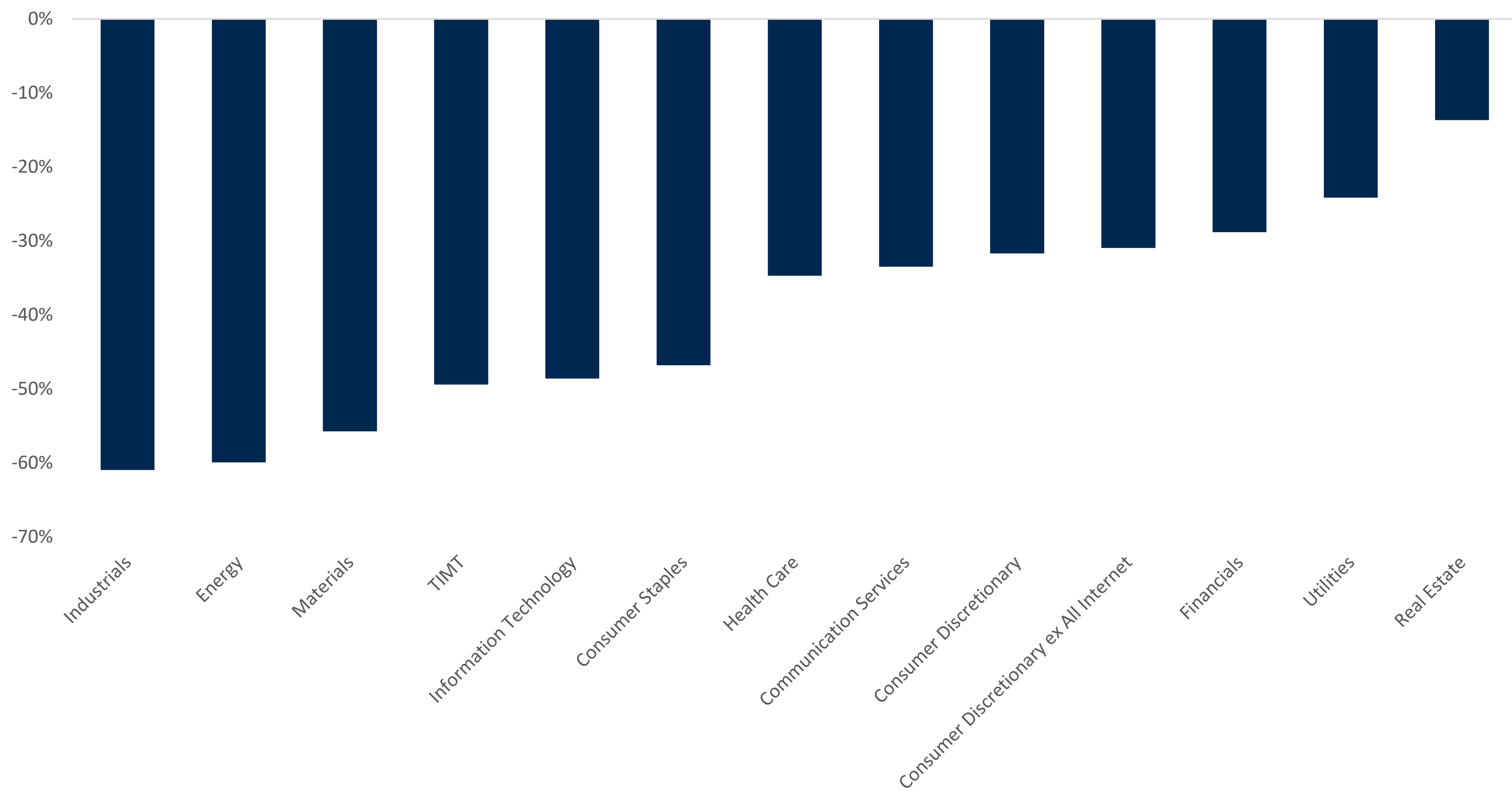
Source: RBC US Equity Strategy. Bloomberg

EPS Revisions & US Dollar Sensitivities

Key Takeaways

- We examined the relationship between sector EPS revisions trends and USD moves.
- We found the most inverse correlations for Industrials, Energy and Materials – meaning that these sectors are most prone to downward revisions when the Dollar is stronger year-over-year.
- Note that most sectors tend to see downward revisions when the Dollar is strengthening.

Large Cap Sector EPS Revisions Sensitivity to USD - Correlations Between FY1 & FY2 EPS Est Revisions and USD Since 2004

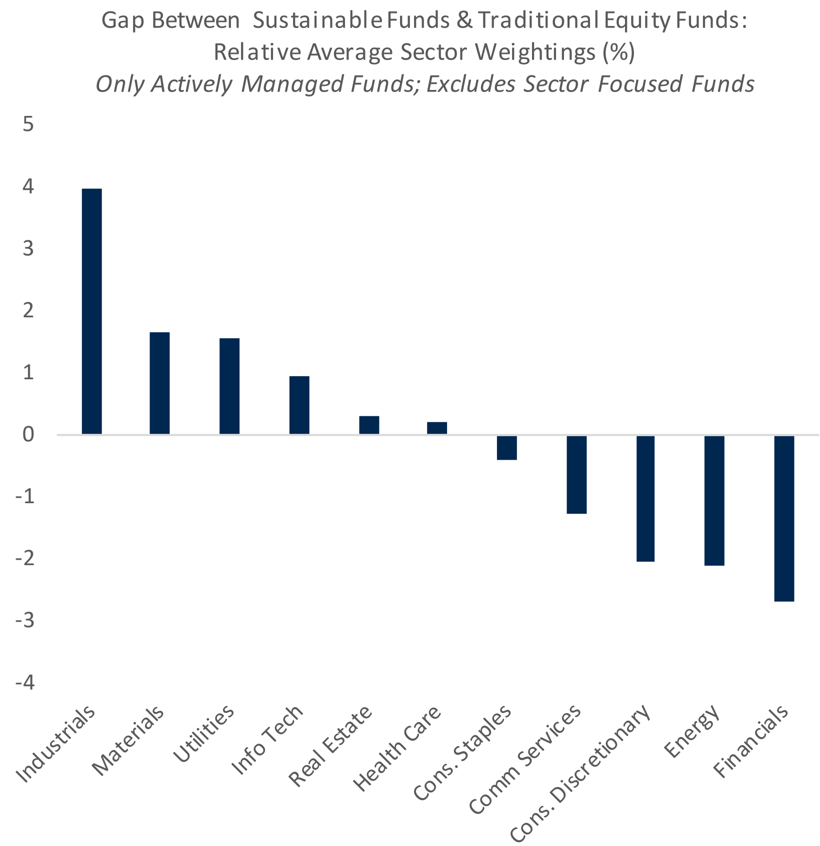


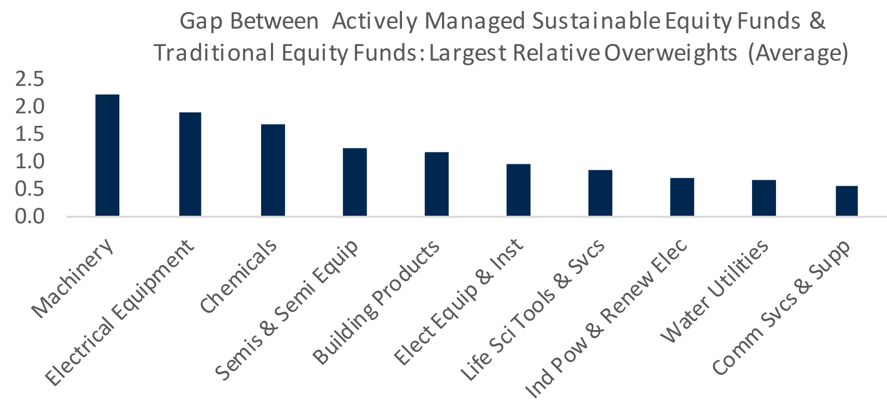
Source: RBC US Equity Strategy. Bloomberg

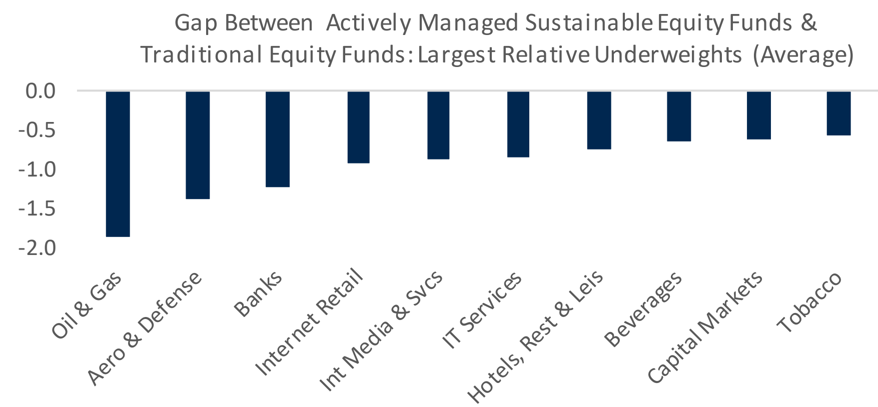
ESG Fund Weightings by Sector & Industry

Key Takeaways

- Compared to traditional actively managed equity funds, actively managed sustainable equity funds tend to have much more exposure to Industrials, Materials, Utilities, and Tech.
- On the flip side, they tend to have less exposure to Financials, Energy, Consumer Discretionary, and Communication Services.
- Based on our scrubbed universe of sustainable equity funds (Morningstar tracked US, global, and sector focused equity funds with a clear, heavy focus on sustainable investing practices, and with meaningful assets invested in US equities; representing $240 billion AUM).





