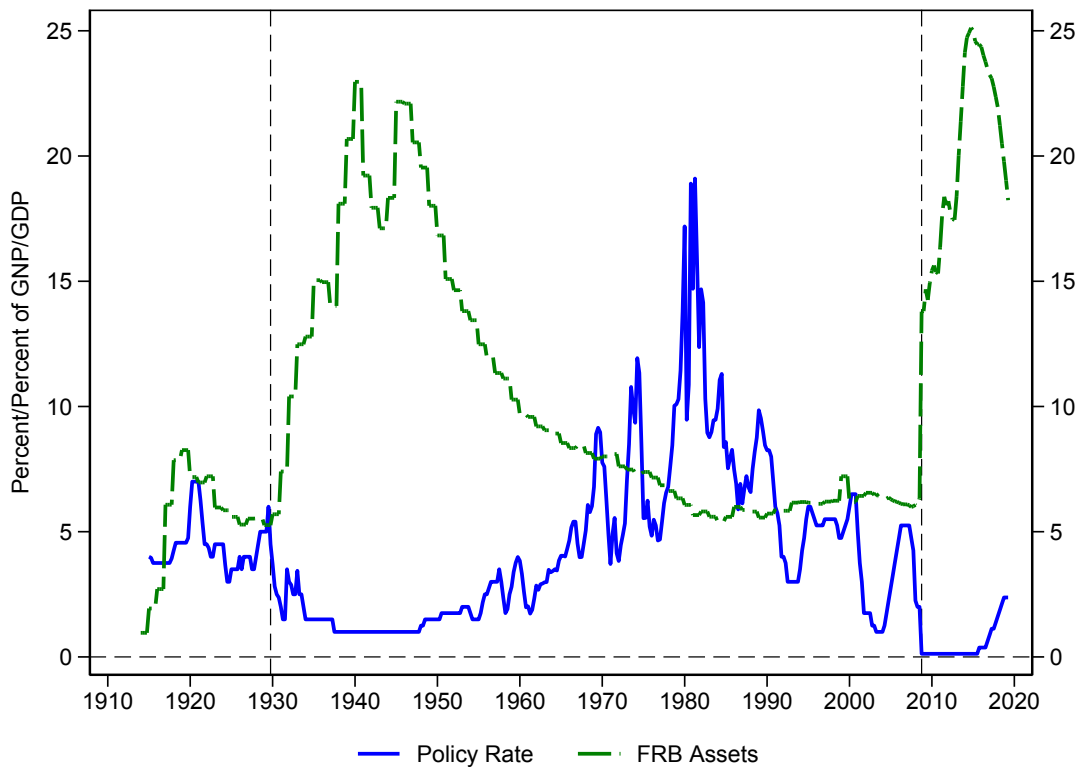


Monetary Policy Strategy and its Communication

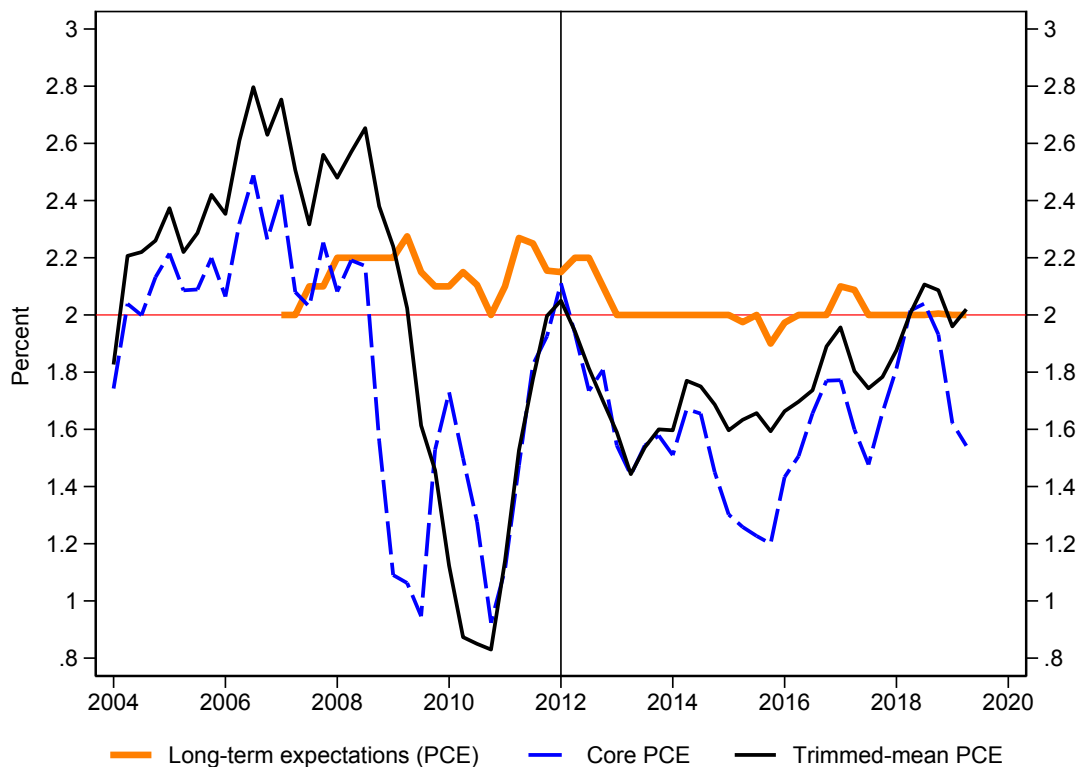
Athanasios Orphanides
MIT

Federal Reserve Bank of Kansas City
Economic Policy Symposium
Jackson Hole, August 23, 2019

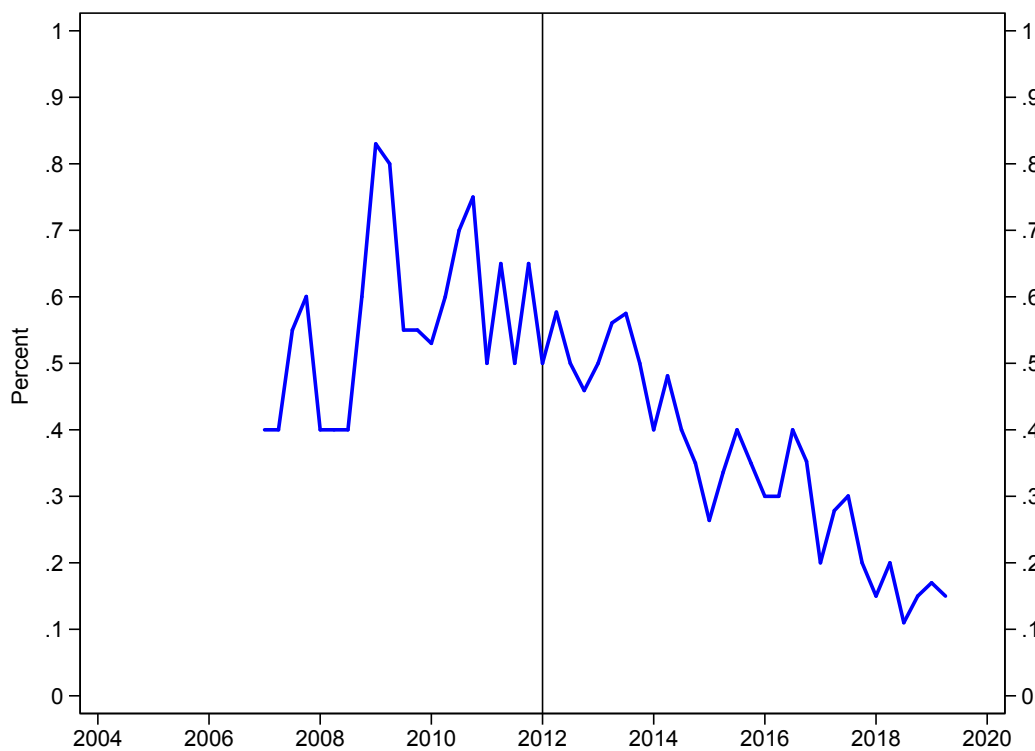
FRB policy rate and balance sheet size



Inflation and inflation expectations: SPF



Dispersion of long-term inflation expectations: SPF



Dispersion reflects the inter-quartile range of individual forecasts

Policy rules

Taylor Rule:

$$i = r^* + \pi + 0.5[(\pi - \pi^*) + y] \quad (1)$$

Natural Growth Rule:

$$\Delta i = 0.5(n - n^*) \quad (2)$$

Okun's law:

$$y_t = 2(u_t^* - u_t)$$

i , policy rate.

r^* , real natural rate of interest.

