

## Problem Set #5

MACS 40000, Dr. Evans

Alexandre Sollaci

### 1. Estimating distribution of bequest recipients

- (a) See figure 1 for a histogram plot of the values of  $\zeta_s$  and figure 2 for  $\zeta_s$  plotted in a histogram as a function of age.
- (b) See figure 3 for the histogram of  $\zeta_{j,s}$  as a function of age and income quartile.

### 2. Solve for the steady-state equilibrium

- (a) The steady state can be summarized by the following variables:

```
'C_ss': 98.795370573548041,  
'EulErr_ss': array([ 1.11022302e-16, -2.22044605e-16,  0.000000e+00,  
                    ..., 3.33066907e-16, -3.33066907e-16,  5.55111512e-16]),  
'K_ss': 499.19691929407128,  
'RCerr_ss': 1.3855583347321954e-13,  
'Y_ss': 123.75521653825174,  
'b_ss': array([ 0.03557041,  0.0747969 ,  0.11871779, ...,  2.68224015,  
                1.92057549,  1.13333687]),  
'c_ss': array([ 1.34236699,  1.33949387,  1.3366269 , ...,  1.13820395,  
                1.1357678 ,  1.13333687]),  
'r_ss': 0.03676801501427561,  
'ss_time': 0.02499037268586335,  
'w_ss': 1.3774125128401291
```

- (b) See figure 4 for the plot of steady state consumption and savings distribution by age.

## A Figures

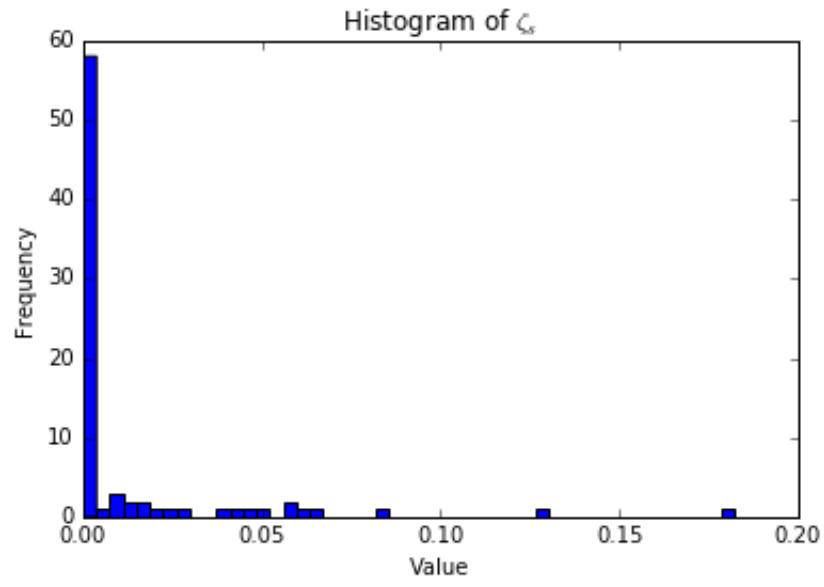


Figure 1: Histogram for the distribution of  $\zeta_s$ .