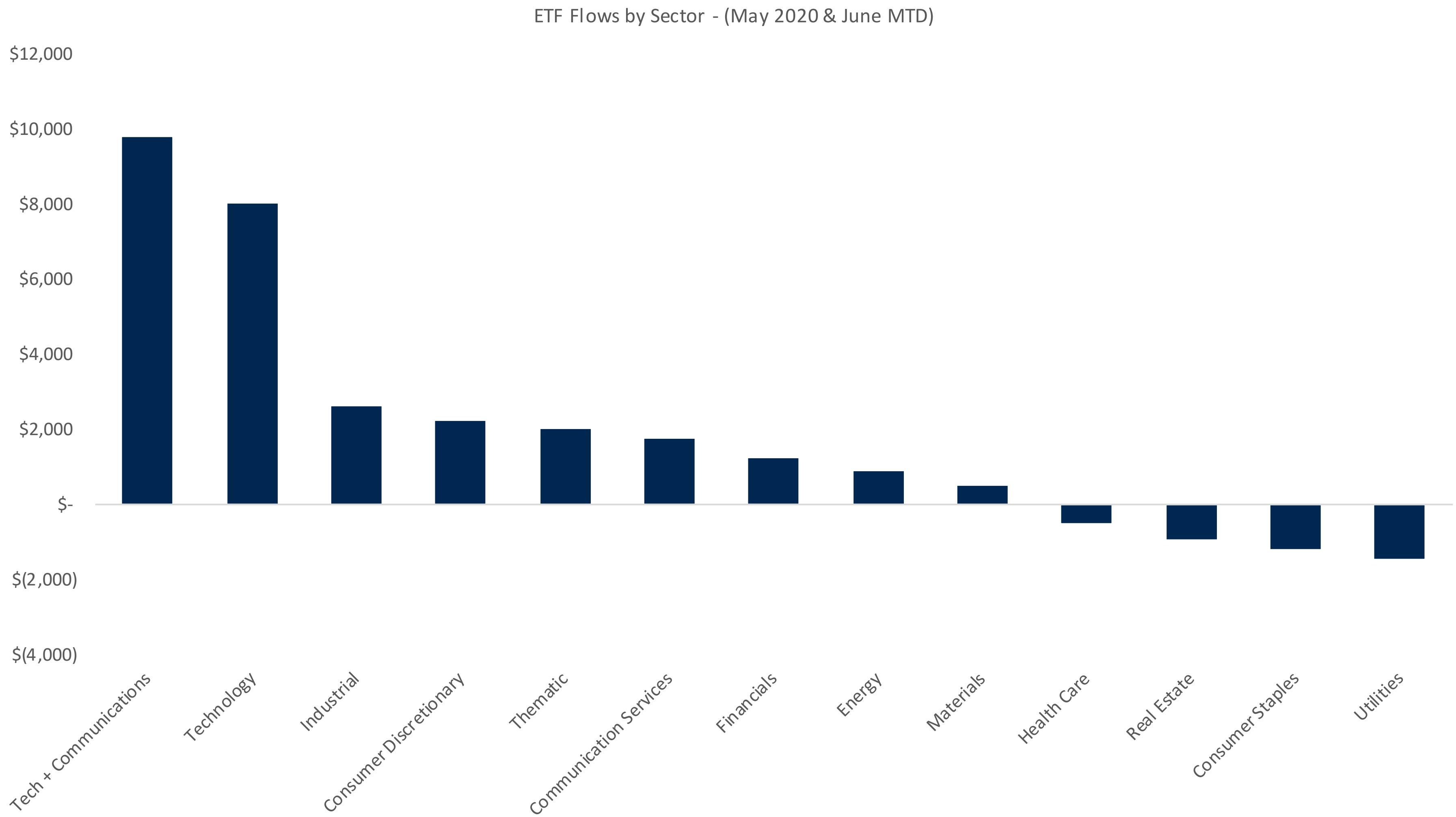


Source: RBC US Equity Strategy. Morningstar, as of 12/31/2019

ETF Flows Strongest in Tech Recently

Key Takeaways

- In May and through mid June, Tech has seen the strongest ETF inflows. Utilities, Consumer Staples, REITs, and Health Care have been seeing outflows.



Source: RBC US Equity Strategy, Bloomberg

Large Cap Industries

Digging Down Within The 11 Major GICS
Sectors For The Russell 1000

Capital
Markets

Recent Russell 1000 Industry Performance, Ranked by Rebound Performance

Key Takeaways

- Some of the industries most challenged from a fundamental perspective by the pandemic have led in the rebound off the March 23rd low, including Autos, Oil & Gas, Leisure, Specialty Retail and Health Care Providers & Services.
- Defensives like Food & Staples Retailing, Household Products, Diversified Telecom & Food have also lagged.

Industry\Trading Period	YTD	Drawdown	Rebound
Energy Equipment & Services	-46.4%	-46.5%	43.6%
Automobiles	43.6%	-26.2%	40.0%
Transportation Infrastructure	-22.4%	-42.6%	35.5%
Oil, Gas & Consumable Fuels	-29.5%	-31.9%	35.0%
Leisure Products	-16.2%	-23.9%	27.5%
Household Durables	-4.5%	-27.7%	27.3%
Consumer Finance	-23.6%	-31.5%	24.1%
Distributors	-7.0%	-17.9%	22.8%
Electrical Equipment	-9.2%	-14.2%	18.2%
Auto Components	-17.8%	-13.5%	17.6%
Aerospace & Defense	-15.4%	-22.1%	16.1%
Textiles, Apparel & Luxury Goods	-9.4%	-10.3%	13.8%
Trading Companies & Distributors	-2.1%	-5.5%	12.9%
Specialty Retail	6.5%	-6.7%	12.6%
Construction & Engineering	-8.2%	-13.0%	10.8%
Marine	-37.6%	-21.9%	10.8%
Machinery	-9.1%	-7.8%	10.2%
Airlines	-42.9%	-36.1%	9.6%
Chemicals	-6.8%	-5.2%	9.1%
Capital Markets	-0.5%	-8.3%	8.8%
Road & Rail	0.0%	-6.8%	8.0%
Hotels, Restaurants & Leisure	-16.3%	-14.4%	7.7%
Mortgage REITs	-35.4%	-37.6%	6.5%
Health Care Providers & Services	-2.0%	-3.1%	6.4%
Banks	-29.7%	-19.9%	6.3%
Metals & Mining	-0.3%	5.8%	5.6%
Construction Materials	-18.2%	-12.4%	5.6%
Building Products	-9.5%	-7.7%	5.5%
Professional Services	6.6%	-3.8%	4.6%
Electronic Equipment, Instruments & Components	-6.1%	-0.1%	4.0%
REITs	-9.1%	-9.5%	3.3%
Insurance	-15.9%	-13.8%	3.1%
Health Care Technology	26.0%	14.1%	2.6%
Containers & Packaging	-9.4%	-0.8%	1.5%

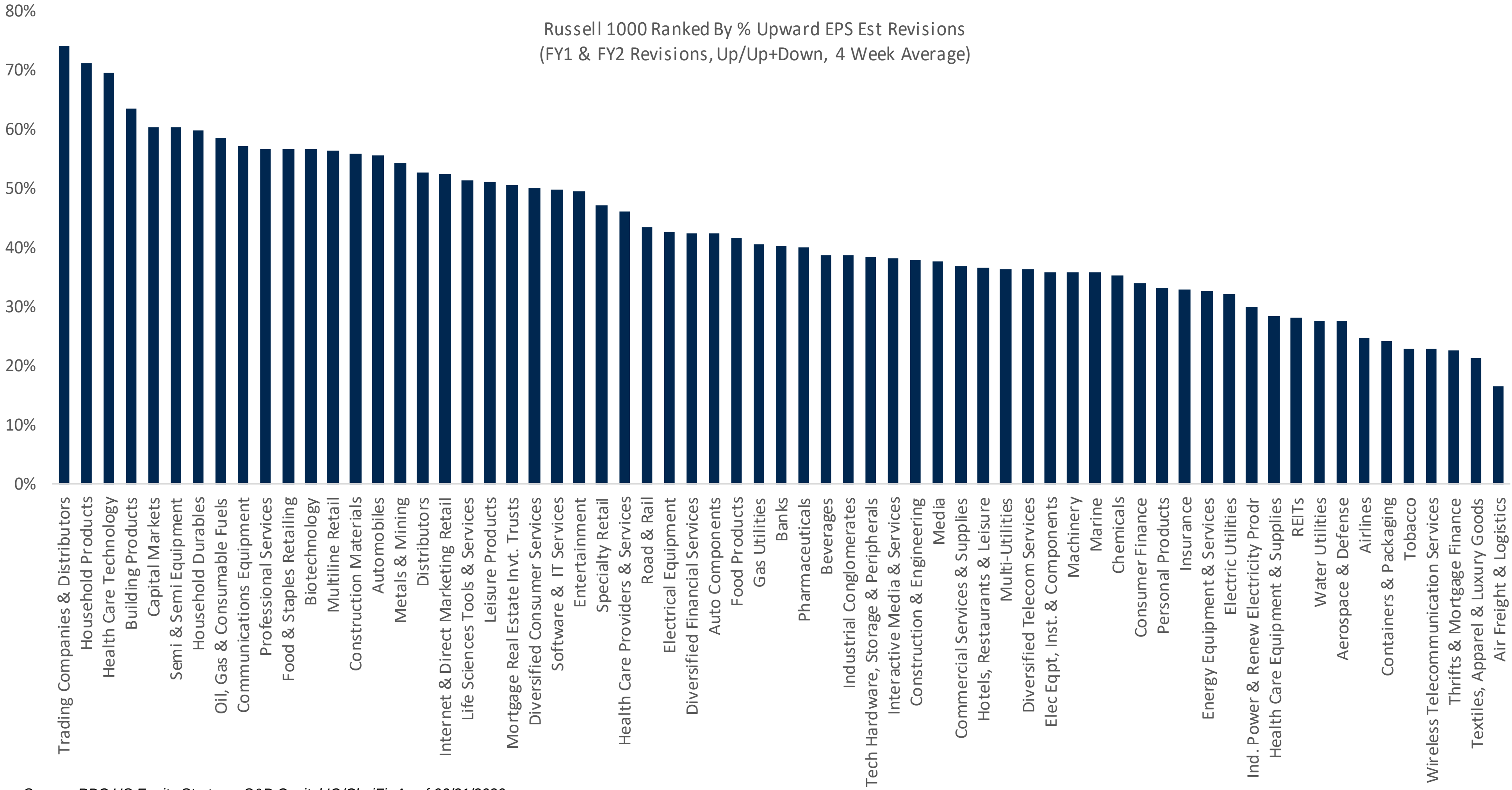
	YTD	Drawdown	Rebound
Peripherals	18.7%	4.6%	1.1%
Industrial Conglomerates	-14.0%	-8.5%	1.1%
Health Care Equipment & Supplies	0.5%	0.9%	0.9%
Commercial Services & Supplies	-3.2%	-4.8%	0.3%
Equipment	11.5%	5.1%	-0.1%
Personal Products	-6.0%	1.3%	-0.7%
Software & IT Services	18.4%	4.4%	-1.1%
Interactive Media & Services	12.8%	4.6%	-1.2%
Electricity Producers	-20.7%	-12.0%	-1.3%
Life Sciences Tools & Services	6.7%	11.6%	-1.4%
Thrifts & Mortgage Finance	-21.4%	-3.9%	-2.1%
Diversified Consumer Services	-13.9%	-6.4%	-2.4%
Electric Utilities	-5.7%	-2.9%	-3.9%
Paper & Forest Products	-39.8%	-14.6%	-4.0%
Gas Utilities	-14.0%	-0.6%	-4.0%
Communications Equipment	-1.9%	12.1%	-4.5%
Multi-Utilities	-7.2%	-0.5%	-4.9%
Media	-8.0%	1.7%	-5.0%
Water Utilities	4.9%	2.6%	-5.4%
Wireless Telecommunication Services	39.7%	15.1%	-5.9%
Internet & Direct Marketing Retail	40.0%	27.6%	-6.4%
Multiline Retail	0.2%	18.5%	-8.8%
Food Products	-0.6%	13.6%	-8.9%
Tobacco	-9.1%	6.3%	-9.1%
Entertainment	7.7%	14.9%	-9.6%
Beverages	-4.4%	2.4%	-9.7%
Biotechnology	15.5%	25.9%	-10.3%
Pharmaceuticals	-2.4%	17.1%	-10.8%
Air Freight & Logistics	-3.9%	20.0%	-11.9%
Diversified Financial Services	-18.6%	6.0%	-14.0%
Household Products	3.5%	21.0%	-16.3%
Diversified Telecommunication Services	-11.1%	17.4%	-16.9%
Food & Staples Retailing	-3.1%	34.0%	-23.9%
Russell 1000	**-2.4%**	**-34.6%**	**46.9%**

Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi. Drawdown period is from 02/19/2020 to 03/23/2020. Rebound period is from 03/23/2020 to 06/08/2020. As of 06/18/2020. Ranked by performance YTD.

