

# Stationarized System with Spillover

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$$y_{c,t} = \Gamma_{c,t} k_{i,t}^\gamma h_{1,t}^{1-a-b} k_{c,1,t}^a k_{i,1,t}^b \quad (1)$$

$$y_{i,t} = \Gamma_{i,t} k_{i,t}^\gamma h_{2,t}^{1-a-b} k_{c,2,t}^a k_{i,2,t}^b \quad (2)$$

$$k_{c,t+1} \exp(g_c) = (1 - \delta_c) k_{c,t} + i_{c,t} \quad (3)$$

$$k_{i,t+1} \exp(g_i) = (1 - \delta_i) k_{i,t} + i_{i,t} \quad (4)$$

$$y_{c,t} = c_t + i_{c,t} \quad (5)$$

$$y_{i,t} = i_{i,t} \quad (6)$$

$$w_t = \chi c_t \quad (7)$$

$$k_{c,t} = k_{c,1,t} + k_{c,2,t} \quad (8)$$

$$k_{i,t} = k_{i,1,t} + k_{i,2,t} \quad (9)$$

$$h_t = h_{1,t} + h_{2,t} \quad (10)$$

$$1 = \beta \mathbb{E} \left[ (\exp(g_c))^{-1} \frac{c_t}{c_{t+1}} \left( r_{c,t+1} + 1 - \delta_c \right) \right] \quad (11)$$

$$1 = \beta \mathbb{E} \left[ (\exp(g_i))^{-1} \frac{c_t}{c_{t+1}} \left( \frac{r_{i,t+1}}{p_t} + 1 - \delta_i \right) \right] \quad (12)$$

$$w_t = (1 - a - b) \Gamma_{c,t} k_{i,t}^\gamma h_{1,t}^{-a-b} k_{c,1,t}^a k_{i,1,t}^b \quad (13)$$

$$r_{c,t} = a \Gamma_{c,t} k_{i,t}^\gamma h_{1,t}^{1-a-b} k_{c,1,t}^{a-1} k_{i,1,t}^b \quad (14)$$

$$r_{i,t} = b \Gamma_{c,t} k_{i,t}^\gamma h_{1,t}^{1-a-b} k_{c,1,t}^a k_{i,1,t}^{b-1} \quad (15)$$

$$\frac{w_t}{p_t} = (1 - a - b)\Gamma_{i,t}k_{i,t}^\gamma h_{2,t}^{-a-b}k_{c,2,t}^a k_{i,2,t}^b \quad (16)$$

$$\frac{r_{c,t}}{p_t} = a\Gamma_{i,t}k_{i,t}^\gamma h_{2,t}^{1-a-b}k_{c,2,t}^{a-1}k_{i,2,t}^b \quad (17)$$

$$\frac{r_{i,t}}{p_t} = b\Gamma_{i,t}k_{i,t}^\gamma h_{2,t}^{1-a-b}k_{c,2,t}^a k_{i,2,t}^{b-1} \quad (18)$$