

## ECONOMICS OF BANKING

Ordinary Exam 27.05.2025

### Outline of answers:

**1.** The theoretical background is assistance to banks experiencing liquidity shortage, in the textbook treated in chapters 14–17. The central bank may provide loans to banks which have insufficient liquid means in cases of either unexpected large withdrawals of deposits or unforeseen needs for liquidity to sustain the assets. In either case, the central bank will offer support only if it considers the bank as solvent, otherwise the bank will go into default. Moral hazard occurs if the banks reduce their own liquid reserves taking into consideration that the central bank will come forward if the reserves are insufficient. A reaction in the direction of choosing more risky assets may occur if this risk cannot be properly assessed by the central bank before agreeing to support.

A coalition of banks working as indicated may indeed take over the role of the central bank, at least to the extent that the banks have sufficient liquid reserves. The inherent tendency that banks react on the possibility of bail-out by a reduction in their liquid assets is still present, but since the banks now have the additional obligation to provide liquidity for the coalition, their total liquidity reserves may be more appropriate. The incentives towards excessive risk-taking may be curtailed if the directors of the liquidity pool are better informed about the financial market than the central bank.

**2.** The basic theoretical background is the theory of the loan contract, described in chapter 5 of the textbook, with additional material from chapter 1. The initial situation is one where the loan market is constrained by the presence of asymmetric information. Whether the form of information asymmetries are as used in the Stiglitz-Weiss or the deMeza-Webb models, or has a third form, is less important in the present context: With the proposal from the organization the lender can get full information about the business of the borrower, so that the individual loan contract between bank and firm reduces to an agreement on how risk should be shared.

If the information collected by the association cannot be made available to the bank, it must find other ways of supporting its members in their contact with the banks. One possibility is that it can negotiate on behalf of its members, and in this negotiation its position will be strengthened if it is combined with some degree of joint responsibility, since this will reduce the risk of each individual loan contract and thereby make credit more widely accessible. Other suggestions may be discussed as well.

**3.** The background is the theory of competition and risk-taking, treated in chapter 11 of the text. Assuming oligopolistic competition between banks, the effects of the number of banks on risk-taking will depend on the business model of the banks. If banks compete for deposits but choose their investment assets directly (the Allen-Gale model), then a large number of banks will lead to higher deposit rates due to competition, and the increased funding cost the trade-off between risk and return in investments is tilted towards higher risk. If instead banks lend to entrepreneurs who then choose investments (the Boyd-deNicoló model), then increased

competition in the loan markets will reduce the loan rate, and entrepreneurs will choose less risky investments. It follows that whether a reduced number of banks is better or not for the country will depend on the how its banks are functioning.

The proposal that the number of banks is reduced keeping the spread between loan and deposit rates unchanged indicates that the banks operate a loan market rather than working directly with investment. With fixed spread expected profits of the banks depends only on the risk level, indicating that deposit interest rates will decrease with the smaller number of banks, and loan rates will decrease accordingly with a reduction in overall risk as a consequence.