π , inflation.

π^* , inflation target.

y , output gap.

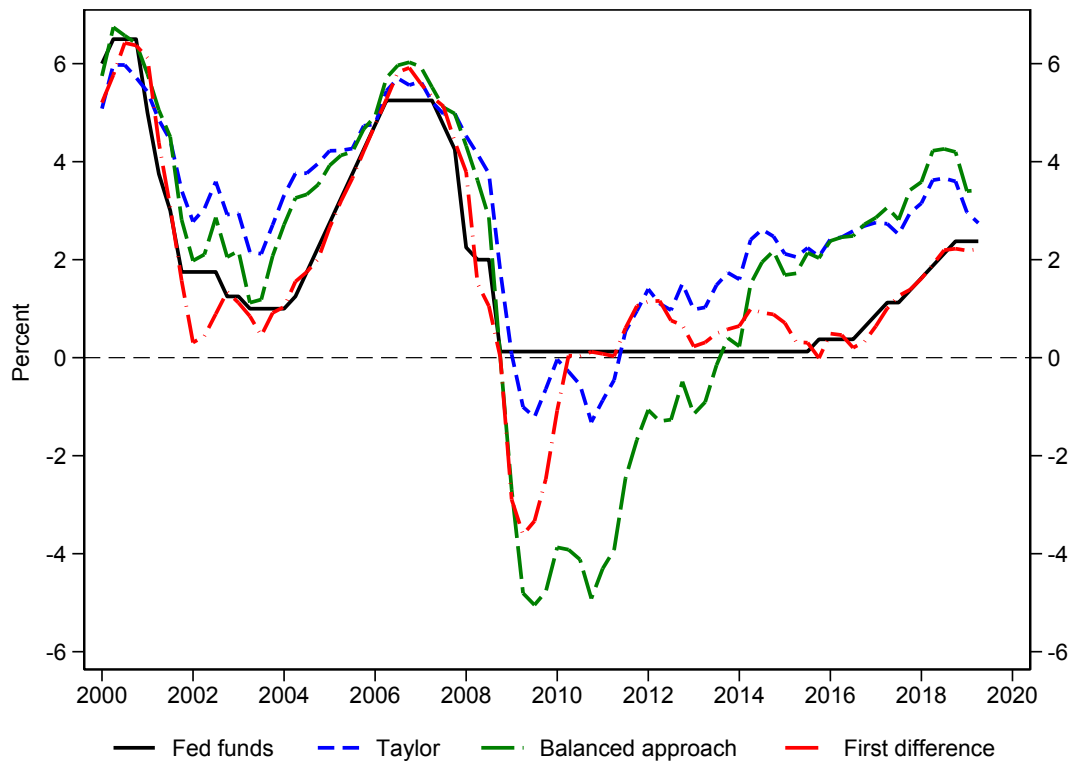
n , nominal income growth (equals inflation plus real GDP growth).

n^* , natural income growth (equals inflation target plus potential GDP growth).

u , unemployment rate.

u^* , natural rate of unemployment.

