

# DOCTORAL SCHOOL OF ECONOMICS AND BUSINESS ADMINISTRATION

# COMPETITION IN THE SINGLE EUROPEAN BANKING MARKET

Scientific coordinator: Prof. Dr. OVIDIU STOICA

PhD. Scântee Roxana

– IAŞI 2013 –

## CONTENTS OF THE ABSTRACT

CONTENTS OF THE DOCTORAL DISSERTATION	3
INTRODUCTION	5
STRUCTURE OF THE DOCTORAL DISSERTATION	7
Summary of the 1 <sup>st</sup> chapter	7
Summary of the 2 <sup>nd</sup> chapter	8
Summary of the 3 <sup>rd</sup> chapter	8
Summary of the 4 <sup>th</sup> chapter	9
Summary of the 5 <sup>th</sup> chapter	9
CONCLUSIONS	9
SELECTED REFERENCES	14

## CONTENTS OF THE DOCTORAL DISSERTATION

#### INTRODUCTION

CHAPTER 1

#### THE ROLE OF COMPETITION IN SHAPING SINGLE EUROPEAN BANKING MARKET AND EMU IN EXTENSION CONTEXT

- 1.1. The evolution of the single banking market part of the European Monetary Union
- 1.2. Competition or rivalry?
- 1.3. The impact of the single market on competition within nation banking systems principal component analysis

#### CHAPTER 2

#### FINANCIAL SUPERVISION, MONETARY POLICY, EU REGULATIONS AND THEIR IMPACT ON BANKING COMPETITION

2.1. Analysis of the regulatory framework, the European directives and their impact on competition within European Union

2.1. Evaluation of the European Central Bank's monetary policy in terms of Taylor rule and the impact on competition

2.3. Financial Supervision and its influence on banking competition

#### CHÂPTER 3

## A CRITICAL APPROACH OF THE BANKING COMPETITON

3.1. Analysis of the main indicators of the structural approach 3.2. Analysis of the main indicators of the non-structural approach

3.3. Quantifying competition within European Union – Structure – Conduct – Performance Paradigm and Lerner index

CHAPTER 4

#### IMPACT OF THE MICRO AND MACRO FACTORS ON EU BANKING COMPETITION – PANEL ANALYSIS

4.1. Brief review of the literature on banking competition, market structure, efficiency and cost

4.2. Data and methodology

4.3. Empirical results and conclusions

CHAPTER 5

#### CAUSALITY BETWEEN COMPETITON AND PROFITABILITY IN ROMANIA MEMBER STATE OF THE ENLARGED EUROPEAN UNION

5.1. European Union effects on competition and banking system in Romania

5.2. Data and methodology

5.3. Empirical results and conclusions

CONCLUSIONS, LIMITATIONS AND FUTURE RESEARCH APPENDIX

REFERENCES

#### INTRODUCTION

Competition policy faces a major challenge, generated from technological complexity of the new products and sophisticated refinement of the new markets. This reality requires an adaptation of the economic analysis to understand these innovations and to assess properly; to what extent their inclusion in the economic system will encourage or restrict competition (Stoica, Palma Martos, 2009).

Internationalization, liberalization of global financial markets and banking harmonization in European Union (EU) are factors that affect competition. This has a strong impact on the financial system as a whole. An adequate level of market concentration and competition should protect financial stability and also to lead to a better development of the economy, both nationally and cross border. Within Single Market, the ability to compete and survive has become a very important fact on a European market, increasingly integrated.

European integration is an event with impact on every economy and every EU financial field, is important in terms of regional implications and also in terms of global consequences. One of the EU's main objectives is to build a single market for financial products. As long as the financial system is essential in allocation and redistribution of economic resources, a single market for financial services has the potential to significantly improve investment and also to ensure economic growth by removing barriers and differences.

The developments of national economy, regional and by extension, even global economic developments are closely linked to the existence of a competitive banking system, stable and profitable. Positioning to the market, to the customers, continuous development in terms of products, services and information channels, knowledge, adaptability and flexibility are the challenges that banks face daily. This evolution, to a single financial area is pursued in terms of structural changes that have occurred over time, the pattern of surveillance and regulation. The analysis is based on a range of indicators while capturing the impact of the financial crisis that broke the long-term growth trends.

