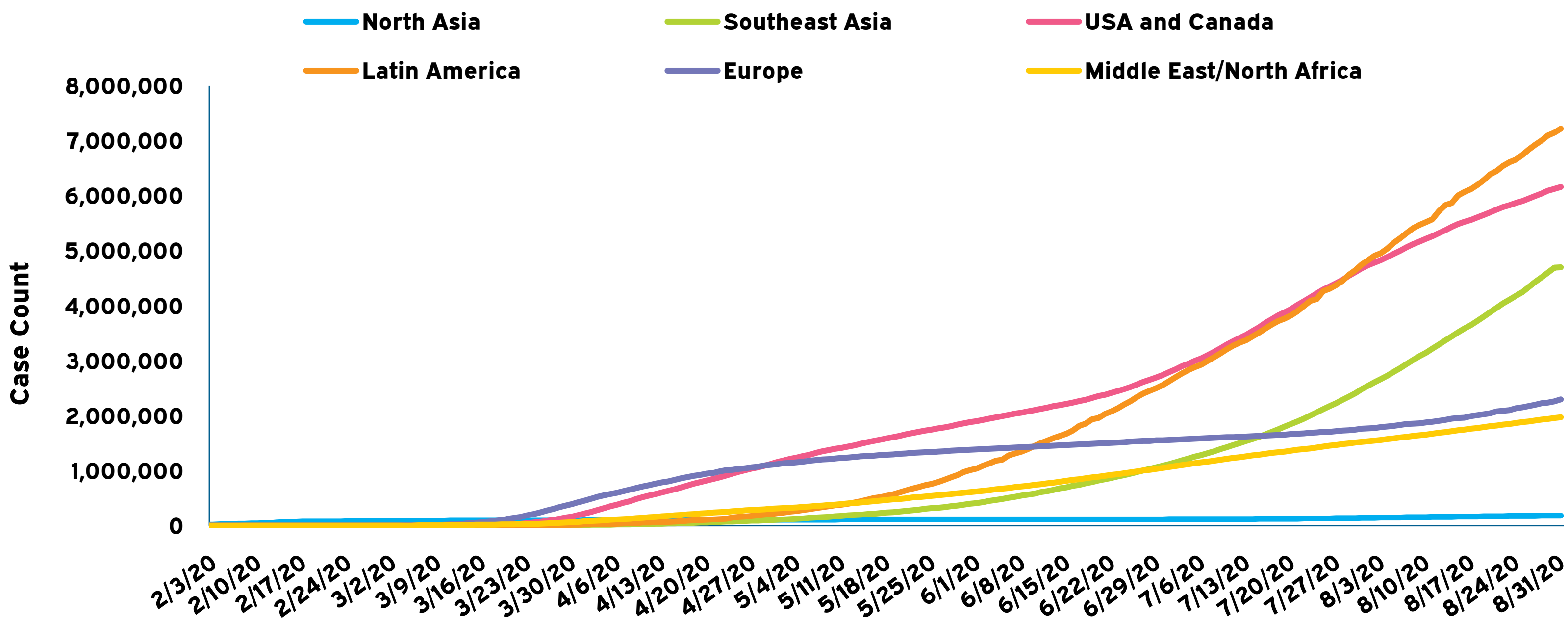
# Economic and Market Update

Data as of August 31, 2020

## Case Count by Select Region[1,2]




- Cases of COVID-19 continue to grow globally with now over 28 million reported cases across 188 countries.
- The US remains the country with the highest cases, while cases in Latin America are surging, driven by Brazil. India has also emerged as a hotspot with the second most cases globally.

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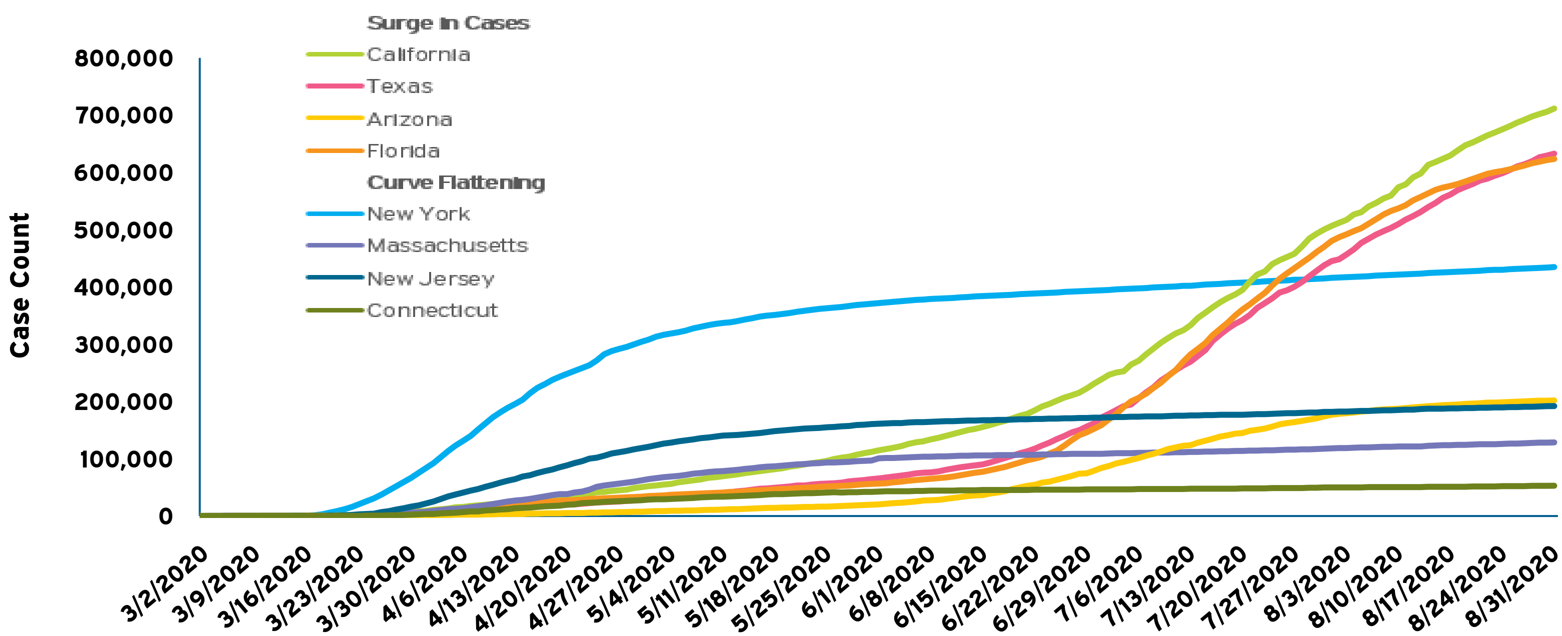
[1] Source: Bloomberg. Data is as of August 31, 2020.

[2] North Asia: China, Hong Kong, Japan, South Korea, and Taiwan. Southeast Asia: Singapore, India, Indonesia, Malaysia, Pakistan, Philippines, Thailand, Bangladesh, Sri Lanka, and Vietnam. Europe: Austria, Belarus, Bulgaria, Croatia, Czech Republic, Denmark, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, United Kingdom, Switzerland, and Ukraine. Latin America: Chile, Brazil, Mexico, Argentina, Colombia, Peru, Venezuela, Ecuador, Panama, Paraguay, Costa Rica, Bolivia, Uruguay, El Salvador, Honduras, Cuba, Dominican Republic, Haiti, and Nicaragua. Middle East/North Africa: Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Turkey, Tunisia, United Arab Emirates, and Yemen.

## COVID-19 Cases by State[1]




- There has been some improvement in cases in states that experienced spikes as they reopened, but they are not out of the woods yet.
- Some states that were hardest hit in the early stages made progress on containing the virus, but have also seen small upticks in cases.
- As we move into the colder months, flu season and the reopening of schools in some areas could create additional stresses on the healthcare system.

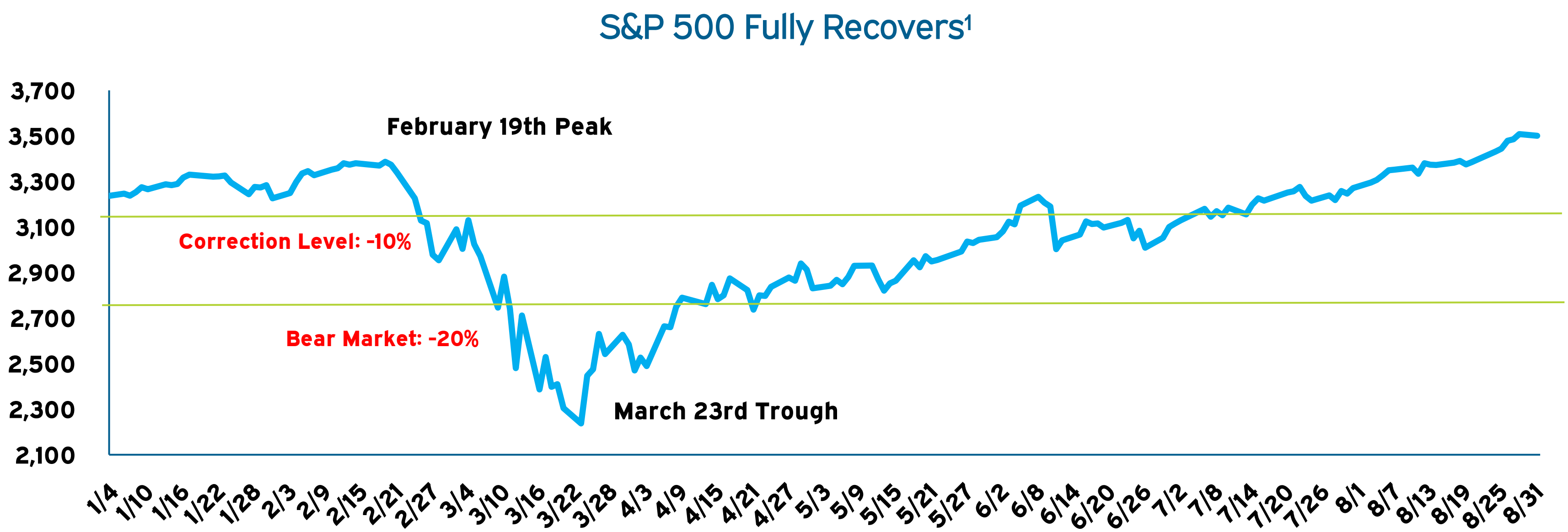
[1] Source: Bloomberg. Data is as of August 31, 2020.

