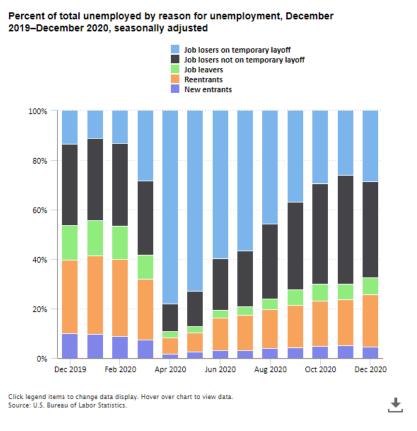
4Q20 Economic Update AgCountry Risk Department Brian Boll

The economic outlook continues to improve relative to the fallout caused by the COVID-19 pandemic. The administering of COVID-19 vaccines initiated in the fourth quarter of 2020 caused renewed optimism with much of this improvement likely already priced into the U.S. equity market.

Unemployment caused by COVID-19 shutdowns remains a focal point of the Federal Reserve and U.S. and state governments. As of January 8th, 2021, the U.S. unemployment rate remains at 6.7% or 10.7 million, which is twice the pre-pandemic rate of 3.5% but considerably better than the 14.8% in April of 2020 (BLS - Bureau of Labor Statistics). In December of 2020, 28.4% of the unemployed were on temporary layoff (return to work in six months) compared 77.9% in April of 2020. The concerning figure is permanent job losses consisted of 38.9% of all the unemployed in December and only 11.3% in April of 2020, according to the BLS. The chart below details unemployment from December 2019 to December 2020.

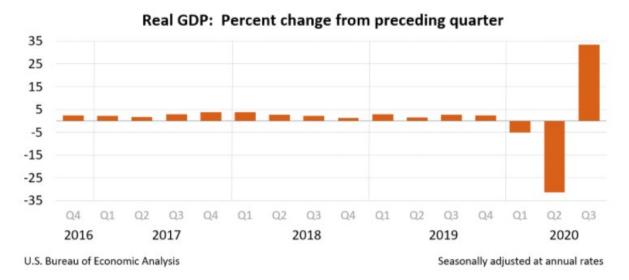


According to the Bureau of Economic Analysis, real U.S. gross domestic product (GDP) declined 5% in the first quarter, then declined another 31.7% in the second quarter and rebounded or improved 33.4% in the third quarter. Moody's Economics is forecasting annual GDP to decline 3.5% overall in 2020 and to rise 4.1% in 2021 with GDP returning to its pre-pandemic level in the third quarter of 2021. The Bloomberg consensus median real GDP estimate is 3.8% in 2021 and 3% in 2022. As COVID-19 pandemic

concerns begin to subside the question for many economists is whether the economic scaring is permanent damage or if it has only created pent-up demand.

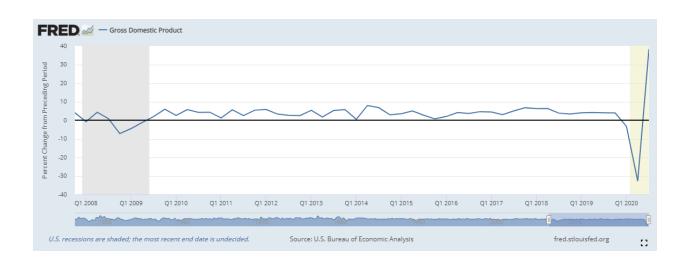
In the January 13th, 2021 Federal Reserve Beige Book highlights, the Minneapolis Federal Reserve (covering the Association's service area) notes that economic activity increased modestly:

"Hiring demand increased, but contacts said health risks and other obstacles kept some workers out of the labor force. Holiday spending was better than many feared, but below last year, especially for small retailers. Commercial construction slowed, and the outlook remained weak. Agricultural conditions improved due to increased commodity prices and government aid."



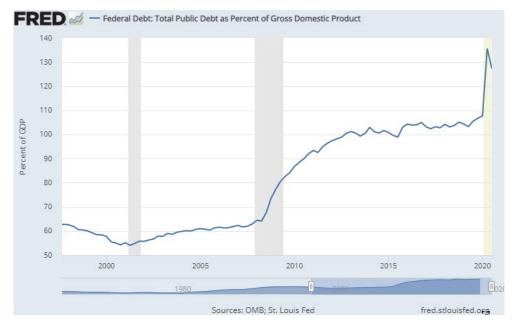
- This chart below from the Bureau of Economic Analysis shows quarter over quarter change in Real U.S. GDP. The large rebound in the third quarter improves market outlooks and estimated

for 2020 annualized GDP.



