

Macroeconomic Perspectives

Second Quarter 2020

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Summary

- COVID-19, the economic shut-down that was engineered to slow its' spread, the accompanying changes in consumer behavior, and the government's extraordinary efforts to support markets, businesses, and individuals throughout the crisis have had a remarkable impact on almost all of the data series we follow. Changes that typically occur over months or years happened in a matter of weeks. "Unprecedented" is a term that has, undoubtedly, been overused in regards to the COVID-19 pandemic; but, there were definitely a number of unique conditions to deal with in the 2nd quarter.
- Economic activity in the U.S. fell significantly in the 2nd quarter of 2020. 1st quarter 2020 U.S. GDP came in at -5.0% and forecasts for Q2 tend to be much lower. Economists expect that a rebound will begin in Q3-2020 that will continue through 2021; however, until there is a definitive resolution to the COVID-19 crisis, all forecasts will contain a large amount of uncertainty.
- While the downturn in U.S. equities in Q1 was swift and severe, the rebound in the Q2 was similarly astonishing. Q1 saw investors rapidly shedding risk in favor of defensive themes. Investors reversed course in Q2, however, as overwhelming government support and an improving outlook on COVID-19 drove markets higher. Within the U.S., growth still managed to outpace value; but, micro-caps out-performed mega-caps and high-beta stocks led low-beta stocks by a wide margin.
- Cavanal Hill's Leading Economic Indicator fell precipitously in March and April but came back slightly in May. Weakness was evident across the board as manufacturing, consumption, housing, inflation, sentiment, employment, etc. were all negatively impacted by shutdowns.
- Cavanal Hill's Risk Aversion Indicator underwent an impressive reversal in the 2nd quarter of 2020. After reaching levels not seen since the Great Financial crisis in Q1, the promise of reopening the economy and massive amounts of fiscal and monetary stimulus served to support risk assets and alleviated investor's fears.



Consensus U.S. Economic Forecast

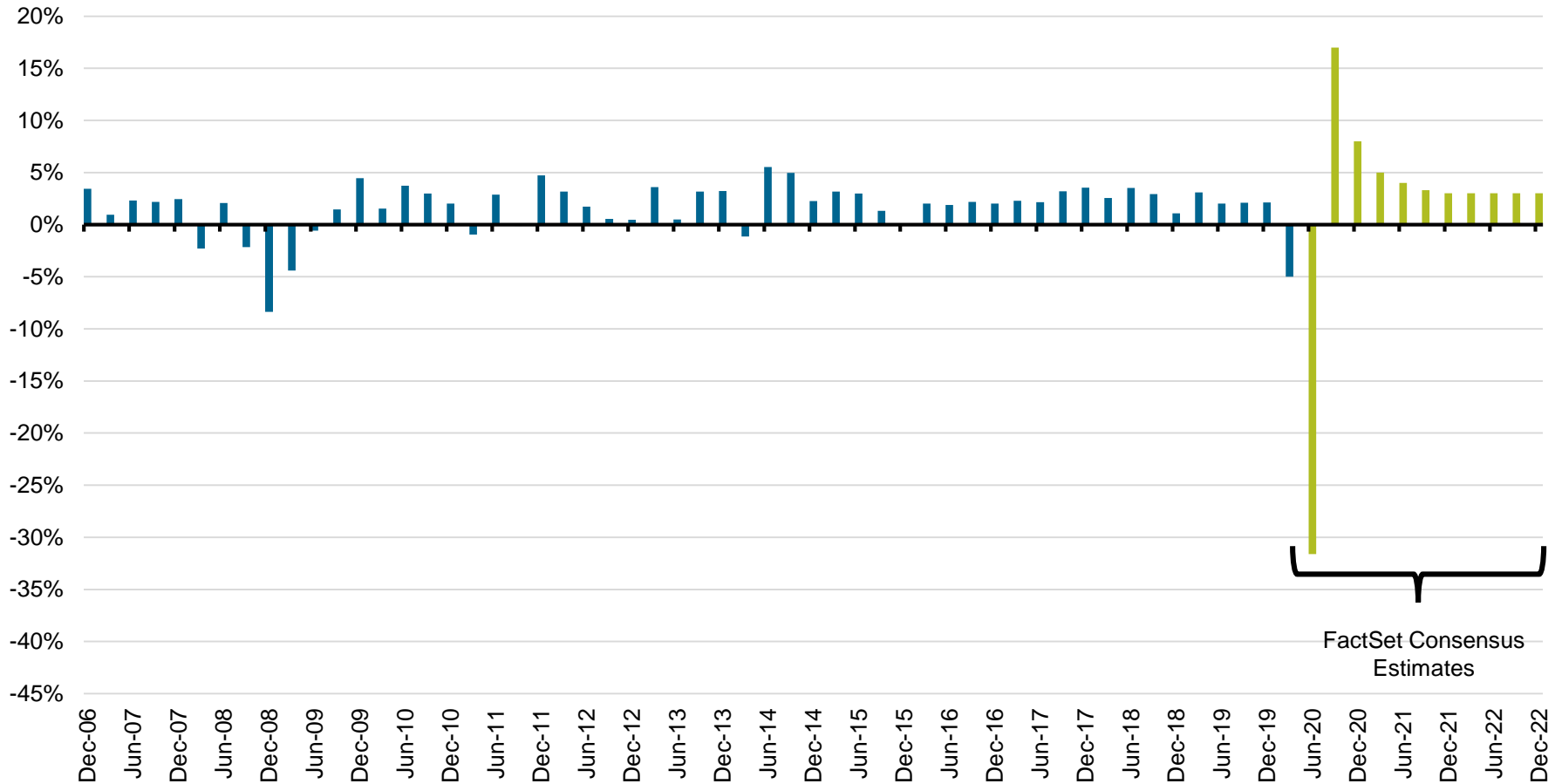
	2015	2016	2017	2018	2019	Median Estimates		
						2020	2021	2022
National Accounts								
Real GDP (%y/y)	2.9	1.6	2.4	2.9	2.3	-5.0	4.4	2.9
Trade Balance (Bil. Chained USD)	-721.6	-783.7	-849.8	-920.0	-953.9	-827.3	-868.7	-1,251.0
Imports (Real, %y/y)	5.3	2.0	4.7	4.4	1.0	-8.7	6.9	3.4
Exports (Real, %y/y)	0.5	0.0	3.5	3.0	0.0	-8.0	3.6	2.7
GDP Price Index (%y/y)	1.0	1.0	1.9	2.4	1.8	1.1	1.5	1.9
Inflation								
CPI (%y/y)	0.1	1.3	2.1	2.4	1.8	0.9	1.9	2.0
Core CPI (%y/y)	1.8	2.2	1.8	2.1	2.2	1.3	1.3	1.8
Other Indicators								
Federal Funds Target Rate %	0.50	0.75	1.50	2.50	1.75	0.25	0.25	0.25
Current Account (Bil. USD)	-407.4	-394.9	-365.3	-449.7	-480.2	-448.6	-505.0	-477.8
Current Account as a % of GDP	-2.2	-2.1	-1.9	-2.2	-2.2	-2.3	-2.4	-2.3
Industrial Production (%y/y)	-1.0	-2.0	2.3	3.9	0.9	-8.8	3.7	2.8
Unemployment Rate (%)	5.3	4.9	4.4	3.9	3.7	9.3	7.4	5.5
Budget Balance (Bil. USD, FY)	-436.5	-587.3	-665.8	-779.0	-984.4	-3,400.0	-2,000.0	N/A
Budget Balance as a % of GDP	-2.4	-3.2	-3.5	-3.8	-4.6	-16.2	-9.4	-5.8
Housing Starts (Thous.)	1,106.8	1,176.6	1,207.4	1,248.3	1,295.3	1,236.0	1,281.0	1,416.0

Source : FactSet. As of 6/26/2020.



U.S. Real GDP Growth (Q/Q Annualized % Change)

U.S. GDP for Q1-2020 came in at -5.0% as the impact of COVID-19 started to take hold. GDP forecasts for Q2-2020 reflect the growing influence of mandated lock-down measures and show a steep drop to -32%; however, that number and subsequent forecasts for a rebound beginning in Q3-2020 are inherently difficult to accurately predict.

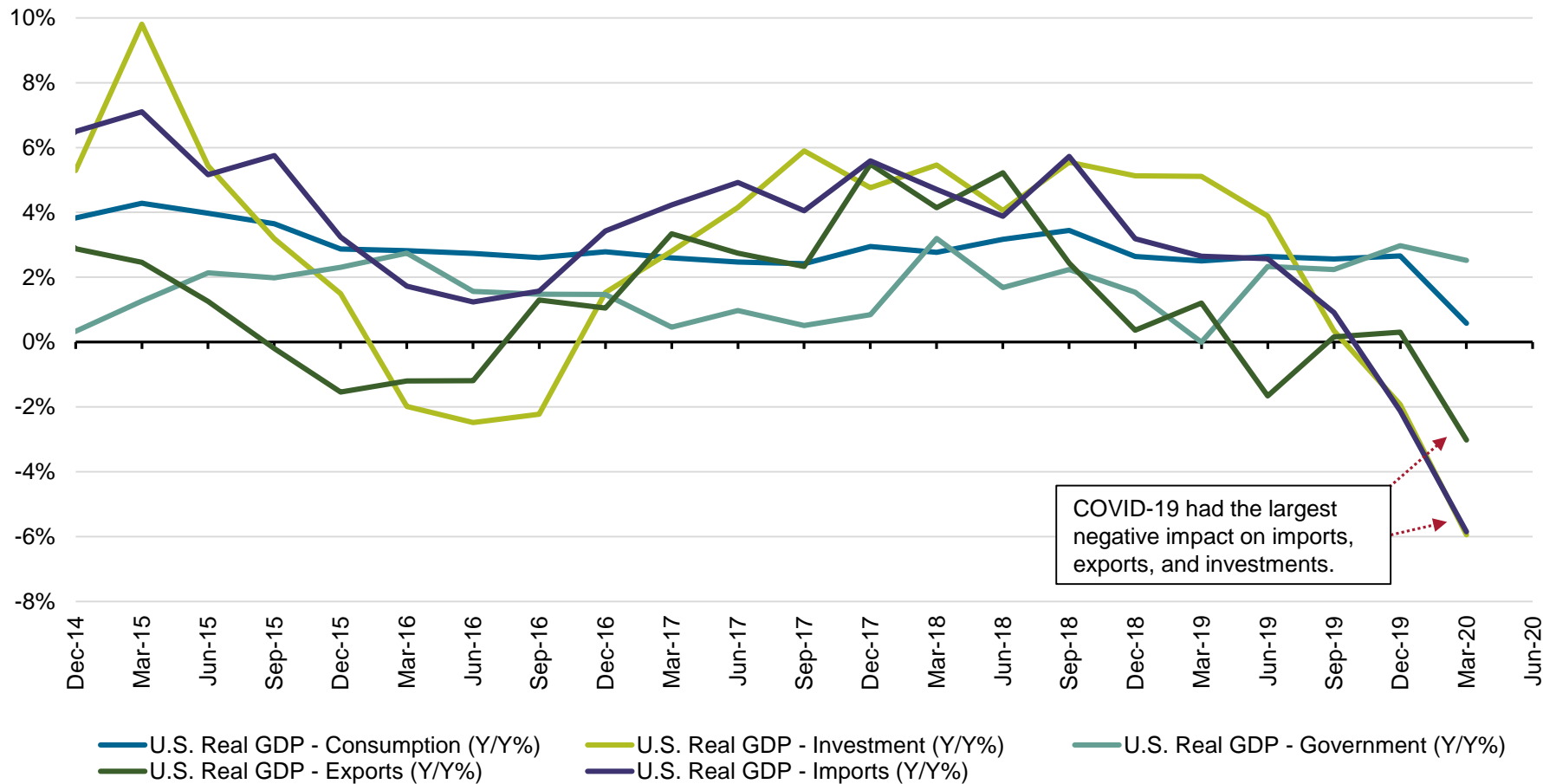


Source : US Bureau of Economic Analysis, FactSet. As of 06/26/2020.



U.S. GDP Growth Composition

The government and consumption components of GDP slowed down but still managed to be positive year-over-year. The import, export, and investment components fell during Q1-2020 and were negative year-over-year.

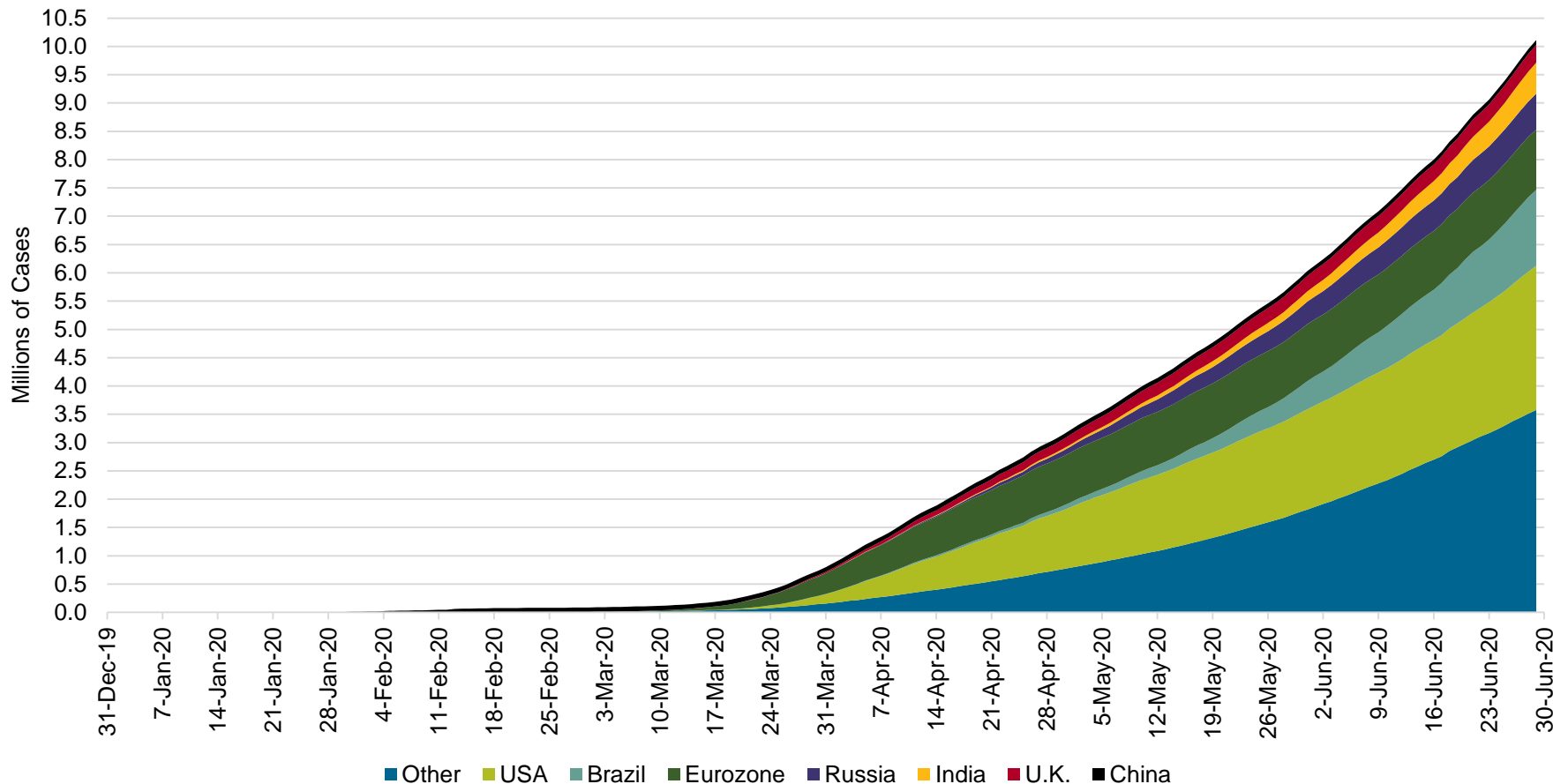


Source : US Bureau of Economic Analysis, FactSet. As of 6/26/2020.



COVID-19 Global Confirmed Cases

Though China may have been the first country to be seriously impacted by COVID-19, the problem has become much more evident in other regions throughout the world. The U.S., Brazil, Eurozone, Russia, India, and the U.K. all have significantly more cases now.

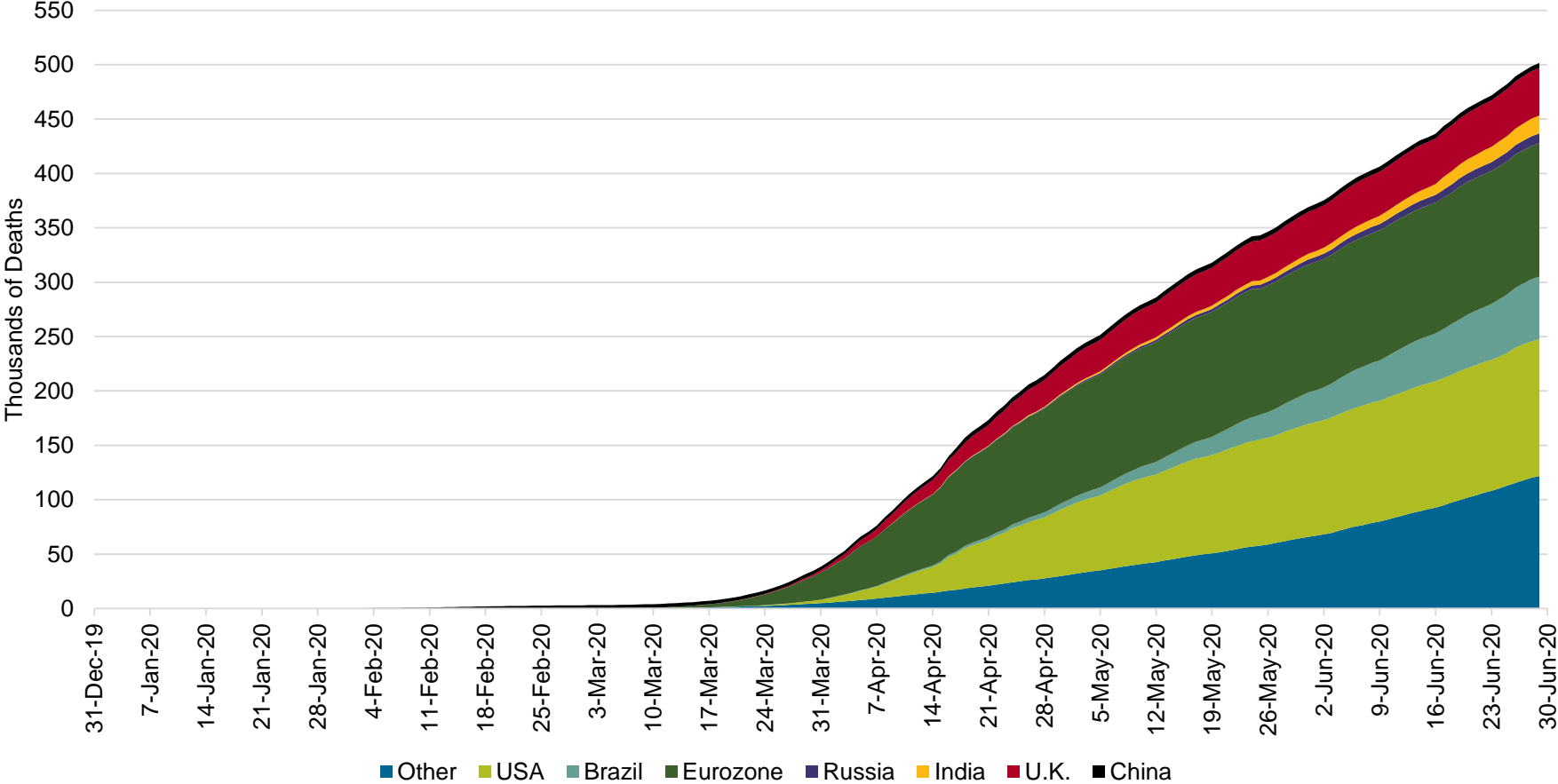


Source : European Centre for Disease Prevention and Control. As of 6/29/2020.



COVID-19 Global Confirmed Deaths

The government’s response to COVID-19 has varied from region to region as has the behavior and demographics of their citizenry. In addition, the availability of hospitals, health care services, and testing and diagnosis tools has been inconsistent which leads to death tolls that differ somewhat from the pure infection rate.

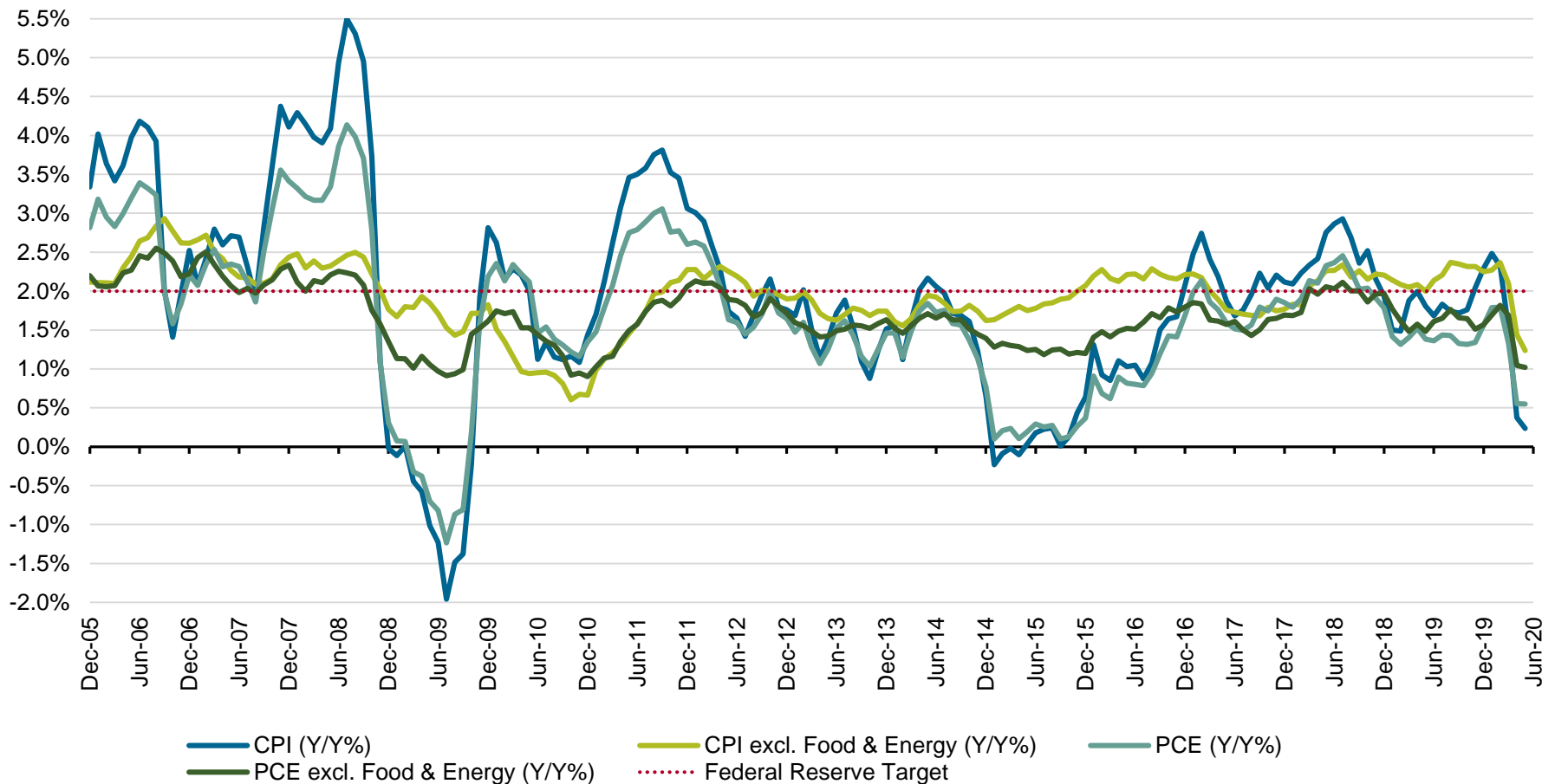


Source : European Centre for Disease Prevention and Control. As of 6/29/2020.



U.S. Headline and Core Inflation

With decreased economic activity and aggregate demand, headline CPI moved down in May to 0.24% and CPI excluding food and energy fell to 1.24%. PCE also showed large declines. The Core PCE as of 5/31/2020 was at 1.02%, well below the Federal Reserve's long term target of 2.0%.

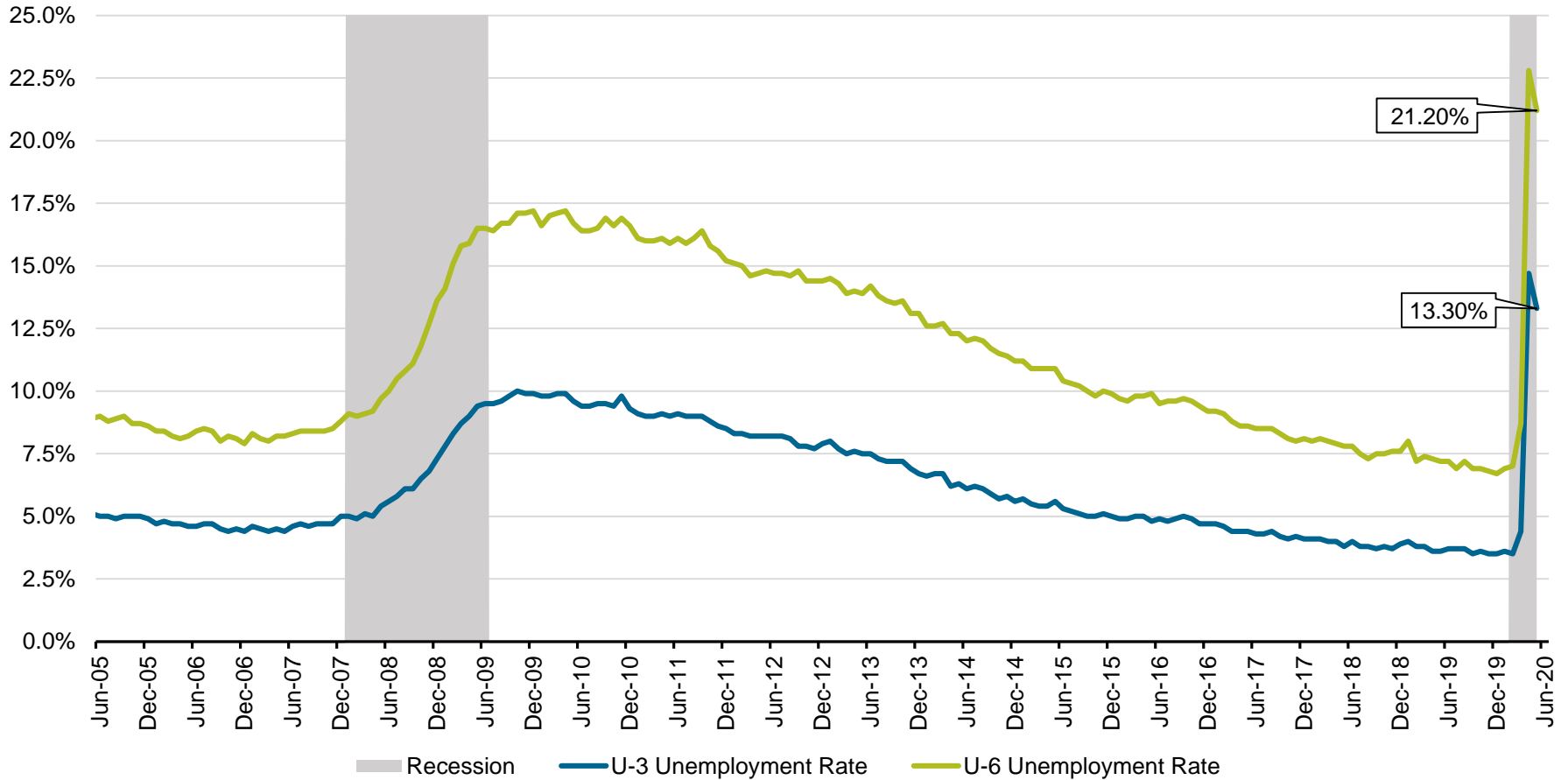


Source : US Bureau of Economic Analysis, US Dept. of Labor, FactSet. As of 5/31/2020. ⁵See appendix for data availability.



U.S. Unemployment

After hitting the lowest levels seen in the prior 50 years at the beginning of 2020, the unemployment rate skyrocketed in response to mandated shutdowns and diminished consumer activity. The U-3 rate jumped to 14.7% but then backed down to 13.3% at the end of May. Likewise, the U-6 rate went to 22.8% before backing down to 21.2%.