## Market Returns[1]

| Indices | August | YTD | 1 Year | 3 Year | 5 Year | 10 Year |
|---|---|---|---|---|---|---|
| S&P 500 | 7.2% | 9.7% | 21.9% | 14.5% | 14.5% | 15.2% |
| MSCI EAFE | 5.1% | -4.6% | 6.4% | 2.3% | 4.7% | 5.9% |
| MSCI Emerging Markets | 2.2% | 0.4% | 14.5% | 2.8% | 8.7% | 3.8% |
| MSCI China | 5.7% | 19.7% | 36.8% | 9.2% | 13.7% | 7.8% |
| Bloomberg Barclays Aggregate | -0.8% | 6.9% | 6.5% | 5.1% | 4.3% | 3.7% |
| Bloomberg Barclays TIPS | 1.1% | 9.6% | 9.0% | 5.7% | 4.6% | 3.7% |
| Bloomberg Barclays High Yield | 1.0% | 1.7% | 4.7% | 4.9% | 6.5% | 6.9% |
| 10-year US Treasury | -1.3% | 12.5% | 8.6% | 6.5% | 4.4% | 4.3% |
| 30-year US Treasury | -6.1% | 23.8% | 13.6% | 12.3% | 8.1% | 8.1% |

- Global risk assets have recovered meaningfully from their lows, largely driven by record fiscal and monetary policy stimulus; the S&P 500 appreciated by over 56% from the mid-March lows.
- Risk assets have reacted positively to the combination of a gradual re-opening of the global economy, some economic data beating expectations, and the potential for a vaccine being developed sooner than initially expected.
- Despite the recovery in risk assets, yields on safe-haven assets like US Treasuries remain at record lows due to expectations for extremely accommodative monetary policy for the foreseeable future and expectations for relatively weak economic growth.

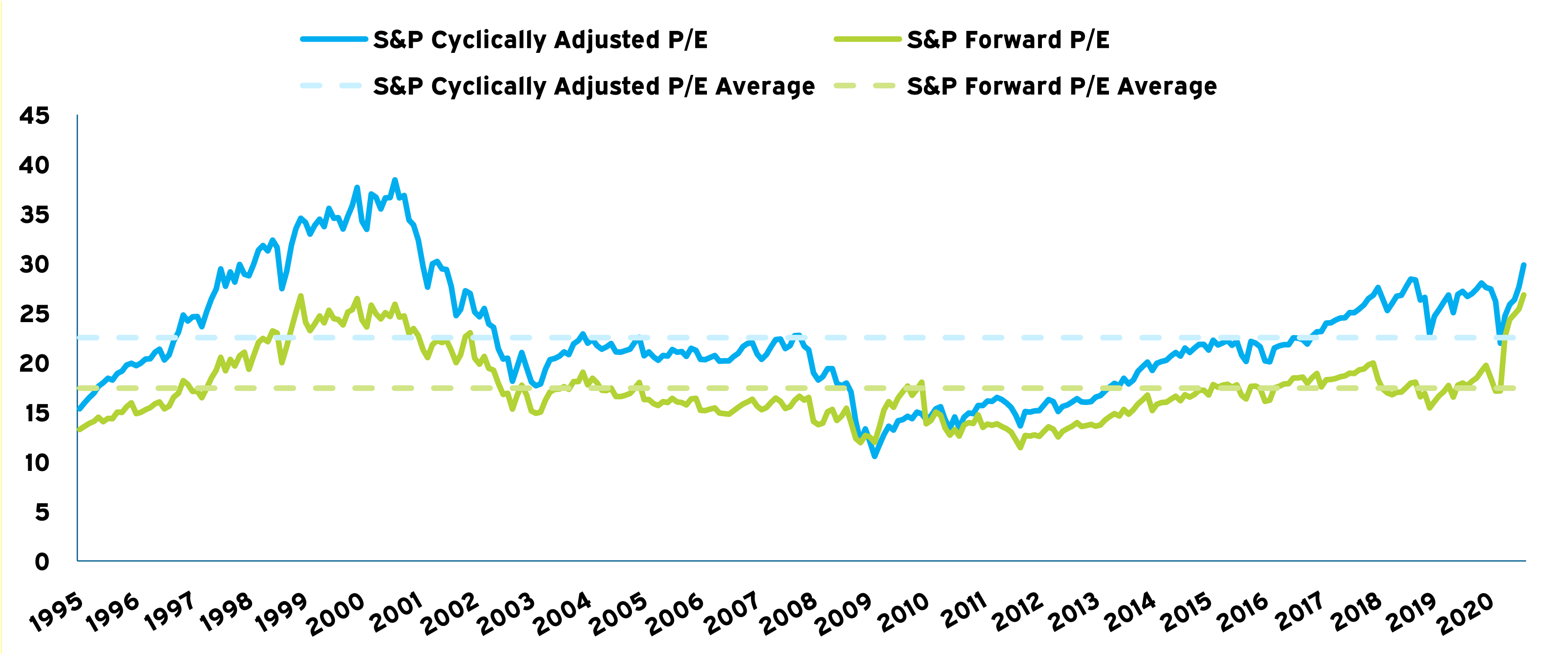
[1] Source: InvestorForce and Bloomberg. Data is as of August 31, 2020.




- Given the anticipated economic carnage surrounding the pandemic, US stocks declined from a February peak into bear market (-20%) territory at the fastest pace in history.
- From the February 19 peak, the S&P 500 plunged 34% in just 24 trading days.
- The index rebounded quickly from its lows and finished above its pre-COVID levels at the end of August, with year-to-date gains of close to 10%. The largest drivers of the unprecedented recovery include the significant monetary and fiscal stimulus in the US, as well as improvements in parts of the economy as it slowly reopens.
- It is unclear whether the pace of the recovery is sustainable in light of the recent surge in cases, as well as risks such as the looming US election, ongoing trade tensions between the US and China, and continued uncertainty regarding the next round of US fiscal stimulus.

[1] Source: Bloomberg. Data is as of August 31, 2020.

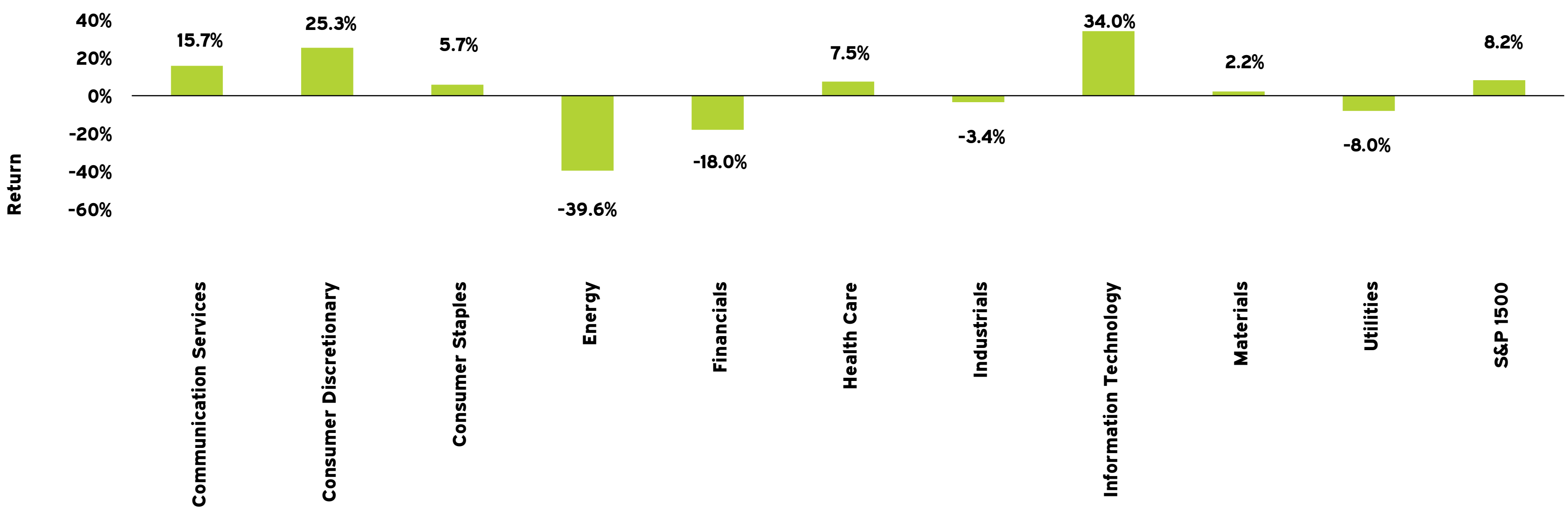
S&P Equity Valuations[1]




- As US equity markets continue to rise, valuations based on both forward- and backward-looking earnings have become even more stretched.
- Many are looking to improvements in earnings to support market levels as the US economy continues to reopen, with historically low interest rates also providing support.
- The key risk remains that a spike in COVID-19 cases could slow, or reverse, reopening plans.

[1] Source: Bloomberg. Data is as of August 31, 2020.

