# Economics of Banking, June 3, 2014

## Hints for solution

**1.** This problem is about the closure of banks, and the text background can be found in the Chapters 14 (bank runs etc.) and 17 (reorganizing and closing banks). In particular, it is to be expectedt that there is a sketch of the Diamond-Rajan model, where banks may get into trouble due to the specific circumstances of funding their engagements, among which some of them have been taken over from the entrepreneurs originally initializing them. An isolated small shock causing the default of a single bank may lead to defaults among entrepreneurs and as a result many more banks get into trouble since the expected funding is not forthcoming. A mechanical rule leading to a larger number of banks closed down may reinforce this process and thus deepen the crisis.

**2.** The text background is (mainly) Chapter 15 about deposit insurance. There should be a general explanation the premium determination, including the options approach, and a possibly a discussion of the possibility of including other payers than the bank and its depositors. In the case considered one should avoid that the assets of the banks are correlated, since then it might be possible that a bank in trouble could be taken over by the other bank which presumably is not experiencing difficulties. Incentives for low correlation can be achieved if the premium for deposit insurance is made dependent on the investment profile, specifically on its correlation with that of other banks.

**3.** We are dealing with credit rationing, the text background is Chapter 6. The situation outlined points to the Stiglitz-Weiss model for adverse selectioj, where the less risky projects are squeezed out as the repayment rate increases, so that only risky projects remain, something which may result in reduced expected profits for the the bank. Other models may be used, provided that arguments are given for their use.

The proposals for impovement depend on the model selected. If Stiglitz-Weiss is used, it is important to attract less risky projects, and one of the ways in which adverse selection can be avoided is by changing the standard contract to loan contracts including an *upside,* a provision securing that the bank will get a share of very large gains. This will make it possible to reduce the repayment rate and thereby keep some projects with low risk.