

- **November 30, 2021.** Article. "[A Risk Management Approach to Monetary Policy](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2021. This article also appeared in the [St. Louis Fed On the Economy](#) blog, December 2, 2021.

### **A Risk Management Approach to Monetary Policy**

The U.S. has experienced an inflation shock this year. [Headline PCE inflation](<https://fred.stlouisfed.org/graph/?g=JeAl>), measured as the percentage change from a year ago in the price index for personal consumption expenditures, rose to 5.0% in October. [Core PCE inflation](<https://fred.stlouisfed.org/graph/?g=JeAg>), which is a smoothed measure that excludes food and energy prices, rose to 4.1%—its highest reading since early 1991. These inflation readings have turned out to be substantially higher than Federal Open Market Committee (FOMC or Committee) participants were predicting last December. In the December 2020 Summary of Economic Projections (SEP), the median projection among FOMC participants was that headline PCE inflation and core PCE inflation both would be just 1.8% in 2021. These projections are based on the percentage change in the relevant price index from the fourth quarter of 2020 to the fourth quarter of 2021.

An important consideration is what will happen with inflation going forward. While the latest SEP projections have inflation coming down closer to the FOMC's 2% target next year, there are reasons to be concerned that inflation might be more persistent than expected. That is why a risk management approach to monetary policy is prudent.

#### *Monetary Policy during the Pandemic*

The FOMC reacted swiftly to the initial shock of the COVID-19 pandemic in March-April 2020 with a very accommodative monetary policy to help alleviate financial market stress and moderate the pandemic's impact on the economy. The monetary policy response included moving to a near-zero target range for the federal funds rate (i.e., the policy rate) and beginning substantial asset purchases, split between U.S. Treasury securities and agency mortgage-backed securities (MBS).

The economic situation is substantially improved today compared to the pandemic-induced free fall of March-April 2020. Accordingly, the FOMC has begun the process of removing some of the monetary policy accommodation put in place at the beginning of the pandemic.

At its November meeting, [the FOMC decided to begin reducing the pace of asset purchases](<https://www.federalreserve.gov/newsevents/pressreleases/moneary20211103a.htm>)(also known as “tapering”) by \$10 billion per month for Treasury securities and \$5 billion per month for agency MBS. The Fed had been purchasing \$80 billion per month of Treasuries and \$40 billion per month of MBS. Therefore, if the reduction in purchases continues at the pace announced in November, the taper would be completed by mid-2022. In the past, the FOMC has phased out asset purchases before beginning to raise the policy rate. Furthermore, reducing the pace of purchases in a way that is well communicated to minimize any disruptions in financial markets is considered best practice.

#### *Where Will the Economy Be When Tapering Ends?*

In terms of national income, the U.S. economy has already recovered from the pandemic-induced recession, as real gross domestic product (GDP) surpassed its pre-pandemic peak level in the second quarter of this year. Although the real GDP growth rate was slower in the third quarter due to the COVID-19 delta variant’s impact on the economy, I expect rapid growth to return in the fourth quarter and to continue through 2022.

In addition, the labor market seems to be exceptionally strong. The unemployment rate, which was 4.6% in October, has been declining at a rate of about two-tenths per jobs report this year. If that kind of improvement continues, the unemployment rate will fall below 4% sometime in the first quarter of 2022 and could hit the pre-pandemic rate of 3.5% in the second quarter.

When it comes to inflation in 2022, views differ. Important variables that might influence inflation, including the state of public health, the degree of supply chain disruption and the strength of consumer demand, are hard to forecast with any degree of confidence. Accordingly, the FOMC cannot be

certain whether inflation will dissipate naturally or, alternatively, remain persistently above the Committee's 2% target. However, by the time the tapering process is complete, the FOMC will have more information and be in a better position to assess which of these two scenarios is more nearly correct.

#### *A Risk Management Approach*

A risk management approach to monetary policy in the current situation entails putting some probability on each of the two inflation scenarios above and positioning monetary policy accordingly. In my own assessment, I am currently putting half the weight on the first scenario in which inflation naturally declines closer to 2% next year, and the other half on the second scenario in which inflation does not dissipate as much as expected or perhaps not at all in the absence of additional policy action from the FOMC.

For most of 2021, U.S. monetary policy has been almost entirely positioned for the first scenario, where inflation moderates naturally. In that scenario, inflation returns to the 2% target without further policy action by the FOMC. The FOMC could begin to taper asset purchases later and at a more gradual pace, and the Committee would not need to contemplate taking additional action by increasing the policy rate until some point further in the future.

Only recently has monetary policy become better positioned for the second scenario, in which inflation does not naturally moderate. In that scenario, inflation does ultimately return to the 2% target but only because of additional monetary policy action. To prepare for this possibility, the FOMC would have to begin to taper asset purchases sooner and at a faster pace, and the Committee would need to begin to contemplate increasing the policy rate sooner.

The FOMC's recent decision to begin tapering asset purchases and, by current estimates, to end the taper by mid-2022, embeds the risk management approach. As new data arrived during 2021, the probability of the second scenario began to rise and the probability of the first scenario began to fall. Accordingly, the tapering process began sooner and is scheduled for a faster pace than many anticipated six months ago, and market probabilities of an earlier date for raising the policy rate from near

zero (i.e., liftoff) have increased. This is good news because it means that monetary policy will be better positioned to respond smoothly to either of the two inflation scenarios in the year ahead.

#### Endnote

1. These projections are based on the percentage change in the relevant price index from the fourth quarter of 2020 to the fourth quarter of 2021.

The Regional Economist offers insights on regional, national and international issues. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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### **A Risk Management Approach to Monetary Policy**

The text below, written by Federal Reserve Bank of St. Louis President James Bullard, first appeared as the President's Message in the [Regional Economist] (<https://www.stlouisfed.org/publications/regional-economist>).

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#### *Notes and References*

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This blog offers commentary, analysis and data from our economists and experts. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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All other [blog-related questions](mailto:on-the-economy@stls.frb.org)

- **November 18, 2021.** Remarks. [Bullard Discusses U.S. Economy with District Business Leaders](#).

#### **Bullard Discusses U.S. Economy with District Business Leaders**

November 18, 2021

St. Louis Fed President Jim Bullard participated in a virtual discussion with business leaders and bankers from Seymour, Ind., and other areas of Jackson County, Ind. During the event, which was hosted by the St. Louis Fed's Louisville Branch, he addressed questions on inflationary pressures in 2021, supply chain disruptions, labor force participation, a potential housing bubble, infrastructure spending, the national debt and other topics.

Bullard meets regularly with groups in the four zones that make up the St. Louis Fed's District to share insights on the U.S. economy, as well as to gather views from Main Street. Seymour, Ind., is in the Louisville Zone.

- **November 10, 2021.** Presentation. "[Conjectures on Learning in Krusell-Smith-Type Economies](#)," 2021 Bank of Canada Annual Economic Conference, Behavioral Macroeconomics and Finance: Implications for Central Bankers.  
[Presentation \(pdf\)](#)  
[\(bullard\\_slides\\_learning\\_krusell\\_smith\\_nov\\_10\\_2021\\_169pdf\)](#).

### **Conjectures on Learning in Krusell-Smith-Type Economies**

November 10, 2021

Presented at the 2021 Bank of Canada Annual Economic Conference, Behavioral Macroeconomics and Finance: Implications for Central Bankers.

This video is from the November 10, 2021, panel discussion.

- **November 9, 2021.** Panel Discussion. [U.S. Economy and Monetary Policy](#), UBS European Conference 2021.

### **Bullard Discusses U.S. Economy and Monetary Policy during UBS Panel**

November 9, 2021

St. Louis Fed President Jim Bullard shared his views on various aspects of the U.S. economy and monetary policy during a panel discussion at the UBS European Conference 2021.



Bullard said he thinks that U.S. real GDP growth coming in softer than expected in the third quarter is “a temporary phenomenon,” with growth being pushed out to the fourth quarter and through next year. He expects real GDP growth to be higher than 4% for all of 2022.

In discussing the very tight labor market in the U.S., Bullard cited the unemployment-to-vacancies ratio, the unemployment rate and a labor market conditions index.

Regarding inflation, Bullard noted that core PCE inflation measured from a year ago is 3.6%, the highest it has been in 30 years. He said that there is a risk of continued inflation pressure in the U.S. in 2022.

Bullard discussed the FOMC’s recent decision to begin tapering the Fed’s asset purchases, with current estimates of finishing the purchases in June 2022. “We have some conditionality on that where we’re keeping the option open to move even faster on the taper, if necessary, to contain inflationary pressures,” he said.

- **October 20, 2021.** Panel Discussion. [Racism and the Economy: Focus on the Wealth Divide](#), hosted by all 12 Federal Reserve banks.

### **Panel Discussion – Racism and the Economy: Focus on the Wealth Divide**

October 20, 2021

St. Louis Fed President Jim Bullard participated on a panel with Minneapolis Fed President Neel Kashkari, during which they answered questions about how to address racial inequities in the economy. They spoke at the “Racism and the Economy: Focus on the Wealth Divide” virtual event.

During his remarks, Bullard highlighted the importance of convening a discussion on wealth and racism, as well as the need for better macroeconomic models to understand distributional impacts of monetary policy across the economy. He also spoke about the work of the St. Louis Fed’s former Center for Household Financial Stability and of its successor,

the Institute for Economic Equity. In addition, he said that wealth building is not a zero-sum game and noted that part of the labor and wealth distribution isn't as good as it could be. He added that there is tremendous upside potential if many of the good ideas from the conference are implemented in the U.S. economy.

This event was the ninth installment in the "Racism and the Economy" virtual series, which examines the impact of structural racism on the economy and advances ideas to improve economic outcomes for all Americans. The series is hosted by all 12 Federal Reserve banks.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=jXPEPW6vDMw>)

- **October 15, 2021.** Presentation. "[Classic Policy Benchmarks for Economies with Substantial Inequality](#)," the Fall 2021 Institute Research Conference, Opportunity & Inclusive Growth Institute, Federal Reserve Bank of Minneapolis.

[Presentation \(pdf\)](#)

[\(bullard\\_dicecio\\_slides\\_classic\\_policy\\_benchmarks\\_oct\\_15\\_2021pdf\)](#).

This was an academic talk. This material was presented before at lectures and conferences in [London](#)

[\(bullard\\_dicecio\\_slides\\_lse\\_cb\\_society\\_mar\\_23\\_2021pdf\)](#), March 23, 2021; [The Dow Lecture](#)

[\(bullard\\_dicecio\\_slides\\_dow\\_lecture\\_feb\\_9\\_2021pdf\)](#), February 9,

2021; [Austin \(bullard\\_dicecio\\_bruce\\_smith\\_memorial\\_22\\_feb\\_2020pdf\)](#), February 22, 2020; [Paris](#)

[\(bullard\\_dicecio\\_banquedefrance\\_cepr\\_6\\_dec\\_2019pdf\)](#), December 6,

2019; [Hong Kong \(bullard\\_dicecio\\_slides\\_hongkong\\_23\\_may\\_2019pdf\)](#),

May 23, 2019; [Barcelona \(bullard\\_dicecio\\_barcelona\\_22\\_june\\_2019pdf\)](#),

June 22, 2019; [St. Louis \(bullard\\_dicecio\\_niesr\\_8\\_july\\_2019pdf\)](#), July 8,

2019; and [Pretoria \(bullard\\_dicecio\\_slides\\_sarb\\_24\\_oct\\_2019pdf\)](#), October 24, 2019.

## **Classic Policy Benchmarks for Economies with Substantial Inequality**

November 22, 2022

Presented during a policy panel at the XXV Annual Conference of the Central Bank of Chile, Heterogeneity in Macroeconomics: Implications for Monetary Policy.

[Watch the November 22, 2022, presentation and panel discussion](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2022/policy-panel-central-bank-chile-conference>).

October 15, 2021

Presented at the Fall 2021 Institute Research Conference, Opportunity & Inclusive Growth Institute, Federal Reserve Bank of Minneapolis.

March 23, 2021

Presented at the Central Banking Series: Perspectives Across the Atlantic, LSE Students' Union Central Banking Society, London School of Economics and Political Science.

[Watch the March 23, 2021, presentation.](<https://fb.watch/4pN8OG8wBg/>)

February 9, 2021

Presented at the National Institute of Economic and Social Research, The Dow Lecture.

This video is from the February 9, 2021, presentation.

Having trouble with the video? [Watch it here.]([https://www.youtube.com/watch?v=8tUtXNJr\\_8&feature=youtu.be](https://www.youtube.com/watch?v=8tUtXNJr_8&feature=youtu.be))

February 22, 2020

Presented at the Bruce Smith Memorial Conference, UT Austin, Austin, Texas.

December 6, 2019

Presented at Heterogeneous Agents or Heterogeneous Information: Which Route for Monetary Policy?, Banque de France and CEPR, Paris, France.

October 24, 2019

Presented at the South African Reserve Bank Biennial Conference, Pretoria, South Africa.

July 8, 2019

Presented at Modelling the Macroeconomy in Risky Times, National Institute of Economic and Social Research, St. Louis, Mo. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous-Agent Economies.”)

June 22, 2019

Presented at Expectations in Dynamic Macroeconomic Models 2019, Barcelona GSE and MOVE (Markets, Organizations and Votes in Economics), Barcelona, Spain. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous-Agent Economies.”)

May 22, 2019

Presented at Monetary Policy and Heterogeneity Conference, Hong Kong Monetary Authority and Federal Reserve Bank of New York, Hong Kong, China. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous Agent Economies.”)

- **October 4, 2021.** Panel Discussion. [Inflation Risks to the Upside](#), the World Strategic Forum hosted by the International Economic Forum of the Americas.

### **Bullard Discusses Inflation Risks to the Upside during a Forum**

October 4, 2021

St. Louis Fed President Jim Bullard shared his views on inflation risks and the U.S. economy during a moderated panel discussion at the World Strategic Forum hosted by the International Economic Forum of the Americas.

U.S. inflation has surprised to the upside over the past six months or so, and there is an important debate about how to handle this going forward, he said. “I am concerned that the risks are to the upside, that we’ll continue to get higher-than-anticipated inflation, that this high inflation will persist into 2022,” he said. “It will dissipate somewhat, but not all the way back down to where we’d like it to be in 2022.”

Bullard said that he is concerned about a possible change in mentality around prices in the economy and the relative freedom that businesses feel they have to pass on their increased costs easily to customers. That hasn’t been felt to be the case in the U.S. for years, he added.

During the panel, Bullard noted that output and national income are higher today than before the pandemic because the U.S. economy has adjusted and has so much resilience. He also said the U.S. may be switching to a higher productivity growth rate and therefore a higher medium-term growth rate for the economy.

He also touched on fiscal policy during the pandemic, trade policy and immigration policy.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=FAbx0Yg8dUA>)

- **September 30, 2021.** [Opening Remarks](#). Given at the book launch of “The Future of Building Wealth: Brief Essays on the Best Ideas to Build Wealth—for Everyone.”  
[Remarks \(pdf\)](#)  
[\(bullard\\_opening\\_remarks\\_future\\_of\\_wealth\\_book\\_2021pdf\)](#).

**Opening Remarks—Book Launch: The Future of Building Wealth**

September 30, 2021

Remarks: [text (below)](<https://www.stlouisfed.org#text>)

St. Louis Fed President Jim Bullard delivered opening remarks at the book launch of “The Future of Building Wealth: Brief Essays on the Best Ideas to Build Wealth—for Everyone.” The book’s authors aim to document wealth gaps along racial, educational, generational and gender lines, and to point to some promising solutions. The Aspen Institute and the St. Louis Fed partnered to publish the book, which includes 63 essays from leading experts.

Full text of remarks:

*Opening Remarks*

James Bullard President and CEO, Federal Reserve Bank of St. Louis Book Launch: The Future of Building Wealth The Aspen Institute and Federal Reserve Bank of St. Louis Sept. 30, 2021

It’s a pleasure to be here. I want to thank Dan Porterfield for his introduction and for organizing today’s exciting book launch event.

The St. Louis Fed is proud to partner with the Aspen Institute for this book on building wealth inclusively. When Ray approached us with the idea for this book, we thought, “What a great way to keep Ray busy!”

But seriously, like Ray, the St. Louis Fed believes that the confluence of so many large events makes this book especially timely—the pandemic, the recession that followed, and our nation’s critical efforts around racial reckoning. And all of these are occurring amidst levels of economic inequality our nation hasn’t seen in a century. These are precisely the kinds of events that present opportunities to update our country’s social contract. We didn’t want to miss our chance to put some bold and innovative ideas on the table.

While it’s not the Fed’s role to direct fiscal policy, it is our role as thought

leaders—in macroeconomic policy, economic research, economic education and community development—to offer fact-based ideas that could improve our nation's economy, especially for those struggling Americans who could more fully reap its rewards.

Thought leadership has always been central to the St. Louis Fed's mission, and we were eager to provide leadership in an area where we were already heavily invested: savings and wealth building among those with fewer resources.

Through our recently sunset Center for Household Financial Stability, founded in the wake of the Great Recession, we documented large and enduring wealth gaps along racial, educational, generational and gender lines. These gaps, as the opening essays in the book demonstrate, remain large and enduring:

- The top 10% of American families owns 70% of total financial wealth, while the bottom half owns only 2%.
- Those in the top half of the wealth distribution are more likely to be older, white or highly educated; these groups own more family wealth than their share of the population.
- The bottom half is disproportionately younger, Black or Hispanic and less educated; these groups own less family wealth than their share of the population.

In many ways, we see this book as a capstone of the Center's efforts to promote wealth building inclusively, but we also see it as a cornerstone of the Center's successor, the Institute for Economic Equity, which views wealth equity as critical to achieving overall economic equity in our country.

Obviously, we have a long way to go to reach wealth equity. For example, the typical, or median, white family has a net worth of about \$184,000, while the typical Black family has just \$23,000.

Think about what these different levels mean for a family's economic resilience in the face of a job loss, car breakdown or natural disaster—or for a family's ability to look ahead: to invest in education, a small business, a first home or a secure retirement. We all know that wealth begets wealth, so the

challenge is: How do you accumulate some wealth in the first place? Answering that question is one of the reasons we're eager to publish this book.