## 2020 YTD Sector Returns[1]

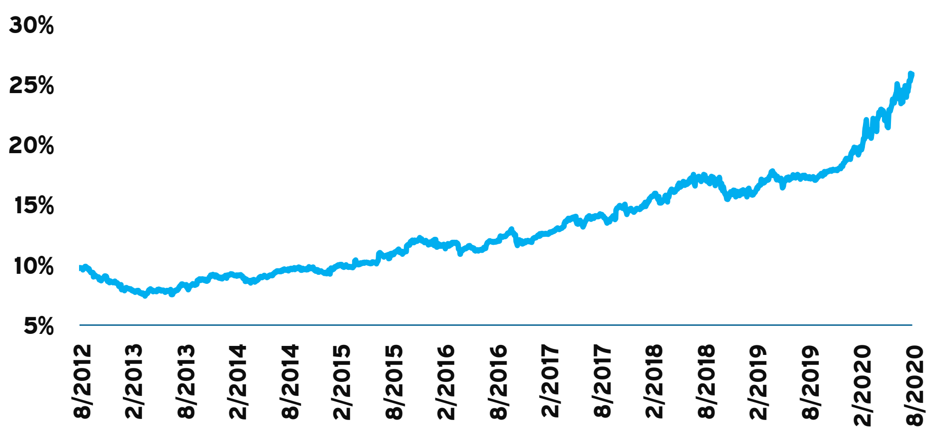



- Information technology remains the best performing sector, with a narrow group of companies including Amazon and Netflix driving market gains. The outperformance has been due to consumers moving to online purchases and entertainment.
- The consumer discretionary sector has also experienced gains as the economy reopens, people return to work, and as stimulus checks were spent.
- The energy sector has seen some improvements given supply cuts and economies starting to reopen, but it remains the sector with the greatest 2020 decline, triggered by the plunge in oil prices. Financials have also struggled in the low interest rate and slow growth environment.

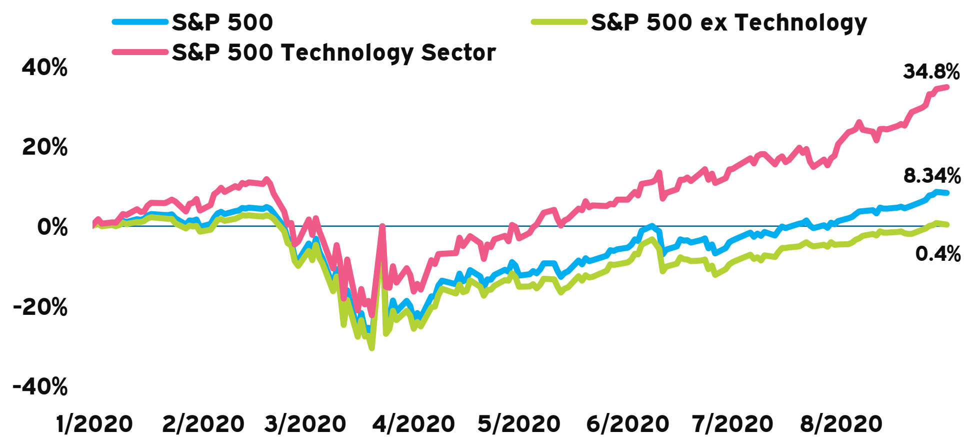
[1] Source: Bloomberg. Data is as of August 31, 2020.

## Technology has led the way in the Rebound

### FAANG+M Share of S&P 500[1]




### Returns Year to Date through August 31[2]

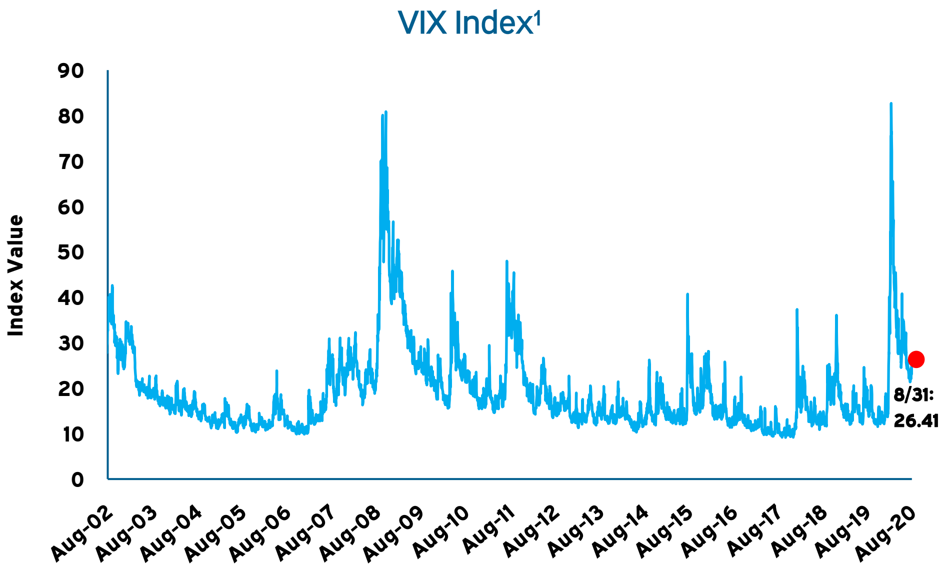


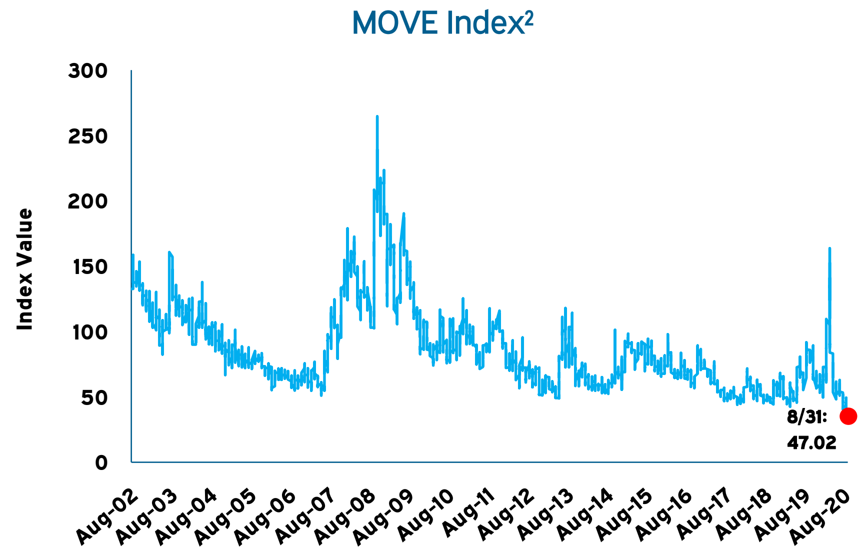

- The recent market recovery has largely been driven by a few select technology companies that benefited from the stay-at-home environment related to the virus.
- Year-to-date, the S&P 500 technology sector returned 34.8% compared to 0.4% for the S&P 500 ex. technology index, with Amazon (+87%), Netflix (+64%), and Apple (+76%) posting strong results.
- The strong relative results of these companies has led to them comprising a growing portion (25.9%) of the S&P 500, which makes their future performance particularly impactful.

[1] FAANG+M = Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. The percentage represents the aggregate market capitalization of the 6 companies compared to the total market capitalization of the S&P 500 as of August 31, 2020.

[2] Each data point represents the price change relative to the 12/31/2019 starting value.

## Volatility has Declined




- Expectations of short-term equity volatility, as measured by the VIX index, continued to decline from record levels, though it remains elevated relative to the past decade.
- At the recent height, the VIX reached 82.7, surpassing the pinnacle of volatility during the GFC, showing the magnitude of the crisis, and of investor fear.
- Expectations of volatility within fixed income, as represented by the MOVE index, spiked and then returned to historic lows, helped by the broad level of monetary support and forward guidance by the Fed.

[1] Source: Chicago Board of Exchange. Data is as of August 31, 2020.

[2] Source: Bloomberg. Data is as of August 31, 2020.

# Global Financial Crisis Comparison

| | 2007-2009 Global Financial Crisis | COVID-19 Crisis |
|---|---|---|
| Primary Causes | Excess Risk Taking Due to:<br>• Deregulation, un-constrained securitization, shadow banking system, fraud | Pandemic/Natural Disaster:<br>• Large scale global restrictions on businesses and individuals leading to immediate and significant deterioration in economic fundamentals |

| | 2007-2009 Global Financial Crisis | COVID-19 Crisis |
|---|---|---|
| Fiscal Measures | • American Recovery Reinvestment Act of 2009: $787 billion<br>• Economic Stimulus Act of 2008: $152 billion | • PPP Act: $659 billion<br>• CARES Act of 2020: $2.3 trillion<br>• Families First Coronavirus Response Act: $150 billion<br>• Coronavirus Preparedness & Response Supplemental Appropriations Act 2020: $8.3 billion<br>• National Emergency: $50 billion |

| | 2007-2009 Global Financial Crisis | COVID-19 Crisis |
|---|---|---|
| Monetary Measures | | |
| Lowering Fed Funds Rate | X | X |
| Quantitative Easing | X | X |
| Primary Dealer Repos | X | X |
| Central Bank Swap Lines | X | X |
| Commercial Paper Funding Facility | X | X |
| Primary Dealers Credit Facility | X | X |
| Money Market Lending Facility | X | X |
| Term Auction Facility | X | |
| TALF | X | X |
| TSLF | X | |
| FIMA Repo Facility | | X |
| Primary & Secondary Corp. Debt | | X |
| PPP Term Facility | | X |
| Municipal Liquidity Facility | | X |
| Main Street Loan Facility | | X |

