

$$\star e_T = \left(\eta \cdot \tau_T \cdot \frac{\partial w_T}{\partial h_T} \cdot \alpha \cdot \frac{\phi}{(2\hat{w}_T)^5} \right)^{\frac{1}{1-\eta}} = \eta \cdot \tau_T \cdot \frac{\partial w_T}{\partial h_T} \cdot h_T$$

$$\star S_T = \frac{\mu\phi}{\mu\phi + \eta \cdot \frac{w_T \tau_T}{e_T} - \eta}$$

$$\star h_T = \eta^{\frac{1}{1-\eta}} \cdot \tau_T^{\frac{1}{1-\eta}} \cdot \left(\frac{\partial w_T}{\partial h_T} \right)^{\frac{1}{1-\eta}} \cdot \alpha^{\frac{1}{1-\eta}} \cdot S_T^{\frac{\phi}{1-\eta}} \cdot \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{\frac{1}{1-\eta}}$$

$$w_0 = A_0 h_0 \quad \frac{\partial w_0}{\partial h_0} = A_0$$

$$\frac{w_0 \tau_0}{e_0} = \frac{A_0 h_0 \tau_0}{\eta \tau_0 A_0 h_0} = \frac{1}{\eta}$$

$$\star e_0 = \left(\eta \cdot \tau_0 \cdot A_0 \cdot \alpha \cdot S_0 \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{\frac{1}{1-\eta}} \right)^{\frac{1}{1-\eta}} = \eta \cdot \tau_0 \cdot A_0 h_0$$

$$\star S_0 = \frac{\mu\phi}{\mu\phi + 1 - \eta}$$

$$\star h_0 = \eta^{\frac{1}{1-\eta}} \cdot \tau_0^{\frac{1}{1-\eta}} \cdot A_0^{\frac{1}{1-\eta}} \cdot \alpha^{\frac{1}{1-\eta}} \cdot S_0^{\frac{\phi}{1-\eta}} \cdot \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{\frac{1}{1-\eta}} = \left(\eta^{\frac{1}{1-\eta}} \cdot \tau_0^{\frac{1}{1-\eta}} \cdot A_0^{\frac{1}{1-\eta}} \cdot \alpha^{\frac{1}{1-\eta}} \cdot S_0^{\frac{\phi}{1-\eta}} \right)^{\frac{1}{1-\eta}}$$

$$\alpha^{\frac{1}{1-\eta}} = \left(\eta \cdot \frac{w_T \tau_T}{e_T} - \eta \cdot \frac{\mu\phi + 1 - \eta}{\mu\phi + \eta \cdot \frac{w_T \tau_T}{e_T} - \eta} \right)^{\frac{1}{1-\eta}} \cdot \tau_T \left(w_T - \eta \cdot \frac{\partial w_T}{\partial h_T} \cdot h_T \right) \cdot \frac{1 + \tau_T^e}{1 + \tau_0^e}$$

$$\cdot \frac{1}{1-\eta} \cdot \eta^{-\frac{1}{1-\eta}} \cdot \tau_0^{-\frac{1}{1-\eta}} \cdot A_0^{-\frac{1}{1-\eta}} \cdot S_0^{-\frac{\phi}{1-\eta}} \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{-\frac{1}{1-\eta}}$$

With linear case: $\frac{\tau_T (1 + \tau_T^e)^{1-\eta} \cdot A_T \alpha^{\frac{1}{1-\eta}}}{\tau_0 (1 + \tau_0^e)^{1-\eta} \cdot A_0 \alpha_0^{\frac{1}{1-\eta}}} = 1 \Leftrightarrow \tau_T (1 + \tau_T^e)^{1-\eta} \cdot A_T \alpha^{\frac{1}{1-\eta}} = \tau_0 (1 + \tau_0^e)^{1-\eta} \cdot A_0 \alpha_0^{\frac{1}{1-\eta}}$

$$A_0 \alpha^{\frac{1}{1-\eta}} = \left(\frac{1 - S_T}{1 - S_0} \right)^{\frac{1}{1-\eta}} \cdot \tau_T^{\frac{1}{1-\eta}} \cdot \eta^{\frac{1}{1-\eta}} \cdot \left(\frac{\partial w_T}{\partial h_T} \right)^{\frac{1}{1-\eta}} \cdot A_T^{\frac{1}{1-\eta}} \cdot S_T^{\frac{\phi}{1-\eta}} \cdot \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{w_T}{h_T} - \eta \cdot \frac{\partial w_T}{\partial h_T} \right)$$