The book aims to document profound wealth gaps but also point toward some promising solutions. Knowing that we don't have all the answers, Ray and Aspen reached out to over 100 diverse and leading experts, resulting in over 60 original essays. These essays not only offered the latest thinking on ways to shore up fragile family balance sheets, but also how to devise entirely new ways of generating an ownership stake in the U.S. economy.

Importantly, working toward wealth equity at the household level contributes to a stronger overall economy. This point was strongly reinforced in a conversation I had with three of my Fed colleagues—Presidents Bostic of the Atlanta Fed, Harker of the Philadelphia Fed and Kashkari of the Minneapolis Fed—a summary of which is included in this book. In that discussion, my colleagues also described how the Fed could help address racial and other wealth gaps using the tools at its disposal.

Thank you for joining us today. We hope you'll pick up your free copy—the price is right—of the book and especially engage in the conversations we're sure it will start.

I'm now pleased to turn the program over to the book's co-editors, my colleague Ray Boshara along with Ida Rademacher of the Aspen Institute.

1Any opinions expressed here are my own and do not necessarily reflect those of the Federal Open Market Committee.

- **September 28, 2021.** Panel Discussion. [Bullard Speaks about Inflation Risk and Delta Variant Effect on Growth at a Research Conference](#), International Research Conference hosted by the Central Bank of the Philippines and the Reinventing Bretton Woods Committee.

**Bullard Speaks about Inflation Risk and Delta Variant Effect on Growth at a Research Conference**



September 28, 2021

St. Louis Fed President Jim Bullard discussed the COVID-19 delta variant's effect on U.S. GDP growth, the upside surprise on inflation and a risk management approach to monetary policy. His remarks were during a panel discussion at the International Research Conference hosted by the Central Bank of the Philippines and the Reinventing Bretton Woods Committee.

While nobody really knows at this point how big an effect the delta variant has had on GDP growth in the third quarter, most forecasters expect that growth to get pushed into the next few quarters or all of 2022, Bullard said. "In a way, it's a bullish factor for 2022 because it's just postponing growth, not eliminating growth, for the U.S.," he said.

Regarding inflation, Bullard noted that the risk with the Fed's flexible average inflation targeting framework is that this year's inflation shock will be too big and that monetary policy won't react fast enough, resulting in more inflation than the FOMC intended.

"The risk management approach to monetary policy that I've been advocating suggests that we should take this inflation risk seriously," he said. "We certainly are expecting inflation to moderate. But I want to be prepared for the case where it doesn't moderate as much as hoped, and that we're able to keep inflation under control in that scenario without disrupting the economy or sending the U.S. economy or the global economy into recession."

In discussing current monetary policy, Bullard noted that the FOMC gave a strong signal at its most recent meeting that tapering of the Fed's asset purchases would begin soon. The tapering process is the first step toward pulling back some of the aggressively easy monetary policy that was put in place to mitigate the impact of the pandemic, he said.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=OQn2Ntu1Ag8>)

- **September 28, 2021.** [Introductory Remarks](#). Given at the 2021 Community Banking in the 21st Century Conference.  
[Remarks \(pdf\) \(bullard\\_introductory\\_remarks\\_cbrc\\_2021pdf\)](#).

## **Introductory Remarks: 2021 Community Banking in the 21st Century Conference**

September 28, 2021

Remarks: [text (below)](<https://www.stlouisfed.org#text>)

St. Louis Fed President Jim Bullard welcomed community bankers, researchers, policymakers and bank regulators to the 2021 Community Banking in the 21st Century research and policy conference. Held virtually this year, the conference is sponsored by the Federal Reserve System, the Conference of State Bank Supervisors and the Federal Deposit Insurance Corporation.

Bullard discussed the importance of bringing various perspectives together to inform the thinking on the future of community banking. He also introduced the first keynote speaker of the conference: Federal Reserve Gov. Michelle “Miki” Bowman.

Full text of remarks:

### *Prepared Welcoming Remarks*

James Bullard President and CEO, Federal Reserve Bank of St. Louis 2021 Community Banking in the 21st Century Research and Policy Conference (Virtual) Federal Reserve System, Conference of State Bank Supervisors (CSBS) and Federal Deposit Insurance Corporation (FDIC) Sept. 28, 2021

On behalf of the Federal Reserve Bank of St. Louis, I’d like to welcome you to this year’s virtual community bank research conference. I’d also like to acknowledge the important partnership we enjoy with the Conference of State Bank Supervisors, the Federal Deposit Insurance Corporation, the Board of Governors and other Reserve banks to bring you this conference every year.

In “normal” times, we would be gathering in St. Louis to hear from an impressive array of researchers, bankers and regulators from around the world—and after the formal presentations were over, we’d meet informally in our Gateway Conference Center to engage in lively discussions and debate ideas.

Over the years, those discussions have led to new relationships. They’ve also generated new research ideas. For example, I recently learned that one of the papers in this year’s conference came about directly because of a conversation between a community banker and a researcher a few years ago at this conference.

While those conversations will be a bit more challenging in the virtual environment, we’ve all gotten much better at working, communicating and interacting with each other virtually over the past 18 months. I encourage you to take full advantage of the opportunities to connect with one another during this virtual event in order to keep information and ideas flowing between all of our presenters and attendees. That’s the real value of this and all research conferences: the exchanging of ideas.

This year’s conference focuses on a number of important ideas, including:

- The impact of two extraordinary pandemic-era programs: the Paycheck Protection Program and the Federal Reserve’s Paycheck Protection Program Liquidity Facility
- The impact of minority banks in their communities and the role community development financial institutions (CDFIs) play in allocating credit to low- and moderate-income communities
- The consequences and incentives around supervisory oversight

We’ll also hear from an expert panel of community bankers who will offer their views on the future of commercial real estate lending.

As we just heard, thanks to the efforts of the state banking commissioners who conduct the CSBS National Survey of Community Banks, community banks were able to understand and react quickly to the challenges of the pandemic. They are now looking ahead to a future that will consist of new

competitors and new technologies that could have a significant impact on how banks will offer products and services in the future.

Understanding that future is a challenge for all of us—researchers, regulators, policymakers and community bankers. That’s why I believe that this conference is so important—it’s the one place that we very deliberately bring all of those perspectives together.

Among the perspectives that inform our thinking on the future of community banking are those of our first keynote speaker: Federal Reserve Gov. Miki Bowman.

Gov. Bowman, with her focus on community and regional banking organizations, has brought new ideas and new energy to the Board of Governors regarding banking and banking supervision issues. She’s challenged staff to promote innovation and lessen regulatory burden while also strengthening our overall banking and financial system.

As a former community banker and state regulator, she brings important insights to her work at the Fed and to forums such as this conference. I appreciate the commitment she has made to incorporate a wide range of perspectives into her thinking as she implements new initiatives and ideas. I also appreciate the commitment she has made to this conference—and her commitment to participate in these proceedings every year since she became a Fed governor (and even prior to becoming governor).

Welcome, Gov. Bowman.

1Any opinions expressed here are my own and do not necessarily reflect those of the Federal Open Market Committee.

- **August 30, 2021.** Presentation. "U.S. Macroeconomic Performance during the Pandemic with Three Topics for Future Research," Expectations in Dynamic Macroeconomic Models, Czech National Bank.  
[Presentation \(pdf\)](#)  
[\(bullard\\_expectations\\_dyn\\_macro\\_models\\_30\\_august\\_2021pdf\).](#)

- **August 12, 2021.** Article. "[The Fed's New Monetary Policy Framework One Year Later](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Third Quarter 2021. This article also appeared in the *St. Louis Fed On the Economy* [blog](#), August 16, 2021.

## **The Fed's New Monetary Policy Framework One Year Later**

The Federal Reserve has a mandate from Congress to promote stable prices and maximum sustainable employment. The mandate also includes promoting moderate long-term interest rates. The Federal Open Market Committee's (FOMC's) monetary policy framework spells out its strategy to achieve these goals over the medium and longer run.

During 2019 and the first half of 2020, the Fed undertook a review of its monetary policy strategy, tools and communications. Following that review, the Fed introduced a new monetary policy framework in August 2020. Fed Chair Jerome Powell announced the new framework in [a speech on Aug. 27, 2020](<https://www.federalreserve.gov/newsevents/speech/powell20200827a.htm>), at the Kansas City Fed's economic policy symposium in Jackson Hole, Wyo. Also see the FOMC's latest " [Statement on Longer-Run Goals and Monetary Policy Strategy](<https://www.federalreserve.gov/newsevents/pressreleases/monetary20210127b.htm>). " The one-year anniversary provides an opportunity to reflect on the FOMC's execution of the new framework so far, particularly with respect to inflation.

### *Some Key Changes to the Framework*

The FOMC made [several key changes to its statement on longer-run goals and monetary policy strategy](<https://www.federalreserve.gov/newsevents/pressreleases/monetary20200827a.htm>), a few of which I will discuss here. Although this is not discussed in detail here, the FOMC also enhanced its references to financial stability as an important consideration in policy deliberations.

Two of the main changes were related to the employment side of the Fed's mandate. In the updated statement, the FOMC stressed that the employment goal is broad-based and inclusive, affecting all parts of the labor market and

not just certain segments. The updated statement also suggests that monetary policy decisions will aim to reduce shortfalls—rather than deviations (as the prior statement said)—of employment from its maximum sustainable level. With this second change, the FOMC is stressing that it will react to high unemployment but not to particularly low unemployment unless inflation is threatening the economy.

Another key change to the statement on longer-run goals is related to how the FOMC aims to achieve the price stability goal. Under the new framework, the FOMC will focus on hitting an inflation rate of 2% on average over time. To do so, the FOMC will aim for inflation to run moderately higher than the 2% target for some time to make up for past misses of inflation to the low side of the target. This new strategy is referred to as flexible average inflation targeting, and it should help center longer-term inflation expectations at 2% and reinforce the inflation target.

#### *Importance of Credibility for Inflation Target*

The credibility of monetary policymakers is one of the most important aspects in central banking. In January 2012, the FOMC established an explicit inflation target of 2%, which is an international standard. But U.S. inflation generally came in below target over the next several years, with inflation averaging about 1.4% from 2012 to 2020 (as measured by the year-over-year percentage change in the price index for personal consumption expenditures [PCE]). This caused some concern on the FOMC that the 2% inflation target was losing credibility.

By making up for past misses under the new framework, the idea is that inflation will average 2% over time, which will enhance credibility for the inflation target. This also means that investors, businesspeople and consumers can confidently make economic decisions knowing what the inflation outcomes are going to be.

#### *Inflation Moderately Above Target for Some Time*

When the FOMC announced last year that we would allow inflation to run moderately above target for some time, many wondered how we would get inflation above target given that it had been below target for several years. As it turned out, we happen to be in a situation in the very first year of the new

framework in which inflation is actually above target and some measures of inflation expectations have moved higher. The graph below shows two such measures.

NOTES: The market-based inflation expectations shown in the graph are based on consumer price index inflation measures. I subtracted 30 basis points to roughly translate to a PCE inflation basis.

The [FOMC's Summary of Economic Projections from June](<https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20210616.htm>) indicates that the FOMC expects that inflation will be above target for some time. FOMC participants' projections are made under their assumption of optimal monetary policy. Both headline PCE inflation and core PCE inflation are projected to be well over 2% in 2021 and continue to be over 2% in 2022 and 2023, according to the median projections among the FOMC participants. For instance, the median projections for core PCE inflation are 3.0% in 2021, 2.1% in 2022 and 2.1% in 2023. For illustration purposes, if those projections are realized, then inflation will have run above target for some time (in this case, three years) and would average about 2% from 2019 to 2023.

Of course, data are noisy, and other factors may affect inflation in unexpected ways over the next few years. But taking this simple calculation at face value illustrates what the FOMC is trying to do under the new framework, which is to allow inflation to run moderately above target for some time and hit an average inflation rate of 2% over time. Should this occur over the coming years, it would support the strategy of flexible average inflation targeting.

#### Endnotes

1. The mandate also includes promoting moderate long-term interest rates.
2. Fed Chair Jerome Powell announced the new framework in [a speech on Aug. 27, 2020](<https://www.federalreserve.gov/newsevents/speech/powell20200827a.htm>), at the Kansas City Fed's economic policy symposium in Jackson Hole, Wyo. Also see the FOMC's latest " [Statement on Longer-Run Goals and Monetary Policy

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### **The Fed’s New Monetary Policy Framework One Year Later**

The text below, written by Federal Reserve Bank of St. Louis President James Bullard, first appeared as the President’s Message in the

[Regional Economist](<https://stlouisfed.org/publications/regional-economist>).

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### *Notes and References*

1. The mandate also includes promoting moderate long-term interest rates.
2. Fed Chair Jerome Powell announced the new framework in [a speech on Aug. 27, 2020](<https://www.federalreserve.gov/newsevents/speech/powell20200827a.htm>), at the Kansas City Fed's economic policy symposium in Jackson Hole, Wyo. Also see the FOMC's latest "[Statement on Longer-Run Goals and Monetary Policy Strategy](<https://www.federalreserve.gov/newsevents/pressreleases/monetary20210127b.htm>)."
3. Although this is not discussed in detail here, the FOMC also enhanced its references to financial stability as an important consideration in policy deliberations.
4. FOMC participants' projections are made under their assumption of optimal monetary policy.

### *Additional Resources*

This blog offers commentary, analysis and data from our economists and experts. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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All other [blog-related questions](mailto:on-the-economy@stls.frb.org)

- **July 30, 2021.** Remarks. "[European Economics and Financial Centre \(EEFC\) Virtual Event](#)."  
[Transcript \(pdf\) \(bullard\\_eeec\\_transcript\\_july\\_30\\_2021pdf\)](#).

## Remarks at European Economics and Financial Centre Event

July 30, 2021

St. Louis Fed President James Bullard spoke at a European Economics and Financial Centre (EEFC) Virtual Event.

July 30, 2021

St. Louis Fed President James Bullard spoke at a European Economics and Financial Centre (EEFC) Virtual Event.

- **July 8, 2021.** Panel Discussion. "[The Nexus Between Inequality and Monetary Policy](#)," Central banking after the pandemic: The challenges of inequality and inclusive growth, Central Bank Research Association (CEBRA) 2021 Annual Meeting.  
[Presentation \(pdf\) \(bullard\\_cebra\\_july\\_8\\_2021pdf\)](#).

## The Nexus Between Inequality and Monetary Policy

July 8, 2021

During a panel, St. Louis Fed President James Bullard discussed whether monetary policy can be conducted in a way that benefits all households even in a world with substantial inequality. His remarks were based on his working paper with Riccardo DiCecio, “[Optimal Monetary Policy for the Masses](https://research.stlouisfed.org/wp/more/2019-009).”

Presented at Central banking after the pandemic: The challenges of inequality and inclusive growth, Central Bank Research Association (CEBRA) 2021 Annual Meeting.

Having trouble with the video? [Watch it here.](https://mitsloan.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=a09e1636-ef16-4853-9c3b-ad5f0129fcce)

- **June 24, 2021.** Presentation. "[U.S. Monetary Policy: A New Risk](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/Files/PDFs/Bullard/remarks/2021/Bullard_Clayton_Chamber_24_June_2021.pdf)," The Power Hour Virtual Speaker Series, Clayton Chamber of Commerce. [Presentation \(pdf\) \(bullard\\_clayton\\_chamber\\_24\\_june\\_2021pdf\)](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/Files/PDFs/Bullard/remarks/2021/Bullard_Clayton_Chamber_24_June_2021.pdf) | [Press Release](#).

## **U.S. Monetary Policy: A New Risk**

June 24, 2021

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/Files/PDFs/Bullard/remarks/2021/Bullard\\_Clayton\\_Chamber\\_24\\_June\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/Files/PDFs/Bullard/remarks/2021/Bullard_Clayton_Chamber_24_June_2021.pdf)) | [Press Release](<https://www.stlouisfed.org/news-releases/2021/06/24/bullard-us-monetary-policy-a-new-risk>)

During a virtual presentation for the Clayton Chamber of Commerce, St. Louis Fed President James Bullard said U.S. real GDP appears to have fully recovered to the pre-pandemic peak. He added that the “keep households whole” fiscal strategy has been successful and has set up households to spend as the pandemic wanes. Regarding U.S. labor markets, Bullard said they are tight according to anecdotal evidence and key labor market metrics.

Bullard also talked about rising inflation. He said that inflation is likely to be meaningfully above 2% over the forecast horizon, so the Federal Open Market Committee can meet a key provision of its new policy framework with an appropriate monetary policy. “A new risk is that inflation may continue to surprise to the upside,” he said.

## **St. Louis Fed's Bullard Discusses "U.S. Monetary Policy: A New Risk"**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [U.S. Monetary Policy: A New Risk]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_clayton\\_chamber\\_24\\_june\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_clayton_chamber_24_june_2021.pdf))” at a virtual event of the Clayton Chamber of Commerce on Thursday.

Bullard told the chamber that the COVID-19 pandemic's intensity continues to moderate in the U.S. and Europe. He said U.S. real gross domestic product (GDP) appears to have fully recovered to the pre-pandemic peak, adding that the "keep households whole" fiscal strategy has been successful and has set up households to spend as the pandemic wanes.

In discussing employment, he said, "U.S. labor markets are tight according to anecdotal evidence and key labor market metrics."

He also talked about rising inflation and the Federal Open Market Committee's new monetary policy framework. "Inflation is likely to be meaningfully above 2% over the forecast horizon, so the FOMC can meet a key provision of its new policy framework with an appropriate monetary policy," Bullard said. "A new risk is that inflation may continue to surprise to the upside," he added.

#### *Health Crisis Waning in the U.S. and Europe*

Bullard noted that daily fatalities per 100,000 population have continued to decline in Europe and the U.S., while East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are lower than those in the U.S. and Europe. He added that some emerging market countries remain vulnerable to the pandemic and will take longer to vaccinate. But overall, he said, regions where much of the global output is produced appear poised to bring the pandemic under control.

He also looked at deaths in excess of what would be expected in a normal year. "For the U.S., excess fatalities are approaching zero, suggesting that the vaccination strategy is bringing the pandemic under control," he said.

