Monetary Policy Rules in a Post-Pandemic World

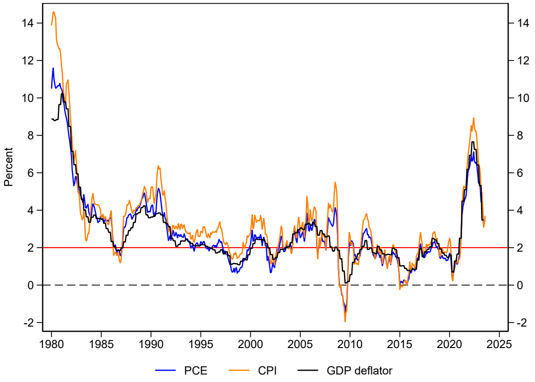
Athanasios Orphanides

MIT

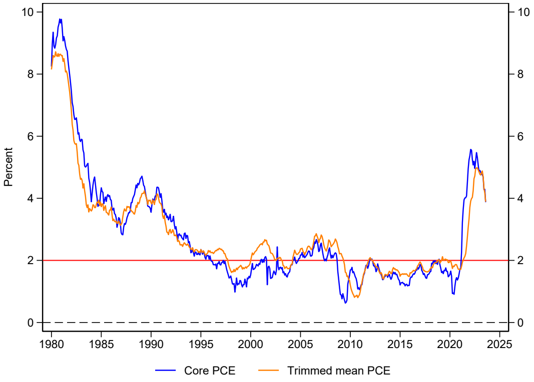
The Legacy of Bennett McCallum and Lessons for Monetary Policy Today
Mercatus Center, George Mason University
Washington, DC, October 10, 2023

An avoidable policy mistake: The post-pandemic inflation

PCE/CPI/GDP deflator



Core PCE/Trimmed Mean PCE



Alternative measures of inflation.

The Legacy of Bennett McCallum: Monetary Policy Rules

- A monetary policy rule can help the Fed avoid policy mistakes.
- Systematic policy better than discretion.
- Simple rules better than optimal control.
- Not all simple rules are good rules.
- A good rule can maintain price stability and dampen business cycles.
- Two critical elements for a good policy rule:
  - The rule must be robust (model uncertainty/mispecification).
  - The rule must be operational (real-time information constraints).

Alternative policy rules

- Choice of target variable.
- Choice of instrument (e.g. monetary base or policy rate).
- Choice of response horizon (recent observed data or projections).

Candidate target variables

- "Growth target" (e.g. inflation or nominal GDP growth).
- "Growing level target" (e.g. price level targeting of nominal GDP targeting).
- "Hybrid variable" (e.g. sum of inflation and output, as Classic Taylor rule).

Choice of instrument

- The monetary base and a policy interest rate can both be suitable instruments with different relative advantages/disadvantages.
- Monetary-base rules require attention to account for velocity shifts that may arise from factors such as financial innovation.
- Interest-rate rules require appropriate reaction to a nominal anchor to avoid instability/indeterminacy. Cannot peg nominal interest rates for long.

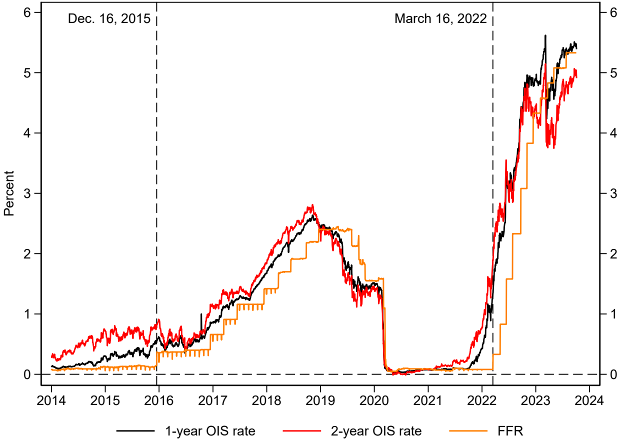
Targeting nominal income growth

- Let $(n - n^*)$ be the deviation of nominal income growth from normal.
- Monetary base instrument:
  $$\Delta b = -\lambda(n - n^*) + [\text{velocity adjustment/normal growth terms}]$$
- Interest rate instrument:
  $$\Delta i = \theta(n - n^*)$$
- To ensure rule is operational need to also:
  - specify if n reflects real-time data or projections available to the Fed.
  - define "normal" growth, n^*, accounting for variation of real potential output growth to ensure the rule delivers price stability consistently over time.