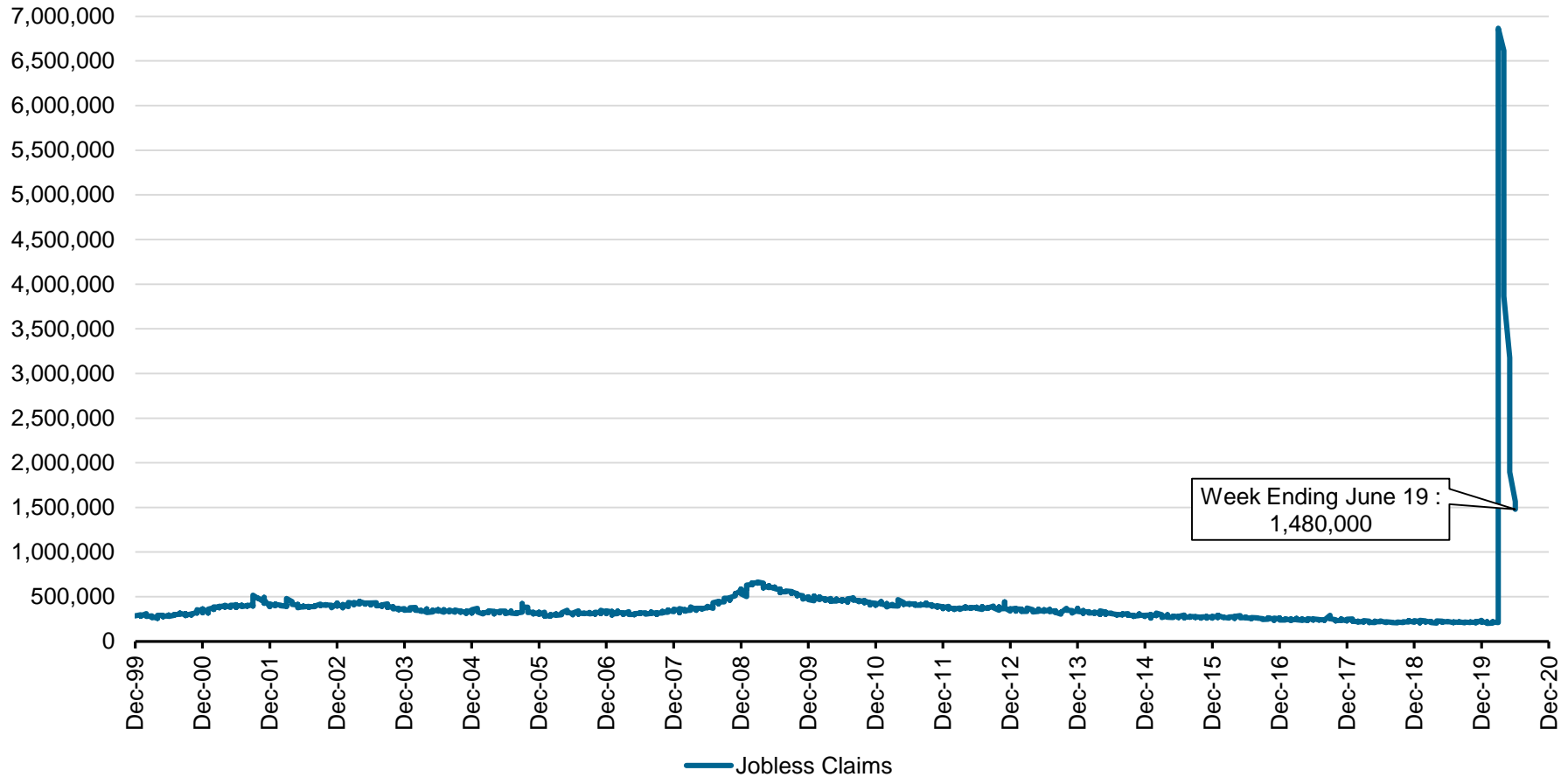


Source : US Dept. of Labor, FactSet. As of 5/31/2020.



U.S. Employment : Jobless Claims

U.S. jobless claims are reported on a weekly basis and provide a higher frequency view of the job market compared to other, monthly measures. The swiftness of the economic shutdown is reflected in the late March spike; but, reopening and relaxed social distancing are also illustrated by the drop in jobless claims in the weeks after.

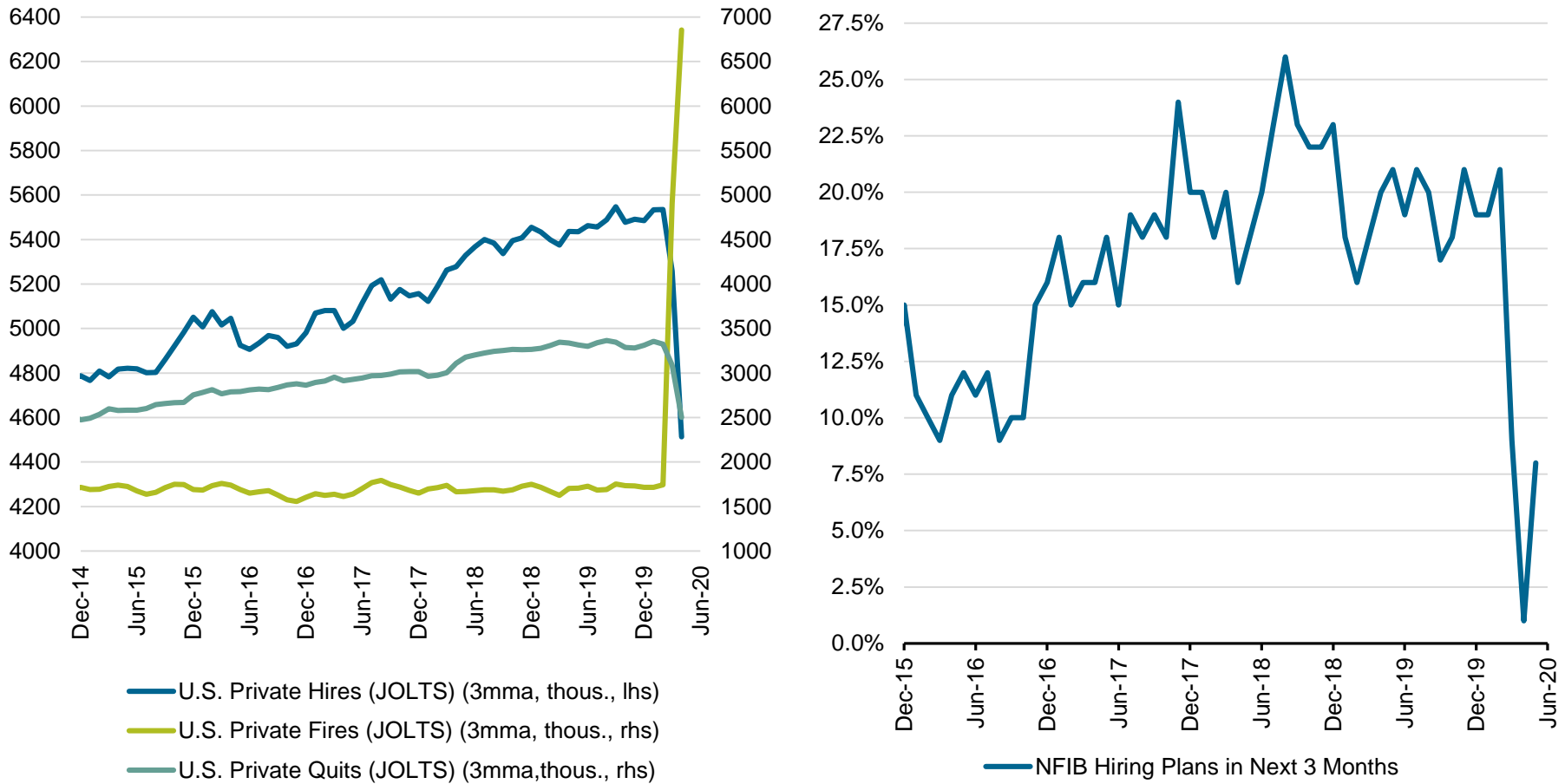


Source : US Dept. of Labor, FactSet. As of 6/19/2020.



U.S. Employment Environment

The number of hires and quits plummeted once workers felt the pressure of the economic shutdown while businesses responded with a rapid increase in firing. Hiring plans also cratered in April though they have seen a rebound in May as additional reopening plans progress.

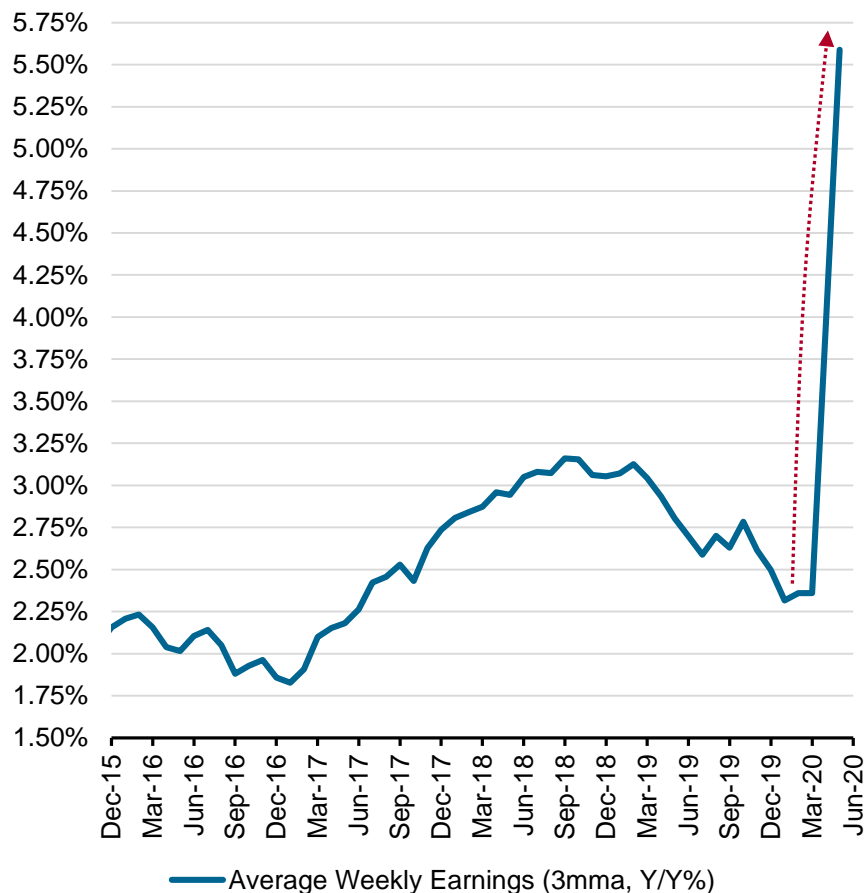


Source : US Bureau of Economic Analysis, US Dept. of Labor, NFIB, FactSet. As of 5/31/2020. ⁵See appendix for data availability.



U.S. Employment : Average Weekly Earnings

Average weekly earnings appeared to buck the trend with a rapid ascent during the COVID lockdown. The numbers are misleading, however, as the increase was due to the removal of lower paying jobs. With fewer employees making lower wages (for example, in the retail trade area) the *average* worker that remained had higher pay.



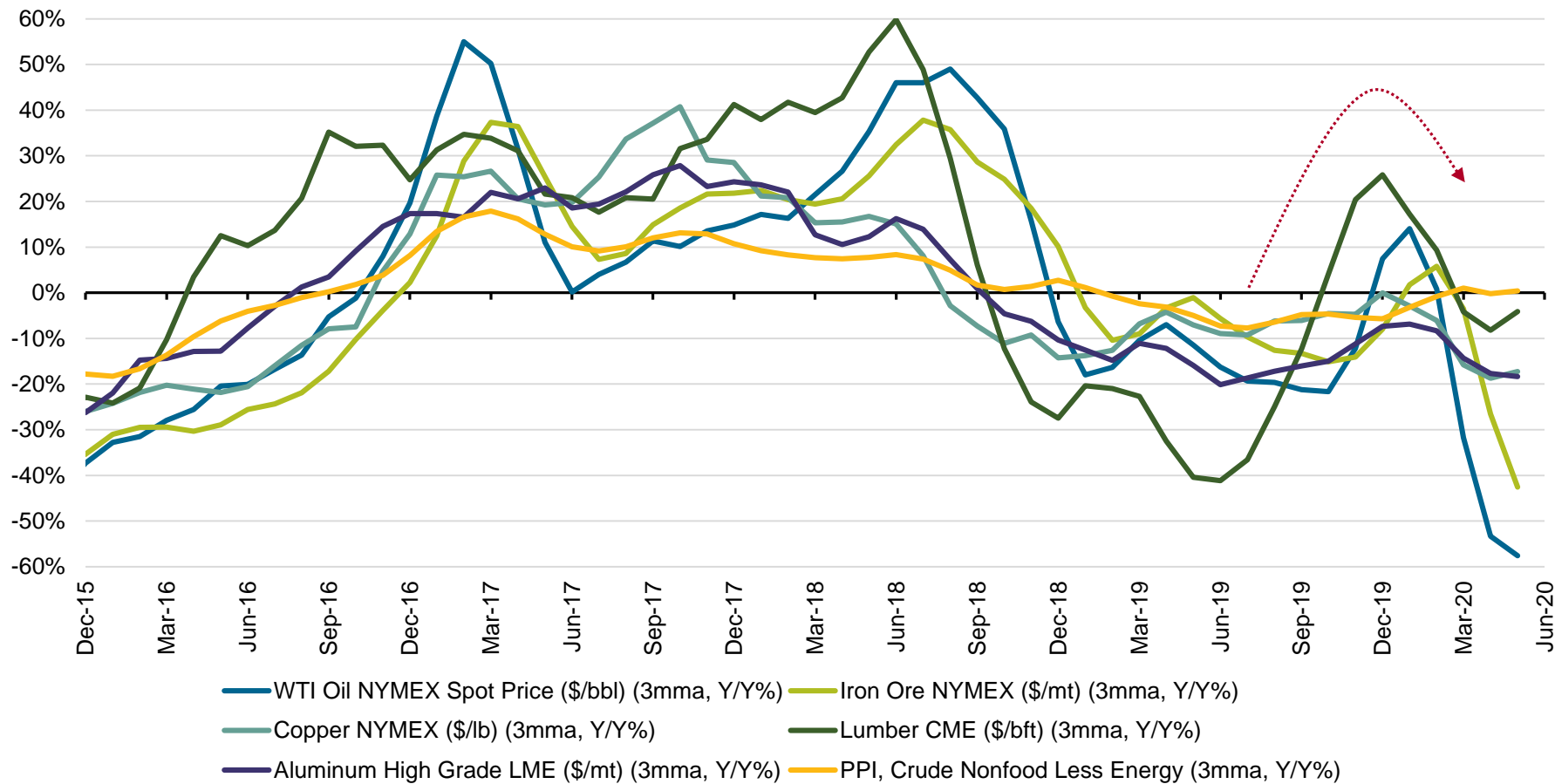
Industry	Average weekly earnings YoY%
Total private	7.68%
Goods-producing	0.79%
Mining and logging	-2.60%
Construction	1.95%
Manufacturing	0.64%
Durable goods	-0.42%
Nondurable goods	3.38%
Private service-providing	8.96%
Trade, transportation, and utilities	5.47%
Wholesale trade	1.81%
Retail trade	8.89%
Transportation and warehousing	1.18%
Utilities	2.97%
Information	4.05%
Financial activities	6.12%
Professional and business services	6.34%
Education and health services	3.33%
Leisure and hospitality	4.52%
Other services	9.80%

Source : US Dept. of Labor, FactSet. As of 5/31/2020. ⁵See appendix for data availability



U.S. Business Environment : Input Cost Inflation

As with other inflation measures, raw material prices took a hit with the arrival of COVID-19 and the accompanying shutdown in economic activity.

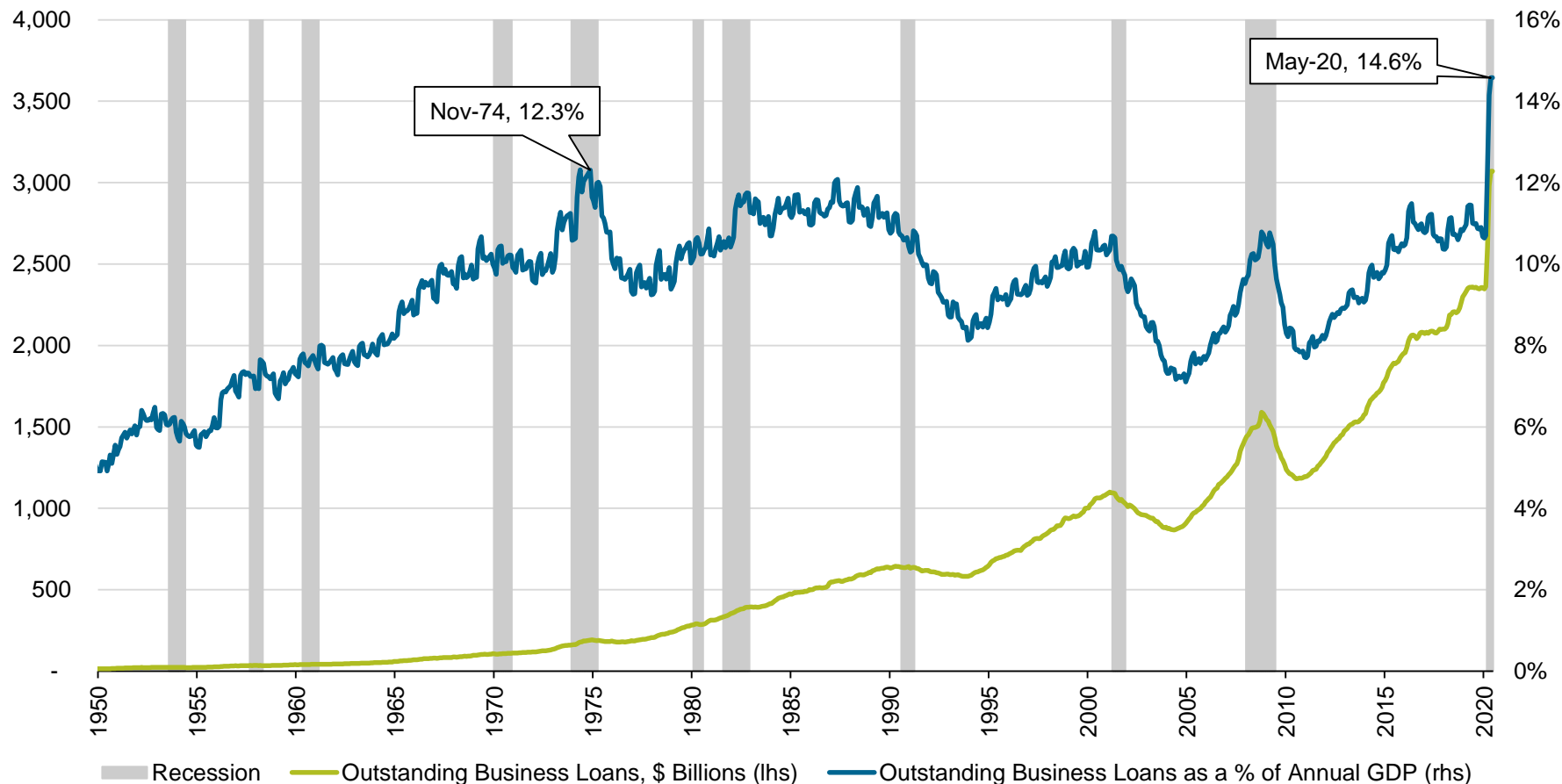


Source : Conference Board, NYMEX, LME, CME, FactSet. As of 5/31/2020.



U.S. Business Environment : Commercial and Industrial Lending

With the enormity of COVID-19's impact becoming more clear, businesses took advantage of credit to the tune of approximately \$700 billion in March and April, driving the loans-to-GDP ratio up sharply. To the extent that loans are forgiven under stimulus programs, these figures may moderate in the near future.

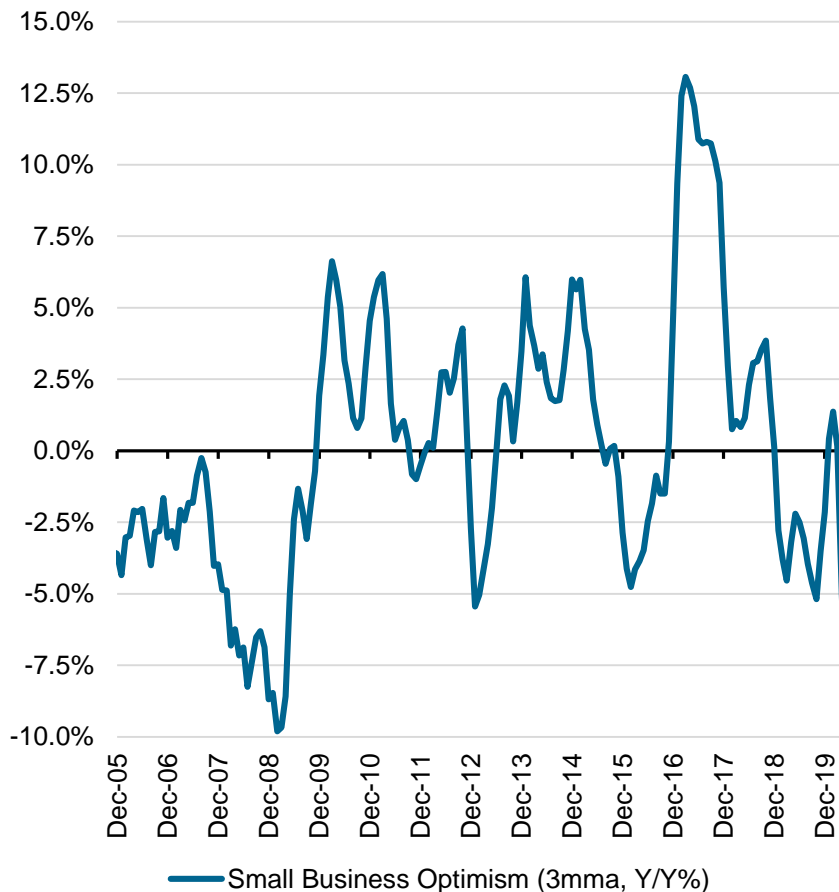
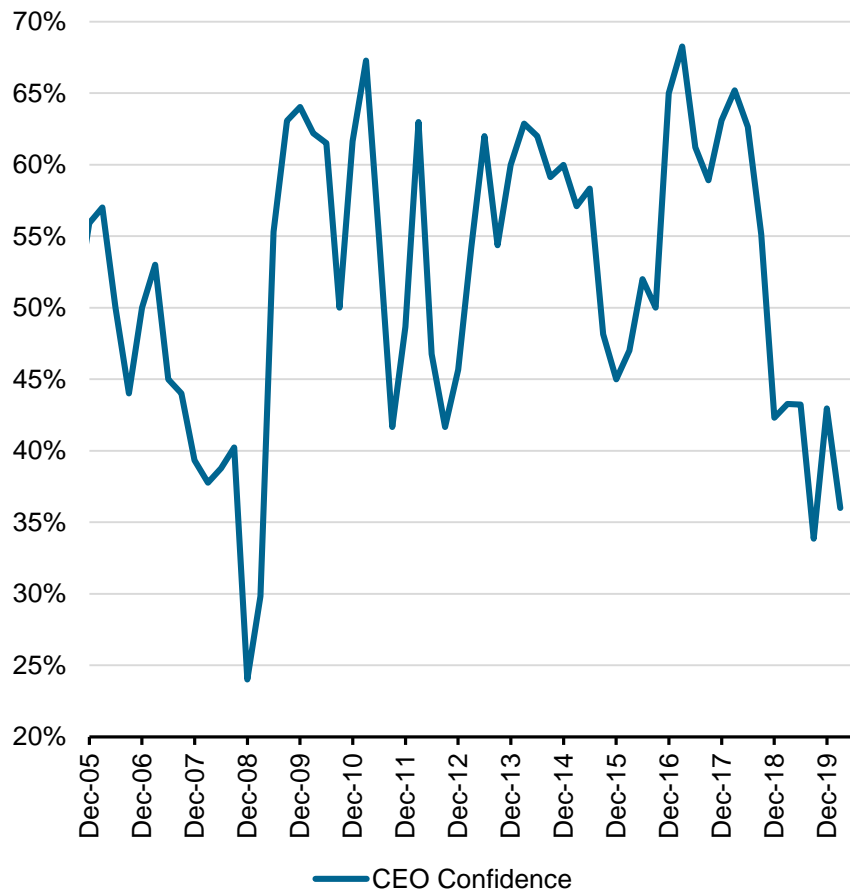


Source : FRED, Federal Reserve, Bureau of Labor Statistics. As of 6/23/2020.



U.S. Business Environment : Outlook

Clearly, most businesses have been negatively impacted by COVID-19 and, in particular, small business optimism has fallen to low levels last seen during the Great Financial Crisis in 2008 and 2009.

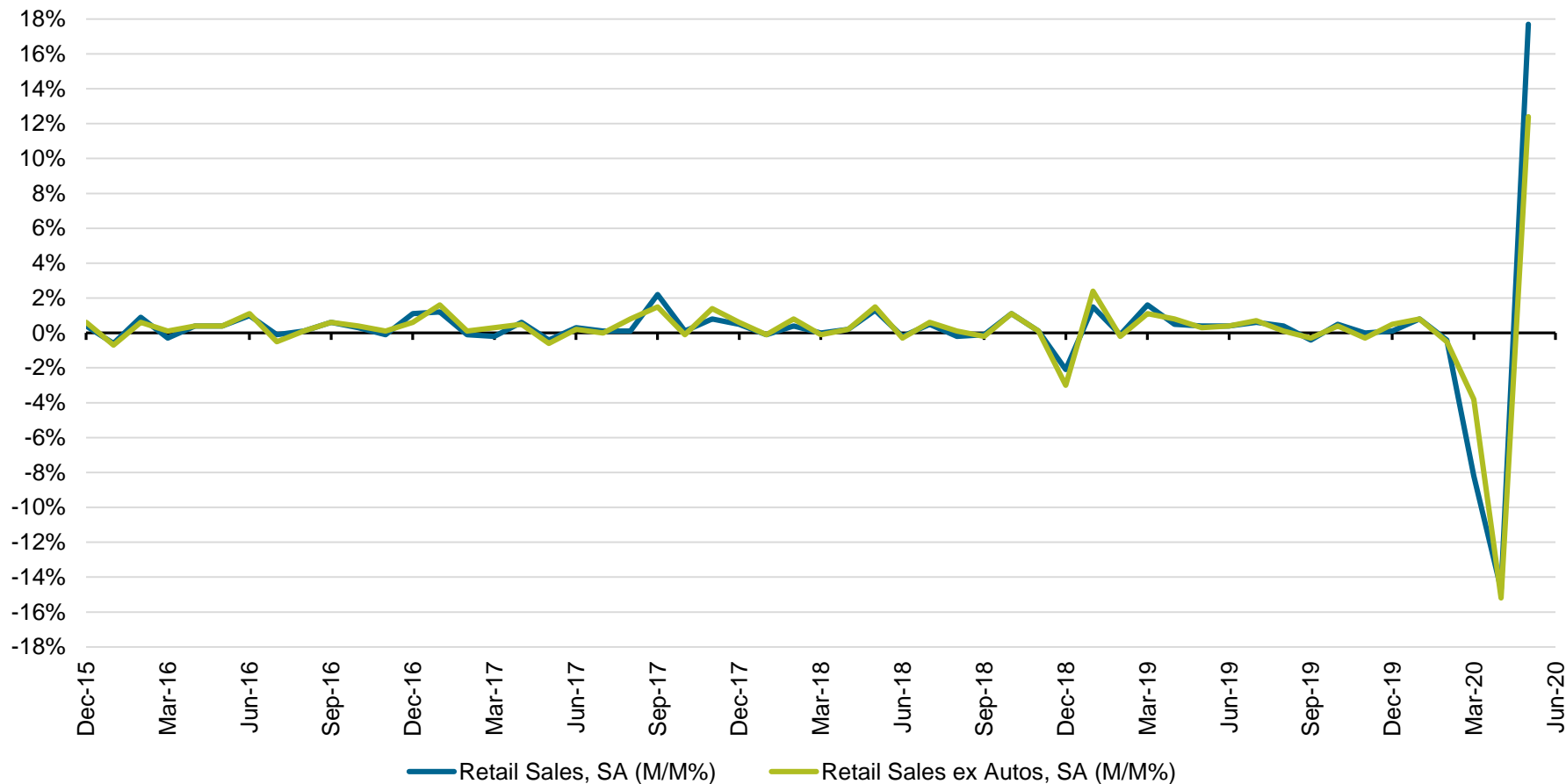


Source : NFIB, Conference Board, FactSet. As of 5/31/2020. ⁵See appendix for data availability.



U.S. Consumers : Retail Sales

The initial response to COVID-19 in regards to social distancing, decreased mobility, and forced shutdowns caused retail sales growth to plunge in April compared to the previous month. With growing optimism around potential COVID treatments, relaxing of shutdown measures, and pent-up demand, retail sales then rebounded in May.

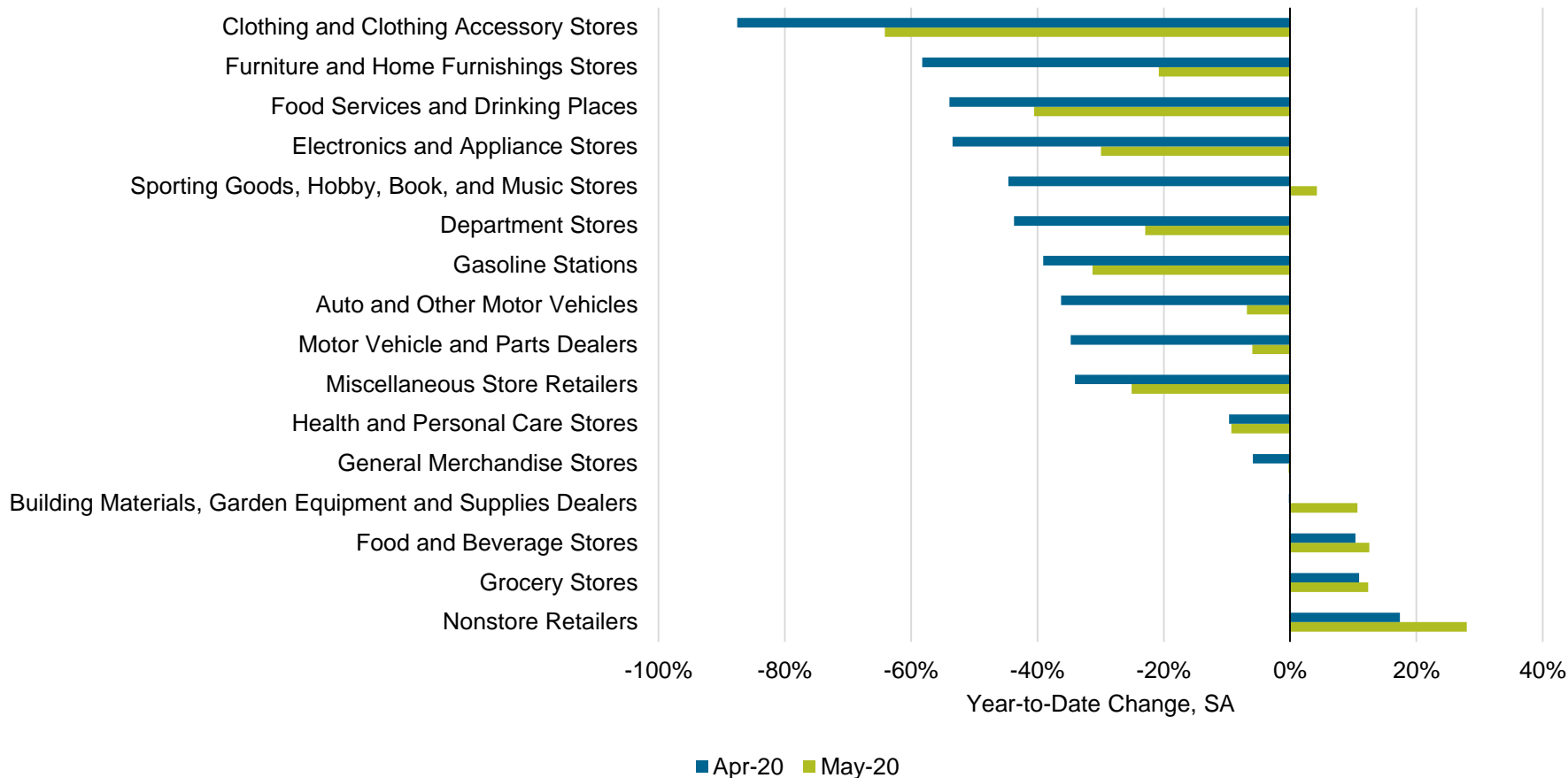


Source : U.S. Census Bureau, FactSet. As of 5/31/2020.



