

PENCE PERSPECTIVES Q3 | 2020

Executive Summary

Despite hopes to the contrary, summer didn't kill the virus. Today Covid-19 is far more widespread in the United States with higher numbers being announced every day than at any point in the shut down over March and April. Despite this, the impact hasn't been nearly as pronounced. Jobless claims, though still extremely elevated historically, have shown a reasonably consistent downtrend in magnitude and economic data to date has been resoundingly positive. As of August, we have over 18 million data points with which to base a response; the science around Covid-19 is much more robust; and improvements in standards of care have resulted in a far lower death rate relative to the initial stages of the pandemic. While the economy and the virus are learning to sustainably coexist, we do not expect this environment to change materially through the end of the year. Savings rates are near all-time highs, and the prospect of more stimulus provides more support towards the road to recovery. Markets have been powered forward by a select group of companies that have benefitted from changes to consumer behavior that we expect to continue, but there are a number of near-term events that – in our view – suggest caution.

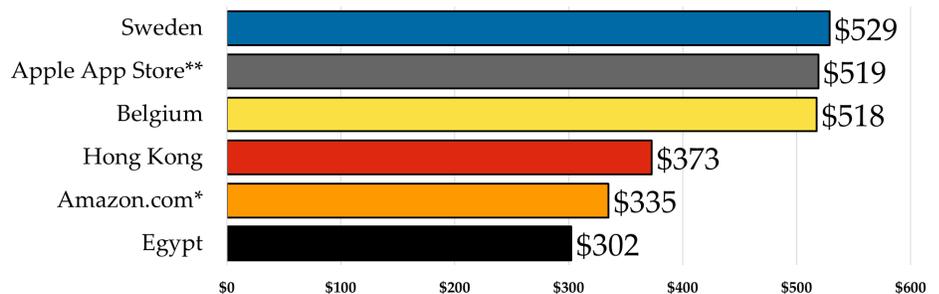
The Great Horse Manure Crisis of 1894

In 1894, the *Times* of London estimated that within 50 years every street of London would be buried under 9 feet of manure due to an increasing overreliance on horses for everyday commerce. In 1898, a scheduled 10-day international conference on the topic was abandoned after only 3 days due to the inability to find a sustainable solution to an increasingly perplexing problem. A growing city would always require more horses, which would in turn produce more manure and require more land – land that was progressively becoming more valuable. Seemingly, it was a problem without a solution.

Just 10 years later Henry Ford released the Model T and the "Horse Manure Crisis" was a thing of the past. By 1912 there were more cars on the road than horses in New York, London, and Paris.

A decade ago, this rapid of a shift to accommodate a completely different economy would have been unthinkable. That's a testament to the ingenuity of the human race and a justification of the valuations that technology companies have received over the 11-year bull market. Eleven years ago, fewer than 34 million iPhones had been sold by Apple in total. Today, the company has an iPhone installed device base of more than 900 million and an App Store ecosystem that generated approximately [\\$519 billion in billings and sales last year](#). That amount is larger than the entire economy of Belgium and just one example of why we continue to favor technology companies in our long-term thesis.

The Apple App Store and Amazon.com would be the 24th and 38th largest economies in the world in 2019



Source: International Monetary Fund, Analysis Group, Market Place Pulse, Pence Wealth Management
 * In terms of Gross Merchandise Volume, the total amount of sales on Amazon websites, including those by the company itself and by the marketplace.
 ** A study by Analysis Group commissioned by Apple found the Apple App Store platform generated \$519 billion in billings and sales in 2019

There will be a recovery. The pace at which that recovery occurs and the policy response required is up to debate, but a recovery will happen. Covid-19 is very likely to be a transitory economic event that so far has not resulted in any

destruction of infrastructure. For select industries it has actually been a significant boon with consumer behavior turned on its head over the span of 3 months.