#### *U.S. Real GDP Fully Recovered*

Bullard then discussed the phases of the business cycle and said that the U.S. is moving into the economic expansion phase during the current quarter. "National income appears to be as high as it was at the previous peak and is poised to grow at an above-trend rate," he said.

#### *U.S. Fiscal Strategy Has Maintained Household Income*

Bullard discussed what he calls the "keep households whole" fiscal policy

response to the pandemic. The goal of fiscal policy has been to insure disrupted households by borrowing funds on international markets and using the funds to replace disrupted household incomes, he explained. “This policy has been so successful that personal income in 2020 was actually higher than it would have been if the economy had simply remained on the 2019 trend line,” he said.

The fiscal strategy has enabled households to pay ordinary expenses during the pandemic, Bullard said, keeping the economy from suffering additional damage that could have occurred. “Households are now in a strong position to spend, leading many forecasters to predict rapid U.S. real GDP growth in 2021 that will continue into 2022,” he said.

#### *Tight U.S. Labor Markets*

Bullard noted that anecdotal reports from businesses strongly suggest that attracting workers to available jobs is difficult in the current environment. He pointed out that 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,” he said. “This measure is approaching an all-time low, suggesting a very strong labor market.”

Bullard also discussed broader measures of labor market performance, which take multiple aspects into account. He looked at the Kansas City Fed’s level of activity index as an example. “This indicator suggests today’s labor market conditions are markedly better than those following the 2007-09 recession,” he said.

#### *Inflation Rising*

The FOMC’s median projection from last December suggested that real GDP growth would be 4.2% and core PCE inflation would be 1.8% in 2021, Bullard pointed out. The median projection from June suggested that real GDP growth would be 7% and core PCE inflation would be 3% in 2021. “This year has brought a substantial upside surprise on both real GDP growth and inflation,” he said.

Bullard noted that a key aspect of the new monetary policy framework is the FOMC's desire 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," he said.

However, he cautioned, "A new risk is that inflation may surprise still further to the upside as the reopening process continues, beyond the level necessary to simply make up for past misses to the low side." He said this risk is tangible in part because many are expecting more good news on the U.S. economy in September-October when schools are back in regular session and work patterns normalize. He also noted that a global reopening process will follow behind the U.S. process, likely providing additional tailwinds for the U.S.

"Policymakers will have to take this new risk into account in the months and quarters ahead," he said.

#### Contact Us

- Laura Girresch 314-444-6166
  - Anthony Kiekow 314-949-9739
  - Shera Dalin 314-444-3911
  - Tim Lloyd 314-444-6829
- **June 21, 2021.** Panel Discussion. [Bullard Discusses Inflation, the Labor Market and Monetary Policy](#), Official Monetary and Financial Institutions Forum (OMFIF).

#### **Bullard Discusses Inflation, the Labor Market and Monetary Policy during OMFIF Event**

June 21, 2021

St. Louis Fed President James Bullard discussed U.S. economic growth, inflation, the labor market and monetary policy during a meeting of the Official Monetary and Financial Institutions Forum (OMFIF). He participated



in a panel discussion with Dallas Fed President Robert S. Kaplan.

Bullard noted that the Federal Open Market Committee's median projection for economic growth in 2021 was upgraded to 7% and the median projection for core PCE inflation moved up to 3% in the latest Summary of Economic Projections (SEP). These compare to median projections of about 4% on economic growth and 1.8% on core PCE inflation in the December SEP. "I just think we're in a much stronger position with respect to reopening than we would have anticipated, and the inflation has come along with it," he said.

The essence of the Fed's new monetary policy framework is that the FOMC would allow inflation to run above target for some time, Bullard noted. Then the FOMC would approach 2% inflation from the high side and get something pretty close to 2% inflation when averaged across past years, he said.

Bullard cautioned that this is a period of high volatility and that there is upside risk to inflation. "We have to be ready on both sides, I think, to be able to react to that, to be state contingent, to be nimble, just as nimble coming out of the pandemic as I think we had to be going into the pandemic," he said.

On the labor market, Bullard said that the anecdotal evidence is overwhelming that it is very tight. He also noted that the extent of labor market improvement has been dramatic, with the unemployment rate now down to 5.8%. He added that he expects lots of further improvement in the months and quarters ahead.

Regarding tapering the Fed's bond purchases, Bullard noted that the debate is now open and that many parameters will have to be set, including the degree of state contingency.

He also addressed questions about fiscal policy, financial stability risks and the U.S. Treasury market during the panel discussion.

Having trouble with the video? [\[Watch it\]](#)

here.](<https://www.omfif.org/videos/fed-week-presidents-discussion-macroeconomic-outlook-nationally-and-locally/>)

- **June 3, 2021.** Article. "[An Assessment of the U.S. Labor Market](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2021.

### **An Assessment of the U.S. Labor Market**

The economic shock caused by the COVID-19 pandemic and the public health measures needed to contain it had an unprecedented impact on the U.S. labor market. The unemployment rate jumped during the early months of the pandemic, and other measures of labor input—such as payroll employment and hours worked—declined dramatically. From February to April 2020, the unemployment rate increased from 3.5% to 14.8%. Over that same period, payroll employment declined by 22.4 million jobs, and total hours worked declined by 17%.

While the shock was immediate and large, the economy is recovering at a swift pace, as vaccines bring the public health crisis under control. The speed of today's recovery is much faster than with many past economic shocks, which were caused by underlying weaknesses in the economy, as in the financial crisis of 2007-09. How far along we are with the U.S. labor market recovery can be difficult to determine, however, especially since some of the economic data have not aligned with anecdotal information from businesses.

So, how do we assess the state of the U.S. labor market?

#### *Output vs. Labor Market*

In the second quarter, real gross domestic product (GDP) is likely to surpass its previous peak level reached in the fourth quarter of 2019. This suggests the recession and the recovery period are behind us, and that the U.S. economy is moving into the expansion phase of the business cycle during the current quarter.

While real GDP is poised to return to and surpass its previous peak, many measures of the labor market remain below their previous peaks, as

discussed below. How could that be? One reason is likely due to the composition of the pool of workers. Many of the workers most disrupted by the pandemic were in “high physical contact” jobs, which tend to be lower-wage jobs. In contrast, high-wage workers have been more likely to be able to continue working—and possibly with higher productivity. This could explain how the economy is able to produce as much output as before the economic downturn with fewer total employed.

### *Common Measures of Labor Market Performance*

A common way to gauge how the labor market is doing is to count the number of people employed. Payroll employment for April 2021 remained 8.2 million below its February 2020 level, suggesting that the labor market recovery is far from complete. Another way is to count hours worked. As of April 2021, total hours worked remained about 4% below their pre-pandemic level.

Another consideration when looking at the number of jobs is that labor force participation has been trending downward since 2000. The overall labor force participation rate is projected to continue declining from 2019 to 2029, according to [the Bureau of Labor Statistics’ projections released in September 2020](<https://www.bls.gov/emp/tables/civilian-labor-force-participation-rate.htm>) and discussed in [this Monthly Labor Review article](<https://www.bls.gov/mlr/2020/article/projections-overview-and-highlights-2019-29.htm>). Relative to a simple trend line drawn from 2000 to the present, the labor force participation rate was above trend toward the end of the pre-pandemic expansion but is now back on trend, as shown in [this FRED graph](<https://fred.stlouisfed.org/graph/?g=E9Jc>)

Given the longer-run downward trend in labor force participation combined with retirees who have left the labor force and are unlikely to rejoin it, it is not clear that we should expect labor force participation—and therefore employment—to return to pre-pandemic levels.

### *Alternative Measures of Labor Market Performance*

While labor input remains lower than before the pandemic by some measures, anecdotal reports from businesses suggest that hiring workers is difficult in the current environment. How can we reconcile these two

observations? Additional measures of labor market performance can help provide a more comprehensive reading of the state of the labor market than simply looking at the number of jobs or hours worked.

One measure of labor market tightness used in the academic literature is the [ratio of officially unemployed workers to job openings](<https://fred.stlouisfed.org/graph/?g=E9Bs>). This ratio is approaching an all-time low. In March, it was 1.2, which is lower than during the expansion before the 2007-09 recession but not as low as during the later years of the pre-pandemic expansion, when it was below 1. Nevertheless, the latest ratio suggests a very tight labor market, which would be consistent with anecdotal reports that it is hard to hire workers.

Broader measures of labor market performance—such as indicators that take multiple aspects into account—are also useful to examine. The level of activity indicator from the Federal Reserve Bank of Kansas City, for instance, suggests current labor market conditions are markedly better than those following the 2007-09 recession.

### *Conclusion*

Alternative measures of labor market performance help reconcile the anecdotal reports we are hearing from businesses with what we are seeing from more traditional labor market indicators.

As the pandemic wanes, as more schools reopen to in-person instruction and as disrupted workers' pandemic-related assistance comes to a close, more people will want and be in a position to accept jobs. The number of unemployed workers per job opening suggests that many of these workers should be able to find a job, which is what I expect to happen in the coming quarters.

### Endnote

1. The overall labor force participation rate is projected to continue declining from 2019 to 2029, according to [the Bureau of Labor Statistics' projections released in September 2020](<https://www.bls.gov/emp/tables/civilian-labor-force-participation->

rate.htm)and discussed in  
[this](https://www.bls.gov/mlr/2020/article/projections-overview-and-highlights-2019-29.htm). Monthly Labor Reviewarticle

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- **May 19, 2021.** Remarks. [Bullard Discusses U.S. Economic Outlook during OMFIF Event](#), Official Monetary and Financial Institutions Forum.

### **Bullard Discusses U.S. Economic Outlook during OMFIF Event**

May 19, 2021

St. Louis Fed President James Bullard shared his views on U.S. economic growth, inflation, the labor market and other topics during a virtual fireside chat with the Official Monetary and Financial Institutions Forum (OMFIF).

Bullard said there is a "big economic boom" going on in the U.S., and that he expects the U.S. economy to continue growing well above trend in 2022. He also said he expects inflation will be above 2% in 2021 and remain above 2% in 2022. After that, it will gradually come down to the Fed's 2% inflation target from the high side, he said.

Regarding the U.S. labor market, he said that it is tighter than is being represented. He cited anecdotal reports from companies, which say hiring is difficult in this environment, and the ratio of unemployed workers to job openings, which is approaching an all-time low.

He also discussed U.S. labor force participation, which has been trending down since 2000. Participation was running above the trend line during the last part of the pre-pandemic expansion, but it is now back on the trend line as some people dropped out of the labor force during the pandemic, especially those who were close to retirement, Bullard said.

"The story about jobs being way down from the pre-pandemic level, I think, is mixing up a little bit about what we think is going to happen with labor force participation," he said.

During the virtual discussion, he also talked about monetary policy, market-based inflation expectations, supply chain issues, and the U.S. dollar as the global reserve currency.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=aj0CaOx7wR8>)

- **May 13, 2021.** Presentation. "[U.S. Economy Booming](#)," Chairman's Circle, Greater Memphis Chamber. [Presentation \(pdf\) \(bullard\\_memphis\\_chamber\\_13\\_may\\_2021pdf\)](#) | [Press Release](#).

## **U.S. Economy Booming**

May 13, 2021

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_memphis\\_chamber\\_13\\_may\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_memphis_chamber_13_may_2021.pdf)) | [Press Release](<https://www.stlouisfed.org/news-releases/2021/05/13/bullard-discusses-a-booming-us-economy>)

During a virtual presentation for the Greater Memphis Chamber's Chairman's Circle, St. Louis Fed President James Bullard said that the U.S. economy is poised this quarter to surpass the previous peak in real GDP. He added that the "keep households whole" fiscal strategy has been successful well beyond initial hopes.

He also said that the number of unemployed workers per job opening is approaching an all-time low, suggesting an exceptionally strong job market. Regarding inflation, he said that it is likely to be meaningfully above 2% over the forecast horizon.

He noted that downside risk remains but is becoming less pronounced.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=NkbqH0sDBDY>)

### **St. Louis Fed's Bullard Discusses a Booming U.S. Economy**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [U.S. Economy Booming]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_memo\\_chamber\\_13\\_may\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_memo_chamber_13_may_2021.pdf))” at a virtual event of the Greater Memphis Chamber’s Chairman’s Circle on Thursday.

During his presentation, Bullard said the COVID-19 pandemic’s intensity continues to moderate in the U.S. and Europe, which suggests that the health crisis will continue to wane in the months ahead.

He noted that the U.S. economy is poised this quarter to surpass the previous peak in real gross domestic product (GDP). “The ‘keep households whole’ fiscal strategy has been successful well beyond initial hopes,” Bullard said.

In addition, he said that “the number of unemployed workers per job opening is approaching an all-time low, suggesting an exceptionally strong labor market.” Regarding inflation, he said that it “is likely to be meaningfully above 2% over the forecast horizon.”

Bullard noted that downside risk remains, but it is becoming less pronounced.

#### *Health Crisis Waning in the U.S. and Europe*

Bullard noted that daily fatalities per 100,000 population have continued to decline in Europe and the U.S. and that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than those in the U.S. and Europe. He added that some

emerging market countries remain vulnerable to the pandemic and will take longer to vaccinate. But overall, he said, regions where much of the global output is produced appear poised to bring the pandemic under control.

He also looked at deaths in excess of what would be expected in a normal year. “For the U.S., excess fatalities are approaching zero, suggesting that the vaccination strategy is bringing the pandemic under control,” he said.

#### *U.S. Moving to Expansion Phase of the Business Cycle*

Bullard then discussed the phases of the business cycle and said that the U.S. is moving into the economic expansion phase during the current quarter. “National income is as high as it ever was and is poised to grow at an above-trend rate, due in part to the ‘keep households whole’ fiscal strategy,” he said.

Bullard noted that the nature of the response to the pandemic involved asking some workers in “high physical contact” jobs to stay home to invest in national health. Therefore, 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, he explained.

“This policy has been so successful that personal income in 2020 was actually higher than it would have been if the economy had simply remained on the 2019 trend line,” he said.

Bullard pointed out that the households receiving federal transfers often saved much of it. “This was a rational and prudent response, as households were naturally unsure how long the health crisis would last and whether Congress would appropriate more funds,” he said.

The arrival of vaccines has meant that the probability of the health crisis ending in coming months is rising dramatically, he added. “This suggests households will be less inclined to save going forward and more inclined instead to spend any federal transfers, leading many forecasters to predict very rapid U.S. real GDP growth in 2021,” he said.

#### *U.S. Labor Market*



Bullard said that while real GDP is poised to return to and surpass the previous peak level, the labor input remains below the previous peak by many measures. The total hours worked index, for instance, remains at about 96% of the pre-pandemic level, he pointed out.

“How can output be recovered with the labor input still down 4%?” he asked. “The likely answer is composition effects: The most disrupted workers have been in ‘high physical contact’ jobs, which also tend to be lower wage jobs,” he said, adding that the “keep households whole” policy insures many of these workers.

Bullard noted that anecdotal reports from 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,” he said. One such measure is the ratio of officially unemployed workers to job openings, which is approaching an all-time low, suggesting a very strong labor market, he said.

Bullard also discussed broader measures of labor market performance, which take multiple aspects into account. He looked at the Kansas City Fed’s level of activity index as an example. “This indicator suggests today’s labor market conditions are markedly better than those following the 2007-09 recession,” he said.

### *Inflation Expectations Rising*

Bullard noted that market-based inflation expectations have recovered from lows reached in March 2020. He said TIPS-based breakeven inflation could move higher and still be consistent with an inflation outcome (based on the personal consumption expenditures price index) modestly above the 2% inflation target set by the Federal Open Market Committee (FOMC).

“This would be a welcome development for the FOMC, as inflation has generally been below target for many years,” Bullard said.

Contact Us

- Laura Girresch 314-444-6166

- Anthony Kiekow 314-949-9739
- Shera Dalin 314-444-3911
- Tim Lloyd 314-444-6829
- **April 8, 2021.** Remarks. [Bullard Discusses the Pandemic, Monetary Policy, U.S. Economy during Virtual Event](#), The Paul Simon Public Policy Institute at Southern Illinois University.

## **Bullard Discusses the Pandemic, Monetary Policy, U.S. Economy during Virtual Event**

April 8, 2021

St. Louis Fed President James Bullard addressed questions about the Federal Reserve, policy responses to the COVID-19 crisis and his outlook for the U.S. economy. The Paul Simon Public Policy Institute at Southern Illinois University hosted the virtual conversation.

Bullard discussed the history behind the Fed's regional structure as well as some of the different responsibilities of Federal Reserve banks and the Board of Governors. He also talked about ways the St. Louis Fed keeps in touch with businesses and communities throughout the Eighth Federal Reserve District.

In discussing the Fed's actions during the pandemic, he said that the "13(3)" backstop lending programs eliminated the incipient financial crisis that could have occurred on top of the pandemic. Section 13(3) of the Federal Reserve Act allows for such emergency lending by the Fed with the consent of the U.S. Treasury Secretary. Bullard also said that the fiscal policy response has been exceptionally effective for this shock.

Regarding current monetary policy, Bullard said the Federal Open Market Committee has a great policy in place for right now. He said he anticipates the pandemic will come to a close through the vaccine strategy, but it hasn't happened yet. "And so, I think keep the policies in place until you get farther along here, and then as the dust settles, we can open up a conversation about what to do next," he said.

He said he expects to see a very strong U.S. economy and a strong labor market once the pandemic ends, and expects inflation to be 2.5% at the end of this year.

Bullard also highlighted several St. Louis Fed resources during the event, including the new [Institute for Economic Equity](<https://www.stlouisfed.org/institute-for-economic-equity>), his research on monetary policy and inequality, the [FRED](<https://fred.stlouisfed.org/>) economic database and the [On the Economy blog](<https://www.stlouisfed.org/on-the-economy>).

Having trouble with the video? [Watch it here.]([https://www.youtube.com/watch?v=zo\\_xZWdm4jg](https://www.youtube.com/watch?v=zo_xZWdm4jg))

- **April 7, 2021.** President's Message. "[Reflections on the Pandemic at the One-Year Mark](#)," Federal Reserve Bank of St. Louis *Annual Report 2020*.

