

Problem set 1

October 6, 2022

Due date: October 12 before class.

1 Battaglini and Coate (2008)

Please refer the to the published version of the paper which is posted on canvas.

1. (10 points) Carefully derive equations (9), (10), and (11) in the paper.
2. (10 points) Carefully prove Proposition 4 in the paper
3. (20 points) Suppose we impose the additional requirement on the legislature that the debt level cannot increase, i.e., in each period $x \leq b$. How would we solve for the political equilibrium in this case? Characterize as best you can how the equilibrium will change.

2 Werning (2015)

Please refer to the version of the paper posted on canvas.

1. (10 points) Carefully derive Proposition 3 in the paper.