Current Industry EPS Revisions Trends

Key Takeaways

- In recent weeks, earnings revisions (the percent of revisions to the upside, a gauge of earnings sentiment) have been most positive for Trading Companies & Distributors, Household Products, Health Care Technology, Building Products and Capital Markets among other groups.
- Revisions trends have been weakest for Thrifts & Mortgage Finance,Textiles Apparel & Luxury Goods and Air Freight & Logistics.

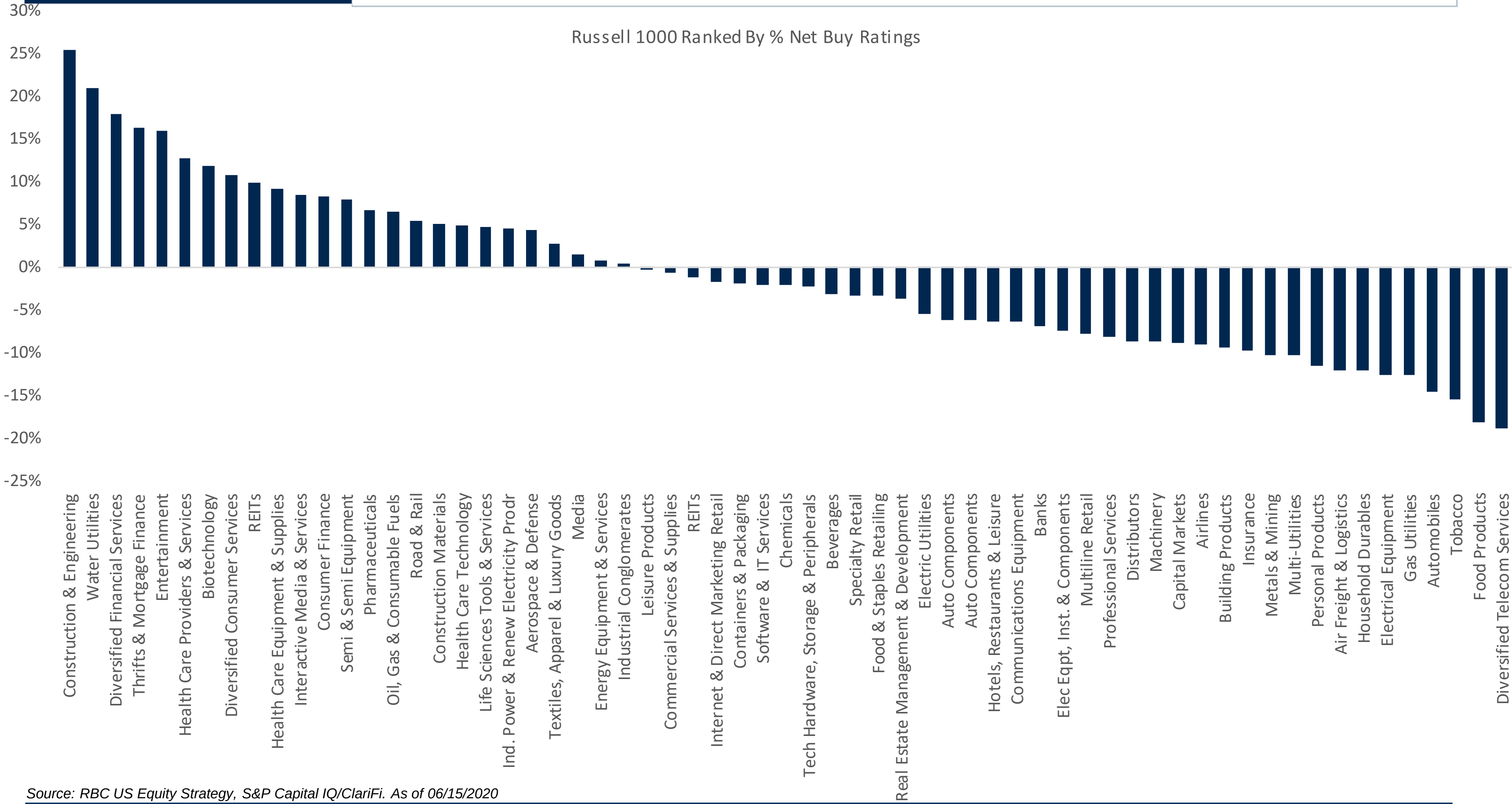


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi. As of 06/21/2020.

Current Industry Sell-Side Buy Ratings Relative to the Broader US Equity Market

Key Takeaways

- Water Utilities and Construction & Engineering are most in favor on the sell-side, while Food Products and Diversified Telecom Services are most out of favor.

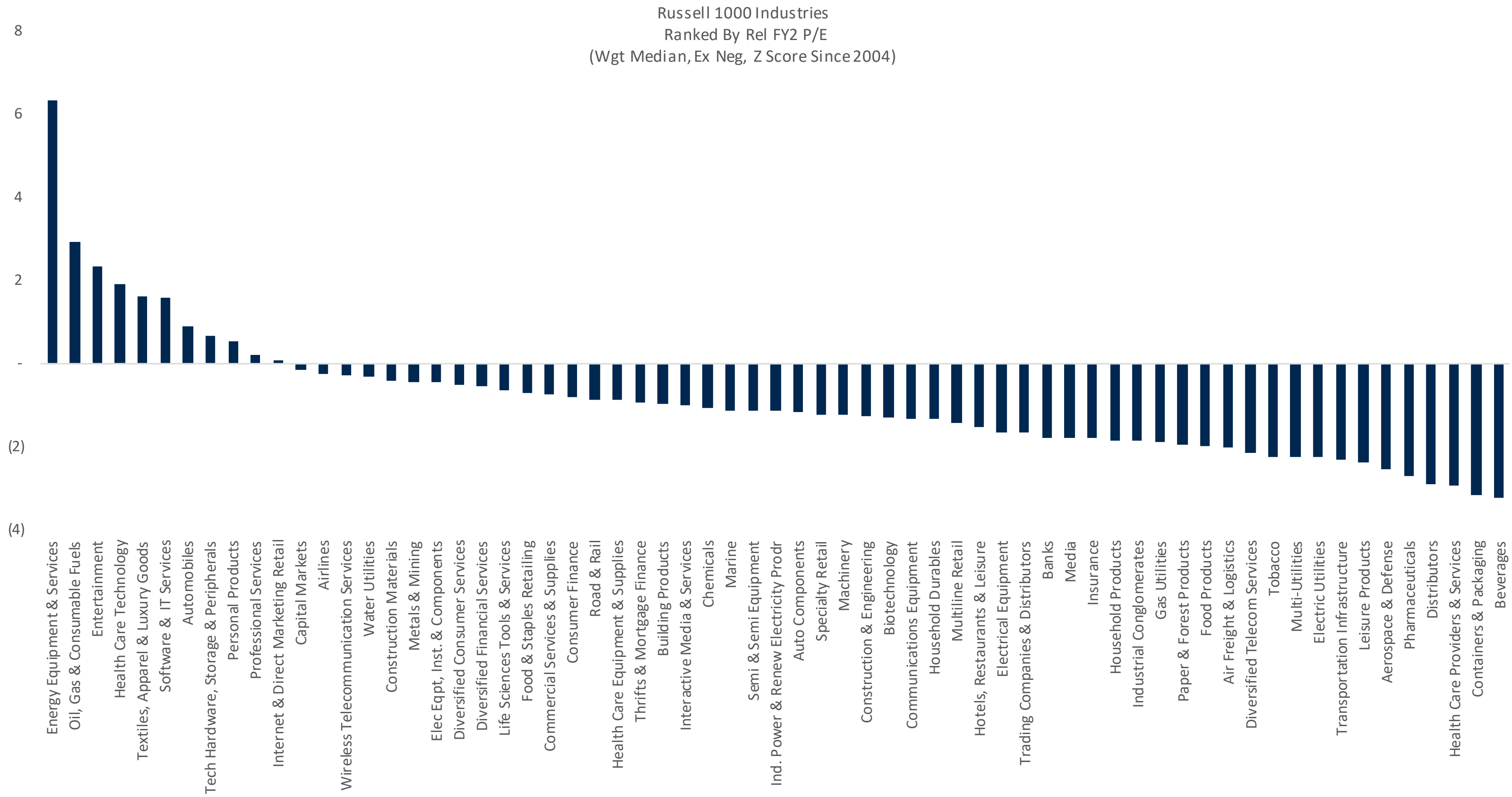


Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi. As of 06/15/2020

Current Industry P/E's Relative to the Broader US Equity Market

Key Takeaways

- Energy Equipment & Services and Oil, Gas & Consumable Fuels look most overvalued, while Beverages look most undervalued.



Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi. As of 06/18/2020

Historical Russell 1000 Industry Performance in Recessions, Ranked by Median Return

Key Takeaways

- Tobacco, Beverages, Water Utilities, Food Products, Household Products, Pharmaceuticals, Electric Utilities, Health Care Equipment & Supplies, and Oil, Gas & Consumable Fuels outperformed in the last three recessions.
- Media, Entertainment, Construction & Engineering, Electronic Equipment, Instruments & Components, Semiconductors & Semiconductor Equipment, Wireless Telecommunication Services, Communications Equipment, Airlines, and Internet & Direct Marketing Retail underperformed in the last three recessions.

Industry\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Tobacco	13.4%	251.2%	75.7%	***113.4%***	***75.7%***
Food & Staples Retailing	-1.2%	66.1%	67.7%	***44.2%***	***66.1%***
Beverages	5.5%	136.2%	59.0%	***66.9%***	***59.0%***
Water Utilities	3.0%	278.9%	53.1%	***111.7%***	***53.1%***
Food Products	9.9%	172.2%	52.8%	***78.3%***	***52.8%***
Household Products	1.3%	140.4%	48.6%	***63.4%***	***48.6%***
Pharmaceuticals	9.3%	59.4%	45.4%	***38.0%***	***45.4%***
Electric Utilities	21.6%	64.9%	33.4%	***40.0%***	***33.4%***
Health Care Equipment & Supplies	4.4%	77.4%	31.4%	***37.7%***	***31.4%***
Oil, Gas & Consumable Fuels	19.7%	79.4%	31.3%	***43.5%***	***31.3%***
Multi-Utilities	26.9%	-76.4%	43.0%	***-2.2%***	***26.9%***
Gas Utilities	24.8%	1.8%	19.7%	***15.4%***	***19.7%***
Diversified Telecommunication Services	13.5%	-46.2%	24.5%	***-2.7%***	***13.5%***
Road & Rail	-1.8%	131.3%	12.7%	***47.4%***	***12.7%***
Energy Equipment & Services	10.8%	25.7%	-18.8%	***5.9%***	***10.8%***
Chemicals	-5.6%	59.0%	10.4%	***21.3%***	***10.4%***
Commercial Services & Supplies	-14.1%	66.2%	6.9%	***19.7%***	***6.9%***
Hotels, Restaurants & Leisure	-21.7%	59.8%	6.9%	***15.0%***	***6.9%***
Trading Companies & Distributors	5.7%	99.3%	6.9%	***37.3%***	***6.9%***
Air Freight & Logistics	-11.3%	125.6%	5.2%	***39.8%***	***5.2%***
Health Care Providers & Services	1.6%	209.1%	4.2%	***71.6%***	***4.2%***
Specialty Retail	-28.0%	2.4%	16.6%	***-3.0%***	***2.4%***
Construction Materials	-7.8%	56.5%	1.7%	***16.8%***	***1.7%***
Biotechnology	0.8%	-3.9%	93.3%	***30.1%***	***0.8%***
Metals & Mining	-1.2%	27.9%	-26.7%	***0.0%***	***-1.2%***
Leisure Products	-1.5%	33.1%	-15.7%	***5.3%***	***-1.5%***
Aerospace & Defense	-2.0%	83.8%	-3.6%	***26.1%***	***-2.0%***
Russell 1000	**-19.7%**	**-47.3%**	**-55.4%**	**-40.8%**	**-47.3%**

