

**Solutions to Exercises in
Economics of Banking
Chapter 17**

1. The discussion of this case may take as its point of departure the model by Repullo, in which there is both verifiable information in the form of the withdrawal from the bank made by costumers and non-verifiable information about the business of the bank. In this situation the central bank and the deposit insurance institution will have different incentives to support the bank, and it is preferable to make an agreement on who has to decide which depends on the size of the withdrawal.

In the formulation of the problem there is asked for an inclusion in the model of possible takeovers by other banks, where the willingness of the latter should be decisive for whether they will support the bank in this way.

If only one part has access to relevant information about the business of the bank, the simple model must be modified, since for example if the central bank is the only one having the information, it will be able to transfer all risk to the deposit insurance or to the private banking sector. If the private banks have monopoly on information, one should expect speculative behavior, preventing the others from supporting a bank which is solvent, since potential buyers will then get the assets of the bank at a lower price.

2. The basic model for the situation described is Repullo's discussion of the choice of decision maker for closing a bank, where the information about the liquidity problem is verifiable whereas the information about the quality of the banks assets does not have this character. The model prescribes that for small liquidity crises the central bank should take charge, while for larger crises the decision about closure should be taken by the deposit insurance organization.

It follows from the model that the access to information is important, even if this information has subjective, non-verifiable character, and that difference in access to information can give rise to moral hazard problems. The assessment of a takeover of a troubled bank by another bank is not treated explicitly in the notes, but we expect a short discussion of whether other private banks can exploit an informational advantage, even if the solution is not the optimal one from society's point of view.

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. 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 promising, it may still – provided that they are not 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.

4. The situation described may be assessed using the framework of the Mailath-Mester model: The financial authorities have the power to liquidate banks with an investment profile which they consider as too risky. Since this gives rise to some additional cost to be covered by the authorities themselves, they may choose not to interfere with risky banks in some cases where this would otherwise be desirable.

To account for the information about foreign subsidiaries opening up and closing down, one may add to the model the possibility of voluntary liquidation in case of the bad outcome of the risky investment. Closing down after observing this outcome of the first round may be a better option than carrying on to a second round. As a result one will observe many banks opening and closing again. If the history of previous failures prevents the future opening of banks, this option is less attractive to domestic entrepreneurs than to foreign banks.

The payment of a fee before opening a bank, to be returned fully if the bank is liquidated due to losses, but lost if the bank chooses voluntary liquidation, may be helpful in creating more equal opportunities for domestic and foreign banks.