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# The Monetary-Fiscal Policy Mix and Central Bank Strategy

**James Bullard**  
President and CEO

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Toward a Monetary Policy Strategy  
Hoover Institution at Stanford University

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

# Introduction

# This talk

- The pandemic fiscal-monetary response created too much inflation.
- To eliminate the excess inflation, the fiscal-monetary response must be countered. This is happening.
- The fiscal stimulus is receding.
- Monetary policy has been adjusted rapidly in the last year to better align with traditional central bank strategy.
- Accordingly, the prospects for continued disinflation are good but not guaranteed.

# The Monetary-Fiscal Response

# Inflation as the result of war

- Think of the pandemic as a global war that induced large-scale deficit spending combined with accommodative monetary policy.<sup>†</sup>
- The spirit of the macroeconomic policy response to the pandemic was to err on the side of too much rather than too little.
- This could be thought of as risking a high-inflation regime, as the monetary authority did not attempt to offset the inflationary impulse unleashed by the fiscal authority.

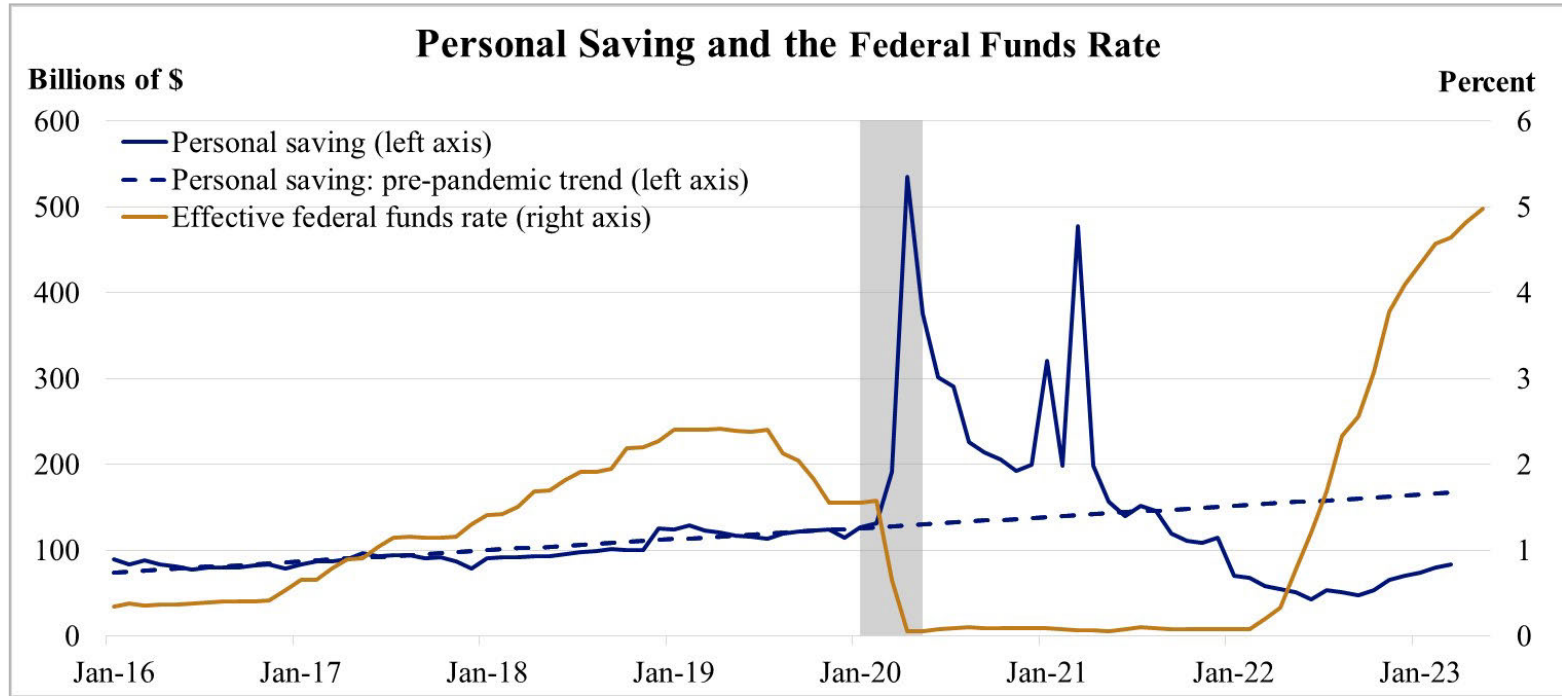
<sup>†</sup> See J. Bullard, “[Credible and Incredible Disinflations](#),” Feb. 24, 2023, remarks delivered at *The Credibility of Government Policies: Conference in Honor of Guillermo Calvo, Panel Discussion: Back to 2% Inflation?* Columbia University, New York, N.Y.; and G.J. Hall and T.J. Sargent, “[Financing Big US Federal Expenditures Surges: COVID-19 and Earlier US Wars](#),” unpublished manuscript, June 12, 2022.

