Economics of Banking
16. december 2011
Hints for solutions

Problem 1

The problem outlined has no exact counterpart in the curriculum, but topics related are described in the chapter on competition and risk taking (chapter 13 with note). The particular choice between two types of investments is also described repeatedly in connection with borrower's moral hazartd, but in the present case it is the bank which decides upon the type of investment.

Big and small banks are not in exactly the same situation if they choose the investment of type 2. For the small bank, having a small number of these investeringer, the variance on the payoff of any single investment is greater than for the big bank with many of these investments, where the number of failures can be foreseen with almost certainty. If we assume that the banks have limited responsibility in case of default, the risky investment will be more interesting for the small bank than it is for the big bank (intuitively the big bank will get losses that must be covered from earnings more often than the small bank, which will default in case of such losses). Since it is easy to set up new banks, it must be assumed that the incentive to avoid defaults is small.

If the big banks can engage in very large projects of type 2, they can match the small banks wrt. to earnings on this projects. On the other hand they will now be more risky.

(Since this problem does not point directly to a particular model from the curriculum, the answers may differ from what is outlined above, what matters most is the argumentation provided.)

Problem 2

We are dealing with a situation where from the outset there are two types of investors, differing with respect to their general ability to conduct business, something which is not easily observed by the bank. We have therefore a situation of adverse selection as described in Chapter 8, and the bank should contemplate introducing two types of contracts, one with high interest rate and no collateral (for the less competent), and the other one with low interest rate and a certain amount of collateral (for the more competent). The two contracts can separate the two types of borrowers, at least under suitable conditions wrt. the competition in the banking sector.

With the availability of special courses which can mitigate the lacking knowledge of the business managers, the situation changes to one of moral hazard. According to the relevant model in the curriculim (the Boot-Thakor-Udell model in Chapter 7), on may introduce collateral for borrowers who cannot document their qualifications by a certificate of having attended the course.

Problem 3

We are dealing with the possibilities of the owners of liquidating or reorganizing a bank in trouble, as described in the Dewatripont-Tirole model of Chapter 20. Although historical results are irrelevant for assessing the future, they may be relevant in assessing the performance of the

manager, given that the owners will have to delegate the day-to-day management to a manager who should be given suitable incentives in the form of a bonus. Even if the outlook is less promisiong, it may still -- provided that they are no too bad -- be advantageous for the owners to go on with the same manager, since the good results from previous years indicate that the management is competent and can get more out of the less promising future than what could be obtained after a reorganization. The argument can be supported by a figure showing how the behavior induced only by the assessment of future possibilities is modified by the knowledge of management abilities obtained from previous years' results.