1 A SOE model with fiscal policy shock, no capital accumulation

Domestic Economy Firms and Households

$c_t = c_{t+1} - (1/\sigma) * (r_t - \pi_{t+1})$	Euler Equation (AD)
$mc_t = \sigma * c_t + \varphi * n_t - a_t + \alpha * s_t$	Marginal Costs
$y_t = a_t + n_t$	Technology
$a_t = \rho_a * a_{t-1} + \epsilon_{a,t}$	Technology innovation

Some Identities

$\pi_t = p_t - p_{t-1}$	Cpi Inflation
$\pi_{h,t} = p_{h,t+1} - p_{h,t}$	Dpi Inflation
$p_t = p_{h,t} + \alpha * s_t$	Cpi home
$s_t = p_{f,t} - p_{h,t}$	Terms of Trade
$\pi_t = \pi_{h,t} + \alpha * (s_t - s_{t-1})$	Link between CPI and DPI
$q_t = (1 - \alpha) * s_t$	Real Exchange Rate

Domestic Economy Prices, risk sharing, trade balance and market clearing

$\pi_{h,t} = \beta * \pi_{h,t+1} + \kappa * mc_t$	Philip's Curve (AS)
$nx_t = y_t - (1 - \gamma_g) * (c_t + \alpha * s_t) - \gamma_g * g_t$	Trade Balance
$c_t = y_{f,t} + ((1 - \alpha)/\sigma) * s_t$	International Risk Sharing
$y_t = (1 - \gamma_g) * (c_t + ((\alpha * \omega)/\sigma) * s_t) + \gamma_g * g_t$	Market Clearing
$g_t = \rho_g * g_{t-1} + \epsilon_{g,t}$	Government Spending Shock

Foreign Economy

$y_{f,t} = y_{f,t+1} - (1/\sigma) * (r_{f,t} - \pi_{f,t+1})$	Foreign Euler Equation (AD)
$\pi_{f,t} = \beta * \pi_{f,t+1} + \kappa * mc_{f,t}$	Foreign new keynesian Philips Curve (AS)
$mc_{f,t} = (\sigma + \varphi) * y_{f,t} - (1 + \varphi) * a_{f,t}$	Foreign real marginal cost function
$a_{f,t} = \rho_{a,f} * a_{f,t-1} + \epsilon_{a,f,t}$	Foreign technology process

Monetary Policy Choices for Domestic and Foreign Economy

$r_{f,t} = \phi_{\pi,f} * \pi_{f,t}$	Foreign's Taylor rule
$\pi_{f,t} = 0$	No CPI deviation
$\pi_t = 0$	Strict inflation targeting (CIT)
$e_t = 0$	Exchange rate peg (PEG)
$\pi_{h,t} = 0$	Domestic inflation targeting (DIT)
$r_t = \phi_\pi * \pi_t$	Domestic Taylor Rule