Equations

$$B_{1,t} = (1 + \bar{c}_{1,t})A_{1,t} + \bar{c}_{2,t}A_{2,t} \tag{1}$$
$$B_{2,t} = \omega B_{1,t} = (1 + \bar{c}_{2,t})A_{2,t} \tag{2}$$
$$A_t = A_{1,t} + A_{2,t} \tag{3}$$
$$V_t = Q_t B_{1,t} = \left[D_{1,t}(1 - M_t) + D_{2,t}M_t\right] A_t \tag{4}$$
$$D_{1,t} = Q_{1,t}(1 + \bar{c}_{1,t}) \tag{5}$$
$$D_{2,t} = Q_{1,t}\bar{c}_{2,t} + Q_{2,t}(1 + \bar{c}_{2,t}) \tag{6}$$
$$M_t = (A_{2,t}/A_t) = \omega(1 + \bar{c}_{1,t})/\left[(1 + \bar{c}_{2,t}) + \omega(1 + \bar{c}_{1,t}) - \omega\bar{c}_{2,t}\right] \tag{7}$$
$$(1 + \bar{c}_{1,t})A_{1,t} = (1 + \bar{c}_{2,t-1})A_{2,t-1} + (1 + c_{1,t})\Delta A_{1,t} \tag{8}$$
$$\bar{c}_{2,t} = c_{2,t} \tag{9}$$
$$B_{1,t} = B_{2,t-1} + (1 + c_{1,t})\Delta A_{1,t} + c_{2,t}A_{2,t} \tag{10}$$
$$\tag{11}$$

Independent block:

$$V_t + S_t = V_{t-1}(1 + r_t^n) \tag{12}$$
$$(S_t - S) = \rho_s(S_{t-1} - S) + \alpha(V_{t-1} - V) + \epsilon_{s,t} \tag{13}$$
$$(i_t - i) = \rho_i(i_{t-1} - i) + \epsilon_{i,t} \tag{14}$$
$$Q_t = Q_{1,t} + \omega Q_{2,t} \tag{15}$$
$$Q_{1,t} = (1 + i_t)^{-1} \tag{16}$$
$$Q_{2,t} = Q_{1,t}(1 + i_{t+1})^{-1} \tag{17}$$
$$1 + r_t^n = (1 + \omega Q_{1,t})/Q_{t-1} \tag{18}$$