$$uc = \gamma \, {C_t}^{(-\eta^C)}$$

$$ucp = \gamma \, {C_{t+1}}^{(-\eta^C)}$$

$$ul = (-\psi) \, (1 - L_t)^{(-\eta^L)}$$

$$fk = \frac{\alpha \, Y_t}{K_{t-1}}$$

$$fl = \frac{Y_t \, (1 - \alpha)}{L_t}$$

$$uc_t = \beta \, ucp_t \, (1 - \delta + R_{t+1}) \tag{1}$$

$$W_t = \frac{(-ul_t)}{uc_t} \tag{2}$$

$$K_t = K_{t-1} \, (1 - \delta) + I_t \tag{3}$$

$$Y_t = C_t + I_t \tag{4}$$

$$Y_t = A_t \, {K_{t-1}}^{\alpha} \, {L_t}^{1-\alpha} \tag{5}$$

$$MC_t = 1 \tag{6}$$

$$W_t = MC_t \, fl_t \tag{7}$$

$$R_t = MC_t \, fk_t \tag{8}$$

$$log \, (A_t) = \rho^A \, log \, (A_{t-1}) + {\varepsilon^A}_t \tag{9}$$

Table 1: Endogenous

Variable	LaTeX	Description
y	Y	output
c	C	consumption
k	K	capital
l	L	labor
a	A	productivity
r	R	interest Rate
w	W	wage
iv	I	investment
mc	MC	marginal Costs

Table 2: Exogenous

Variable	LaTeX	Description
epsa	ε^A	Productivity Shock

Table 3: Parameters

Variable	LaTeX	Description
BETA	β	Discount Factor
DELTA	δ	Depreciation Rate
GAMMA	γ	Consumption Utility Weight
PSI	ψ	Labor Disutility Weight
ETAC	η^C	Risk Aversion
ETAL	η^L	Inverse Frisch Elasticity
ALPHA	α	Output Elasticity of Capital
RHOA	ρ^A	Discount Factor

Table 4: Parameter Values

Parameter	**Value**	**Description**
β	0.990	Discount Factor
δ	0.025	Depreciation Rate
γ	1.000	Consumption Utility Weight
ψ	1.600	Labor Disutility Weight
η^C	2.000	Risk Aversion
η^L	1.000	Inverse Frisch Elasticity
α	0.350	Output Elasticity of Capital
ρ^A	0.900	Discount Factor

$$uc = \gamma\, {C_t}^{(-\eta^C)}$$

$$ucp = \gamma\, {C_{t+1}}^{(-\eta^C)}$$

$$ul = (-\psi)\ (1 - L_t)^{(-\eta^L)}$$

$$fk = \frac{\alpha\, Y_t}{K_{t-1}}$$

$$fl = \frac{Y_t\ (1-\alpha)}{L_t}$$

$$uc_t = \beta\, ucp_t\ (1 - \delta + R_{t+1}) \tag{10}$$

$$W_t = \frac{(-ul_t)}{uc_t} \tag{11}$$

$$K_t = K_{t-1}\ (1-\delta) + I_t \tag{12}$$

$$Y_t = C_t + I_t \tag{13}$$

$$Y_t = A_t\, {K_{t-1}}^{\alpha}\, {L_t}^{1-\alpha} \tag{14}$$

$$MC_t = 1 \tag{15}$$

$$W_t = MC_t\, fl_t \tag{16}$$

$$R_t = MC_t\, fk_t \tag{17}$$

$$log\,(A_t) = \rho^A\, log\,(A_{t-1}) + {\varepsilon^A}_t \tag{18}$$

$$uc = \gamma\, C^{(-\eta^C)}$$

$$ucp = \gamma\, C^{(-\eta^C)}$$

$$ul = (-\psi)\ (1 - L)^{(-\eta^L)}$$

$$fk = \frac{\alpha\, Y}{K}$$

$$fl = \frac{Y\ (1 - \alpha)}{L}$$

$$uc = \beta\, ucp\ (1 - \delta + R) \tag{19}$$

$$W = \frac{(-ul)}{uc} \tag{20}$$

$$K = K\ (1 - \delta) + I \tag{21}$$

$$Y = C + I \tag{22}$$

$$Y = A\, K^{\alpha}\, L^{1-\alpha} \tag{23}$$

$$MC = 1 \tag{24}$$

$$W = MC\, fl \tag{25}$$

$$R = MC\, fk \tag{26}$$

$$log\,(A) = log\,(A)\ \rho^A + \varepsilon^A \tag{27}$$