

Problem Set 4

MACS 40000, Dr. Evans

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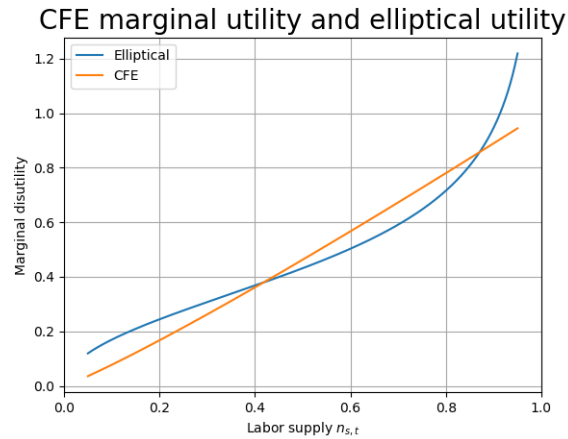
Problem 1(i)

$$\frac{\partial g_{cfe}(n)}{\partial n} = n^{\frac{1}{\sigma}}$$

$$\frac{\partial g_{elp}(n)}{\partial n} = \frac{b}{l} \left(\frac{n}{l} \right)^{v-1} \left(1 - \left(\frac{n}{l} \right)^v \right)^{\frac{1-v}{v}}$$

Problem 1(ii)

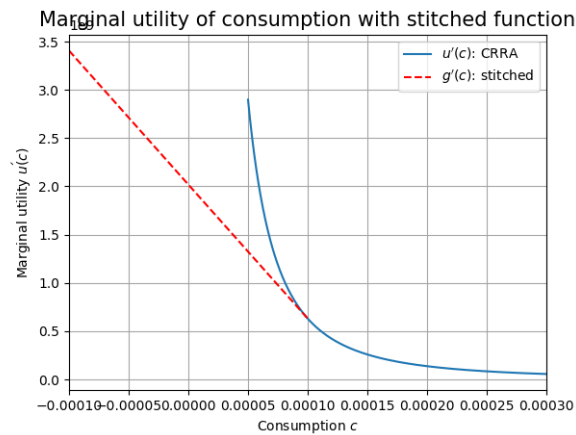
The estimated b is 0.5267708068873399, and upsilon is 1.4968180152979402.



Problem 2(i)

The marginal utility values obtained from the stitched function are:

1.40829679e+11, 5.75433098e+10, 4.59479342e+00, 1.22196463e-01



Problem 2(ii)

The marginal disutility values are:

-3.24975000e+00, -4.99750001e-01, 3.60237454e-01, 1.01976045e+05, 1.60214791e+05

