Stationarized System with Spillover

Marco Brianti
Laura Gati

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

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

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

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

$$y_{c,t} = c_t + i_{c,t} \tag{5}$$

$$y_{i,t} = i_{i,t} \tag{6}$$

$$w_t = \chi c_t \tag{7}$$

$$k_{c,t} = k_{c,1,t} + k_{c,2,t} \tag{8}$$

$$k_{i,t} = k_{i,1,t} + k_{i,2,t} \tag{9}$$

$$h_t = h_{1,t} + h_{2,t} \tag{10}$$

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

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

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

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

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

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

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

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