Economics of Banking

Exam 1

1. A small bank has traditionally offered credits to the local business community. Interest rates have been moderate, and there have been only occasional losses on the credit arrangements. On the other hand, the earnings of the bank have for some time been considered as unsatisfactory. A new direction proposes to extend the activities to the business communities of neighboring regions. Here the interest rates can be set at a higher level, however the losses may be higher. Also, the bank has decided that it cannot distinguish in its credit policy between local and non-local borrowers. Give a suggestion for a suitable credit policy.

It turns out that other banks have experienced similar problems and also want to extend their activity to the same potential costumers. What will happen?

Background is Chapter 5 on credit rationing, more specifically on the Bester model of adverse selection and use of collateral. The first part deals with the separating contracts, and the second part with the problems arising if there is competition, in which case the equilibrium is not always well-defined. In the discussion, it may be mentioned that the textbook model presupposes zero profit banking whereas we are dealing here with profit maximizing banks.

2. After a major financial crisis, it has been decided to reorganize the system of deposit insurance. In particular, it has been observed that many small banks defaulted during the crisis as a result of their involvement in the housing construction market which suffered much during the crisis. As a consequence it has been proposed that the insurance premium should depend on the deposits of the banks in a degressive way, constituting a larger fraction for small than for large banks.

Comment on this arrangement from a theoretical point of view. Does it address the problem which was evidenced by the recent defaults?

It turns out that after the defaults and some mergers and acquisitions in the banking sector, there a only a few banks left, each of them very large. What are the implications for the new system of payment for deposit insurance?

The text background is Chapter 15 on deposit insurance, more specifically the Acharya model of payment for deposit insurance, taking into account the liquidation value of the defaulting bank and the possibility that it may be taken over by another bank. In this model, the insurance premium of a small bank may well be proportionally smaller than that of a larger bank. In the second part, the possibility of one bank carrying on the business of another one which has defaulted becomes very small, so that the premia will be higher.

3. As a new line of business, a bank is offering credits for local producers of sparkling wine. The credits are used to finance growing of grapes and the production of the sparkling wine. Experience shows that the grape harvest displays large variations in size and quality between years and localities, and the bank expects that some of the small producers may default if the harvest is unsatisfactory. The latter situation can however only be verified by the bank if it employs an expensive consulting service.

How should the relationship between bank and borrower be formulated under these circumstances?

Due to new technical advances in satellite monitoring, the harvest conditions in each locality can be followed using a freely downloadable app. Will this give rise to changes in the loan contracts, and if so, which changes?

The background is Chapter 4 on the loan contract. The first part deals with the situation in which the standard contract is appropriate. In the second part, the contracts are no longer set up under conditions of hidden information, so that the basic principle behind the contract becomes risk sharing, so that the less risk averse gets the highest part of the marginal payoff of the investment.