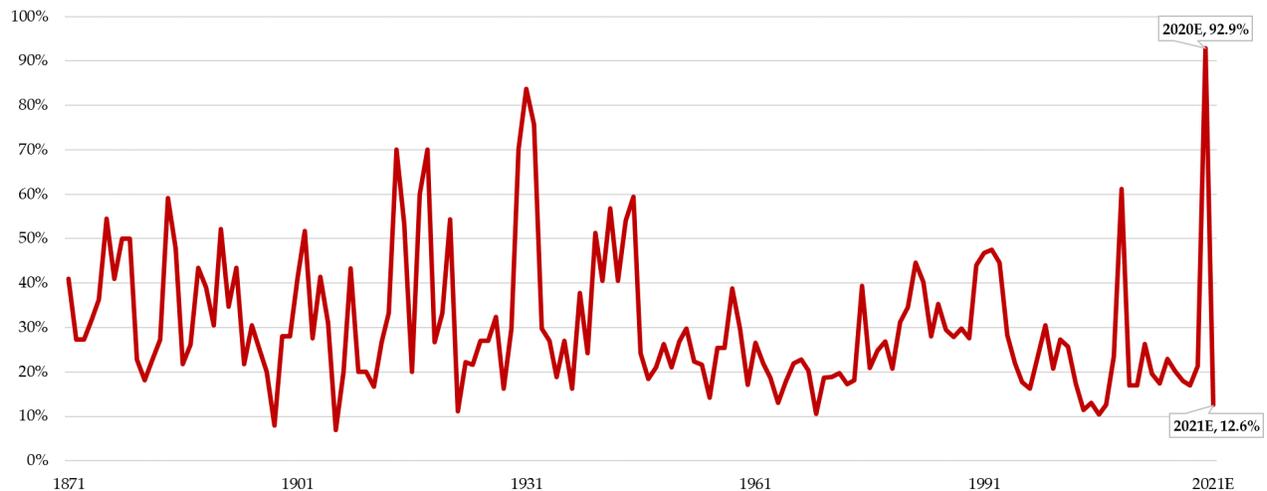
We do not view this change as temporary. Covid-19 has changed consumer behavior in a significant way and accelerated a transition towards digital mediums. If an individual didn't shop online prior to this, they do now. Over the early stages of this pandemic – and it is early – many discretionary companies have been turned into staples.

Markets So Far

Eight months ago, the consensus was for a significant pickup in global growth and a return to meaningful expansion in profitability for S&P 500 companies. Today, more than 90% of global economies are forecasted to face a recession.

Most countries are expected to face recessions in 2020

Share of economies in recession, 1871-2021



The proportion of economies with an annual contraction in per capita GDP. Data for 2020-21 are forecasts.

Source: World Bank

The response has been an unprecedented level of stimulus that has been pumped into the economy as world governments and central banks take a “Whatever It Costs” approach to bridging the pandemic. That stimulus combined with the market seemingly “looking through” the pandemic has led to a historic rally in markets – ultimately resulting in the S&P 500 hitting new all-time highs.

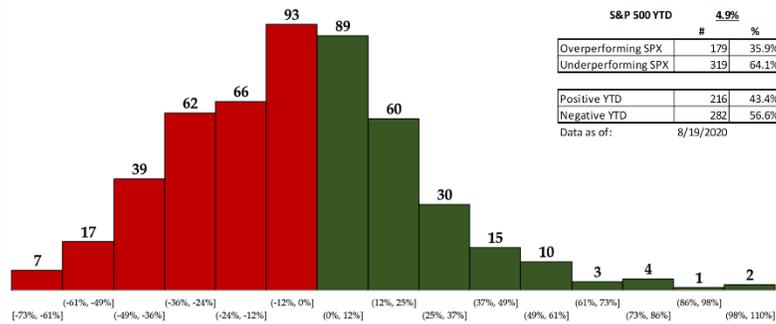
Market performance to this point has been a result of 4 primary factors.