# Fiscal and monetary responses to the pandemic

- The deficit spending was used for transfer payments to disrupted workers and businesses, which shows up as a sharp increase in personal saving relative to trend.
- Fiscal action of this magnitude is unprecedented in U.S. postwar macroeconomics.<sup>†</sup>
- Meanwhile, the monetary policy reaction to the pandemic was to lower the policy rate sharply, accommodating the deficit spending.
- In macroeconomic historical context, this combination of policies often leads to substantial inflation.

<sup>†</sup> See H. Abdelrahman and L.E. Oliveira, “[The Rise and Fall of Pandemic Excess Savings](#),” *Federal Reserve Bank of San Francisco Economic Letter 2023-11*, May 8, 2023.

# The monetary-fiscal response ...



Sources: Bureau of Economic Analysis, Federal Reserve Bank of New York and author's calculations. Last observations: March 2023 and May 2023.

## ... led to substantial inflation

Measure of underlying inflation	April 2022	March/April 2023
Core CPI	6.1	5.5
Cleveland Fed Median CPI	5.4	7.0
Cleveland Fed Trimmed-Mean CPI	6.2	6.1
Atlanta Fed Sticky CPI	4.9	6.5
Core PCE	5.0	4.6
Market-Based Core PCE	4.9	4.7
Dallas Fed Trimmed-Mean PCE	3.9	4.7
San Francisco Fed Cyclical Core PCE	6.3	7.9
Cyclically Sensitive Inflation	5.5	6.7

Source: Federal Reserve Bank of Atlanta [Underlying Inflation Dashboard](#). Last observations: April 2023 (CPI-based measures) and March 2023 (PCE-based measures). Figures are y-on-y percent changes.