U.S. Consumers : Retail Advance Sales by Segment

Most retail segments were hit quite hard in March and April, and rebounded to varying degrees in May. Clothing remains particularly hard-hit with indoor malls slow to re-open, while online sellers, grocers, liquor stores, and building materials retailers have actually shown growth.

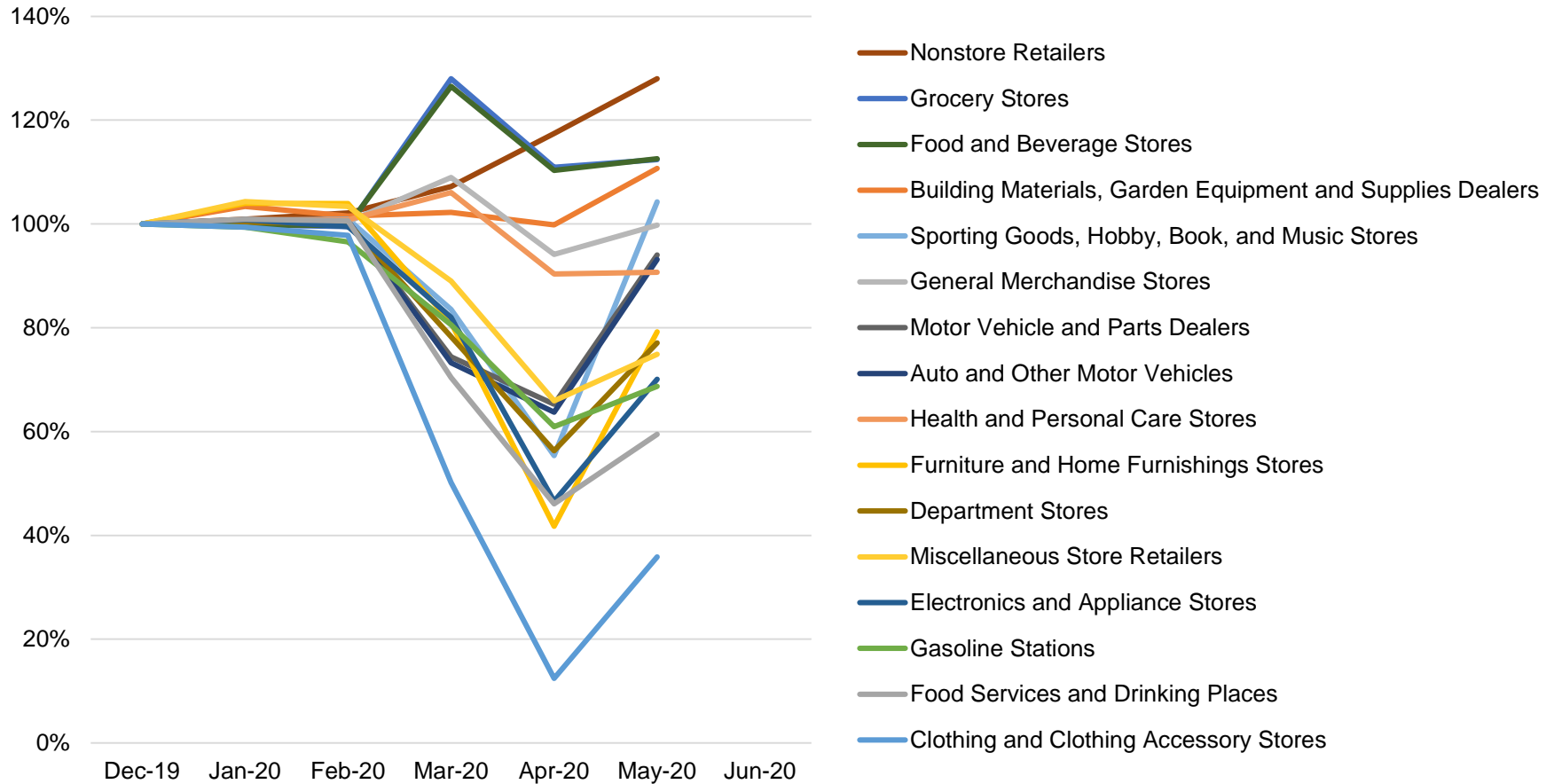


Source : US Federal Reserve. As of 6/23/2020.



U.S. Consumers : Not All Retail is Equal

Year-to-date, there has been considerable dispersion among the various retail sales segments. Advance sales reported by online sellers (“Nonstore Retailers”), have trended consistently up since December, on a seasonally-adjusted basis, while most other segments were hit hard by lockdowns.

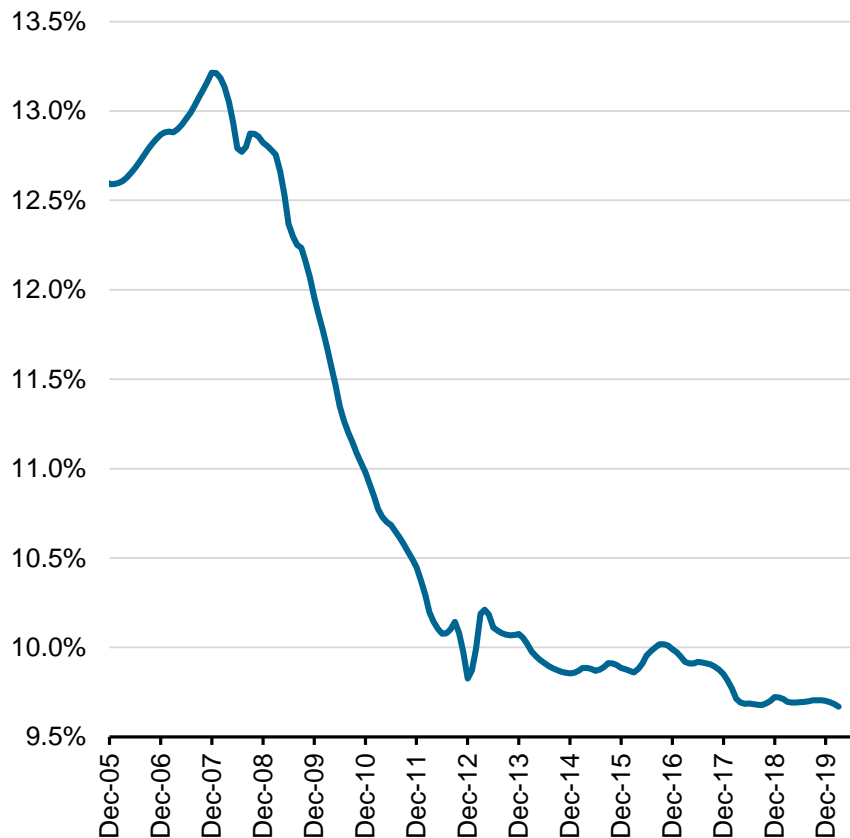


Source : US Federal Reserve. As of 6/23/2020.

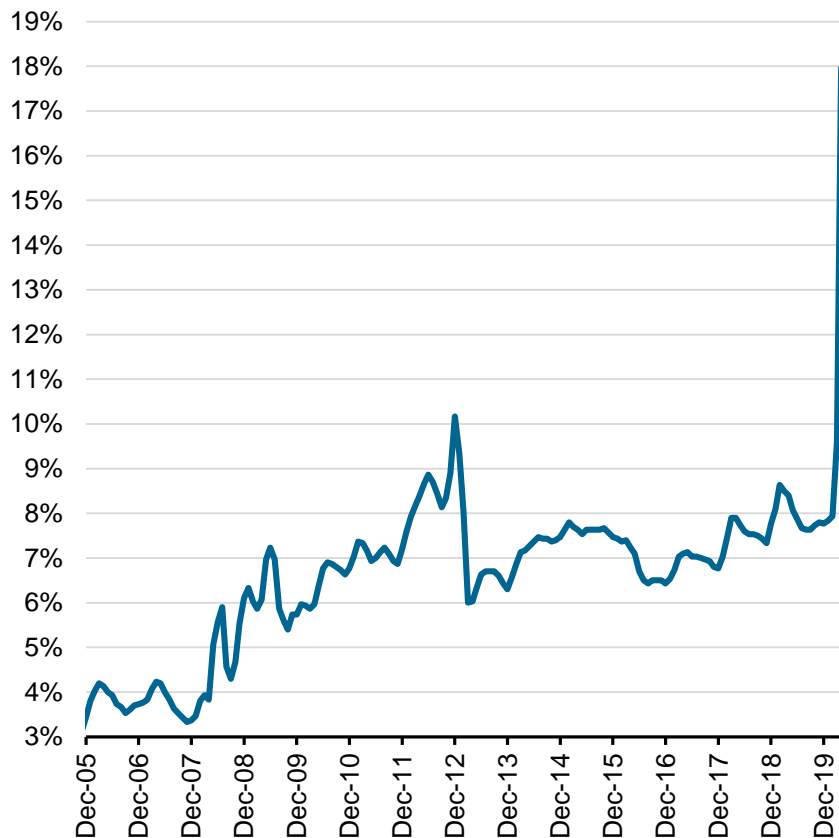


U.S. Consumers : Financial Health

Debt Service/Income was last reported as of 3/31/2020; however, Personal Savings/Disposable Personal Income ramped up in April. Personal incomes jumped as economic recovery payments were distributed but consumers spent so much less and saved so much more in April that the aggregate ratio went up significantly.



— Households Debt Service/Income Ratio (3mma)



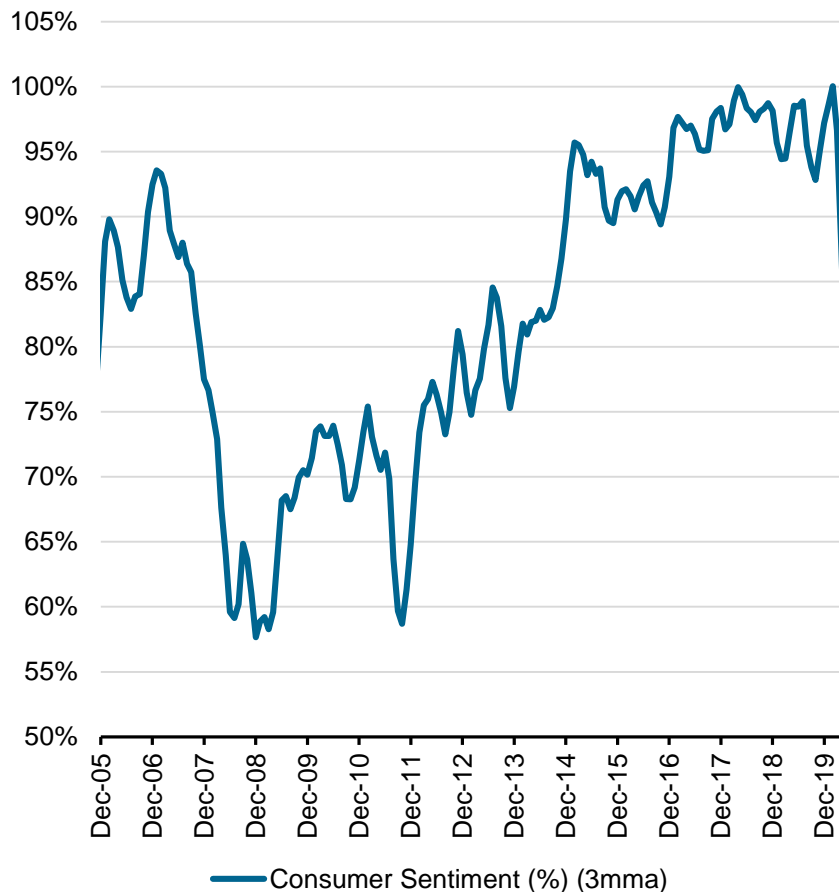
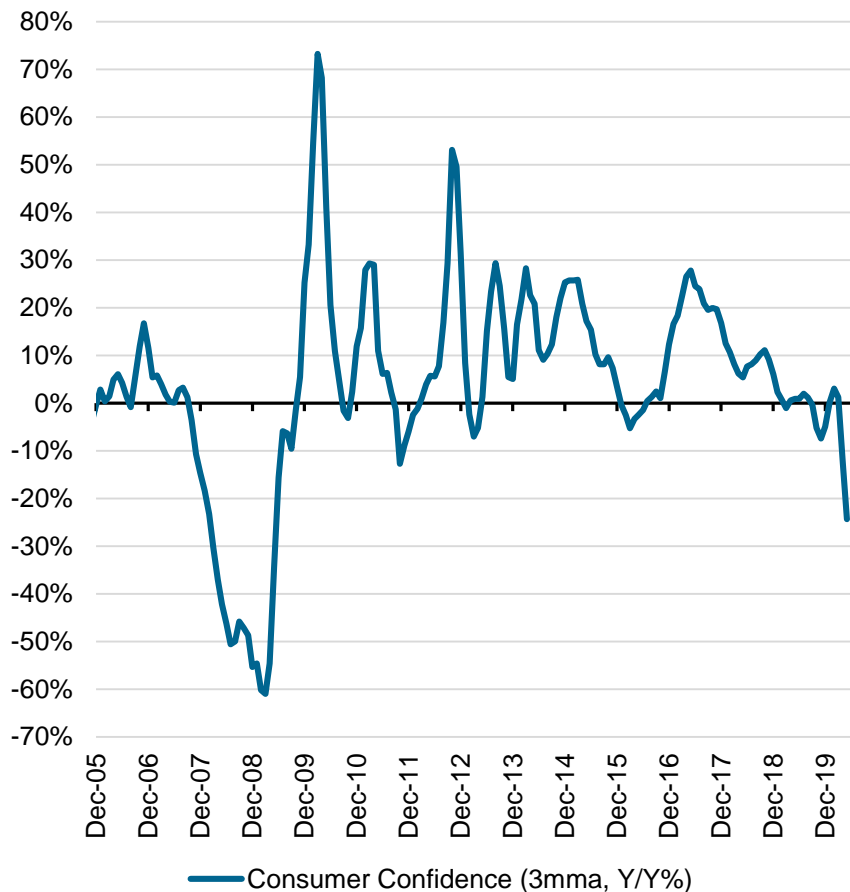
— Personal Saving/Disposable Personal Income Ratio (3mma)

Source : Conference Board, US Federal Reserve, Bureau of Economic Analysis, FactSet. As of 4/30/2020. ⁵See appendix for data availability.



U.S. Consumers : Outlook

Consumer confidence and sentiment have been negatively impacted by the COVID-19 virus and the accompanying shutdown and social distancing measures.

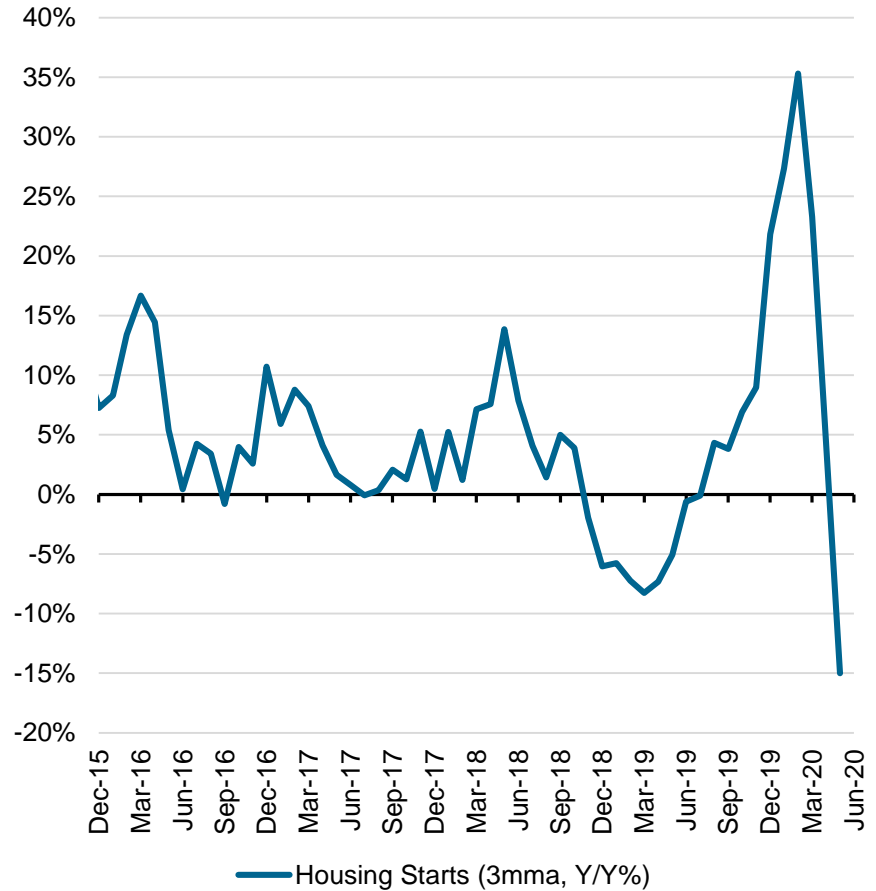
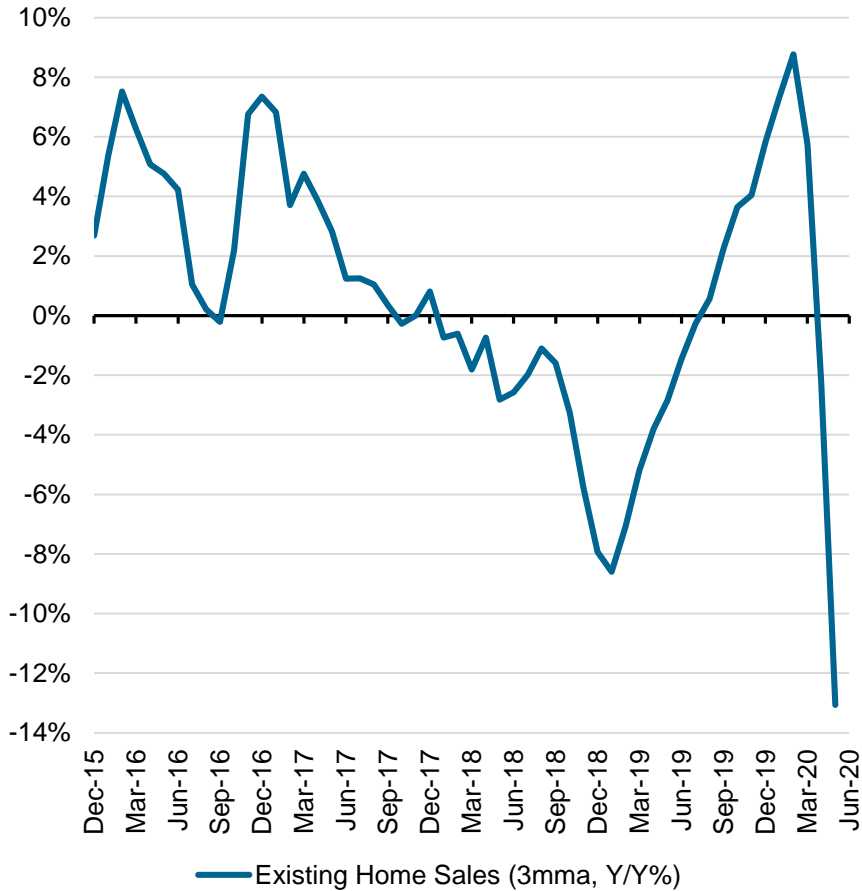


Source : University of Michigan, Conference Board, FactSet. As of 5/31/2020. ⁵See appendix for data availability



U.S. Housing Market : Existing Home Sales and Housing Starts

The housing market was making a strong comeback in 2019 and early in 2020 but COVID-19 quickly put the brakes on transactions and new housing starts. Now that mortgage rates have come back down to ultra-low levels and the economy has started reopening, there is reason to believe that the housing market may rebound quickly as well.

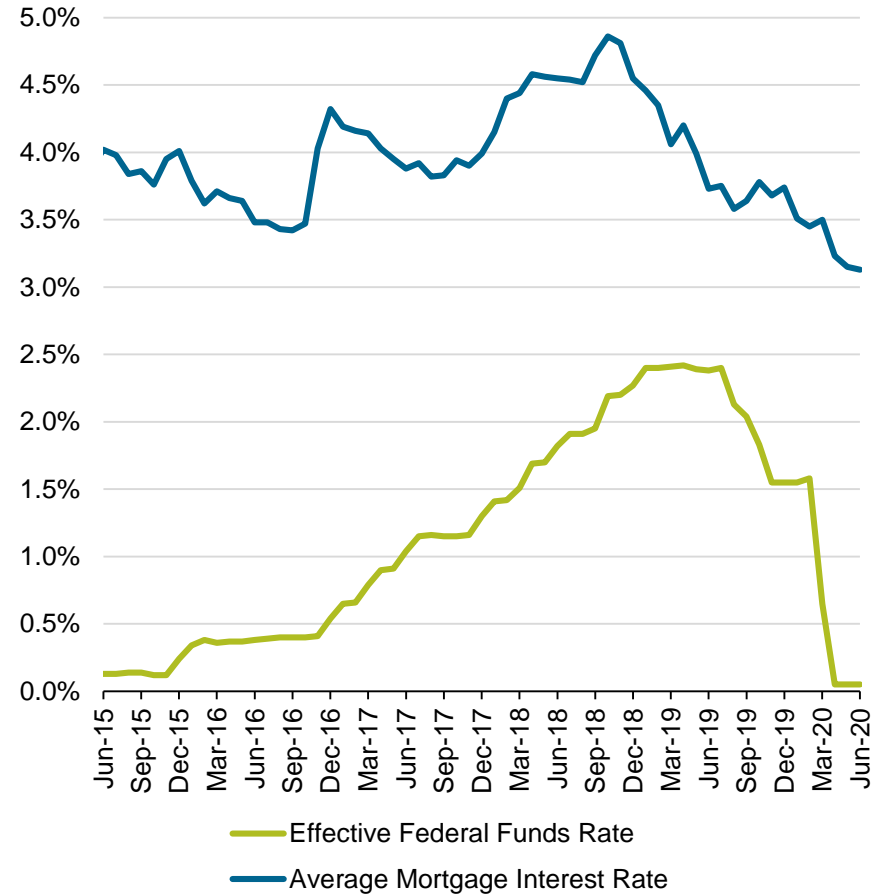
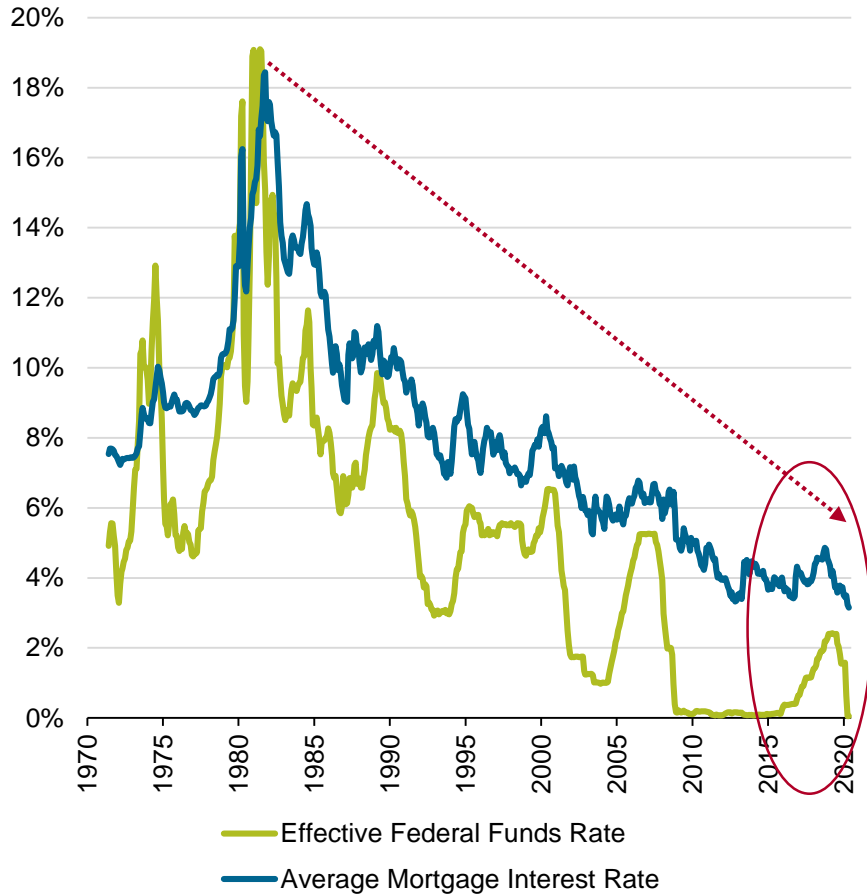


Source : National Assoc. of Realtors, U.S. Census Bureau, FactSet. As of 5/31/2020. ⁵See appendix for data availability.



U.S. Housing Market : Mortgage Interest Rates

The Federal Reserve quickly erased the recent increases in the target Fed Funds rate in February and mortgage rates resumed their long downward trend, nearly falling to 3%.

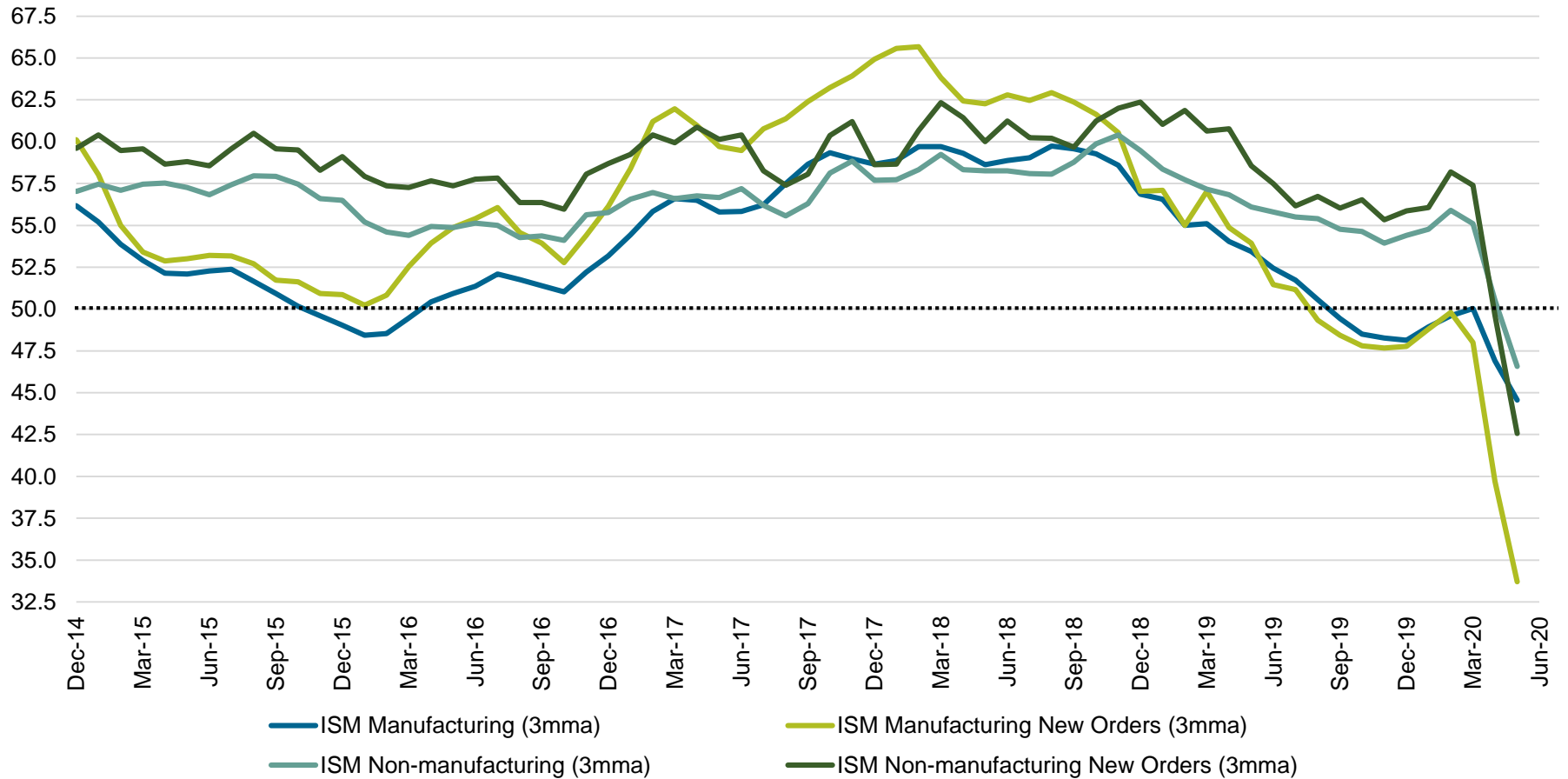


Source : US Federal Reserve. As of 06/30/2020.



U.S. Purchasing Manager Indexes

As expected, the Institute for Supply Management (ISM) purchasing manager indices suffered a serious decline as economic activity was shut down. As the reopening continues and with the support of monetary and fiscal stimulus, investors are on the lookout for how quickly these indices rebound.

