02

Economic & Market Review
Second Quarter 2020



Economic Review

Second Quarter 2020



US Showing Hints of Recovery but Concerns Remain

February marked the end of the longest economic expansion in US history, at 128 months. Reflecting the plunge in activity during the final weeks of March, **the economy shrank 5.0% in the first quarter.** Expectations for second quarter GDP contraction are as dire as 20% or 30%, potentially the worst quarter on record.

Weekly initial jobless claims remain over 1 million but have been steadily decreasing. Employers added a total of 7.5 million jobs in May and June after shedding 21 million jobs in March and April. The unemployment rate dropped to 13.3% in May from 14.7% in April.

In a sign that parts of the economy may be turning a corner, **manufacturing activity jumped in June** to a reading of 52.6 (levels above 50 indicate growth), ending three straight months of contraction.

Consumer spending, which accounts for two-thirds of US economic activity, surged 8.2% in May as businesses began reopening. Spending was strong on motor vehicles, healthcare, restaurants, and hotels. Personal income, however, dropped by 4.2% and could be a drag on future consumption when unemployment benefits and government stimulus run out.

"Not Even Thinking About Thinking About Raising Rates" – Fed Chair, Jerome Powell

Despite May's better-than-expected unemployment report, the Fed highlighted the ongoing considerable risks to the US economy and that it could take years for the job market to recover.

As a result, the Fed signaled its intentions to keep the federal funds rate near zero through 2022. They will also continue Treasury and mortgage security purchases at \$80 billion and \$40 billion per month, respectively.

Updated Fed projections show an economic contraction this year of 6.5%. Officials expect the unemployment rate to decline to 9.3% by the end of the year from 13.3% in May.

Economic Review

Second Quarter 2020



Foreign Developed Economies Rattled by Lockdowns

The Euro area experienced its steepest contraction on record (-3.6%) in the first quarter, as lockdowns decimated household spending. Germany, France, and Italy, the Eurozone's largest contributors to GDP, all entered recession.

The European Central Bank (ECB) expects an economic contraction of 8.7% in 2020 and sees a slow pickup of inflation, averaging just 1.3% in 2022. The ECB responded by expanding its bond-buying program to €1.35 trillion, which is expected to run through mid-2021.

Japan's economy also succumbed to the effects of Covid-related restrictions in the first quarter (-0.6%), though to a lesser extent as the country has kept the spread of the virus somewhat in check for now.

Emerging Markets at Different Stages of Recovery

China was one of the first countries to emerge from lockdown and its economy appears to be gaining steam.

Consumption remains tepid but demand is picking up and manufacturing activity expanded in March, April, and May.

India is still struggling with the late arrival of Covid. The government first announced its lockdown on March 24, and while there are some green shoots of recovery, economic activity remains well behind levels from a year ago.

Brazil was hit hard by the pandemic and currently has the second-most reported virus-related deaths in the world. President Jair Bolsonaro, who downplayed the risks of the virus, recently tested positive himself. Brazil will likely require several quarters to recover from the impact, and the International Monetary Fund now expects a 9.1% contraction in its economy.

Market Review: Stocks

Second Quarter 2020



Stocks Rally on Massive Government Stimulus and Attempts to Reopen Economies Amid Pandemic

Markets staged a dramatic comeback in the second quarter despite massive economic dislocation amid the continued spread of Covid. Aggressive fiscal and monetary stimulus landed with intended effect and economies cautiously began reopening.

In the US, large cap stocks (S&P 500) soared 20.5% on the quarter. It was the index's best quarterly return in over two decades and put year-to-date losses for US stocks at a modest 3.1% through June. The sharp recovery caught many investors by surprise considering Covid cases continue to rise, unemployment is at historic levels, and many economic uncertainties remain.

Mid and small cap US stocks outperformed large caps on the quarter, rising 30.4%. They had more to recoup, however, and still lag large-caps year-to-date, having declined 6.0% in 2020.

The stock market's recovery was relatively robust, with all US sectors rising. Consumer discretionary (up 30.7%) and technology (up 30.5%) were the two best performing sectors. Tech stocks have been remarkably resilient in the face of the pandemic, with the sector up 15.0% year-to-date, continuing a multi-year trend of outperformance by the sector.