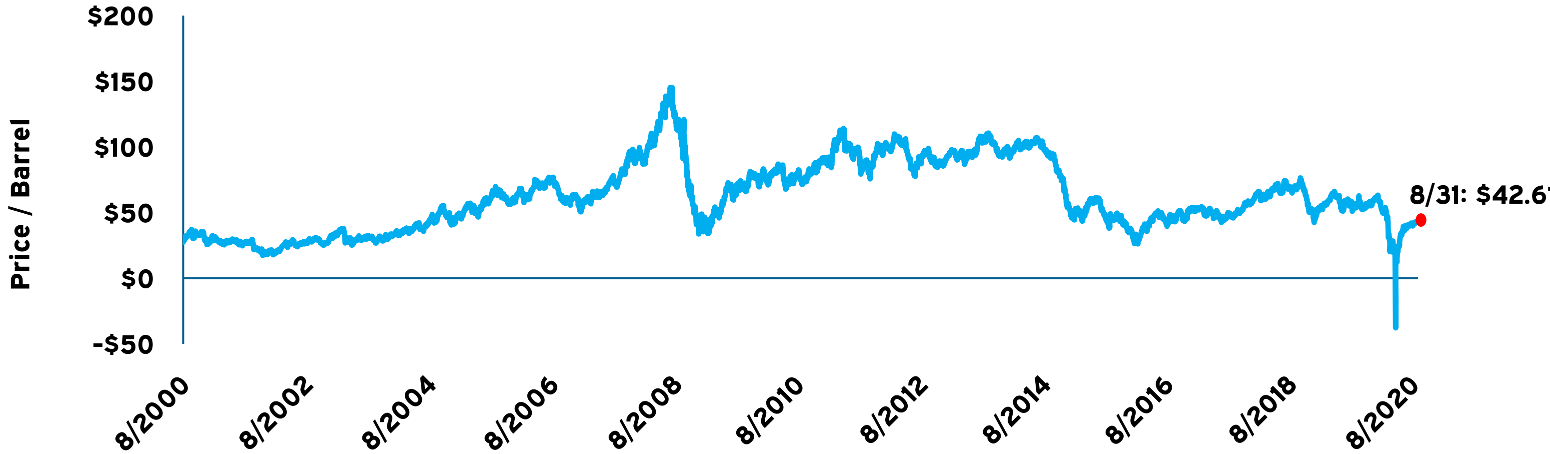
## Global Financial Crisis Comparison (continued)

- The US **fiscal** response to the COVID-19 Crisis has been materially larger than the response to the 2007-2009 Global Financial Crisis (GFC), and stimulus is acutely focused on areas of the economy showing the greatest need, including small and mid-sized companies. For example, the Paycheck Protection Program (PPP) helps small businesses keep employees working by offering forgivable loans to cover salaries.
- Gridlock continues related to the fifth fiscal package with key issues being discussed/debated including payroll tax cuts, another round of stimulus checks, additional unemployment benefits, and state and local aid. The end to enhanced unemployment benefits in July from the prior stimulus has been particularly impactful to those without jobs.
- On the **monetary** side, markets targeted during both crises represent those most in need, but for the COVID-19 Crisis the policy response was dramatically faster, measured in weeks, not years, as in the GFC.
- Of the monetary stimulus measures, the corporate debt (Primary & Secondary Corporate Debt) programs and Main Street Loan Facility are new and garnered much attention from market participants.
- Through the end of August, Fed programs have experienced various degrees of usage. However, at this point, none has come close to reaching program limits. Still, programs have been extended through December 2020, and the psychological value of knowing the programs are available, if necessary, likely supports market sentiment.

## Policy Responses

| | Fiscal | Monetary |
|---|---|---|
| United States | $50 billion to states for virus related support, interest waived on student loans, flexibility on tax payments and filings, expanded COVID-19 testing, paid sick leave for hourly workers, $2 trillion package for individuals, businesses, and state/local governments. Additional $484 billion package to replenish small business loans, provide funding to hospitals, and increase testing. | Cut policy rates to zero, forward guidance suggesting aggressively accommodative policy for the foreseeable future, unlimited QE4, offering trillions in repo market funding, restarted and extended CPFF, PDCF, MMMF programs to support lending and financing markets, expanded US dollar swap lines with foreign central banks, announced IG corporate debt buying program with subsequent amendment for certain HY securities, Main Street Lending program, Muni liquidity facility, repo facility with foreign central banks, and easing of some financial regulations for lenders. |
| Euro Area | European Union: Shared 750 billion euro stimulus package.<br>Germany: 220 billion euro stimulus<br>France: 57 billion euro stimulus.<br>Italy: 75 billion euro stimulus.<br>Spain: 200 billion euro and 700 million euro loan and aid package, respectively. | Targeted longer-term refinancing operations aimed at small and medium sized businesses, under more favorable pricing, and announced the 750 billion euro Pandemic Emergency Purchase Program, and then expanded the purchases to include lower-quality corporate debt. |
| Japan | Hundreds of trillions in yen stimulus for citizens and businesses, including low interest loans, deferrals on taxes, and direct cash handouts. | Initially increased QE purchases (ETFs, corporate bonds, and CP) and then expanded to unlimited purchases and doubling of corporate debt and commercial paper, expanded collateral and liquidity requirements, and 0% interest loans to businesses hurt by virus. |
| China | Tax cuts, low-interest business loans, extra payments to gov't benefit recipients. | Expanded repo facility, policy rate cuts, lowered reserve requirements, loan-purchase scheme. |
| Canada | $7.1 billion in loans to businesses to help with virus damage, C$381 billion stimulus. | Cut policy rates, expanded bond-buying and repos, lowered bank reserve requirements. |
| UK (BOE) | 190 billion pound stimulus, Tax cut for retailers, small business cash grants, benefits for those infected with virus, expanded access to gov't benefits for self and un-employed. | Lowered policy rates and capital requirements for UK banks, restarts QE program and subsequently increased the purchase amounts. |
| Australia | $11.4 billion, subsidies for impacted industries like tourism, one-time payment to gov't benefit recipients. | Policy rate cut, started QE. |

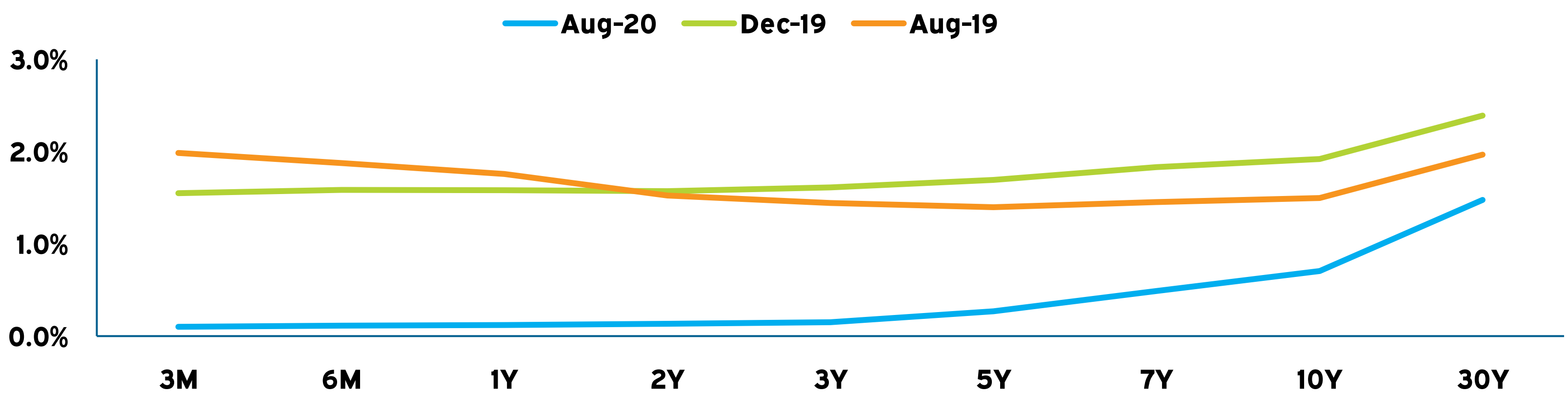
Oil Prices (WTI)[1]




- Global oil markets rallied from April lows, including from the technically-induced negative levels that saw the May futures contract trade at nearly -$40 per barrel.
- In August, OPEC+ began to relax its 9.7 million barrels/day production cuts (~10% of global output) resulting in an increase of supply by close to 1 million barrels/day. Going forward, they are looking to further reduce cuts to 7.7 million barrels/day.
- Counterbalancing the OPEC+ production cut agreement, US oil producers (particularly shale output) are reportedly turning wells back on as the price of oil rises.
- As OPEC+ starts rolling back production cuts, and the virus spread increases with the potential to weigh on demand, oil prices could experience downward pressure going forward.

[1] Source: Bloomberg. Represents WTI first available futures contract. Data is as of August 31, 2020.

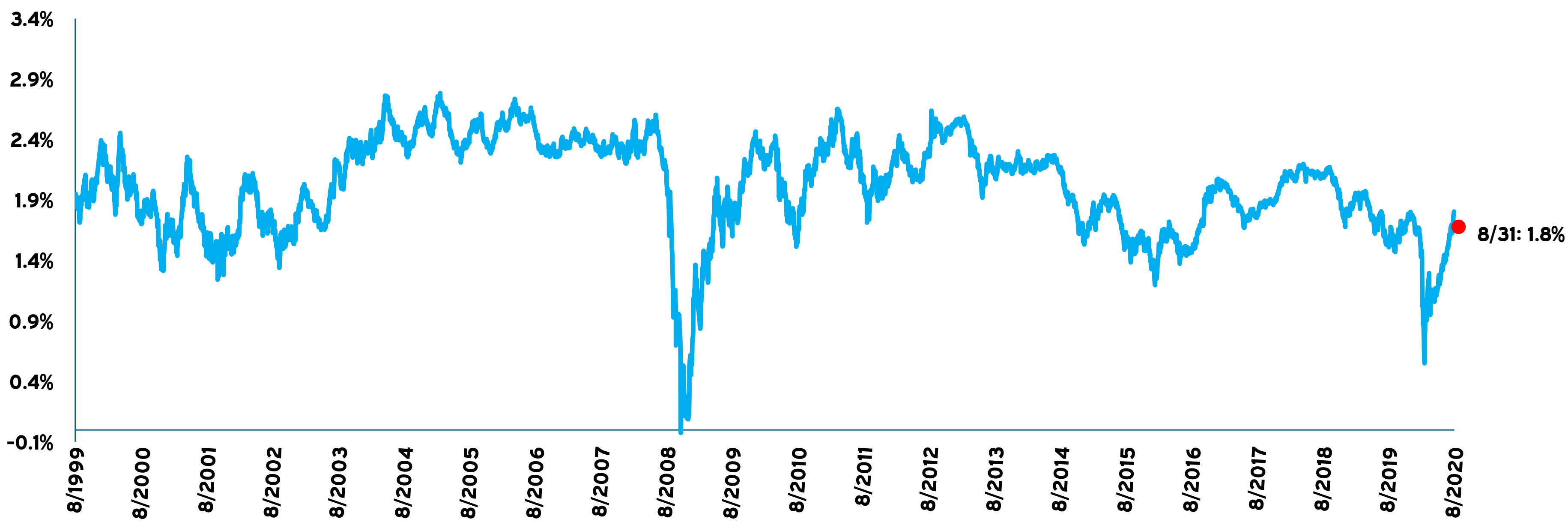
## US Yield Curve Declines[1]