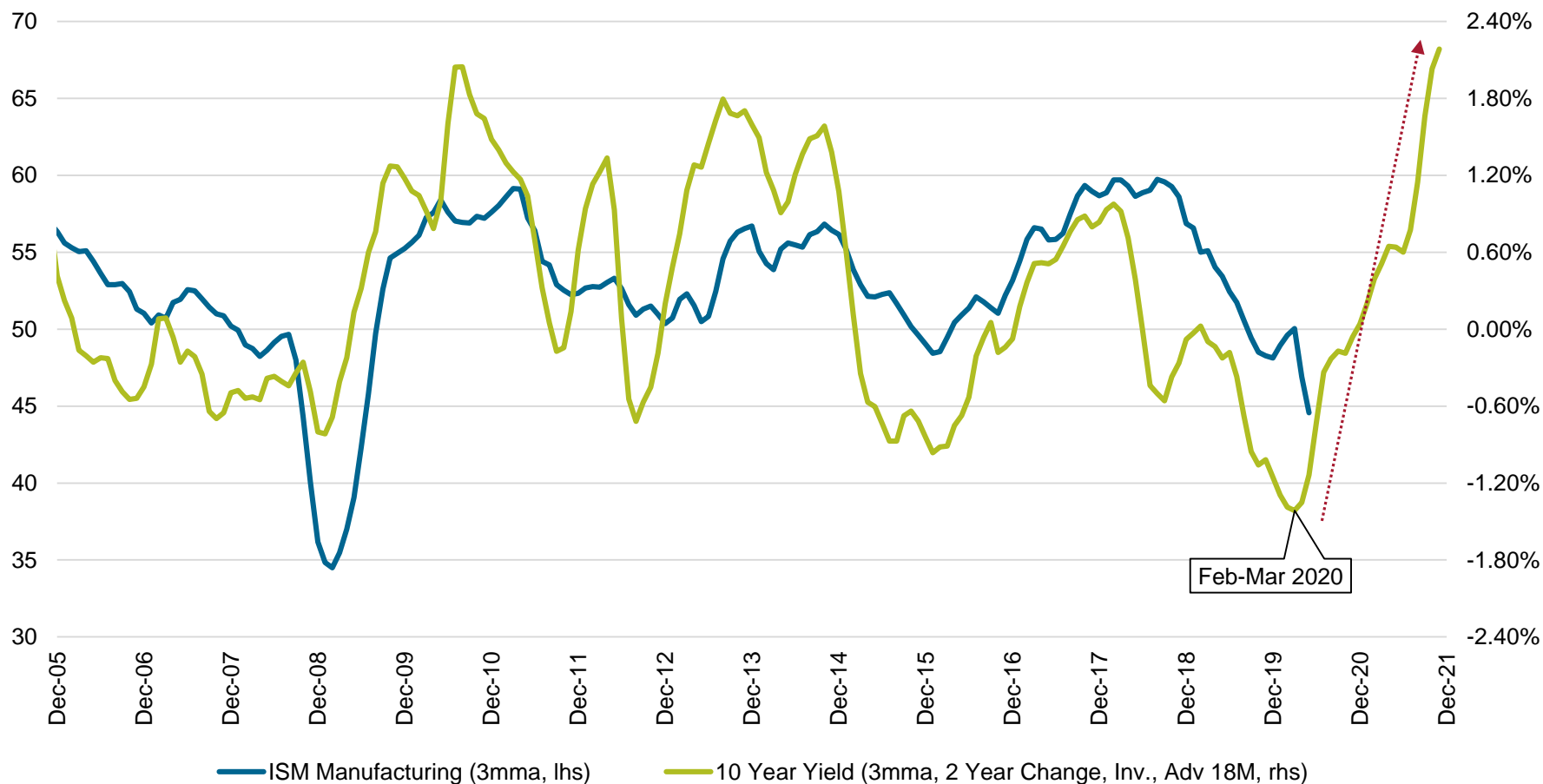


Source : Institute for Supply Management, FactSet. As of 5/31/2020.



U.S. Purchasing Manager Indexes : Potential Support

The Federal Reserve's decision to continue to cut rates, along with other liquidity-providing policies and programs, should help to support economic growth in the months to come. (Note that the yield measure in the chart below is inverted).

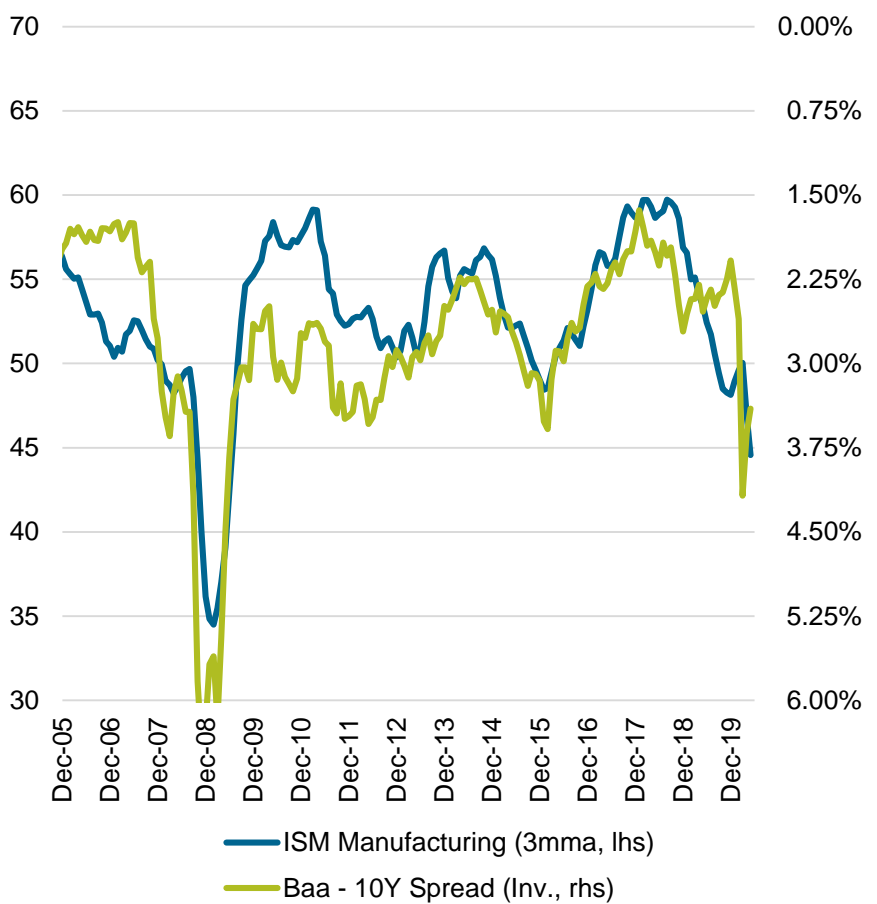
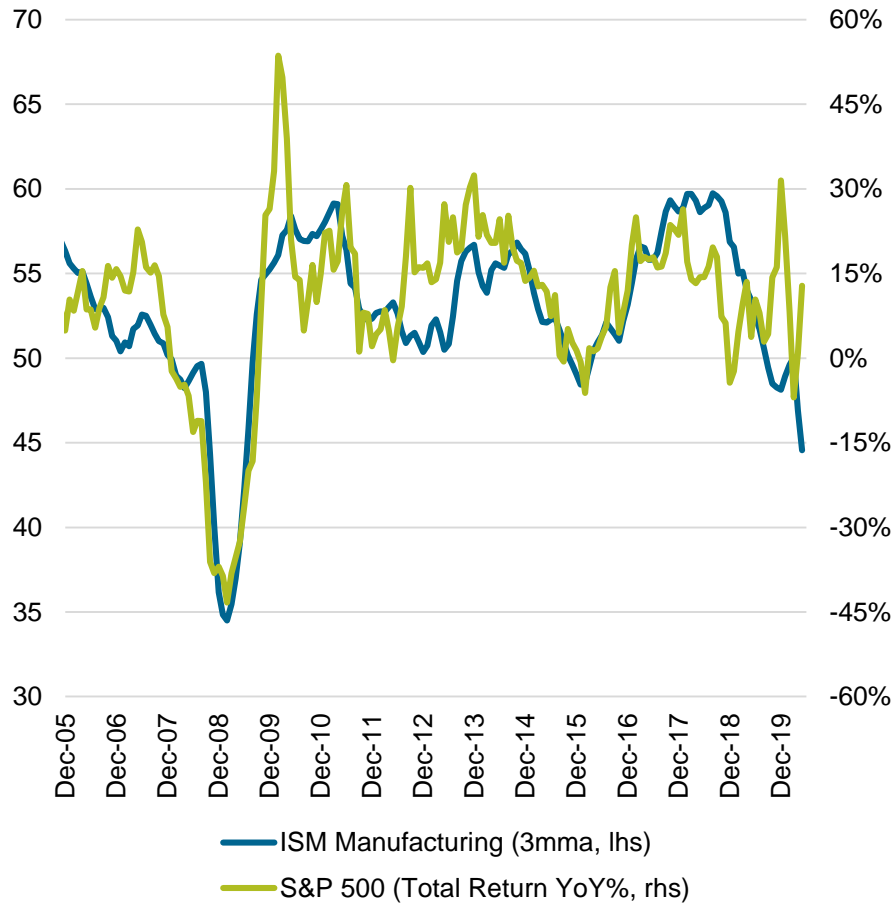


Source : Institute for Supply Management, FactSet. As of 5/31/2020.



U.S. Purchasing Manager Indexes : Coincident Indicators

The ISM Manufacturing Index, equity markets, and credit spreads all had a negative initial reaction to the COVID-19 virus but the large fiscal and monetary efforts put in place to support markets and the economy helped financial markets to recover much faster than anticipated.

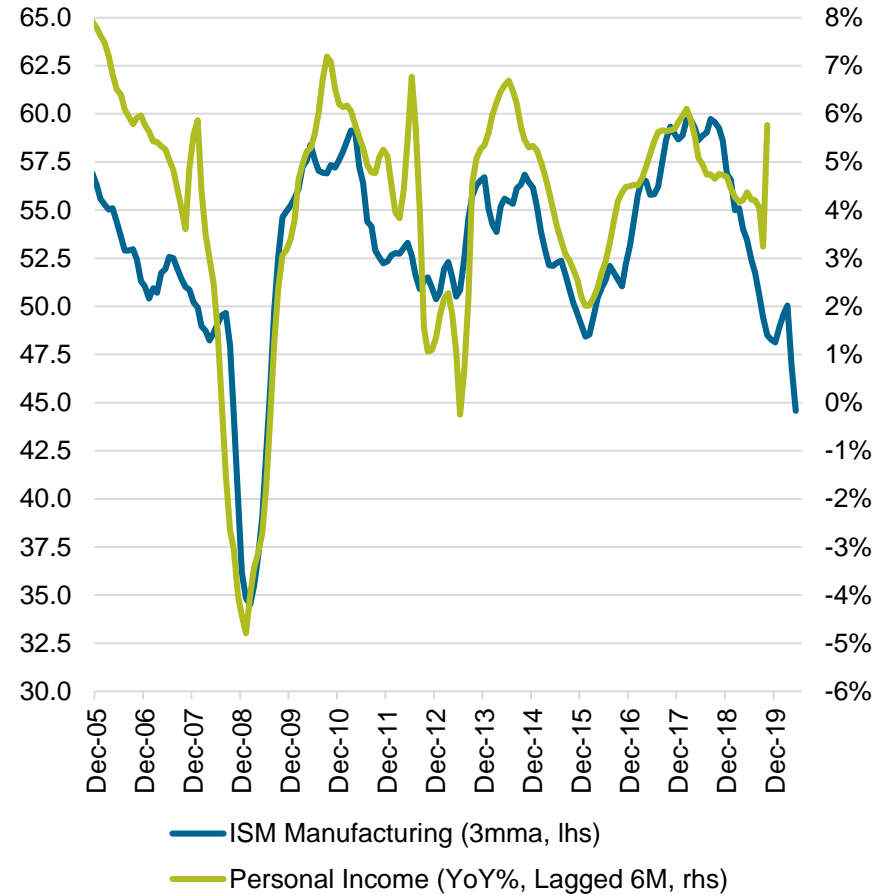
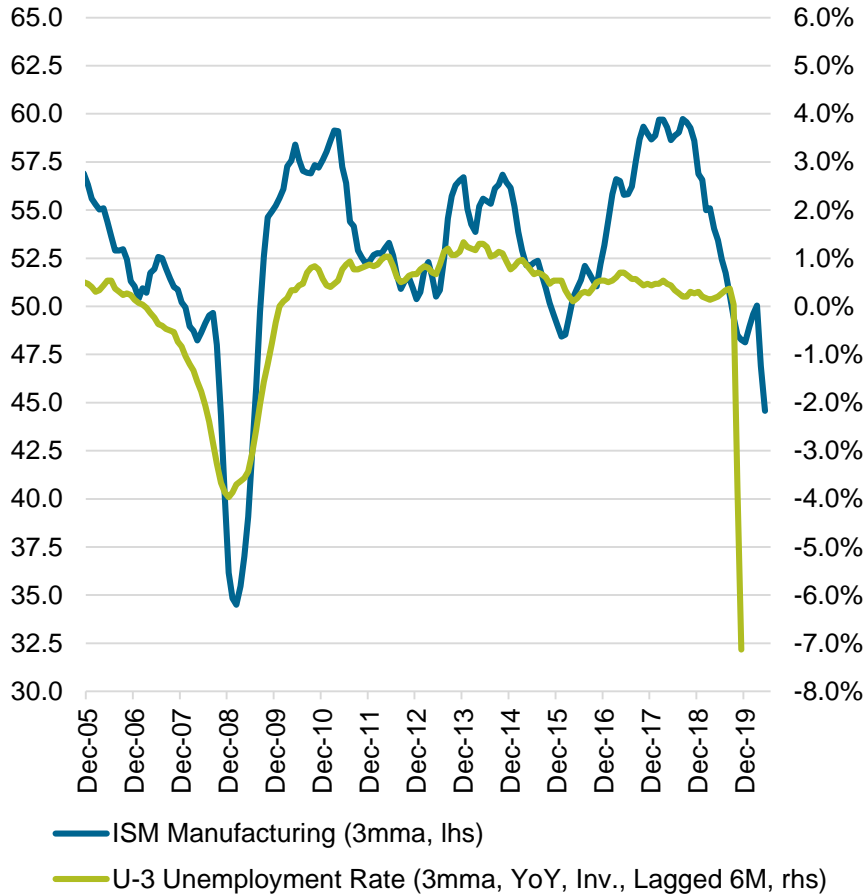


Source : Institute for Supply Management, FactSet. As of 5/31/2020.



U.S. Purchasing Manager Indexes : Lagging Indicators

The unusual nature of the COVID-19 crisis and the government response are illustrated in the disconnect between normally reliable relationships. As the shutdown was mandated by government intervention, the decline in the job market was large and swift. As well, stimulus money pushed personal incomes up even as the economy slowed.

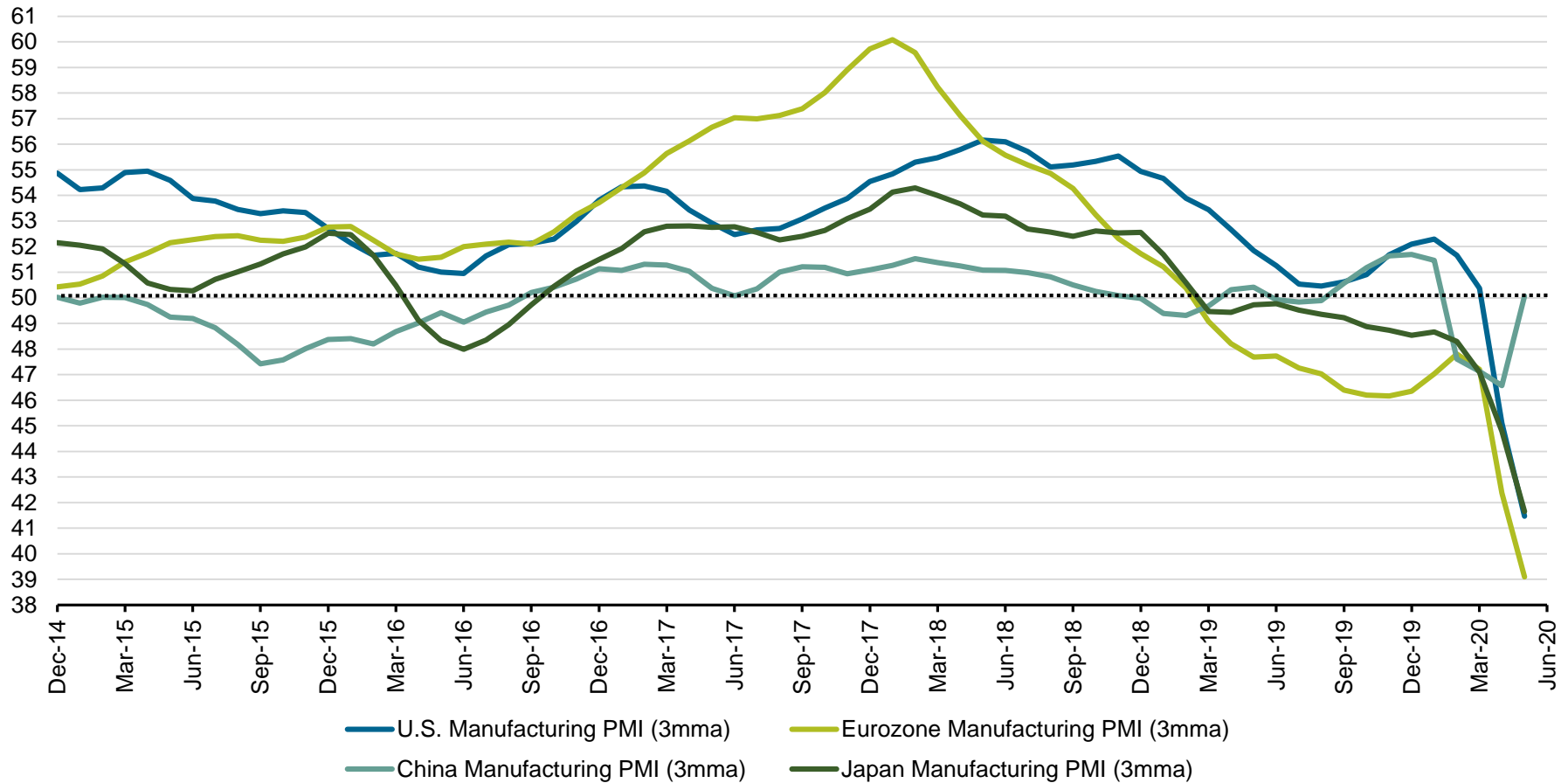


Source : Institute for Supply Management, US Bureau of Economic Analysis, US Dept. of Labor, FactSet. As of 5/31/2020.



Developed Nation Purchasing Manager Indexes

China was the first country to shutdown and the first area to begin reopening. That dynamic shows up in their manufacturing PMI. The U.S. and Europe shut-down later, however, and it remains to be seen how much of a rebound will occur with the relaxing of lock-down policies and procedures.



Source : Markit Economics, FactSet. As of 5/31/2020.



Fiscal Stimulus: What is in the CARES Acts and HEROES Act.

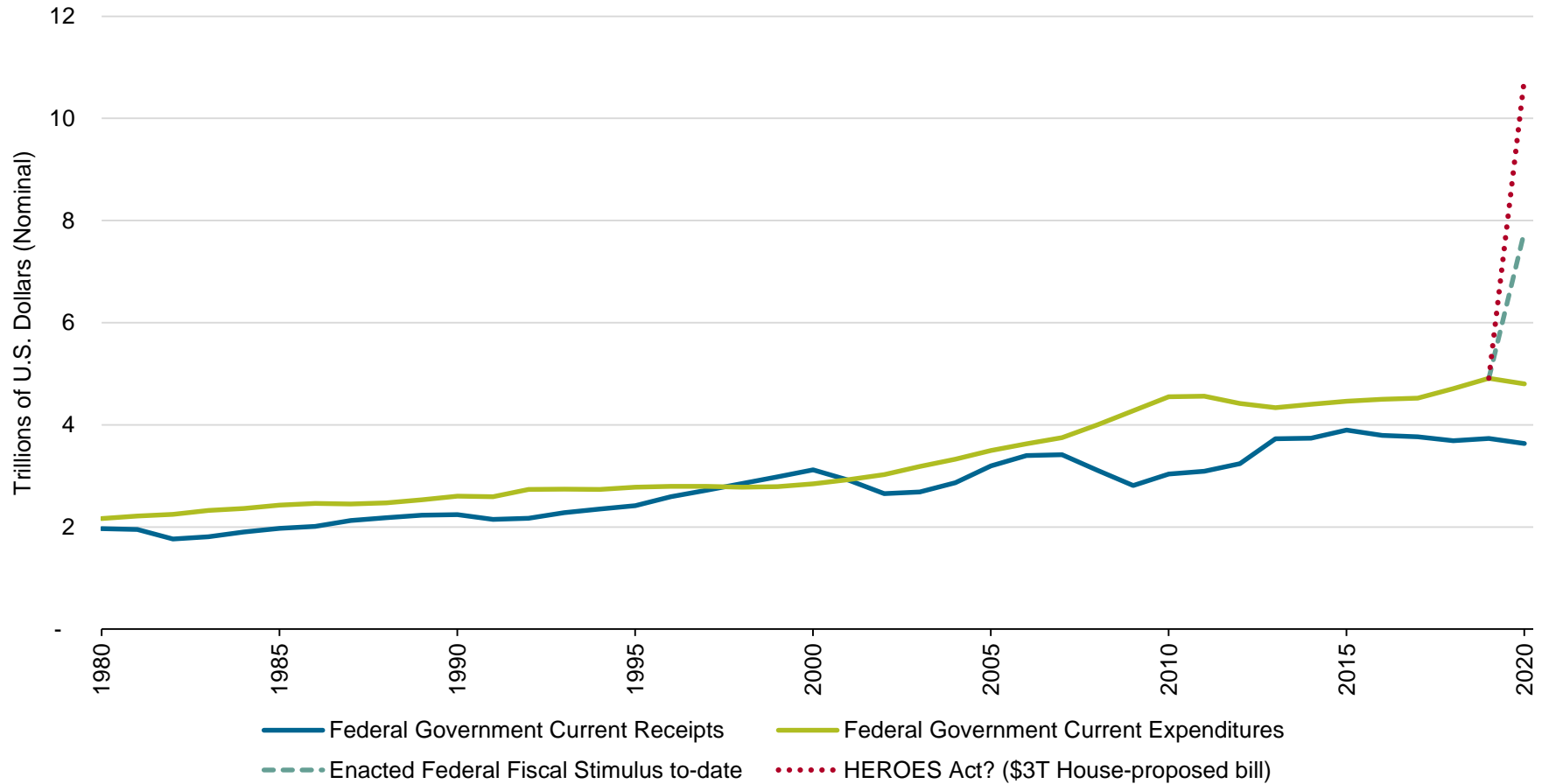
- **Households: \$500 Billion**
 - Tax refunds: \$250 billion
 - Expanded unemployment insurance: \$250 billion
 - Expand unemployment benefits to 39 weeks and include an additional \$600 per week in unemployment benefits for four months.
 - \$1,200 in direct payments (additional \$500 per child) for those with incomes up to \$75,000; phased out entirely for those with incomes above \$99,000.
- **Small Businesses: \$367 billion**
 - Small Business Lending/Grants: \$350 billion
 - Community Lending \$ 17 billion
- **Corporate Lending Facility: \$500 billion**
 - \$500bn fund (\$425bn for loans to the Fed and \$75bn for industry loans) and will include oversight from an inspector general and a congressionally appointed 5-person panel.
 - Companies that receive government aid must agree to halt stock buybacks for the entire time they receive the aid, plus one year. Restrictions on employment cuts.
- **SPV Lending Facility: \$425 billion**
 - Treasury funds for corporate loans, Fed purchases of munis & investment grade corporate bonds and secondary mortgage market.
- **Distressed Grants/Loans: \$75bn – oversight by a 5-member board**
 - Airlines \$50 billion
 - Air Cargo \$ 8 billion
 - “National Defense” Boeing \$17 billion
- **Corporate Tax Changes: \$100 billion (rough estimate)**
 - NOL 5-year carryback
 - Interest deduction at 50% of EBITDA
 - Employee Retention Tax Credit
- **Healthcare Response: \$150 Billion**
 - Hospitals: \$100 billion
- **Aid to State & Local Governments: \$150 billion**
- **Education: \$30 billion**
- **Paycheck Protection Program and Health Care Enhancement Act (Cares Act 3.5) passed on April 24th : \$484 billion.**
 - Added \$321 billion for Paycheck Protection Program, \$60 billion in disaster loans and grants, \$75 billion for health care providers, and \$25 billion for coronavirus testing.
- **HEROES Act: \$3 Trillion passed by U.S. House of Representatives on May 15th. Under consideration by U.S. Senate.**
 - \$1 trillion financial aid to local and state governments, \$175 billion in mortgage and rent assistance, \$200 billion for hospitals, health care, and virus testing/tracing, \$200 billion in hazard pay for essential workers, extend extra weekly federal unemployment benefits of \$600/week to January 2021, another round of \$1,200 stimulus checks for certain individuals (up to \$6,000 per household), student loan forgiveness and/or suspended payments, \$670 billion for PPP and EIDL programs through SBA.

Source : Strategas.



Federal Receipts and Expenditures

While expenditures had been generally outpacing receipts for some time, efforts to offset the economic impact of COVID-19 have made previous deficit spending seem nearly inconsequential. Approximately \$3 trillion in stimulus has already been enacted, and the House-proposed HEROES Act would add an additional \$3 trillion.

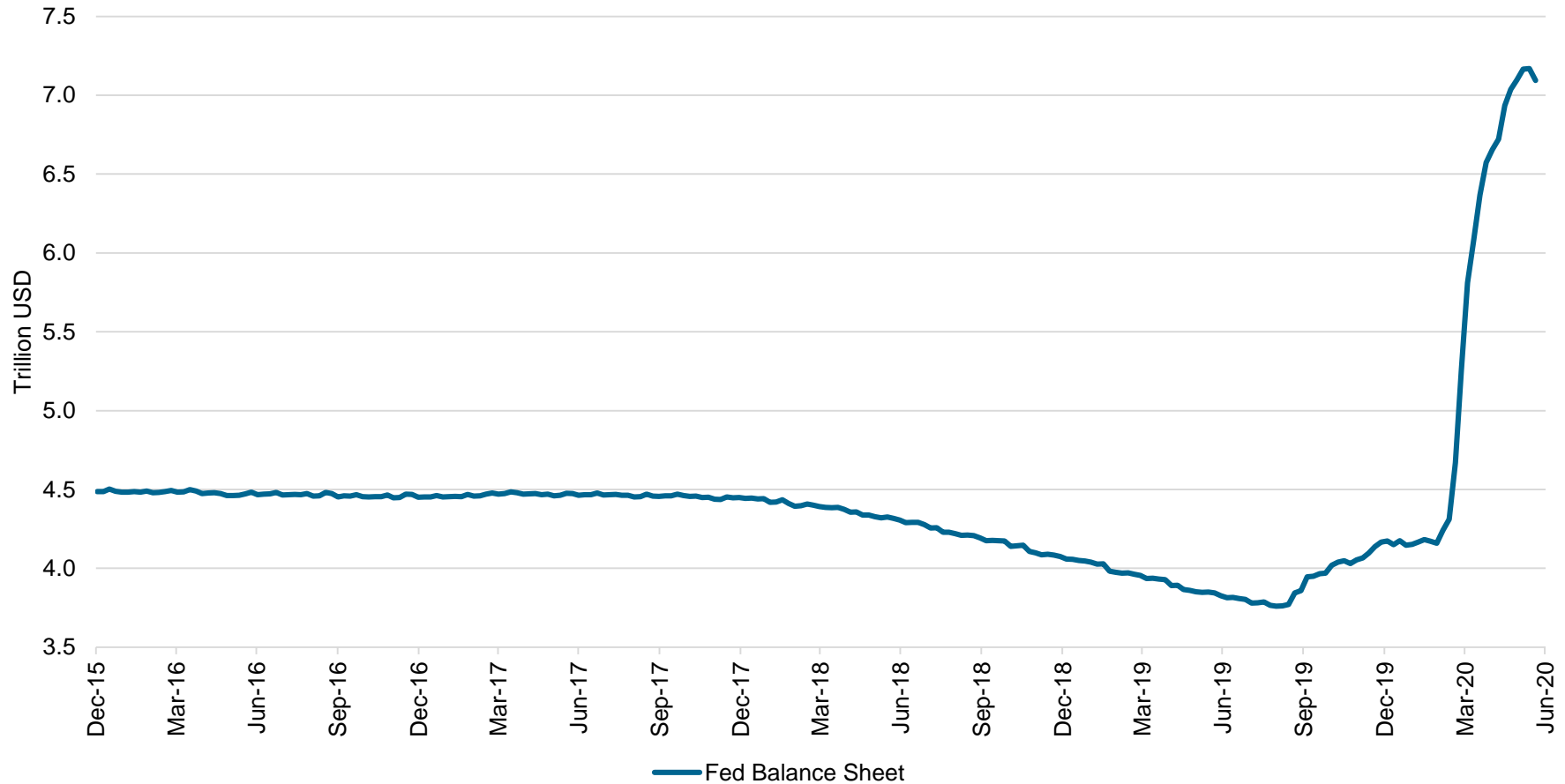


Source : US Federal Reserve, BEA. As of 6/23/2020.



Fed Balance Sheet

In response to the coronavirus, the Fed announced a number of measures to help improve market liquidity. On top of an existing commitment to buy \$700 billion of Treasuries and MBS, they added open-ended quantitative easing and three new lending facilities in which one will buy corporate bonds and U.S. listed ETFs.

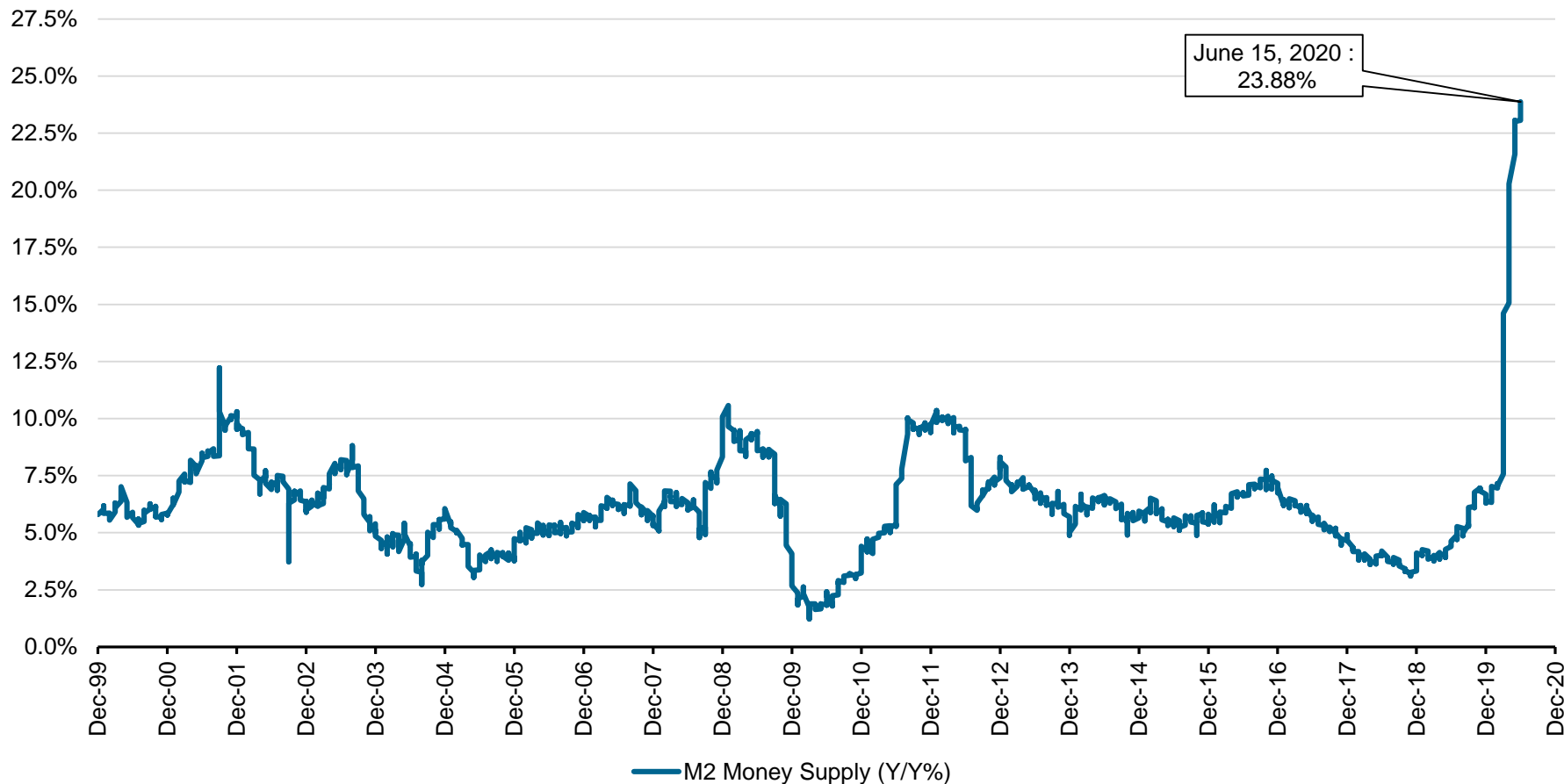


Source : Federal Reserve System, FactSet. As of 6/30/2020.