Presentation of the single market's outlining aspects are developed gradually, starting from introduction, where is argued the importance of the topic, banking competition is a very highly debated topic among experts, whether they are academics or practitioners.

Research has as main objective to examine in detail the changes and the consequences arising from the formation and expansion of the European Single Market, the introduction of the euro, while considering the impact of the crisis and the various types of financial supervision on competition in the EU single market.

The objectives followed during the research are:

- Analysis of the EU regulations' impact on banking competition;

- Using principal component analysis, in order to observe the impact of the single market on national banking systems;

- Using the Taylor rule to evaluate European Central Bank's (ECB) monetary policy;

- Quantifying the impact of competition within EU using Structure-Conduct-Performance (SCP) Paradigm and the Lerner index;

- The evaluation of different types of financial supervision's impact on banking competition using econometric computation, logit model;

- Analysis of the impact of the micro and macro factors on EU banking competition – panel analysis.

To better underline the changes and the impact that European Single Market has generated over time on banking competition is necessary to develop an analysis starting from general and reaching to particular, and then an overall observation of the two aspects analyzed. This form of analysis is required because the EU banking market consists of 27 different national banking systems, which together tend to a unique operating structure.

#### STRUCTURE OF THE DOCTORAL DISSERTATION

The doctoral dissertation treats the impact and the development of single European banking market on banking competition. Competition will be analyzed in the 27 national banking systems of the EU Member States and also overall, on EU-wide, while analyzing the differences between Euro Area Member States and the ones where the national currency is not euro.

### Summary of the 1<sup>st</sup> chapter THE ROLE OF COMPETITION IN SHAPING SINGLE EUROPEAN BANKING MARKET AND EMU IN EXTENSION CONTEXT

In the 1<sup>st</sup> chapter are presented, first of all, Economic and Monetary Union's stages and the evolution of the single market banking evolution, in order to define the overall framework for both, banking and research activity.

Also, in this chapter, considering the literature and the real economy I defined, analyzed and highlighted the main differences between "competition" and "rivalry", in terms of meaning and form. This position is essential to track, analyze and monitor the progress, the impact and the effects of competition in the single European banking market.

At the end of this chapter, I applied a factor analysis method, named principal component analysis (PCA), with the

final goal to identify if the single European banking market influenced significantly the Member States banking systems.

## Summary of the 2<sup>nd</sup> chapter FINANCIAL SUPERVISION, MONETARY POLICY, EU REGULATIONS AND THEIR IMPACT ON BANKING COMPETITION

In the  $2^{nd}$  chapter, I study the impact of financial structure and EU regulations on banking competition, because they allow the widening, deepening and speeding up integration of the financial markets in general, and the banking ones in particular.

The banking sector has a particular importance in terms of financial system's stability and also of the economy, as a whole. Steps taken in order to form the EMU, marked progress toward banking integration, step which was interrupted by the financial crisis. Analysis of each banking system was conducted from financial supervision, structural indicators and correlating all these with monetary policy of central banks.

In the end of the chapter, we evaluated the ECB's monetary policy through Taylor rule. Using a panel analysis we examine whether the interest rate calculated through Taylor rule, respectively if changes from target interest and the commercial banks' strategy influenced the demand and the supply of the deposit and loans, and implicit the banking competition.

#### Summary of the 3<sup>rd</sup> chapter A CRITICAL APPROACH OF THE BANKING COMPETITON

In the 3<sup>rd</sup> chapter are analyzed the main approaches of the banking competition, namely the structural and nonstructural. Using SCP Paradigm and Lerner index we analyzed the evolution on banking competition within EU Member States.

To a have a complete image of the banking competition's analysis at EU level I used a method belonging to structural approach and also indexes from non-structural approach.