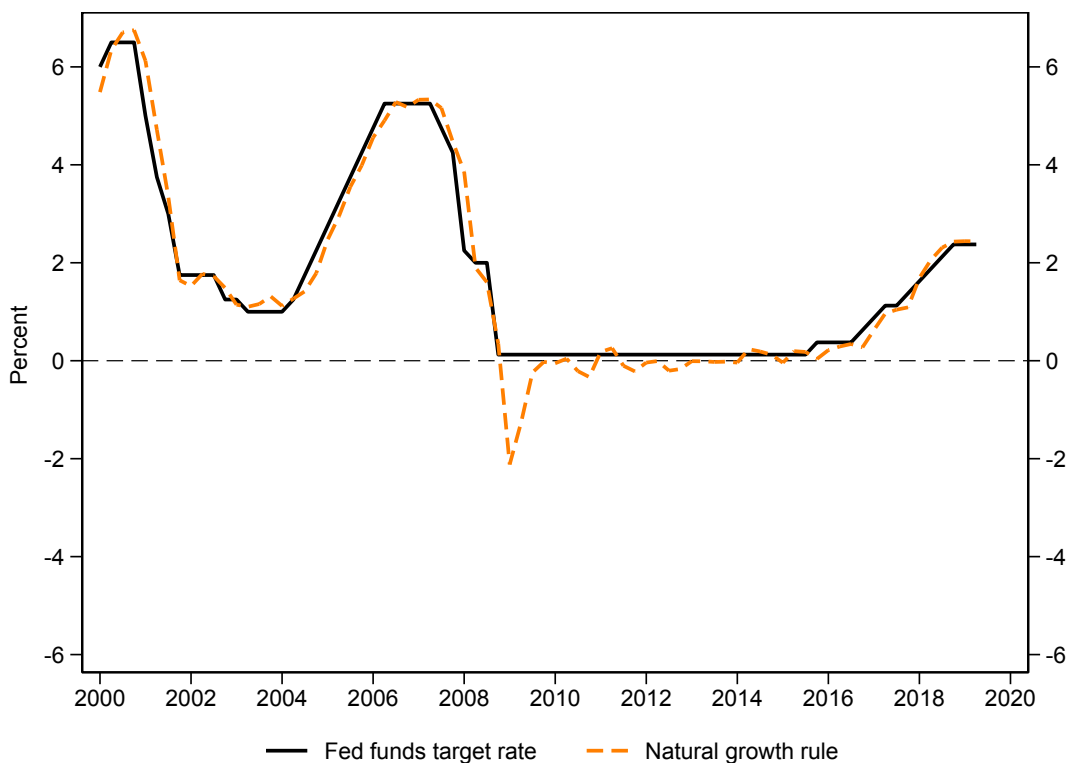
Policy rule prescriptions: MPR



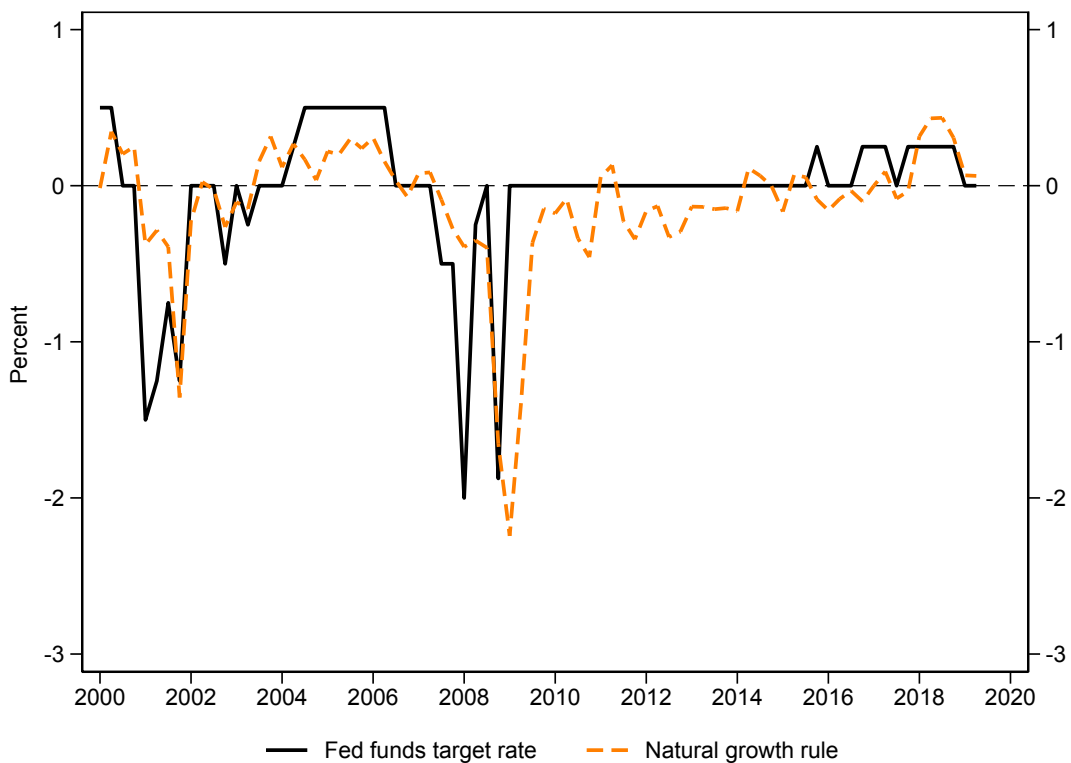
MPR rules based on unemployment rate, using Okun's law.