- 1) The Federal Reserve pumping an unprecedented amount of money into market stabilization
- 2) Tremendous levels of stimulus from the federal government
- 3) The market's ability to look through the economic damage from Covid -19
- 4) Global interest rates being at levels that essentially make stocks the only avenue for investors looking for a real return on risk assets

Those four factors have and led to worries that markets and economic reality are wildly diverging. The S&P 500 index is a market-capitalization-weighted index of the 500 largest U.S. publicly traded companies. Therefore, by definition, the index is not a direct gauge of the health of the U.S. economy, rather a representation of investor's views on the long-term growth prospects for America's largest companies. Current sentiment indicates that this is a highly temporary event for those companies that has resulted in a tremendous amount of fiscal stimulus and incredibly accommodative borrowing conditions. Additionally, depressed interest rates give stocks a more compelling risk-adjusted yield relative to fixed income than previous market environments.

This has allowed investors to “look through” the damage and reward companies exhibiting growth in a no-growth environment or who stand to benefit substantially to what looks like a reasonably permanent change in consumer and business behavior.

64% of companies in the S&P 500 are underperforming the index Year-to-Date



S&P 500 YTD		#	%
Overperforming SPX	179	35.9%	
Underperforming SPX	319	64.1%	
Positive YTD	216	43.4%	
Negative YTD	282	56.6%	

Data as of: 8/19/2020

This trend has not been broad based, despite the trajectory of headline indices over the last several months. As of August 5, the average S&P 500 company is still 19% away from 52-week highs. 50% of companies are down more than 15%, and 65% of companies are underperforming the index this year so far. Performance so far has been on a company by company basis.

Relative to the performance of the NASDAQ, up 22% for the year, the difference becomes quite stark.

Technology is dragging the market forward, and the fact that Facebook, Apple, Amazon, Microsoft and Google now represent more than 22% of the S&P 500 index has a large part to play in headline performance so far this year. In a quarter where the S&P 500 is expected to see a 10% drop in sales, these 5 companies increased revenue 19% on aggregate. For Big Tech, Covid-19 has been a benefit.

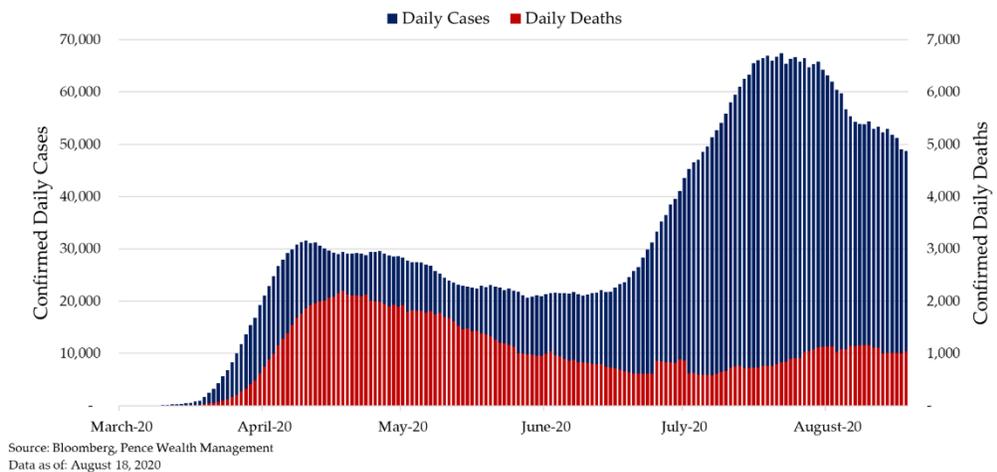
Simply put, when profits are declining, interest rates are low, and growth is sparse, investors are willing to pay higher multiples for profitable companies. For the companies for which this pandemic has been a positive, the valuation matrix has changed.

However, it is our view that there are several events that provide uncertainty and possible volatility over the near term. The pace and sustainability of the recovery are open questions, there is certainly a likelihood of a second wave of Covid-19, a presidential election is less than 100 days away, and US-China relations are at their lowest point in modern history with limited signs of improving.