## **President's Message**

### *Reflections on the Pandemic at the One-Year Mark*

James Bullard is the president and CEO of the Federal Reserve Bank of St. Louis.

Over the past year, countries across the world have been navigating the ravages and uncertainties brought on by COVID-19. Ultimately, the pandemic is a global health crisis and human tragedy. But the virus and efforts to contain its spread have also caused an unprecedented shock for many economies.

In the U.S., these effects have been widespread, and although the pandemic began more than a year ago, they continue today—both from a health standpoint and an economic standpoint.

### *Reduction in Economic Activity*

Unlike the 2007-09 financial crisis and many previous economic shocks that were driven by underlying problems in the economy, the current shock to the economy was directly related to the actions needed to contain the virus and invest in public health. Prior to the pandemic, U.S. labor markets were strong—with the unemployment rate at 50-year lows in early 2020—and real gross domestic product (GDP) had increased by 2.2% in 2019.

In early spring of 2020, authorities in many locales issued orders that curtailed certain forms of economic and social activity, particularly nonessential services, sporting events, concerts and other large gatherings. At the same time, many people limited their shopping and travel voluntarily, and many firms limited production or asked their employees to work remotely. These efforts were intended to contain the pandemic and prevent the health care system from being overwhelmed, but they also caused a sharp reduction in economic activity. See my On the Economy blog post “[Expected U.S. Macroeconomic Performance during the Pandemic Adjustment Period](<https://www.stlouisfed.org/on-the-economy/2020/march/bullard-expected-us-macroeconomic-performance-pandemic-adjustment-period>),” from March 23, 2020.

### *Responses from Policymakers*

The fast-moving nature of the pandemic caused policymakers on both the monetary policy side and the fiscal policy side to act swiftly. For more discussion, see my Regional Economist article “[Monetary Policy and Fiscal Policy Responses to the COVID-19 Crisis](<https://www.stlouisfed.org/publications/regional-economist/fourth-quarter-2020/monetary-policy-fiscal-policy-responses-covid-crisis>),” from Nov. 10, 2020. Indeed, U.S. monetary and fiscal policies during the crisis have been significant and exceptionally effective.

### Monetary Policy

One of the Federal Reserve’s immediate actions was to lower the target range for the federal funds rate to near zero in mid-March. The Fed subsequently provided liquidity to financial markets through a variety of emergency funding programs supported by the U.S. Treasury.

These programs—authorized under Section 13(3) of the Federal Reserve Act—helped the U.S. avoid an incipient financial crisis during the March-April time frame that could have occurred on top of a health crisis. Financial stress, as measured by the St. Louis Fed Financial Stress Index, rose dramatically in March but declined to pre-pandemic levels over subsequent months.

### Fiscal Policy

The health crisis has had uneven effects across the economy, with some businesses—like those in the leisure and hospitality sector—being hit especially hard. Consequently, some workers have been more adversely affected by the crisis than others.

The fiscal policy response aimed at providing pandemic relief to these businesses and workers has been large. While this process has been understandably uneven, the spirit of the intervention has been to keep disrupted firms and households whole and help them to sustain their incomes to pay their bills. This policy has been so successful that personal income did not fall as it usually does during a recession; instead, the fiscal response drove personal income to an all-time high in the second quarter of 2020.

### *Real-Time Data*

As policymakers were considering possible responses to the pandemic, large swings in key economic indicators posed a challenge. For example, the unemployment rate increased by more than 10 percentage points in one month—from 4.4% in March to 14.8% in April. Similarly, second-quarter real GDP decreased by 31.4% at an annual rate (a post-World War II record low), while third-quarter real GDP increased by 33.4% at an annual rate (a post-World War II record high).

Timely insights from our various contacts throughout the Eighth Federal Reserve District—including our boards of directors and advisory council members—have been especially helpful in taking the pulse of the economy in real time.

### *Cutting-Edge Research*

Analyses from St. Louis Fed economists have also helped identify real-time economic trends during this pandemic period. Our Research Division ramped up its research and data analysis on the pandemic's economic impact and the policy responses. These efforts were under the leadership of then-Research Director Chris Waller, who became a member of the Fed's Board of Governors in December.

Our long-standing commitment to rigorous economic research and data dissemination was tested and proven during this crisis. As expected of a highly ranked research institution, our economists proved even more prolific, authoring new working papers and articles to help keep the general public, analysts and policymakers alike informed.

Our economists are a well-trained, diverse group who work at the frontiers of economic research and are equipped to study the types of issues that have emerged during the pandemic. Their research has been invaluable in informing my monetary policy views and also in providing expert analyses to anyone who wants to understand the pandemic's economic impact. This annual report describes some of these insights.

### *Managing the COVID-19 Risk*

Throughout 2020, many businesses and households adapted to the new mortality risk posed by COVID-19. At the St. Louis Fed, our leaders have worked to keep employees safe while also meeting business goals. We adapted by having mostly remote work, while maintaining support for and the safety of essential on-site employees who process currency for redistribution into communities and who guard our vaults 24/7. Our organization has demonstrated resilience, agility and innovation in getting our work done and continuing to serve the public's interest.

At the time of this writing, the pandemic is ongoing, but the arrival of vaccines suggests the health crisis will wane. Of course, no one knows how the pandemic will end, and a great deal of uncertainty remains regarding the health crisis and the economy.

In looking ahead, the St. Louis Fed—through its Research Division, now led

by Carlos Garriga—will continue producing high-quality academic research and policy analysis to help solve the economic challenges presented by the pandemic and beyond.

James Bullard President and CEO Federal Reserve Bank of St. Louis

#### Endnotes

1. See my On the Economy blog post, “[Expected U.S. Macroeconomic Performance during the Pandemic Adjustment Period](<https://www.stlouisfed.org/on-the-economy/2020/march/bullard-expected-us-macroeconomic-performance-pandemic-adjustment-period>),” from March 23, 2020.
2. For more discussion, see my Regional Economist article, “[Monetary Policy and Fiscal Policy Responses to the COVID-19 Crisis](<https://www.stlouisfed.org/publications/regional-economist/fourth-quarter-2020/monetary-policy-fiscal-policy-responses-covid-crisis>),” from Nov. 10, 2020.

- **March 31, 2021.** Article. “[[Is Inflation on the Horizon for the U.S. Economy?](#)” Federal Reserve Bank of St. Louis *Regional Economist*, First Quarter 2021.

#### **Is Inflation on the Horizon for the U.S. Economy?**

In recent months, people have been talking more about the potential for inflation to pick up, which would be a different situation from what the U.S. has seen for many years. Since the Federal Open Market Committee (FOMC) adopted an inflation target of 2% in January 2012, inflation (as measured by the year-over-year percentage change in the personal consumption expenditures price index) has averaged 1.4%. This is the average from January 2012 through February 2021. The economic shock from the COVID-19 pandemic sent inflation to a low level last spring, and while it has increased over the past year, it remains below 2%.

However, inflation does look like it could move somewhat higher over the next year or so. In this article, I discuss ideas about why inflation might be

on the horizon for the U.S. economy:

1. A monetarist, or money-based, theory, which focuses on increased money supply
2. A fiscal theory, which is related to the size of federal debt and deficits
3. A Phillips curve theory, which emphasizes a strong economy putting upward pressure on prices

Although recent years have been challenging for these theories of inflation, all three are currently suggesting some inflation pressure ahead.

#### *A Monetarist Theory*

Nobel Prize-winning economist Milton Friedman taught us that inflation is a monetary phenomenon, and that tracking inflation requires tracking money growth. A conventional measure of the money supply is the [M2 money stock](<https://fred.stlouisfed.org/series/WM2NS>), and M2 money growth has been off the charts since the pandemic began. So far in 2021, year-over-year growth rates have been 25% or higher.

The bottom line is that the growth of the nation's money supply has been very high by historical standards. Even if the monetarist theory of inflation has not worked well in recent years, money growth over the past year has been so large that it could be a source of inflation pressure.

#### *A Fiscal Theory*

Those who favor the fiscal theory think that fiscal deficits can lead to inflation. In my view, while the empirical case has been harder to make for this argument, the current fiscal deficits in the U.S. are so large by historical standards that maybe now is the time for this theory to show its relevance.

The estimated value of all pandemic-relief U.S. fiscal policy, for instance, would be equivalent to about 28% of U.S. nominal GDP in 2019. This amount is enough to materially increase the debt-to-GDP ratio in the U.S. A fiscal theory of the price level would suggest that inflation will ramp up as a result.

#### *A Phillips Curve Theory*

The Phillips curve theory has played an important role in central banks' decision-making in recent decades. This theory suggests that high levels of



economic activity will put upward pressure on prices.

Some of that upward pressure could come through bottlenecks in supply chains, which we have certainly heard a lot about during the pandemic. Some pressure could also come through labor markets. Right now, labor markets are not yet fully recovered from the pandemic shock. However, as the pandemic wanes, labor markets could improve dramatically. Many businesses might be left scrambling for workers, which would likely put upward pressure on wages and, in turn, on prices.

Thus, the Phillips curve theory would also predict higher inflation on the horizon for the U.S., as forecasters are expecting a robust economy for this year.

#### *Summary: Three Theories Point to Higher Inflation*

Although empirically none of the three theories of inflation have been infallible, all three are currently pointing in the same direction—toward more inflation pressure in 2021 than the U.S. has experienced in recent years. Furthermore, all three are fueled by large increases in their featured variables: money supply growth, fiscal deficits and projected economic growth.

#### *Fed's New Monetary Policy Framework*

Perhaps the most important reason why inflation might be headed higher than it has been since 2012 has to do with Federal Reserve policy. In August 2020, the FOMC adopted a new monetary policy framework, which changes how the Fed will respond to inflation.

The previous framework emphasized preemptive interest rate increases to mitigate incipient inflation pressures. In other words, the FOMC would act before actually seeing inflation rise in order to keep inflation under control. Such preemptive moves were part of the secret of success when the Fed was working to reduce inflation in the 1980s and 1990s.

Under the new framework, the FOMC will focus on hitting a 2% average inflation rate over time, meaning there will be more emphasis on making up for past misses on the low side by allowing inflation to run modestly on the

high side for some time. Consequently, the FOMC will not be as preemptive as in the past in attempting to quell incipient inflation pressures. Instead of raising interest rates when higher inflation looks to be on the horizon, the FOMC is now more likely to allow inflation to develop to a certain degree and allow that to feed into inflation expectations. As a result, the U.S. could see somewhat higher inflation.

Given that inflation has generally been below the 2% target for many years, an inflation outcome modestly above 2% for some time would be a welcome development for the FOMC. Such an outcome would help the FOMC hit its inflation target on average over time.

The Regional Economist offers insights on regional, national and international issues. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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- **March 23, 2021.** Panel Discussion. [Bullard Discusses Economic Outlook, Federal Debt, Currency Competition](#), National Association for Business Economics (NABE) Economic Policy Conference.

### **Bullard Discusses Economic Outlook, Federal Debt, Currency Competition in NABE Panel**

March 23, 2021

St. Louis Fed President James Bullard shared his views on the policy responses to the pandemic, the U.S. economic outlook, debt-to-GDP ratios and currency competition. He spoke during a moderated panel discussion at the National Association for Business Economics (NABE) Economic Policy Conference.

Bullard noted that the monetary policy and fiscal policy responses during the COVID-19 crisis have been quite good. He also noted that the economic recovery has been quite a bit stronger than most people had projected as of last March and April.

He said that he is expecting a strong year on many dimensions for the U.S. economy. For 2021, he has penciled in 6.5% real GDP growth, inflation moving up to 2.5% and unemployment moving down to 4.5%. He cautioned that the pandemic is still going on, adding that he'd like to see actual data come in that verifies his forecast.

On the issue of federal debt, Bullard noted that he has been thinking about new ways to assess debt-to-GDP ratios across nations and how much debt is too much. He said the advice from macroeconomists has to take the country into account, rather than having a blanket statement that some debt-to-GDP ratio is appropriate for all nations at all times.

Regarding the U.S. dollar, he reiterated his view that the dollar is going to be the world's reserve currency for a long time. He also discussed currency competition, privately issued currencies and exchange rate chaos. (See Bullard's July 2018 presentation " [Non-Uniform Currencies and Exchange Rate Chaos]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2018/bullard\\_mu\\_cato\\_15july2018.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2018/bullard_mu_cato_15july2018.pdf)).")

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=r04VJJDEujA>)

- **March 23, 2021.** Presentation. "[Classic Policy Benchmarks for Economies with Substantial Inequality](#)," Central Banking Series: Perspectives Across the Atlantic, LSE Students' Union Central Banking Society, London School of Economics and Political Science. [Presentation \(pdf\)](#) ([bullard\\_dicecio\\_slides\\_lse\\_cb\\_society\\_mar\\_23\\_2021pdf](#)).

### **Classic Policy Benchmarks for Economies with Substantial Inequality**

November 22, 2022

Presented during a policy panel at the XXV Annual Conference of the Central Bank of Chile, Heterogeneity in Macroeconomics: Implications for Monetary

Policy.

[Watch the November 22, 2022, presentation and panel discussion](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2022/policy-panel-central-bank-chile-conference>).

October 15, 2021

Presented at the Fall 2021 Institute Research Conference, Opportunity & Inclusive Growth Institute, Federal Reserve Bank of Minneapolis.

March 23, 2021

Presented at the Central Banking Series: Perspectives Across the Atlantic, LSE Students' Union Central Banking Society, London School of Economics and Political Science.

[Watch the March 23, 2021, presentation.](<https://fb.watch/4pN8OG8wBg/>)

February 9, 2021

Presented at the National Institute of Economic and Social Research, The Dow Lecture.

This video is from the February 9, 2021, presentation.

Having trouble with the video? [Watch it here.]([https://www.youtube.com/watch?v=8tlUtXNJr\\_8&feature=youtu.be](https://www.youtube.com/watch?v=8tlUtXNJr_8&feature=youtu.be))

February 22, 2020

Presented at the Bruce Smith Memorial Conference, UT Austin, Austin, Texas.

December 6, 2019

Presented at Heterogeneous Agents or Heterogeneous Information: Which

Route for Monetary Policy?, Banque de France and CEPR, Paris, France.

October 24, 2019

Presented at the South African Reserve Bank Biennial Conference, Pretoria, South Africa.

July 8, 2019

Presented at Modelling the Macroeconomy in Risky Times, National Institute of Economic and Social Research, St. Louis, Mo. (This presentation is titled "Classic Policy Benchmarks for Heterogeneous-Agent Economies.")

June 22, 2019

Presented at Expectations in Dynamic Macroeconomic Models 2019, Barcelona GSE and MOVE (Markets, Organizations and Votes in Economics), Barcelona, Spain. (This presentation is titled "Classic Policy Benchmarks for Heterogeneous-Agent Economies.")

May 22, 2019

Presented at Monetary Policy and Heterogeneity Conference, Hong Kong Monetary Authority and Federal Reserve Bank of New York, Hong Kong, China. (This presentation is titled "Classic Policy Benchmarks for Heterogeneous Agent Economies.")

- **February 25, 2021.** Presentation. "[The Waning Pandemic and the U.S. Economy](#)," Economic Forecasting Conference Webinar, Economic Forecasting Center, Georgia State University. [Presentation \(pdf\) \(bullard\\_ga\\_state\\_25\\_february\\_2021pdf\)](#) | [Press Release](#).

### **The Waning Pandemic and the U.S. Economy**

February 25, 2021

[Presentation (pdf)](<https://www.stlouisfed.org/>-

/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\_ga\_state\_25\_february\_2021.pdf)| [Press Release](<https://www.stlouisfed.org/news-releases/2021/02/25/bullard-discusses-waning-pandemic-and-economy>)

During a virtual presentation for Georgia State University's Economic Forecasting Center, St. Louis Fed President James Bullard said that the COVID-19 pandemic's intensity has moderated in the U.S. and Europe in recent weeks, and ongoing vaccinations suggest the health crisis will wane in the months ahead.

He said that U.S. monetary and fiscal policies during the crisis continue to be exceptionally effective in mitigating macroeconomic damage. He noted that forecasts suggest very strong U.S. real GDP growth for 2021. But he cautioned that downside risk remains, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

### **St. Louis Fed's Bullard Discusses the Waning Pandemic and the U.S. Economy**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [The Waning Pandemic and the U.S. Economy]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_ga\\_state\\_25\\_february\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_ga_state_25_february_2021.pdf))” via webinar for Georgia State University's Economic Forecasting Center on Thursday.

During his presentation, Bullard said the COVID-19 pandemic's intensity has moderated in the U.S. and Europe, and ongoing vaccination programs suggest the health crisis will wane in the months ahead.

In addition, he said that U.S. monetary and fiscal policies continue to be exceptionally effective in mitigating macroeconomic damage. He noted that macroeconomic forecasts suggest very strong U.S. real GDP growth for 2021. “Downside risk remains, and continued execution of a granular, risk-based

health policy will be critical to maintain economic momentum,” he said.

#### *Health Crisis Is Expected to Wane*

Bullard noted that daily fatalities per 100,000 population have fallen in recent weeks in both Europe and the U.S. He added that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than those in the U.S. and Europe.

He remarked that vaccine distribution is being directed toward those most vulnerable to COVID-19, suggesting fatalities will decline further in the months ahead even before the pandemic comes under more complete control. However, he said, “Virus mutation that renders current vaccines ineffective poses a tangible risk to this scenario.”

#### *Effective Monetary and Fiscal Policies*

Bullard said that U.S. monetary and fiscal policies have been exceptionally effective during the crisis. Monetary policy included lowering the policy rate to the effective lower bound and providing liquidity to financial markets through a variety of programs supported by the U.S. Treasury, he noted.

“The backstop programs stemmed an incipient financial crisis during March and April 2020, to the point where current levels of financial stress are at pre-pandemic levels,” he said.

Bullard noted that the nature of the response to the pandemic involved asking some workers in “high physical contact” jobs to stay home to invest in national health. Therefore, 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, he explained, adding that he has called this the “keep households whole” policy.

“This policy has been so successful that personal income in 2020 was actually higher than it would have been if the economy had simply remained on the 2019 trend line,” he said.