Natural growth rule: SPF

Level

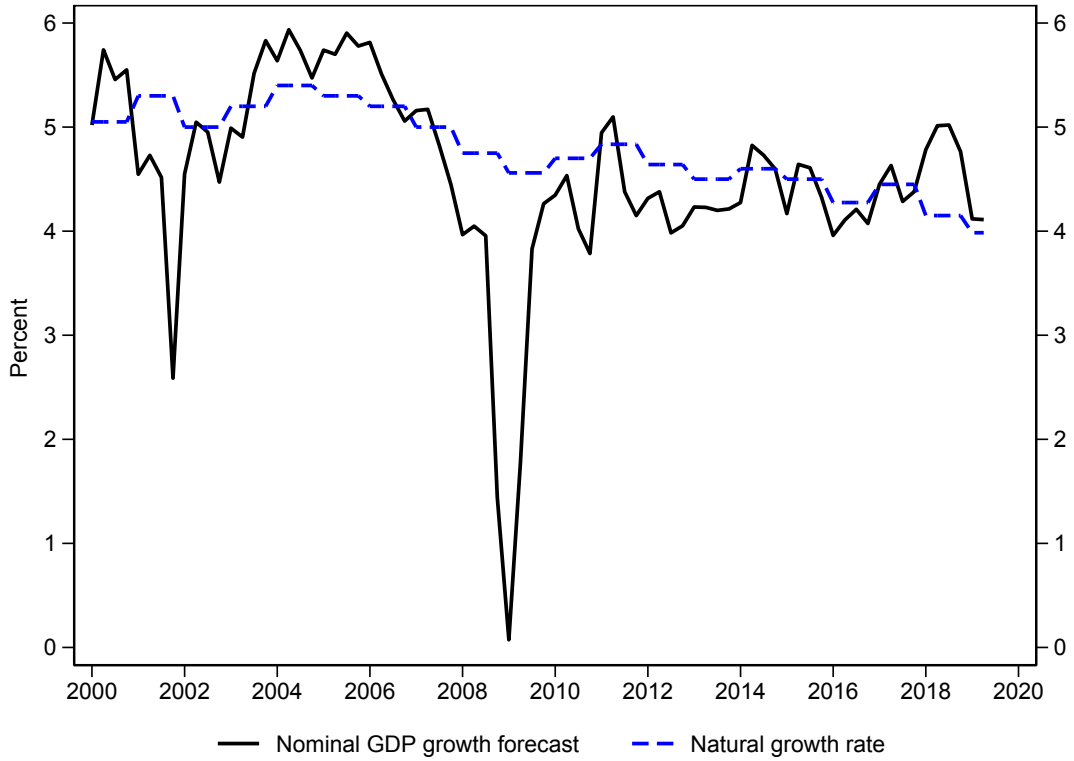


Quarterly change

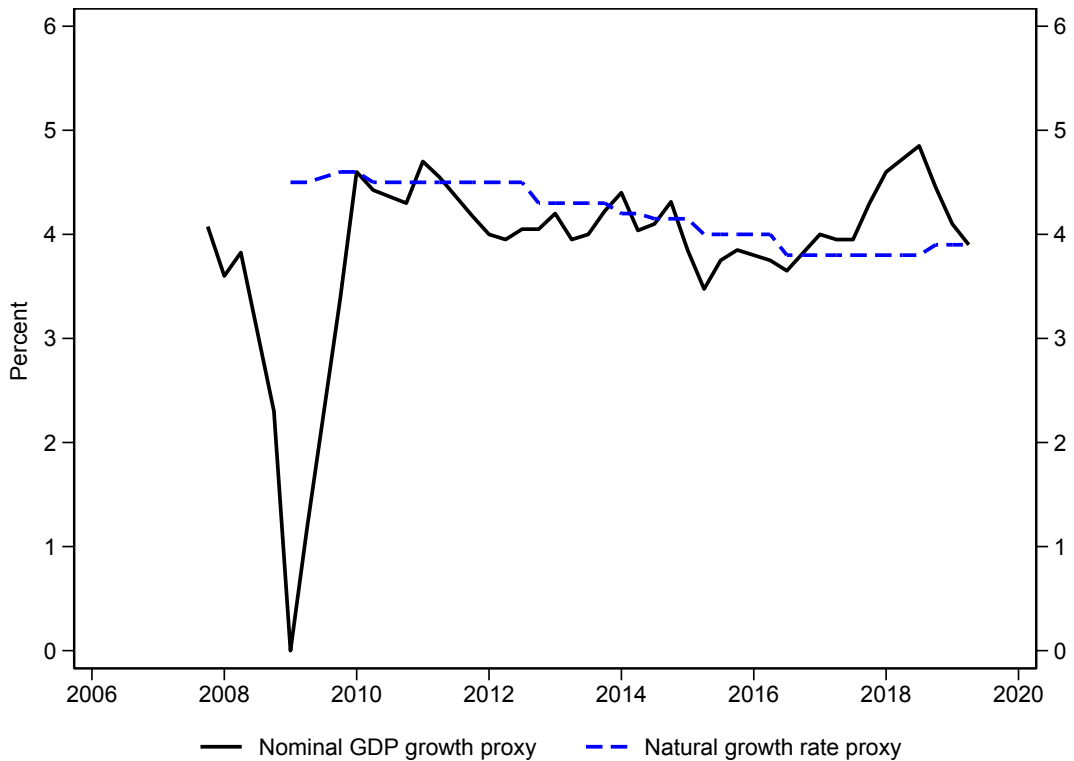


$\Delta i = 0.5(n - n^*)$, based on SPF forecasts of nominal income growth.