Covid-19 and the Rest of the Year

In the aftermath of the lockdown markets focused on data suggesting the early signs of a “V-shaped” recovery while postulating on the likelihood of a “second wave” – where an outbreak that has been brought under control sees a stark resurgence in cases. Summer didn’t kill the virus and it increasingly looks like fears of a second wave have ceded to recognition that the first wave never left. The jump in cases since reopening in the United States suggests that the optimism around a problem-free return to life as normal was significantly premature.

United States 7 Day Average Covid-19 Cases vs Deaths

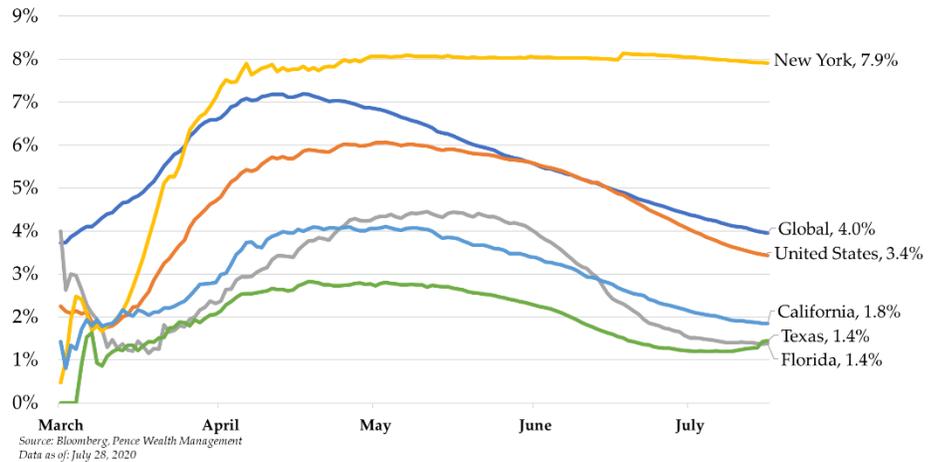


According to an analysis of Johns Hopkins data, while utilizing the White House’s “Opening Up America Again” guidelines, 14 states as of August 20 do not meet the criteria for reopening. Nationally, 9 states are seeing a rise in cases of Covid-19, while 18 are seeing rising positivity rates in administered tests, but 30 states have decreased the number of tests conducted. This suggests that a large degree of the recent uptick is due to both increased testing and rising prevalence of the virus. As a result, at least 21 states, representing about 55% of 2019 GDP, have paused or rolled back reopening plans with Texas and California at the forefront.

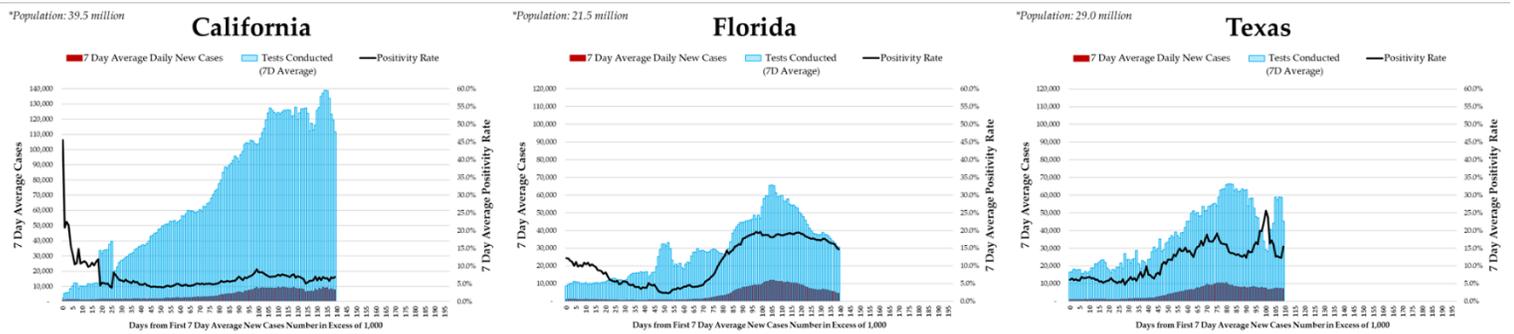
As cases have grown exponentially over the last month, deaths have not yet kept pace the way they did in the early stages of the pandemic in the United States. Deaths are a lagging indicator as severe Covid-19 cases typically don't have an outcome for 3-6 weeks, and daily fatality reports have picked up meaningfully in recent days.