# The Switch to Disinflationary Policy

# Switching back to the pre-pandemic regime

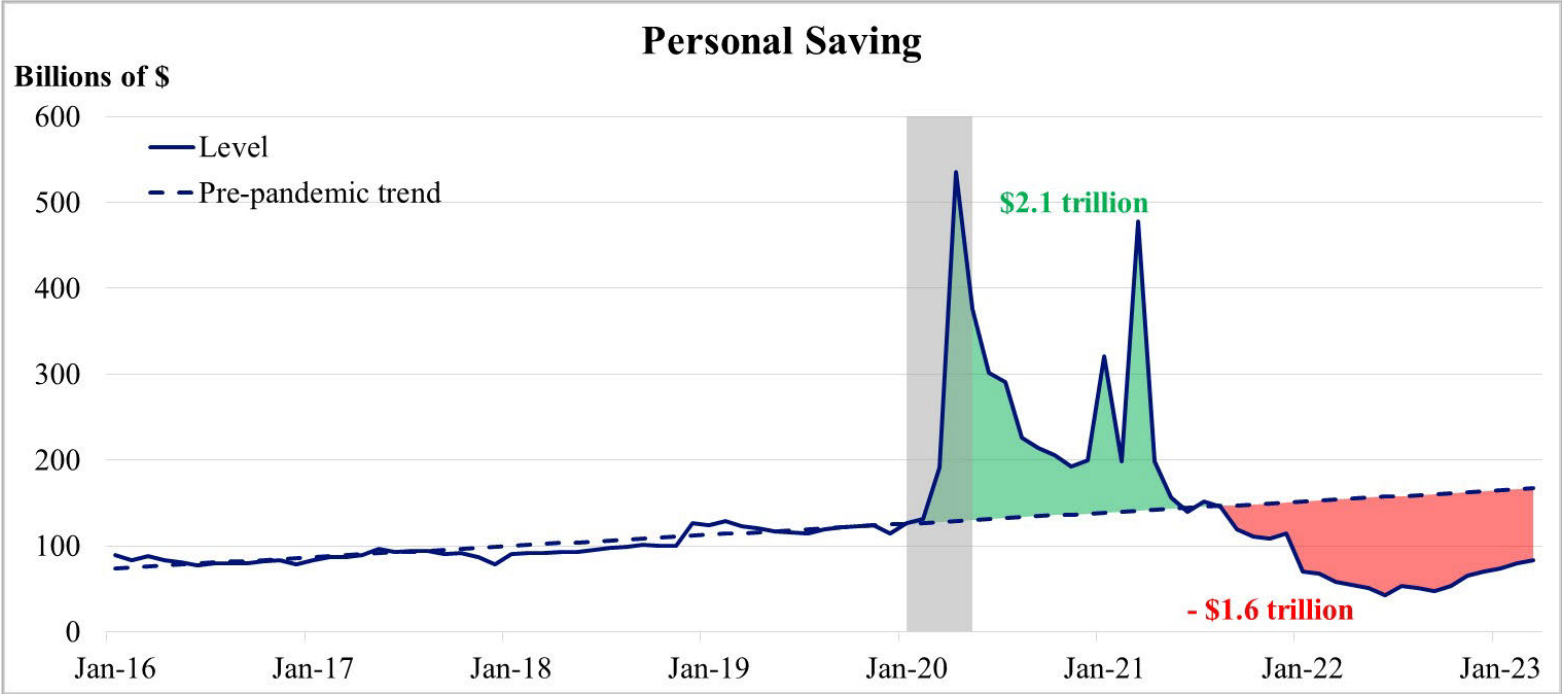
- According to the literature,<sup>†</sup> what is now required is a switch back to the pre-pandemic monetary-fiscal regime that featured inflation near target.
- Is such a switch occurring?

<sup>†</sup> See T.J. Sargent, “[\*The Ends of Four Big Inflations\*](#),” Chapter 2 in *Inflation: Causes and Effects*, R.E. Hall, ed., University of Chicago Press, 1982.

# The fiscal stimulus is fading

- The fiscal stimulus effects have been fading, and personal saving is now below the pre-pandemic trend line.
- However, the area above the trend line in the chart on the next slide is still more than \$400 billion larger than the area below the trend line.

# Excess savings are diminishing



Sources: Bureau of Economic Analysis and author's calculations. Last observation: March 2023. See Abdelrahman and Oliveira (2023) for details.

# Sufficiently Restrictive Monetary Policy

# Sufficiently restrictive

- A Taylor-type monetary policy rule with generous assumptions will give us a minimal recommended value for the policy rate given current macroeconomic conditions.<sup>†</sup>
- Less generous assumptions will give us an upper bound for a desirable target range for the policy rate.
- The recommended “zone” is the area between the lower and upper bounds.
- I will ignore balance sheet policy in these calculations.

