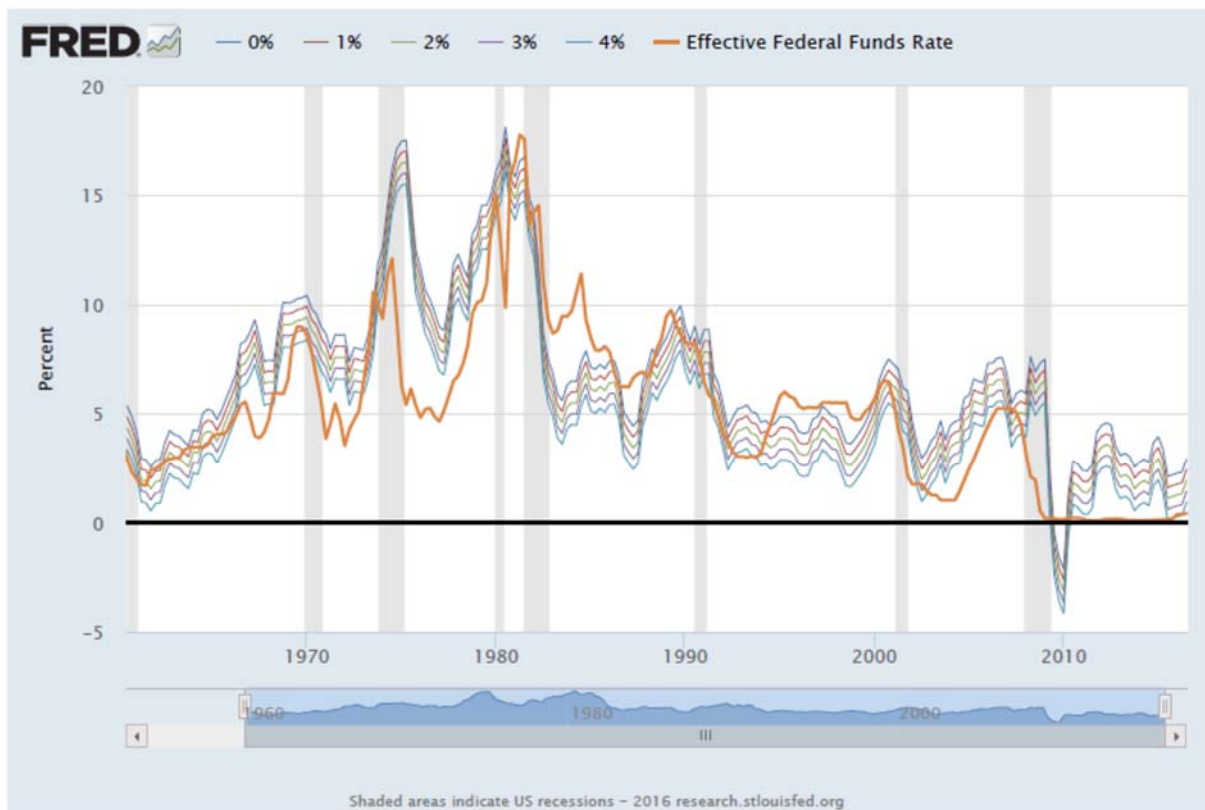


### Taylor Rules

$$i_t^{FedFunds} = \pi_t + \beta(y_t - y_t^*) + \delta(\pi_t - \pi_t^*) + r_t^*$$

$$i_t^{FedFunds} = (1 + \delta)\pi_t + \beta(y_t - y_t^*) + r_t^* - \delta\pi_t^*$$