Florida, California, and Texas are all currently reporting record 7-day average death numbers, although significantly below the levels seen in New York. Standards of care have improved nationwide with the emerging viability of a limited number of therapeutics at certain stages of infection, but early death numbers are also skewed by [New York's early state directive](#) which sent over 4,500 recovering patients to nursing homes – the demographic most “At Risk” from fatality due to Covid-19. New York is only 10% of total cases in the United States, but over 18% of deaths and has the highest Case Fatality Rate of any state.

Covid-19 Case Fatality Rate (CFR) By Region



Texas and Florida, which saw their outbreaks occur much later have had more success at limiting deaths to the disease so far, though it is still early and deaths will continue to rise. Given the widespread nature of the outbreak relative to the initial stages, deaths will likely hit records again as we proceed into the fall.

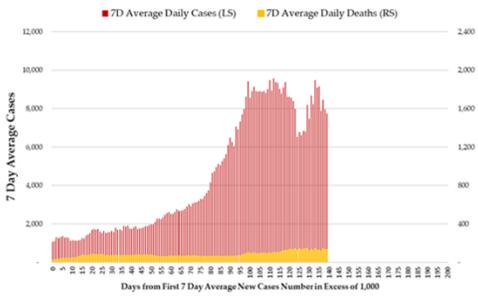


Source: Johns Hopkins University
Data as of: August 20, 2020

Of the 3 states with significant outbreaks at this time, there are early signs of progress in California, the nation's largest state – both in terms of population and economic activity. Florida and Texas are both reporting lower daily cases but the number of tests conducted in each state has dropped substantially while positivity rates remain elevated and deaths continue to increase. Florida likely has a way to go but if Texas or California can drop their infection rates in a timeframe similar to New York that would do substantial damage to the idea that lockdowns are necessary. Especially considering that in the late stages of New York's shutdown, one of the strictest in the country, [66% of new hospitalizations were from people following quarantine guidelines and staying at home](#).

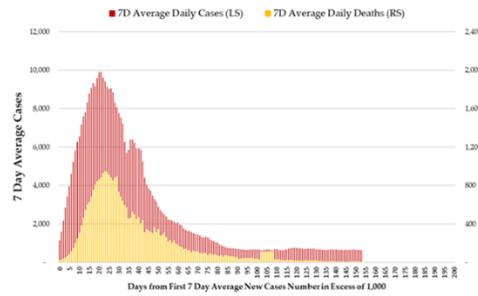
*Population: 39.5 million

California



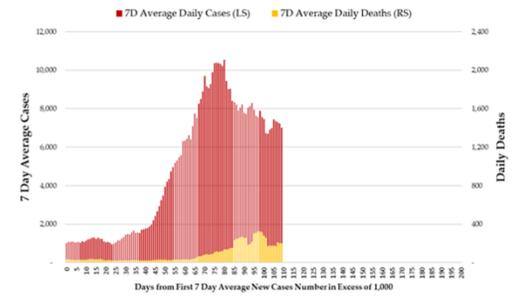
*Population: 19.4 million

New York



*Population: 29.0 million

Texas



Source: Johns Hopkins University
Data as of: August 20, 2020

On the vaccine front, over 140 candidates are in development globally, 5 of which have entered Phase III trials this summer. Moderna and Pfizer both have vaccines currently starting phase 3 trials with plans for 30,000 participants. AstraZeneca’s vaccine, developed jointly with Oxford University, is scheduled for August, while Johnson & Johnson’s is slated for September. Phase I/II results from all have been released and have shown neutralizing antibodies at similar levels to recovered COVID-19 patients.