<sup>†</sup> See J.B. Taylor, “[Discretion versus Policy Rules in Practice](#),” Carnegie-Rochester Conference Series on Public Policy, December 1993, 39, pp. 195-214; and J.B. Taylor, “[A Historical Analysis of Monetary Policy Rules](#),” in Monetary Policy Rules, J.B. Taylor, ed., University of Chicago Press, 1999, pp. 319-41.

# Why do we like Taylor-type rules?

- Monetary policy rules are useful because they provide an explicit recommendation for the value of the policy rate given current macroeconomic conditions.
- Taylor-type rules have been evaluated in a large literature and have been argued to characterize close-to-optimal monetary policy in commonly used macroeconomic models.
- The literature takes “long and variable lag” effects into account.
- Policy rules help pin down different arguments that are made about the appropriate level of interest rates.

# A Taylor-type rule specification

- I will consider

$$R_t = \max[R^* + \pi^* + \varphi_\pi(\pi_t - \pi^*) + \min(ygap_t, 0), 0]$$

- $R_t$  is the recommended policy rate;  $R^*$  is the real interest rate;  $\pi^* = 2\%$  denotes the inflation target;  $\pi_t$  is inflation measured from one year earlier;  $\varphi_\pi$  describes the reaction of the policymaker to deviations of inflation from target; and  $ygap_t$  is the output gap.
- The term  $\min(ygap, 0)$  is meant to capture that the FOMC’s “policy decisions must be informed by assessments of the shortfalls of employment from its maximum level...”.\*

\* See the FOMC’s “[Statement on Longer-Run Goals and Monetary Policy Strategy](#),” adopted effective Jan. 24, 2012; as reaffirmed effective Jan. 31, 2023.



# A generous rule

- In the first version of the Taylor-type rule outlined above, I use the most generous assumptions (those that tend to recommend a lower value of the policy rate):
  1. Measure the inflation gap using the Dallas Fed trimmed-mean PCE inflation rate.
  2. Use an approximate pre-pandemic value for the real interest rate ( $R^*$ ) of  $-50$  basis points.
  3. Use the relatively low value of 1.25 for the parameter describing the reaction of the policymaker to deviations of inflation from target.

# A less generous rule

- For a less generous specification, I will use:
  1. Core (excluding food and energy) PCE inflation as the inflation measure.
  2. A higher value for the real interest rate ( $R^*$ ) of +50 basis points.\*
  3. A parameter value describing the reaction of the policymaker to deviations of inflation from target closer to the literature standard, 1.5.†

