Gap Model for Closed Economy

Session 2.0

Three-Equation Structure

- Aggregate demand
- Aggrate supply (Phillips curve)
- Monetary policy reaction function

Trend and Gaps

- Exogenous long-term equilibria
- Endogenous medium-term imbalances
- To what do the equations collapse in the long run?

Aggregate Demand

$$\hat{y}_t = \alpha_1 y_{t-1} + \alpha_3 \, \hat{r} \iota_t + \epsilon_{\hat{y},t}$$

Aggregate Supply (Phillips Curve)

$$\pi_t = \beta_1 \, \pi_{t-1} + (1 - \beta_1) \, \pi_{t+1}^e + \beta_2 \, \hat{y}_t + \epsilon_{\pi,t}$$

Monetary Policy Reaction Function

$$i_t = \gamma_1 i_{t-1} + (1 - \gamma_1) \left[\bar{\iota} + \gamma_2 \left(\pi 4_{t+3}^e - \bar{\pi} \right) \right] + \epsilon_{1,t}$$

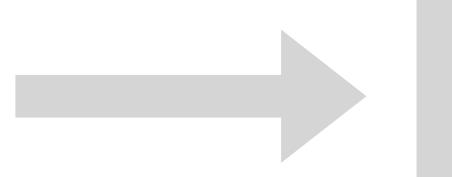
Real Rate

$$ri_t = i_t - \pi_{t+1}^e$$

$$\hat{r}\iota_t = ri - \bar{r}\iota$$

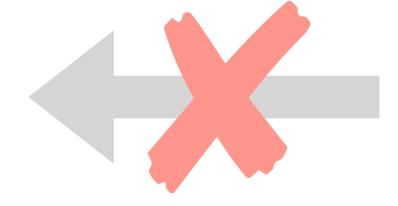
Long-Term Nominal Neutrality

Steady-state assumptions about real variables



Steady state of nominal variables

Steady state of real variables



Steady-state assumptions about nominal variables