International developed stocks (up 15.1%) and emerging markets (up 18.2%) also staged recoveries but fell short of the surge seen in US equities. Year-to-date the discrepancy is even more pronounced, with developed stocks falling 11.1% and emerging markets down 9.7%. With the virus generally better contained abroad than at home, it will be interesting to see if international stocks can outperform for some period.

The market's rise coincided with a drop in volatility. The VIX volatility index started the quarter in the stratosphere (above 50) and ended at about 30. VIX is still about 50% above its historical average, which is understandable in light of the concurrent health and economic crises.

Returns for the Quarter (%)



Past performance is not a guarantee of future results. Returns for periods longer than one year are annualized. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Large Cap (S&P 500 Index), US Mid/Small Cap (Wilshire 4500 Completion Index), International Developed (MSCI Europe Australasia Far East Index), Emerging Markets (MSCI Emerging Markets Index), and Global Stocks (MSCI All Country World Index). Growth of \$1,000 chart market segmentations as follows: US Stocks (Wilshire 5000 Index) and Foreign Stocks (All Country World Index ex US)

Market Review: Bonds

Second Quarter 2020



Bonds Move Higher as the Fed Expands Asset Purchase Programs; Yields Test New Lows

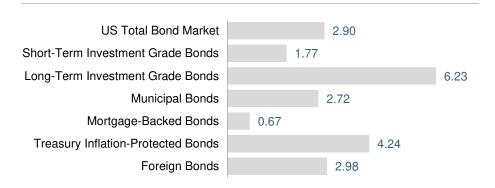
The Federal Reserve continued to provide unprecedented support and liquidity to bond markets in the second quarter, purchasing a laundry list of high-yield bonds, corporate bonds, Treasurys, municipals, and even exchange-traded bond funds (ETFs).

Bonds across the entire spectrum of credits and maturities benefited, with the widely tracked Bloomberg Barclays Aggregate Bond index rising 2.9%. For the year to date, US bonds are up 6.1%.

The 10-year US Treasury bond yield continued its nearly four-decade secular decline, finishing the quarter at 0.66%, down from 0.70% at the end of March. The 2- and 5-year Treasury yields also declined, although the 30-year yield moved slightly higher, from 1.35% in March to 1.41% at the end of June.

High yield bonds benefited most from the Fed's interventions, rising 10.2% in the second quarter. Not surprisingly, they were the worst performing bond sector in the first quarter and despite their Q2 rally are down 3.8% year-to-date. They remain higher risk investments since they stand to be the hardest hit from possible defaults and bankruptcies should the pandemic inflict additional economic damage.

Returns for the Quarter (%)



Period Returns (%)

*Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*
US Total Bond Market	6.14	8.74	5.32	4.30
Short-Term Investment Grade Bonds	3.98	5.43	3.49	2.63
Long-Term Investment Grade Bonds	12.82	18.91	10.32	8.98
Municipal Bonds	2.08	4.45	4.22	3.93
Mortgage-Backed Bonds	3.50	5.67	3.97	3.23
Treasury Inflation-Protected Bonds	6.01	8.28	5.05	3.75
Foreign Bonds	1.04	0.86	2.87	3.32

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Market Review: Alternatives

Second Quarter 2020



Gold Glitters as REITs, Energy, and Commodities Make Up Some Lost Ground

Gold is one of the few success stories of 2020 so far. The precious metal rose 12.4% in the second quarter and is up 18.7% on the year, making it one of the best performing asset classes during the pandemic. Investors often covet gold as a haven during turbulent times and view it as a hedge against inflation, which many see as a potential outgrowth of today's very expansive monetary policy.

REITs made up some ground on the quarter (up 11.7%), but still lag year-to-date (down 18.5%). Commercial and retail real estate remains under pressure as workers and consumers mostly stay home for an indeterminate period. The rapid growth in teleworking is likely causing businesses and employees to reimagine what the modern "office" might look like in the future.

Following a disastrous first quarter, oil prices and energy stocks pared losses in the second quarter but still have a long way to recover. Even with the price of crude oil nearly doubling from \$20 to \$40 a barrel and US energy stocks rising 32.1% on the period, the latter remains down 35.3% year-to-date. Likewise, commodities (up 5.1%) rose on the quarter, but have fallen on the year (down 19.4%). The situation is likely to remain volatile, given the uncertain economic toll of the pandemic.