- The US Treasury yield curve has declined materially since 2019.
- Cuts in monetary policy rates, and policy makers' open commitments to keep rates low for the foreseeable future, drove yields down in shorter maturities, while flight-to-quality flows, low inflation, and economic growth uncertainty have driven the changes in longer maturities.
- The Federal Reserve's unlimited quantitative easing purchase program has produced further downward pressure on interest rates, particularly in the short- and medium-term sectors due to the purchases being focused on those segments.
- Longer dated bonds have recently experienced some pressure as economic data has slowly improved, but more importantly as the Federal Reserve announced its plan to target an average inflation rate.

[1] Source: Bloomberg. Data is as of August 31, 2020.

10-Year Breakeven Inflation[1]

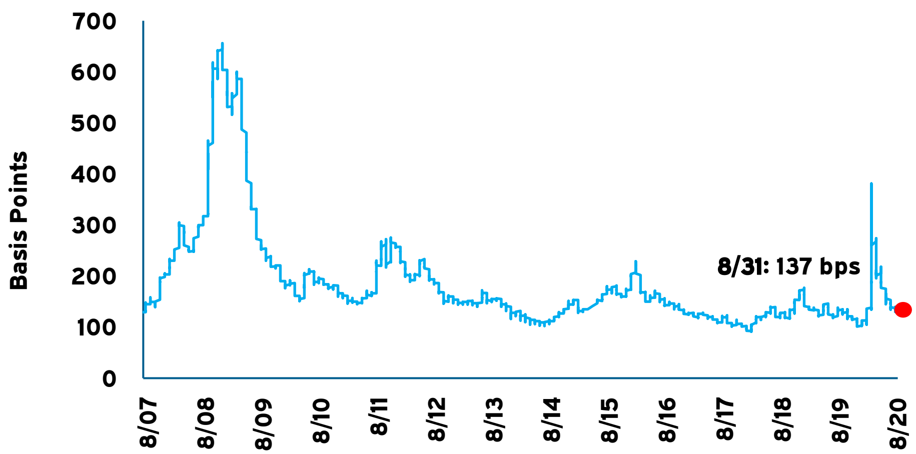



- Inflation breakeven rates initially declined sharply, due to a combination of lower growth and inflation expectations, as well as liquidity dynamics in TIPS during the height of rate volatility.
- Liquidity eventually improved and breakeven rates increased as deflationary concerns moderated, but given the uncertainty regarding economic growth and the inflationary effects of the unprecedented US fiscal response, inflation expectations continue to remain below historical averages.

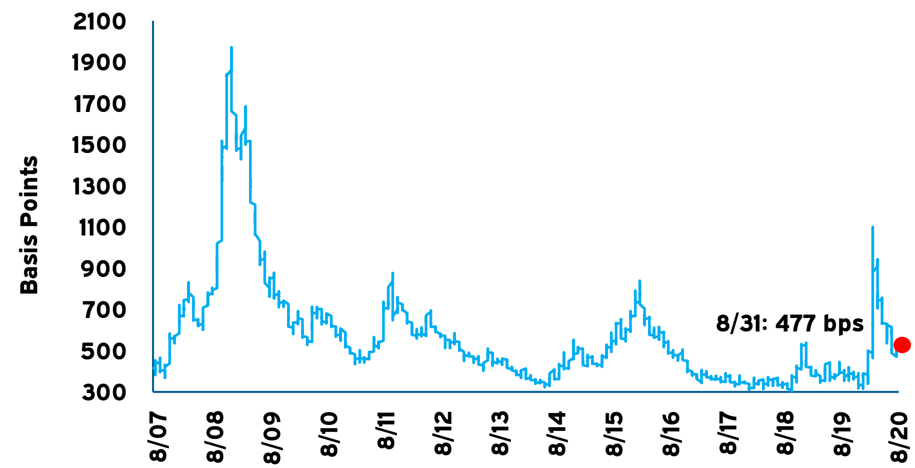
[1] Source: Bloomberg. Data is as of August 31, 2020.

## Credit Spreads (High Yield & Investment Grade)[1]

### Investment Grade OAS



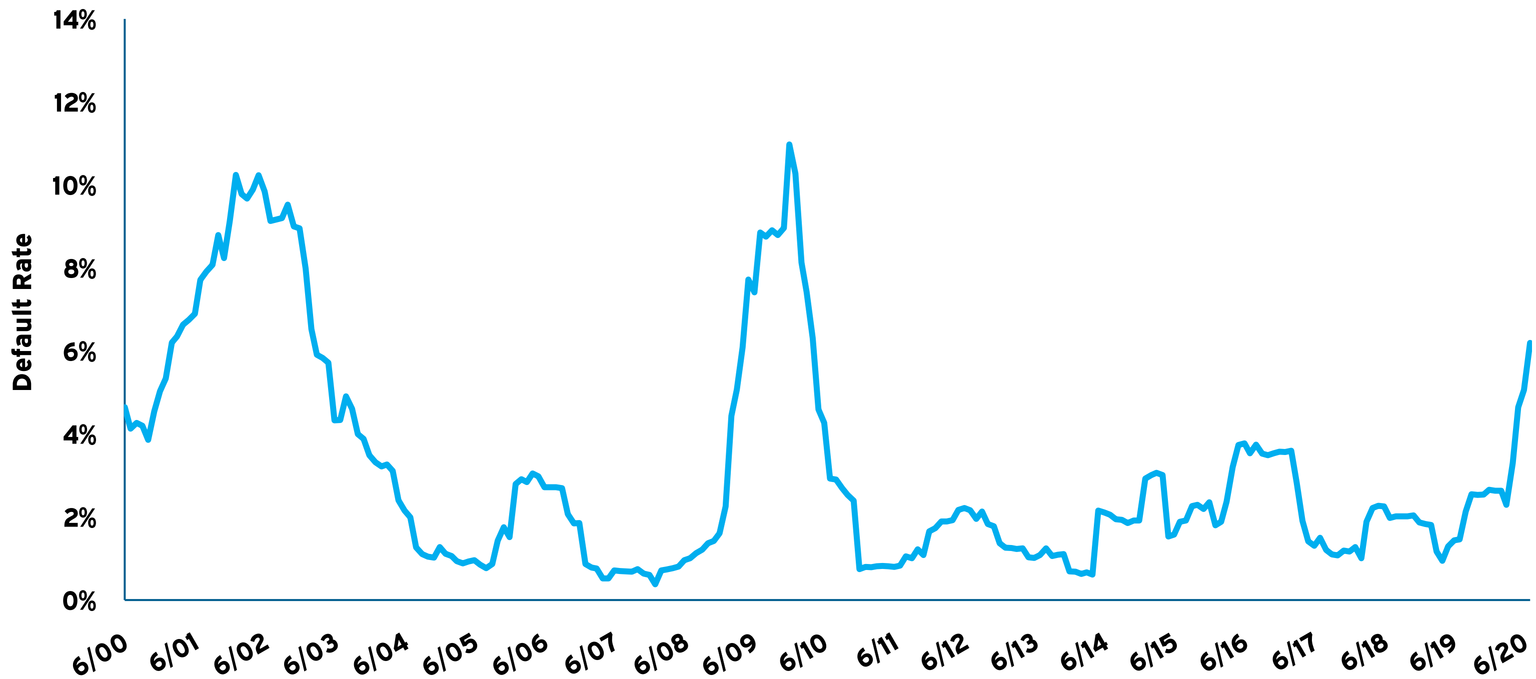

### High Yield OAS




- Credit spreads (the spread above a comparable Treasury bond) for investment grade and high yield corporate debt expanded sharply as investors sought safety.
- Investment grade bonds held up better than high yield bonds. The Federal Reserve's corporate debt purchase program for investment grade and certain high yield securities recently downgraded from investment grade, was well received by investors, leading to a decline in spreads to around long-term averages.
- Overall, corporate debt issuance has more than doubled since 2008, which magnifies the impact of deterioration in the corporate debt market. This is particularly true in the energy sector, which represents over 10% of the high yield bond market.

[1] Source: Federal Reserve Bank of St. Louis Economic Research. Data is as of August 31, 2020.