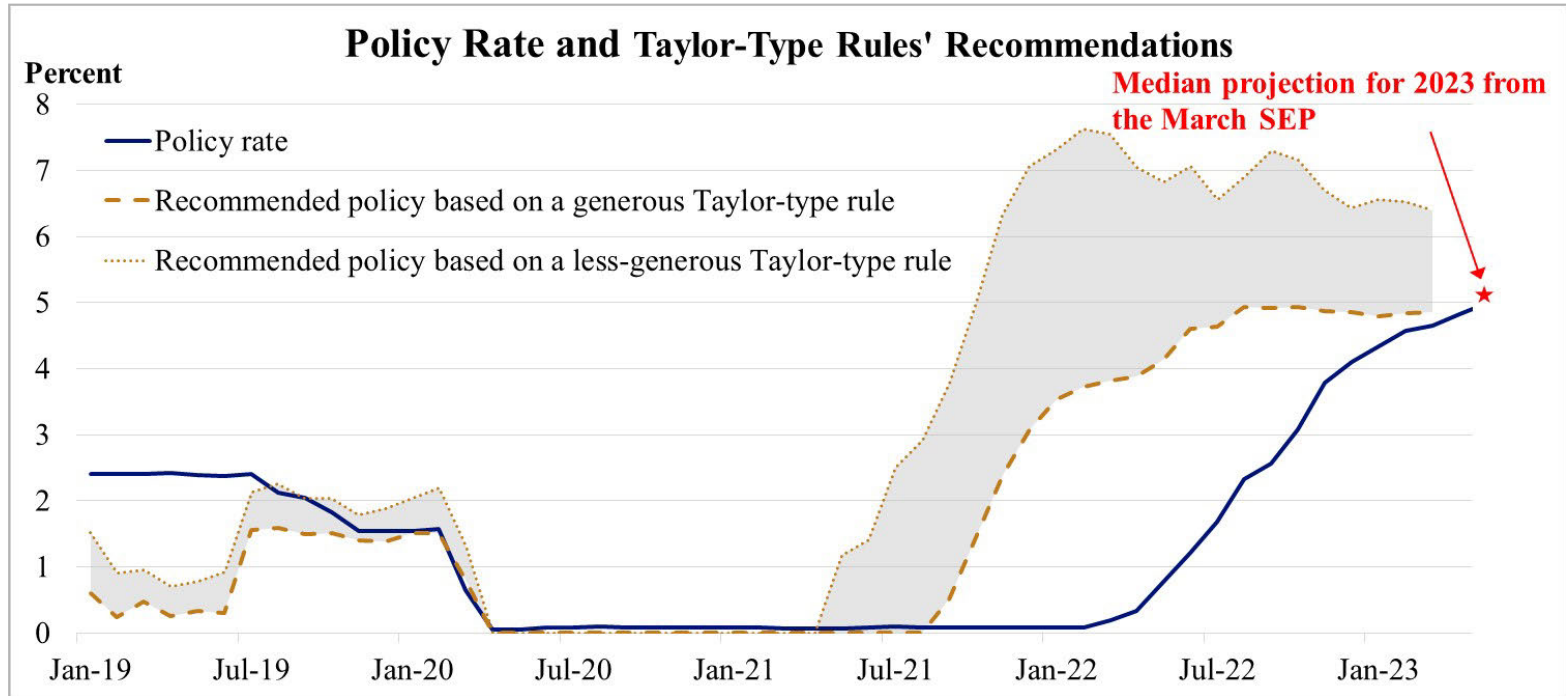
*\* According to the March 2023 Summary of Economic Projections (SEP), the median longer-run value for PCE inflation is 2.0%, while the median longer-run value for the federal funds rate is 2.5%. This implies a longer-run value of the real rate of 50 basis points.*

*† See Taylor (1993, 1999).*

# Sufficiently restrictive?

- The chart on the next slide suggests
  - Monetary policy settings were about right pre-pandemic.
  - Monetary policy was behind the curve (i.e., the actual policy rate was below the zone) in 2022.
  - Monetary policy is now at the low end of what is arguably sufficiently restrictive given current macroeconomic conditions.
  - The zone itself can move in reaction to incoming data.

# The sufficiently restrictive zone



Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve Bank of Dallas, Federal Reserve Bank of New York, FOMC's March 2023 SEP and author's calculations. Last observations: March 2023 and May 2023.

