Ec 365 Fall 2017 Christophe Chamley

## Assignment 8 (due 11/17, 11pm

You may talk to each other freely about the assignment, in fact you are encouraged to do so, but you have to hand out individual answers.

In this assignment, you will investigate the revenues from seignorage during some years of the French Revolution.

- It is recommended that you read (again, perhaps...) the article by Sargent and Velde which is on the web page on the French Revolution. Skip the sections I and II and begin with Section III (p.491). Read until p. 508. If there are things that you don't understand, don't be concerned. Part of the reading in economic history is to read things that one does not understand...
- 2. Download the spreadsheet that contains the data for Figure 7 of the paper from the website ("Assignments"). The meaning of the data is straightforward. M is the nominal quantity of assignate, P is the price level. The inflation rate is  $\pi = \Delta P/P$ .
- 3. Plot the quantity of assignates, M, as a function of time. Comment on the figure. Relate the date of the kink of the curve with what you know about events in the French Revolution.
- 4. Extract the data for the regime of seignorage (i.e., take out the data on the first two regimes, real bills and Terror). With this extracted data generate a figure that is like Figure 7 in the paper. Produce this figure by two methods: (i) represent the points by asterisks (as in the SV paper); (ii) join these points by a line.
- 5. Comment on the previous figure. (There are at least two features to comment).
- 6. Fit the points on a curve or a line. In doing this, you may take into account your comments in the previous question and exclude some points. There is not "one" right answer here. Do something that is reasonable and argue why you find your method reasonable.
- 7. Assume that
  - (a) The demand for assignats is determined by the curve that you established in the previous section.
  - (b)  $\pi = \Delta P/P = \Delta M/M$ . What must be true for this equation to hold?
  - (c) Assume that the revenues from issuing assignats at any date t are equal to  $\Delta M/P$ .

Using your curve, compute the growth rate of the assignate that maximizes the level of revenues. (Depending on your curve, it cannot be excluded that there is no such value, but I think that will be unlikely).

8. What is the maximum amount of revenues. Discuss.