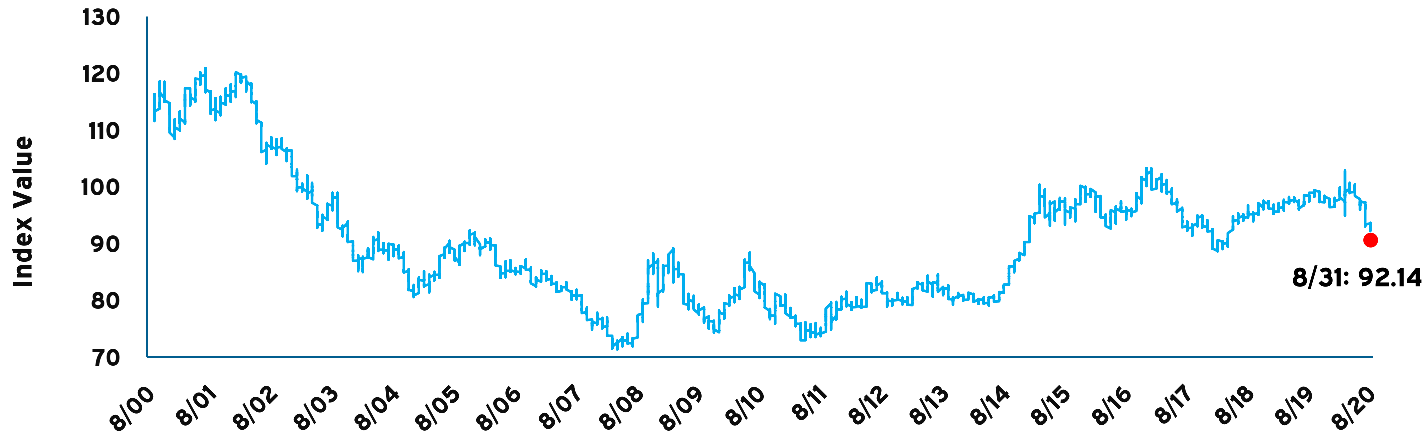
US High Yield Credit Defaults[1]




- Even though spreads have declined, helped by the Federal Reserve's support, defaults, particularly in the high yield sector, have increased dramatically in 2020.
- The energy sector has seen the greatest impact given the decline in oil prices, with defaults reaching double-digit levels and expectations for them to increase.

[1] Source: J.P. Morgan; S&P LCD. July and August data is not yet available. Data is as of June 30, 2020.

US Dollar versus Broad Currencies[1]




- When financial markets began aggressively reacting to COVID-19 developments, the US dollar came under selling pressure as investors sought safe-haven exposure in currencies like the Japanese yen given its current account surplus and its status as the largest creditor globally.
- As the crisis grew into a pandemic, investors' preferences shifted to holding US dollars and highly liquid, short-term securities like US Treasury bills. This global demand for US dollars led to appreciation versus most major currencies.
- To help ease global demand for US dollars, the Federal Reserve, working with a number of global central banks, re-established the US dollar swap program, providing some relief to other currencies. Usage of the program continues to decline as dollar funding demands have eased.
- Recently we have seen some weakness in the dollar as interest rates declined and the US struggled with containing the virus. This has created pressures on already stressed export-focused countries.
- Going forward, the dollar's safe haven quality and the relatively higher rates in the US could provide support.

[1] Source: Bloomberg. Represents the DXY Index. Data is as of August 31, 2020.

## Economic Impact

### Supply Chain Disruptions:

- Factories closing, increased cost of stagnant inventory, and disrupted supply agreements.
- Reduced travel, tourism, and separation policies including closed borders: Significant impact on service-based economies.

### Labor Force Impacts:

- Huge layoffs across service and manufacturing economies.
- Increased strains as workforce productivity declines from increased societal responsibilities (e.g., home schooling of children) and lower functionality working from home.
- Illnesses from the disease will also depress the labor force.

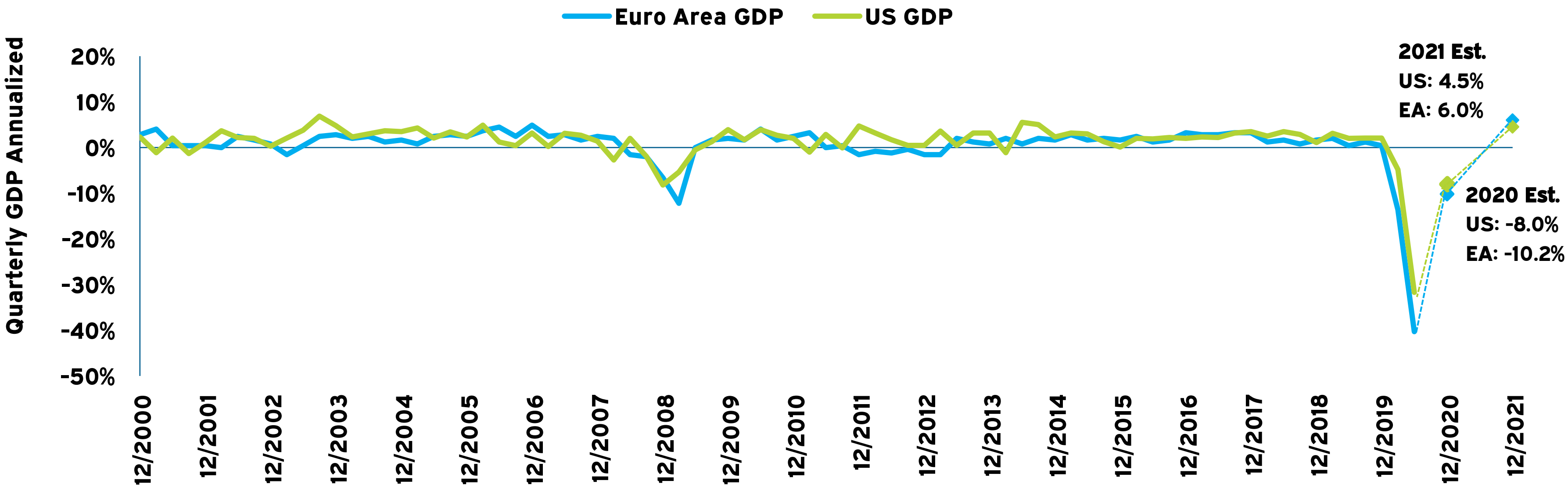
### Declines in Business and Consumer Sentiment:

- Sentiment drives investment and consumption, which leads to increased recessionary pressures as sentiment slips.

### Wealth Effect:

- As financial markets decline and wealth deteriorates, consumer spending will be impacted.

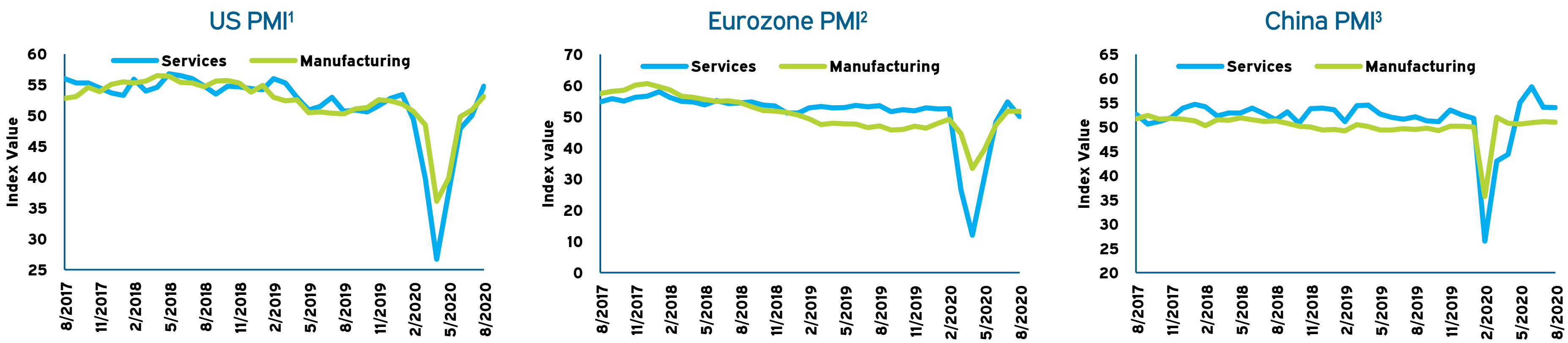
## GDP Data Shows Impact of the Pandemic[1]




- The global economy faces major recessionary pressures this year, but optimism remains for improvements in 2021, as economies are expected to gradually reopen.
- In the US, second quarter GDP posted a record (annualized) decline of -31.7%, officially putting the US in a recession. Similarly, growth in the Euro Area declined by a record amount with the major economies in Germany, France, Italy, and Spain experiencing historic declines.
- Bloomberg Economics estimates that third quarter US GDP growth could be as high as 21.2% (QoQ annualized).

[1] Source: Bloomberg. Q2 2020 data represents the second estimate of GDP for the Euro Area and United States. Euro Area figures annualized by Meketa. Projections via June 2020 IMF World Economic Outlook and represent annual numbers.

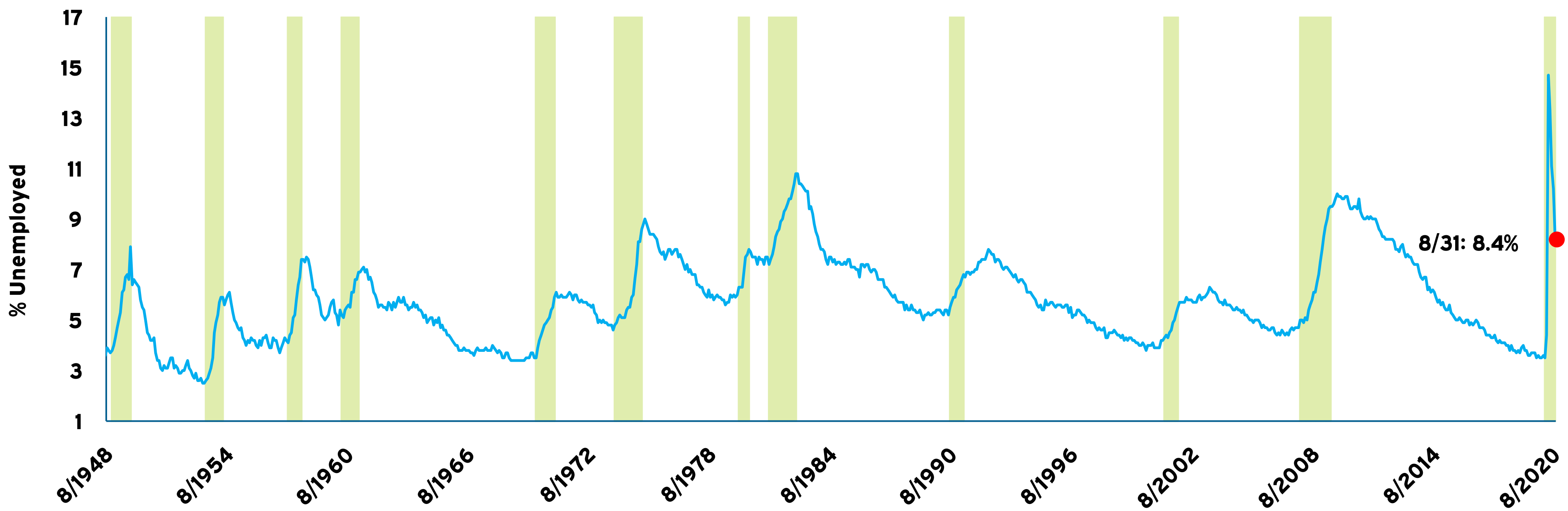
## Global PMIs




- Purchasing Managers Indices, (PMI) based on surveys of private sector companies, initially collapsed across the world to record lows, as output, new orders, production, and employment were materially impacted by closed economies.
- Readings below 50 represent contractions across underlying components and act as a leading indicator of economic activity, including the future paths of GDP, employment, and industrial production.
- The services sector was particularly hard hit by the stay-at-home restrictions in many places.
- As the Chinese economy reopened over the last few months, their PMI's, particularly in the service sector, recovered materially. In the US and Europe, the indices have also improved from their lows to above contraction levels.