M2 Money Supply Growth

Driven by extraordinary amounts of quantitative easing, central bank asset purchases, and various stimulus measures, M2 money supply growth expanded rapidly in the 2nd quarter.

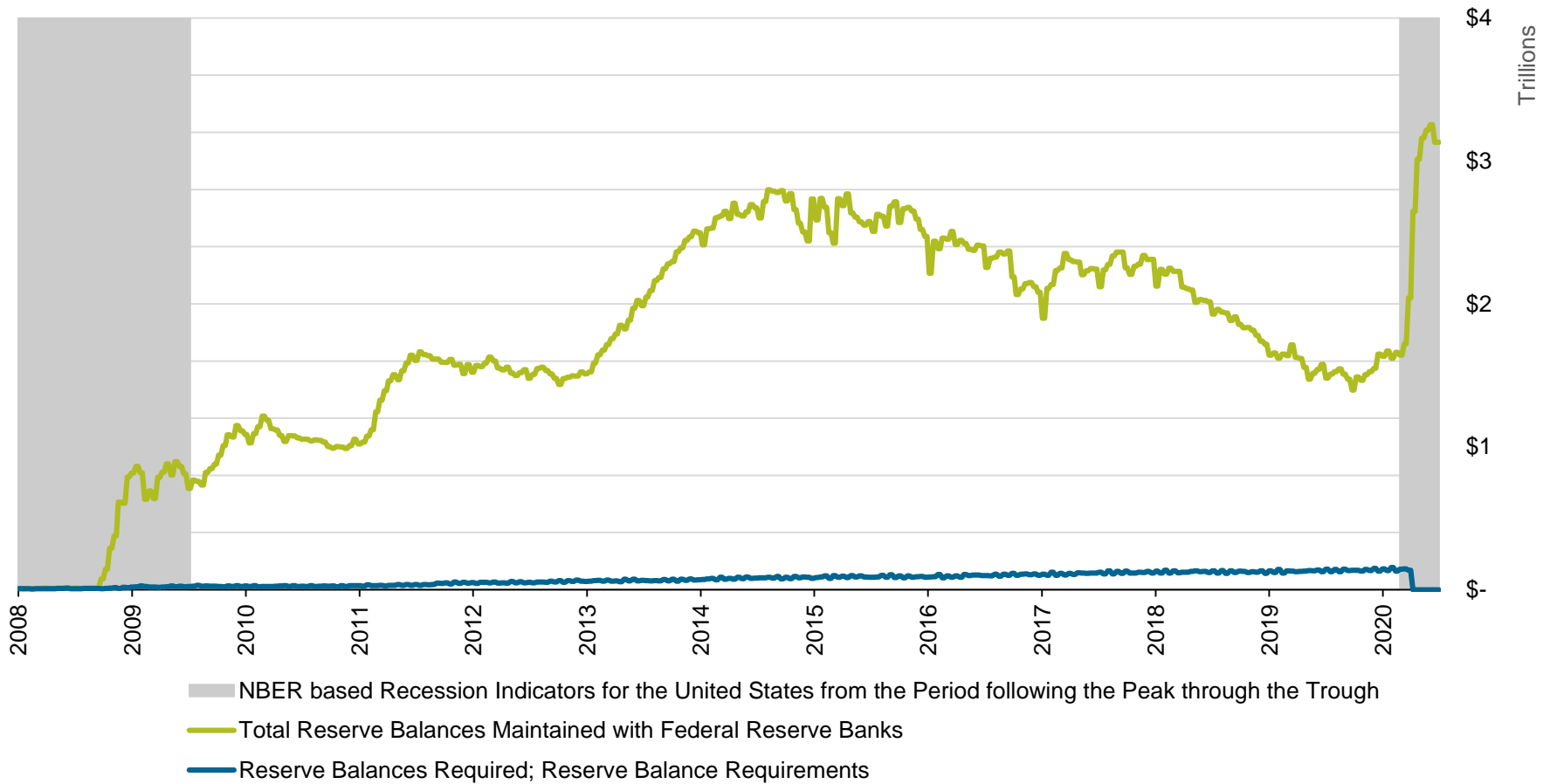


Source : US Federal Reserve, FactSet. As of 6/15/2020.



Banking Reserves

The Federal Reserve recently reduced bank reserve requirements to zero, to help spur lending. However, this change is dwarfed by the reserves maintained voluntarily since the financial crisis, and is unlikely to have much bearing on conservative lending practices.



Source : US Federal Reserve. As of 6/23/2020.



Broad Asset Classes



Market Performance

	2nd Quarter	Last 12 Months
Headline Index Returns		
NASDAQ Composite	30.95%	26.94%
Russell 1000 Growth	27.84%	23.28%
Russell 2000	25.42%	-6.63%
Russell 800 MidCap	24.61%	-2.24%
Russell 1000	21.82%	7.48%
S&P 500	20.54%	7.51%
Dow Jones Industrial Average	18.51%	-0.54%
MSCI Emerging Markets	18.18%	-3.05%
MSCI EAFE	15.08%	-4.73%
Russell 1000 Value	14.29%	-8.84%
Barclays Global High Yield Fixed Income	12.19%	-1.98%
Barclays Global Aggregate Fixed Income	3.32%	4.22%
Barclays U.S. Aggregate Fixed Income	2.90%	8.74%

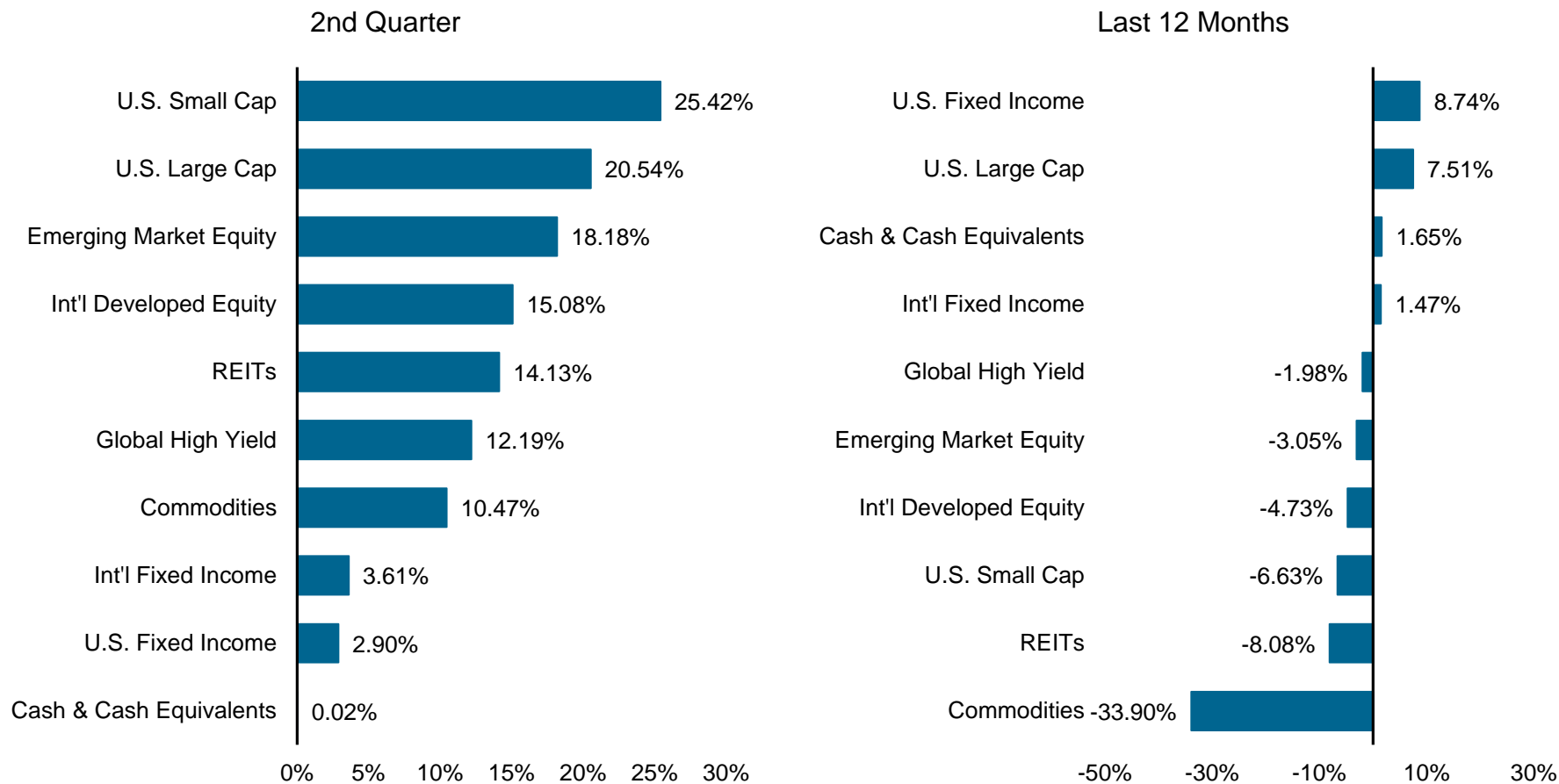
*Sorted by 2nd Quarter Returns

Source : S&P Dow Jones Indices, FTSE Russell, MSCI, NASDAQ, FactSet. As of 6/30/2020.



Asset Class Returns

All asset classes had positive returns in the 2nd quarter following a large selloff in the 1st quarter. The biggest tailwinds have been massive global monetary and fiscal stimulus, optimism around the potential for coronavirus vaccines and treatments, and a gradual reopening worldwide.



Source : S&P Dow Jones Indices, FTSE Russell, MSCI, Bloomberg Barclays, FactSet. As of 6/30/2020. ¹See appendix for index descriptions.



U.S. Equities



Equity Style Returns

Value stocks had a strong May, but reversed course in June as concerns about the intensifying second wave of COVID infections have increased downside risk. Small-cap stocks outperformed large-cap stocks across the board with small-cap growth performing the best.

	2Q2020		
	Value	Blend	Growth
Large	14.29%	21.82%	27.84%
Mid	19.95%	24.61%	30.26%
Small	18.91%	25.42%	30.58%

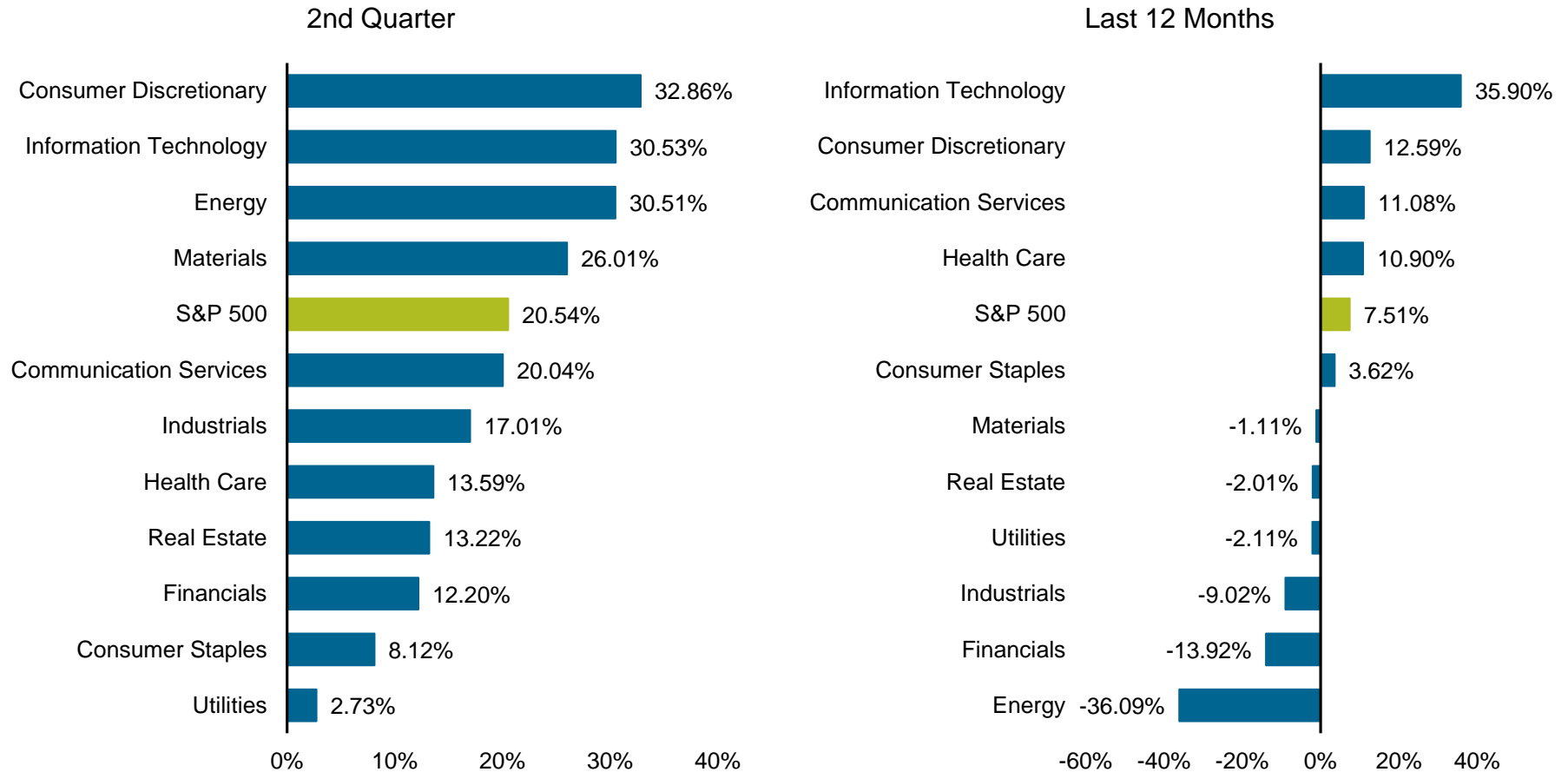
	Last 12 Months		
	Value	Blend	Growth
Large	-8.84%	7.48%	23.28%
Mid	-11.81%	-2.24%	11.91%
Small	-17.48%	-6.63%	3.48%

Source : S&P Dow Jones Indices, FTSE Russell, MSCI, Bloomberg Barclays, FactSet. As of 6/30/2020. ¹See appendix for index descriptions.



S&P Sector Returns

Consumer Discretionary was the top performing sector in the 2nd quarter with Amazon making up nearly 40% of the sector's market-cap. Utilities and Staples were the worst performing sectors as investor risk aversion diminished and defensive segments lagged.



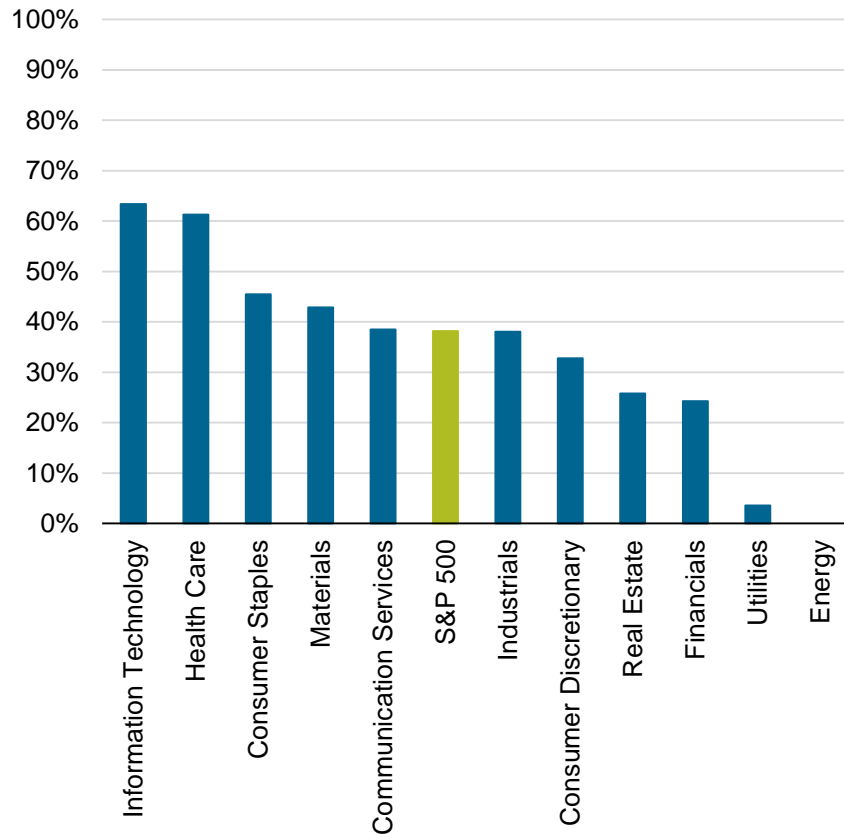
Source : S&P Dow Jones Indices, FactSet. As of 6/30/2020.



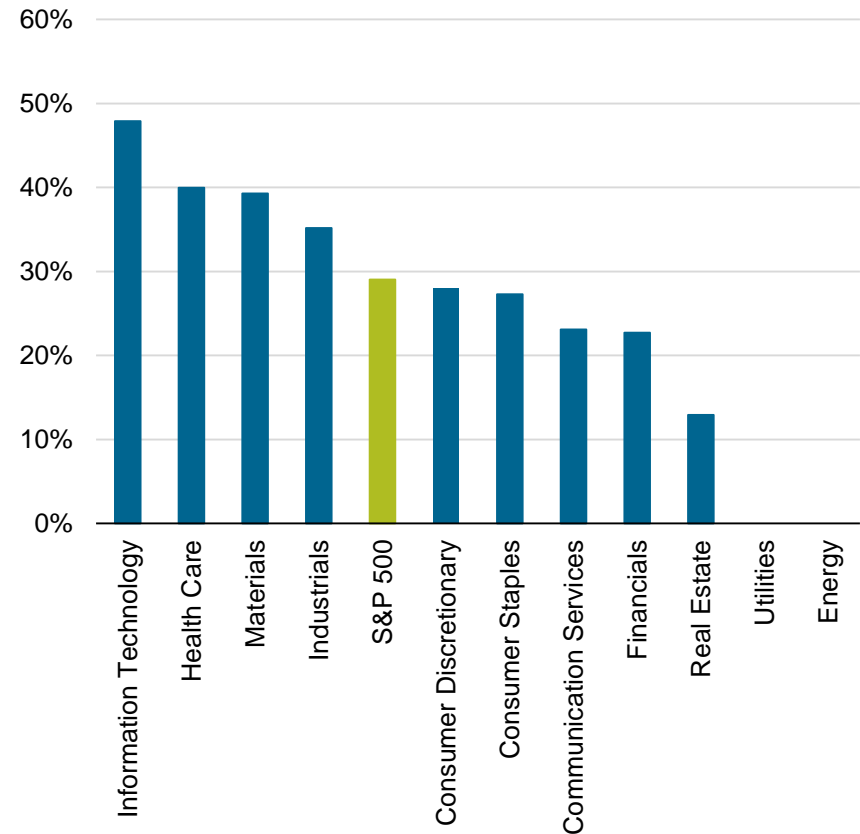
S&P 500 Sector Breadth

Sector breadth is back above 50% in a number of sectors, thanks to an unprecedented equity rally. Healthcare and tech are especially strong, while energy and utilities are particularly weak.

Percent Above 200-day Moving Average



Change Since March 31st

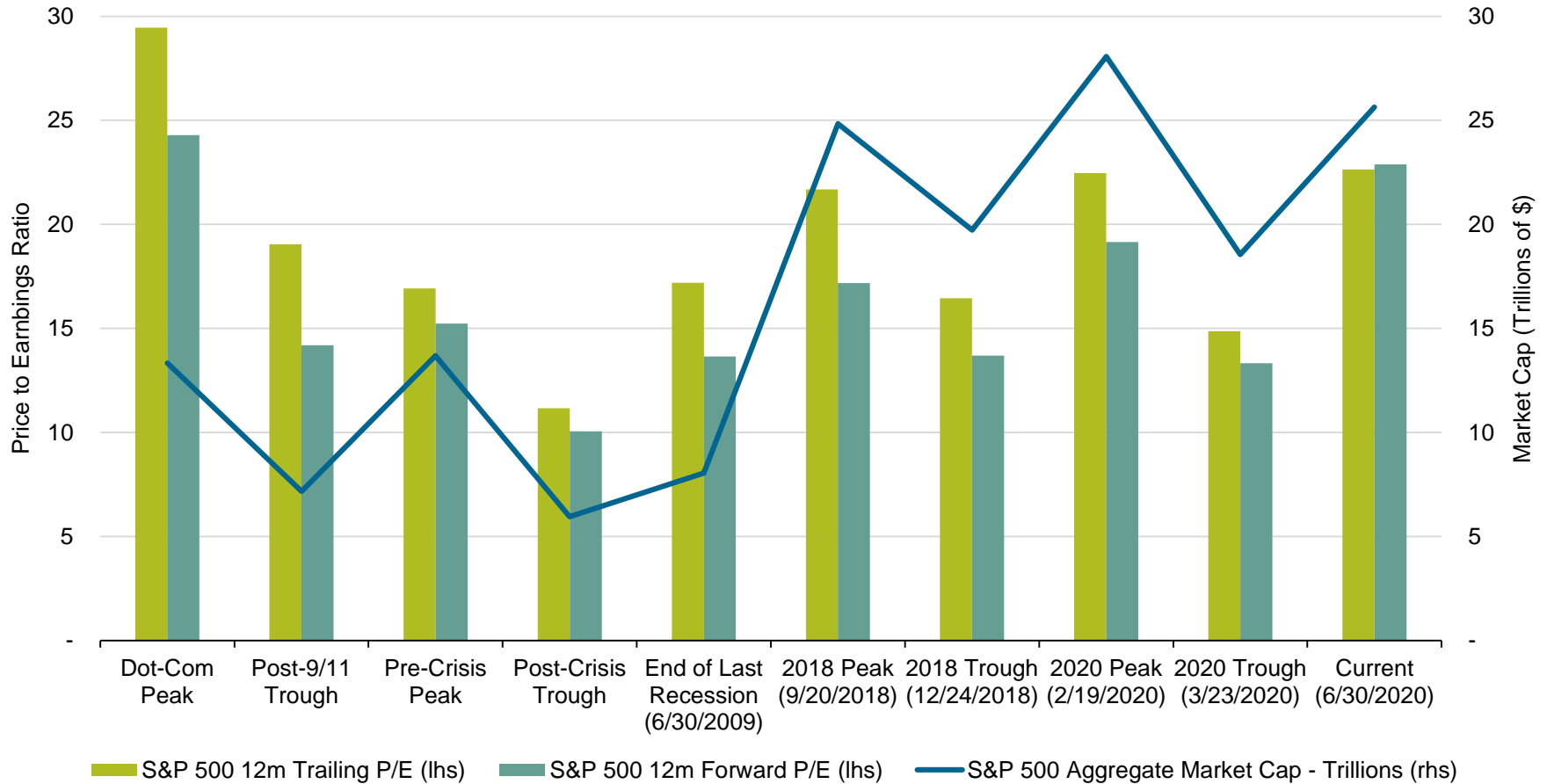


Source : FactSet. As of 6/30/2020.



S&P 500 Market Capitalization and P/E Ratio

Though the aggregate market capitalization of the S&P 500 remains slightly below February's high, both the trailing and forward aggregate P/E ratios now exceed February's high.



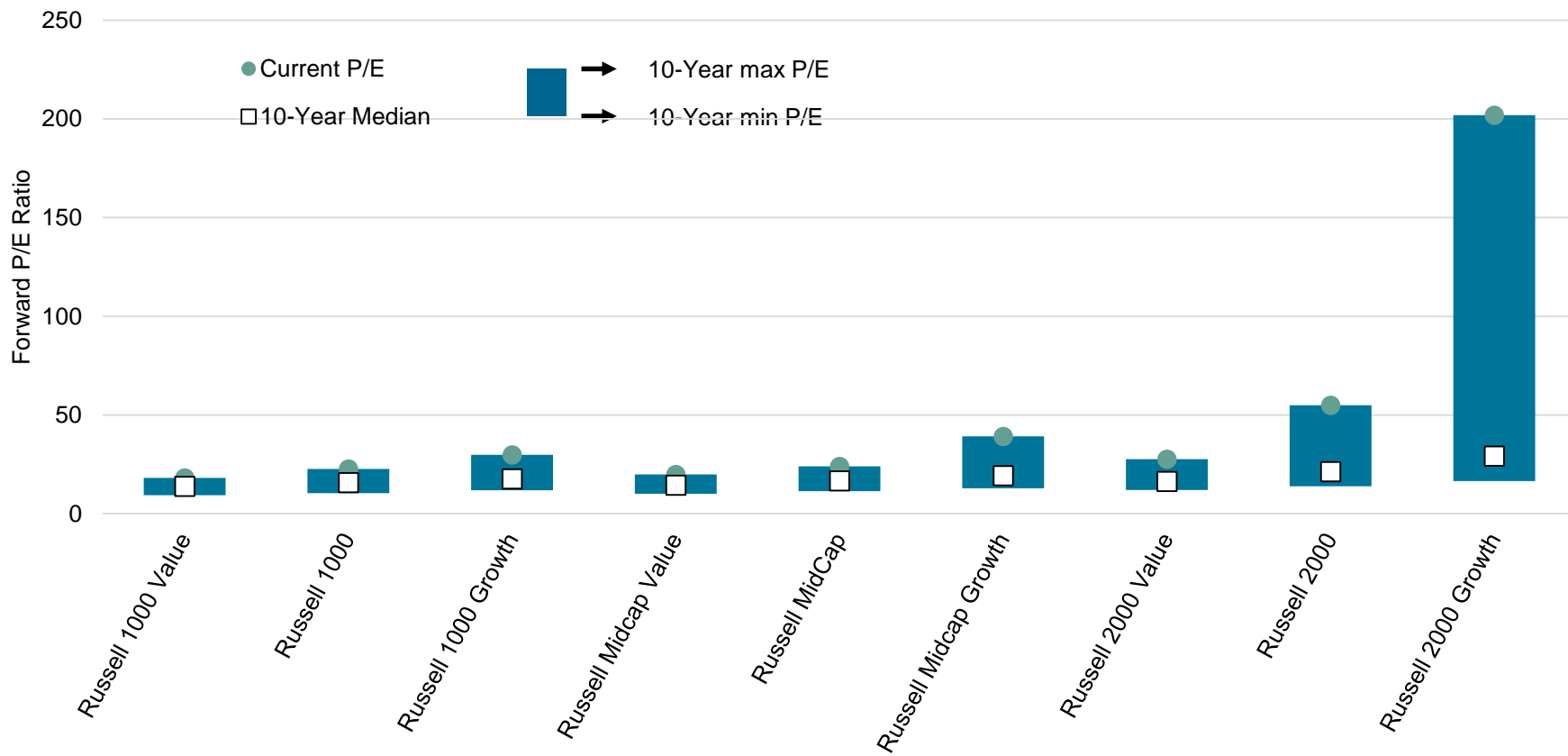
Source : FactSet. As of 6/30/2020.



Equity Style Valuation

Multiples are at 10-year highs as stocks surged higher while earnings remain depressed.