Industry\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Personal Products	-2.0%	70.8%	-3.7%	***21.7%***	***-2.0%***
Containers & Packaging	-3.4%	32.0%	-8.2%	***6.8%***	***-3.4%***
Paper & Forest Products	-4.3%	41.6%	-55.9%	***-6.2%***	***-4.3%***
Electrical Equipment	-12.1%	10.9%	-4.3%	***-1.9%***	***-4.3%***
Industrial Conglomerates	-4.6%	-6.8%	-48.1%	***-19.8%***	***-6.8%***
Textiles, Apparel & Luxury Goods	-23.4%	96.5%	-8.8%	***21.4%***	***-8.8%***
Auto Components	-9.2%	32.8%	-49.2%	***-8.5%***	***-9.2%***
Insurance	-9.7%	72.4%	-43.8%	***6.3%***	***-9.7%***
Technology Hardware, Storage & Peripherals	-9.8%	-54.5%	13.4%	***-17.0%***	***-9.8%***
Household Durables	-11.8%	118.4%	-35.3%	***23.8%***	***-11.8%***
Multiline Retail	-15.1%	49.9%	-11.8%	***7.6%***	***-11.8%***
Building Products	-13.0%	70.6%	-42.1%	***5.1%***	***-13.0%***
REITs	-13.5%	135.1%	-36.2%	***28.5%***	***-13.5%***
Automobiles	-11.7%	-13.8%	-68.3%	***-31.3%***	***-13.8%***
Banks	-15.1%	98.9%	-52.5%	***10.4%***	***-15.1%***
Machinery	-15.6%	65.9%	-20.3%	***10.0%***	***-15.6%***
Software & IT Services	-17.2%	-50.7%	23.1%	***-14.9%***	***-17.2%***
Media	-5.4%	-17.7%	-18.3%	***-13.8%***	***-17.7%***
Entertainment	-8.4%	-41.4%	-18.2%	***-22.7%***	***-18.2%***
Construction & Engineering	-19.6%	-21.1%	-7.4%	***-16.1%***	***-19.6%***
Diversified Financial Services	-21.1%	26.0%	-67.3%	***-20.8%***	***-21.1%***
Electronic Equipment, Instruments & Components	-21.3%	-67.1%	-21.6%	***-36.7%***	***-21.6%***
Semiconductors & Semiconductor Equipment	-27.3%	-68.4%	-2.6%	***-32.8%***	***-27.3%***
Wireless Telecommunication Services	-31.5%	-77.0%	-27.0%	***-45.2%***	***-31.5%***
Communications Equipment	-31.9%	-83.0%	-2.0%	***-39.0%***	***-31.9%***
Airlines	-20.5%	-33.1%	-54.4%	***-36.0%***	***-33.1%***
Internet & Direct Marketing Retail	-34.8%	-65.8%	-14.1%	***-38.2%***	***-34.8%***
Russell 1000	**-19.7%**	**-47.3%**	**-55.4%**	**-40.8%**	**-47.3%**

Source: RBC US Equity Strategy, ClariFi
Data showing trough-to-peak performance relative to Russell 1000 during recessions (07/16/1990 – 10/11/1990, 04/07/2000–10/09/2002, 10/09/2007–03/09/2009).
Green shading indicates outperforming Russell 1000 (data > 0); red shading indicates underperforming Russell 1000 (data < 0).

Historical Russell 1000 Industry Performance in Recovery Trades, Ranked by Median Return

Key Takeaways

- Looking back over the last three recession recoveries, Internet & Direct Marketing Retail, Banks, Auto Components, Household Durables, Diversified Financial Services, Textiles, Apparel & Luxury Goods, Specialty Retail, Machinery, Building Products, Personal Products, Multiline Retail, Containers & Packaging, Chemicals, Paper & Forest Products, Road & Rail, Semiconductors & Semiconductor Equipment, and Software & IT Services outperformed in the last three recoveries.
- Electric Utilities, Oil, Gas & Consumable Fuels, and Diversified Telecommunication Services underperformed in the last three recoveries.

Industry\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Internet & Direct Marketing Retail	58.0%	39.6%	26.6%	*41.4%*	*39.6%*
Banks	35.9%	3.5%	33.3%	*24.2%*	*33.3%*
Auto Components	10.2%	32.8%	77.4%	*40.1%*	*32.8%*
Household Durables	16.2%	35.6%	31.3%	*27.7%*	*31.3%*
Electronic Equipment, Instruments & Components	29.0%	-0.4%	28.7%	*19.1%*	*28.7%*
Diversified Financial Services	26.4%	7.9%	57.8%	*30.7%*	*26.4%*
Textiles, Apparel & Luxury Goods	44.9%	24.8%	22.7%	*30.8%*	*24.8%*
Specialty Retail	44.8%	24.6%	2.3%	*23.9%*	*24.6%*
Machinery	3.0%	22.2%	23.6%	*16.3%*	*22.2%*
Airlines	-1.3%	19.6%	45.3%	*21.2%*	*19.6%*
Building Products	18.5%	19.6%	93.8%	*44.0%*	*19.6%*
Personal Products	19.6%	2.6%	33.3%	*18.5%*	*19.6%*
Multiline Retail	33.2%	17.6%	7.8%	*19.5%*	*17.6%*
Containers & Packaging	10.6%	17.2%	15.3%	*14.4%*	*15.3%*
Chemicals	12.5%	13.4%	4.8%	*10.2%*	*12.5%*
Paper & Forest Products	7.5%	11.2%	108.1%	*42.3%*	*11.2%*
Road & Rail	9.3%	10.3%	23.2%	*14.3%*	*10.3%*
Semiconductors & Semiconductor Equipment	10.1%	30.7%	5.9%	*15.5%*	*10.1%*
Energy Equipment & Services	-32.4%	17.4%	9.8%	*-1.7%*	*9.8%*
Automobiles	-17.5%	9.2%	158.4%	*50.0%*	*9.2%*
Metals & Mining	-11.2%	8.9%	21.8%	*6.5%*	*8.9%*
Hotels, Restaurants & Leisure	8.8%	13.4%	-3.4%	*6.3%*	*8.8%*
Software & IT Services	34.2%	6.7%	7.2%	*16.0%*	*7.2%*
Industrial Conglomerates	-8.0%	6.4%	22.3%	*6.9%*	*6.4%*
Electrical Equipment	4.8%	14.5%	0.9%	*6.8%*	*4.8%*
Media	-7.1%	4.6%	16.8%	*4.7%*	*4.6%*
Health Care Providers & Services	16.5%	-6.8%	4.0%	*4.6%*	*4.0%*
Russell 1000	40.4%	22.7%	71.4%	44.8%	40.4%

Industry\Recession Period	July 1990 - Mar 1991	Mar 2001 - Nov 2001	Dec 2007 - June 2009	*Average*	*Median*
Aerospace & Defense	-6.2%	20.3%	3.9%	*6.0%*	*3.9%*
Technology Hardware, Storage & Peripherals	-16.8%	3.2%	18.5%	*1.6%*	*3.2%*
Insurance	1.3%	-2.9%	17.2%	*5.2%*	*1.3%*
Air Freight & Logistics	-14.0%	16.6%	1.3%	*1.3%*	*1.3%*
Communications Equipment	12.2%	-8.8%	0.8%	*1.4%*	*0.8%*
Trading Companies & Distributors	-6.1%	18.0%	0.5%	*4.1%*	*0.5%*
Commercial Services & Supplies	0.5%	10.5%	-4.6%	*2.1%*	*0.5%*
Entertainment	-0.6%	-8.1%	20.4%	*3.9%*	*-0.6%*
Leisure Products	-1.0%	-0.7%	5.4%	*1.2%*	*-0.7%*
Construction & Engineering	5.5%	-1.1%	-23.9%	*-6.5%*	*-1.1%*
REITs	-2.2%	-3.2%	34.3%	*9.6%*	*-2.2%*
Biotechnology	84.2%	-2.6%	-32.8%	*16.3%*	*-2.6%*
Health Care Equipment & Supplies	21.8%	-2.6%	-9.7%	*3.2%*	*-2.6%*
Food & Staples Retailing	1.0%	-5.8%	-23.5%	*-9.4%*	*-5.8%*
Water Utilities	23.0%	-5.8%	-34.0%	*-5.6%*	*-5.8%*
Tobacco	18.1%	-6.3%	-14.1%	*-0.8%*	*-6.3%*
Beverages	11.6%	-9.0%	-13.0%	*-3.5%*	*-9.0%*
Food Products	3.3%	-9.4%	-16.7%	*-7.6%*	*-9.4%*
Pharmaceuticals	6.8%	-10.2%	-14.6%	*-6.0%*	*-10.2%*
Multi-Utilities	-7.4%	-48.6%	-10.3%	*-22.1%*	*-10.3%*
Wireless Telecommunication Services	28.4%	-48.9%	-11.5%	*-10.7%*	*-11.5%*
Construction Materials	-23.9%	2.5%	-13.6%	*-11.6%*	*-13.6%*
Household Products	-14.0%	3.5%	-15.5%	*-8.7%*	*-14.0%*
Gas Utilities	-33.0%	-16.2%	1.5%	*-15.9%*	*-16.2%*
Electric Utilities	-11.3%	-16.6%	-19.8%	*-15.9%*	*-16.6%*
Oil, Gas & Consumable Fuels	-17.9%	-1.6%	-18.2%	*-12.5%*	*-17.9%*
Diversified Telecommunication Services	-19.4%	-28.4%	-18.8%	*-22.2%*	*-19.4%*
Russell 1000	40.4%	22.7%	71.4%	44.8%	40.4%

Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi.
Data showing trough-to-peak performance relative to Russell 1000 during recession recoveries (10/11/1990–08/28/1991, 09/21/2001–03/19/2002, 03/09/2009–12/28/2009).
Peak dates are based on highest closing price six months after the recessions ended on March 1991, November 2001, and June 2009.
Green shading indicates outperforming Russell 1000 (data > 0); red shading indicates underperforming Russell 1000 (data < 0).

Historical Russell 1000 Industry Performance in QE, Ranked by Median Return

Key Takeaways

- The impact of QE varies for different industries. Entertainment, Auto Components, Paper & Forest Products, Media and Specialty Retail outperformed in the last four QE periods.
- Beverages, Household Products, Diversified Consumer Services, Multi-Utilities, Electric Utilities, Diversified Telecommunication Services, and Thrift & Mortgage Finance underperformed in the last four QE periods.