The Fed's post-pandemic policy error

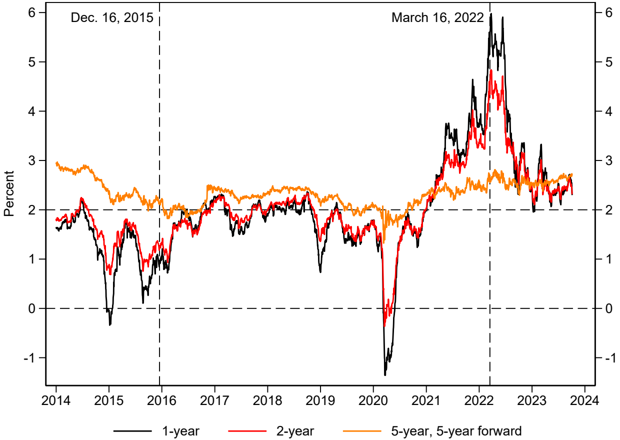
- Fed used its discretion to peg the federal funds rate at zero for too long after the pandemic.
- During 2021, with actual and expected inflation rising as the economy recovered, the Fed continued to push real interest rates to even lower and excessively negative levels.
- Guidance from a simple rule would have avoided this error.

Federal funds rate and OIS rates

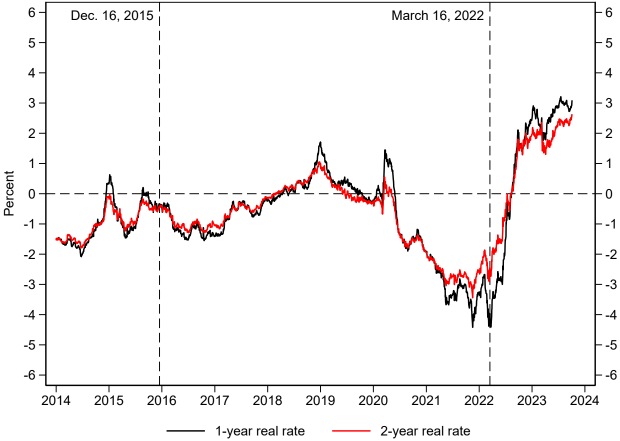


Vertical lines denote policy liftoff after GFC and pandemic recessions.

Inflation swap rates

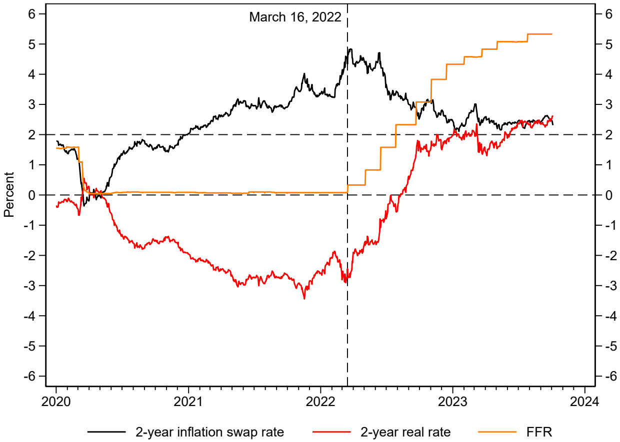


Real interest rates



Real rates based on OIS and inflation swap rates.

Real interest rate and inflation



Real rate based on two-year OIS and inflation swap rates.