- The 2008 – 2009 recession highlight in gray above provides scale to the level of GDP decline witnessed in the second quarter of 2020.

In addition to monetary actions being taken, fiscal policy has also been swift with unprecedented economic stimulus approved in 2020. Lawmakers rapidly implemented three rounds of fiscal policy measures after the start of COVID-19 in the US. The cost of these measures was an estimated \$2.4 trillion, equal to approximately 13% of pre-crisis GDP (Moody's Economics). An additional relief package known as *The Coronavirus Response and Relief Supplemental Appropriations Act of 2021* was signed into law by President Trump on December 27, 2020. Within the Coronavirus Response and Relief Supplemental Appropriations Act was \$900 billion in COVID-19 pandemic relief. The \$900 billion is distributed amongst several areas with the largest portions allocated to small business via the Paycheck Protection Program (\$284B), \$166B in stimulus checks for those with adjusted gross incomes under \$75,000, and \$120B for an extension of increased federal unemployment benefits. The nation's budget deficit ballooned to more than \$3 trillion in 2020 and will be over \$2 trillion in fiscal year 2021 (Moody's Economics). The nation's debt-to-GDP ratio has surged to near 100% and soon will breach the all-time high of 106% just after World War II. (Moody's Economics)



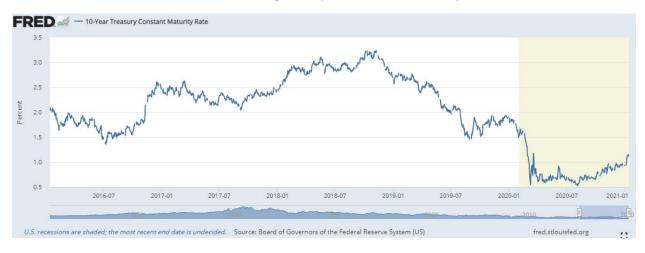
The Federal Reserve has responded to COVID-19 with a swift reduction in short-term rates and emergency credit facilities that were set to wind down by the end of 2020. The other emergency measures should remain in place for the most part through 2021, when the pandemic is expected to be diminishing. The Federal Reserve is expected to keep the Fed funds target at 0% to .25% in place until the economy is near full employment and inflation is firmly above the Fed's 2% inflation target. Fed funds are expected to remain low until late 2023.

During the January 8th speech by Federal Reserve Board of Governors Vice Chair Clarida on The US Economic Outlook and Monetary Policy, Vice Chair Clarida commented the improvement in GDP during the third quarter noting the economy's resiliency to the pandemic and the responsiveness to both monetary and fiscal support.

"In particular, the median FOMC participant projects that by the end of 2023—a little less than three years from now—the unemployment rate will have fallen below 4 percent, and PCE (personal consumption expenditures) inflation will have returned to 2 percent. Following the GFC, it took more than eight years for employment and inflation to return to similar mandate-consistent levels."

"We also expect it will be appropriate to maintain the current target range for the federal funds rate at 0 to 1/4 percent until labor market conditions have reached levels consistent with the Committee's assessments of maximum employment, until inflation has risen to 2 percent, and until inflation is on track to moderately exceed 2 percent for some time."

Long-term Treasury yields have fallen sharply since the start of the Federal Reserve's asset purchases, and the global capital that has moved to the safe harbor of the U.S. Treasury market. In 2020 10-yr US treasuries yields declined to record lows, less than 1%. The graph below shows the recent movement (increase in yield) on the 10-yr to 1.15% as of 1/14/21. Economists expect the Fed to manage long-term rates carefully; if rates rise too much the Fed will ramp up Quantitative Easing (QE) and if rates fall too low the Fed will curtail QE activities. Moody's Economics expects 10-year rates to rise to near 2% by the end of 2021 and back to their estimated long-run equilibrium of near 4% by mid-decade.



The chart above displays the yield of the 10-yr US treasury note. The yellow area highlights
Federal Reserve's reaction to the COVID-19 and increased demand for US treasuries during the
period.

As the economy begins to rebound in 2021 from the disruptions caused by the COVID-19 pandemic, progress will continue to hinge upon controlling the virus and minimizing related economic restrictions. The government's fiscal and monetary response continues to be the swing factor in the recovery. Economists will continue to closely monitor policy decisions as the amount of government assistance necessary for the economy to recover will have long-term impacts.

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