[1] Source: Bloomberg. US Markit Services and Manufacturing PMI. Data is as of August 2020.
[2] Source: Bloomberg. Eurozone Markit Services and Manufacturing PMI. Data is as of August 2020.
[3] Source: Bloomberg. Caixin Services and Manufacturing PMI. Data is as of August 2020.

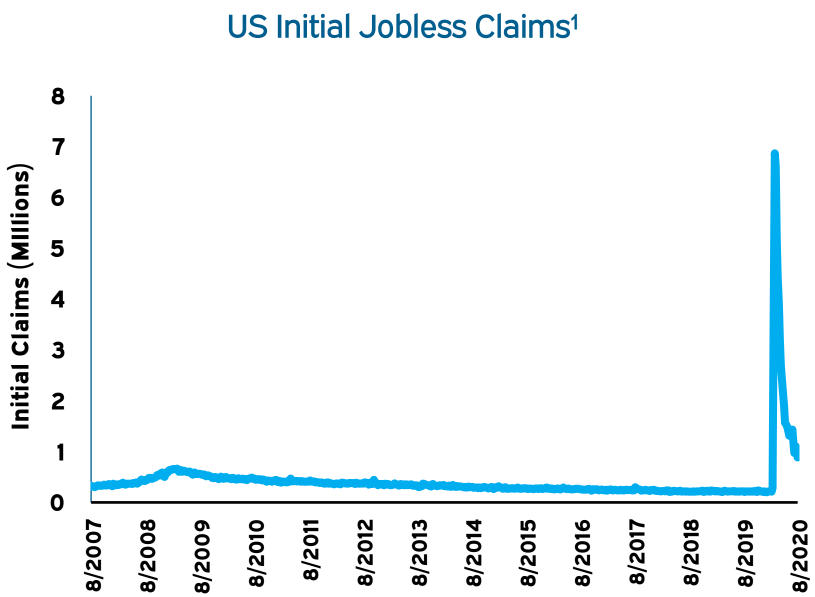
US Unemployment Rate[1]

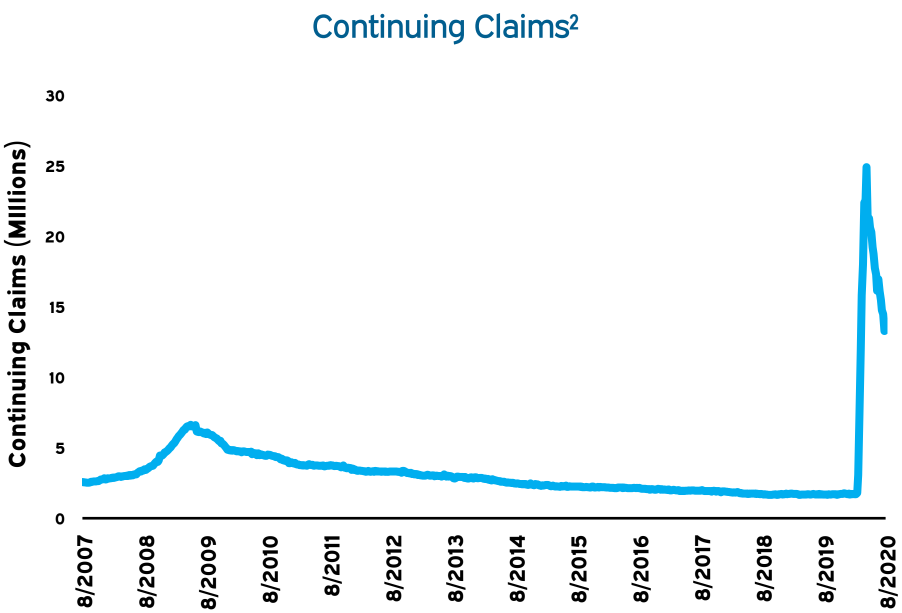



- In August, the unemployment rate continued its decline from the recent April 14.7% peak, falling to 8.4% as businesses and consumers emerged from the lockdown.
- Despite the improvement, unemployment levels remain well above pre-virus readings and are likely higher than reported due to issues related to some workers being misclassified. According to the Bureau of Labor Statistics, absent the misclassification issue, the August unemployment rate would be higher by 0.7%.
- The re-opening of some school districts, and upcoming holiday season, could lead to an increase in the unemployment rate going forward.

[1] Source: Bloomberg. Data is as of August 31, 2020. Bars represent recessions.

## US Jobless Claims

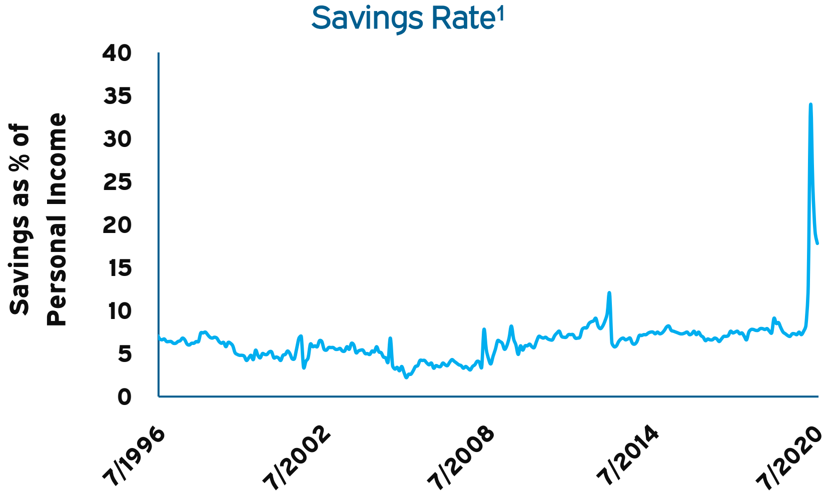


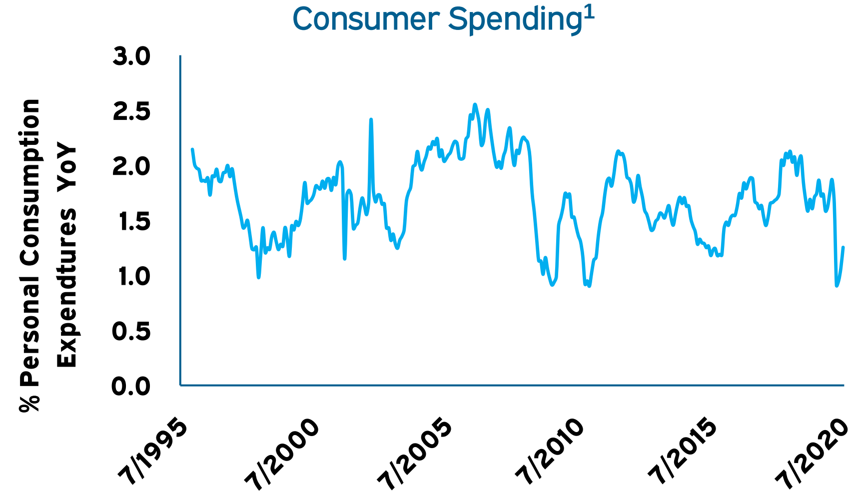




- Over the last 24 weeks, roughly 59.3 million people filed for initial unemployment. This level far exceeds the 22 million jobs added since the GFC, highlighting the unprecedented impact of the virus.
- Despite the continued decline in initial jobless claims to levels below 1.0 million per week, levels remain many multiples above the worst reading during the Global Financial Crisis.
- Continuing jobless claims (i.e., those currently receiving benefits) has also declined from record levels, but remains elevated at 13.4 million.

[1] Source: Bloomberg. First reading of seasonally adjusted initial jobless claims. Data is as of August 28, 2020.
[2] Source: Bloomberg. US Continuing Jobless Claims SA. Data is as of August 28, 2020.