Returns for the Quarter (%)



Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*
US Real Estate Investment Trusts	-18.45	-12.87	0.08	4.08
US Energy Stocks	-34.92	-35.52	-12.13	-9.14
Commodities	-19.40	-17.38	-6.14	-7.69
Gold	18.74	28.35	13.33	9.44

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Market Summary

Index Returns



	US Large Cap	US Mid/Small Cap	International Developed	Emerging Markets	US Bond Market	US Dollar	
Q2 2020	STOCKS				BONDS/I	BONDS/DOLLAR	
	20.54%	30.36%	15.08%	18.18%	2.90%	-1.60%	

Since Jan. 2001						
Avg. Quarterly Return	2.0%	2.7%	1.4%	2.6%	1.2%	0.4%
Best	20.5%	30.3%	25.8%	34.8%	4.6%	7.1%
Quarter	Q2 2020	Q2 2020	Q2 2009	Q2 2009	Q3 2001	Q1 2020
Worst	-21.9%	-27.9%	-22.7%	-27.6%	-3.0%	-5.8%
Quarter	Q4 2008	Q1 2020	Q1 2020	Q4 2008	Q4 2016	Q2 2009

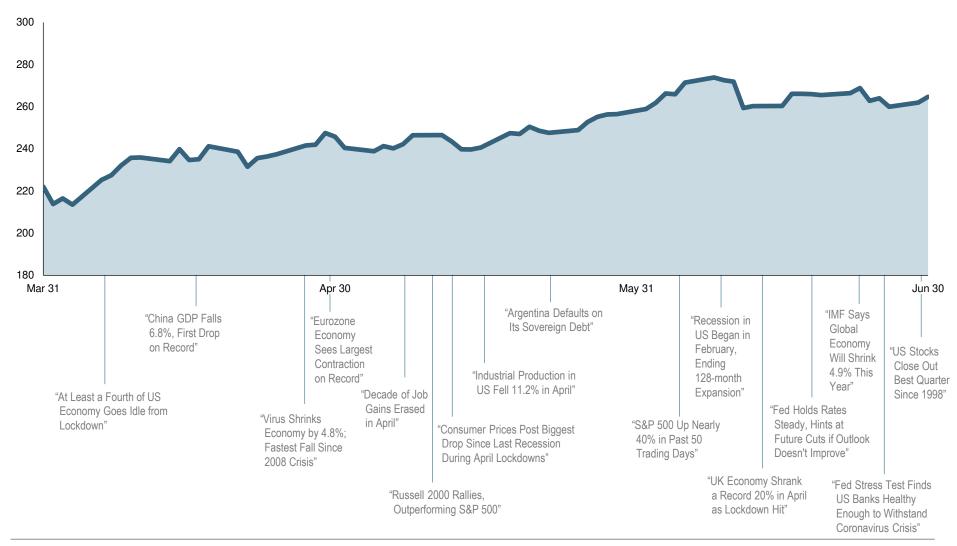
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Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg Barclays US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Barclays Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2020 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2020, all rights reserved. Bloomberg Barclays data provided by Bloomberg.



World Stock Market Performance

MSCI All Country World Index with selected headlines from Q2 2020



These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

U.S Economic Recessions

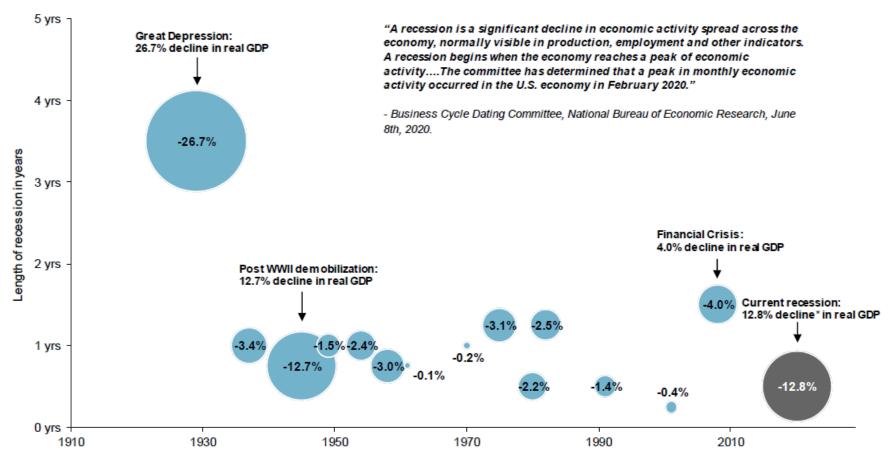
Second Quarter 2020



The chart below shows the duration (vertical axis) and severity (size of bubble) of economic contractions since the Great Depression. The current recession is forecast to be the second deepest after only the Great Depression and about three times the size of the 2007-2009 financial crisis. At present, the recession's ultimate duration is unknown and difficult to predict. But given its size, it's understandable that the US government has thrown unprecedented financial resources at the crisis.

