## **Economics of Banking, Exam** Hints for Solution

1. The background theory can be found in the chapters 15 and 16 on deposit insurance and lenders of last resort. Each of the two institutions should be given a brief explanation, explaining how they work and for det deposit insurance also the way that it is financed. In the description of advantages and disadvantages, it should be mentioned that deposit insurance may prevent bank runs but opens up for moral hazard problems since the banks may choose more risky assets than they would have done otherwise. Using a lender of last resort, one may avoid the moral hazard problems, but its existence may have as an unwanted consequence that the banks reduce their amounts of liquid assets. Given that the society values safety of assets high, it could be suggested that it prefers the lender of last resort.

In the second question concerning the size of banks and the deposit insurance premium attention it may be proposed that small banks should pay relatively *less* than large banks since the liquidation value is relatively higher based on the possibility of selling the assets to other banks rather than to the general market.

**2.** The questions draw on theory from chapters 5 and 6. The case described is one of hidden information since the bank cannot observe the quality of the project manager at the time where the loan contract is negotiated. To overcome this problem the bank may propose several, in the present case two, contracts to the borrower, namely one with high repayment rate and no collateral intended for the less qualified project manager, and a contract with low repayment rate combined with collateral intended for the qualified manager. If the rates and the amount of collateral required are set correct, then the borrowers will choose the contract which was designed for their type, so that both types of managers can be served by the bank.

In the case where there is competition between banks for borrowers, the contracts described above may be upset if a competitor can propose a single contract which will be preferred by both types and with which the competitor can earn positive profits. Whether such a contract exists depends on the characteristics of the borrowers, but it remains a possibility in some cases, leading to an unstable credit market.

In the second question, the underlying problem has changed from one of hidden information (manager quality) to hidden action (manager willingness to acquire the necessary skills in the project phase). Here the experienced managers can be offered a low rate contract without collateral right away, whereas the those without previous experience will have to accept a suitable collateral which provides the incentive for using the necessary consulting.

**3.** The background theory is again found in chapters 5 and 6. The market is characterized by many actors with small average profits but with considerable variation in these profits, and as such it fits reasonably well with the Stiglitz-Weiss model of adverse selection in credit markets. Since the model points to an undersupply of credits in the market, the argumentation of the banks cannot be considered as correct.

In the new situation, where all relevant information on the outcome of the borrower projects is available to the lender, the efficient loan contracts reduce to agreements about risk sharing, and assuming the banks to be risk neutral there should be no problems of credit rationing as long as expected profits are nonnegative. If outcome depends on the efforts of the firm owners, the overall results can be sustained by loan contracts with suitable incentives to the borrower.