

ECON4335: Questions for seminar 4 Spring 2013

April 8 2013

Question A

1. Explain what is meant by the "charter value" of a bank. Discuss briefly factors that may create charter value.
2. Consider a bank that can invest in two projects. Project A , if successful, yields a gross return R_A , if it fails it yields nothing. The probability of success is p_A . Similarly, project B yields R_B if successful, nothing if it fails and succeeds with probability p_B . Project A has the highest expected return ($p_A R_A > p_B R_B$), while project B has the highest return in case of success ($R_B > R_A$). What does this mean for the relationship between p_A and p_B ? Which project is the most risky?
3. Each project requires a loan of size $L = 1$. A share of this, k , is financed by equity, while the rest is financed by deposits. Deposits are insured. The gross interest rate on deposits, R_D , is determined in a competitive market. The alternative gross return that the owners of the bank forgo if they invest equity in the bank is R_E . You can disregard the insurance premium. Write down expressions for the expected profits of the bank from each of the two projects, Π_A and Π_B respectively. Show that project A will always be profitable for the bank if $p_A R_A > R_E \geq R_D$.
4. Explain why project B may be more profitable for the bank than project A . What is the condition on k and R_D for this to happen? Can project B be profitable even if project A is not?
5. Suppose that $R_D < p_A R_A < R_E$. Assume that project A is socially desirable, while project B is not. Can a regulator set the capital requirement in such a way that project A is profitable for the bank while project B is not? What information will be needed?
6. Suppose the two investment alternatives are available in every period. However, if the bank defaults, it is closed down and the owners banned from starting new banks. Discuss how this will affect the banks investment choice.

Question B

Discuss how solvency or liquidity problems in one bank or group of banks can create similar problems for other banks. Discuss also one or more measures that the authorities can take to prevent such contagion.