Inflation and Unemployment

1 Phillips Curve

A. Why is there a tradeoff?
   1) Increases in fiscal or monetary stimuli
   2) Surprises and rational expectations

B. Model:

\[ \pi_t = \lambda(u_t - u_t^*) + \pi_{t-1} + v_t \]

C. Expectations rules
   1) Adaptive expectations
      \[ E\pi_t = \alpha \pi_t + (1 - \alpha) \pi_{t-1} \Rightarrow \]
      \[ \pi_t = \lambda(u_t - u_t^*) + \alpha \pi_{t-1} + (1 - \alpha) \pi_{t-1} + v_t \]
      \[ = \frac{\lambda}{(1 - \alpha)} (u_t - u_t^*) + \pi_{t-1} + v_t. \]
      This implies a steady state equilibrium where
      \[ \pi_t = \pi_{t-1} \Rightarrow \]
      \[ u_t = u_t^*. \]
   2) Rational expectations
      \[ E\pi_t = \pi_t + e_t \Rightarrow \]
      \[ \pi_t = \lambda(u_t - u_t^*) + \pi_t + e_t + v_t \Rightarrow \]
      \[ 0 = \lambda(u_t - u_t^*) + e_t + v_t \]
      which means we can’t affect \( u_t \) except through surprises.
   3) What is the difference between the two modelling assumptions about expectations?

D. Shifting the Curve
   1) Expectations of inflation
   2) Speed of finding jobs
      a) Employment service
      b) UI
   3) Demographic changes
   4) Unionization
   5) Productivity growth

E. What does the Phillips Curve look like in the data?

F. Monetary Policy Implications