Inputs to natural growth rule: SPF

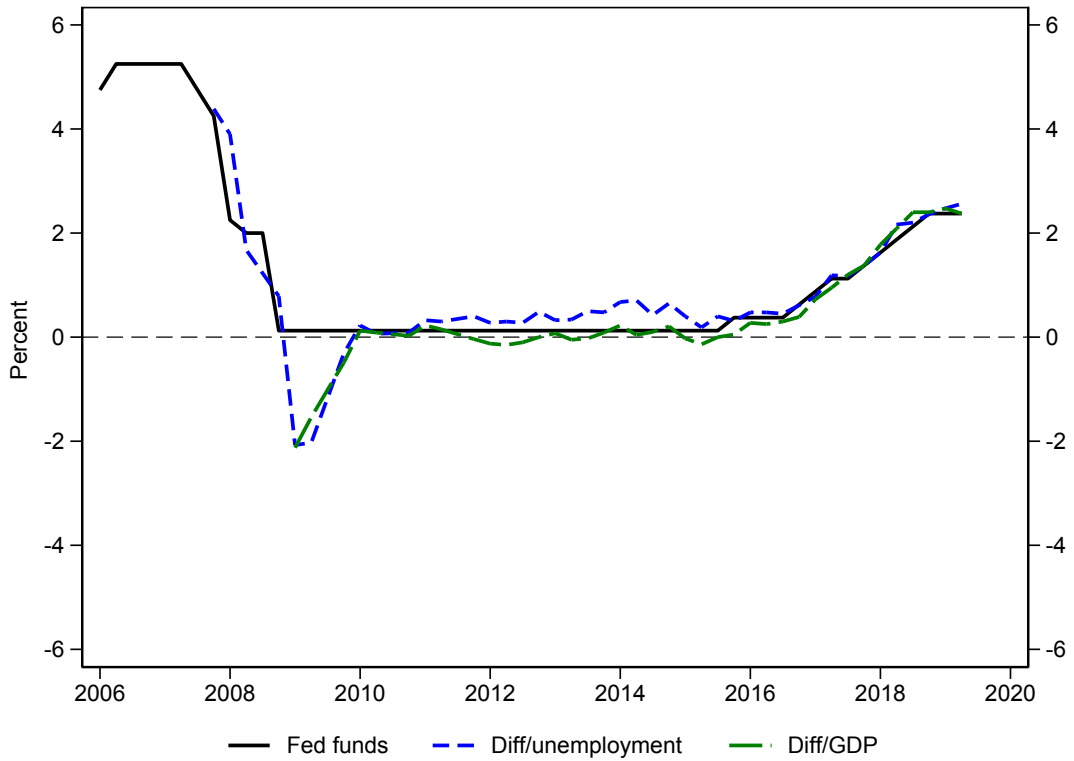


Inputs to approximate natural growth rule: FOMC SEP

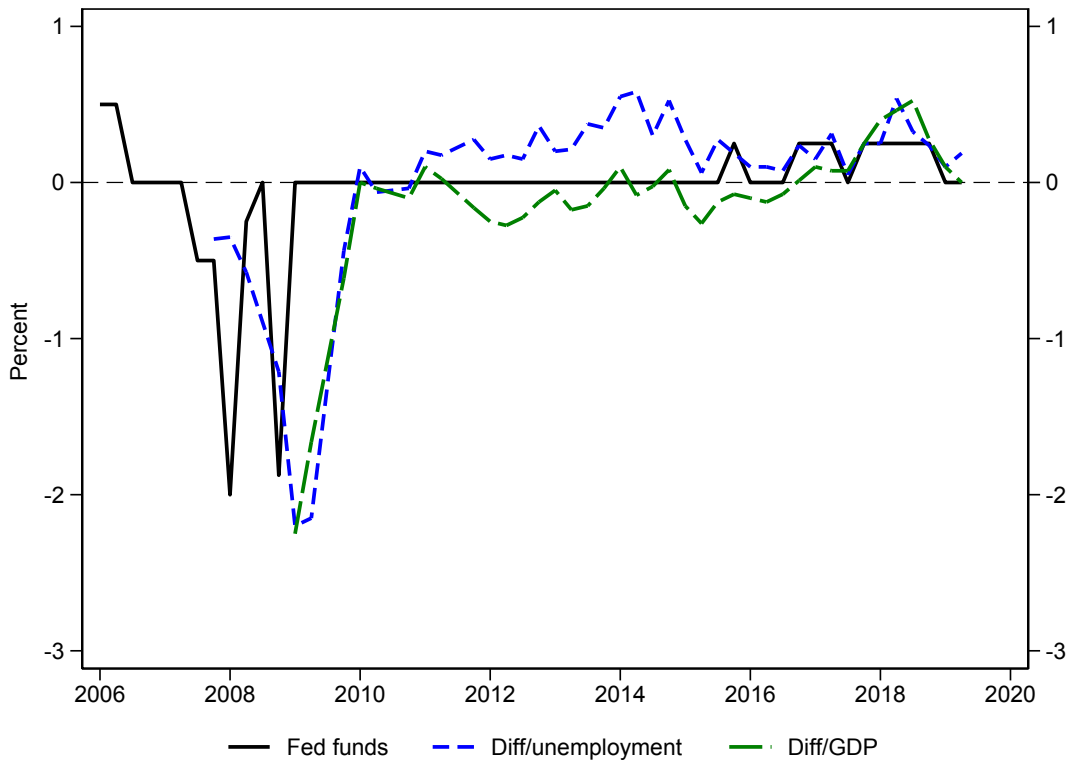


FOMC SEP approximation of nominal income growth is the sum of median FOMC projections of core PCE inflation and real GDP growth.

Difference rules: FOMC SEP Level



Quarterly change



Difference rules based on FOMC SEP projections of growth and unemployment.