# Policy inertia

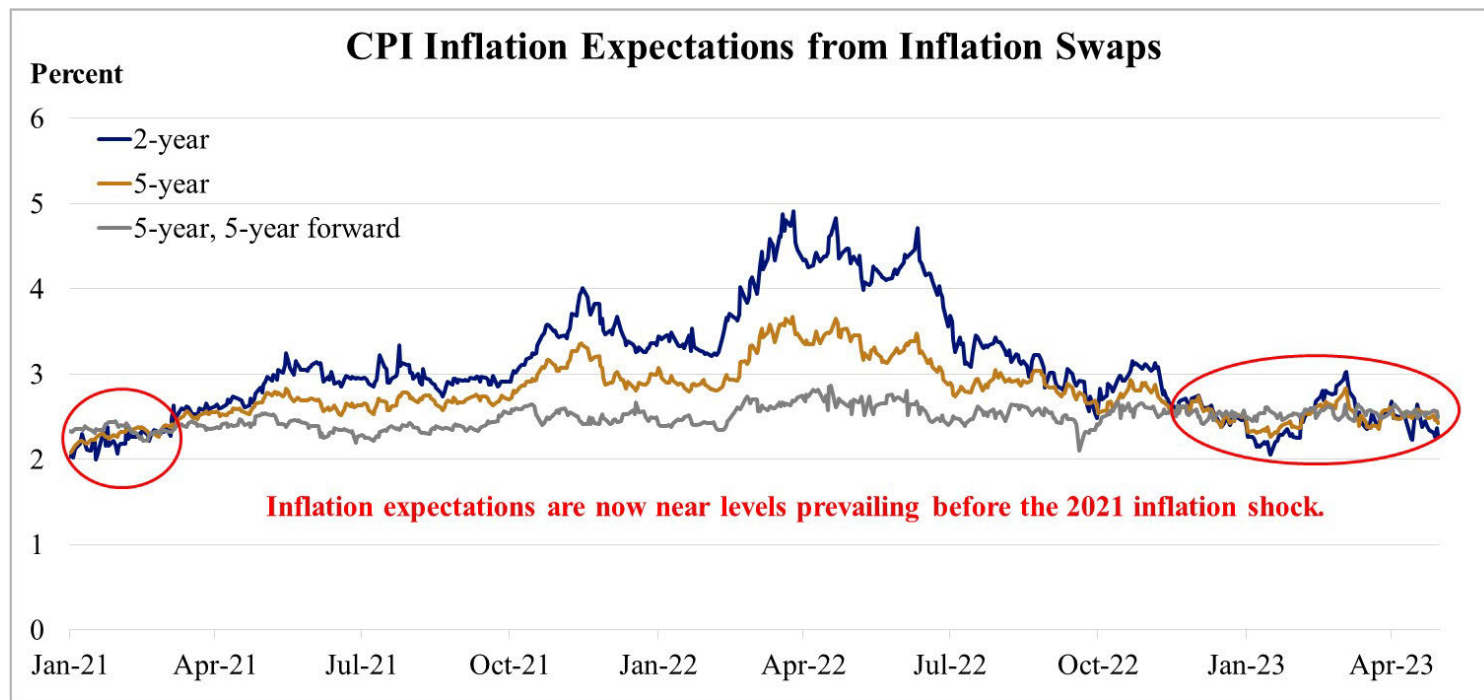
- The policy rate was adjusted only partially toward the recommended policy rate during 2022, a phenomenon referred to as “policy inertia” in the literature.
- In my view, inertia involves a judgment by the FOMC concerning the pace of adjustment and its possible risks, weighed against the gains from returning the economy as quickly as possible to the balanced growth path with 2% inflation.
- Inertia has not been included in the calculations here, as the desire has been to locate a recommended level of the policy rate independently of the judgment call on policy inertia.

# The Prospects for Disinflation

# Prospects for disinflation

- So far, core PCE inflation has declined only modestly from the peak levels observed last year.
- However, an encouraging sign that the switch to pre-pandemic fiscal-monetary policy is working comes from market-based inflation expectations.
- These expectations were near 2% in the first quarter of 2021, before any inflation had appeared or was widely expected.
- After moving higher in the last two years, these expectations have now returned to levels consistent with 2% inflation.

# Prospects for disinflation



Sources: Bloomberg and author's calculations. Last observation: May 11, 2023.



# Conclusion

# Conclusion

- The pandemic fiscal-monetary response created too much inflation—historically speaking, this sort of combination has caused many inflationary episodes across countries.
- To eliminate the excess inflation, the monetary and fiscal policy have to return to their pre-pandemic regime.
- This is happening: The fiscal stimulus is receding, and monetary policy has been adjusted rapidly in the last year to better align with traditional central bank strategy.
- Accordingly, the prospects for continued disinflation are good but not guaranteed.

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