

**Федеральное государственное автономное образовательное учреждение
высшего образования
"Национальный исследовательский университет
"Высшая школа экономики"**

Факультет экономических наук
Департамент финансов

**Рабочая программа дисциплины «Микроэкономика банковской
деятельности»**

для образовательной программы «Финансовые рынки и финансовые институты»
направления 38.04.08 «Финансы и кредит»
подготовки магистра

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Одобрена на заседании департамента финансов

«__»_____ 201_ г.

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Утверждена Академическим советом образовательной программы «Финансовые
рынки и финансовые институты»

«__»_____ 201_ г., № протокола _____

Академический руководитель образовательной программы

Т.В. Теплова _____

Москва, 2016

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Microeconomics of Banking

Course description

Author and lecturer: [Maria Semenova](#), Senior Research Fellow at the Center for Institutional Studies, Associate Professor at the Department of Finance, National Research University Higher School of Economics, Moscow (msemenova@hse.ru)

Target audience: 1st year Master students

Working language: English

Prerequisites

- Microeconomics
- Macroeconomics
- Econometrics
- Banking and finance (at least, basic level)
- English (at least, Upper Intermediate)

Course aim and idea

The course provides an overview of basic microeconomic models describing different banking markets. It implies discussing the market structures, most of the types of bank-client relationships in the deposit, loan and interbank markets as well as banking regulation, crises and systemic risk. The course covers the recent empirical evidence on the majority of the theoretical effects and results as well. The analysis of empirical strategies is an important part of the course, which is aimed at enhancing students' research skills.

Course purposes

- 1) To introduce the basics of theoretical modeling of the agent interactions in the banking markets, basing on the principles of industrial organization economics, institutional economics (including information asymmetry and incomplete markets paradigms) as applied to the banking theory.
- 2) To demonstrate the possibilities of empirical testing of theoretical hypotheses in the field and the results showing how the theoretical predictions are related to current empirical evidence coming from the banking sectors in different countries.
- 3) To develop and enhance the students' research skills and, in particular, the skills of academic research in the field of the banking sector analysis.

Course expected results

After completing the course the students are expected to

- 1) Know:
 - a. Basic principles of different banking market functioning (including the markets with information asymmetry and opportunistic behavior);
 - b. Basic principles of relations between banks and their counterparties of all kinds (including depositors, borrowers, other banks, regulators, information intermediaries, and so on) in various banking markets, as well as in the sphere of regulation;

- c. Approaches to modeling of various aspects of the bank's activities and its interactions with their counterparties, as well as to empirical verification of theoretical predictions and conclusions.
- 2) Be able to:
- a. Suggest the basic academic literature on different topics within this field;
 - b. Use the appropriate empirical data and estimation techniques;
 - c. Formulate reasonable research questions and propose appropriate methods and ways to solve them;
 - d. Apply the methods of theoretical analysis and empirical testing of theoretical hypotheses in this field.

Course outline

Topic 1. Microeconomics of banking: introduction. Banking market microstructure.

Bank definition. History of banking. Banking market structures: from perfect competition to monopoly, theory and cross-country comparison. Bank types: foreign banks, state-controlled banks, Islamic banks. Principles of academic research in banking.

Additional topics: main data sources for banking research; methods of bank competition measurement.

Topic 2. Deposit market

Liquidity shocks. Bank as a liquidity supplier. Bank runs in the Diamond-Dybvig world. Information-based bank runs. Market discipline: mechanisms and cross-country empirical evidence. The role of bank transparency and disclosure.

Additional topics: lack of efficiency in bank runs: case studies; measuring market discipline^ different approaches.

Topic 3. Credit market

Information asymmetry in credit markets. Adverse selection and credit rationing. Rationing with collateral. Screening and signaling as ways to avoid adverse selection. Theory of delegated monitoring in credit market. Moral hazard. Standard credit contract.

Additional topics: measuring rationing: bank-level data, firm-level data, surveys.

Topic 4. Repeated bank-borrower relationships.