Forward P/E Ratios 10-Year High/Low

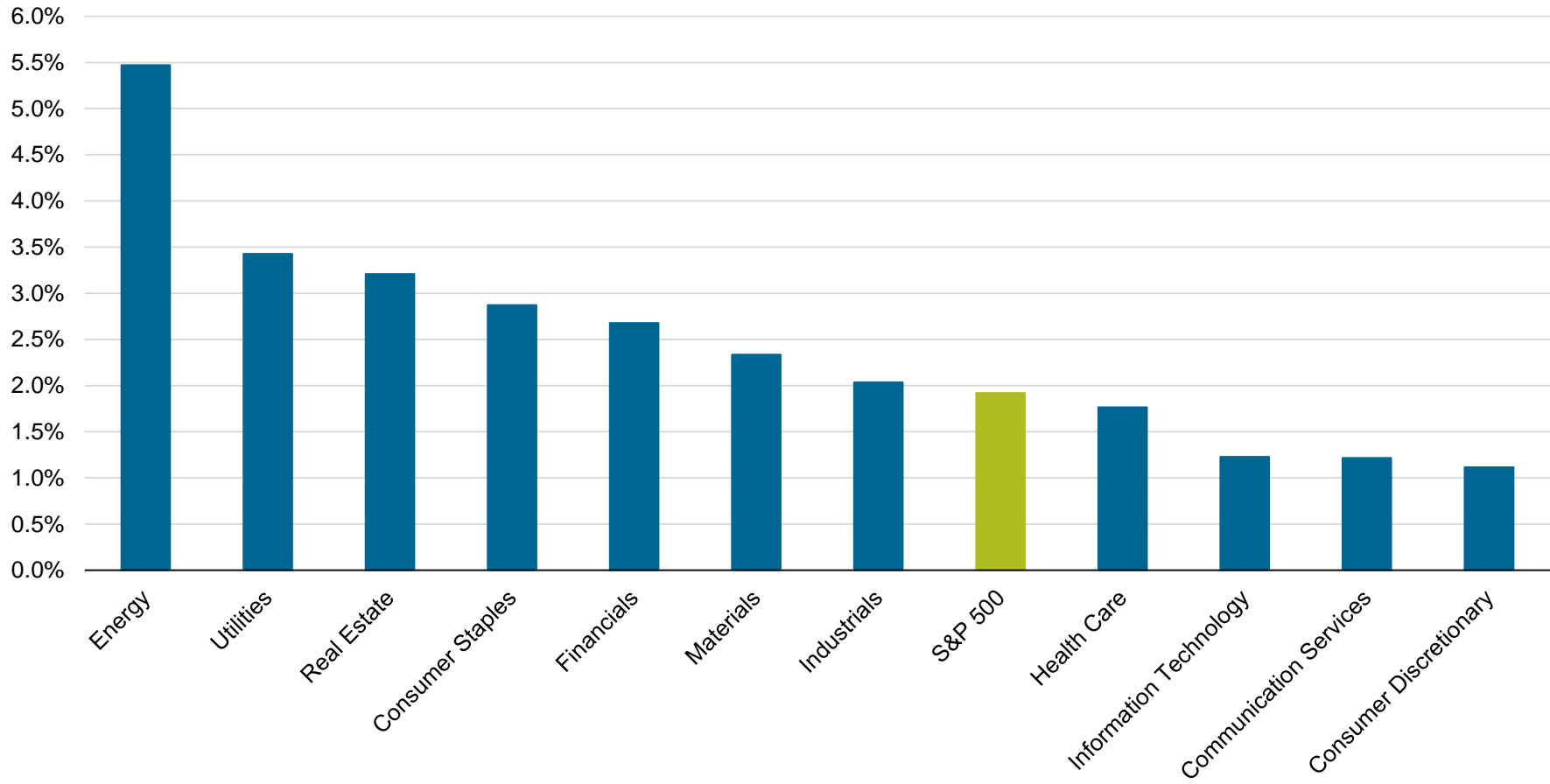


Source : S&P Dow Jones Indices, FTSE Russell, MSCI, Bloomberg Barclays, FactSet. As of 6/30/2020. ¹See appendix for index descriptions.



Sector Dividend Yield

As equity prices rebounded, dividend yields declined this quarter, leaving the volatile energy sector head and shoulders above the rest.

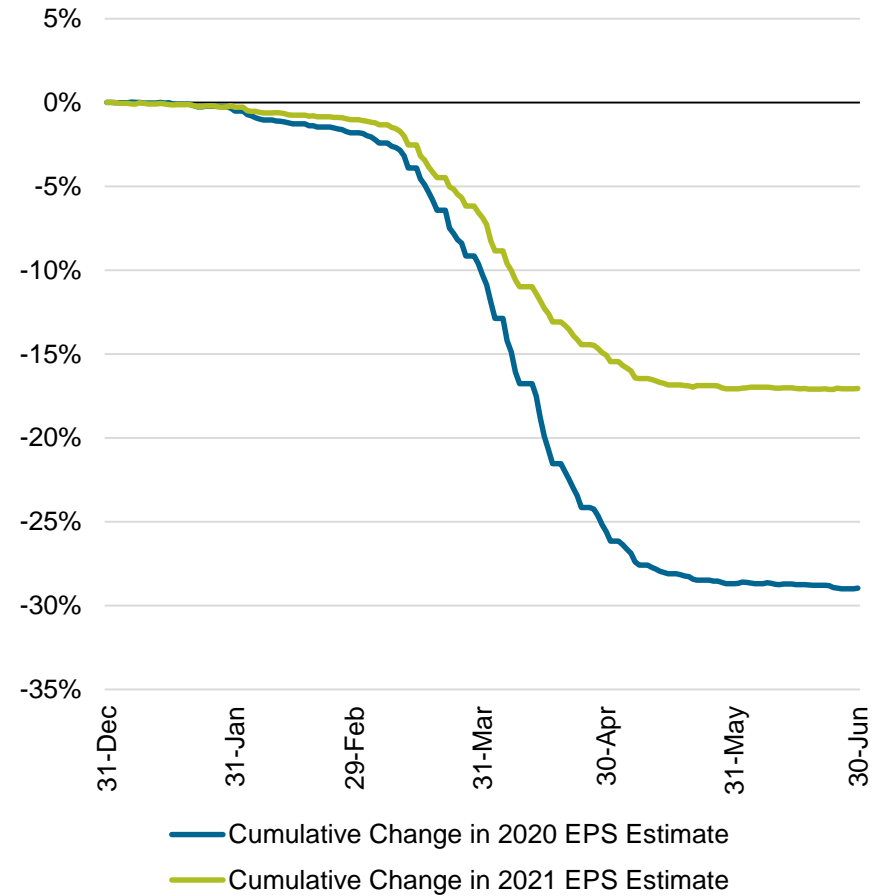
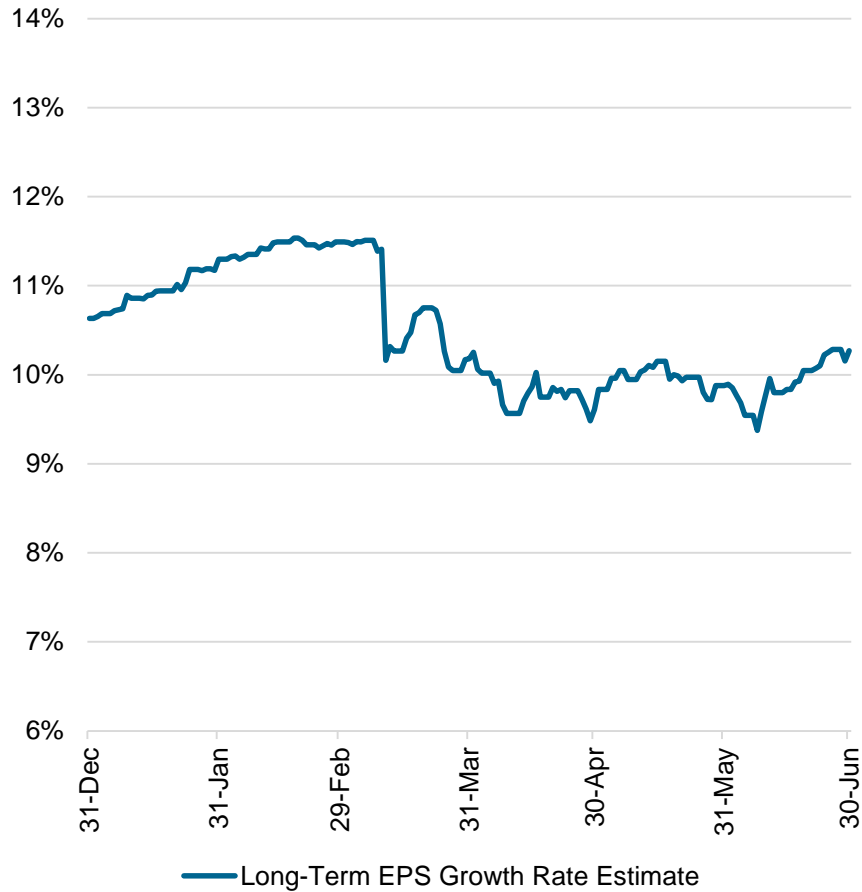


Source : FactSet. As of 6/30/2020.



S&P 500 Earnings Growth Estimates

Analysts' long-term earnings-per-share estimates adjusted fairly sharply in early March, while estimates for 2020 and 2021 were a little slower to change; but, by the end of May, consensus had stabilized.

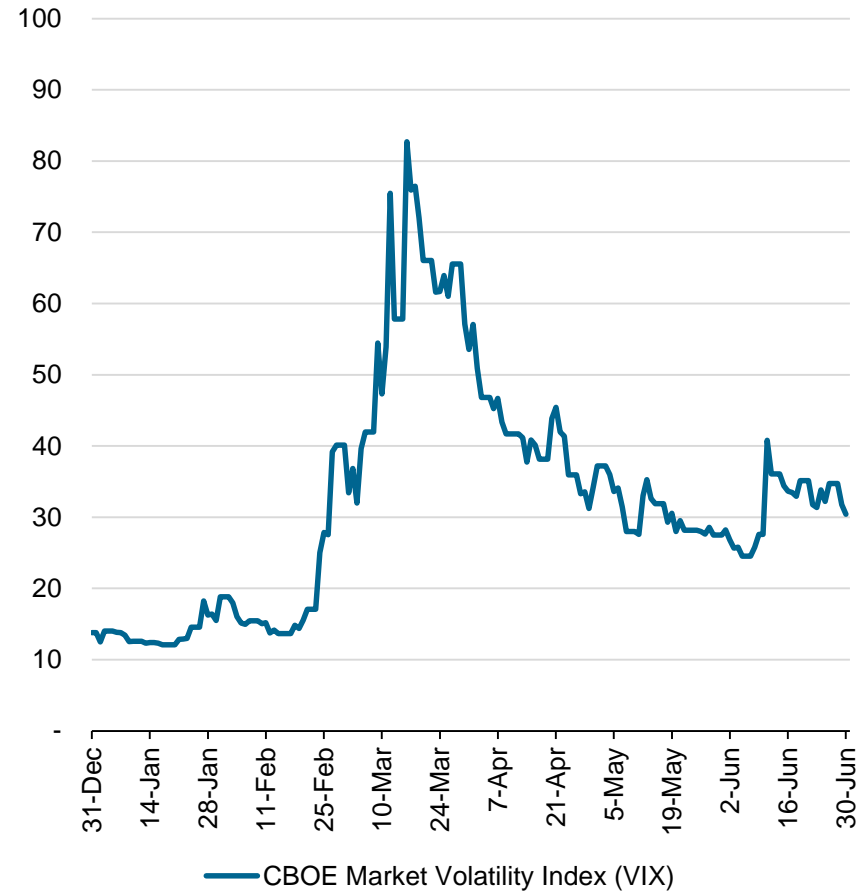
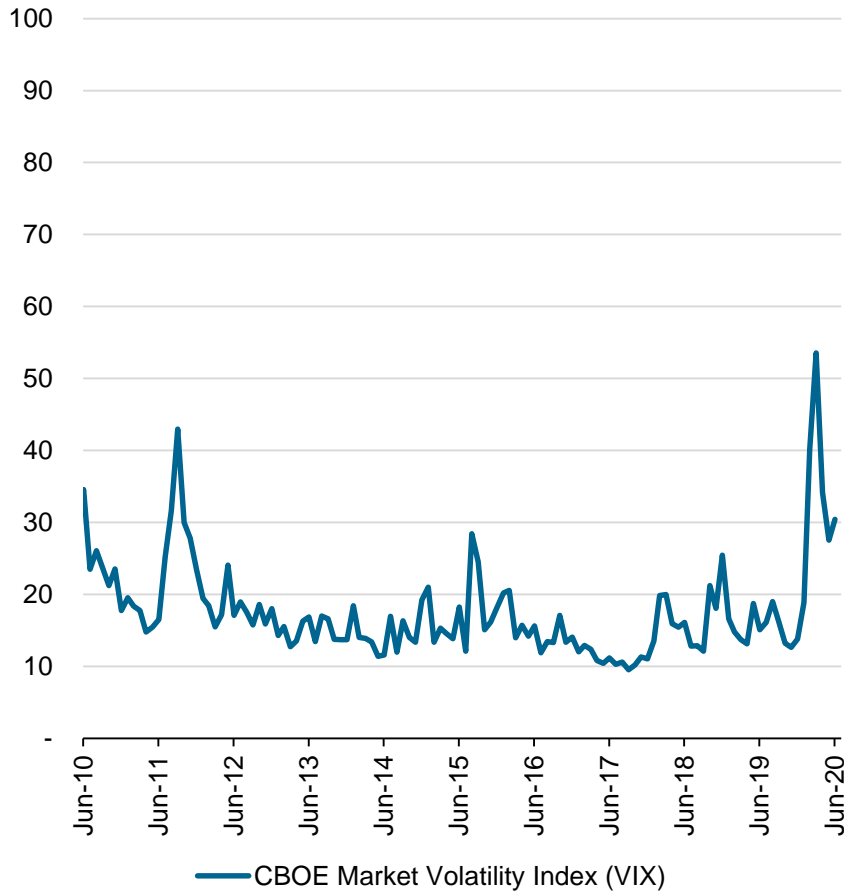


Source : FactSet. As of 6/30/2020.



S&P 500 Volatility

The VIX volatility index remains at a level not seen since 2011, though it is now well below the March highs, with both the size and frequency of extraordinary daily movement declining. However, late June shows a bit of an uptick, as concerns about COVID-19 are again on the rise.



Source : FactSet. As of 6/30/2020.

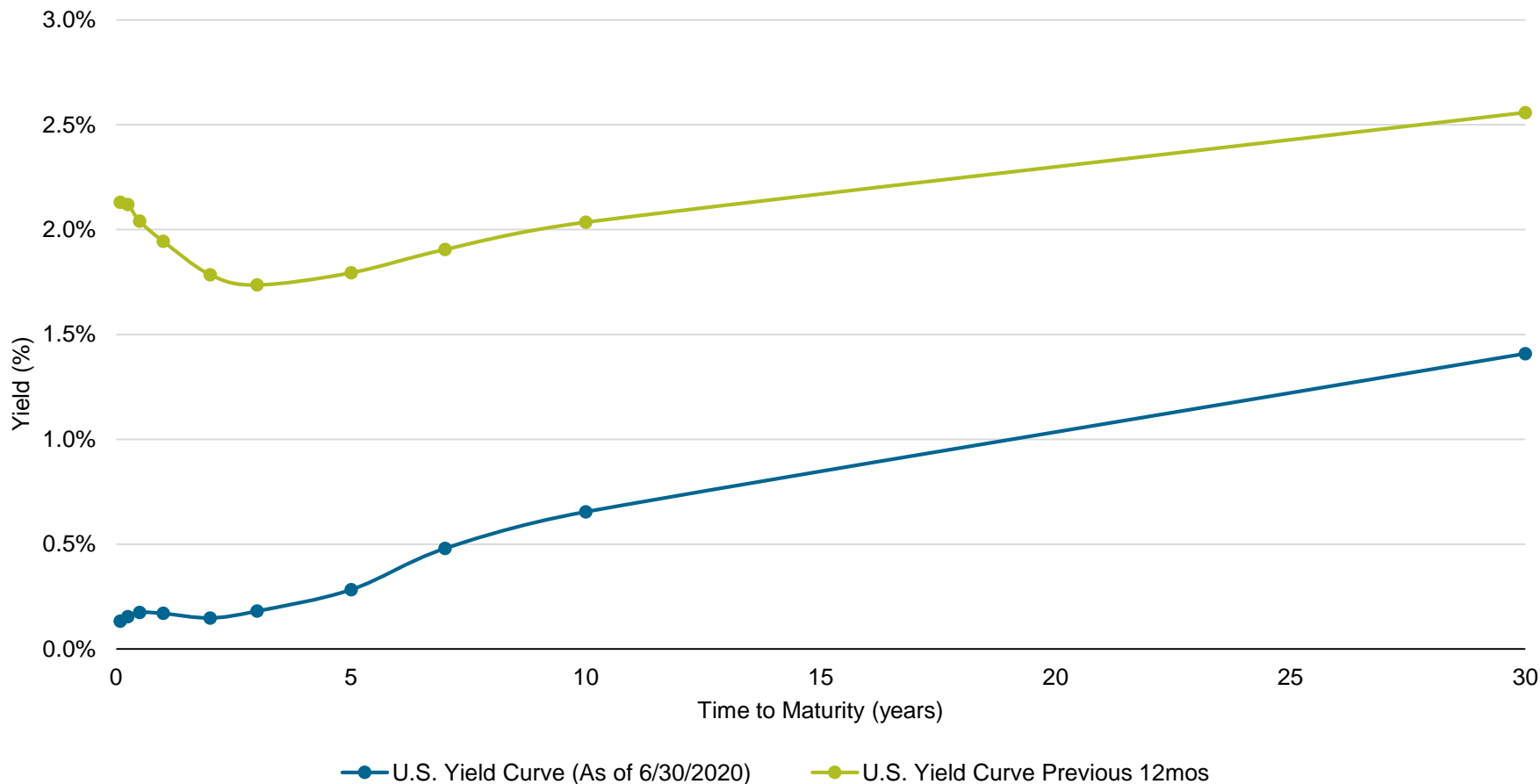


Fixed Income



The U.S. Treasury Yield Curve

Yields have come down across the curve as the U.S. Treasury is set to run the largest deficit as a percent of GDP in the past 80 years. Resurgent infection rates across many parts of the country and more expected Fed easing (yield control) may be the culprits.

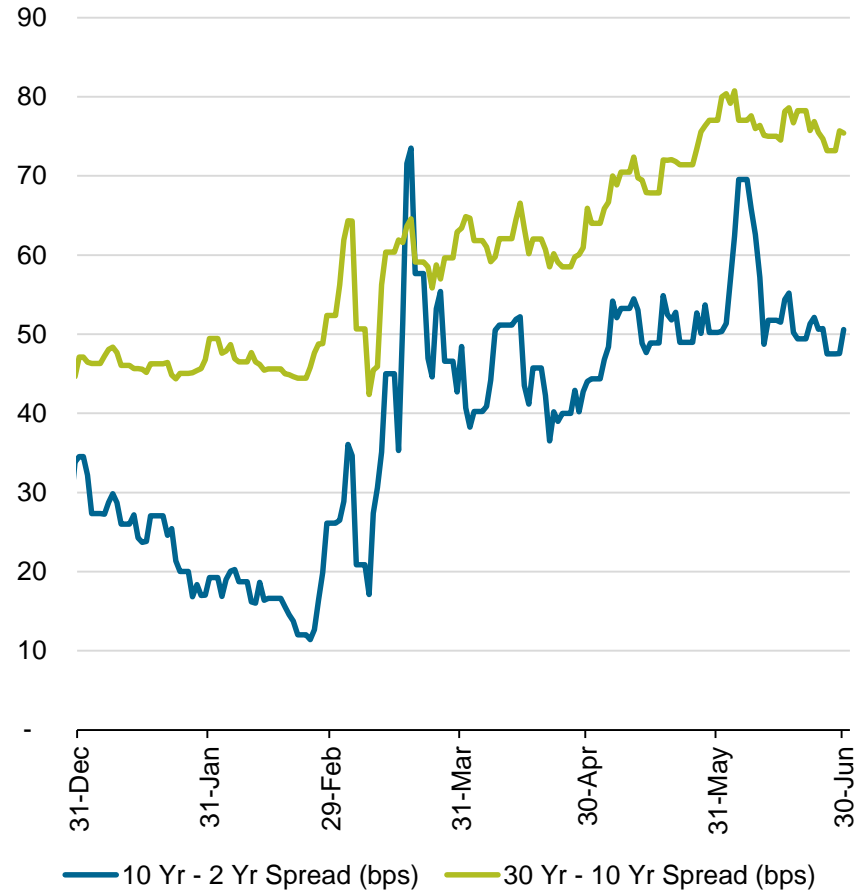
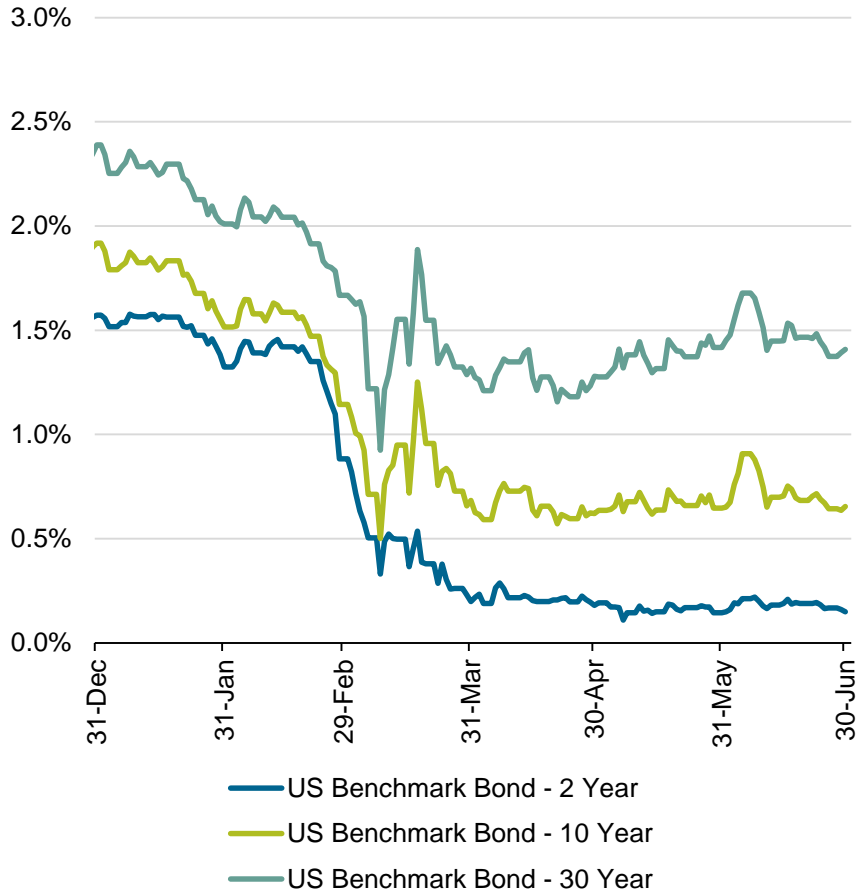


Source : Tullett Prebon Information, FactSet. As of 6/30/2020.



Treasury Yields

After the sharp decline in yields in February and March, yields on longer term treasuries began to rise a bit, widening both the 10-2 and 30-10 spreads considerably.

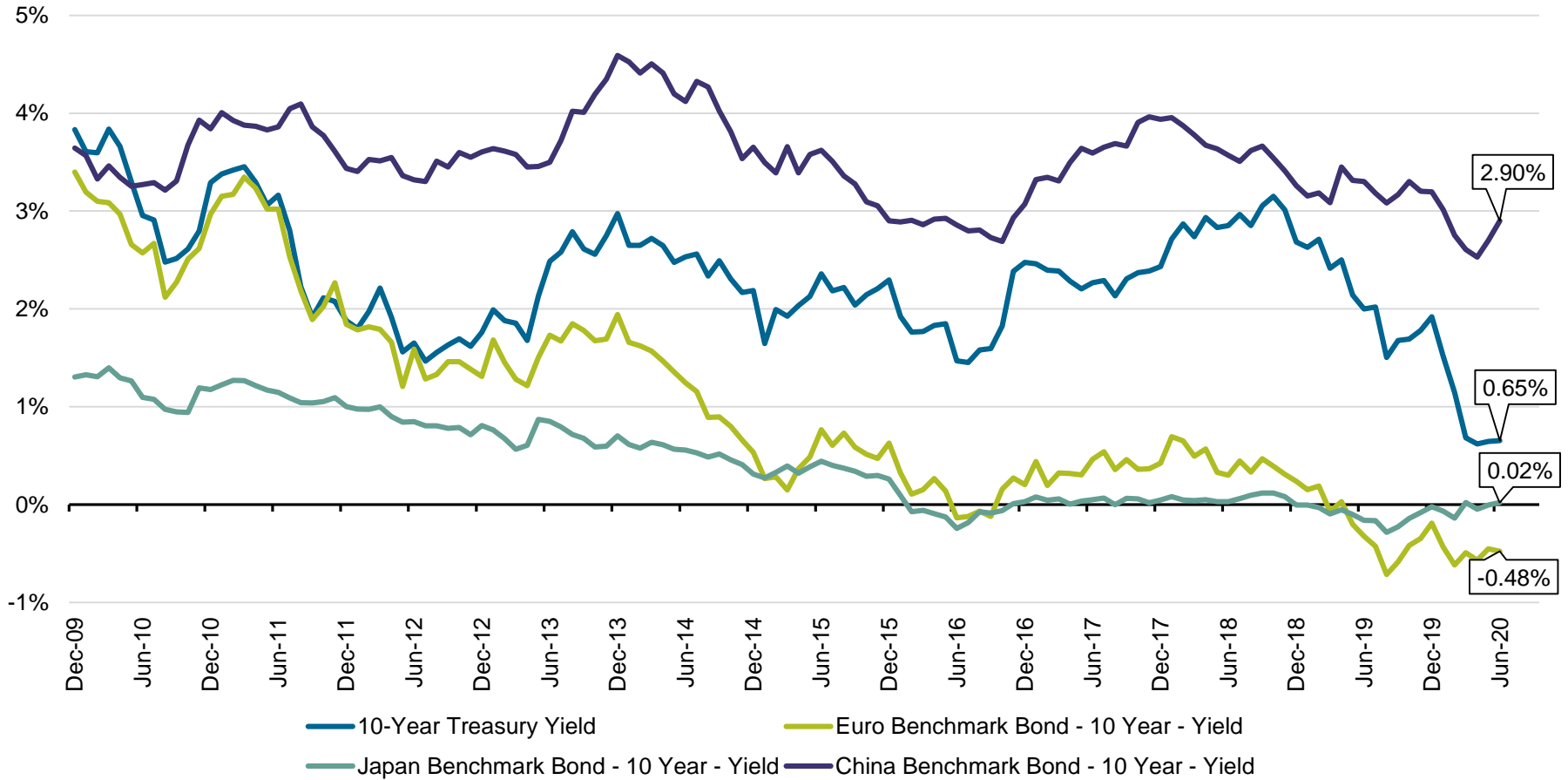


Source : FactSet. As of 6/30/2020.



Global 10 Year Yields

Geopolitical risks are rising as the U.S. elections approach and the risk of a “no-deal” Brexit has increased. U.S.-China trade tensions have also escalated in the 2nd quarter, however the Trump administration stated that the Phase I trade deal is “fully intact”.

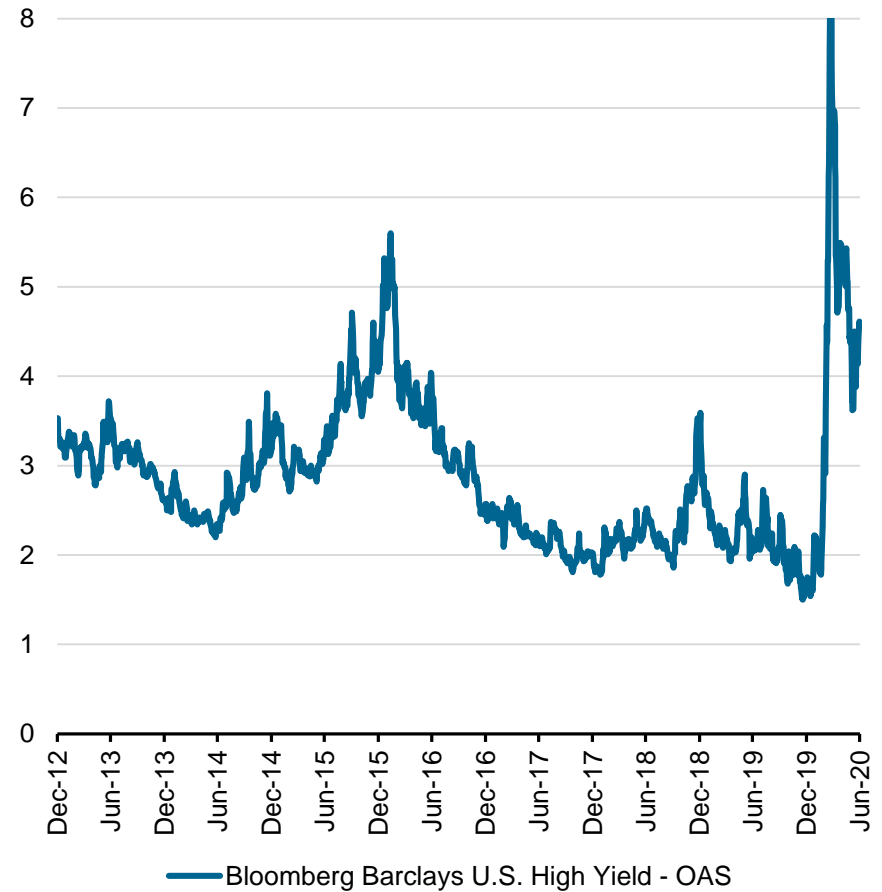
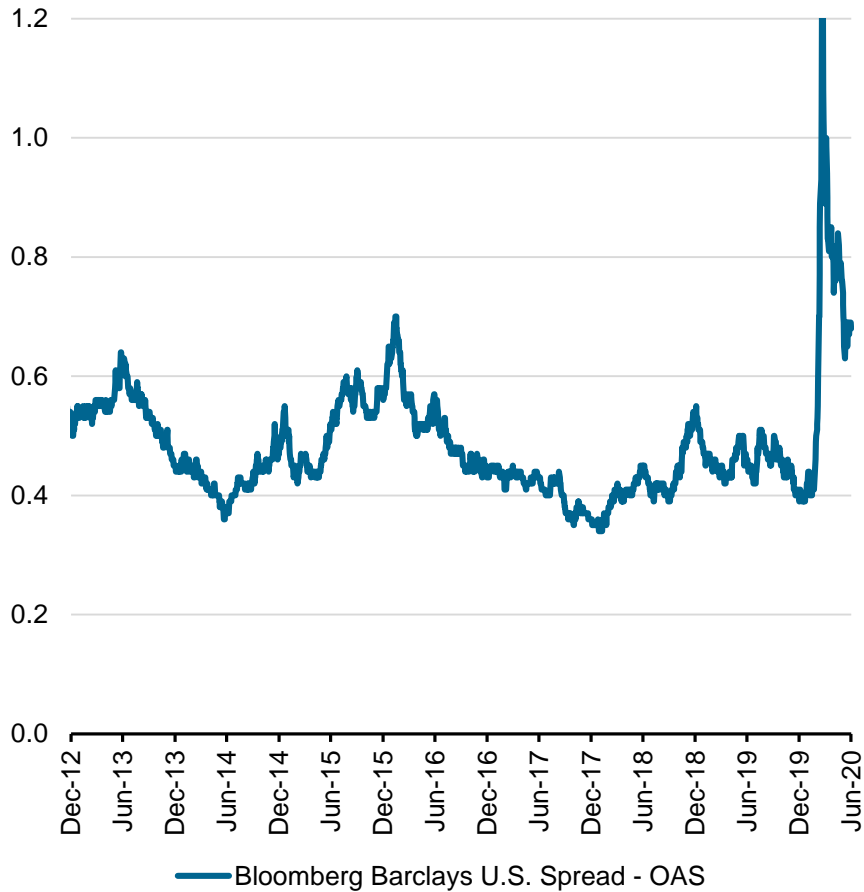


Source : Tullett Prebon Information, JP Morgan Chase, FactSet. As of 6/30/2020.



