

**Review by a member of the scientific jury
for obtaining the educational and scientific degree "Doctor"
in Academy of Economics "D. A. Tsenov" - Svishtov**

Reviewer: Prof. Dr. Silvia Trifonova Trifonova-Pramatarova

Author of the dissertation: Ph.D. student Orlin Chavdarov Yaprakov, D020219186, part-time doctoral studies

Topic of the dissertation: "Restructuring, consolidation and competition on the Bulgarian banking market"

Ph.D. student Orlin Chavdarov Yaprakov, D020219186 is in part-time doctoral studies, state-funded training in the field of higher education: 3. Social, economic and legal sciences, professional field: 3.8. Economics, under the doctoral program "Finance, Money Circulation, Credit and Insurance" (Finance) at the Academy of Economics "D. A. Tsenov" – Svishtov.

I. General presentation of the dissertation.

1. The subject of research in the dissertation are the problems of restructuring, consolidation and competition in the Bulgarian banking market.

2. The dissertation has a total volume of 210 standard pages.

3. The structure of the dissertation is classical, consisting of an introduction, three chapters, a conclusion, a bibliography and appendices. The first chapter presents the theoretical foundations of bank consolidation, restructuring and competition and provides a systematic review of existing theoretical and empirical research on the issue. In my opinion, the review of the literature would benefit if the most up-to-date research from 2019-2021 is included. Of interest is the analysis of the various effects of competition, respectively, consolidation and restructuring on the stability of the banking sector.

In the second chapter an analysis of the development of the Bulgarian banking market in the conditions of interbank competition is made. For this purpose, a wide range of analytical measures of the banking market and the ongoing processes in it have been studied, and an ex-post analysis of the development of banks in Bulgaria for the period of EU membership has been made. The macroeconomic indicators that are considered as generators of banking processes and are studied in the dissertation are: base interest rate, annual percentage change in GDP, imports, exports, long-term interest rate to assess the degree of convergence, consumer price index, HICP, the exchange rate of the lev against the US dollar, government deficit/surplus, government revenues and government expenditures. Deriving the relationships between macroeconomic indicators and key banking measures through the correlation coefficients of Pearson and Spearman provide statistically valuable information about the processes in the banking structure. The application of quantitative techniques with analytical value based on the parameters of the CAMEL framework is essential for measuring the financial condition of banks and the banking system by measuring capital adequacy, asset quality, management, efficiency and liquidity.

In the third chapter an empirical study of the economic environment and processes of consolidation and restructuring in the Bulgarian banking sector is made. The research period is 2014-2020. The focus is on the empirical study of the relationships between the main banking indicators and macroeconomic indicators, and the effects of the restructuring and consolidation of banks in Bulgaria by applying the CAMEL approach. The impact of the COVID-19 pandemic on the studied processes is reflected. A parallel distribution of banks from the Bulgarian banking system to the rank based on the CAMEL system and the distribution from the BNB in 2020 is presented. On this basis, conclusions and recommendations are made, with a practical focus on policy makers in the banking sector.

4. The list of used literature includes a total of 130 literature sources.

5. One annex containing many tables is presented to the dissertation.

II. Assessment of the form and content of the dissertation.

1. The dissertation is dedicated to a topic that is significant and always relevant, namely – the restructuring, consolidation and competition in the banking market. The focus of his research is on the banking market in Bulgaria.

The Ph.D. student is very well acquainted with the problems of scientific research, to which his extensive practical experience contributes. He has managed companies dealing with projects in the IT sector, as well as companies engaged in investments and consulting activities (EOS Solutions, OROS EOOD, STATUS IMOTI REIT), STATUS IMOTI Management OOD, STATUS LEASING Ltd., BIS Ltd., etc.). He has performed consulting activities for structuring transactions and mediation in insurance, insurance and financing. He has worked in the banking sector (TS BANK – Sofia, UNICREDIT BULBANK – Sofia). He has been Deputy Minister of Economy in the second caretaker government of Stefan Yanev since the autumn of 2021.

The subject of the dissertation is the problems of restructuring, consolidation and competition on the Bulgarian banking market in the light of the increasing regulatory requirements. The object of study is the Bulgarian banking market.

The purpose of the dissertation is “through research of theoretical aspects and analysis of practice to identify the main driving trends and evidence for the Bulgarian banking market, confirming the link between restructuring and consolidation to comply with evolving regulatory requirements in an environment of intensified interbank competition”. The purpose of the dissertation is decomposed into three research tasks.

The research thesis of the dissertation is that: “the Bulgarian banking market is developing in conditions of interbank competition, requiring institutional restructuring and consolidation in order to achieve compliance with the evolving regulatory framework and supervisory mechanisms of the central bank, prudential measures and targeted capital indicators, risk, profitability and return”.

The research methodology includes a wide range of research methods such as theoretical-methodological analysis, method of analysis and synthesis, historical-logical approach, comparative analysis, systematic approach, inductive and deductive method, descriptive analysis, vector-verbal modelling, empirical analysis, statistical application of rank classification, graphical and tabular analysis. Some of these research methods are not explicitly described in the methodology of dissertation, but in practice they are used.

