

Rewrite the 8 equilibrium conditions in terms of per-capita, real variables:

$$\textcircled{1} \quad u'(c_t^y) = \beta u'(c_{t+1}^o) \frac{1}{1+\pi_{t+1}} \xrightarrow{\text{in s.s.}} u'(c^y) = \beta u'(c^o) \frac{1}{1+\pi} \quad (1)$$

$$\textcircled{2} \quad c_t^y + k_{t+1} + \frac{m_{t+1}}{p_{t+1}} \frac{p_{t+1}}{p_t} = e \xrightarrow{\text{in s.s.}} c^y + k + \frac{m}{p} (1+\pi) = e \quad (2)$$

$$\textcircled{3} \quad c_{t+1}^o = f(k_{t+1}) + \frac{m_{t+1}}{p_{t+1}} + \lambda_{t+1} \xrightarrow{\text{in s.s.}} c^o = f(k) + \frac{m}{p} + \lambda \quad (3)$$

$$\textcircled{4} + \textcircled{5} : \mu M_t = N_{t+1} \lambda_t p_t$$

$$\textcircled{6} \rightarrow \mu N_{t+1} m_t = N_{t+1} \lambda_t p_t$$

$$\therefore \mu \frac{m_t}{p_t} = \lambda_t \xrightarrow{\text{in s.s.}} \mu \frac{m}{p} = \lambda \quad (4)$$

$$\textcircled{5} + \textcircled{6} : N_t m_{t+1} = (1+\mu) N_{t+1} m_t$$

$$(1+n) \frac{m_{t+1}}{p_{t+1}} \frac{p_{t+1}}{p_t} = (1+\mu) \frac{m_t}{p_t}$$

$$\therefore (1+n) \frac{m_{t+1}}{p_{t+1}} (1+\pi_{t+1}) = (1+\mu) \frac{m_t}{p_t}$$

$$\xrightarrow{\text{in s.s.}} (1+n) \cancel{\frac{m}{p}} (1+\pi) = (1+\mu) \cancel{\frac{m}{p}}$$

$$\therefore (1+n)(1+\pi) = (1+\mu) \quad (5)$$

$$\textcircled{7} : c_t^y + \frac{1}{1+n} c_t^o + k_{t+1} = e + \frac{1}{1+n} f(k_t)$$

$$\xrightarrow{\text{in s.s.}} c^y + \frac{1}{1+n} c^o + k = e + \frac{1}{1+n} f(k) \quad (6)$$

$$\textcircled{8} : \frac{1}{1+\pi_{t+1}} = f'(k_{t+1}) \xrightarrow{\text{in s.s.}} \frac{1}{1+\pi} = f'(k) \quad (7)$$