Industry\QE Period	Nov 2008 - Mar 2010	Nov 2010 - Jun 2011	Sept 2011 - Dec 2012	Sept 2012 - Oct 2014	*Average*	*Median*
Building Products	127.3%	-0.4%	74.4%	20.4%	*55.4%*	*47.4%*
Airlines	54.6%	-18.8%	34.8%	123.6%	*48.6%*	*44.7%*
Household Durables	49.9%	2.4%	50.0%	24.5%	*31.7%*	*37.2%*
Diversified Financial Services	69.2%	-10.1%	22.6%	34.7%	*29.1%*	*28.7%*
Entertainment	29.5%	5.8%	27.7%	31.5%	*23.6%*	*28.6%*
Auto Components	100.6%	20.9%	0.3%	35.7%	*39.4%*	*28.3%*
Paper & Forest Products	109.6%	16.0%	30.1%	9.7%	*41.3%*	*23.0%*
Media	22.5%	8.7%	25.4%	16.2%	*18.2%*	*19.3%*
Biotechnology	-36.1%	-5.1%	38.6%	64.8%	*15.6%*	*16.7%*
Capital Markets	13.7%	-7.6%	19.1%	29.3%	*13.6%*	*16.4%*
Trading Companies & Distributors	14.9%	15.7%	15.7%	-8.0%	*9.6%*	*15.3%*
Road & Rail	33.1%	13.0%	13.0%	17.3%	*19.1%*	*15.2%*
Machinery	35.7%	21.6%	7.2%	-1.6%	*15.7%*	*14.4%*
Specialty Retail	14.2%	2.7%	14.5%	13.1%	*11.1%*	*13.6%*
Marine	13.9%	18.0%	10.7%	-4.8%	*9.5%*	*12.3%*
Internet & Direct Marketing Retail	23.2%	16.1%	2.6%	-1.0%	*10.2%*	*9.3%*
Electrical Equipment	7.5%	11.0%	12.0%	-7.5%	*5.8%*	*9.3%*
Automobiles	227.9%	5.7%	-1.7%	10.3%	*60.6%*	*8.0%*
Containers & Packaging	15.7%	-6.3%	5.3%	10.2%	*6.2%*	*7.8%*
Consumer Finance	145.2%	3.3%	9.3%	6.1%	*41.0%*	*7.7%*
Insurance	26.8%	-7.8%	7.2%	8.0%	*8.6%*	*7.6%*
Life Sciences Tools & Services	-7.1%	12.0%	1.9%	25.9%	*8.2%*	*7.0%*
Aerospace & Defense	12.7%	-0.1%	0.3%	17.0%	*7.5%*	*6.5%*
Industrial Conglomerates	34.1%	3.8%	9.1%	-5.6%	*10.3%*	*6.5%*
Banks	60.5%	-7.7%	10.2%	1.8%	*16.2%*	*6.0%*
Semiconductors & Semiconductor Equipment	8.3%	5.8%	-17.8%	5.5%	*0.5%*	*5.7%*
Textiles, Apparel & Luxury Goods	35.5%	5.8%	-8.5%	5.4%	*9.6%*	*5.6%*
Leisure Products	15.8%	-5.3%	18.9%	-10.3%	*4.7%*	*5.2%*
Electronic Equipment, Instruments & Components	29.3%	8.0%	-5.9%	2.1%	*8.4%*	*5.0%*
Health Care Technology	16.4%	11.7%	-2.0%	-5.6%	*5.2%*	*4.9%*
Chemicals	2.4%	6.6%	9.3%	-0.7%	*4.4%*	*4.5%*
Health Care Providers & Services	-0.7%	8.3%	-0.4%	16.2%	*5.9%*	*4.0%*
Gas Utilities	1.2%	5.9%	-3.2%	9.8%	*3.4%*	*3.6%*
Russell 1000	87.1%	33.3%	49.0%	69.0%	59.6%	59.0%

Industry\QE Period	Nov 2008 - Mar 2010	Nov 2010 - Jun 2011	Sept 2011 - Dec 2012	Sept 2012 - Oct 2014	*Average*	*Median*
Energy Equipment & Services	14.5%	30.7%	-7.6%	-20.1%	*4.4%*	*3.4%*
Distributors	-4.8%	-0.5%	16.1%	7.1%	*4.5%*	*3.3%*
REITs	41.4%	-1.5%	3.9%	-14.0%	*7.5%*	*1.2%*
Professional Services	-10.9%	0.9%	10.3%	1.3%	*0.4%*	*1.1%*
Health Care Equipment & Supplies	-15.4%	3.1%	-2.3%	4.9%	*-2.4%*	*0.4%*
Interactive Media & Services	**-4.8%**	**-7.9%**	**5.3%**	**36.6%**	**7.3%**	**0.3%**
Construction Materials	-14.5%	-7.0%	24.4%	5.3%	*2.1%*	*-0.8%*
Food & Staples Retailing	-26.0%	-6.5%	2.0%	5.3%	*-6.3%*	*-2.3%*
Water Utilities	-38.3%	-5.8%	1.6%	0.7%	*-10.5%*	*-2.5%*
Technology Hardware, Storage & Peripherals	21.5%	2.9%	-20.0%	-8.7%	*-1.1%*	*-2.9%*
Software & IT Services	2.5%	-0.9%	-7.7%	-6.9%	*-3.3%*	*-3.9%*
Hotels, Restaurants & Leisure	9.7%	-3.5%	-5.0%	-12.2%	*-2.8%*	*-4.3%*
Pharmaceuticals	-24.0%	-11.0%	2.1%	7.8%	*-6.3%*	*-4.4%*
Air Freight & Logistics	6.8%	-7.6%	-9.9%	-1.9%	*-3.2%*	*-4.8%*
Construction & Engineering	-18.9%	9.1%	16.6%	-19.7%	*-3.2%*	*-4.9%*
Wireless Telecommunication Services	-15.5%	-13.1%	14.7%	3.1%	*-2.7%*	*-5.0%*
Food Products	-18.3%	-7.1%	-3.8%	2.1%	*-6.8%*	*-5.4%*
Communications Equipment	-3.9%	-13.8%	-7.1%	-3.3%	*-7.0%*	*-5.5%*
Commercial Services & Supplies	-7.1%	-4.9%	-8.3%	-4.1%	*-6.1%*	*-6.0%*
Tobacco	-16.5%	2.0%	-0.7%	-20.5%	*-8.9%*	*-8.6%*
Independent Power and Renewable Electricity Producers	5.2%	-6.0%	-14.3%	-15.5%	*-7.6%*	*-10.1%*
Personal Products	39.5%	-2.4%	-19.1%	-32.1%	*-3.5%*	*-10.7%*
Mortgage REITs	-10.7%	-12.1%	-8.5%	-36.9%	*-17.1%*	*-11.4%*
Multiline Retail	20.6%	-12.2%	-11.0%	-14.4%	*-4.3%*	*-11.6%*
Oil, Gas & Consumable Fuels	-20.8%	17.3%	-4.3%	-21.1%	*-7.2%*	*-12.5%*
Metals & Mining	17.4%	7.1%	-32.3%	-44.8%	*-13.2%*	*-12.6%*
Beverages	-18.9%	-11.1%	-8.8%	-14.4%	*-13.3%*	*-12.8%*
Household Products	-20.2%	-15.7%	-10.2%	-2.5%	*-12.1%*	*-13.0%*
Diversified Consumer Services	-31.4%	-5.7%	-21.0%	-3.9%	*-15.5%*	*-13.3%*
Multi-Utilities	-16.6%	-15.3%	-11.6%	-7.1%	*-12.6%*	*-13.4%*
Electric Utilities	-29.2%	-16.6%	-16.2%	-13.8%	*-19.0%*	*-16.4%*
Diversified Telecommunication Services	-29.7%	-5.9%	-6.8%	-30.3%	*-18.2%*	*-18.2%*
Thrifts & Mortgage Finance	-17.6%	-19.9%	-5.8%	-21.3%	*-16.2%*	*-18.8%*
Russell 1000	87.1%	33.3%	49.0%	69.0%	59.6%	59.0%

Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi.
Data showing trough to peak performance relative to Russell 1000 during QE recoveries (03/09/2009–04/23/2010, 08/26/2010–04/29/2011, 10/03/2011–03/28/2013, 06/25/2012–12/29/2014).
Trough and peak levels are during the periods between three months before QE beginning announcements and three months after QE ending announcements.
QE announcement dates are 11/25/2008–03/31/2010, 11/03/2010-06/30/2011, 09/21/2011–12/31/2012, 09/13/2012–10/29/2014. Green shading indicates outperforming Russell 1000; red shading indicates underperforming.

Large Cap Performance Trends

Factors and Fund Returns

Capital Markets

Dissecting 2020 Large Cap Performance by Factor

Key Takeaways

- During the February-March 2020 drawdown a quality bias was in place, with higher ROE, lower debt, and low short interest outperforming.
- Since March 23rd, the rebound in the equity market has favored lower quality factors such as low ROE, higher debt, no dividend yield or buybacks, and higher short interest.
- Those trends have also mostly been present since mid May.

Performance During Latest Recovery Period - Large Cap Factors

	High ROE vs Low ROE	High Net Debt to Cap vs Low Net Debt to Cap	High Dividend Yield vs No Dividends	High Buyback Yield vs No Buybacks	High Short Interest vs Low Short Interest	High Price Momentum vs Low Price Momentum
2020 YTD	-5%	-12%	-22%	-11%	18%	-2%
Feb 19th to March 23rd (Drawdown)	9%	-14%	-12%	-5%	-6%	8%
March 23rd to Present	-12%	5%	-6%	-3%	27%	-15%
May 18th to Present (Moderna - Vaccine News)	-6%	2%	-1%	-1%	11%	-13%

Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi; as of June 15, 2020

Low Quality Tends to Lead Within Large Cap in Recession Recovery Trades

Key Takeaways

- There has been a low quality bent to performance in past recovery trades, the opposite of what tends to be see in recession related drawdowns. Low quality outperformed in the 2001 and 2009 rebound trades, as did highly shorted names. The one exception to this observation is that stocks with high leverage have tended to lag within the Large Cap universe during recovery, at least prior to the Financial Crisis.
- Companies emphasizing shareholder returns through dividends or buybacks have tended to lag in recession recovery trades – some thing we haven't seen in the 2020 recession rebound.

