U.S. Macroeconomic Performance during the Pandemic with Three Topics for Future Research

James Bullard
President and CEO

Expectations in Dynamic Macroeconomic Models
Czech National Bank

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Any opinions expressed here are my own and do not necessarily reflect those of the Federal Open Market Committee.
Introduction
Key themes

• U.S. real gross domestic product (GDP) has fully recovered. It has passed the pre-pandemic peak and is poised to move considerably higher.

• The “keep households whole” U.S. fiscal strategy has been successful well beyond initial hopes.

• U.S. labor markets are exceptionally tight.

• Inflation is likely to be meaningfully above 2% over the forecast horizon, allowing the Federal Open Market Committee (FOMC) to accomplish a key provision of its new framework, but also presenting upside risks.

• The three topics for future research are hidden in these slides.
The State of the Health Crisis in the U.S. and Europe
Fatality rates and economic activity

• With the arrival of vaccines, daily fatalities per 100,000 population declined from peaks set in the winter of 2021 in both Europe and the U.S., but these measures have increased in recent weeks.

• East Asia and Pacific countries as a group have reported daily fatalities per 100,000 population that are much lower than those of the U.S. and Europe, until recently.

• Some emerging market countries remain vulnerable to the pandemic and will take longer to vaccinate.
Pandemic intensity in key production regions

Sources: Center for Systems Science and Engineering at Johns Hopkins University, Centers for Disease Control and Prevention and author’s calculations. Last observation: Aug. 25, 2021. For this chart, the East Asia and Pacific region consists of Australia, China, Indonesia, Japan, Malaysia, Myanmar, New Zealand, Philippines, Singapore, South Korea, Taiwan and Thailand.

Legend:
- Blue: U.S.
- Orange: France, Germany, Italy, Spain and UK
- Green: East Asia and Pacific
- Dashed yellow: U.S. 2018 heart disease deaths
- Dashed black: U.S. 2018 cancer deaths
- Dashed green: U.S. 2018 accidental injury deaths

Key observations:
- Europe hit hardest.
- More persistence in the U.S.
- East Asia and Pacific less impacted.
- Delta variant: daily fatalities increasing.
U.S. Real GDP Fully Recovered
U.S. GDP has fully recovered

• During the second quarter, the U.S. moved into what has traditionally been defined as the expansion phase of the business cycle.
• National income is higher than it was at the previous business cycle peak and is poised to continue to grow at an above-trend rate.
• Despite the human and public health tragedy, firms and households have adapted to the new mortality risk and learned to produce and consume using new methods and technologies.
• This adaptation is a phenomenon that I expect will be studied intensively in the years ahead, as it may be important in other types of crises.
The economy has moved into the expansion phase.

Sources: Bureau of Economic Analysis, Blue Chip Economic Indicators and author’s calculations. The gray shaded area indicates U.S. recession. Last observation: 2021-Q2.
Poised for continued above-trend real GDP growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>Measure</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>June SEP (median)*</td>
<td>June 16</td>
<td>Q4-on-Q4</td>
<td>7.0%</td>
<td>3.3%</td>
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<tr>
<td>IHS Markit</td>
<td>Aug. 9</td>
<td>Q4-on-Q4</td>
<td>6.2%</td>
<td>3.0%</td>
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<tr>
<td>Blue Chip Consensus</td>
<td>Aug. 10</td>
<td>y-on-y</td>
<td>6.2%</td>
<td>4.4%</td>
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</table>

U.S. Fiscal Strategy Has Maintained Household Income
The “keep households whole” fiscal policy has been a success

• The nature of the U.S. fiscal policy response to the pandemic shock has been to ask some workers in “high physical contact” jobs to stay home to invest in national health.

• The goal of fiscal policy has been to insure these disrupted households by borrowing funds on international markets and using the funds to replace disrupted household incomes.

• I have called this the “keep households whole” policy.

• This policy has been so successful that U.S. personal income in 2020 was actually higher than it would have been if the economy had simply remained on the 2019 trend line.
Personal income above 2019 trend

Sources: Bureau of Economic Analysis, IHS Markit and author’s calculations. Last observation: July 2021.
Real consumption close to 2019 trend

Sources: Bureau of Economic Analysis, IHS Markit and author’s calculations. Last observation: July 2021.
The payoff to the U.S. fiscal strategy

- The fiscal strategy has enabled U.S. households to pay ordinary expenses during the pandemic.
- This has kept the U.S. economy from suffering additional damage that could have occurred during the pandemic.
- Households are now in a strong position to spend and invest as the pandemic comes under better control.
- A key research question is whether this type of fiscal policy has broader applicability outside of a well-defined pandemic crisis.
Tight U.S. Labor Markets
Unemployed persons vs. job openings

• Anecdotal reports from U.S. businesses strongly suggest that attracting workers to available jobs is difficult in the current environment.

• Alternative measures of labor market performance may give a more accurate reading of the state of the labor market than the number of jobs on payrolls or the number of hours worked.

• One alternative measure is the ratio of officially unemployed persons to job openings.

• This measure is approaching an all-time low, suggesting a very strong labor market.
A tightening labor market

Broader measures of labor market performance

• There are many additional measures of labor market performance other than the official unemployment rate or unemployed persons per job opening.

• These measures can be organized into an indicator of labor market performance that takes multiple aspects into account.

• The Kansas City Fed’s level of activity index provides one attempt to organize these data.

• This indicator suggests today’s labor market conditions are markedly better than those following the 2007-09 recession.
Labor market conditions above average

Inflation Rising
Inflation surprises to the upside

• Last December, the FOMC median projection suggested that in 2021 real GDP would grow at a 4.2% rate but that core PCE inflation would be just 1.8%.*

• At the June FOMC meeting, the median projection suggested that in 2021 real GDP growth would be 7% and core PCE inflation would be 3%.

• This year has brought a substantial upside surprise on both real GDP growth and inflation.

* These are the median projections of change in real GDP and core PCE inflation. Both measures are percent changes from 2020-Q4 to 2021-Q4.
Inflation above target this year

The new monetary policy framework

• The FOMC’s new policy framework was announced in Chair Powell’s Jackson Hole speech in August 2020.

• A key aspect of the new framework is the desire of the FOMC to allow inflation to run above the 2% target for some time to make up for past misses of the inflation target to the low side.

• It now appears that the FOMC will be able to achieve this result with an appropriate monetary policy over the next several years.

• An important focus for research is the development of appropriate metrics for the evaluation of flexible average inflation targeting (FAIT).
Average inflation targeting

<table>
<thead>
<tr>
<th>Percent change, Q4-on-Q4</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<tbody>
<tr>
<td>Actual</td>
<td>1.96%</td>
<td>2.04%</td>
<td>2.05%</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>June SEP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5</td>
<td>3.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Sources: Bureau of Economic Analysis, Summary of Economic Projections (SEP) and author’s calculations. Last observation: 2020-Q4.
Conclusion
Three research questions

• How does the macroeconomy adapt to an important new risk, one that did not exist previously? In the pandemic, this has been a new mortality risk, but there could also be other types of new risks.

• In the pandemic, U.S. fiscal policy appears to have successfully insured disrupted households against declines in income. Could this type of fiscal policy be used more generally?

• The Fed has adopted flexible average inflation targeting, and in the very first year of implementation, there has been a large inflationary shock. What is the best metric to evaluate whether FAIT is successful?
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