### Summary of the 4<sup>th</sup> chapter IMPACT OF THE MICRO AND MACRO FACTORS ON EU BANKING COMPETITION – PANEL ANALYSIS

In chapter 4, using a panel analysis, micro and macroeconomic variables belonging to Member States and their banking systems I analyzed the main trends and their influences on banking competition.

#### Summary of the 5<sup>th</sup> chapter

#### CAUSALITY BETWEEN COMPETITON AND PROFITABILITY IN ROMANIA MEMBER STATE OF THE ENLARGED EUROPEAN UNION

In the last chapter, using Granger causality, we examined the interrelationship between banking competition and efficiency, over a 7 years period, in Romania.

#### CONCLUSIONS

Until now, the belief and the new position in the banking sector's competition area in the EU, according to different results shown by various studies, show that the banking competition in EU is a monopolistic one, which shows that the banking market in EU will suffer more changes in the future. A big part of the membership countries, especially the small ones have a very strong and concentrated share in the banking sector. This can be measured by analyzing the share the first 5 institutions have out of the total assets in the banking sector. The rules and regulations of EU, together with the training of the UEM have created a place where all players are equal. This is just a first step, because the cross border activity hasn't met a growth as initially predicted.

The first chapter contributes to the literature review by using the PCA method. The conclusions out of this analysis, where the GDP and the banking assets were used as main indicators for the 26 states are the following: a constant growth of the mentioned ratio for some countries, and even sometimes a double figure for the mentioned proportion, that can be due to the widening of the European banking segment, to the impact of the regulations and also to overcoming the hold-ups related to the products and services (regardless if they are members or not of the EU).

In the second chapter, I did an analysis of the rules and regulations related to competition in EU to define the structure and the content overall, and in particular I tried to highlight the implications of the main regulations and arrangements in a Single Banking Market, where the products are intended for national use and also for the clients outside the boundaries. This has to be done in the same way and also involving the same costs.

Competition in the banking sector was proven to be a strong point as long as the main target is a balanced growth considering the economy. In this idea, some boundaries have to be set in matters of loans, costs of the available products and also the market share. Competition is also associated to efficiency. A competitive banking system will influence decisions and will distribute the resources more efficient to the society, also improving stability. The analysis of banking competition is very important and has to take place considering the stability of the whole financial system. Everything from the structure of the analyzed market to the rules and regulations has to be considered while doing the study.

In this same second chapter, I analyzed the impact of the financial supervision over the competition in the banking sector, for EU, using the logit model. Results have shown that the impact is not very high, so at the end of the year, this won't make a difference and a better supervision can't guarantee better indicators. A better supervision is the result of more stringent regulations, free from political influences, it is more important to accept the fact that the institutional structure is not perfect and the regulations should be improved than to change the structure of the supervisory institutions.

Taking into consideration the global financial crisis and the fragile worldwide economic growth, the analyzed subject is an important one. From what I have read so far in the literature, a panel analysis, which analyzed the impact of monetary interest rate deviation on banking competition for all the EU Member States, was not used. I used Taylor's rule to analyze the impact of EU enlargement on national banking systems of the 27 EU Member States and also I took into consideration the fact that monetary policy of the central bank and ECB have a direct impact on competitive environment. Except direct competition on the banking market, both nationally and cross border, where supply and demand meet, banks in their competitive strategies are directly influenced by the deviations from the policy rate target.

In the 3<sup>rd</sup> chapter, we analyze the main aspects of the academic literature regarding the two competition approaches, the structural and non-structural and selected the most appropriate and relevant methods of its analysis.

The conclusions show that countries from Euro Area have a value of Lerner index higher than countries that have not adopted the euro as national currency, this means that during the analyzed period, the banking competition is stronger in countries that are not Euro Area's member, which may be explained by the interest decrease on domestic markets, more mature, and orientation to markets from Central and Eastern Europe, with greater opportunities to get a high profit.

Prudent bank behavior occurred as the effect of the financial crisis led to a decline in the EU-wide competition. Taking into consideration the above mentioned facts, the overall competition in the EU recorded an upward trend and I believe that the adoption of the euro and European integration are determinants key.

