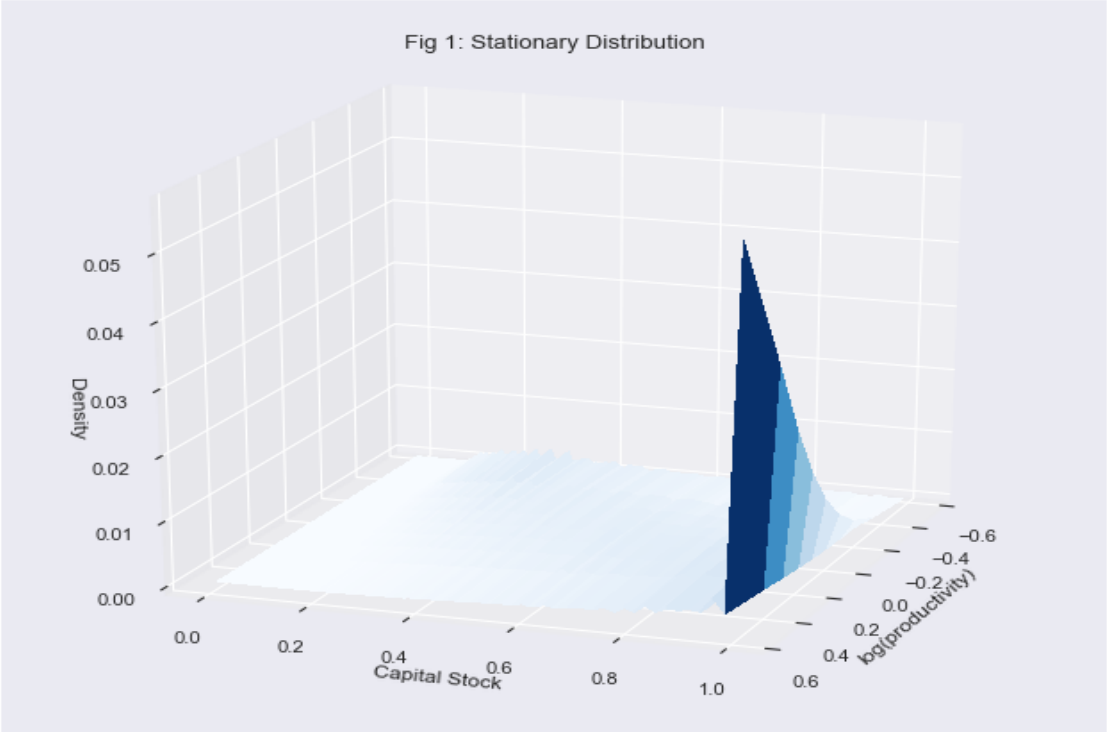
**Problem Set # 8**

**Md. Maidul Islam Chowdhury**

**December 4, 2017**

1. After solving the model, the equilibrium wage rate is 0.97823162

2. Figure-1 describes the stationary distribution of firms with respect to the change in the productivity shocks (log). The graph shows that the density of firms is increasing as the productivity shocks increases for a given set of capital stocks. In other words, the firms are more concentrated when productivity shock is higher.




3. Figure-2 describes the policy function of the model. It describes how optimal capital stock changes due to the change in productivity shocks (log) for a given set of capital stocks. Here, optimal capital stock is increasing at decreasing rate as the productivity increases and then the optimal capital stock becomes constant around 0.8.

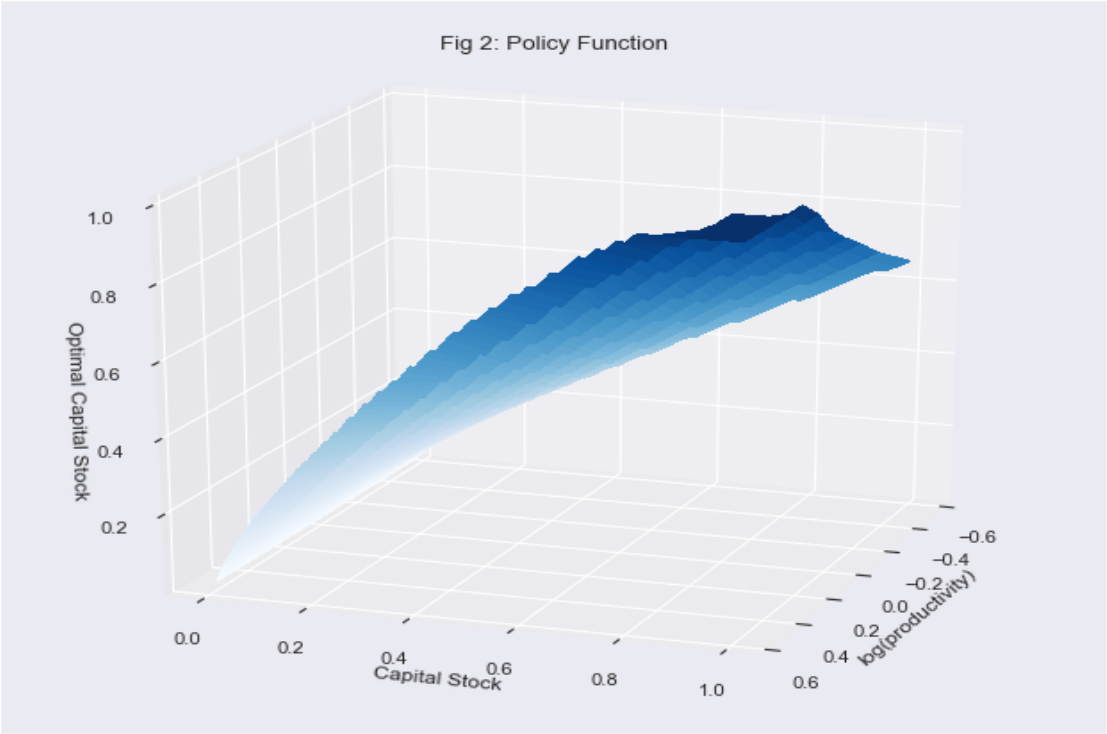


Fig 2: Policy Function
Optimal Capital Stock
1.0
0.8
0.6
0.4
0.2
0.0
0.2
0.4
0.6
0.8
1.0
Capital Stock
−0.6
−0.4
−0.2
0.0
0.2
0.4
0.6
log(productivity)