Performance During Recessionary Pullback Periods - Large Cap Factors

	High ROE vs Low ROE	High Net Debt to Cap vs Low Net Debt to Cap	High Dividend Yield vs No Dividends	High Buyback Yield vs No Buybacks	High Short Interest vs Low Short Interest	High Price Momentum vs Low Price Momentum
July 1990 - Mar 1991	1%	0%	24%	7%	-12%	4%
Mar 2001 - Nov 2001	161%	137%	190%	75%	-27%	61%
Dec 2007 - June 2009	67%	-38%	7%	23%	-42%	71%
Average	76%	33%	74%	35%	-27%	46%
Median	67%	0%	24%	23%	-27%	61%

Performance During Recessionary Recovery Periods - Large Cap Factors

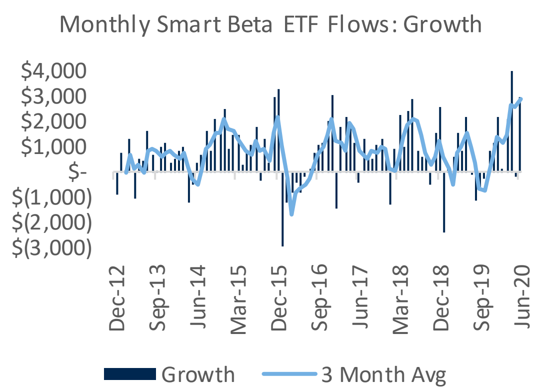
	High ROE vs Low ROE	High Net Debt to Cap vs Low Net Debt to Cap	High Dividend Yield vs No Dividends	High Buyback Yield vs No Buybacks	High Short Interest vs Low Short Interest	High Price Momentum vs Low Price Momentum
July 1990 - Mar 1991	9%	-4%	-16%	-7%	14%	-14%
Mar 2001 - Nov 2001	-3%	-17%	-9%	1%	5%	-19%
Dec 2007 - June 2009	-38%	39%	-9%	-16%	30%	-52%
Average	-11%	6%	-11%	-8%	16%	-29%
Median	-3%	-4%	-9%	-7%	14%	-19%

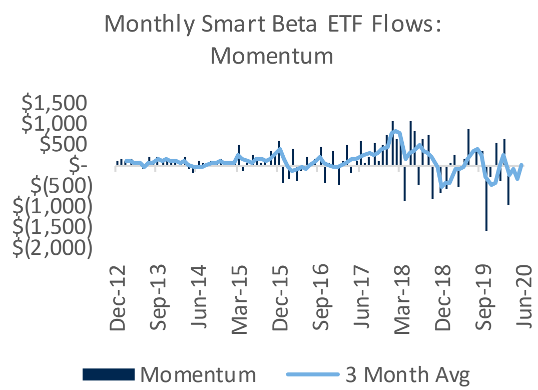
Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi. Based on a universe of Russell 1000 stocks.
Recovery periods leverage S&P 500 Trough to Peaks (10/11/1990–08/28/1991, 09/21/2001–3/19/2002, 03/09/2009–12/28/2009).
Pullback periods leverage S&P 500 Peaks to Troughs (0716/1990 - 10/11/1990, 03/24/2000 - 09/21/2001, 10/09/2007 - 03/09/2009).
Peaks in the S&P 500 determined up to six months after recessions ended.

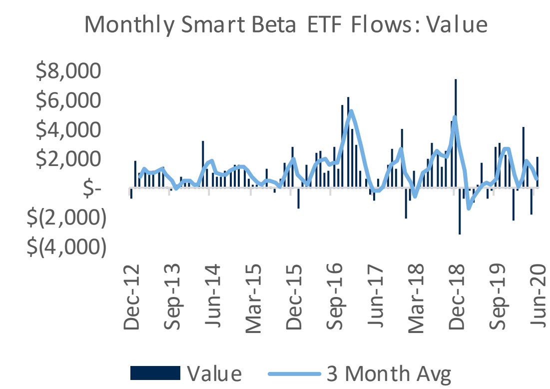
Recent Trends in Factor Focused ETFs

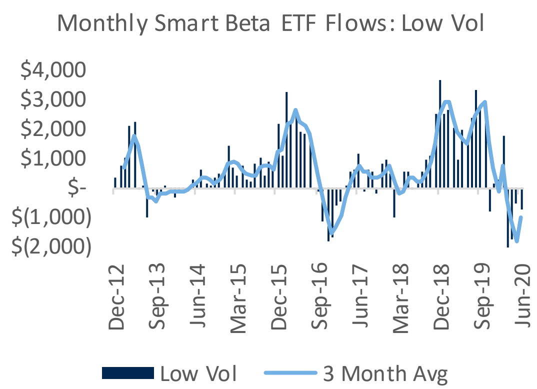
Key Takeaways

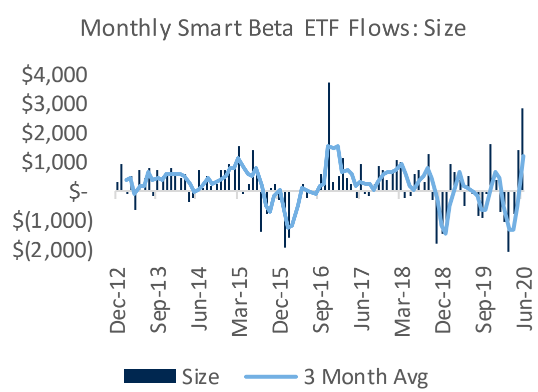
- Flows to Growth and ESG ETFs surged in recent months, while fading in intensity for Value.
- Flows have been negative for momentum and low vol recently.

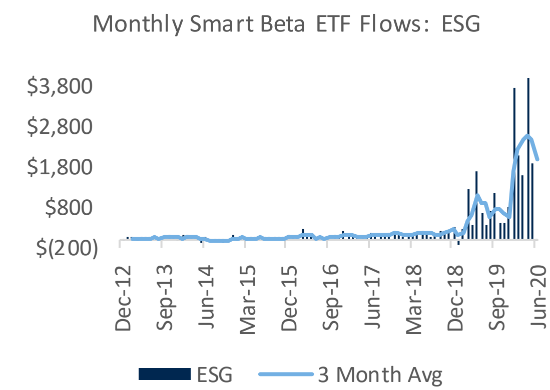












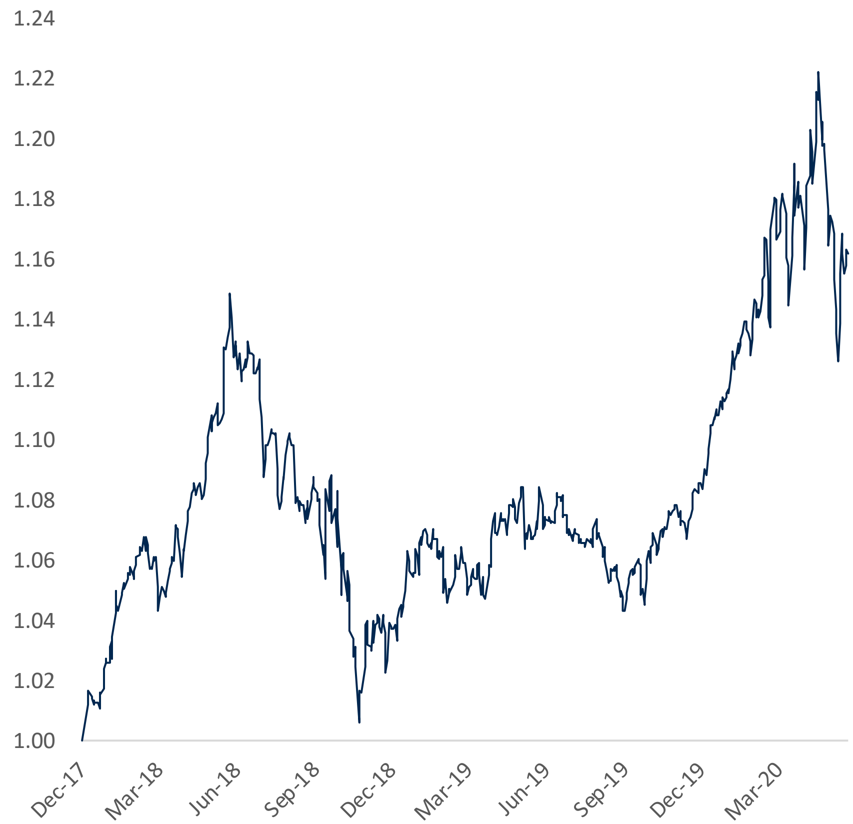
Source: RBC US Equity Strategy, Bloomberg, ETF classifications are done by Bloomberg; as of June 12 2020

The Most Popular Stocks in Hedge Funds Gave Up Ground as Market Leadership Flipped

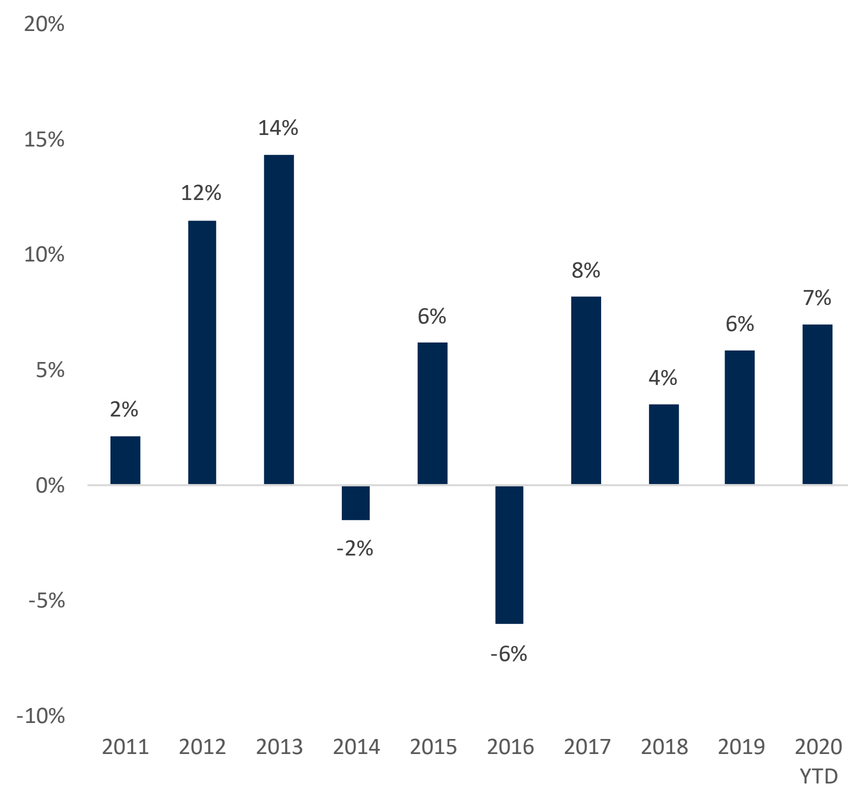
Key Takeaways

- The most popular stocks in hedge funds at the end of 1Q20, based on the Dollar value owned by hedge funds, started to underperform the broader US equity market in mid May, victims of the broader rotation out of defensive secular growth that began at that time. They've bounced back a bit in June, however.
- Similar bouts of underperformance were also seen in the third quarter of 2019, the last time the market saw a significant rotation out of Growth stocks and into Value stocks. These names also underperformed in 2016, another period marked by a significant rotation in the stock market back to Value.