### Federal Funds Rate and Inflation Targets



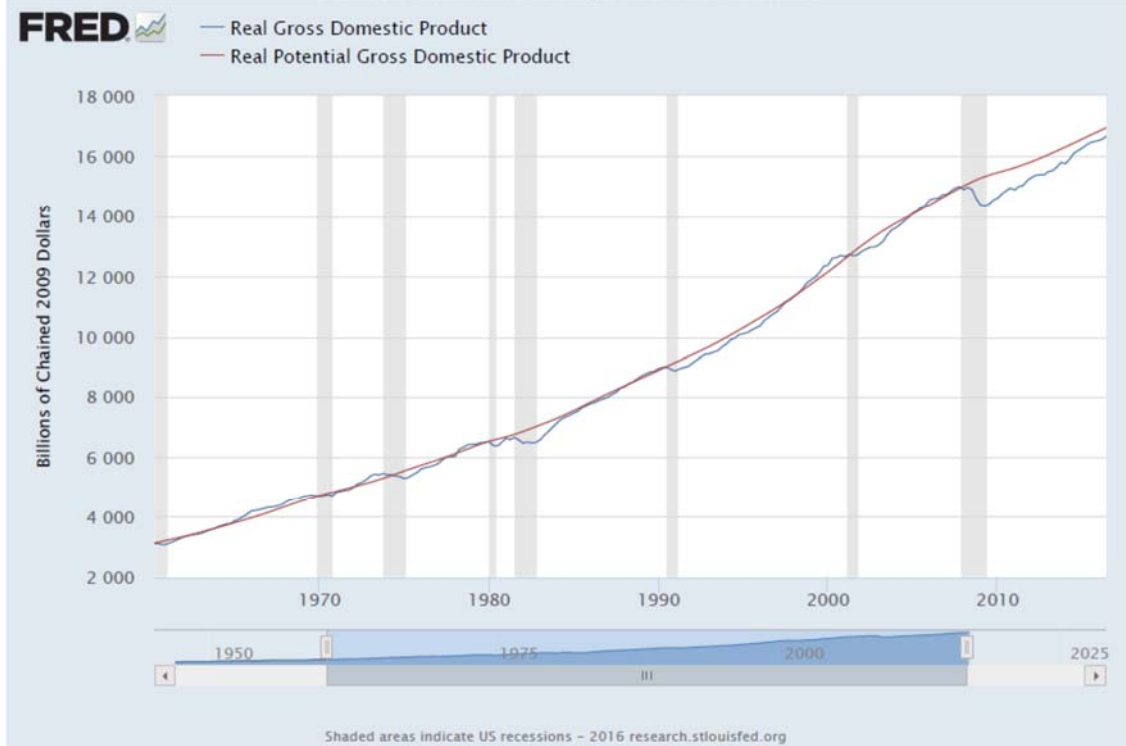
Federal Funds Rate and Inflation Targets shows the observed federal funds rate, quarterly, and the level of the funds rate implied by applying Taylor's (1993) equation to five alternative target inflation rates,  $\pi = 0, 1, 2, 3, 4$  percent, where  $ft^*$  is the implied federal funds rate,  $\pi_{t-1}$  is the previous period's inflation rate (PCE) measured on a year-over-year basis,  $yt-1$  is the log of the previous period's level of real gross domestic product (GDP), and  $yt-1P$  is the log of an estimate of the previous period's level of potential output.

$$ft^* = 2.5 + \pi_{t-1} + (\pi_{t-1} - \pi)/2 + 100 \times (yt-1 - yt-1P)/2$$

Source: St. Louis Fed, <https://research.stlouisfed.org/datatrends/mt/page10.php>

## Actual and Potential Real GDP

Billions of Chain-Weighted 2009 Dollars

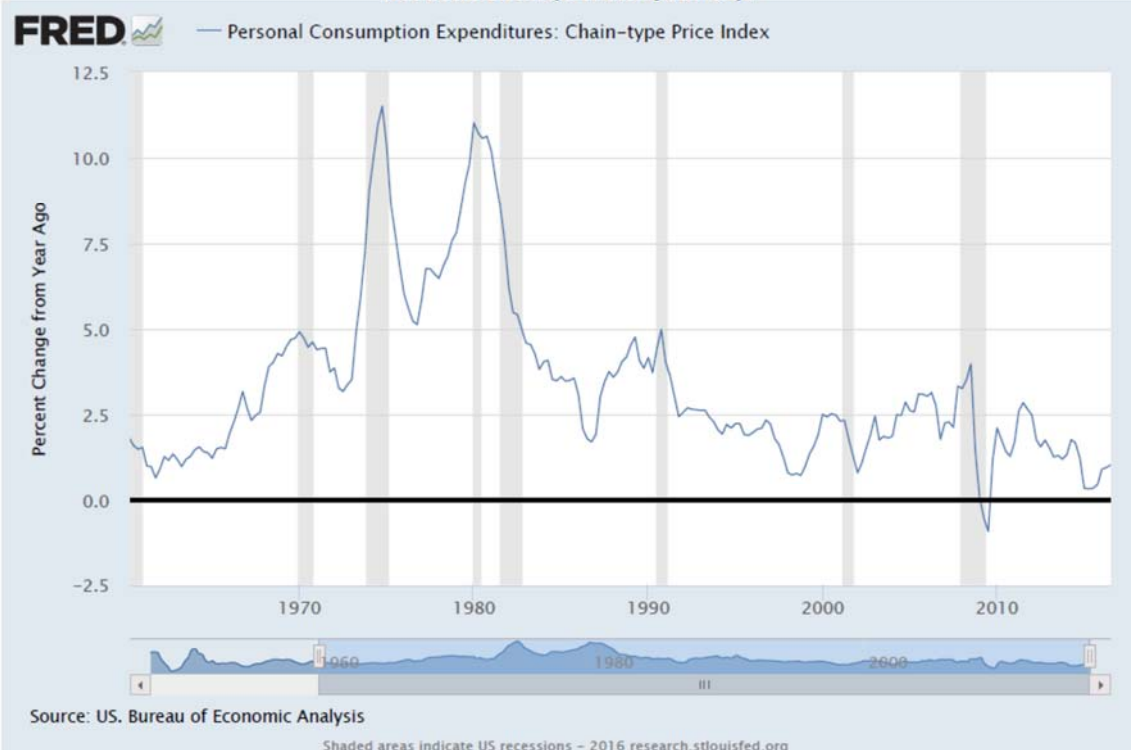


Shaded areas indicate US recessions - 2016 research.stlouisfed.org

Potential Real GDP is estimated by the Congressional Budget Office (CBO).

## PCE Inflation

Percent change from year ago



Source: US. Bureau of Economic Analysis

Shaded areas indicate US recessions - 2016 research.stlouisfed.org