In the 4<sup>th</sup> chapter, I used a panel analysis. Empirical results points out that in the EU, net interest margin and operating cost have a strong influence on banking competition, represented by Lerner index. There are not major differences from overall EU average, if we made distinguish between old and new Member States, in the context of selected variables.

However, the results suggest that in the expansion strategy, the withdrawal or entry into the national or crossborder banking systems is important to take into calculation of the marginal cost and price, net interest margin obtained in total earnings generated by assets and operating expenses. Net interest margin influences directly the marginal cost and price strategy, and the operating cost influences conversely.

Macroeconomic environment, defined in this model by GDP, has not a significant impact on the marginal cost and price, given that at this time banking can be done both nationally and across borders. Backwards, important economic implications of banking competition are observed in defining strategies for reducing financial services' prices and increasing access to credit and investment in the EU.

Chapter 5 is devoted to the interrelation analysis between competition and efficiency in Romania, in 2004-2011 period using Granger causality. Contribution to the literature consists in applying Granger causality in Romania case, the result fall within previous research, that competition positively affects return on equity and the profitability indicators have no influence on the Romanian's banking system concentration degree. Considering the globalization process, the effects of the recent financial crisis, the increased competition with major banking groups, Romanian banking system is on a change period.

Competition is generally seen as a positive influence, often associated with an increased efficiency and improvement of the products and services offered to consumers. Contribution brought to the literature, is to provide the first panel analysis, from what I know until now, where had been used as a dependent variable a non-structural approach's indicator and as independent variables indicators belonging both to the micro and macro environment.

On future research directions, they can be oriented on a more detailed analysis at the micro level, which can make a comparison between banking groups that operate in different national markets, observing the integration impact, both nationally and cross border, on baking competition.

#### SELECTED REFERENCES

Books:

1. Baltagi, B. H., 2008, Econometric analysis of Panel Data, third edition, John Wiley&Sons, U.K.

2. Koenig, E.F., Leeson, R., Kahn, G. A., 2012, Taylor Rule and the Transformation of Monetary Policy, First edition, Hoover Institution Press, Stanford University.

3. Pintilescu, C., 2007, Analiză statistică multivariată, Editura Univesității "Alexandru Ioan Cuza", Iași.

4. Spulbăr, C., Nițoi, M., 2012, Sisteme bancare comparate, Editura Sitech, Craiova.

5. Stoica, O., Căpraru, B., Filipescu, D., 2005, Efecte ale integrării asupra sistemului bancar românesc, Editura Universității Alexandru Ioan Cuza, Iași.

6. Stoica, O., Palma Martos, L., 2009, Politici ale Uniunii Europene, Editura Universității Alexandru Ioan Cuza, Iași.

7. Turliuc, V., Cocriș V., Stoica, O., Roman, A., Dornescu, V., Chirleşan, D., 2010, Monedă și credit, Editura Universității "Al. I. Cuza", Iași.

Articles and publications:

1. Alexander, K., 2011, Reforming European financial supervision: adapting EU institutions to market structures, ERA Forum – Journal of the Academy of European Law, vol. 12.

2. Bătrâncea, I., 2006, The Analysis of Financial Performance in Credit Institutions, Proceedings of the IABE, Annual Conference, Las Vegas, vol 2.

3. Bătrâncea, I., Borlea, S., Bătrâncea, M., 2006, Coordinates of the Banking Industry. The place and the Role of Foreign Banks within the Romanian banking System, Brno International Conference on Applied Research, Mendel University of Agriculture and Forestry in Brno, Czech republic.

4. Berger, A. N., Klapper, L. F., Turk-Ariss, R., 2009, Bank Competition and Financial Stability. Journal of Financial Services Research, no. 35.

5. Casu., B., Girardone, C., 2009, Testing the relationship between competition and efficiency in banking: a panel data analysis, Economic Letters, 105.

6. Cocriş, V., Andrieş, A. M., 2010, A comparative analysis of the efficiency of Romanian banks, Romanian Journal of Economic Forecasting, vol. 4.

