

ECONOMICS OF BANKING

Re-Exam 2025

Outline of solution

1. The theoretical background is deposit insurance (Chapter 15 in the textbook). In a differentiated structure the payment of the bank should reflect its impact on society in case of a default, taking into consideration the net cost of reimbursing the depositors. As a consequence, small banks should pay less (relative to the size of their deposits) than large banks, as the small banks can be sold to other banks, banks that have assets closely correlated to those of other banks should pay more. Also, the payments might reflect society's cost of preventing defaults by a lender of last resort.

It is known that fair insurance premium will induce moral hazard in a system with profit maximizing banks, so that at most a part of the bank's payment can be determined by the risk of its assets. Theoretically, this could be achieved using an option pricing approach, but in practice this would depend on detailed knowledge about assets available only to the bank. However, the assets-deposits ratio might be used to indicate how much the deposits are exposed to the risk.

2. The theoretical background is the loan contract and credit rationing. The situation outlined, with large losses unanticipated by the bank together with a certain demand for credits at a lower rate of interest, points to the presence of several types of borrowers, which should be treated differently. Since the banks have no information about the riskiness of the individual borrower, it must rely on separating borrowers, offering contracts with high interest rate as well as contracts with lower interest rate and collateral.

If the activity is extended to other regions with competing banks, the separation of borrower types may be upset by competitors offering (pooling) contracts with a moderate interest rate which in certain cases may be attractive, not only to the high-risk but also to the low-risk borrowers, depending on their attitude towards risk. If this happens, the consequence will be that operating in other regions gives losses to the bank and should be abandoned.

3. The theoretical background is access to credits, dealt with in Chapter 6, combined with advantages of coalitional borrowing (Chapter 2). The situation described is one of overinvestment as treated in the deMeza-Webb model, where high risk borrowers can obtain credits at competitive low rates, even when their projects on average

cannot pay the rate at which the banks are funded. Increasing the ratio of equity to credit will make the risky projects less attractive to the borrowers and thereby reduce the overinvestment.

The association of borrowers can improve the situation for each of its members if they assume joint liability, as this will reduce the overall risk of the engagement from the point of view of the banks.