## Savings and Spending



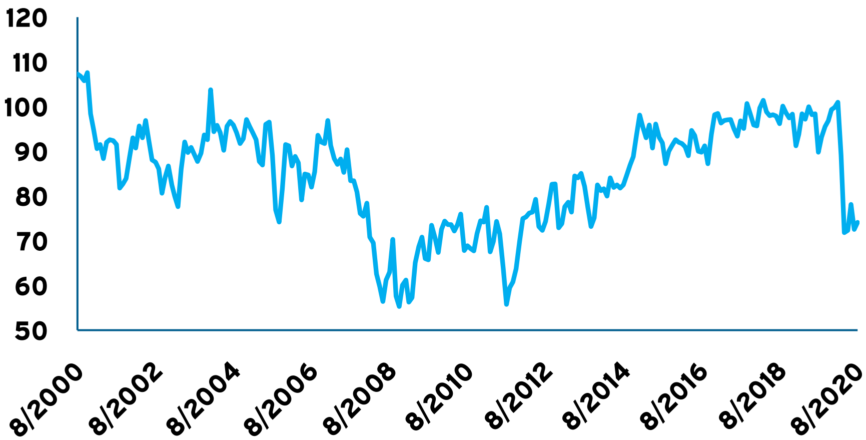




- Fiscal programs including stimulus checks, enhanced unemployment benefits, and loans to small businesses through the Paycheck Protection Program (PPP) have largely supported income levels through the shutdown.
- Despite the income support, the savings rate has increased due to the decline in consumer spending, driven by the initial lock-down of the economy, and by uncertainties related to the future of the job market and stimulus programs.
- More recently, the savings rate declined from its peak as spending increased with the economy slowly reopening.

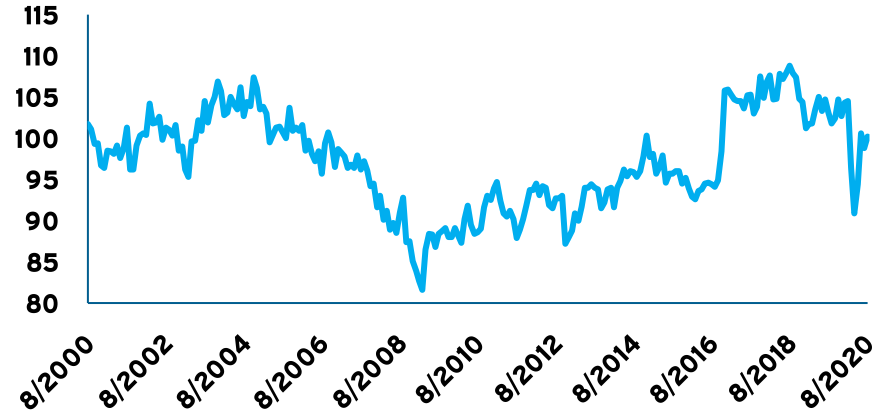
[1] Source: Bloomberg. Latest data is as of July 31, 2020.

## Sentiment Indicators

### University of Michigan Consumer Sentiment[1]




### Small Business Confidence[2]



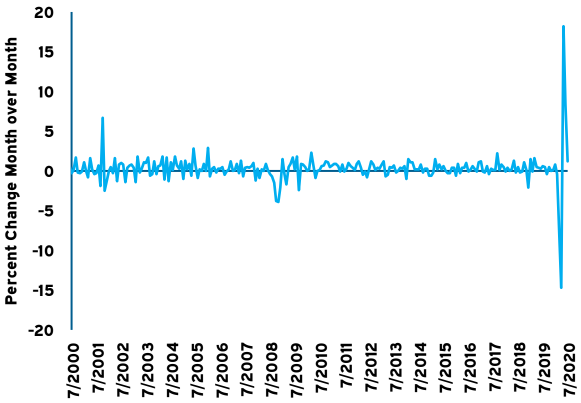

- A strong indicator of future economic activity are the attitudes of businesses and consumers today.
- Consumer spending comprises close to 70% of US GDP, making the attitudes of consumers an important driver of economic growth. Additionally, small businesses generate around half of US GDP, making sentiment in that segment important too.
- Sentiment indicators have shown some improvements as the economy re-opens, but they remain below prior levels.

[1] Source: Bloomberg. University of Michigan Consumer Sentiment Index. Data is as of August 31, 2020.

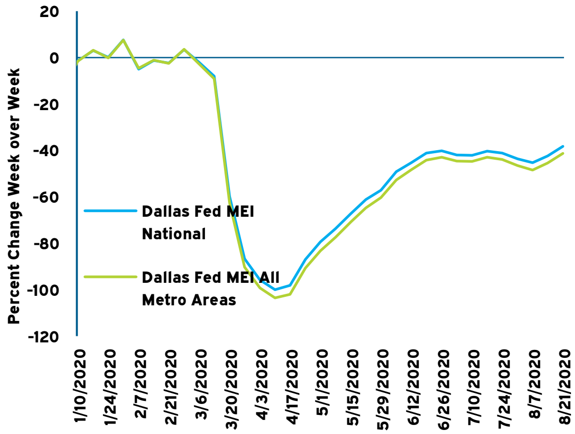
[2] Source: Bloomberg. NFIB Small Business Optimism Index. Data is as of August 31, 2020.

## Some US Data has Improved

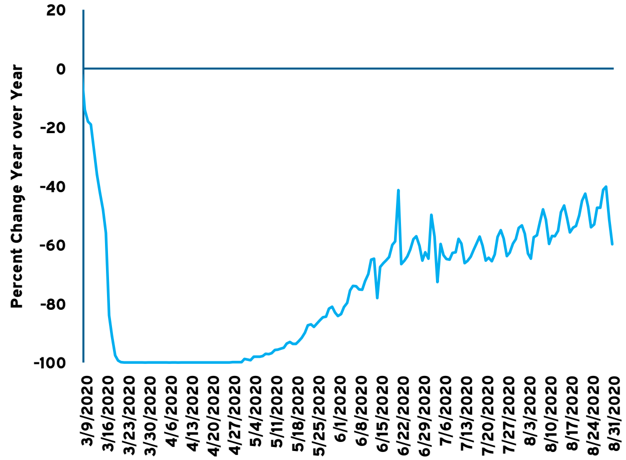
### Retail Sales[1]




### Dallas Fed Mobility and Engagement Index[2]




### OpenTable Seated Diners YoY % Change[3]




- There have been improvements in high frequency data, but overall levels remain well below prior readings and have slowed in some cases given the recent spike in cases.
- Generally, people have become more active as restrictions eased and stores reopened. Retail sales recovered from a record decline with three consecutive months of growth as the economy reopened, but the pace of growth has been declining.
- Restaurants saw initial improvements before declining and leveling-off, as in-store dining has been cited as a key contributor to increases in infections.

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[1] Source: Bloomberg. Data is as of July 31, 2020 and represents the US Retail Sales SA MoM%

[2] Source: Bloomberg. Data is as of August 21, 2020 and represents the deviation from normal mobility behaviors induced by COVID-19 (formerly the "Social Distancing Index"). The index represents a weighted average of various lengths of time that a mobile device, like a cell phone, leaves its "home" or place of residence, and/or how long a device stays at home. A decline in this index represents a mobile device at home for a longer period of time than average.

[3] Source: Bloomberg. This data shows year-over-year seated diners at restaurants on the OpenTable network across all channels: online reservations, phone reservations, and walk-ins. Only states or cities with 50+ restaurants in the sample are included. All such restaurants on the OpenTable network in either period are included. Data is as of August 31, 2020. Index start date 2/19/20.

## Looking Forward…

- There will be significant economic impact and a global recession.
  - How deep it will be and how long it will last depend on factors (below) that are unknowable at this time.
- The length of the virus and country responses will be key considerations.
  - As of now, it is not clear the end is in sight, particularly given the recent increases in cases in certain areas; however, individual countries are attempting to lay the groundwork to support a recoveries in their economies.
- Central banks and governments are pledging support, but will it be enough?
  - Market reactions to announced policies have been positive, but additional support will likely be required until the virus gets better contained.
- Expect heightened market volatility should economies start to shut back down given the recent spike in cases.
  - This has been a consistent theme recently; volatility is likely to remain at risk of spiking again for the foreseeable future.
- It is important to retain a long-term focus.
  - History supports the argument that maintaining a long-term focus will ultimately prove beneficial for diversified portfolios.

## Prior Drawdowns and Recoveries from 1926-2020[1]

| Period | Peak-to-Trough Decline of the S&P 500 | Approximate Time to Recovery |
|---|---|---|
| Sept 1929 to June 1932 | -85% | 266 months |
| February 1937 to April 1942 | -57% | 48 months |
| May 1946 to February 1948 | -25% | 27 months |
| August 1956 to October 1957 | -22% | 11 months |
| December 1961 to June 1962 | -28% | 14 months |
| February 1966 to October 1966 | -22% | 7 months |
| November 1968 to May 1970 | -36% | 21 months |
| January 1973 to October 1974 | -48% | 69 months |
| September 1976 to March 1978 | -19% | 17 months |
| November 1980 to August 1982 | -27% | 3 months |
| August 1987 to December 1987 | -32% | 19 months |
| July 1990 to October 1990 | -20% | 4 months |
| July 1998 to August 1998 | -19% | 3 months |
| March 2000 to October 2002 | -49% | 56 months |
| October 2007 to March 2009 | -57% | 49 months |
| February 2020 to August 2020 | -34% | 6 months |
| **Average** | **-36%** | **39 months** |
| **Average ex. Great Depression** | **-33%** | **24 months** |

- As markets have fully recovered to above pre-COVID levels, questions remain about the sustainability of the rally.
- The six month recovery period represents one of the shortest on record, similar to the historic decline.

[1] Source: Goldman Sachs.

## Implications for Clients

- Portfolios have generally experienced significant improvements from the March lows.
- Even though equity markets have recovered from their lows, it is important to remain vigilant and be prepared to rebalance if volatility increases again.
  - Before rebalancing, consider changes in liquidity needs given the potential for cash inflows to decline in some cases.
  - Also, consider the cost of rebalancing if investment liquidity declines.
- Diversification works. The latest decline was an example of a flight to quality leading to gains in very high quality bonds.

**Performance YTD**
(through August 31, 2020)

| S&P 500 | ACWI (ex. US) | Aggregate Bond Index | Balanced Portfolio[1] |
|---|---|---|---|
| 9.7% | -3.1% | 6.9% | 5.3% |

- Meketa will continue to monitor the situation and communicate frequently.
  - The situation is fluid and the economic impact is uncertain at this stage.
- Please feel free to reach out with any questions.

[1] Source: InvestorForce. Balanced Portfolio represents 60% MSCI ACWI and 40% Bloomberg Barclays Global Aggregate.

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