

Step 1: Get the stable value

(s, ϵ, z) s is age, ϵ is idiosyncratic shock, z is stochastic productivity.

Then we have state space (a', s, ϵ, z)

Step 1.1: Get the dynamic programming policy $T, \dots, 1$

Step 1.2: Get the distribution of $G(a', s, \epsilon, z)$

Step 1.3: Get the Macro Variable

$$\begin{aligned} Y &= \sum_{(a', s, \epsilon, z)} re(a', s, \epsilon, z) G(a', s, \epsilon, z) \\ F_a &= \sum_{(a', s, \epsilon, z)} G(a', s, \epsilon, z) \\ K &= \sum_{(a', s, \epsilon, z)} a(a', s, \epsilon, z) G(a', s, \epsilon, z) \end{aligned}$$

Step 1.4: If $|\tau_{new} - \tau_{old}| < \epsilon$, we get stable value

Step 2: Computation of Dynamic with Krussell and Smith

Step 2.1: Initialize

$$\begin{aligned} \ln K' &= d_1 + d_2(s == 1) + d_3 \ln K + d_4(s == 1) \ln K \\ \ln N' &= f_1 + f_2(s == 1) + f_3 \ln K' + f_4(s == 1) \ln K' \end{aligned}$$

Step 2.2

$(K, N, S) \rightarrow (K, S)$ space to get $K \rightarrow K'$, new policy for (K, s, a, z, ϵ)

Step 2.3 Same as before, each (K, K') to calculate K_{sim}

Step 2.4 OLS until β converge

$$K_{sim} \rightarrow K; K_{sim} \rightarrow N$$