The Great Depression and post-war recessions

Length and severity of recession



Source: JP Morgan Asset Management

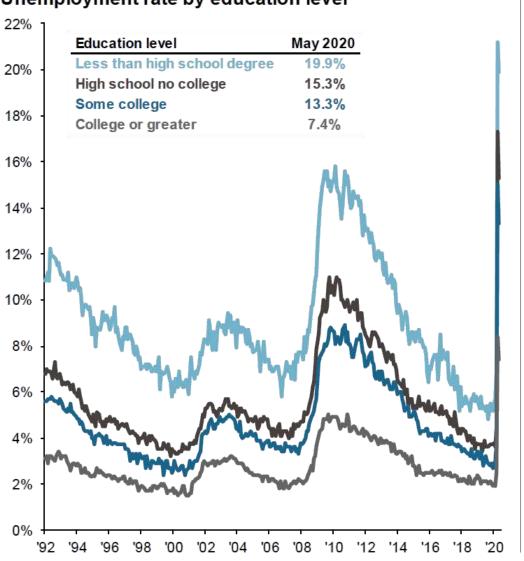
Bubble size reflects the severity of the recession, which is calculated as the decline in real GDP from the peak quarter to the trough quarter except in the case of the Great Depression, where it is calculated from the peak year (1929) to the trough year (1933), due to a lack of available quarterly data. *Current recession reflects JPMAM estimate of peak to trough decline for the recession beginning after February 2020 according to the NBER.

Employment by Educational Attainment

Second Quarter 2020



Unemployment rate by education level



The chart shows the difference in unemployment rate by level of education. The recent spike in unemployment disproportionately affected those with lower levels of education, in line with the long-term trend.

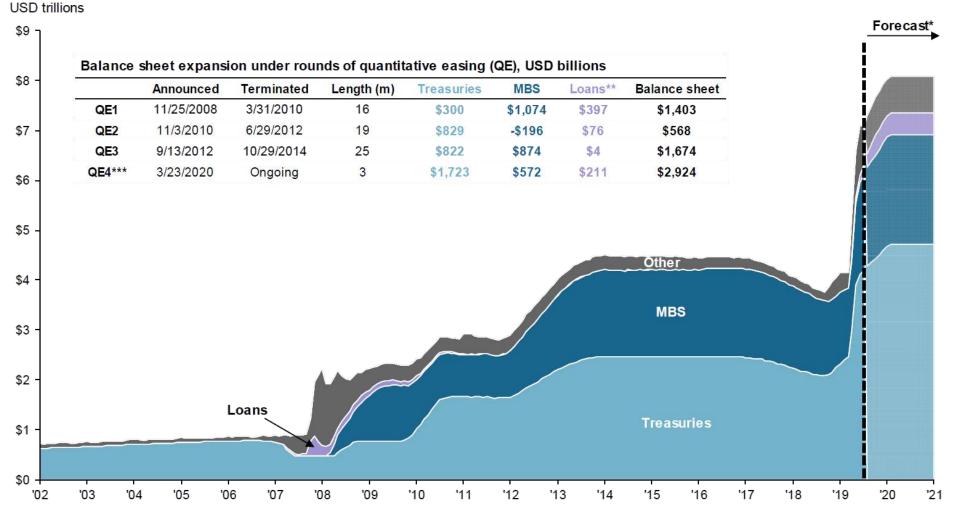
The Federal Reserve Balance Sheet



Second Quarter 2020

The chart below depicts the historical and projected balance sheet of the Federal Reserve, while the table shows the size and duration of the Fed's four rounds of quantitative easing (QE). The current round of stimulus is approaching the combined size of the previous three rounds in only the first three months of the program, illustrating the severity of the current economic crisis. So far, the Fed has purchased trillions of dollars of bonds, including government, municipal, corporate, and high yield debt. Longer term consequences are unknown, but much debated.

The Federal Reserve balance sheet



Source: JP Morgan Asset Management