Considering the variety of the lineup and the urgency of governments worldwide there will likely be a vaccine approved in some fashion – officials have signaled that a vaccine that simply reduces symptoms may be enough for now. The FDA has released guidance outlining conditions for approving a Covid-19 vaccine, including that any vaccine be at least 50% more effective than a placebo in preventing the disease. This benchmark is used routinely for flu vaccines and appears achievable considering early trial results.

Coronavirus Vaccine Tracker

By Jonathan Corum, Denise Grady, Sui-Lee Wee and Carl Zimmer Updated August 21, 2020



Given the steps that still need to be taken, the earliest we would likely have access to a vaccine is January and, even then, it would likely be for emergency use only or for the most at-risk groups. The German government doesn’t expect wide availability of a vaccine until mid-2021. There are also concerns about the length of immunity – recent studies suggest less than 6 months, in line with other coronaviruses – and possibility that the vaccine could make individuals more susceptible in the future and with a potentially more serious recurrence of the disease. This phenomenon, known as Antibody Dependent Enhancement (ADE), has been observed in a number of mosquito-borne flaviviruses, HIV, as well as with both [severe acute respiratory syndrome coronavirus \(SARS-CoV\)](#) and [Middle East respiratory syndrome coronavirus \(MERS-CoV\)](#).

It’s unlikely that we have a medical solution before the end of the year and investors should plan on this environment continuing. Seven months into the pandemic, however, we have significant science with over 18 million data points on which to base a response. A number of recent studies have shown T-cell activity in significant proportions of individuals who had no prior exposure to SARS-CoV-2, the virus that causes Covid-19. This suggests some level of cross-reactivity from existing pathogens and helps explain why so many people exhibit such different immune responses to infection. The virus doesn’t spread well in outdoor conditions. In fact, [a study of 318 outbreaks outside of Hubei province in China found that only 1 occurred outdoors](#) and the risk of immediate reinfection appears low given immune responses shown in previously infected monkeys. Reports to the contrary have largely been attributed to flaws in how PCR-based diagnostic tests function.

Since the turn of the 20th century, there have been 4 other pandemics – the H1N1 “Spanish” Flu (1918-1920), the H2N2 “Asian” Flu (1957-1958), the H3N2 “Hong Kong” Flu (1968-1970), and the H1N1pdm09 “Swine” Flu pandemic of 2009-2010. Every single one of these pandemics had a second wave, and all of them have a lower reproduction number than is currently estimated for Covid-19. However, all of these pandemics also saw significant diminishment in terms of

impact over time. The “Hong Kong” flu still circulates every year as a seasonal virus with limited impact, and the low death rate of the 2009 H1N1 pandemic (which also still circulates on a seasonal basis) is attributed in some studies to antigenic similarities to the 1918 Spanish flu.

There are simply two keys to bridging the pandemic: Testing and Time.

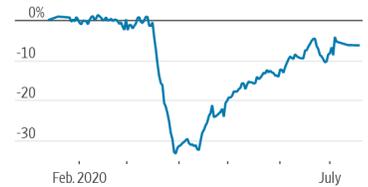
THE RECOVERY

Early data over May and June signified the early beginnings of a “V-shaped” recovery. The rise in Covid-19 cases and high frequency data since suggests the United States may be looking at a recovery more in the form of a reverse square root – where the US sees a resurgence in cases due to a premature lifting of restrictions which in turn mutes growth of the economy. Although we do not expect another shutdown of national scale like in March, [Americans were already staying home prior to the initial issuance of stay at home orders](#) and recent high frequency data has shown a significant pullback in metrics such as driving direction requests and credit card spending over July. If consumers don’t feel safe, they will be reticent to go out and spend – and that is a significant risk to the near-term stability of the recovery in an economy where two-thirds of economic activity is consumer spending. As long as the virus has a foothold, economic growth will likely be below potential and the companies that have benefited from the resulting behavior change should continue as such.

Spending Shifts

The pandemic curbed many consumers’ purchases...

Total debit- and credit-card spending by all consumers decreased by 6.4% compared with January 2020.



