ECO 6353: Consumption & Investment PS2 Writeup

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(a) Bugs and their error explanation

1. Missing gamma = 3.5 - Setting a parameter value for gamma is crucial for the consumption function in the iteration loop to converge.

2. (Line 25) - Removing small positive from the guess of c2. Since we already specify if $c2 < 0$ then $c2 = small\ positive$, using it in the guess might not generate logical answers for the simulations.

3. (Line 33) - For the iteration loop of c2, replacing x,y,z in the interp1 function with w_orig, a, and w1. Specifying 'method' to be linear.

(b) Qualitative changes when borrowing constraint is set to 0

When the borrowing constraint is set to 0, there is no natural debt limit for the borrowers. Therefore, they can borrow against claims of their utility from the infinite future and sell them for consumption today. When the borrowing constraint is set to 0 for this period, it implies it holds for all periods, and therefore, consumers would be able to sell claims of the infinite future for consumption today.

(c) Qualitative changes when the risk aversion parameter is doubled

When the risk aversion parameter is doubled to 0.1, it implies that consumers respond to uncertainty about the future more aggressively. In case of, for in-

stance, uncertainty about economic growth in future periods, consumers would trigger precautionary savings and invest in safe assets to consume during risky periods while reducing consumption in the current period.

Part (d) and (e) are in the PS2_code.m file.