Bullard pointed out that the households receiving federal transfers like stimulus checks often saved much of it. “This was a rational and prudent

response, as households were naturally unsure how long the health crisis would last and whether Congress would appropriate more funds,” he said.

The arrival of vaccines has meant that the probability of the health crisis ending in coming months is rising dramatically, he added. “This suggests households will be less inclined to save going forward and more inclined instead to spend any federal transfers, leading many forecasters to predict very rapid U.S. real GDP growth in 2021,” he said.

#### *U.S. Labor Market*

Bullard said employment has rebounded more rapidly than expected, supporting the idea that many layoffs were temporary as firms adjusted to the pandemic. “Recent labor market reports have been softer but are likely to be more robust going forward as the pandemic wanes,” he said.

A back-of-the-envelope calculation suggests that there is room for further decline in the official unemployment rate in the months ahead, Bullard said. He also noted that the Federal Open Markets Committee’s (FOMC’s) most recent Summary of Economic Projections has unemployment falling to 5% by the fourth quarter.

Bullard then discussed broader measures of labor market performance, which take all aspects into account. He looked at the Kansas City Fed Labor Market Conditions Indicators—the level of activity index and the associated momentum index. “These two indicators together suggest that today’s labor market conditions are markedly better than those following the 2007-09 recession,” he said.

#### *Inflation Expectations Recovering Toward Inflation Target*

Bullard noted that market-based inflation expectations have recovered from lows reached in March 2020. He said TIPS-based breakeven inflation could move considerably higher and still be consistent with an inflation outcome (based on the personal consumption expenditures price index) modestly above the Fed’s 2% inflation target.

“This would be a welcome development for the FOMC, as inflation has generally been below target for many years,” Bullard said.



### *Longer-Term Interest Rates Rising*

Bullard then discussed the increasing 10-year U.S. Treasury yield. He noted that the rising probability of an end to the health crisis is strengthening the prospects for U.S. real GDP growth. He also explained that the FOMC's new monetary policy framework means that the FOMC will not be as pre-emptive as in the past in attempting to quell incipient inflation pressures.

"With growth prospects improving and inflation expectations rising, the concordant rise in the 10-year Treasury yield is appropriate," Bullard said, adding that the increases so far have not returned the 10-year yield to pre-pandemic levels.

### Contact Us

- Laura Girresch 314-444-6166
  - Anthony Kiekow 314-949-9739
  - Shera Dalin 314-444-3911
  - Tim Lloyd 314-444-6829
- **February 9, 2021.** Presentation. "[Classic Policy Benchmarks for Economies with Substantial Inequality](#)," National Institute of Economic and Social Research, The Dow Lecture. [Presentation \(pdf\) \(bullard\\_dicecio\\_slides\\_dow\\_lecture\\_feb\\_9\\_2021pdf\)](#).

### **Classic Policy Benchmarks for Economies with Substantial Inequality**

November 22, 2022

Presented during a policy panel at the XXV Annual Conference of the Central Bank of Chile, Heterogeneity in Macroeconomics: Implications for Monetary Policy.

[Watch the November 22, 2022, presentation and panel discussion](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2022/policy-panel-central-bank-chile-conference>).

October 15, 2021

Presented at the Fall 2021 Institute Research Conference, Opportunity & Inclusive Growth Institute, Federal Reserve Bank of Minneapolis.

March 23, 2021

Presented at the Central Banking Series: Perspectives Across the Atlantic, LSE Students' Union Central Banking Society, London School of Economics and Political Science.

[Watch the March 23, 2021, presentation.](<https://fb.watch/4pN8OG8wBg/>)

February 9, 2021

Presented at the National Institute of Economic and Social Research, The Dow Lecture.

This video is from the February 9, 2021, presentation.

Having trouble with the video? [Watch it here.]([https://www.youtube.com/watch?v=8tlUtXNJr\\_8&feature=youtu.be](https://www.youtube.com/watch?v=8tlUtXNJr_8&feature=youtu.be))

February 22, 2020

Presented at the Bruce Smith Memorial Conference, UT Austin, Austin, Texas.

December 6, 2019

Presented at Heterogeneous Agents or Heterogeneous Information: Which Route for Monetary Policy?, Banque de France and CEPR, Paris, France.

October 24, 2019

Presented at the South African Reserve Bank Biennial Conference, Pretoria, South Africa.

July 8, 2019

Presented at Modelling the Macroeconomy in Risky Times, National Institute of Economic and Social Research, St. Louis, Mo. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous-Agent Economies.”)

June 22, 2019

Presented at Expectations in Dynamic Macroeconomic Models 2019, Barcelona GSE and MOVE (Markets, Organizations and Votes in Economics), Barcelona, Spain. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous-Agent Economies.”)

May 22, 2019

Presented at Monetary Policy and Heterogeneity Conference, Hong Kong Monetary Authority and Federal Reserve Bank of New York, Hong Kong, China. (This presentation is titled “Classic Policy Benchmarks for Heterogeneous Agent Economies.”)

- **February 3, 2021.** Presentation. "[The Pandemic Endgame Continues](#)," CFA Society St. Louis. [Presentation \(pdf\) \(bullard\\_cfa\\_st\\_louis\\_3\\_february\\_2021pdf\)](#) | [Press Release](#).

## **The Pandemic Endgame Continues**

February 3, 2021

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_cfa\\_st\\_louis\\_3\\_february\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_cfa_st_louis_3_february_2021.pdf)) | [Press Release](<https://www.stlouisfed.org/news-releases/2021/02/03/bullard-the-pandemic-endgame-continues>)

During a virtual presentation to the CFA Society St. Louis, Federal Reserve Bank of St. Louis President James Bullard said that the COVID-19 pandemic

remains intense in the U.S. and Europe, but the arrival of vaccines suggests the health crisis will wane in the months ahead.

He also discussed U.S. monetary and fiscal policies during the crisis, noting that they continue to be exceptionally effective in mitigating macroeconomic damage. Macroeconomic forecasts suggest very strong U.S. real GDP growth for all of 2021, he noted.

But he cautioned that downside risk remains, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

### **St. Louis Fed's Bullard Presents "The Pandemic Endgame Continues"**

ST. LOUIS — Federal Reserve Bank of St. Louis President James Bullard presented “ [The Pandemic Endgame Continues]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_cfa\\_st\\_louis\\_3\\_february\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_cfa_st_louis_3_february_2021.pdf))” via webinar for the CFA Society St. Louis on Wednesday.

During his presentation, Bullard said the COVID-19 pandemic remains intense in the U.S. and Europe, but the arrival of vaccines suggests the health crisis will wane in the months ahead.

In addition, he said, “U.S. monetary and fiscal policies continue to be exceptionally effective in mitigating macroeconomic damage.” Macroeconomic forecasts, he noted, suggest very strong U.S. real GDP growth for all of 2021.

“Downside risk remains, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum,” he said.

#### *Health Crisis Is Expected to Wane*

Regarding management of the pandemic, Bullard said the global health crisis requires continued daily management. He noted that daily fatalities

per 100,000 population remain near the highest levels of the pandemic in both Europe and the U.S. He added that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than those in the U.S. and Europe.

“Key areas of global production must maintain safety protocols but are poised to bring the pandemic under control,” he said.

Turning to vaccines, Bullard noted that vaccine distribution is being directed toward those most vulnerable to COVID-19. “This suggests declining fatalities in the months ahead, even before the pandemic comes under more complete control,” he said. However, he added, “Virus mutation that renders current vaccines ineffective poses a tangible risk to this scenario.”

#### *Effective Monetary and Fiscal Policies*

Bullard said that U.S. monetary and fiscal policies have been exceptionally effective during the crisis. Monetary policy included lowering the policy rate to the effective lower bound and providing liquidity to financial markets through a variety of programs supported by the U.S. Treasury, he noted.

“The backstop programs stemmed an incipient financial crisis during the March-April time frame, to the point where current levels of financial stress are at pre-pandemic levels,” he said.

On U.S. fiscal policy in the first 11 months of 2020, Bullard noted that the total value of the Coronavirus Aid, Relief and Economic Security (CARES) Act along with additional legislation would be about \$3.148 trillion. The fiscal response drove personal income up to an all-time high in the second quarter, which is the opposite of what normally happens in a recession, he noted.

In addition, the Consolidated Appropriations Act of 2021, which was signed into law Dec. 27, includes an additional \$900 billion in pandemic relief, he pointed out.

#### *U.S. Recovery Far Ahead of Schedule*

Bullard said employment has rebounded more rapidly than expected,

supporting the idea that many layoffs were temporary as firms adjusted to the pandemic.

“As a result, the U.S. labor market recovery is about four years ahead of where it was following the 2007-09 recession,” he said.

A back-of-the-envelope calculation suggests that there is room for further decline in the official unemployment rate in the months ahead, Bullard said.

If all those unemployed identifying as “on temporary layoff” are simply recalled and nothing else changes, the official unemployment rate would decline to 4.8%, he said. If the “on temporary layoff” category returns to a normal value (e.g., 1 million workers) and nothing else changes, he calculated that the official unemployment rate would still decline to 5.4%. He noted that the median U.S. unemployment rate in the post-World War II era is 5.6%.

#### *Inflation Expectations Recovering Toward Inflation Target*

Bullard then discussed inflation expectations. “Market-based inflation expectations have recovered from lows reached during March 2020,” he said. The Federal Open Market Committee’s (FOMC’s) new policy framework, which was announced in Fed Chair Jerome Powell’s 2020 Jackson Hole speech, has likely encouraged some of this movement, Bullard explained.

He noted that TIPS-based breakeven inflation, which is based on consumer price index (CPI) inflation measures, could move considerably higher and still be consistent with a personal consumption expenditures price index (PCE) inflation outcome modestly above the Fed’s 2% inflation target.

“This would be a welcome development for the FOMC, as inflation has generally been below target for many years,” Bullard said.

#### Contact Us

- Laura Girresch 314-444-6166
- Anthony Kiekow 314-949-9739
- Shera Dalin 314-444-3911

• Tim Lloyd 314-444-6829

- **January 13, 2021.** Moderated Q&A. [Bullard Discusses Monetary Policy, Inflation Pressures during Reuters Forum.](#)

## **Bullard Discusses Monetary Policy, Inflation Pressures during Reuters Forum**

January 13, 2021

St. Louis Fed President James Bullard shared his views on a variety of topics in a moderated discussion during the Reuters Next virtual forum. He spoke about several aspects of Fed policy, the arrival of vaccines, the possibility of higher inflation, and more.

Bullard noted that the Fed acted very quickly in response to the COVID-19 crisis. The emergency lending programs stemmed an incipient financial crisis that could've occurred on top of the pandemic, he said.

On the health crisis, Bullard cited projections that show fatalities per day declining as the vaccine is rolled out. Declining fatalities will have big ramifications for the economy, and people will see the light at the end of the tunnel for the pandemic, he said.

Regarding the Fed's balance sheet policy, Bullard noted that the FOMC has agreed on state-contingent (or data-dependent) language that says how long asset purchases will continue at the current pace—i.e., the pace will continue until substantial further progress has been made toward the maximum employment and price stability goals.

Bullard also said that the conditions are good for generating inflation, and noted that three theories on what determines inflation over the medium term are all pointing in the same direction. He cited less pre-emptive policy from the Fed than in the past, the large size of fiscal deficits, and the outlook for a hot economy.

- **January 7, 2021.** Presentation. "[The Pandemic Endgame Begins](#)," Power Up Little Rock: U.S. Economy and Monetary Policy, Little Rock Regional Chamber.  
[Presentation \(pdf\)](#)  
[\(bullard\\_littlerockregionalchamber\\_7\\_january\\_2021pdf\)](#) | [Press Release](#).

## **The Pandemic Endgame Begins**

January 7, 2021

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_littlerockregionalchamber\\_7\\_january\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_littlerockregionalchamber_7_january_2021.pdf)) | [Press Release](<https://www.stlouisfed.org/news-releases/2021/01/07/bullard-presents-the-pandemic-endgame-begins>)

During a virtual presentation for the Little Rock Regional Chamber, St. Louis Fed President James Bullard said that although the COVID-19 pandemic has worsened in the U.S. and Europe, the arrival of vaccines suggests the health crisis will wane in the months ahead.

He also discussed the U.S. monetary and fiscal policies in response to the pandemic, noting that they have been especially effective and that the associated macroeconomic outcomes have been considerably better than originally expected at the pandemic's onset. He also said that aggregate resources available to fund consumption continue to be exceptionally high, suggesting continued recovery in the first half of 2021.

But he cautioned that some downside risk remains, and continued execution of a granular, risk-based health policy will be critical in the months ahead.

## **St. Louis Fed's Bullard Presents "The Pandemic Endgame Begins"**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [The Pandemic Endgame Begins]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard\\_littlerockregionalchamber\\_7\\_january\\_2021.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2021/bullard_littlerockregionalchamber_7_january_2021.pdf))



lerockregionalchamber\_7\_january\_2021.pdf)” via webinar for the Little Rock Regional Chamber on Thursday.

During his presentation, Bullard said that although the COVID-19 pandemic has worsened in the U.S. and Europe, the arrival of vaccines suggests the health crisis will wane in the months ahead.

In addition, he said, “In the U.S., monetary and fiscal policies have been especially aggressive, and the associated macroeconomic outcomes have been considerably better than originally expected at the pandemic onset.” He noted that aggregate resources available to fund consumption continue to be exceptionally high, suggesting continued recovery in the first half of 2021.

“Some downside risk remains, and continued execution of a granular, risk-based health policy will be critical in the months ahead,” he said.

#### *Health Crisis Worsens but Is Expected to Wane*

Regarding management of the global health crisis, Bullard noted that daily fatalities per 100,000 population have increased in both Europe and the U.S. He added that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than in the U.S. and Europe.

Bullard noted that vaccines will help bring the crisis to a close. “Vaccine distribution is being directed toward those most vulnerable to COVID-19, suggesting declining fatalities in the months ahead,” he said.

He observed that business restrictions today aren’t too different from what they have been in recent months in the U.S., as suggested by the University of Oxford’s stringency index. Renewed increases in infections in recent months are likely coming more from personal interactions at the household level, he added.

“Many businesses have learned to produce at normal levels despite health restrictions, contributing to rapid economic growth,” he said.

### *Effective Monetary and Fiscal Policies*

Bullard said that U.S. monetary and fiscal policies have been exceptionally effective during the crisis. Monetary policy included lowering the policy rate to the effective lower bound and providing liquidity to financial markets through a variety of programs supported by the U.S. Treasury, he noted.

“The backstop programs stemmed an incipient financial crisis during the March-April time frame, to the point where current levels of financial stress are at pre-pandemic levels,” he said.

On U.S. fiscal policy in the first 11 months of 2020, Bullard noted that the total value of the Coronavirus Aid, Relief and Economic Security (CARES) Act along with additional legislation would be about \$3.148 trillion. He pointed out that the shortfall in 2020 real GDP, according to forecasters, will likely be closer to 2%-2.5%, or about \$400 billion to \$500 billion.

He also noted that the fiscal response drove personal income up to an all-time high in the second quarter, which is the opposite of what normally happens in a recession.

In addition, the Consolidated Appropriation Act of 2021, which was signed into law Dec. 27, includes an additional \$900 billion in pandemic relief, he pointed out.

### *U.S. Recovery Far Ahead of Schedule*

Current macroeconomic data suggest that April will prove to be the lowest point of the crisis, provided the remainder of the crisis can be managed effectively, Bullard noted. He pointed out that third-quarter real GDP growth, at an annualized rate of 33.4%, was the fastest on record. He added that fourth-quarter real GDP appears to have grown at an above-trend pace, according to forecasts.

Bullard also noted that employment has rebounded more rapidly than expected, supporting the idea that many layoffs were temporary as firms adjusted to the pandemic. “As a result, the U.S. labor market recovery is four years ahead of where it was following the 2007-09 recession,” he said.

### *Inflation Expectations Recovering Toward Inflation Target*

Bullard then discussed inflation expectations. “Market-based inflation expectations have recovered from lows reached during March 2020,” he said. The Federal Open Market Committee’s new policy framework, which was announced in Fed Chair Jerome Powell’s 2020 Jackson Hole speech, has likely encouraged some of this movement, Bullard explained.

He noted that TIPS-based breakeven inflation, which is based on consumer price index (CPI) inflation measures, could move considerably higher and still be consistent with a personal consumption expenditures price index (PCE) inflation outcome modestly above the Fed’s 2% inflation target.

#### Contact Us

- Laura Girresch 314-444-6166
- Anthony Kiekow 314-949-9739
- Shera Dalin 314-444-3911
- Tim Lloyd 314-444-6829

- **November 24, 2020.** Presentation. "[Optimal Monetary Policy for the Masses](#)," The Bank of Finland Monetary Policy Webinar: New Challenges to Monetary Policy Strategies.  
[Presentation \(pdf\) \(bullard\\_dicecio\\_bank\\_of\\_finland\\_24\\_nov\\_2020pdf\)](#).

### **Optimal Monetary Policy for the Masses**

November 24, 2020

Presented at The Bank of Finland Monetary Policy Webinar: New Challenges to Monetary Policy Strategies.

October 15, 2020

Presented at Monetary Policy and Heterogeneity, Federal Reserve Board Virtual Conference.

Bullard’s previous presentations of “ [Optimal Monetary Policy for the Masses](<https://www.stlouisfed.org/from-the-president/speeches-and->

presentations/2019/optimal-monetary-policy-masses)” are also available.

- **November 18, 2020.** Remarks. [Bullard Discusses the U.S. Economy and Pandemic in Webinar](#), Rotary Club of Hot Springs National Park.

### **Bullard Discusses the U.S. Economy and Pandemic in Webinar**

November 18, 2020

St. Louis Fed President James Bullard talked about substantial progress on health outcomes, but cautioned that risks remain as the pandemic continues. He also discussed the upside surprise for the U.S. economy in recent months, as well as the monetary policy and fiscal policy responses at the beginning of the COVID-19 crisis. He spoke during an event hosted by the Arkansas-based Rotary Club of Hot Springs National Park.