U.S. Fixed Income Spreads

Credit spreads narrowed in the 2nd quarter on the back of monetary and fiscal stimulus, better economic data, and earnings recovery expectations.



Source : Tullett Prebon Information, JP Morgan Chase, FactSet. As of 6/30/2020.

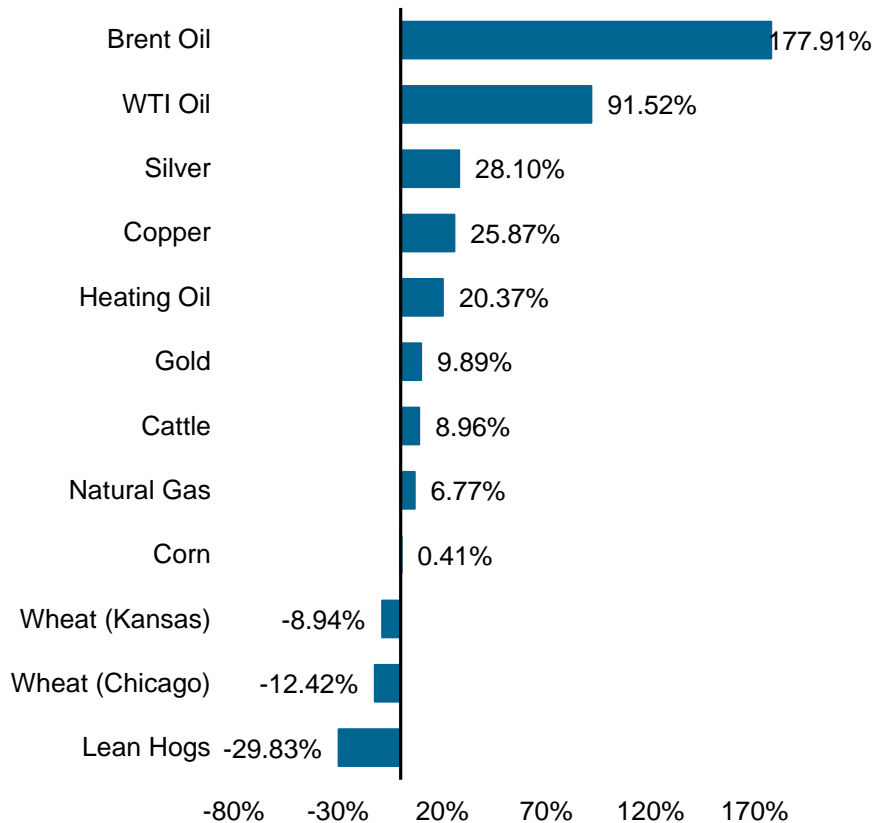


Commodities & Currencies

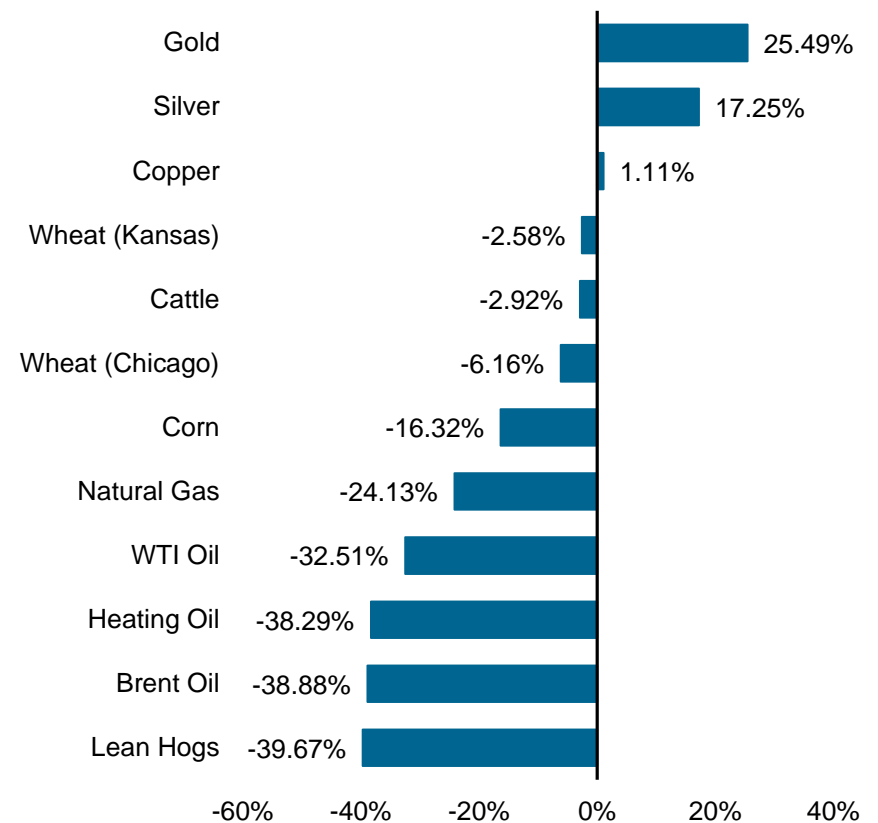


Commodities

2nd Quarter Spot Price Return



Last 12 Months Spot Price Returns

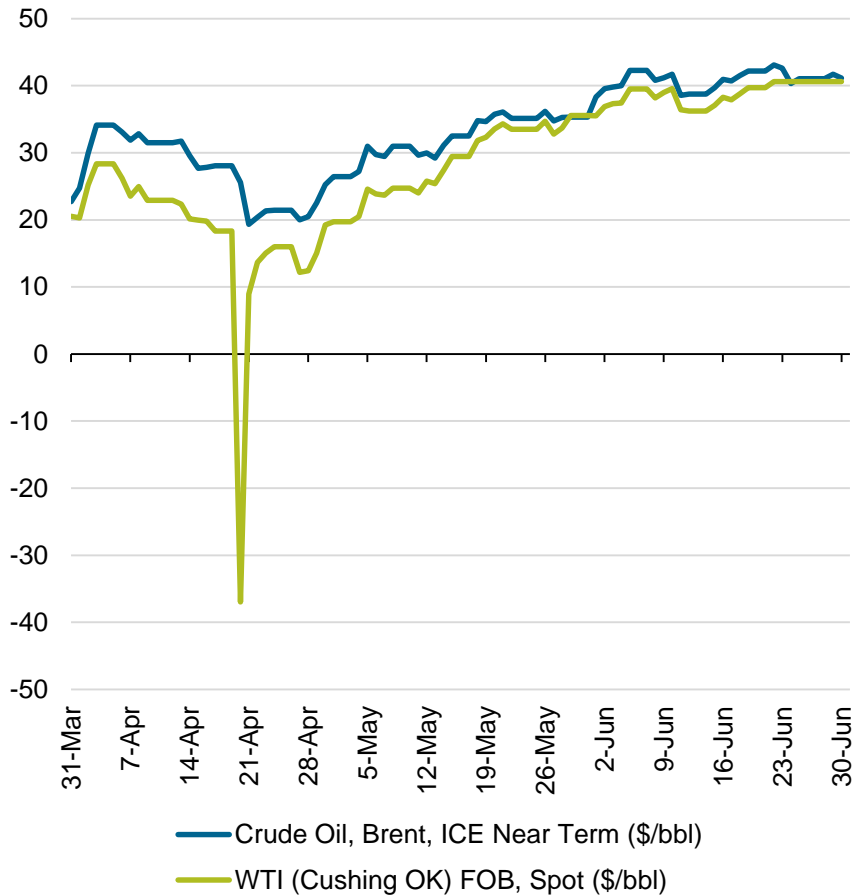
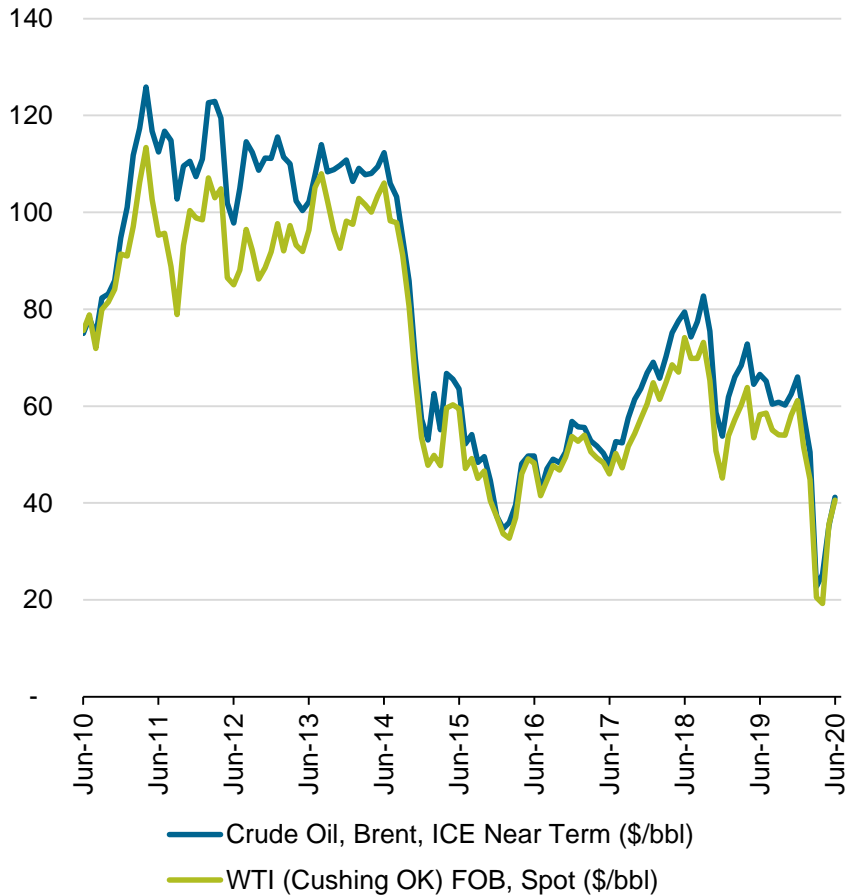


Source : Commodity Research Bureau, U.S. Department of Agriculture, NYMEX, Dow Jones & Company, CME Group, London Metal Exchange, FactSet. As of 6/30/2020.



Crude Oil

The Cushing spot price for crude oil fell to an unprecedented negative price in mid-April, due to the combination of an unprecedented falloff in demand, mineral lease contracts that obligated lessors to keep pumping, and limits on the capacity of storage facilities in Cushing, Oklahoma and on downstream.

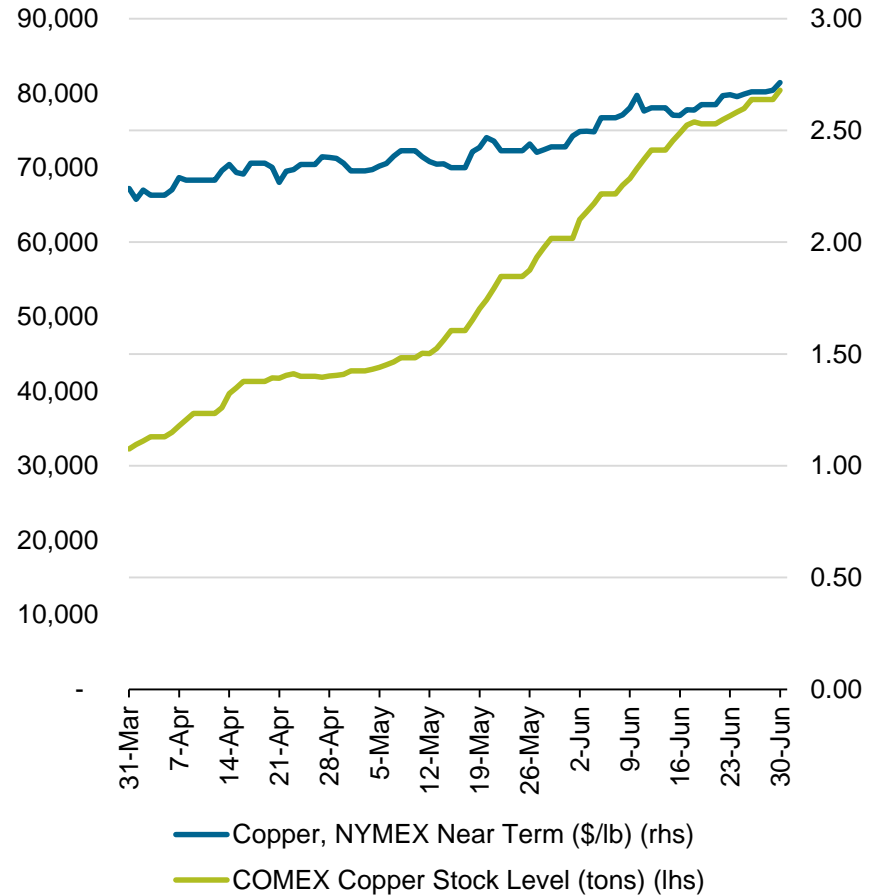
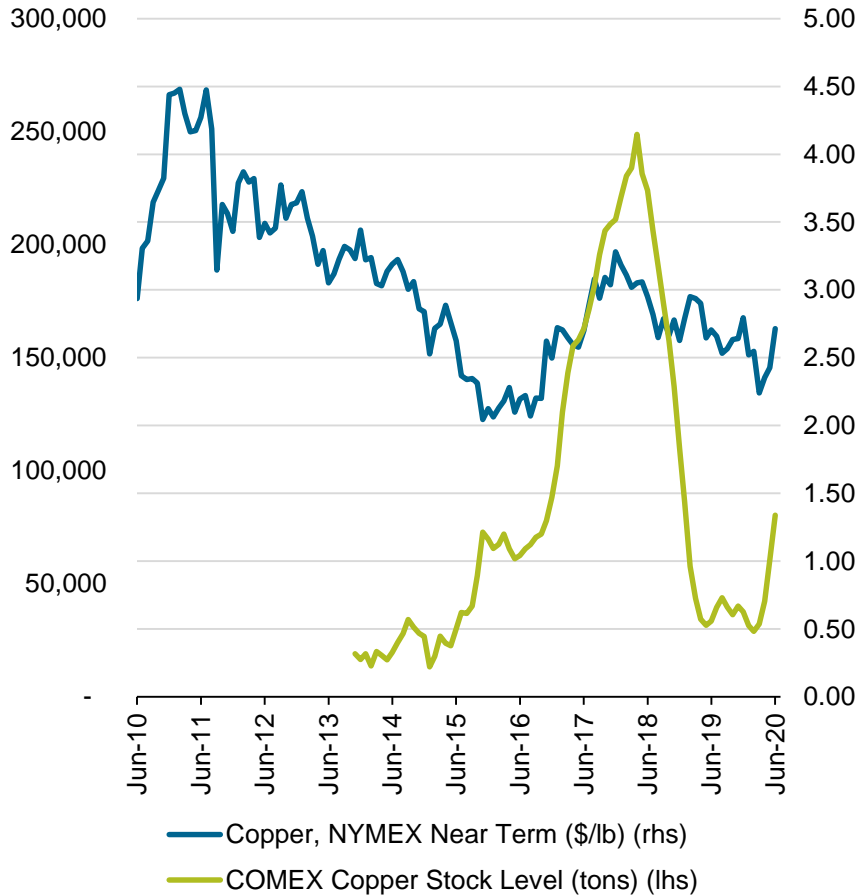


Source : FactSet. As of 6/30/2020.



Copper

Often considered a leading economic indicator, copper prices and inventory made recent peaks in January of 2018. Inventories fell sharply throughout 2019 as production lagged demand, but with China's COVID-19-induced economic slowdown, copper production has managed to exceed demand, and stocks are accumulating again.

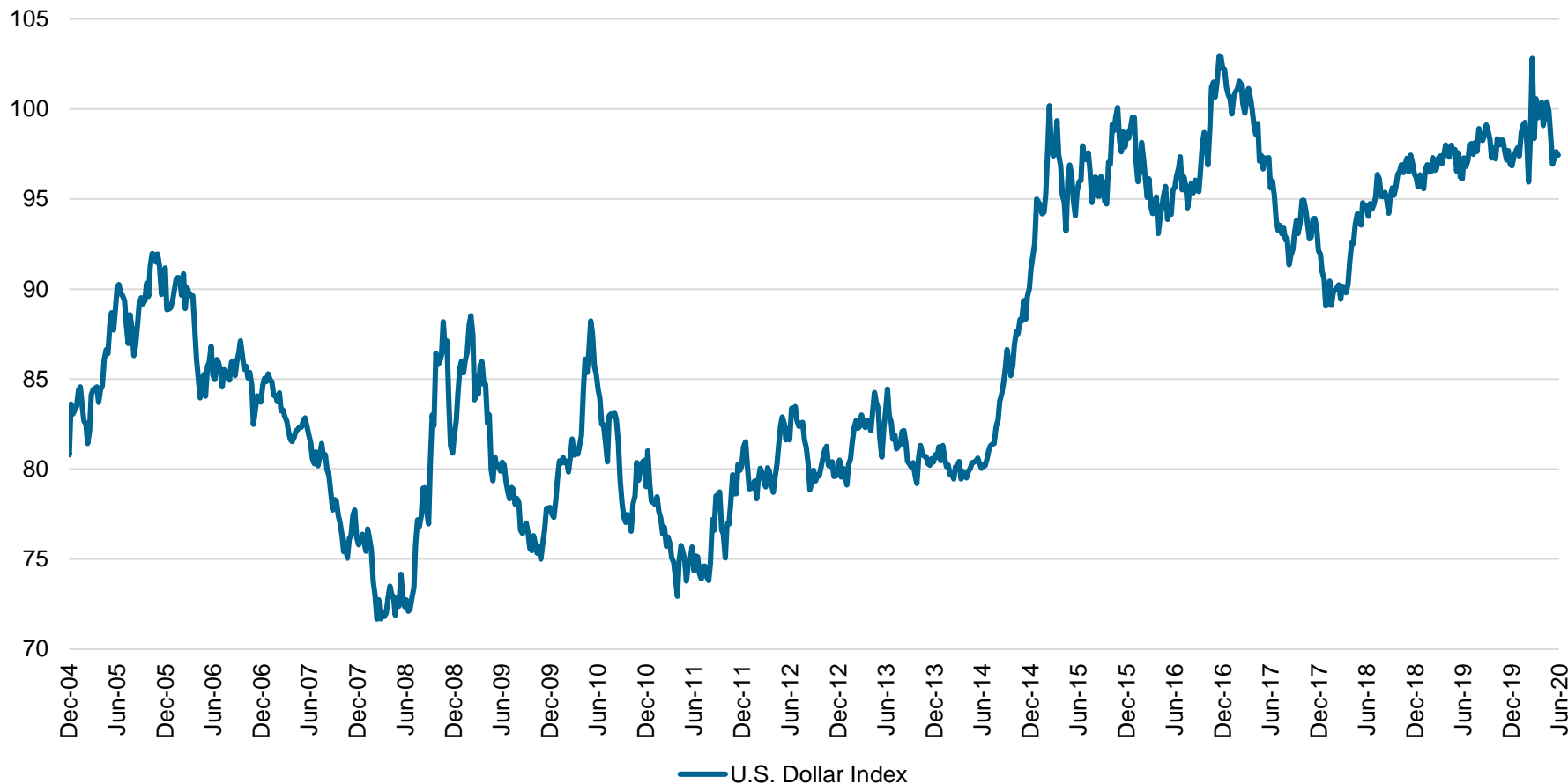


Source : FactSet. As of 6/30/2020.



U.S. Dollar

At the end of the 1st quarter the dollar surged against other currencies as investors liquidated global stocks and bonds. However, as the Fed expanded its dollar liquidity operations and cut interest rates to 0, the dollar has come down relative to other currencies.



Source: Reuters, Factset. As of 6/30/2020.



Traditional Safe Havens

Gold and U.S. Treasury Bonds finished higher in the 2nd quarter as uncertainty created by the coronavirus pandemic caused investors to seek safe-haven investments.



Source : NYMEX, Bloomberg, FactSet. As of 6/30/2020.

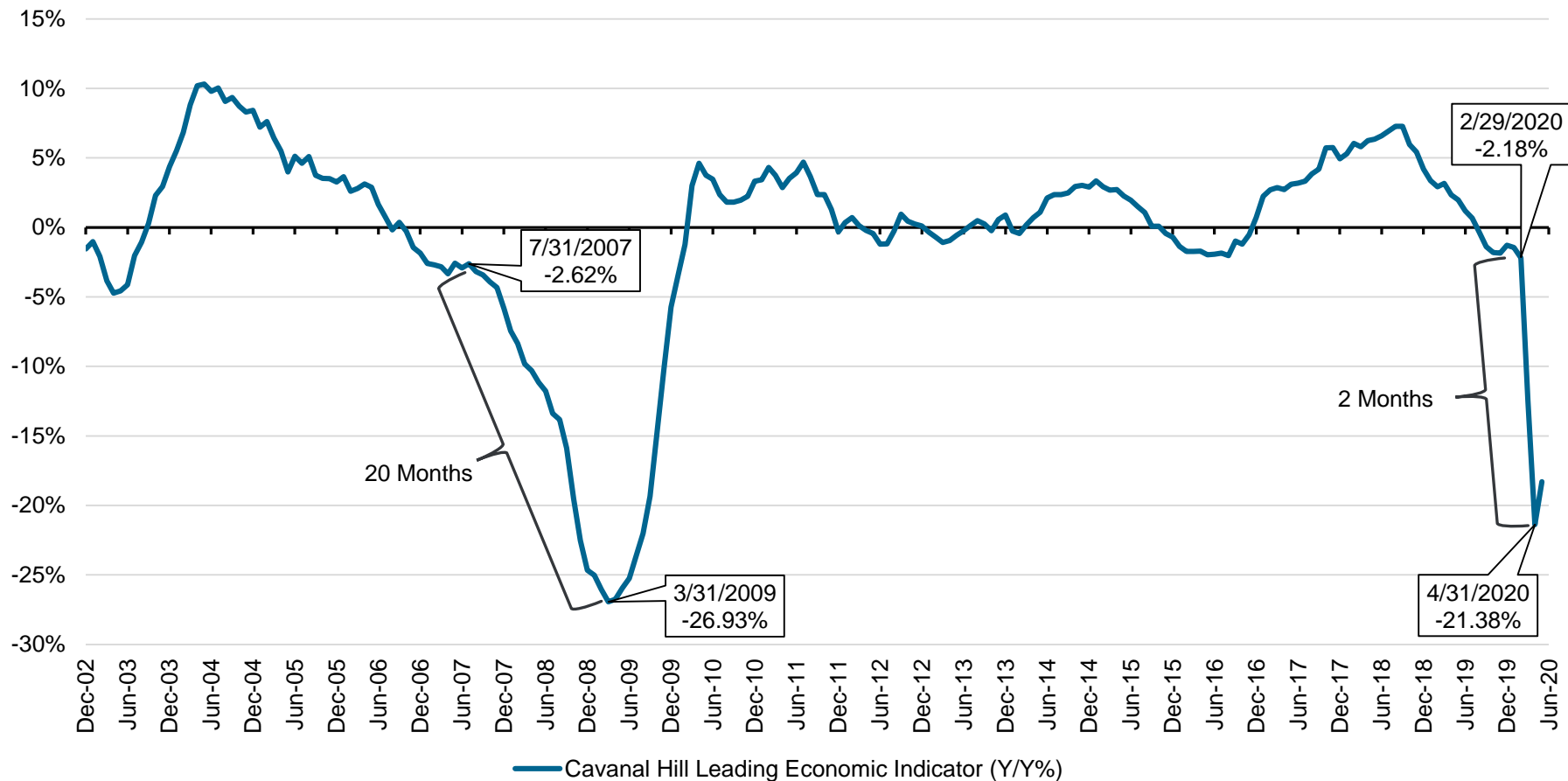


Quantitative Insights



Cavalan Hill Leading Economic Indicator

The magnitude of COVID-19's negative impact is similar in size to the disruption of the Great Financial Crisis. However, the Great Financial Crisis evolved organically over many months as economic conditions gradually degraded. The recent COVID-19 collapse was a full order of magnitude faster, giving investors little time to react.



Source : Cavalan Hill, Bloomberg. As of 5/31/2020. ²See appendix for indicator description.



U.S. Regional Indicators

Regional PMI's all suffered serious negative consequences from the COVID-19 crisis. There has been some improvement from April to May; but, all nine indicators are still currently signaling contraction and are lower compared to a year ago (the Austin PMI has not been reported since November of 2019).

Survey/Index	Latest Reading	Implication	YoY Change	Comparison
Empire State Manufacturing Survey	-48.5	Contraction	-62.9	Worse
Philadelphia Fed Manufacturing Survey	-43.1	Contraction	-60.6	Worse
Richmond Manufacturing Index	-27.0	Contraction	-34.0	Worse
Kansas City Fed Composite Index	-19.0	Contraction	-22.0	Worse
Dallas Fed Manufacturing Survey	-49.2	Contraction	-44.1	Worse
Chicago PMI Business Barometer Index	32.3	Contraction	-20.5	Worse
Houston PMI Index	40.2	Contraction	-12.5	Worse
ISM New York Diffusion Index	19.5	Contraction	-29.1	Worse
ISM Milwaukee Survey	35.7	Contraction	-19.3	Worse

0 of 9 indicators are in expansion.

9 of 9 indicators are in contraction.

5 of 9 indicators have seen recent improvement.

4 of 9 indicators have seen recent declines.

0 of 9 indicators are higher year-over-year.

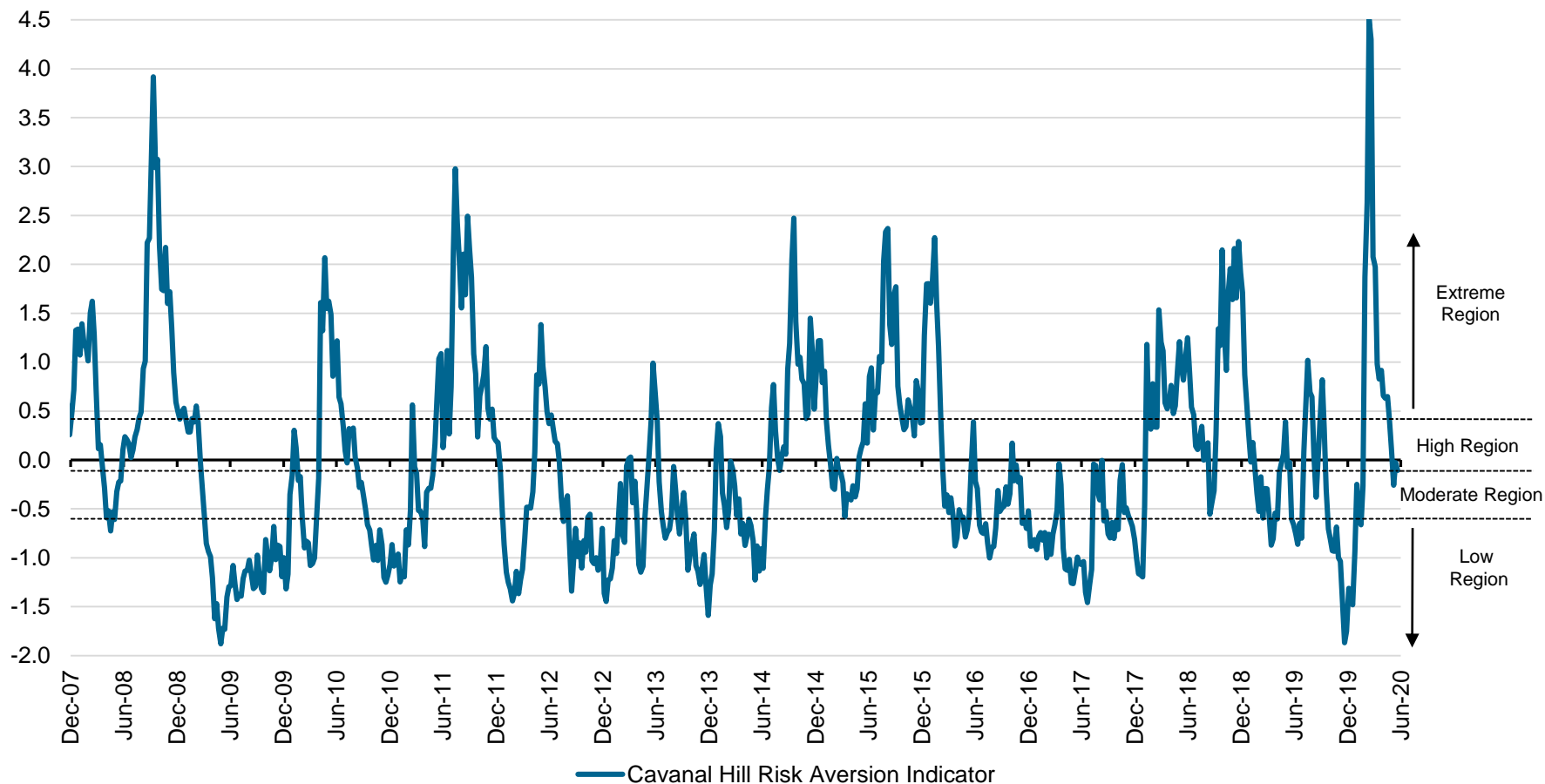
9 of 9 indicators are lower year-over-year.

Source : US Federal Reserve, MNI/Deutsche Borse Group, Institute for Supply Management, NAPM, FactSet. As of 5/31/2020. ⁵See appendix for data availability.



Cavalan Hill Risk Aversion Indicator

Cavalan Hill's proprietary blend of risk aversion indicators spiked as the COVID-19 crisis took hold but it collapsed almost as quickly in the face of government stimulus and support, positive medical news, and businesses reopening. While it has come down considerably, it is still in the moderate to high range from a historical perspective.