Hedge Fund Hot Dogs (S&P 500 Stocks, Most $ Value Owned By Hedge Funds) Relative Performance to S&P 500 Index



Annual Performance vs. the S&P 500: Hedge Fund Hot Dogs (S&P 500 Stocks, Most $ Value Owned By Hedge Funds)

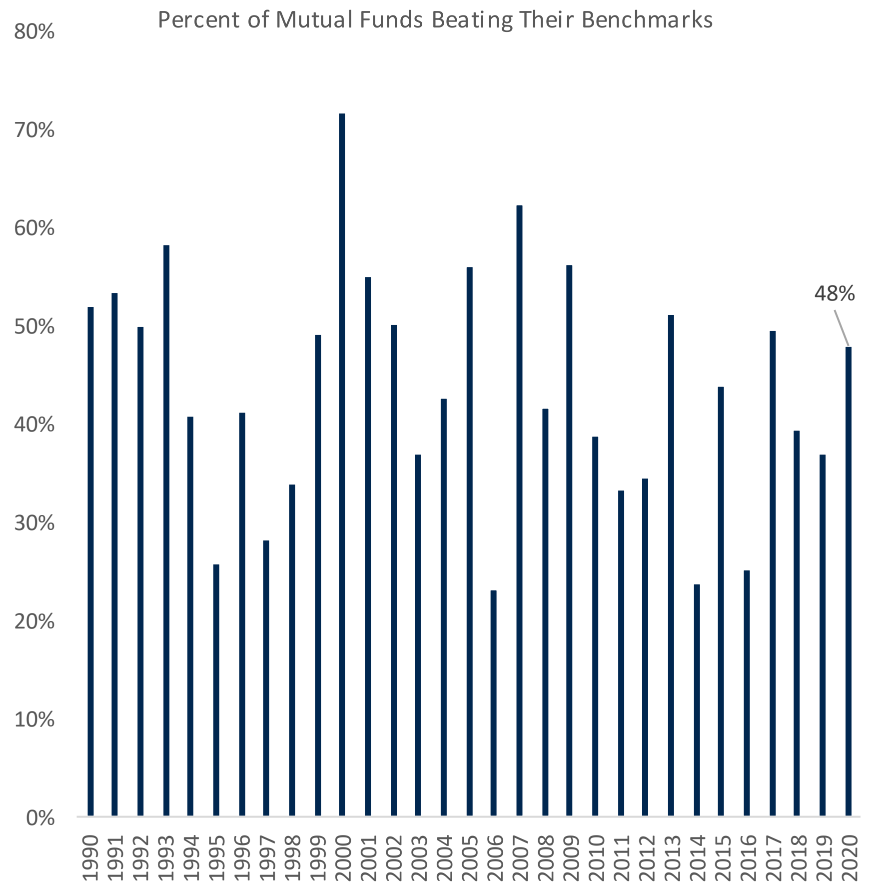


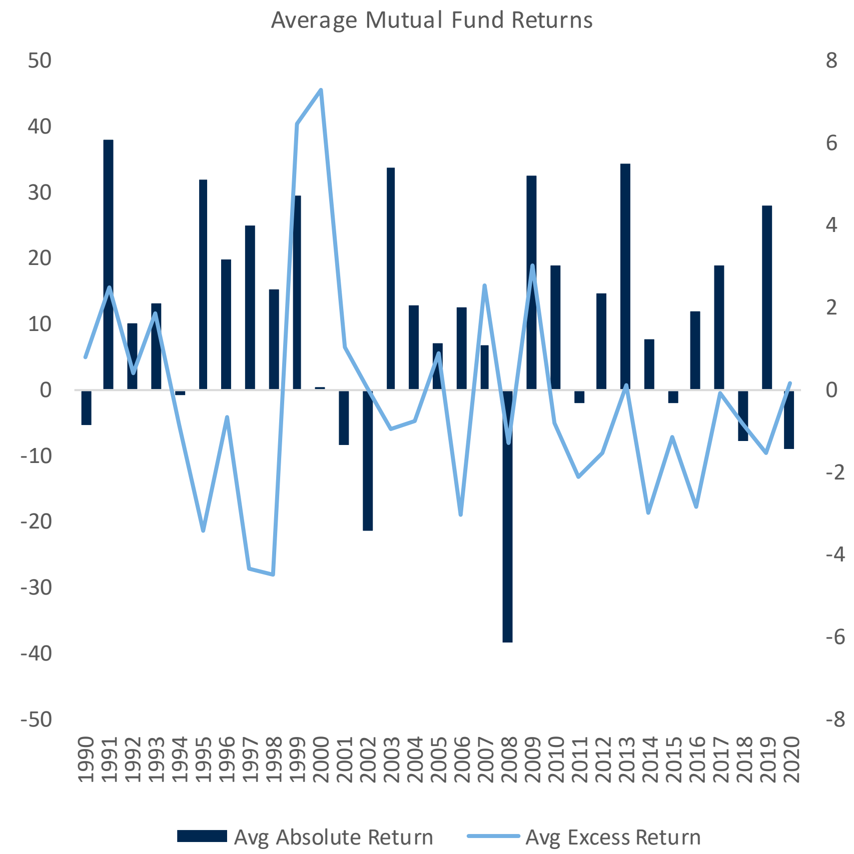
Source: RBC US Equity Strategy, S&P Capital IQ/ClariFi; as of June 18th, 2020
Methodology notes: Rebalanced quarterly; equal weighted daily total returns basket against market cap weighted S&P 500; latest holdings data drawn from 1Q20 13f filings for 342 hedge funds, with significant investments in US equities, both diversified and sector-focused funds, all strategies.

Almost Half of Actively Managed Funds are Outperforming in 2020

Key Takeaways

- By our count, a little over a third of actively managed funds tracked by Morningstar beat their benchmarks in 2019, slightly lower than 2018. So far in 2020, nearly half are beating their benchmarks.
- The solid relative performance has given actively managed funds a bit of a cushion, and has enabled them to focus on longer-term opportunities.





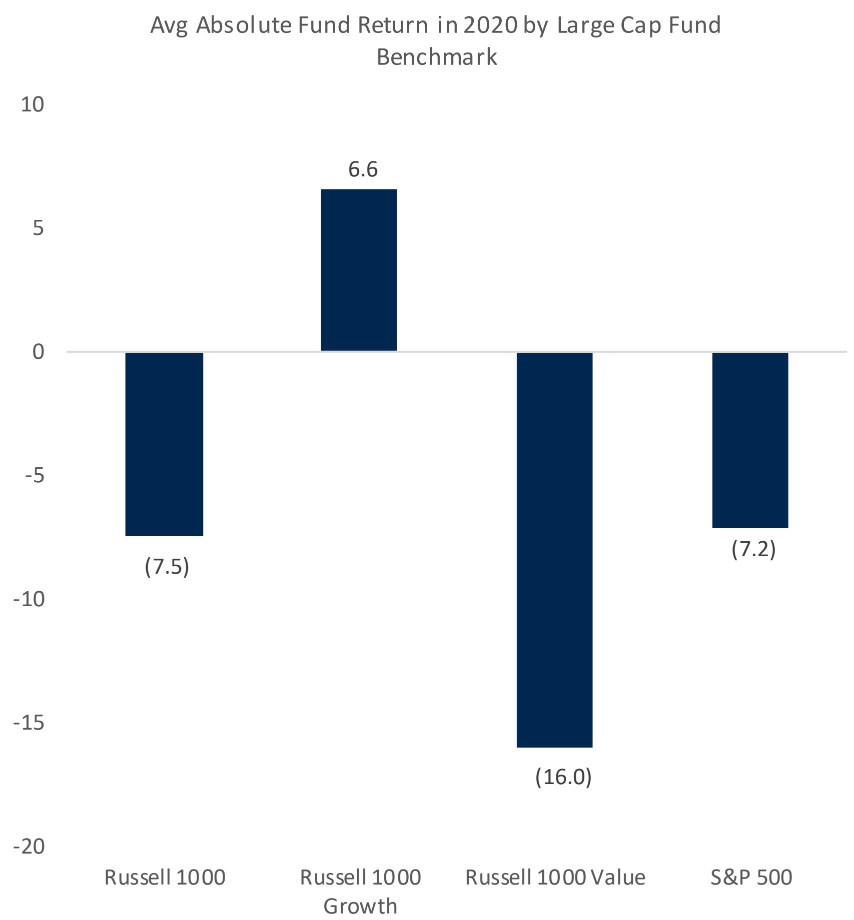
Source: RBC US Equity Strategy, Morningstar, YTD Stats are measured from Dec 29th, 2019 to June 13, 2020

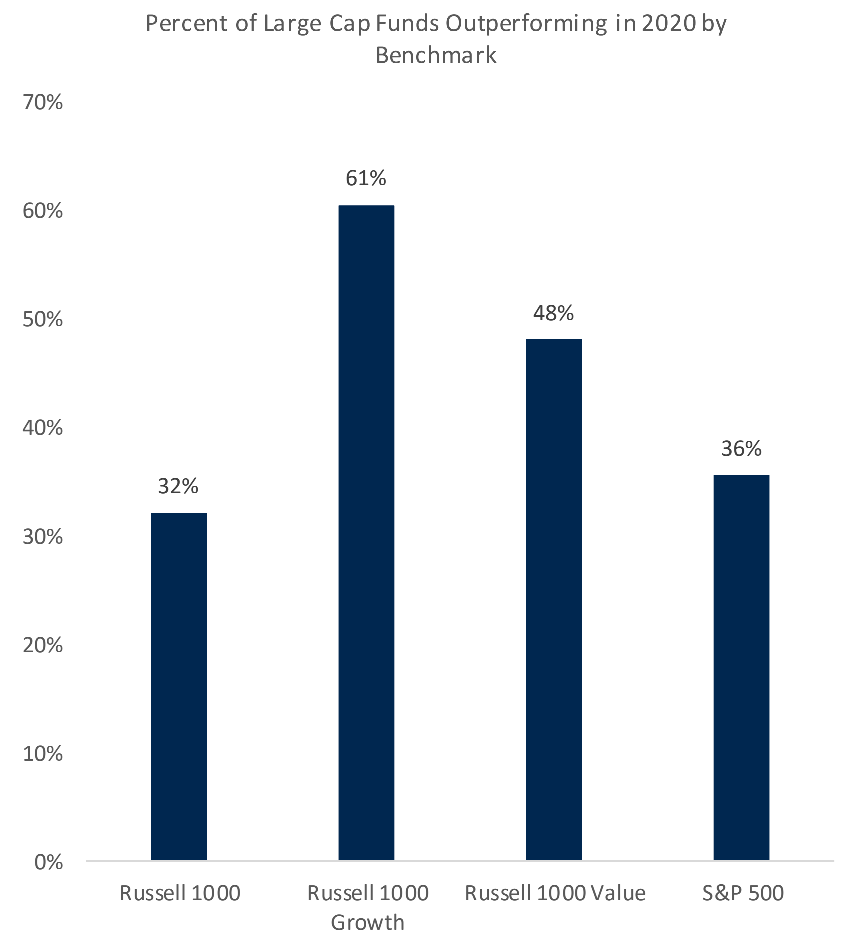
Note: Data includes funds from all size and style segments relative to the fund's own respective benchmark

Growth Funds With Best Absolute & Relative Returns so far in 2020

Key Takeaways

- In 2020, Growth funds have the advantage in terms of absolute returns so far.
- Relative to their benchmarks, Growth has also been stronger than other categories on this basis as well, and the only category above 50%. Core funds, in aggregate, have had the toughest time beating their benchmarks year to date.





Note: Based on broad market US equity funds, actively managed only. Does not include index funds, ETFs, sector-focused funds. Compared to fund's stated primary benchmark rather than Morningstar category.