Bank opportunism in multi-period credit relationships: information rent and hold-up problem. Role of bank reputation in solving the opportunistic behavior problem. Information sharing and information intermediaries: credit bureaus and credit registries.

Additional topics: information rent: contradictory empirical evidence; relationship banking: advantages and caveats; information sharing and credit availability.

Topic 5. Bank risk-taking and other topics

Risk-taking: the choice of bank risk level, "risk race", bank stability premium in loan prices and borrower market value. Zombie-lending. Corruption and availability of bank credit. Corporate governance in banks.

Additional topics: incentives for zombie-lending: case studies.

Topic 6. Bank regulation

Bank regulation: theoretical predictions and empirical evidence. Basel principles for bank supervision. Basel I, II, III. Systemic risks. Deposit insurance. Bank regulation in Russia.

Additional topics: estimating regulation efficiency in ensuring banking system stability.

Topic 7. Household financial strategies.

Borrowing and saving strategies. Choice of banks and switching costs. Bank loans and informal credit markets.

Additional topics: how to work with survey data on banking and household finance.

Evaluation and grades

The results of different activities during the course become the components of the final course grade and are added with certain weights:

$$\text{Final Grade} = \text{MAX}\{[0.2*A+0.5*PP+0.3*RPP]; [0.5*(0.2*A+0.5*PP+0.3*RPP) +0.5*FT]\}$$

where

A – attendance (percentage of classes attended*10)

PP – project proposal

RPP – research paper presentation

FT – final test

Project proposal (written assignment)

Students prepare the research project proposals (3-6 pages). The structure of the proposal includes the research question, brief literature review (3-5 relevant papers), methodology and data description as well as expected results and their policy implications. Choice of topic is a part of the assignment, but it must be related to any of the aspects of banking. If there are less than 25 students in group, the presentations of the projects are also organized (then the paper is).

Research paper presentation (oral assignment with presentation)

Students prepare the presentation of one of the papers from the list announced in the beginning of the course. The papers included into the list are mainly recent working papers covering the most all-the-range topics in banking and demonstrating the empirical examples of the theoretical concepts discussed during the lectures. Being work-in-progress they leave much space for the discussion which is expected to follow the presentation. The list is renewed each year. The examples of the papers that were included in the list in previous years are the following:

- 1) Leon, Florian, Bank Competition and Credit Constraints in Developing Countries: New Evidence, 2014.13. 2014. Available at <https://hal.inria.fr/file/index/docid/1015806/filename/2014.13.pdf>
- 2) Liangliang Jiang, Ross Levine, Chen Lin, Competition and Bank Opacity, NBER Working Paper No. 20760, December 2014. Available at <http://www.nber.org/papers/w20760>
- 3) Anginer, Deniz; Cerutti, Eugenio; Martinez Peria, Maria Soledad, Foreign bank subsidiaries' default risk during the global crisis: what factors help insulate affiliates from their parents? WB Policy Research Paper 7053, 2014. Available at http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000158349_20141002133501
- 4) Kouretas, C. Tsoumas, A.A. Drakos (2013) Ownership, institutions and bank risk-taking in Central and Eastern European countries. Available at <https://ideas.repec.org/p/ekd/004912/5204.html>
- 5) Bellucci Andrea; Alexander Borisov; Alberto Zazzaro (2013) Do Banks Price Discriminate Spatially? Evidence from Small Business Lending in Local Credit Markets available at <http://static.luiss.it/RePEc/pdf/casmef/1303.pdf>
- 6) Beck, T.H.L.; Degryse, Hans; de Haas, R.; van Horen, N. When Arm's Length is Too Far: Relationship Banking over the Business Cycle, CentER Discussion Paper; Vol. 2014-042. Available at [https://pure.uvt.nl/portal/en/publications/when-arms-length-is-too-far\(29d22f6a-3971-4165-8d51-4e6a024793ae\).html](https://pure.uvt.nl/portal/en/publications/when-arms-length-is-too-far(29d22f6a-3971-4165-8d51-4e6a024793ae).html)
- 7) Brown, Martin and Guin, Benjamin and Morkoetter, Stefan, Deposit Withdrawals from Distressed Commercial Banks (October 20, 2014). University of St. Gallen, School of Finance Research Paper No. 2013-19. Available at SSRN: <http://ssrn.com/abstract=2354197> or <http://dx.doi.org/10.2139/ssrn.2354197>
- 8) Saunders, Anthony and Schmid, Markus M. and Walter, Ingo, Non-Interest Income and Bank Performance: Is Banks' Increased Reliance on Non-Interest Income Bad? (October 2, 2014). University