2. The dissertation reviews the existing literature in the field of restructuring, consolidation and competition in the banking market. The review of the literature reflects the author’s own attitude to the issues under consideration.

3. The total volume of the dissertation is 210 standard pages.

4. In the dissertation are used appropriate graphic and tabular tools to illustrate the presented theses and productions – a total of 28 figures and 28 tables.

5. The dissertation is characterized by a sequence of reasoning. A smooth transition was made between the different parts. There is the endurance of the scientific apparatus and the proportionality of the three separate chapters in the dissertation.

6. Empirical data have been used and processed correctly.

7. In connection with the implementation of the goals and objectives of the study, the Ph.D. student has used many foreign and Bulgarian sources on the topic. The bibliography includes a total of 130 literature sources, incl. in English and in Bulgarian. However, the bibliography is not numbered.

8. The abstract accurately and clearly reflects what is written in the paper. The Report of the Ph.D. student’s publications on the topic of dissertation and the Report on compliance with the national requirements under the Regulations of the Academic Staff Development in the Republic of Bulgaria Act make a positive impression. There are 5 published publications on dissertation, incl. 3 articles, one in English and 2 papers.

The Ph.D. student has a total of 30.00 points from publications on the topic of the dissertation, which corresponds to the national minimum required number of points.

III. Scientific and scientific-applied contributions of the dissertation.

The scientific and scientific-applied contributions of the dissertation are indicated on pp. 28-29 in the author’s abstract to the dissertation. According to the contributions, it is possible to formulate them more concisely and summarized as follows:

1. Based on a review of Bulgarian and foreign sources, normative documents and empirical evidence, author’s definitions for three key concepts expressing the problems of the dissertation are given: restructuring of the banking sector, consolidation and banking competition.

2. With a high degree of statistical significance, the connection between the consolidation, competition and restructuring of banks with the macroeconomic, regulatory and institutional framework of the state has been proven. A recommendation has been formulated to the policy makers to pursue a policy aimed at promoting a competitive environment. The starting point for consolidation decisions in the banking industry should be the implementation of a conservative policy of mergers and acquisitions, supported by professional business models and analyzes taking into account the full range of effects.

3. Argued economic assessment and established degree of determination between the key banking measures and macroeconomic indicators based on a comprehensive empirical study of the macroeconomic and financial environment affecting the Bulgarian banking market for the period 2014-2020, as well as by applying the Herfindahl-Hirschman Index in 2020 to the entire banking system on assets, loans and deposits, and a correlation analysis of the relationships between profit, equity and assets of the Bulgarian banking system and key macroeconomic indicators in the country.

4. Assessment of the effects of the restructuring and consolidation of banks in Bulgaria based on an approach that integrates the indicators of the CAMEL system by 2020 and their summarization in a verbal-tabular model.

I share my personal positive attitude to the work of the Ph.D. student from his participation with a scientific paper on “Digital financial services – the modern competitor of the traditional banking market” at the Final International Scientific Conference “Innovative unconventional monetary policy of leading central banks

and its effects on developed and developing countries with an emphasis on Bulgaria”, organized on October 9-10, 2021 in implementation of a research project led by me, funded by the National Science Research Fund.

IV. Critical notes, questions and recommendations on the dissertation:

1. My main note to the dissertation is that measuring the relationships by studying the correlation coefficient and the coefficient of determination, and by studying the effects of restructuring and consolidation of banks in Bulgaria through the CAMEL approach by banking groups in Bulgaria, would benefit from an in-depth and reasoned analysis of the conclusions. A much more extensive factor analysis of the findings is needed. Only within the framework of pp. 155-159 the conclusions and findings of the empirical research are presented in the dissertation. This study concerns the ranking of banks in Bulgaria in the period 2014, 2017 and 2020 by capital adequacy, asset quality, management, efficiency and liquidity, the ranking of banks based on the CAMEL assessment methodology for the same period 2014, 2017 and 2020, and the parallel distribution of the banks of the Bulgarian banking system in relation to the rank based on CAMEL and the distribution by the BNB in 2020.

2. Also, as I mentioned earlier in the review, the literature review made in the dissertation would benefit if much more current research from 2019-2021 is included and systematized. It is noteworthy that the bibliography cites sources from recent years, but they are not included in the literature review. I believe that the literature review could be much richer, given the widely discussed national and global issues of restructuring, consolidation and competition in the banking sector.

3. My note on the writing of the sources in the bibliography is also of a technical nature, for which I do not know which established bibliographic format is followed, as they are presented quite differently. It is also necessary to present in the dissertation a list of abbreviations and a list of figures and tables.

V. Summary conclusion and opinion.

The dissertation research is dedicated to an important problem and is of interest from both a scientific and a practical point of view for the banking sector. The conclusions made express the Ph.D. student's own position. Therefore, I give a positive assessment of the study, presented by the above reviewed dissertation and abstract, and propose to the esteemed scientific jury to award the educational and scientific degree "Doctor" of Orlin Chavdarov Yaprakov in the doctoral program "Finance, Money Circulation, Credit and Insurance" (Finance) at the Academy of Economics "D. A. Tsenov" – Svishtov.

Date: 10.12.2021

Reviewer:
(Prof. Dr. Silvia Trifonova-Pramatarova)