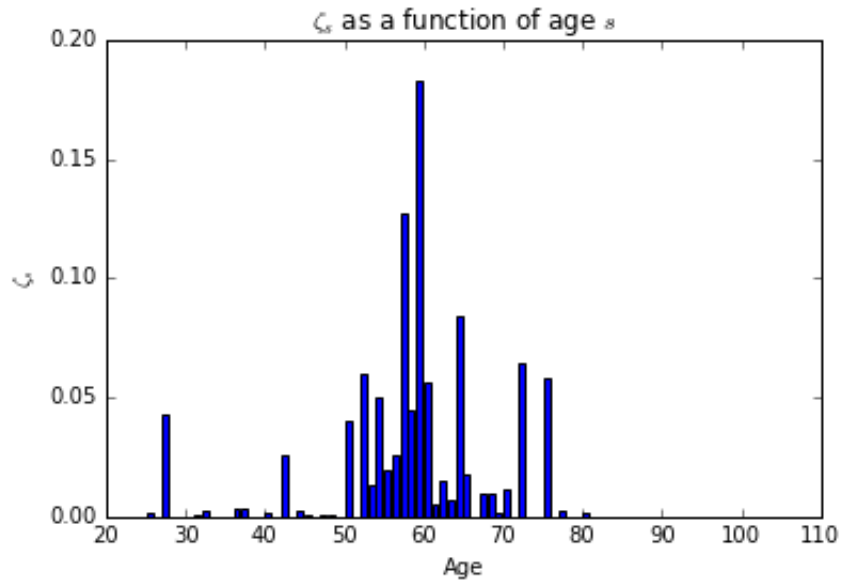


Figure 2:  $\zeta_s$  plotted as a histogram.

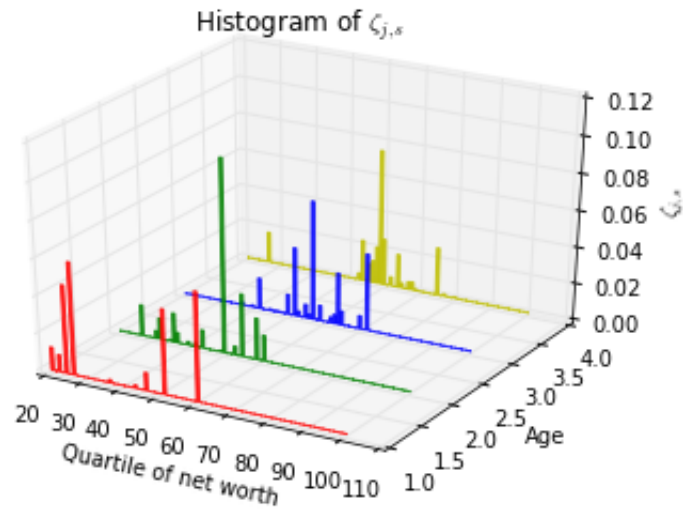


Figure 3:  $\zeta_{j,s}$  plotted as a histogram.

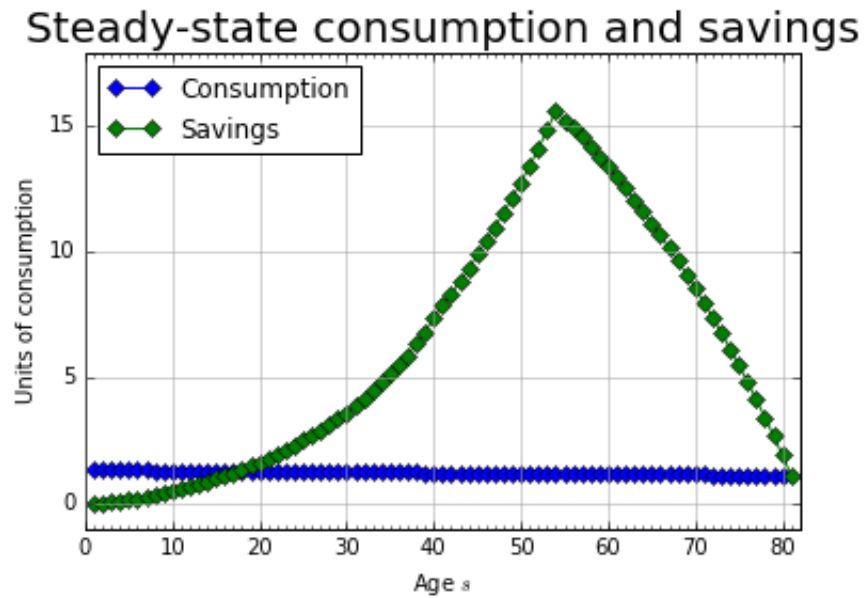


Figure 4: Distribution of steady state consumption and savings by age.