Bullard noted that the U.S. economy is experiencing a K-shaped recovery, with some firms doing well but others struggling during the pandemic. However, he said that the economy as a whole has adapted well. The adjustments made by many businesses have helped the economy make much more progress than it did after the global financial crisis, he added. But a granular, risk-based health policy is needed to manage the health crisis part going forward, he said.

(For related remarks, see Bullard’s presentation on Nov. 13, 2020, “ [The U.S. Economy and COVID-19: An Update](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2020/us-economy-and-covid-19-an-update>).”)

During an audience Q&A, he shared his views on expectations for inflation over the next couple of years and on additional fiscal stimulus.

- **November 13, 2020.** Presentation. "[The U.S. Economy and COVID-19: An Update](#)," Economic Club of Memphis webinar. [Presentation \(pdf\)](#) ([bullard\\_mempis\\_economic\\_club\\_13\\_november\\_2020pdf](#)) | [Press Release](#).

## **The U.S. Economy and COVID-19: An Update**

November 13, 2020

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\\_memophis\\_economic\\_club\\_13\\_november\\_2020.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard_memophis_economic_club_13_november_2020.pdf)) | [Press Release](<https://www.stlouisfed.org/news-releases/2020/11/13/bullard-economy-covid-19>)

During a virtual presentation for the Economic Club of Memphis, St. Louis Fed President James Bullard said that while there has been progress in managing the global health crisis, substantial risks remain. He also noted that U.S. macroeconomic news from May through October surprised dramatically to the upside, which suggests that the business sector has rapidly adjusted to the pandemic.

In addition, he said, “U.S. monetary and fiscal policies have been exceptionally effective and were designed for a larger shock than the one that has occurred.”

He cautioned that downside risk remains substantial, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

### **St. Louis Fed's Bullard Discusses the U.S. Economy and COVID-19**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [The U.S. Economy and COVID-19: An Update]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\\_memophis\\_economic\\_club\\_13\\_november\\_2020.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard_memophis_economic_club_13_november_2020.pdf))” via webinar for the Economic Club of Memphis on Friday.

During his presentation, Bullard said there has been progress in managing the global health crisis, but substantial risks remain. He also noted that U.S.

macroeconomic news from May through October surprised dramatically to the upside, which suggests that the business sector has rapidly adjusted to the pandemic.

In addition, he said, “U.S. monetary and fiscal policies have been exceptionally effective and were designed for a larger shock than the one that has occurred.”

He cautioned that downside risk remains substantial, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

#### *Managing Health Outcomes Remains Critical*

Regarding management of the health crisis, Bullard noted that daily fatalities per 100,000 population have declined substantially from peak levels in March and April in both Europe and the U.S. but recently began to rise again. He added that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than in the U.S. and Europe.

“Key areas of global production are well past the initial phase of the crisis but must maintain safety protocols,” he said.

Bullard observed that business restrictions today aren’t too different from what they have been in recent months on a national basis in the U.S., as suggested by the University of Oxford’s stringency index. Generally speaking, businesses have strong incentives to try to keep customers and workers safe, he said. Otherwise, he noted, a major outbreak could occur, which would severely impact business.

“It may be that renewed increases in infections are coming more from personal interactions at the household level. If so, a renewed public education initiative asking households to take actions to reduce disease transmission may be helpful,” Bullard said.

#### *Upside Surprise in U.S. Macroeconomic Data*

Current data suggest that April will prove to be the lowest point of the crisis,

provided the remainder of the crisis can be managed effectively, Bullard noted. He remarked that the Citi Economic Surprise Index indicates substantial upside surprise in macroeconomic data releases in recent months. In addition, third-quarter real GDP growth, at an annualized rate of 33.1%, was the fastest on record, he pointed out.

Bullard also noted that employment has rebounded more rapidly than expected, supporting the idea that many layoffs were temporary as firms adjusted to the pandemic. “As a result, the U.S. labor market recovery is 48 to 50 months ahead of where it was following the 2007-09 recession,” he said.

#### *COVID-19: Mortality Risk Management*

Bullard discussed how households and businesses have developed strategies for mortality risk mitigation, including wearing seat belts and adhering to fire codes.

Second-quarter results showed that essential retail services can be provided with low risk, so long as simple precautions are taken, he said. Since then, many firms have adopted such strategies, he said, adding, “this has allowed many, but not all, firms to get back in business safely.”

#### *Effective Monetary and Fiscal Policies*

Bullard said that U.S. monetary and fiscal policies have been exceptionally effective during the initial phase of the crisis. Monetary policy included lowering the policy rate to the effective lower bound and providing liquidity to financial markets through a variety of programs supported by the U.S. Treasury, he noted.

“The backstop programs stemmed an incipient financial crisis during the March-April time frame, to the point where current levels of financial stress are near pre-pandemic levels,” he said.

On U.S. fiscal policy, Bullard noted that the total value of the Coronavirus Aid, Relief and Economic Security (CARES) Act along with additional legislation would be about \$3.148 trillion, or about 14.5% of U.S. nominal GDP in the fourth quarter of 2019. He pointed out that the shortfall in 2020

real GDP, according to forecasters, will likely be closer to 2.5%, or about \$500 billion. “In an aggregate sense, there are considerable resources pledged to combat the crisis, which should continue to be helpful in 2021,” he said.

He also noted that the fiscal response drove personal income up to an all-time high in the second quarter, which is the opposite of what normally happens in a recession.

### *Adapting to the Pandemic*

Adaptation to the new mortality risk has been much faster than initially expected so far, and macroeconomic outcomes have been considerably better than originally expected, Bullard said.

“This outcome has been supported by exceptionally effective monetary and fiscal policies,” he said. “Despite this success, downside risk remains substantial, and continued execution of a granular, risk-based health policy will be critical in the months ahead.”

### Contact Us

- Laura Girresch 314-444-6166
  - Anthony Kiekow 314-949-9739
  - Shera Dalin 314-444-3911
  - Tim Lloyd 314-444-6829
- **November 10, 2020.** Article. "[Monetary Policy and Fiscal Policy Responses to the COVID-19 Crisis](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Fourth Quarter 2020.

### **Monetary Policy and Fiscal Policy Responses to the COVID-19 Crisis**

The COVID-19 health crisis has been a substantial shock to the U.S. economy, with the negative economic impact mostly concentrated, thus far, in March and April. The Fed’s monetary policy response and the fiscal policy response during the initial phase of the current crisis were swift and significant. In my view, these policies were successful in helping many parts of the nation’s economy respond effectively to the first wave of the pandemic.



### *Monetary Policy Response*

During the early part of the crisis in the U.S., particularly in March, financial market stress rose dramatically. For the week ending March 20, the [St. Louis Fed Financial Stress Index](<https://fred.stlouisfed.org/series/stlfsi2>) reached its highest level observed since December 2008, which was in the midst of the financial crisis. Even the U.S. Treasury market, which is considered the deepest and most liquid market in the world, showed signs of stress and was somewhat illiquid in March 2020.

The Federal Open Market Committee (FOMC) convened on Sunday, March 15—two days before a regularly scheduled meeting—and took action, much like it has done in many past emergencies and other particularly difficult situations. That it wasn't willing to wait two days for its regularly scheduled meeting illustrates both its sense of urgency and recognition of how quickly conditions can change in a pandemic.

At the meeting, the FOMC reduced the target range for the federal funds rate to near zero. The FOMC also discussed other types of interventions that could be done, including emergency lending and purchases of different kinds of assets. These interventions were subsequently undertaken by the Board of Governors and the Treasury Secretary. More information about [these 13(3) facilities](<https://www.federalreserve.gov/funding-credit-liquidity-and-loan-facilities.htm>) can be found on the Federal Reserve Board of Governors website.

Some of these emergency funding programs—authorized under Section 13(3) of the Federal Reserve Act—went beyond what was done during the financial crisis of 2007-09. The Fed programs initiated during the pandemic were designed to provide backstop funding to a wide variety of markets, including the corporate bond market, which was not included in 13(3) programs during the financial crisis. Providing backstop funding for these markets reassures investors that the Fed will be a participant of last resort, albeit at prices that would not be all that attractive in ordinary times. But having these programs in place ensures trading occurs in these markets, thereby preventing them from freezing up entirely.

The backstop lending programs were successful in stemming an incipient financial crisis during the March-April time frame. Levels of financial stress have declined and are now back to pre-pandemic levels observed in January and February 2020.

### *Fiscal Policy Response*

In March 2020, given the emerging pandemic public health crisis and accompanying national, state and local guidance, high-contact businesses and industries began temporary closures and other businesses sent employees to work remotely. This was a collective investment in public health, and in such situations the appropriate policy is to compensate those who are most disrupted.

As such, U.S. fiscal policy was designed to keep people whole and make sure they would be able to pay their bills as the country was trying to get the pandemic under control. Some of the ways households and businesses were compensated included:

- Supplemental unemployment insurance benefits
- Pandemic unemployment assistance for workers who would not be eligible for unemployment insurance under normal programs, such as independent contractors, self-employed workers and gig economy workers
- The Paycheck Protection Program, which provided forgivable loans to small businesses

Between the Coronavirus Aid, Relief, and Economic Security (CARES) Act and other legislation, Congress authorized borrowing more than \$3 trillion. The total value was equivalent to about 14.5% of U.S. GDP in the fourth quarter of 2019. Thus, the fiscal package during the current crisis has been substantial and much larger than the fiscal package enacted in 2009.

One piece of evidence that the fiscal response was successful is that personal income increased in the second quarter of 2020—the opposite of what normally occurs during a recession. Even though the U.S. economy experienced its biggest contraction on record, with real GDP declining by 31.4% at an annual rate, personal income rose during this period because the government borrowed money and gave it to businesses and households

that were disrupted.

While this process has been understandably uneven, the spirit of the intervention was to move quickly and to try to get people the compensation they would need to pay bills and maintain their lifestyles during this period.

#### *Adapting to the COVID-19 Risk*

Since the initial phase of the pandemic crisis, we have learned more about the disease, and households and businesses have been adapting to the new mortality risk in the economy. Many companies have been able to reestablish their businesses and revenue streams by adopting measures to keep their customers and workers safe, much as we saw during the second quarter with essential retail services. Thus, while a need for support still remains, the need is reduced from what it was before because some people have been able to get back into the workplace and some businesses have been able to continue to produce.

Of course, downside risks to the economy remain, and the crisis could take unexpected twists and turns. But so far, the monetary policy and fiscal policy responses to the pandemic have been very effective—a financial crisis during the initial shock was avoided, and the U.S. economy has responded very well to the policy actions that were taken.

For instance, while the unemployment rate remains elevated, it has been declining at a faster pace than in the previous recovery, driven by the spike and subsequent decline in temporary layoffs. In addition, after such a large decline in the second quarter, real GDP increased by 33.1% at an annual rate in the third quarter of 2020, according to the initial estimate from the U.S. Bureau of Economic Analysis. That growth rate is substantially better than what forecasters initially expected in the March-April time frame. In that sense, the recovery has been better than what people dared hope for in the beginning of this crisis.

#### Endnote

1. More information about [these 13(3) facilities](<https://www.federalreserve.gov/funding-credit-liquidity-and-loan-facilities.htm>) can be found on the Federal Reserve Board of Governors

website.

The Regional Economist offers insights on regional, national and international issues. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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- **October 21, 2020.** Remarks. [Bullard Discusses U.S. Economy, Policy, Inflation during Virtual Event](#), Federal Home Loan Bank of Des Moines Leadership Summit.

### **Bullard Discusses U.S. Economy, Policy, Inflation during Virtual Event**

October 21, 2020

St. Louis Fed President James Bullard discussed a variety of topics related to the U.S. economy during a virtual fireside chat at the Federal Home Loan Bank of Des Moines Leadership Summit.

Bullard shared his views on the monetary and fiscal policy responses to the COVID-19 crisis; improvements in health outcomes and economic outcomes since March and April; and expectations for strong GDP growth in the third quarter and for above-trend growth in the following two quarters.

He also discussed various aspects of inflation, including what the FOMC's move to flexible average inflation targeting means for monetary policy; factors that suggest inflation may move somewhat higher in the quarters and years ahead; and the measures of inflation that he prefers to follow.

Other topics that Bullard talked about include asset bubbles, the labor market, wealth and income inequality, federal debt, and digital currencies.

- **October 16, 2020.** Panel Discussion. [Bullard Discusses Fed's Monetary Policy Framework during Virtual Panel](#), Reinventing Bretton Woods Committee Panel Series.

## **Bullard Discusses Fed's Monetary Policy Framework during Virtual Panel**

October 16, 2020

St. Louis Fed President James Bullard shared his views on several elements of the Fed's monetary policy framework review, including the move to flexible average inflation targeting. He spoke during a Reinventing Bretton Woods Committee panel discussion.

Bullard noted that having the policy rate near the effective lower bound in recent years has dragged down actual inflation outcomes, making it difficult to maintain credibility for the inflation target. He said that flexible average inflation targeting takes into account more explicitly the effective lower bound and its impact on actual inflation outcomes. This new strategy would allow policymakers to make up for past misses on inflation, he said.

Bullard discussed other elements of the review, including the Federal Open Market Committee's emphasizing that the Fed's employment goal is broad and inclusive of everybody in the economy; revised language that says the FOMC would worry only about shortfalls, instead of "deviations," of employment from full employment; and better description of the role of financial stability in FOMC deliberations.

During the panel discussion, he addressed questions related to overshooting the inflation target, additional actions the Fed could take should more be needed, and the U.S. Treasury yield curve.

The video for the event can be found [here](<https://www.ubs.com/global/en/investment-bank/ib-conferences/emea/imf-annual-meetings.html>).

- **October 15, 2020.** Presentation. "[Optimal Monetary Policy for the Masses](#)," Monetary Policy and Heterogeneity, Federal Reserve Board Virtual Conference.  
[Presentation \(pdf\) \(bullard\\_dicecio\\_mphfrb\\_15\\_oct\\_2020pdf\)](#).

## **Optimal Monetary Policy for the Masses**

November 24, 2020

Presented at The Bank of Finland Monetary Policy Webinar: New Challenges to Monetary Policy Strategies.

October 15, 2020

Presented at Monetary Policy and Heterogeneity, Federal Reserve Board Virtual Conference.

Bullard's previous presentations of "[Optimal Monetary Policy for the Masses](https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2019/optimal-monetary-policy-masses)" are also available.

- **September 24, 2020.** Presentation. "[COVID-19 and the U.S. Economy: Progress on Health and Incomes](#)," Global Interdependence Center, GIC Executive Briefing. [Presentation \(pdf\) \(bullard\\_gic\\_24\\_september\\_2020pdf\)](#) | [Press Release](#).

## **COVID-19 and the U.S. Economy: Progress on Health and Incomes**

September 24, 2020

[Presentation (pdf)](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\_gic\_24\_september\_2020.pdf)| [Press Release](https://www.stlouisfed.org/news-releases/2020/09/24/bullard-discusses-covid-19-and-us-economy)

During a virtual presentation for the Global Interdependence Center, St. Louis Fed President James Bullard said there has been substantial progress in managing the global health crisis. In addition, he noted that U.S. macroeconomic news has surprised dramatically to the upside and that economic activity will likely show outsized growth in the third quarter.

"I expect this rebound to continue in the U.S. as businesses learn how to

produce products and services safely using simple, existing technology,” Bullard said.

He also noted that U.S. monetary and fiscal policies have been exceptionally effective and were designed for a larger shock than the one that has occurred. He cautioned that downside risk remains substantial, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

Having trouble with the video? [Watch it here.](<https://www.interdependence.org/resources/us-economy-and-monetary-policy/#.X2zgSGhKg2w>)

### **St. Louis Fed's Bullard Discusses COVID-19 and the U.S. Economy**

ST. LOUIS –Federal Reserve Bank of St. Louis President James Bullard presented “ [COVID-19 and the U.S. Economy: Progress on Health and Incomes]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\\_gic\\_24\\_september\\_2020.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard_gic_24_september_2020.pdf))” via webinar for the Global Interdependence Center (GIC) on Thursday.

During his presentation, Bullard said there has been substantial progress in managing the global health crisis. In addition, he noted that U.S. macroeconomic news has surprised dramatically to the upside and that economic activity will likely show outsized growth in the third quarter.

“I expect this rebound to continue in the U.S. as businesses learn how to produce products and services safely using simple, existing technology,” Bullard said.

He also noted that U.S. monetary and fiscal policies have been exceptionally effective and were designed for a larger shock than the one that has occurred. He cautioned that downside risk remains substantial, and continued execution of a granular, risk-based health policy will be critical to maintain economic momentum.

### *Substantial Progress in Health Outcomes*

In discussing the progress in managing the health crisis, Bullard noted that daily fatalities per 100,000 population have declined substantially from peak levels in March and April in both Europe and the U.S. He added that East Asia and Pacific countries continue to report daily fatalities per 100,000 population that are an order of magnitude lower than in the U.S. and Europe.

“This suggests that key areas of global production are well past the initial phase of the crisis and are likely to continue to increase economic activity under new safety protocols,” he said.

### *Upside Surprise in U.S. Macroeconomic Data*

Current data suggest that April will prove to be the lowest point of the crisis, Bullard noted. He pointed out that the Citi economic surprise index indicates substantial upward surprise in macroeconomic data releases in recent months.

Bullard also noted that employment has rebounded more rapidly than expected, supporting the idea that many layoffs were temporary as firms adjusted to the pandemic. “A back-of-the-envelope calculation suggests that there is room for a substantial decline in the official unemployment rate in the months ahead,” he said.

Regarding GDP, Bullard noted that third-quarter growth is projected to show substantial expansion. “Very rapid third-quarter GDP growth may put the U.S. economy within reach of a sort of ‘full recovery’ by the end of 2020,” he said.

He suggested that we could reach the average level of aggregate national income of 2019 by the end of 2020. “For this to happen, real GDP would have to grow 35% at an annual rate in the third quarter, followed by about 10.3% at an annual rate in the fourth quarter. These are big numbers, but not outside the realm of possibility,” he said.

### *COVID-19: Mortality Risk Management*

Bullard discussed how firms have been learning to run a business in a



pandemic. He noted that work from home has proven to be a viable and powerful strategy. In addition, the second-quarter results show that essential retail services can be provided with low risk, so long as simple precautions are taken, he said.