of St.Gallen, School of Finance Research Paper No. 2014/17. Available at SSRN: <http://ssrn.com/abstract=2504675> or <http://dx.doi.org/10.2139/ssrn.2504675>

- 9) Anginer, Deniz and Demirgüç-Kunt, Asli and Huizinga, Harry and Ma, Kebin, Corporate Governance and Bank Insolvency Risk: International Evidence (September 1, 2014). World Bank Policy Research Working Paper No. 7017. Available at SSRN: <http://ssrn.com/abstract=2490763>
- 10) Setiyono, Bowo and Tarazi, Amine, Does Diversity of Bank Board Members Affect Performance and Risk? Evidence from an Emerging Market (September 30, 2014). Available at SSRN: <http://ssrn.com/abstract=2491145>
- 11) Westman, Hanna, Crisis Performance of European Banks – Does Management Ownership Matter? (January 23, 2015). Bank of Finland Research Discussion Paper No. 28/2014. Available at SSRN: <http://ssrn.com/abstract=2530957> or <http://dx.doi.org/10.2139/ssrn.2530957>
- 12) Reinert, Regina M. and Weigert, Florian and Winnefeld, Christoph H., Does Female Management Influence Firm Performance? Evidence from Luxembourg Banks (January 13, 2015). University of St. Gallen, School of Finance Research Paper No. 2015/01. Available at SSRN: <http://ssrn.com/abstract=2548978> or <http://dx.doi.org/10.2139/ssrn.2548978>

Final test (written assignment)

Final test includes 5 open questions including one related to the papers discussed during the student presentations. Each question adds 2 to the final test grade, if answered correctly and fully.

Examples of the questions for the final test:

- 1) How a bank operating in the 3 markets (deposit market, credit market and interbank market) chooses the prices of its products, if the credit market and the interbank market are perfectly competitive, and the deposit market is a monopoly? Show formally.
- 2) What is the role of the bank in the Diamond-Dybvig model? What causes a bank run in this model? Give an example of an inefficient bank run. Define market discipline and explain how it is affected by the deposit insurance.
- 3) Describe the difference between moral hazard problem and cost verification problem in the credit market. How the standard credit contract helps in solving each of them?
- 4) What is credit rationing? Why do banks choose this strategy? What are other methods of dealing with adverse selection you know? Give examples for each.
- 5) Describe the problem of information rent in the credit market. How can it be solved?
- 6) Which characteristics of bank corporate governance affect the bank riskiness and how? Describe the results of the empirical studies (basing on the paper presentation)?

Literature and other materials

Basic:

1. Degryse H., Kim M., Ongena S. (2009) Microeconometrics of banking: methods, applications, and results/ Oxford University Press
2. Freixas, X., Rochet, J-Ch. (2008). Microeconomics of banking. 2nd edition. Cambridge, MA: MIT Press

Additional literature (subject to changes):

3. Barth J.R., Caprio Jr. G., Levine R. (2004) “Bank regulation and supervision: what works best?”, *Journal of Financial Intermediation*, №13, pp. 205-248.
4. Chen Y., Hasan I., “The transparency of the banking system and the efficiency of information-based bank runs”, *Journal of Financial Intermediation*, Volume 15, Issue 3, July 2006, Pages 307-331”
5. Chen Y., Hasan I., “Why Do Bank Runs Look Like Panic? A New Explanation”, *Journal of Money, Credit and Banking*, Volume 40, Iss. 2-3, 2008, pp. 535–546
6. Degryse H, Ongena S (2002) Distance, Lending Relationships and Competition, Tilburg University Center for Economic Research Discussion Paper № 2002-16

