Macroeconomics B

Problem set 4

This problem set will be assessed through class discussion.

Please read the articles by Aiyagari (1994) and Carroll (2001) in your reading list and linked in WebCT.

Divide yourself into groups (as for a standard problem set) to discuss what you have understood about the effect of precautionary saving on consumption in the case in which the felicity function is not exponential.

To help the discussion gets started I give down here a (not exhaustive) list of points you want to tackle.

1. What restrictions on parameters are necessary for a bounded, stationary, wealth distribution to exist? Please refer to footnote 21 in Ayiagari's paper and make sure you understand its argument.

2. How does the marginal propensity to consume out of wealth changes as a function of wealth? To what value does the marginal propensity to consume converge to as wealth goes to infinity? What is the economic intuition?

3. What is the natural borrowing limit in Carroll's paper (i.e. what is the worst possible income realization)? Explain how this is related to the model implication that consumers never borrow in Carroll's paper while they do with positive probability in Ayiagari's.

4. Why does the theory predicts a positive correlation between consumption growth and expected income growth? In which sense is this related to the presence of borrowing constraints?

5. How much aggregate saving does the precautionary motive generate in general equilibrium? How can this be reconciled with Carroll's finding that individual consumption falls significantly as a result of precautionary saving?

We will discuss all this together in class.