Source: RBC US Equity Strategy, Morningstar, YTD Stats are measured from Dec 29th, 2019 to June 13, 2020

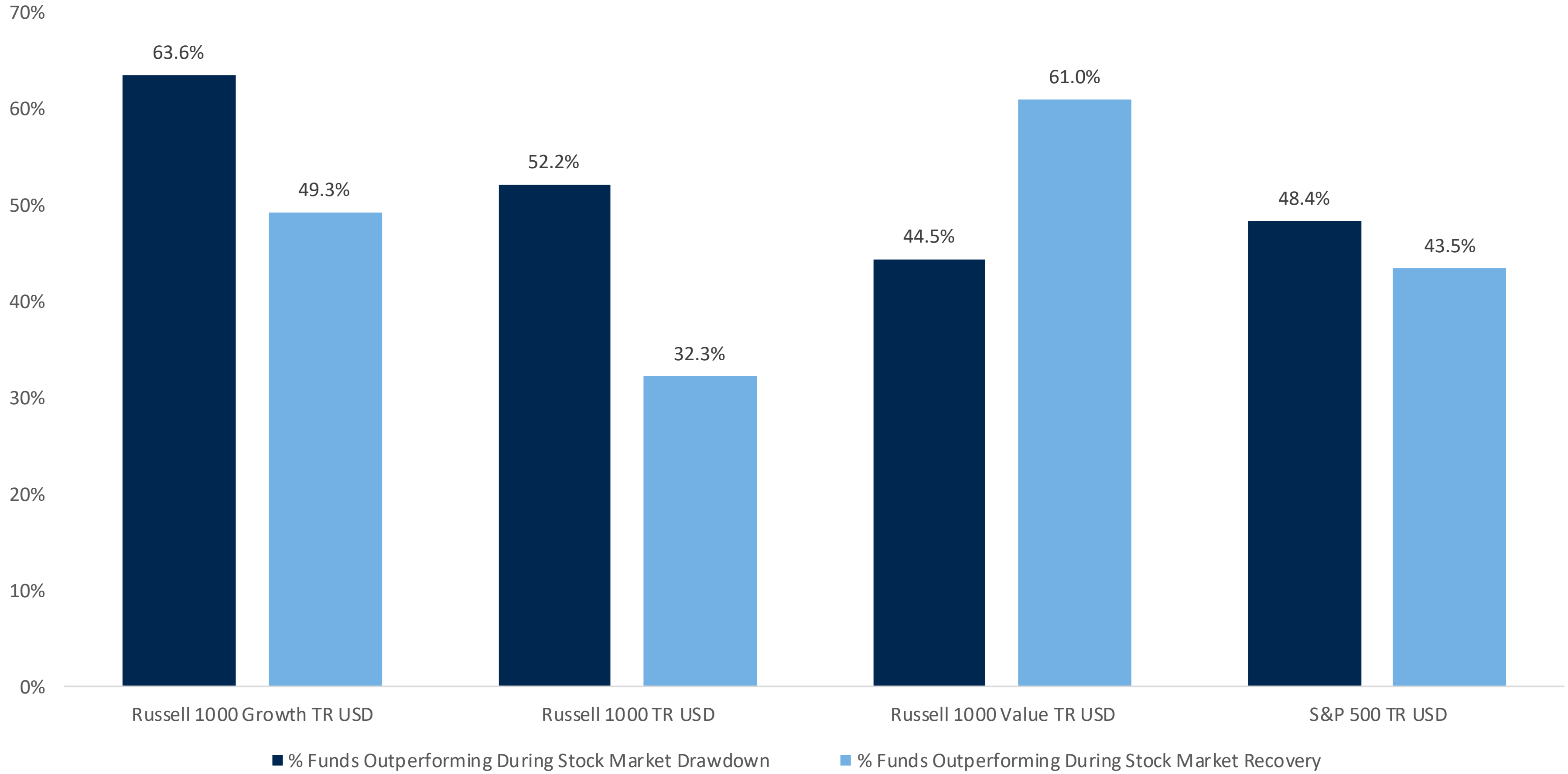
Growth Funds More Resilient in the Drawdown, Value Funds Better in the Rebound

Key Takeaways

- Most Growth funds outperformed their benchmark during the drawdown from mid February to mid March.
- Core funds also showed more resilience in the drawdown than they did in the rebound.
- The opposite is true for Large Cap Value funds, which showed a greater tendency to outperform during the rebound in place from late March to mid June.

Percent Of Funds Outperforming Their Benchmark During Stock Market Drawdown vs. Stock Market Recovery

Stock Market Drawdown Period Captures Weekly Fund Returns From 2/16 - 3/21 & Stock Market Recovery Period Captures Weekly Fund Returns From 3/22 - 6/13



Note: Based on broad market US equity funds, actively managed only. Does not include index funds, ETFs, sector-focused funds. Compared to fund's stated primary benchmark rather than Morningstar category.

Source: RBC US Equity Strategy, Morningstar

Required Disclosures

Conflicts Disclosures

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors, including total revenues of the member companies of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of the member companies of RBC Capital Markets and its affiliates.

Distribution of Ratings

For the purpose of ratings distributions, regulatory rules require member firms to assign ratings to one of three rating categories - Buy, Hold/Neutral, or Sell - regardless of a firm's own rating categories. Although RBC Capital Markets' ratings of Outperform (O), Sector Perform (SP), and Underperform (U) most closely correspond to Buy, Hold/Neutral and Sell, respectively, the meanings are not the same because our ratings are determined on a relative basis.

Distribution of ratings
RBC Capital Markets, Equity Research
As of 31-Mar-2020

			Investment Banking Serv./Past 12 Mos.	
Rating	**Count**	**Percent**	**Count**	**Percent**
BUY [Outperform]	**755**	**51.64**	**220**	**29.14**
HOLD [Sector Perform]	**619**	**42.34**	**126**	**20.36**
SELL [Underperform]	**88**	**6.02**	**11**	**12.50**

Required Disclosures

Conflicts Policy
RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to https://www.rbccm.com/global/file-414164.pdf or send a request to RBC CM Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

Dissemination of research and short-term trade ideas
RBC Capital Markets endeavors to make all reasonable efforts to provide research simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. RBC Capital Markets' equity research is posted to our proprietary website to ensure eligible clients receive coverage initiations and changes in ratings, targets and opinions in a timely manner. Additional distribution may be done by the sales personnel via email, fax, or other electronic means, or regular mail. Clients may also receive our research via third party vendors. RBC Capital Markets also provides eligible clients with access to SPARC on the Firm's proprietary INSIGHT website, via email and via third-party vendors. SPARC contains market color and commentary regarding subject companies on which the Firm currently provides equity research coverage. Research Analysts may, from time to time, include short-term trade ideas in research reports and / or in SPARC. A short-term trade idea offers a short-term view on how a security may trade, based on market and trading events, and the resulting trading opportunity that may be available. A short-term trade idea may differ from the price targets and recommendations in our published research reports reflecting the research analyst's views of the longer-term (one year) prospects of the subject company, as a result of the differing time horizons, methodologies and/or other factors. Thus, it is possible that a subject company's common equity that is considered a long-term 'Sector Perform' or even an 'Underperform' might present a short-term buying opportunity as a result of temporary selling pressure in the market; conversely, a subject company's common equity rated a long-term 'Outperform' could be considered susceptible to a short-term downward price correction. Short-term trade ideas are not ratings, nor are they part of any ratings system, and the firm generally does not intend, nor undertakes any obligation, to maintain or update short-term trade ideas. Short-term trade ideas may not be suitable for all investors and have not been tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets' research.
For a list of all recommendations on the company that were disseminated during the prior 12-month period, please click on the following link: https://rbcnew.bluematrix.com/sellside/MAR.action
The 12 month history of SPARCs can be viewed at https://www.rbcinsightresearch.com/.

Analyst Certification
All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

Third-party-disclaimers

RBC Capital Markets disclaims all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any statements made to the media or via social media that are in turn quoted in this report, or otherwise reproduced graphically for informational purposes.

The Global Industry Classification Standard ("GICS") was developed by and is the exclusive property and a service mark of MSCI Inc. ("MSCI") and Standard & Poor's Financial Services LLC ("S&P") and is licensed for use by RBC. Neither MSCI, S&P, nor any other party involved in making or compiling the GICS or any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability and fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling the GICS or any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

References herein to "LIBOR", "LIBO Rate", "L" or other LIBOR abbreviations means the London interbank offered rate as administered by ICE Benchmark Administration (or any other person that takes over the administration of such rate).

Disclaimer

RBC Capital Markets is the business name used by certain branches and subsidiaries of the Royal Bank of Canada, including RBC Dominion Securities Inc., RBC Capital Markets, LLC, RBC Europe Limited, Royal Bank of Canada, Hong Kong Branch and Royal Bank of Canada, Sydney Branch. The information contained in this report has been compiled by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Capital Markets' judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. This report is not an offer to sell or a solicitation of an offer to buy any securities. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. RBC Capital Markets research analyst compensation is based in part on the overall profitability of RBC Capital Markets, which includes profits attributable to investment banking revenues. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. RBC Capital Markets may be restricted from publishing research reports, from time to time, due to regulatory restrictions and/ or internal compliance policies. If this is the case, the latest published research reports available to clients may not reflect recent material changes in the applicable industry and/or applicable subject companies. RBC Capital Markets research reports are current only as of the date set forth on the research reports. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. To the full extent permitted by law neither RBC Capital Markets nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct, indirect or consequential loss arising from, or in connection with, any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior written consent of RBC Capital Markets in each instance.

Additional information is available on request.

To U.S. Residents: This publication has been approved by RBC Capital Markets, LLC (member FINRA, NYSE, SIPC), which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets, LLC.

To Canadian Residents: This publication has been approved by RBC Dominion Securities Inc. (member IIROC). Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

To U.K. Residents: This publication has been approved by RBC Europe Limited ('RBCEL') which is authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority ('FCA') and the Prudential Regulation Authority, in connection with its distribution in the United Kingdom. This material is not for general distribution in the United Kingdom to retail clients, as defined under the rules of the FCA. RBCEL accepts responsibility for this report and its dissemination in the United Kingdom.

To German Residents: This material is distributed in Germany by RBC Europe Limited, Frankfurt Branch which is regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin).

To Persons Receiving This Advice in Australia: This material has been distributed in Australia by Royal Bank of Canada, Sydney Branch (ABN 86 076 940 880, AFSL No. 246521). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product. This research report is not for retail investors as defined in section 761G of the Corporations Act.

To Hong Kong Residents: To Hong Kong Residents: This publication is distributed in Hong Kong by Royal Bank of Canada, Hong Kong Branch, which is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission (SFC) in Hong Kong, RBC Investment Services (Asia) Limited and RBC Global Asset Management (Asia) Limited, both entities are regulated by the SFC. This material is not for general distribution in Hong Kong to persons who are not professional investors (as defined in the Securities and Futures Ordinance of Hong Kong (Cap. 571) and any rules made thereunder.

To Singapore Residents: This publication is distributed in Singapore by the Royal Bank of Canada, Singapore Branch, a registered entity licensed by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance. If you have any questions related to this publication, please contact the Royal Bank of Canada, Singapore Branch. Royal Bank of Canada, Singapore Branch accepts responsibility for this report and its dissemination in Singapore.

To Japanese Residents: Unless otherwise exempted by Japanese law, this publication is distributed in Japan by or through RBC Capital Markets (Japan) Ltd. which is a Financial Instruments Firm registered with the Kanto Local Financial Bureau (Registered number 203) and a member of the Japan Securities Dealers Association ("JSDA") and the Financial Futures Association of Japan ("FFAJ").