7. Demirgüç-Kunt A., Detragiache E., “Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation” The World Bank Development Research Group Finance and International Monetary Fund, Policy Research Working Paper 2247, November 1999
8. Demirgüç-Kunt A., Karacaovali B., Laeven L., (2005) “Deposit Insurance around the World: A Comprehensive Database”, World Bank Policy Research Working Paper 3628
9. Diamond D.W. (1984) “Financial Intermediation and Delegated Monitoring” Journal of Political Economy, 51(3), 928-956
10. Diamond D.W., Dybvig Ph.H. (1983) “Bank Runs, Deposit Insurance, and Liquidity”, Journal of Political Economy, 91(3), 401-419
11. Holmström B., Tirole J. (1998) “Private and Public Supply of Liquidity”, Journal of Political Economy, 106(1), 1-40
12. Hosono, K., H. Iwaki, Tsuru K. (2004) Bank Regulation and Market Discipline around the World, RIETI Discussion Paper Series 04-E-031.
13. Hosono, K., Iwaki, H., Tsuru, K., (2004) “Bank Regulation and Market Discipline around the World”, RIETI Discussion Paper Series 04-E-031
14. Jacklin Ch. J., Bhattacharya S., “Distinguishing Panics and Information-based Bank Runs: Welfare and Policy Implications”, The Journal of Political Economy, Vol. 96, No. 3. (Jun., 1988), pp. 568-592.
15. Karas, A., Pyle, W., Schoors, K. (2006). “Sophisticated Discipline in Nascent Deposit Markets: Evidence from post-Communist Russia”, Middlebury College Economics Discussion Paper №06-07
16. Padilla A.J, Pagano, M. (1997) "Endogenous Communication Among Lenders and Entrepreneurial Incentives", The Review of Financial Studies, Vol. 10, No. 1, pp. 205-236
17. Padilla A.J, Pagano, M. (1999) "Sharing Default Information as a Borrower Discipline Device", CSEF Working Paper 21
18. Sharpe S. A. (1990) Asymmetric Information, Bank Lending and Implicit Contracts: A Stylized Model of Customer Relationships, Journal of Finance, 45(4), pp. 1069-1087
19. Stiglitz J.E., Weiss A. (1981) Credit rationing in Markets with Imperfect Information, American Economic Review, 71(3): 393-410
20. Townsend (1979) Optimal contracts and competitive markets with costly state verification. Journal of Economic Theory, 21(2), 265-293

Web:

21. www.imf.org- International Monetary Fund
22. www.worldbank.org - Worldbank
23. www.cbr.ru – Bank of Russia
24. <http://www.arb.ru/> - Russian bank association
25. <http://asv.org.ru> – Russian deposit insurance agency
26. <http://video.edu.ru/video/799> - Alexei Karas video-lecture on the peculiarities of Russian bank data (by Alexei Karas, Roosevelt Academy)
27. <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTGLOBALFINREPORT/0,,contentMDK:23267421~pagePK:64168182~piPK:64168060~theSitePK:8816097,00.html> - WB Bank Regulation and Supervision Surveys
28. <http://www.bis.org/fsi/fsipapers.htm> - Financial Stability Institute Surveys

Course schedule

№	Topic	Lectures	Self-study	Total
1.	Microeconomics of banking: introduction	8	8	16
1.1	Academic research in banking	4	16	18
2.	Deposit markets	6	14	20

3.	Credit markets	6	10	16
4.	Repeated bank-borrower relationships	6	16	16
5.	Bank risk-taking and other topics	4	8	10
6.	Bank regulation	4	8	10
7.	Household financial strategies	2	4	8
Total		40	84	114

Special equipment and software support

The course requires the room with overhead projector and computer, connected to internet. Powerpoint and Acrobat Reader should be installed.

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