Log-linear equilibrium

$$\mathbb{E}_t[c_{t+1}] + \frac{1}{\sigma}\mathbb{E}_t[\pi_{t+1}] = c_t + \frac{1}{\sigma}r_t - \frac{\rho}{\sigma} \tag{1a}$$

$$\beta\mathbb{E}_t[\pi_{H,t+1}] = \pi_{H,t} - \lambda\hat{mc}_t \tag{1b}$$

$$taylor \tag{1c}$$

$$a_{t+1} = \rho_a a_t + \varepsilon_t^a \tag{1d}$$

$$y_{t+1}^* = \rho_y y_t^* + \varepsilon_t^* \tag{1e}$$

$$\bar{y}_{t+1} - \Gamma a_{t+1} - \alpha\Psi y_{t+1}^* = \Omega \tag{1f}$$

$$x_{t+1} - y_t + \bar{y}_{t+1} = 0 \tag{1g}$$

$$-c_{t+1}^* + y_{t+1}^* = 0 \tag{1h}$$

$$c_{t+1}^* - c_{t+1} - \frac{1}{\sigma}q_{t+1} = 0 \tag{1i}$$

$$q_{t+1} - (1-\alpha)s_{t+1} = 0 \tag{1j}$$

$$y_{t+1} - c_{t+1} - \alpha\gamma s_{t+1} - \alpha\left(\eta - \frac{1}{\sigma}\right)q_{t+1} = 0 \tag{1k}$$

$$-\pi_{t+1} + \pi_{H,t+1} + \alpha s_{t+1} = \alpha s_t \tag{1l}$$

$$s_{t+1} - \Delta e_{t+1} + \pi_{H,t+1} = s_t \tag{1m}$$

$$-\hat{mc}_{t+1} + (\sigma_\alpha + \varphi)y_{t+1} + (\sigma - \sigma_\alpha)y_{t+1}^* - (1+\varphi)a_{t+1} = 0 \tag{1n}$$

$$-y_{t+1} + a_{t+1} + n_{t+1} = 0 \tag{1o}$$

Endogenous variables

x_t y_t^* $\pi_{H,t}$ a_t r_t $\bar{y}_t$ y_t c_t^* s_t q_t c_t π_t Δe_t $\hat{mc}_t$ n_t