# Written Exam for the B.Sc. or M.Sc. in Economics autumn 2011-2012

## **Economics of Banking**

Final Exam/ Elective Course/ Master's Course

16. december 2011

(3-hour open/closed book exam)

Please note that the language used in your exam paper must correspond to the language of the title for which you registered during exam registration. I.e. if you registered for the English title of the course, you must write your exam paper in English. Likewise, if you registered for the Danish title of the course or if you registered for the English title which was followed by "eksamen på dansk" in brackets, you must write your exam paper in Danish.

If you are in doubt about which title you registered for, please see the print of your exam registration from the students' self-service system.

#### Problem 1

Consider a banking sector with a few large banks and several small banks. The large banks have a capital of about 50 times that of a small bank. To improve competition in the market, it has been made easy to set up new banks.

The banks are funded at a stable interest rate, and they are not competing for funding. There are two types of credit engagements in which the banks may engage: Type 1 has very low risk but also its payoff is only slightly above what could be obtained in the interbank market, whereas Type 2 has high payoff but also a considerable risk of default, with an expected payoff lower than that of Type 1. A bank can make several independent engagements of each type, however all engagements have a fixed size, and a small bank can engage in at most around 4 of the type.

What will happen in this market? Are the small banks more or less risky than the big banks? Suppose now that each of the engagements of Type 2 can have arbitrary size, except that the prevaling regulation prevents a bank from having more than 25% of its balance in any single engagement. Will this change the situation and the riskiness of small and large banks?

#### Problem 2

A bank contemplates to develop a new type or credit contracts tailored for innovative new business. However, it has observed that many of the newly established firms get into problems due to the lack of skills of the entrepreneurs in handling the paper work and accounting, even though this may be obtained through suitable training or assistance.

Give a suggestion for the type of credit contracts needed for the bank to handle this problem.

After some time a local business school sets up a cheap and easily accessible course for new entrepreneurs, and there are indications that it is widely used and has raised the general level of skills. Should the contracts used hitherto be revised and if so, how?

### Problem 3

A bank has recently come out with results, which are above average, but its forecasts for the future are not too promising. A group of new shareholders argue that past performance is irrelevant, and with the available forecasts the bank should not be allowed to continue in this form, but should be reorganized with a new management.

Give an assessment of this statement; is it correct or could there be circumstances not taken into account by the new shareholders which point to another conclusion, and then which?