Four alternative forecast-based rules: FOMC SEP

Forecast-based Taylor (1993) rule:

$$i_t^{FT} = r_t^* + \pi_{t+3|t} + 0.5(\pi_{t+3|t} - \pi^*) + (u_t^* - u_{t+3|t})$$

Forecast-based balanced-approach rule:

$$i_t^{FB} = r_t^* + \pi_{t+3|t} + 0.5(\pi_{t+3|t} - \pi^*) + 2(u_t^* - u_{t+3|t})$$

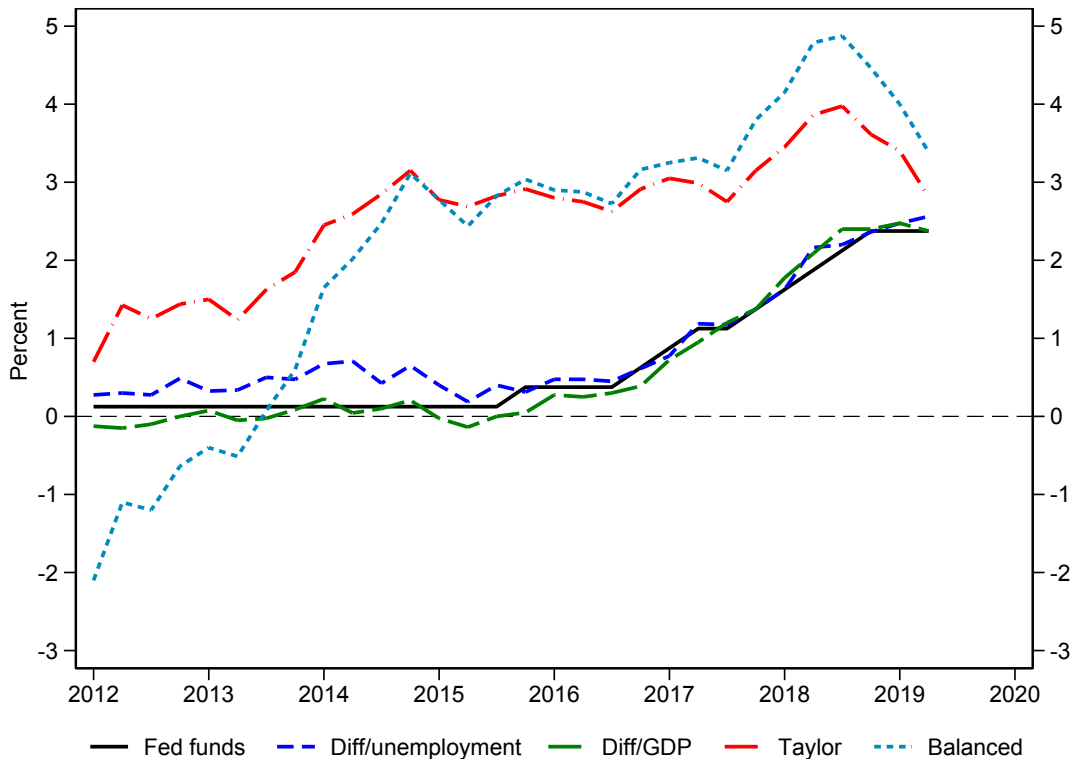
Forecast-based first-difference rule with growth:

$$i_t^G = i_{t-1} + 0.5(\pi_{t+3|t} - \pi_t^*) + 0.5(g_{t+3|t} - g_t^*)$$

Forecast-based first-difference rule with unemployment:

$$i_t^U = i_{t-1} + 0.5(\pi_{t+3|t} - \pi^*) - (u_{t+3|t} - u_{t-1|t})$$

Alternative rule prescriptions: FOMC SEP



Taylor and Balanced-approach rules use median FOMC projections of r^* , u^* .

Refining the current framework

- Monetary policy strategy
- Quarterly FOMC monetary policy report
- Communicating uncertainty

Four former Fed chairs

[A]n economy is strongest and functions best when the central bank acts independently of short-term political pressures and relies solely on sound economic principles and data. . . . Even the perception that monetary policy decisions are politically motivated, or influenced by threats that policy makers won't be able to serve out their terms of office, can undermine public confidence that the central bank is acting in the best interest of the economy. That can lead to unstable financial markets and worse economic outcomes.

(Paul Volcker, Alan Greenspan, Ben Bernanke & Janet Yellen. WSJ, August 6, 2019)