Note: Seasonally adjusted card spending compared with Jan. 4-31, on a 7-day moving average
Source: Opportunity Insights Economic Tracker, Affinity Solutions

Hearteningly, the rate of increase in new Covid-19 cases has moderated significantly in recent weeks, largely attributed to a newfound prevalence of face masks and social distancing by Americans. The path for the next several months will be about mitigation, rather than elimination. In our view, there is a lot of credence to the idea that Covid-19 will be an endemic pathogen, one with a constant presence and/or usual prevalence within a geographic area. Countries that had significant success in battling their outbreaks like Germany, Spain, and Japan have shown that a pickup in economic activity inevitably comes an uptick in cases. This, in turn, suggests that the path forward is going to be one of rolling restrictions and varying levels of activity until the virus is truly diminished. We do not favor industries that operate with significant levels of face to face interaction for this reason, especially considering we do not know what the ultimate impact of Covid-19 and the seasonal flu circulating at the same time will be.

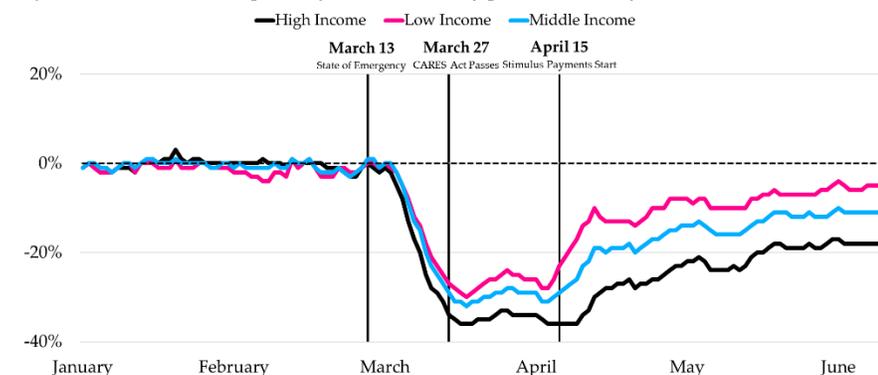
The story of the economy to this point has been “Stimulus vs Virus”, that more money has been pumped into the economy than damage done. Between all current fiscal and monetary measures \$4.75 trillion has been committed to the United States economy, with the possibility of another round above \$1 trillion. The parties are in agreement around another round of stimulus checks, but stand far apart on every other key issue including state and local funding, liability protections for businesses, and the expiration of expanded unemployment benefits on July 31.

The \$600 per week addition to existing unemployment benefits, as estimated by the University of Chicago, means that

over two-thirds of eligible recipients receive benefits amounting to more than they were making prior and about one-fifth can receive benefits at least double their prior earnings. This benefit has been cited in the Fed’s beige book as a deterrence to some employers looking to hire back their employees, suggesting continuation of the expanded benefits could be a headwind on the road to full employment.

Spending Slows

High Income earners cut spending the most during pandemic’s height



Source: Affinity Solutions via Opportunity Insights

However, data has shown the expanded payments have been a significant boon to economic activity in the early stages of the pandemic. The [JPMorgan Chase Institute](#) found that the aggregate spending of unemployment recipients has increased by 10% relative to a 10% aggregate decrease in spending by the currently employed. A study by Opportunity Insights found that more than half of the reduction in consumer spending has been from the top 25% of wage-earners, with the bottom 25% spending modestly below 2019 levels. Considering the layoffs have been disproportionately in that low wage category, the combination of expanded unemployment and individual payments have had a very visible effect on the immediate recovery from the pandemic shock. Retail sales are now, as of July, above pre-pandemic levels and, in spite of the added benefits, the US economy added 9.3 million jobs between May, June, and July. A reduction to \$200 a week, as currently proposed, would reduce total payments for the more than 25 million current recipients by roughly \$44 billion per month, equivalent to about 8% of total retail spending in June.

THE YEAR AHEAD

Given the magnitude of uncertainty in the domestic and global economy, it's important to emphasize a focus on the calendar. Reports on monthly job additions are going to be key datasets with which to benchmark the recovery given the general uncertainty. While in October airlines no longer have their employment requirement under the terms agreed to in the CARES act, most airlines have signaled job cuts between 20-40% of their staff with passenger demand falling in July.