$$\cdot \frac{1 + \tau_T^e}{1 + \tau_0^e} \cdot \frac{1}{1-\eta} \cdot \eta^{-\frac{1}{1-\eta}} \cdot \tau_0^{-\frac{1}{1-\eta}} \cdot A_0^{-\frac{1}{1-\eta}} \cdot S_0^{-\frac{\phi}{1-\eta}} \left(\frac{\phi}{(2\hat{w}_T)^5} \right)^{-\frac{1}{1-\eta}}$$

$$\left(\frac{1 - S_T}{1 - S_0} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{\tau_T}{\tau_0} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{A_T}{A_0} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{S_T}{S_0} \right)^{\frac{\phi}{1-\eta}} \cdot \frac{1 + \tau_T^e}{1 + \tau_0^e} \cdot \left(\frac{\partial w_T}{\partial h_T} \right)^{\frac{1}{1-\eta}} \cdot \frac{w_T}{(1-\eta) A_0} = 1$$

$$\left(\frac{1 - S_T}{1 - S_0} \right)^{\frac{1-\eta}{1-\eta}} \cdot \frac{\tau_T}{\tau_0} \cdot \left(\frac{A_T}{A_0} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{S_T}{S_0} \right)^{\frac{\phi}{1-\eta}} \cdot \left(\frac{1 + \tau_T^e}{1 + \tau_0^e} \right)^{1-\eta} \cdot \left(\frac{\partial w_T}{\partial h_T} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{w_T}{h_T} - \eta \cdot \frac{\partial w_T}{\partial h_T} \right)^{1-\eta} = 1$$

$$\left(\frac{\partial w_T}{\partial h_T} \right) \cdot \left(\frac{w_T/h_T}{\partial w_T/\partial h_T} - \eta \right)^{1-\eta}$$

$$\star \left(\frac{1 - S_T}{1 - S_0} \right)^{\frac{1-\eta}{1-\eta}} \cdot \frac{\tau_T}{\tau_0} \cdot \left(\frac{A_T}{A_0} \right)^{\frac{1}{1-\eta}} \cdot \left(\frac{S_T}{S_0} \right)^{\frac{\phi}{1-\eta}} \cdot \left(\frac{1 + \tau_T^e}{1 + \tau_0^e} \right)^{1-\eta} \cdot \frac{\partial w_T/\partial h_T}{A_0} \cdot \left(\frac{w_T/h_T}{\partial w_T/\partial h_T} - \eta \right)^{1-\eta} = 1$$

$$\star \hat{H}_T^* = \eta^{\frac{\beta}{\sigma(1-\eta)}} \cdot \left(\frac{2}{M} \right)^{\frac{\beta}{1-\eta-\beta}} \left(\sum_{j=1}^J \tau_{T,j}^{\frac{\beta}{\sigma(1-\eta)}} \int \left(\frac{\partial w_{T,j}}{\partial h_{T,j}} \right)^{\frac{\beta}{\sigma(1-\eta)}} \cdot A_{T,j}^{\frac{\beta}{\sigma(1-\eta)}} \cdot S_{T,j}^{\frac{\phi\beta}{\sigma(1-\eta)}} f_{T,j}(a) da \right)^{\frac{1-\eta}{1-\eta-\beta}}$$

$$\star \hat{H}_T^1 = \eta^{\frac{\beta}{\sigma(1-\eta)}} \cdot \left(\frac{2\hat{w}_T}{M} \right)^{\frac{\beta}{1-\eta}} \cdot \sum_{j=1}^J \tau_{T,j}^{\frac{\beta}{\sigma(1-\eta)}} \int \left(\frac{\partial w_{T,j}}{\partial h_{T,j}} \right)^{\frac{\beta}{\sigma(1-\eta)}} \cdot A_{T,j}^{\frac{\beta}{\sigma(1-\eta)}} \cdot S_{T,j}^{\frac{\phi\beta}{\sigma(1-\eta)}} f_{T,j}(a) da$$