# Problem Set 7: Ramsey Model & Financial Crisis

## Ramsey Model

**Exercise 1.** Does the steady state in the Ramsey model depend on the form of the utility function? Explain.

## Financial Crisis

**Exercise 2.** What happens to banks' leverage if the ECB purchases more sovereign debt?

**Exercise 3.** Suppose that a bank's asset values rise in a boom. At this point, what typically happens to their leverage ratio?

**Exercise 4.** How would a reduction in the dividend tax affect a bank's capital structure and the likelihood of a crisis?

**Exercise 5.** How could *equity* prices and *credit default swap* prices (i.e., costs of insuring assets against default) provide information what would facilitate the regulation of the financial sector?

**Exercise 6.** Suppose a bank just meets its leverage requirement of 10. In a recession, what typically happens to asset values and leverage, and what must the bank do to meet its capital requirement? Many claim that Basel 1 caused a *credit crunch* in the U.S. in 1991. Use your answer to explain how this would happen. Should leverage requirements vary with the business cycle?

**Exercise 7.** Lane (2012) mentions that higher debt levels can make default more likely. Why? What policies might help a country with high sovereign debt levels to avoid default?