“This suggests that during the third quarter many firms have simply adopted proven, simple risk mitigation activities pioneered by the essential services industries in the second quarter,” Bullard said.

#### *Effective Monetary and Fiscal Policies*

Bullard said that U.S. monetary and fiscal policies have been effective during the initial phase of the crisis. Monetary policy included lowering the policy rate to the effective lower bound and providing liquidity to financial markets through a variety of lending programs supported by the U.S. Treasury, he noted.

“The backstop lending programs stemmed an incipient financial crisis during the March-April time frame, to the point where current levels of financial stress are near pre-pandemic levels,” he said.

On fiscal policy, Bullard noted that the total value of the Coronavirus Aid, Relief and Economic Security Act along with additional legislation would be about 14.5% of U.S. nominal GDP in the fourth quarter of 2019. He pointed out that the shortfall in 2020 real GDP, according to forecasters, will likely be 3% to 4%, “and so in an aggregate sense there are considerable resources pledged to combat the crisis.”

He also noted that the fiscal response drove personal income up to an all-time high in the second quarter, which is the opposite of what normally happens in a recession.

#### *Adapting to the Pandemic*

The global health policy response has managed to contain the pandemic in terms of health outcomes relative to the March-April 2020 period, Bullard said. Still, the second half of the year is a period of continued learning and adaptation to the new mortality risk in the economy.

“Simple mortality risk mitigation strategies hold the promise of delivering higher household incomes along with lower fatalities from COVID-19, thus improving outcomes along both dimensions,” he said. “The downside risk remains substantial and continued execution of a granular, risk-based health policy will be critical in the months ahead.”

Contact Us

- Laura Girresch 314-444-6166
- Anthony Kiekow 314-949-9739
- Shera Dalin 314-444-3911
- Tim Lloyd 314-444-6829

- **September 18, 2020.** Remarks. [Bullard Discusses Economic Outlook, Inflation during Virtual Conference.](#)

### **Bullard Discusses Economic Outlook, Inflation during Virtual Conference**

September 18, 2020

St. Louis Fed President James Bullard discussed his outlook for U.S. GDP growth and unemployment, the Fed's move to flexible average inflation targeting, and the possibility of seeing more inflation in the future than before the pandemic. He spoke at a virtual conference hosted by the Boeing Center for Supply Chain Innovation at Washington University in St. Louis.

Bullard noted that the unemployment rate declined dramatically from double-digit levels to 8.4% as of the last jobs report, which was for August. He said that he has penciled in an unemployment rate of 6.5% for the December jobs report. He also noted that real GDP growth in the third quarter looks like it'll be about 30% at an annual rate, which would be the biggest growth quarter of all time in the U.S.

Bullard also explained what flexible average inflation targeting means at a practical level. When inflation runs below target for a while, the central bank would make up for that by allowing inflation to run above target for a while, thereby hitting the 2% inflation target on average, he noted. While inflation has mostly been below target since 2012, he said the U.S. may start to see

some inflation in the future from several sources.

Bullard also discussed the increase in federal debt as a result of pandemic relief to households and businesses, Fed actions aimed at keeping the U.S. out of a financial crisis on top of the pandemic, and continued adjustments made by businesses to provide their products and services safely.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=c9-rWqi7AIE>)

- **August 3, 2020.** Remarks. [Bullard Speaks at Memphis Branch Virtual Event.](#)

### **Bullard Speaks at Memphis Branch Virtual Event**

August 3, 2020

St. Louis Fed President James Bullard gave an overview of how the U.S. economy is interacting with the progress of the COVID-19 pandemic during a virtual event hosted by the St. Louis Fed's Memphis Branch. He also outlined a scenario for how to stabilize the economy by the end of the year.

Bullard noted that the U.S. economy surprised to the upside in May and June, but that he would expect less upside surprise with July data. However, the basic story that April was way down and that May and June came back is encouraging and is something to build on in trying to stabilize the economy, he said.

He also talked about how the economy is continuing to adapt to the new mortality risk posed by COVID-19, and about the use of some basic risk mitigation strategies. Another development that likely will help is better therapeutics for treating the disease, he added.

"All of this suggests a path going forward that can lead to stabilization in the U.S. economy by the end of the year," he said. However, he cautioned that there are downside risks, which is the nature of being in a crisis.

(For additional remarks on managing the mortality risk, see Bullard's July

14 presentation, “ [The State of the COVID-19 Crisis in the U.S.](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2020/the-state-of-the-covid-19-crisis>)”)

- **July 17, 2020.** Article. "[The State of the COVID-19 Crisis in the U.S.](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Third Quarter 2020.

### **The State of the COVID-19 Crisis in the U.S.**

As the COVID-19 pandemic spread throughout the U.S. during early spring, public-health concerns led to a partial economic shutdown. Not surprisingly, this shutdown has been reflected in macroeconomic data—for example, we saw a record surge in the unemployment rate for April. Following the initial shock period, macroeconomic news has been stronger than expected in May and June. This column is based on my remarks given July 14, 2020, “ [The State of the COVID-19 Crisis in the U.S.](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2020/the-state-of-the-covid-19-crisis>),” during an Economic Club of New York webinar.

Progress in managing the health crisis has been substantial, but COVID-19 has proved to be more persistent than many had expected back in March and April. However, the experience during the second quarter of 2020 suggests that simple risk mitigation measures may be used to effectively manage the disease going forward.

This suggests a base case in which the macroeconomy will continue to build on its momentum from May and June in the second half of 2020. Things could change, however, given the volatility of the virus situation. Tremendous uncertainty still exists in the U.S. economy, and the downside risk remains substantial. We need better execution of a granular, risk-based health policy, which will be critical to keep the economy out of depression.

#### *Upside Surprise for the Macroeconomy*

Given the macroeconomic news for May and June, April may prove to be the lowest point of the crisis. The Citigroup Economic Surprise Index, for example, indicates substantial upside surprise in recent data releases.

Employment in particular has rebounded more rapidly than expected. After the previous unemployment peak in October 2009, the unemployment rate declined by only 1.2 percentage points after two years. In the current situation, the unemployment rate (after adjusting for misclassification of workers) declined by 7.2 percentage points in just two months following its peak in April. In April, for instance, the official unemployment rate was 14.7%. The Bureau of Labor Statistics reported that some additional workers should have been categorized as unemployed on temporary layoff, which would have raised the unemployment rate to 19.5%. The behavior of employment reinforces the fact that the current shock is very different from previous shocks to the economy.

One way the current shock is different is that many layoffs are viewed as temporary. The share of unemployed workers who describe themselves as being on temporary layoff is typically around 10% to 15%, but today it is about 60% (after reaching 78% in April). In addition, this share has moved in tandem with the official unemployment rate in recent months.

A back-of-the-envelope calculation suggests that there is room for a substantial decline in the official unemployment rate in the months ahead. In particular, if all of the unemployed identifying as being on temporary layoff are simply recalled in the next six months and nothing else changes, the official unemployment rate would decline to a shocking 4.5%. If this category instead returns to a normal value of 1 million workers and nothing else changes, the official unemployment rate would still decline to 5.1%. If large declines in unemployment occur during the upcoming months, my expectation is that the actual path will be uneven.

A final comment about the upside surprise for the economy relates to upward revisions to GDP growth estimates. While the second quarter is projected to show substantial contraction—the worst quarter of all time in terms of U.S. economic growth—forecasts have nevertheless become less negative in recent weeks. This shows once again that the news for May and June has been quite good compared with what was previously expected.

### *Successes in Health Policy*

There have been successes in the health policy response to the pandemic.

Current projections of fatalities in the U.S. are much lower than initial projections. As bad as the pandemic has been, it has not been anywhere close to the worst fears at the onset of the pandemic. Daily fatalities in the U.S. have declined about 70% from the peak level in April, according to data from the University of Washington's Institute for Health Metrics and Evaluation as of July 7. However, COVID-19 is proving to be a persistent threat, and continuing risk mitigation is required to keep the disease under control.

A lesson from the second quarter is that work from home has proved to be a viable and powerful strategy for many businesses. In addition, the second-quarter results seem to show that essential retail services—such as grocery stores and large retailers like Walmart and IKEA—can be provided with low risk, as long as simple precautions are taken.

Firms and other economic entities have strong incentives to restore revenue streams and deliver products and services safely. This suggests that during the third quarter many firms will adopt proven risk mitigation activities pioneered by the essential services industries in the second quarter. These include ubiquitous mask usage in contact situations as well as other simple procedures, such as more testing, using personal protective equipment, taking temperatures and asking people to stay home if they are sick. Adoption of these types of risk mitigation activities may bring the disease under control in the second half of 2020.

#### *COVID-19: Mortality Risk Management*

U.S. citizens face many types of mortality risk, including “accidental injury,” which is the third largest cause of death in the U.S. Currently, COVID-19 deaths are approaching the number of deaths by accidental injury that is typically seen in a year.

Accidents of all types are associated with significant risk mitigation activities throughout society, including air bags, traffic regulations and fire codes, and deaths occur even with those mitigation strategies in place. While similar risk mitigation is not yet fully in place for COVID-19, ubiquitous masks and other simple measures, as outlined above, could provide important components of a risk mitigation strategy.

The second half of 2020 will be a period of continued learning and adaptation to the new mortality risk in the economy. Simple risk mitigation strategies hold the promise of delivering higher household incomes along with lower fatalities from COVID-19, thus improving along economic and health dimensions relative to the second quarter. My base case is that we will be able to accomplish this in the next six months and come back to a more normal U.S. economy, although downside risks do remain.

#### Endnotes

1. This column is based on my remarks given July 14, 2020, “[The State of the COVID-19 Crisis in the U.S.](<https://www.stlouisfed.org/from-the-president/speeches-and-presentations/2020/the-state-of-the-covid-19-crisis>),” during an Economic Club of New York webinar.
2. In April, for instance, the official unemployment rate was 14.7%. The Bureau of Labor Statistics reported that some additional workers should have been categorized as unemployed on temporary layoff, which would have raised the unemployment rate to 19.5%.

The Regional Economist offers insights on regional, national and international issues. Views expressed are not necessarily those of the St. Louis Fed or Federal Reserve System.

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- **July 14, 2020.** Presentation. "[The State of the COVID-19 Crisis in the U.S.](#)," The Economic Club of New York webinar.  
[Presentation \(pdf\)](#)  
[\(bullard\\_economic\\_club\\_new\\_york\\_14\\_july\\_2020pdf\)](#) | [Press Release](#).

#### **The State of the COVID-19 Crisis in the U.S.**

July 14, 2020

[Presentation (pdf)]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\\_economic\\_club\\_new\\_york\\_14\\_july\\_2020.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard_economic_club_new_york_14_july_2020.pdf)) | [Press

Release](<https://www.stlouisfed.org/news-releases/2020/07/14/bullard-state-of-covid-19-crisis-in-us>)

St. Louis Fed President James Bullard discussed the upside surprise for the U.S. macroeconomy in May and June during a webinar with the Economic Club of New York. He also noted that progress in managing the health crisis has been substantial, but COVID-19 has proven to be more persistent than many expected.

The second half of 2020 will be a period of continued learning and adaptation to the new mortality risk in the economy, he said. “Simple risk mitigation strategies, including ubiquitous masks, hold the promise of delivering higher household incomes along with lower fatalities from COVID-19, thus improving along both dimensions,” he added.

However, Bullard cautioned, “The downside risk remains substantial, and better execution of a granular, risk-based health policy will be critical to keep the economy out of depression.”

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=d22ZM8Vr2Uk&t=128s>)

## **St. Louis Fed's Bullard Discusses the State of the COVID-19 Crisis in the U.S.**

NEW YORK –Federal Reserve Bank of St. Louis President James Bullard presented “ [The State of the COVID-19 Crisis in the U.S.]([https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard\\_economic\\_club\\_new\\_york\\_14\\_july\\_2020.pdf](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/2020/bullard_economic_club_new_york_14_july_2020.pdf))” via webinar to the Economic Club of New York on Tuesday.

During his presentation, Bullard noted that macroeconomic news has been stronger than expected in May and June. He also noted that progress in managing the health crisis has been substantial, but COVID-19 has proven to be more persistent than many expected. However, the experience during the



second quarter of 2020 suggests that simple risk mitigation measures, including ubiquitous masks, may be used to manage the disease effectively, he added.

“This suggests a base case in which the macroeconomy will continue to build on its momentum from May and June in the second half of 2020,” Bullard said. “The downside risk is nevertheless substantial, and better execution of a granular, risk-based health policy will be critical to keep the economy out of depression.”

#### *Upside Surprise in May and June*

The macroeconomic news for May and June seems to suggest that April will prove to be the lowest point of the crisis, Bullard noted. He pointed out that the Citi economic surprise index indicates substantial upward surprise in data releases for this time period, well beyond normal news variation.

Bullard also noted that employment has rebounded more rapidly than expected, which supports the idea that many layoffs were only temporary as firms adjusted to the pandemic.

“A back-of-the-envelope calculation suggests that there is room for a substantial decline in the official unemployment rate in the months ahead,” Bullard said.

In particular, he noted that if all of the unemployed who have identified as “on temporary layoff” are simply recalled in the next six months and nothing else changes, the official unemployment rate would decline to 4.5%. If this category instead returns to a normal value of 1 million workers and nothing else changes, the official unemployment rate would still decline to 5.1%, he added. “If this type of dynamic occurs in the months ahead, it is likely to be uneven,” he said.

Regarding GDP growth, Bullard pointed out that estimates for the second quarter have been revised upward. “While second-quarter growth is projected to show substantial contraction, forecasts have become less negative in recent weeks,” he said.

### *Successes in Health Policy*

Bullard noted that current projections of fatalities in the U.S. are much lower than initial projections. He added that daily fatalities in the U.S. have declined about 70% from the peak level in April.

“COVID-19 is proving to be a persistent threat, so continuing risk mitigation is required to keep the disease under control,” he said.

Bullard then talked about how firms have been learning to run a business in a pandemic. He noted that work from home has proven to be a viable and powerful strategy for many businesses. In addition, the second-quarter results seem to show that essential retail services can be provided with low risk, as long as simple precautions are taken, he said.

“Firms and other economic entities have strong incentives to restore revenue streams and deliver products and services safely,” Bullard said. “This suggests that during the third quarter many firms will adopt proven risk mitigation activities pioneered by the essential services industries in the second quarter, including ubiquitous mask usage in contact situations.”

### *COVID-19: Mortality Risk Management*

Bullard noted that U.S. citizens face many types of mortality risk. Right now, COVID-19 deaths are approaching the typical annual total for accidental injury, which is the third largest cause of death, he said.

Accidents of all types are associated with significant risk mitigation activities, including air bags, traffic regulations and fire codes, he explained, and deaths occur even with those mitigation strategies in place. While similar risk mitigation is not yet fully in place for COVID-19, it appears that ubiquitous masks would provide one important component, he said.

“The second half of 2020 will be a period of continued learning and adaptation to the new mortality risk in the economy,” Bullard concluded. “Simple risk mitigation strategies, including ubiquitous masks, hold the promise of delivering higher household incomes along with lower fatalities from COVID-19, thus improving along both dimensions.”

Contact Us

- Laura Girresch 314-444-6166
- Anthony Kiekow 314-949-9739
- Shera Dalin 314-444-3911
- Tim Lloyd 314-444-6829

- **June 24, 2020.** Remarks. [Bullard Discusses the Pandemic's Economic Impact and Racial Equity](#), Greater Louisville Inc. – The Metro Chamber of Commerce virtual event.

## **Bullard Discusses the Pandemic's Economic Impact and Racial Equity**

June 24, 2020

St. Louis Fed President James Bullard discussed the COVID-19 pandemic and its impact on the economy during a virtual event hosted by Greater Louisville Inc. – The Metro Chamber of Commerce. He also spoke about the importance of an inclusive economy and promoting racial economic equity.

“A more inclusive economy is a stronger economy, and the work of the St. Louis Fed must help to root out institutional racism and other inequities that systematically create economic barriers,” Bullard said.

He cited research from the St. Louis Fed's Center for Household Financial Stability, which has consistently found that Black families in the U.S. have about 10 cents for every dollar in wealth held by white families—a gap that has been virtually unchanged for at least three decades. The Center's research suggests that structural and historical factors continue to suppress the ability of Black Americans to accumulate wealth, Bullard noted.

“Accordingly, to promote racial economic equity, we as a nation must also consider structural or institutional responses,” he said. “While the St. Louis Fed has undertaken significant research and initiatives on this front, our work must continue in earnest. It's welcome news that many organizations are doing the same.”

Turning to the pandemic, Bullard noted that the primary economic impact

will be in the second quarter of 2020, when the U.S. economy was intentionally slowed down to invest in public health.

He said that the set of health, fiscal and monetary policies that has been put in place has been a good response and a good mitigator of the initial shock from the pandemic, but can't be maintained indefinitely.

"There is really no pause button for the U.S. economy, and attempts to go on too long with this set of policies would risk financial crisis or depression or both," Bullard said, adding that health and economic outcomes would be worse in that scenario.

"The risks are significant, but my base case is that all of that will be avoided and that we will get a robust recovery in the second half of the year," he said.

Going forward, Bullard said that new risk mitigators will be put in place to control the disease while also allowing production of goods and services and restoration of household income. This would be a better policy overall because it would lead to fewer fatalities and more household income, he noted.

He discussed two approaches for mitigating the health risk: ubiquitous testing, which would solve the information problem by allowing people to know where the disease is; and risk-based stay at home, whereby people make their own decisions based on their risk from COVID-19.

Having trouble with the video? [Watch it here](<https://youtu.be/kZOGSnjc4KE>).

- **June 23, 2020.** Remarks. [Bullard Discusses U.S. Economy, COVID-19 Risk Management](#), Milken Institute Summer Series webinar.

### **Bullard Discusses U.S. Economy, COVID-19 Risk Management in Milken Institute Webinar**

June 23, 2020

St. Louis Fed President James Bullard shared his views on the performance of the U.S. economy during the COVID-19 pandemic and risk management going forward. He also discussed the labor market and inflation during a webinar that was part of the Milken Institute Summer Series.