Date	Deadline/ Event
Sep 4	August Jobs Report
Sep 30	Federal fiscal year ends
Sep 30	Highway bill expires
Sep 30	Airline grant program employment requirement ends
Oct 2	September Jobs Report
Oct 12	Congressional recess begins
Nov 3	Election day
Nov 6	October Jobs Report
Dec 31	Unemployment compensation eligibility expansion and 13-wk duration extension both expire

Of most importance to markets, however, is the US presidential election on November 3. It is still far too early to handicap a potential result given neither party has held their conventions but early verbiage suggests it will be contentious and recent polling indicates a deep deficit to overcome for the Trump campaign at this juncture.

"In your opinion, what is the most important problem facing the U.S. today?"	All	Democratic	Republican	Independent
	Registered Voters	Registered Voters	Registered Voters	Registered Voters
Economy Generally	19%	14%	25%	15%
Unemployment/Lack of Jobs	8%	8%	9%	5%
Healthcare	23%	31%	13%	30%
	50%	53%	47%	50%

Source: Reuters/Ipsos Core Political: Presidential Approval Tracker (07/29/2020)

Considering the accuracy of the polls in 2016, it's important to take headline figures with a grain of salt. As long as Donald Trump is the nominee, polling will never be fully accurate due to his polarizing figure, but breaking it down to key issues clears the picture up. Across all political groups, according to a July 29 Reuters/Ipsos Survey, roughly 50% of voters have the economy or healthcare as their number one issue for November. 82% of Americans are "Somewhat" or "Very" concerned about the spread of Covid-19, and 56% of Americans disapprove of President Trump's handling of the pandemic. Historically, the strength of the economy is correlated with the electoral strength of the incumbent president, making these issues key as we progress towards the general election. Without meaningful progress on all of them in the near future President Trump's re-election chances drop markedly.

Current betting markets have a roughly 59% chance of a Biden Administration, while the non-partisan Cook Political Report has released an analysis of key Senate races that for this first time this cycle favoring Democrats to take back the chamber. Democrats are expected to keep control of the House this fall.

CONCLUSION

While our long-term view remains intact, the balance of the market and economy over the near-to-mid gives us reason for caution. At this juncture, a "V-shaped" economic recovery looks unlikely. The epic second-quarter GDP plunge, which

pushed economic activity more than 10% below its recent peak, cannot be discounted as a thing of the past. It will take years to recuperate from the blow.

Fundamentally, outside of the technology sector there are very limited metrics with which to value this market. S&P 500 earnings per share aren't expected to hit levels seen in 2019 until the end of 2021 and the extent and duration of the downturn are extremely unclear. The sell-off in the fourth quarter of 2018 was around a backdrop of solid fundamentals – earnings at S&P 500 companies were at all-time highs, the United States was seeing record job additions with expansion-high wage gains, and the bottom 25% of wage earners were finally seeing outsized growth in earnings relative to the top 25%.

Today's environment has none of those trends. Valuations have been propelled by bullish sentiment around a smooth reopening which has allowed for sizeable multiple expansion in an economy that exhibits little to no growth. If the economic environment deteriorates and delivers information that meaningfully alters sentiment, that could be the catalyst for a repricing.

However, long term, COVID-19 will be a distant memory. Human biology, by design, minimizes the impact of pathogens over time. The economic and human toll of the virus are heartbreaking and devastating, but they are transitory. The changes in human consumer behavior and the global approach to geopolitics have significantly more staying power. Between COVID-19 and the U.S. China trade war, the concentration and weakness of global supply chains have been exposed and that could be the catalyst for a return to a greater share of global manufacturing in the United States.

Our longer-term expectation remains that of an economy that returns to growth and for a stock market that eventually returns to a more normal distribution of sector strength. Our long-term view is still intact, but how exactly we get there is the question with so much uncertainty over the near-to-mid. Long term, we adapt and return to previous levels of economic activity, the question is the amount of time that takes.

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