7. Cocriş, V., Căpraru, B., 2007, The European integration challenges and the Romanian banking system reform, The Journal of the Faculty of Economics Science Series, University of Oradea, Faculty of Economics, vol. 2.

8. Cocriș, V., Căpraru, B., 2008, Controversies on the Central Bank main objective of price stability, Theoretical and Applied Economics, Asociatia Generala a Economiștilor din România – AGER, vol. 9.

9. Cocriş, V., Căpraru, B., 2008, The reform of National Bank of Romania after accession to EU: challenges and perspectives, Annals of Faculty of Economics, University of Oradea, Faculty of Economics, vol. 3.

10. Fridmuc, J., Hainz, C., 2012, The Effect of Banking Regulation on Cross-Border Lending, Ifo Working Paper, no. 140.

11. Lerner, A.P., 1974, The Concept of Monopoly and the Measurment of Monopoly Power, Review of Economic Studies, no. 1.

12. Panzar, J.C., Rosse, J.N., 1982, Structure, conduct and comparative statistics, Bell Laboratories Economic Discussion Paper.

13. *Scântee*, R., 2010, A Brief Parallel Between the 1929, 1987, 1997 and 2007 Economic Crises Worldwide and in Romania, Globalisation and higher education in economics

and business administration, The Proceedings of the IVth GEBA Conference, Al. I. Cuza University Press.

14. *Scântee*, R., 2010, Romanian Banking competition after 1990 – Evolution and implications, Proceeding of the International Workshop "Advanced research and trend in accounting, and Finance" ICMEA 2010.

15. *Scântee*, R., 2011, Credit crisis: Causes, Consequences and Remedies, Proceedings of 18th International Economic Conference "Crises after the crisis. Inquiries from a national, European and global perspective".

16. *Scântee*, R., 2012, The Evolution of Banking Competition under the Influence of European Union Regulations, Annals of the "Ovidius" University, Economic Sciences Series, vol. XII, issue 1.

17. *Scântee*, R., Diaconaşu, D.E., 2011, Dynamic Linkages Between Romanian and Bulgarian Stock Market and Banking System, în Cercetarea doctorala in economie prezent si perspective, vol II.

18. *Scântee*, R., Voroneanu, C. B., 2011, A Brief Analysis of Financial Architecture of European Union and Romania from Single Market Perspective, Annals of the "Ovidius" University, Economic Sciences Series, vol. XI.

19. *Scântee*, R., Voroneanu, C. B., 2012, Companies' Bank Lending in European Union: Principles, Forms and a Brief Analysis of Competition, Annals of the "Ovidius" University, Economic Sciences Series, vol. XII.

20. Spulbăr, C., 2011, The Macroeconomic Performance of Monetary Policies. A Stochastic Simulation Based on the Taylor's Rule, Journal of Knowledge Management, Economics and Information Technology, vol. 1 (6).

21. Spulbăr, C., 2010, The financial systems – an approach from the perspective of the financial crisis, Annals of University of Craiova – Economic Sciences Series, vol. 3 (38).

22. Stoica, O., Căpraru, B., 2007, The effects of competition in the Romanian banking system, Analele Stiințifice ale Universității "Alexandru Ioan Cuza" Iași, vol. 54.

23. Stoica, O., *Scântee*, R., 2012, Financial Supervision and Banking Competition in European Union, Acta Universitatis Danubius. Economica, vol. 8 (6).

24. Stoica, O., *Scântee*, R., 2012, SCP Paradigm – A Brief Parallel of European Union Banking Systems, Economics and Finance Review, Vol. 2.

25. Stoica, O., *Scântee*, R., Diaconaşu, D.E., 2011, Dynamic Stock Market Integration in Central and Eastern Europe, în Rezultate de excelență în cercetarea științifică-un prim pas spre înserarea profesională, Editura Universității Alexandru Ioan Cuza Iași.

26. Stoica, O., *Scântee*, R., Diaconaşu, D.E., 2011. Financial Supervision in Central and Central and Eastern Europe, Proceedings of the 13th International Conference on Finance and Banking, Conference on Finance and Banking, Ostrava, Czech Republic.