During an academic talk in Seoul at the Bank of Korea, St. Louis Fed President James Bullard discussed optimal monetary policy when credit markets are incomplete. He examined optimal policy both in ordinary times and in times when the zero lower bound on short-term nominal interest rates is encountered. The presentation was based on a paper in progress with Aarti Singh of the University of Sydney. Bullard also discussed the decline in U.S. labor force participation in recent years and said that the results of the paper may help to inform the debate on whether U.S. monetary policy needs to worry about such a decline.

St. Louis Fed's Bullard Discusses Optimal Monetary Policy Amidst Incomplete Credit Markets

SEOUL, South Korea – During an academic talk Monday at the Bank of Korea, Federal Reserve Bank of St. Louis President James Bullard discussed optimal monetary policy in an environment where credit markets are incomplete. He examined optimal policy both in ordinary times and in times when the zero lower bound (ZLB) on short-term nominal interest rates is encountered.

His presentation, ["Incomplete Credit Markets and Monetary Policy with Heterogeneous Labor Supply,"](https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/bullard/remarks/bullard-mp-andincomplete-markets-bok-conference-30-may-2016.pdf)is based on a paper in progress with Aarti Singh of the University of Sydney. With the addition of heterogeneous labor supply to their model, the authors explore the question of whether monetary policy can and should revive declining labor force participation.

Within this model, a large private credit market is essential to good macroeconomic performance, and the primary role of monetary policy is to keep the credit market functioning properly, or "complete." The heterogeneous labor supply, whereby households supply different amounts of labor at different dates, is driven by demographic factors.

Bullard noted that, within this model, policymakers would be able to carry out an optimal monetary policy independently of household labor supply decisions.

"I see this result as helping to inform the debate on whether U.S. monetary policy needs to worry about declining U.S. labor force participation," he said, adding, "the bottom line of this talk is that the answer is 'no."

Labor Force Participation

Bullard noted that the U.S. labor force participation rate has been depressed since the large 2007-2009 recession, and portions of the current U.S. monetary policy discussion have been focused on reviving labor force participation.

"Can monetary policy substantially affect labor force participation? If so, should it?" he asked.

To help address these questions, he examined a traditional view regarding the decline in labor force participation, as well as an alternative view.

The traditional view is based on the premise that different demographic groups tend to have different labor force participation rates. Hence, the decline in the overall participation rate reflects long-run changes in the composition of the U.S. population. Monetary policy has no role to play under this view of the decline in labor force participation.

Meanwhile, the alternative view argues that a large portion of the post-crisis decline in labor force participation is cyclical. Bullard cited a paper on this alternative view in which optimal monetary policy, after large recessions, takes a labor force participation gap into account. 1

"Consideration of longer-term trends in labor force participation seems to be consistent with the traditional view," Bullard said, noting that, as such, he and Singh based their model on the traditional view. "Household labor supply is heterogeneous, but independent of monetary policy choices, consistent with the traditional, demographically-based view of labor force participation," he said.

Credit Markets and Monetary Policy

Turning to household credit markets, Bullard noted that they drew increased attention during the financial crisis. "The desire behind many actual policy choices over the last several years has been to help credit markets perform better," he said.

In their model, the economy includes a large private credit market. Given the existence of income and wealth inequality in the model, "the role of credit markets, if they work correctly, will be to reallocate uneven income across the life cycle into perfectly equal consumption by cohort," he explained.

"Monetary policy will be conducted optimally to repair a friction in household credit markets," he said. The friction is non-state contingent nominal contracting (NSCNC), which means that loan contracts are written in nominal terms and do not depend on whether the economy is experiencing high or low growth. Bullard explained that monetary policy can substitute for the missing state-contingent contracts by adjusting the price level when shocks hit the economy.

"In ordinary times, optimal monetary policy looks like 'nominal GDP targeting'—countercyclical price level movements," he said.

He then examined how complete credit markets could be maintained when a large and persistent negative shock hits the economy and the ZLB is encountered. "The central bank can promise a one-time increase in the price level for the following period sufficient to keep the nominal rate positive. This must be part of a credible commitment to a policy rule," he said.

Bullard concluded that when the ZLB threatens, the central bank would want to keep nominal interest rates positive, not at zero. "This result is in stark contrast to common policy recommendations in recent years—forward guidance committing to stay at the ZLB even longer, or quantitative easing justified as 'keeping longer-term nominal interest rates low,'" he said.

1For the alternative view, see the 2014 paper by Christopher Erceg and Andrew Levin in the Journal of Money, Credit and Banking. For the traditional view, see the 2006 paper by Stephanie Aaronson et al. in the Brookings Papers on Economic Activity. For more discussion on the views, see Bullard, James, " [The Rise and Fall of Labor Force Participation in the United

States](https://research.stlouisfed.org/publications/review/2014/q1/bullard. pdf)," Federal Reserve Bank of St. Louis Review, First Quarter 2014, 96(1), pp. 1-12.

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- May 26, 2016. Presentation. <u>"Slow Normalization or No</u> <u>Normalization?</u>" OMFIF City Lecture, Singapore. <u>Presentation (pdf) (bullard-omfif-singapore-26-may-2016pdf)</u> | <u>Press</u> <u>Release</u>.

Slow Normalization or No Normalization?

May 26, 2016

In Singapore, St. Louis Fed President James Bullard discussed two views of future policy rate increases in the United States: the FOMC's scenario and the market-based scenario. The former suggests a gradual pace of rate increases over the next several years, while the latter suggests a much shallower path—only a few increases over the forecast horizon. He cited evidence to back both views. For the FOMC scenario, he cited strong labor markets, waning international headwinds and inflation measurements moving closer to the 2 percent target. For the market-based scenario, the evidence included slow real GDP growth and low inflation expectations. Bullard spoke at the Official Monetary and Financial Institutions Forum's