# Problem Set 3

Nicolas Moreno, Kushal Patel, Olivia Wilkinson ECON: 880 Q2

November 20, 2024

## 1 Question 1

# Convergence of the norm Contraction mapping and Newton Contraction mapping only 15 10 5 10 Iteration

Figure 1: Evolution of the norm

## 2 Question 2

Figure 2 shows the GMM objective function using the 2SLS weighting matrix  $W = (Z^T Z)^{-1}$ 

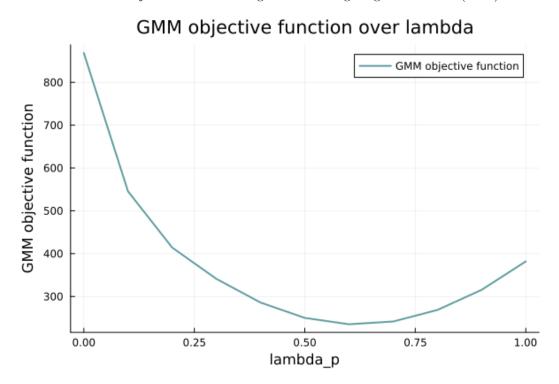


Figure 2: GMM Objective Function

## 3 Question 3

Figure 3 shows the 1st and 2nd stage objective functions over  $\lambda$ . The dots indicate the minimums.

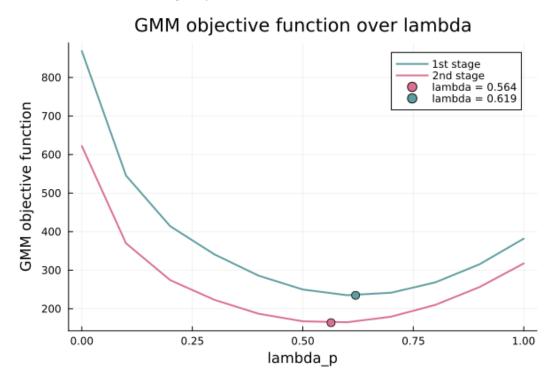


Figure 3: 2-step GMM