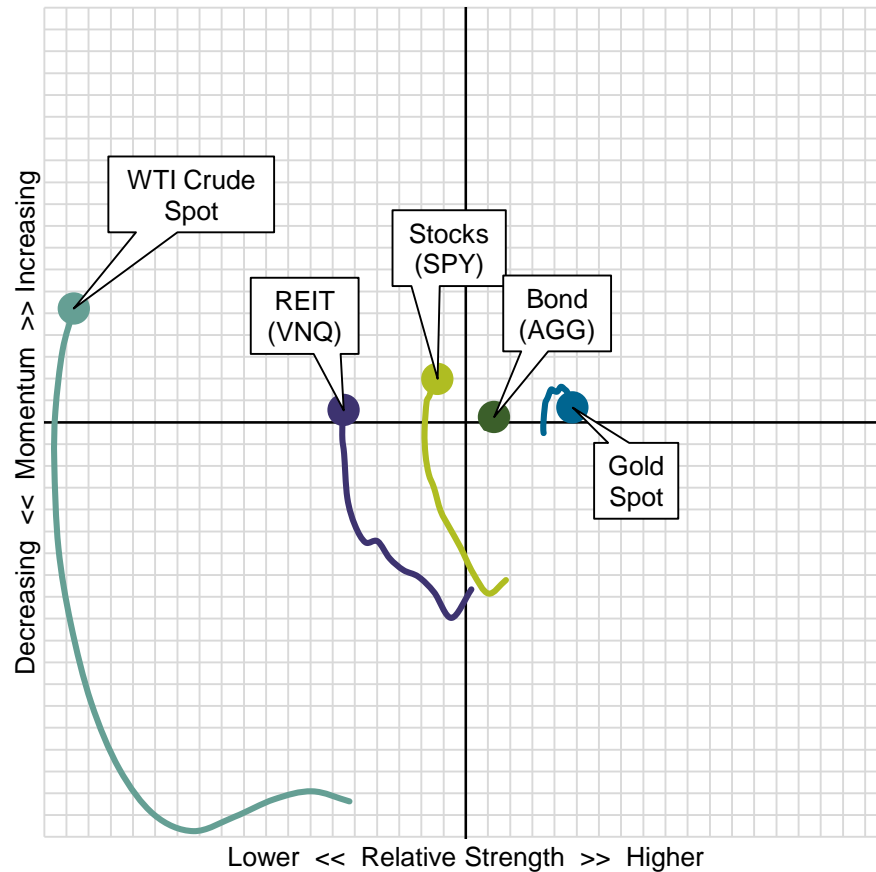


Source : Cavalan Hill, Bloomberg. As of 6/19/2020. ³See appendix for indicator description.



Relative Strength – Asset Class

Relative to cash, gold and fixed income generally maintained positive momentum, while other asset classes began to ascend rapidly from a very deep hole during the final week of the first quarter.

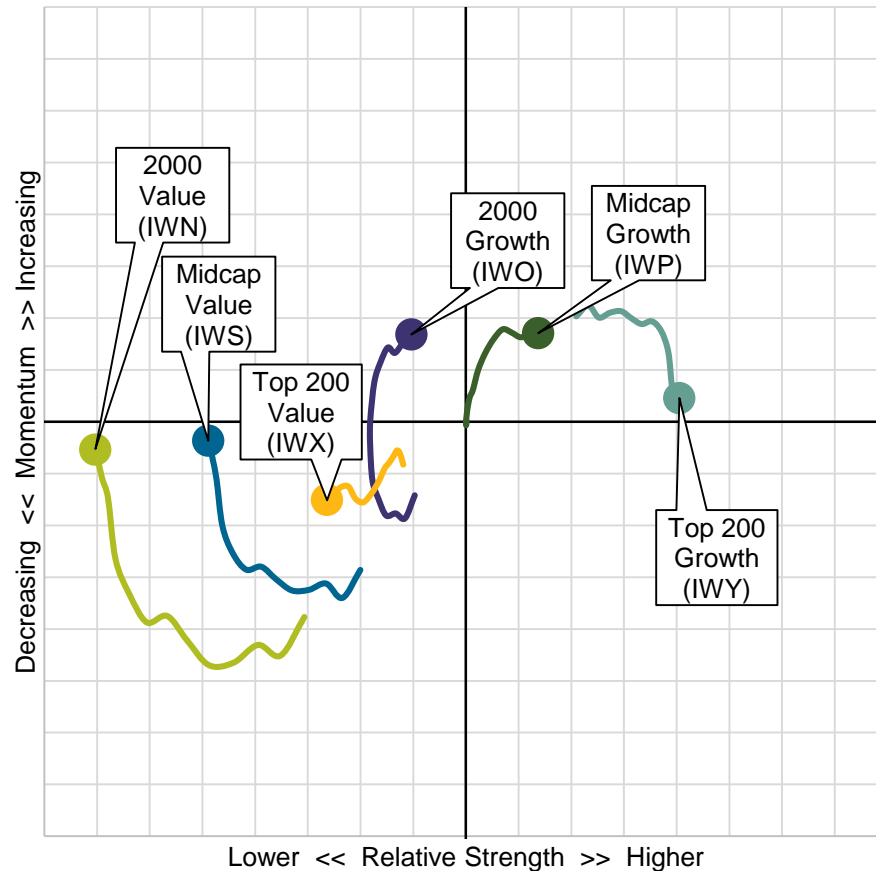


Select ETFs vs cash (USD). Source : Cavanal Hill, iShares, Vanguard, State Street, FactSet. Thirteen weeks ended 6/26/2020. ²See appendix for indicator description.



Relative Strength – Size and Style

The stimulus-induced “Dash for Trash”, an improved outlook for the energy sector, and perhaps excessive exuberance about the economic recovery, has led the momentum of mid- and small-cap value stocks much closer to parity with growth stocks, which have enjoyed fairly consistent relative strength in recent years.

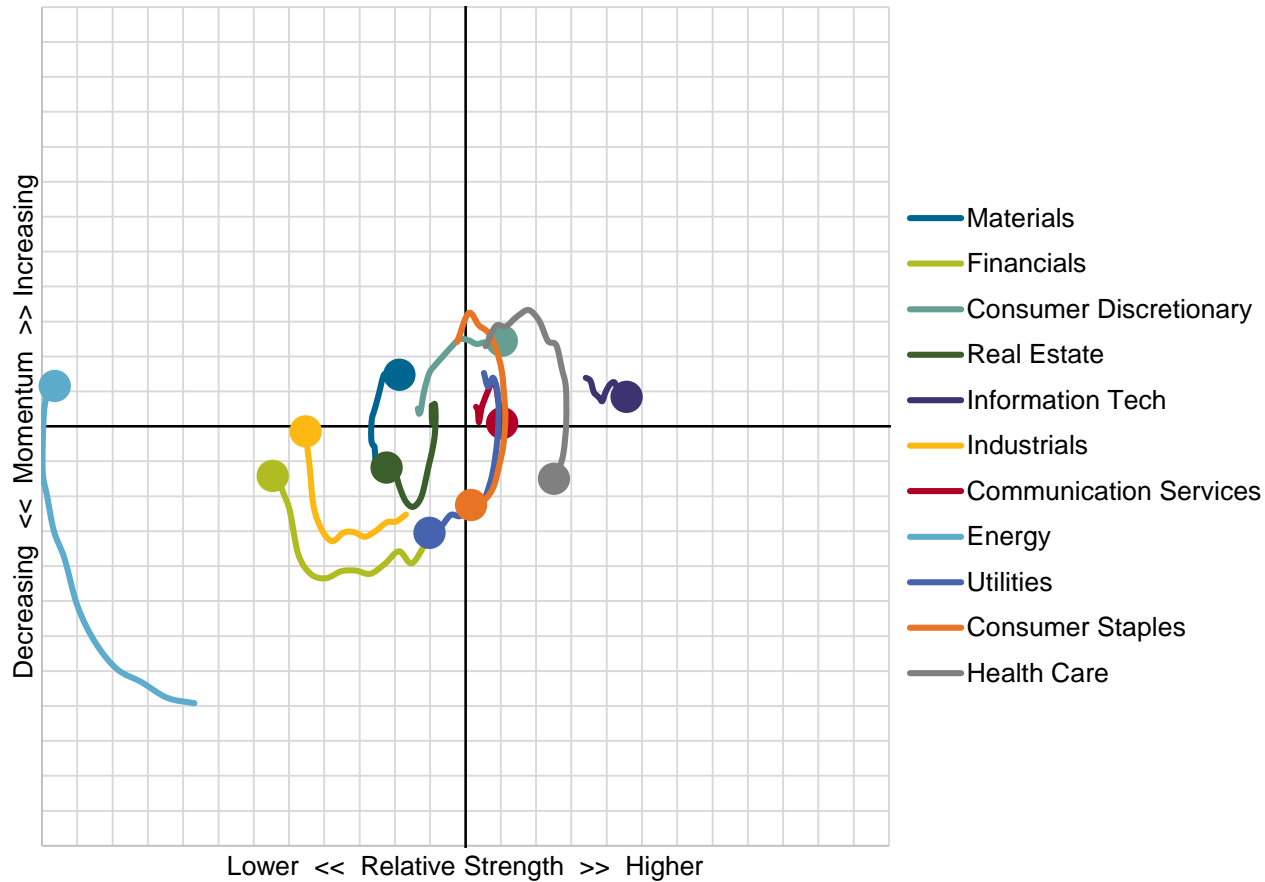


Select ETFs vs the iShares Russell 1000 ETF. Source : Cavanal Hill, iShares, FactSet. Thirteen weeks ended 6/26/2020. ²See appendix for indicator description.



Relative Strength – Sectors

Within U.S. large caps, the tech sector maintained its typical leadership position, with communication services also in the prime quadrant throughout the quarter. Defensive sectors like healthcare, staples, and utilities came and went, falling back from their first quarter positions, while other sectors show signs of bottoming.



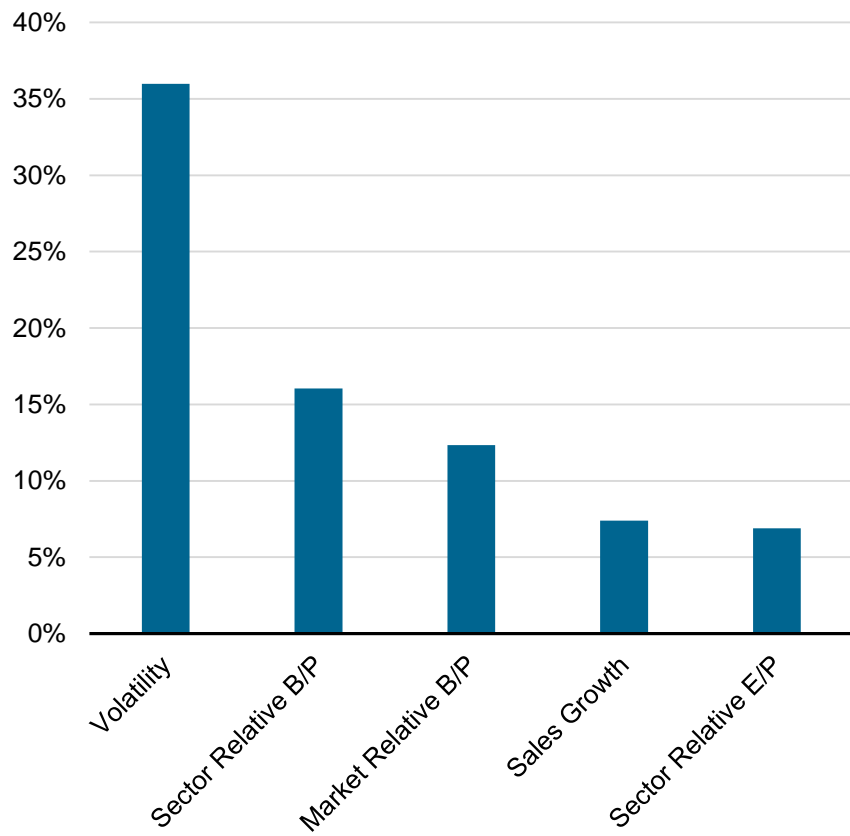
Select ETFs vs the State Street SPDR S&P 500 Trust ETF (SPY). Source : Cavanal Hill, iShares, FactSet. Thirteen weeks ended 6/26/2020. ²See appendix for indicator description.



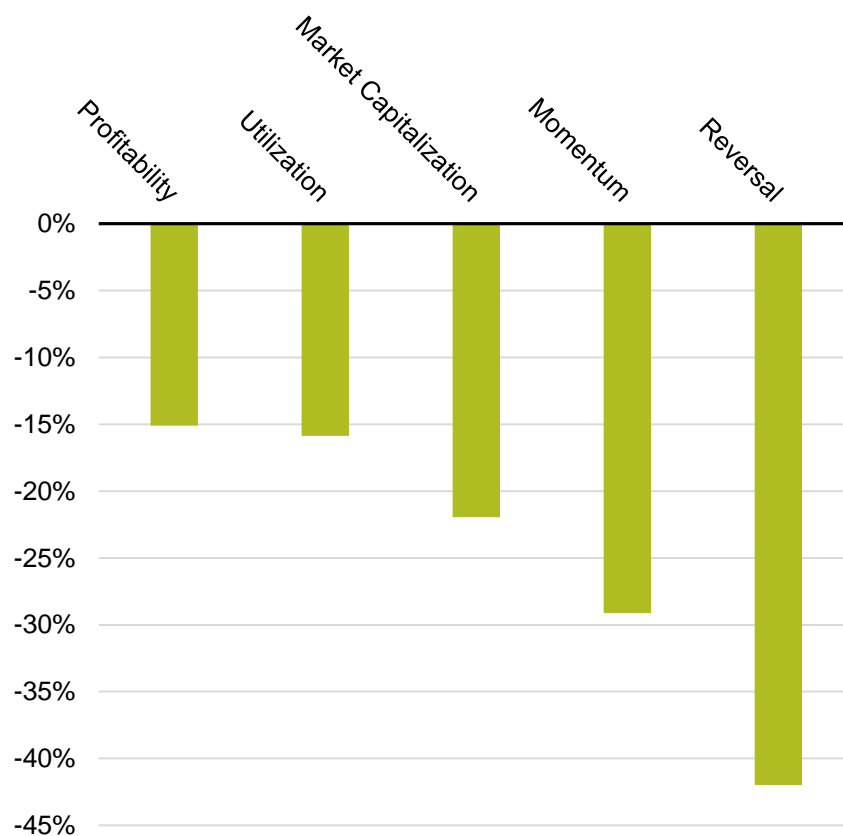
Q2-2020 Russell 1000® Factor Returns

Defensive traits performed well in Q1 but Q2 was a very different story. Large stimulus measures, a very supportive Federal Reserve, positive news on potential treatments and vaccines for COVID-19, and relaxation of lock-down policies caused investors to buy the riskiest, most levered, value stocks available and sell off safer themes.

Top 5 Factor Returns



Bottom 5 Factor Returns



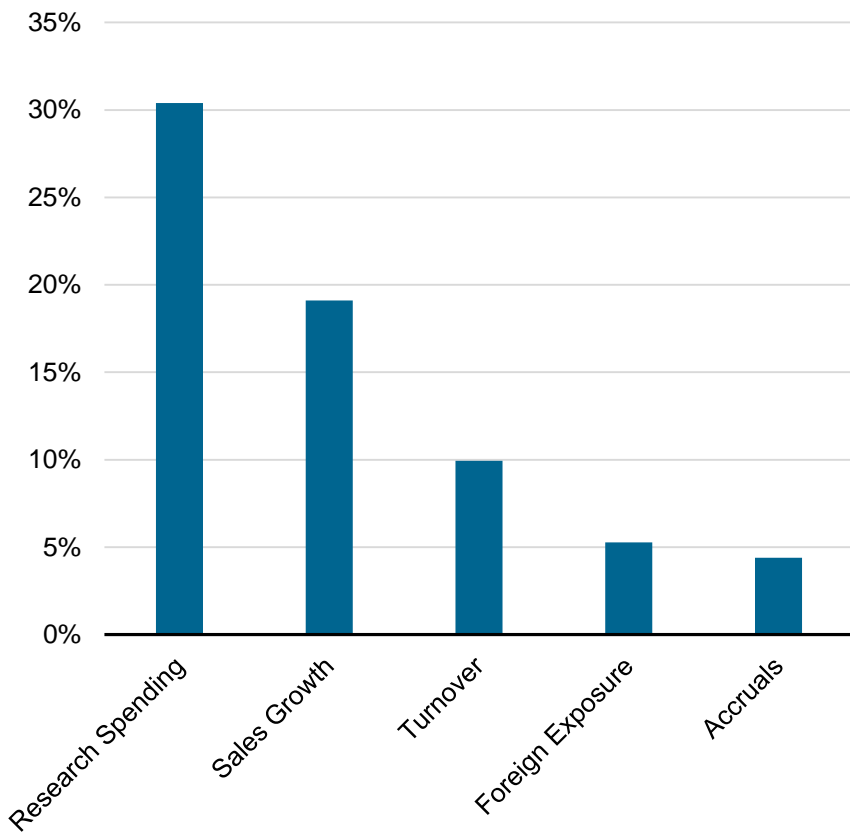
Source : Cavanal Hill, S&P Global, FTSE Russell, FactSet. Factor returns cover the period from 3/27/2020 to 6/26/2020. *See appendix for factor descriptions.



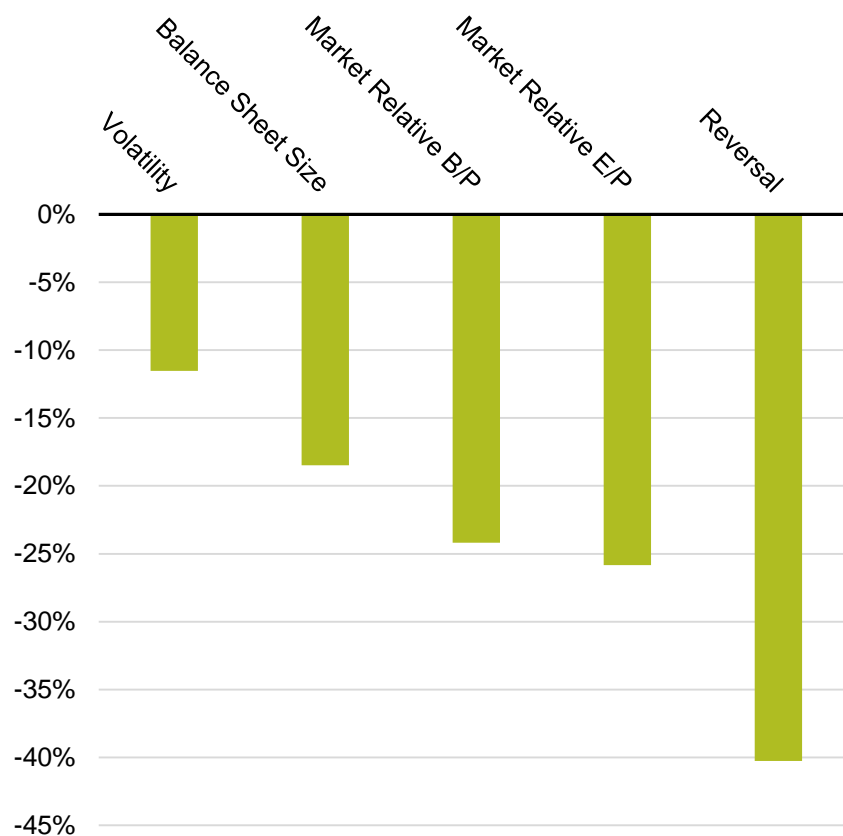
Trailing 12 Month Russell 1000[®] Factor Returns

Technology companies and companies with higher sales growth have provided the highest performance over the prior 12 months. Riskier, smaller, value companies have underperformed.

Top 5 Factor Returns



Bottom 5 Factor Returns

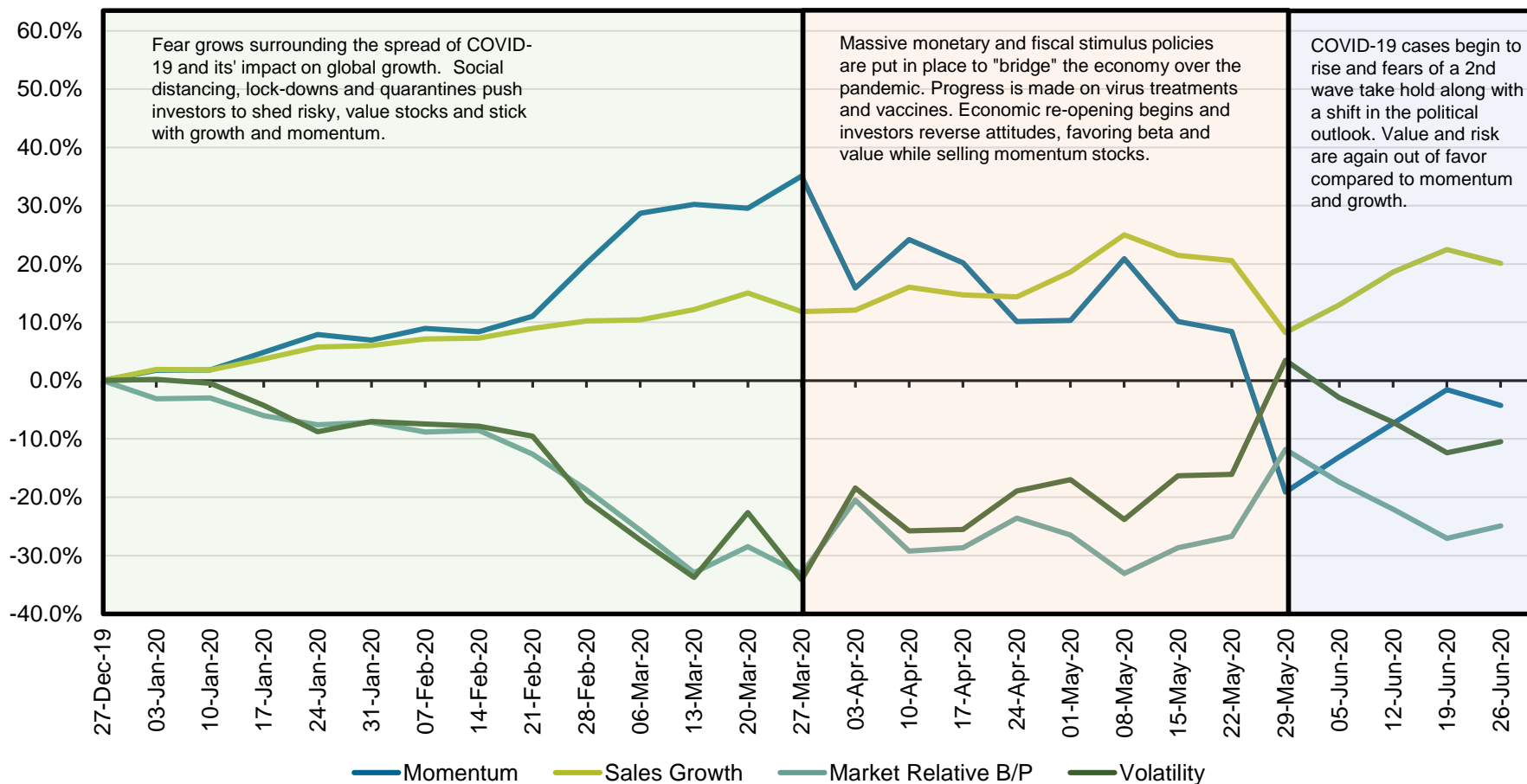


Source : Cavanal Hill, S&P Global, FTSE Russell, FactSet. Factor returns cover the period from 6/28/2019 to 6/26/2020. *See appendix for factor descriptions.



COVID-19 Impacts on Factor Return Volatility

2020 has seen markets heavily influenced by exogenous influences. The initial response to COVID-19 was for investor risk aversion to spike upwards and for them to seek out safer, defensive investments. The government's massive response and re-opening turned that strategy on its' head, however, as high-risk areas rebounded sharply.



Source : Cavanal Hill, S&P Global, FTSE Russell, FactSet. Factor returns cover the period from 12/27/2019 to 6/26/2020. *See appendix for factor descriptions.



Appendix



¹Appendix : Asset Class & Equity Style Benchmarks

Asset Class & Equity Style	Benchmark
U.S. Large Cap	S&P 500
U.S. Small Cap	Russell 2000
Int'l Developed Equity	MSCI EAFE
Int'l Emerging Markets	MSCI EM
Commodities	S&P GSCI
U.S. Fixed Income	Barclays U.S. Aggregate
Global Fixed Income	Barclays Global Aggregate
Global Fixed Income ex. U.S.	Barclays Global Aggregate ex. U.S.
Global High Yield	Barclays Global High Yield
U.S. REITs	FTSE NAREIT All Equity REITs
Cash & Cash Equivalents	Barclays 3-Month T-Bill
Large Value	Russell 1000 Value
Large Core	Russell 1000
Large Growth	Russell 1000 Growth
Mid Value	Russell Midcap Value
Mid Core	Russell MidCap
Mid Growth	Russell Midcap Growth
Small Value	Russell 2000 Value
Small Core	Russell 2000
Small Growth	Russell 2000 Growth



2 Appendix : Cavanal Hill Leading Economic Indicator & RSI

The **Cavanal Hill Leading Economic Indicator** is a proprietary model that the Cavanal Hill Quantitative Group uses in making macroeconomic assessments and forecasts. It is a dynamically weighted combination of the following data items:

Data Item	Source
10 Year Breakeven	Bloomberg
Capacity Utilization	US Federal Reserve
Conference Board LEI	Conference Board
Consumer Sentiment	Conference Board
ECRI LEI	Economic Cycle Research Institute
Existing Home Sales	National Association of Realtors
Industrial Production	US Federal Reserve
ISM Manufacturing	Institute for Supply Management
ISM Manufacturing New Orders	Institute for Supply Management
ISM Services	Institute for Supply Management
ISM Services New Orders	Institute for Supply Management
Jobless Claims	US Dept. of Labor
Multi Housing Permits	US Census Bureau
Real Retail Sales	US Census Bureau
Retail Sales ex Autos	US Census Bureau
Single Housing Permits	US Census Bureau
Small Business Optimism	NFIB
Temp Payrolls	US Dept. of Labor

The **Cavanal Hill Relative Strength Indicator** is a proprietary model that uses price returns of different segments or sectors to measure that subset's performance history relative to a benchmark. By including multiple subsets, performance trends can be compared to analyze which segments have gained or lost momentum and which ones may be falling in or out of favor.



3 Appendix : Cavanal Hill Risk Aversion Indicator

The **Cavanal Hill Risk Aversion Indicator** is a proprietary model that the Cavanal Hill Quantitative Group uses to assess how markets are pricing risk and the potential impacts of shifts in risk aversion. It is a dynamically weighted combination of the following data items:

Data Item	Source
AA/AAA Yield Spread Over Treasuries	Moody's, Bloomberg
Ba/B Yield Spread Over Treasuries	Bloomberg
Baa Yield Spread Over Treasuries	Bloomberg
BBB Yield Spread Over Treasuries	Bloomberg
St. Louis Federal Reserve Bank Financial Stress Index	US Federal Reserve, Bloomberg
Euro Area Systematic Stress Indicator Composite Index	ECB, Bloomberg
Euro Stoxx 50 Volatility Index	Deutsche Borse, Goldman Sachs, Bloomberg
Euro/US Dollar Exchange Rate	Bloomberg
Europe 5Y Generic Corporate CDS Spread	Markit, Bloomberg
Global Financial Stress Index	BOA Merrill Lynch, Bloomberg
Japan 5Y Generic Corporate CDS Spread	Markit, Bloomberg
Japanese Yen/US Dollar Exchange Rate	Bloomberg
KOSPI 200 Volatility Index	Bloomberg
S&P 500 Index P/E	Bloomberg
South Korean Won/US Dollar Exchange Rate	Bloomberg
SPX Volatility Index (VIX)	CBOE, Bloomberg
Swiss Franc/US Dollar Exchange Rate	Bloomberg
US 5Y Generic Corporate CDS Spread	Markit, Bloomberg
US Dollar Index	Bloomberg
Volatility Index Japan	CSFI-Osaka Univ., Bloomberg
Westpac Japan Financial Stress Index	Westpac Strategy Group, Bloomberg



4 Appendix : Cavanal Hill Factor Returns

Cavanal Hill Factor Returns are built using the proprietary factor definitions that the Cavanal Hill Quantitative Group uses to assess market trends and construct portfolios. Raw data is provided by S&P Global and the factors are constructed and tested using the FactSet Alpha Testing tool. Currently, there are 20 factors. The factor names and a short description of each are listed below.

Factor	Description
Accruals	Ranks according to how heavily a company relies on the use of accruals.
Debt Burden	Ranks according to leverage and/or interest burdens relative to income.
Earnings Growth	Ranks according to historical growth in earnings.
Market Relative E/P	Ranks according to the stock's E/P relative to the entire market.
Sector Relative E/P	Ranks according to the stock's E/P relative to its' sector peers.
Foreign Exposure	Ranks according to how much of a company's business is foreign or domestic.
Margin Expansion	Ranks according to historical growth in profit margins.
Momentum	Ranks according to stock performance over the prior 12 month period (excluding the most recent month).
Profitability	Ranks according to profit margins.
Reinvestment	Ranks according to capex spending relative to revenues.
Research Spending	Ranks according to R&D spending relative to revenues.
Reversal	Ranks according to stock performance over the prior 1 month.
Sales Growth	Ranks according to historical growth in sales/revenues.
Balance Sheet Size	Ranks according to total balance sheet assets.
Market Capitalization	Ranks according to total market capitalization.
Turnover	Ranks according to sales relative to total assests.
Utilization	Ranks according to margin growth relative to growth in other balance sheet items (e.g. debt, expenses, etc.)
Market Relative B/P	Ranks according to the stock's B/P relative to the entire market.
Sector Relative B/P	Ranks according to the stock's B/P relative to its' sector peers.
Volatility	Ranks according to stock price volatility.



5 Appendix : Data Updates

Data Item	Latest Date of Reported Data
Average Weekly Earnings	5/31/2020
CEO Confidence	3/31/2020
Chicago PMI Business Barometer Index	5/31/2020
Consumer Confidence	5/31/2020
Consumer Sentiment	5/31/2020
CPI	5/31/2020
CPI excl. Food and Energy	5/31/2020
Dallas Fed Manufacturing Survey	5/31/2020
Empire State Manufacturing Survey	5/31/2020
Existing Home Sales	5/31/2020
Households Debt Service/Income Ratio	5/31/2020
Housing Affordability	3/31/2020
Housing Starts	5/31/2020
Houston PMI Index	5/31/2020
ISM Milwaukee Survey	4/30/2020
ISM New York Diffusion Index	5/31/2020
Kansas City Fed Composite Index	5/31/2020
Median Home Selling Price	5/31/2020
NFIB Hiring Plans	5/31/2020
PCE	5/31/2020
PCE excl. Food and Energy	5/31/2020
Personal Saving/Disposable Personal Income Ratio	5/31/2020
Philadelphia Fed Manufacturing Survey	5/31/2020
Private Firing (JOLTS)	4/30/2020
Private Hiring (JOLTS)	4/30/2020
Private Quits (JOLTS)	4/30/2020
Richmond Manufacturing Index	5/31/2020
Single Family Housing Building Permits	5/31/2020
Small Business Optimism	5/31/2020
U.S. Unemployment (U-3)	5/31/2020
U.S. Unemployment (U-6)	5/31/2020



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