

Finance 462 Project #4

In this project, you will be two models that are used to explain the behavior of the Federal Reserve. The first is by Ray Fair (famous for his model that predicts the presidential election), the second was devised by John Taylor (a likely candidate to be the next Fed Chairman). Let's see which model works better in explaining Fed policy.

The Fair Model

The Fair model is given by the following equation:

$$FF_t = .409 + .145\pi_t - .085U_t - .901\Delta U_t + .001\% \Delta M1_{t-1} + .939i_{t-1} + .28\Delta i_{t-1} - .195\Delta i_{t-2}$$

Where

FF_t = The target Fed Funds Rate at time t

π_t = Inflation rate (annualized percentage) at time t

U_t = Unemployment rate at time t

ΔU_t = Change in the unemployment rate

$\% \Delta M1_{t-1}$ = Growth rate in M1 at time t-1

i_{t-1} = Nominal TBill Rate at time t-1

Δi_{t-1} = Change in Nominal TBill rate at time t-1

The Taylor Model

The Taylor model is given by the following equation:

$$FF_t = 2 - 1.25(U_t - 5) + .5(\pi_t - 2)$$

Where

FF_t = The target Fed Funds Rate at time t

π_t = Inflation rate (annualized percentage) at time t

U_t = Unemployment rate at time t

- 1) Calculate the predicted target Fed Funds Rates for each of the above models.
- 2) Compare the model results with the actual Fed Funds Rate.