Despite the second quarter being the worst quarter of all time from an economic growth perspective, quarterly output looks like it will be 90% of what would be produced in a normal quarter, Bullard said. He attributed this to people working from home and the ability of essential businesses to adapt.

"I think the bulk of the economy will be able to get back to the production levels that they were at," he said. However, he added that it's a different world with a new mortality risk in the economy that isn't going away in the near term. "We're going to have to adapt and learn to cope with it as best we can and mitigate the risk to the most vulnerable individuals as best we can," he said.

Bullard noted that one of the goals of the current situation is to stay out of a financial crisis, and another is to stay out of a depression.

"If you get into the depression scenario, the health outcomes and the economic outcomes will be worse. I think that's really why we should all be motivated to think about how we can stay out of that situation," he said.

Addressing a question about making monetary policy that's aimed at racial justice, Bullard said that ideally unemployment would be as low as possible nationwide with no statistical differences in unemployment rates across racial and ethnic groups. He noted that Black and Hispanic unemployment rates have consistently been higher than white unemployment rates in the postwar era, but that the gaps were narrowing coming into this crisis.

Some of the economics literature on this topic suggests that one of the best things that can be done for racial equality and racial justice is to keep economic expansion going for a long time, Bullard said.

"That's very much tied to our mandate from Congress, and we certainly try

to carry that out as best we can," he said.

He also talked about inflation, which has generally been below the Fed's 2% inflation target in recent years.

"We've got a lot of very aggressive monetary policy and fiscal policy in place to respond to this crisis," Bullard said. "I'm hopeful that we can get a pretty robust recovery in the second half here and that inflation will actually come up to our 2% target."

Having trouble with the video? [Watch it here](<https://vimeo.com/430899000>).

- **June 18, 2020.** Remarks. [Bullard Speaks about the Economic Crisis and Prospects](#), Shadow Open Market Committee (SOMC) virtual conference with Chapman University.

### **Bullard Speaks about the Economic Crisis and Prospects during SOMC Event**

June 18, 2020

St. Louis Fed President James Bullard talked about where he thinks we are in the current economic crisis and the prospects for the U.S. economy. He spoke during a Shadow Open Market Committee (SOMC) virtual conference with Chapman University. The SOMC is an independent organization that discusses economic policy.

The shutdown policy in response to the COVID-19 pandemic was appropriate initially when little was known about the disease, but cannot be maintained over a longer period of time, Bullard said. If massive business failures occur, we'll face depression risk, financial crisis risk, or both, he said, adding that we want to stay out of those situations.

As we learn more about the disease, the economy will "adopt a more granular risk-based approach to disease management," he said.

Bullard discussed two approaches: “ubiquitous” testing, which includes testing not just those who are sick; and “risk-based” stay at home, where those who have different levels of risk from the disease will protect themselves differently. A lot of those adjustments already are occurring, Bullard said, and will continue through the third quarter, at which point most of the easiest and simplest adaptations will have been made by firms and households.

“The end of the third quarter will be an important checkpoint for where we are in the crisis,” he said.

As the days and weeks go by, more is learned about the nature of the mortality risk and how it can be mitigated, as well as how goods and services can be provided safely, Bullard said. Risk mitigation can be undertaken at the individual level and at the firm level, he said.

“The result will likely be higher output, as well as less fatalities than the economy initially experienced during the March-April 2020 time frame,” he said.

Bullard also answered questions about prospects for the U.S. economic recovery, the policy responses during this crisis compared with those during the 2007-09 financial crisis, the risks of a higher federal debt-to-GDP ratio, and more.

- **May 28, 2020.** Article. "[Assessing Second-Quarter Unemployment amid the Pandemic](#)," Federal Reserve Bank of St. Louis *Regional Economist*, Second Quarter 2020.

### **Assessing Second-Quarter Unemployment amid the Pandemic**

The U.S. economy has been experiencing a partial shutdown as recommended by health authorities in response to the coronavirus pandemic. As a result, the second quarter of 2020 will be an unparalleled quarter for U.S. unemployment.

A [ published March 24 used different ways of looking at the number of

workers with high-contact jobs to obtain projections for unemployment during this period. See Faria-e-Castro, Miguel. “ St. Louis Fed On the Economy blog post](<https://www.stlouisfed.org/on-the-economy/2020/march/back-envelope-estimates-next-quarters-unemployment-rate>)

[Back-of-the-Envelope Estimates of Next Quarter’s Unemployment Rate](<https://www.stlouisfed.org/on-the-economy/2020/march/back-envelope-estimates-next-quarters-unemployment-rate>)

St. Louis Fed On the Economy Blog

### *Unemployment Data*

The estimates in that blog post are turning out to be a reasonable proxy for what seems to be occurring in the labor market. Since the post was published, the number of initial claims for unemployment insurance through May 23 has totaled about 40.8 million, which is approaching the unprecedented estimate of 47 million at-risk workers. This total includes seasonally adjusted data for the week ended March 21 through the week ended May 23.

So far in this quarter, the Bureau of Labor Statistics (BLS) reported that the unemployment rate in April was 14.7%. This is in line with the range mentioned in the blog post, and the May and June jobs reports are still to come. Notably, the increase in the unemployment rate from 4.4% in March to 14.7% in April (a jump of 10.3 percentage points) is the largest ever recorded.

### *Other Factors Affecting Unemployment*

While the reported April unemployment rate is within the estimated range, the blog post also included some caveats regarding other factors that may affect the actual unemployment rate. The BLS measures the unemployment rate from a survey of households. If people say that they are not working and also say that they have not searched for a job in the last four weeks or are not available to work, they are categorized as out of the labor force rather than unemployed, and therefore not included in the unemployment rate. One caveat to this longstanding approach is that during a pandemic like COVID-



19, people who recently lost their jobs due to state and local requirements to shelter in place or enforce physical distancing may not be looking for work in this environment, which would leave them out of the unemployment calculation.

The labor force participation rate declined by 2.5 percentage points from March to April, which represented the largest monthly drop for this series on record. At the same time, the number of people counted as out of the labor force but wanting a job (though not seeking a job or not available to work) rose significantly, from about 5.5 million in March to 9.9 million in April. The pandemic likely played a role in keeping many people from searching for work in the weeks prior to the survey, as people were asked to stay home during that period. For more details, see “ [Frequently asked questions: The impact of the coronavirus (COVID-19) pandemic on The Employment Situation for April 2020](<https://www.bls.gov/cps/employment-situation-covid19-faq-april-2020.pdf>)” from the BLS.

The BLS also reported that some people who were incorrectly categorized as employed but absent from work should have instead been categorized as unemployed on temporary layoff. The BLS estimated that including this particular group of workers would have raised the April unemployment rate by 4.8 percentage points, to 19.5% rather than 14.7%. Ibid, p. 11.

Another caveat mentioned in the blog post is that the calculations did not factor in the effects of fiscal measures on the unemployment rate. For example, under the Paycheck Protection Program (PPP), loans to small businesses are forgivable if the firms keep workers on the payroll, even though they are presumably not working and producing any output during this period. From an economist’s point of view, these workers are also unemployed, and they are essentially receiving a form of government insurance, only from the federal level as opposed to their state unemployment office.

Factoring in the additional workers who could be thought of as unemployed in the BLS survey and from the PPP would leave us with a higher unemployment rate. In fact, it may be closer to the middle of the range mentioned in the blog post (between 10.5% and 40.6%) rather than at the

low end of the range, which is where the official unemployment rate for April is.

### *A Special Shock*

The second quarter is undoubtedly a bad quarter for the labor market, with some of the worst unemployment numbers the U.S. has seen since the Great Depression. Even during the early 1980s, when the U.S. experienced the worst recession in the postwar era in terms of peak unemployment, the unemployment rate reached a high of 10.8%. The reported rate so far in this quarter is already much higher and would be considerably higher if the factors discussed above are included.

It is important to keep in mind that the shock the economy is experiencing is driven by the pandemic, not by some underlying problem in the economy. Health authorities have asked households and businesses not to work in some high-contact jobs that might spread the virus and, therefore, not to produce as much as normal. Because of that, one could view the partial-shutdown policy as an investment in national health by refraining from ordinary economic production. Consequently, this shock, while having devastating impacts on the daily life of many wage earners and businesses across the country, should be interpreted differently from more traditional shocks that have occurred in the U.S. economy since World War II.

See Faria-e-Castro, Miguel. “ [Back-of-the-Envelope Estimates of Next Quarter’s Unemployment Rate](<https://www.stlouisfed.org/on-the-economy/2020/march/back-envelope-estimates-next-quarters-unemployment-rate>).” St. Louis Fed On the Economy Blog, March 24, 2020. This calculation was also based on the assumption that the labor force remains at its February level and that individuals who were unemployed in February remain without a job in the second quarter and do not drop out of the labor force. This total includes seasonally adjusted data for the week ended March 21 through the week ended May 23. For more details, see “ [Frequently asked questions: The impact of the coronavirus (COVID-19) pandemic on The Employment Situation for April 2020](<https://www.bls.gov/cps/employment-situation-covid19-faq-april-2020.pdf>)” from the BLS. Ibid, p. 11.

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- **May 27, 2020.** Remarks. [Bullard Discusses Two Solutions to the Current Crisis](#), C.D. Howe Institute webinar.

### **Bullard Discusses Two Solutions to the Current Crisis**

May 27, 2020

St. Louis Fed President James Bullard shared his views on the partial-shutdown policy that has been in place for the U.S. economy as an investment in national health. He also discussed two ways to solve the crisis from the COVID-19 pandemic. He spoke during a C.D. Howe Institute webinar.

Bullard said that the shutdown policy was appropriate initially, but that continuing it too long would risk a financial crisis and would risk depression.

He then talked about two solutions to the crisis, which he said are happening to some degree already—ubiquitous testing and a risk-based stay-at-home approach. He added that both economic and health outcomes would be better using those two solutions than under the shutdown policy.

Bullard said the testing would solve an information problem, allowing people to know where the virus was at all times. A highly productive economy that would also have very low fatalities from COVID-19 would result, he added.

A risk-based stay-at-home approach would rely on data on who is being affected by the disease, Bullard explained. He suggested using other mortality risks, such as from accidental injuries, to size the mortality risk from COVID-19. Based on current projections, he said, the risk posed by

COVID-19 would be slightly less than the risk posed by accidental injury for 2020.

He also said calibrating the risk could be done by age, which would suggest that younger people would probably go to work, while older people would probably stay home, he explained.

“And because of that, you’d get more output, and you’d get very limited fatalities, as long as the elderly population stayed away from infection,” Bullard said.

- **May 12, 2020.** Moderated Q&A. [Bullard Discusses the U.S. Economic Shutdown during an OMFIF Webinar.](#)

### **Bullard Discusses the U.S. Economic Shutdown during an OMFIF Webinar**

May 12, 2020

St. Louis Fed President James Bullard shared his views on policymakers’ responses to the pandemic and on the economic shutdown going forward. He spoke on a virtual panel hosted by the Official Monetary and Financial Institutions Forum (OMFIF).

Bullard said that going through the 2007-09 financial crisis prepared the Fed well to respond to the economic shock due to the health crisis. He noted that the Fed’s relatively quick response to this shock was to use 13(3) lending programs (authorized under that section of the Federal Reserve Act) and provide liquidity to financial markets.

“As far as the initial wave, I think the response has been much faster than it was in the previous crisis, and that has served us very well in terms of market liquidity, preventing this from morphing into a financial crisis, at least so far,” he said.

Bullard also spoke about the shutdown policy, cautioning against continuing it for too long.

“We cannot hit the pause button for very long in major economies around the world, and certainly not in the U.S.,” he said, adding that there may be a 90- or 120-day shelf life on the policy. After that, the shutdown policy can’t continue because too much will start to happen, he said. “You’ll get business failures on a grand scale, and you’ll be taking risk that you’d go into depression.”

The shutdown policy was rational at the beginning, when the pandemic caught everybody by surprise and it was necessary to get the disease under control, he said. But it is a blanket-type policy, he explained. “I think we have to get away from the shutdown policy and toward something that is more about risk mitigation,” Bullard said.

In terms of his economic outlook, he said that he expects a large decline in GDP in the second quarter for the U.S., followed by very positive growth in the third quarter.

During the webinar, Bullard also discussed pandemic relief for disrupted workers and businesses, negative interest rates, the Fed’s balance sheet, the U.S. debt-to-GDP ratio, inflation risk, the Federal Reserve’s policy framework review, the future of central banking, and more.

Having trouble with the video? [Watch it here.](<https://www.omfif.org/events/the-federal-reserves-outlook-for-testing-times/>)

- **May 5, 2020.** Remarks. [Bullard Shares Perspectives on the Pandemic](#), NABE, Perspectives on the Pandemic Webinar Series.

### **Bullard Shares Perspectives on the Pandemic during NABE Webinar**

May 5, 2020

St. Louis Fed President James Bullard discussed moving through the pandemic threat during a National Association for Business Economics (NABE) event, which was part of the association's Perspectives on the

## Pandemic Webinar Series.

While the current shock is unlike any other in the post-war era in the U.S., the nature of the shock is well understood, Bullard said. He noted that the task at hand is to put the economy on pause and ask people to stay home in order to invest in national health.

He reiterated his view that the main disruption in the U.S. economy will be in the second quarter. "I do think we have a better chance of a swift recovery given this shock than others that we have seen in the past if we manage the situation carefully and we continue to keep our wits about us as we move through, day by day, the pandemic threat," he said.

Bullard said that one goal during the shutdown period is to provide support to the financial sector to avoid having a financial crisis in addition to a pandemic crisis. "I think that the Fed has intervened effectively in financial markets in order to maintain market functioning," he said. "I think we can do more, but I think we've done probably the most obvious steps so far."

Another goal during this period is to support the real economy, which the FOMC did right away by lowering the policy rate to zero, Bullard noted. He added that the fiscal response has also been aggressive in trying to compensate those who are being asked to pause in their businesses and their work, which is helping mitigate the risk of the crisis morphing into a very serious and long-lasting depression.

Bullard noted that the general-pause situation is OK right now, but it cannot be maintained for long. "I think the shutdown policy was appropriate to handle the initial surprise of the pandemic, but keeping the shutdown in place in the same way that we have it now as a blanket policy will cause too many problems longer term," he said, adding that he expects to see a more risk-based and granular policy going forward.

In terms of ending the crisis, Bullard suggested putting resources toward technology that is available, mainly testing. From an economic point of view, "what we really have is an information problem" in that people don't know where the virus is, he explained.

Having trouble with the video? [Watch it here.](<https://www.youtube.com/watch?v=SpQpq8S5bcI&feature=youtu.be&t=68>)

- **April 17, 2020.** Remarks. [Bullard Gives Remarks on COVID-19 and the U.S. Economy](#), The Chamber of Digital Commerce, Reinventing Bretton Woods Committee, and Accenture, “The World Economy Transformed: Reflections on Policy Responses and the Future Post Pandemic Monetary Architecture” webinar.

### **Bullard Gives Remarks on COVID-19 and the U.S. Economy**

April 17, 2020

St. Louis Fed President James Bullard discussed the impact of the shutdown policy on the U.S. economy as well as a way to end the crisis caused by the coronavirus pandemic. He spoke at a webinar, "The World Economy Transformed: Reflections on Policy Responses and the Future Post Pandemic Monetary Architecture." The Chamber of Digital Commerce, Reinventing Bretton Woods Committee, and Accenture hosted the event.

Bullard said that he thinks the main economic impact will occur in the second quarter of 2020, which he has suggested calling a "pandemic adjustment period." He said that "the numbers coming out of the second quarter will be not comparable to anything we've seen in U.S. macroeconomic history." Comparing the time with other periods in the past is misleading "in thinking about how the economy might be able to behave going forward," he said.

Bullard also suggested that this is a time when economists have to come up with solutions that will end this crisis and put the U.S. and global economy back on firm footing.

To that end, he talked about the importance of ramping up testing for the virus. He proposed using some of the dollars being spent on the crisis to pay the costs of production of tests for any entity that wants to produce them.

The tests would be sold on an open competitive market. This would create a pop-up industry and lead to a glut of tests, Bullard noted.

"The reason I like this is because it doesn't count on a miracle happening," he said. "It counts on existing technology, but it's all about trying to scale up that technology and create a gold rush in the production of tests—not just in the U.S. but globally—and that would end the crisis."

Bullard also discussed the Federal Reserve's response and the fiscal response to the pandemic. During a Q&A, he addressed questions on digital currency and other topics.

Having trouble with the video? [Watch it here.]([https://www.youtube.com/watch?v=ol\\_fkg6h4mU](https://www.youtube.com/watch?v=ol_fkg6h4mU))

- **April 16, 2020.** Moderated Q&A. [Bullard Discusses Impact of Economic Shutdown during a U.S. Chamber of Commerce Event.](#)

### **Bullard Discusses Impact of Economic Shutdown during a U.S. Chamber of Commerce Event**

April 16, 2020

St. Louis Fed President James Bullard shared his views on the economic impact of the shutdown policy and the role of widespread coronavirus testing in reopening the economy. He participated in a moderated Q&A during the U.S. Chamber of Commerce's "Path Forward" virtual event.

Bullard noted that the shutdown policy has a severe impact on the economy, with expectations of GDP way down and second-quarter unemployment spiking. "We're trying to make it through the second quarter here," he said, "and then get to something else in the third quarter where we have a much better idea about where the virus is, and therefore we can get back to more normal production."

Asked about the role of testing in reopening the economy, Bullard discussed the idea of enlarging the testing industry, creating a "pop-up" industry, "so



that we can get, more or less, daily testing of a wide swath of the American public.” Considering the amount the shutdown policy is costing—about \$25 billion per day—the U.S. should be able to produce plenty of tests, he said.

Regarding the type of economic recovery to expect following a steep decline, Bullard suggested that a V-shaped recovery is possible if there is a high level of testing by the third quarter. He also talked about the need to manage the health risk to avoid another shutdown of the same magnitude once the economy has reopened.

Having trouble with the video? [Watch it here.](<https://vimeo.com/408601938/c9c4c37d92>)