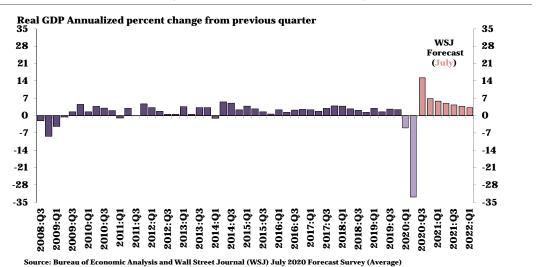
Macroeconomy, Interest Rates, and Future Inflation

DR. BRIAN C. BRIGGEMAN, PROFESSOR
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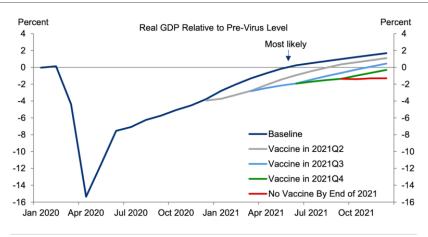
Shutting down the economy led to a historic drop in real GDP (-32.9%)...how quickly will the U.S. economy recover?





KANSAS STATE
UNIVERSITY
Agricultural Economics

A "swoosh" recovery is expected by many economists...Goldman Sachs expects a COVID-19 vaccine to be key to returning back to pre-virus Real GDP levels



Source: Goldman Sachs Global Investment Research



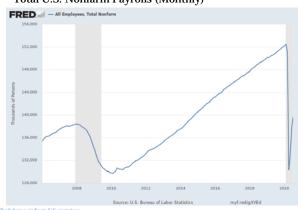


Labor markets are improving but the "hole" is deep

Continued Claims: U.S. Unemployment Insurance (Weekly)



Total U.S. Nonfarm Payrolls (Monthly)



 $Graphs\ created\ using\ FRED,\ Federal\ Reserve\ Bank\ of\ St.\ Louis:\ https://fred.stlouisfed.org$





Consumption is improving as businesses, restaurants, and local economies begin to open back up



Graph created using FRED, Federal Reserve Bank of St. Louis: https://fred.stlouisfed.org





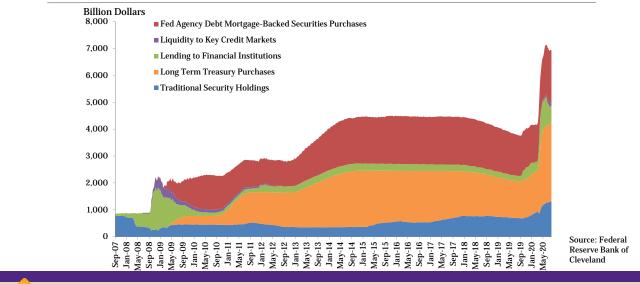
The U.S. Government and the Federal Reserve response have helped stabilize the U.S. economy

- CARES Act totaled \$1.8 trillion
- Loans, Direct Relief, Supplemental
- Total U.S. Public Debt as a share of U.S. GDP is projected to eclipse 100%
- CBO estimate FY20 is 101%...the record is 106.1% during WWII
- Federal Reserve is using and ramping up multiple monetary policy tools
- · Dropped the Fed Funds rate to the zero bound
- Expanded the balance sheet
- Restored Term Asset-Back Securities Loan Facility (TALF), support consumer and business credit markets
- Took the unprecedented step to be a "direct" lender in the market
 - One facility aimed at providing new financing to the \$6 trillion corporate debt market
 - One facility aimed at providing financing to the existing financing corporate debt market
 - One facility aimed at Main Street (small and medium sized businesses)





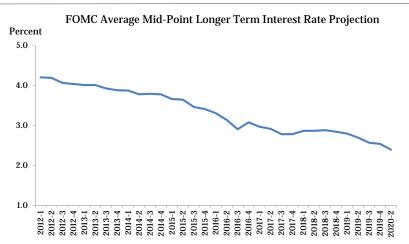
The Federal Reserve has resumed quantitative easing by expanding its balance sheet to above \$7 trillion







FOMC continues to project lower longer-term Fed Funds Rate



Source: Federal Open Market Committee (FOMC) Projections materials





Burgeoning demand for U.S. Treasuries has pushed yields to historically low levels



 $Graph\ created\ using\ FRED,\ Federal\ Reserve\ Bank\ of\ St.\ Louis:\ https://fred.stlouisfed.org$



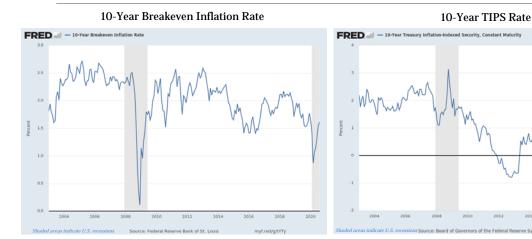


The value of the U.S. dollar has recently fallen





Prospects for future inflation have crept up and TIPS rates have fallen into negative territory.



Graphs created using FRED, Federal Reserve Bank of St. Louis: https://fred.stlouisfed.org





What about future inflation?

- Headwinds facing future inflation
- Bigger concern now is lack of "core" inflation (i.e. very low real wage growth)
- · Globalization...U.S. connection to other countries and global supply chain
- Economy is struggling
- The market has well anchored inflation expectations
- · Right now, the market and the Fed puts a low probability on rapid inflation
- Signals for possible future inflation
- · Very high U.S. government public debt and very large budget deficits
- Some prices of goods and services have risen but will they stay elevated?
- Potential dangers of protectionism trade policies
- Negative TIPS rates





Takeaways for agricultural producers and businesses

- High uncertainty
- · Build liquidity
- · Reasonably manage costs
- · Carefully evaluate each growth opportunity
- Do not build your business plan assuming continued government subsidies
- A lesson from the 1980s farm debt crisis was, be careful with adding too much variable rate financing
- Farm Balance Sheets: The Hidden Risk of Non-Real Estate Debt (https://www.kansascityfed.org/~/media/files/publicat/mse/mse 0211.pdf)
- Interest rates are exceptionally low; consider refinancing/restructuring debt





Thank you! Questions?

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