

本文 (29) 式より、

$$Y_{mt} = \int_0^1 \left(\frac{P_{ft}}{P_t} \right)^{-\epsilon} Y_t df = Y_t \int_0^1 \left(\frac{P_{ft}}{P_t} \right)^{-\epsilon} df =: Y_t D_t \quad (1)$$

(注：レジюме 14 式は、 Y_{mt} と Y_t が逆だが、Dynare コードでは修正されている。)

本文 (33) 式より、

$$\begin{aligned} P_t &= \left[(1 - \gamma) (P_t^*)^{1-\epsilon} + \gamma (\Pi_{t-1}^{\gamma_P} P_{t-1})^{1-\epsilon} \right]^{\frac{1}{1-\epsilon}} \\ \Leftrightarrow P_t^* &= \left[\frac{P_t^{1-\epsilon} - \gamma (\Pi_{t-1}^{\gamma_P} P_{t-1})^{1-\epsilon}}{1 - \gamma} \right]^{\frac{1}{1-\epsilon}} \end{aligned} \quad (2)$$

$$\begin{aligned} \frac{P_t^*}{P_t} &= \left[\frac{P_t^{1-\epsilon} - \gamma (\Pi_{t-1}^{\gamma_P} P_{t-1})^{1-\epsilon}}{(1 - \gamma) P_t^{1-\epsilon}} \right]^{\frac{1}{1-\epsilon}} \\ &= \left[\frac{1 - \gamma (\Pi_{t-1}^{\gamma_P} \frac{P_{t-1}}{P_t})^{1-\epsilon}}{(1 - \gamma)} \right]^{\frac{1}{1-\epsilon}} \\ &= \left[\frac{1 - \gamma \Pi_{t-1}^{\gamma_P (1-\epsilon)} \Pi_t^{\epsilon-1}}{(1 - \gamma)} \right]^{\frac{1}{1-\epsilon}} \end{aligned} \quad (3)$$

$$\begin{aligned} D_t &= \int_0^1 \left(\frac{P_{ft}}{P_t} \right)^{-\epsilon} df \\ &= \gamma \int_0^1 \left(\frac{\Pi_{t-1}^{\gamma_P} P_{f,t-1}}{P_t} \right)^{-\epsilon} df + (1 - \gamma) \int_0^1 \left(\frac{P_t^*}{P_t} \right)^{-\epsilon} df \\ &= \gamma \left(\Pi_{t-1}^{\gamma_P} \frac{P_{t-1}}{P_t} \right)^{-\epsilon} \int_0^1 \left(\frac{P_{f,t-1}}{P_{t-1}} \right)^{-\epsilon} df + (1 - \gamma) \left(\frac{P_t^*}{P_t} \right)^{-\epsilon} \\ &= \gamma \Pi_{t-1}^{-\gamma_P \epsilon} \Pi_t^{\epsilon} D_{t-1} + (1 - \gamma) \left[\frac{1 - \gamma \Pi_{t-1}^{\gamma_P (1-\epsilon)} \Pi_t^{\epsilon-1}}{(1 - \gamma)} \right]^{\frac{-\epsilon}{1-\epsilon}} \end{aligned} \quad (4)$$

(レジюме 15 式とは一致せず)