

# Homework 6 Comment and Q&A

Sai Ma\*

April 3, 2014

## 1 Regarding Question 1

**Question:** Does the government pay back its debt with interest  $r$  or  $(1 - \tau_2)r$ ?

**Answer:** With interest rate  $r$

## 2 Regarding Question 3

**Question:** Is there any government spending  $(g_1, g_2)$  in this economy?

**Answer:** No. Government collect taxes at time 1 and put them in the bank. At time 2, Government withdraws the money from the bank with interest, and transfer to consumers who are still alive at time 2. For notation purpose, you can denote  $T$  as transfer and  $b$  as the # of money in the bank.

**Question:** For c), what is aggregate consumption?

**Answer:** In this economy, the total population for S agent is  $\phi$ , and the population for L is  $(1 - \phi)$ , thus the aggregate consumption at time  $t$  is

$$C_t = \phi c_t^S + (1 - \phi) c_t^L$$

where  $c_t^S$  is the optimal consumption S agent consume at time  $t$  (similar for  $c_t^L$ )  
You should immediately notice that  $c_2^S = 0$ , since S guys are not alive at time 2.

**Hint on Q3 c):** For the L agent's problem, the **only** difference from (b) is the transfer **each** L type consumer get. (Total transfer is still  $(1 + r)\tau y$ )

---

\*Email: sai.ma@nyu.edu. Lastly updated 03/04/14, 11:00pm