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**Systemic aspects of using the debt market
by polish banks for financing their activity**

Summary of doctoral thesis

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The overview of the dissertation topic

The economic activity of commercial banks is a popular subject of research not only in the scientific community, but also among market practitioners and supervisory authorities. This is mainly due to the important role these banks play in the financial system. It should also be emphasized that the financial crisis of 2007, the sources of which can be seen in the financial sphere, drew researchers' attention to commercial banks, mainly in the context of the stability of the entire system. The subject of research on banking activities is very broad and can be viewed from many perspectives. The analyses carried out in this dissertation are primarily macroeconomic in nature and focus on the financing structure of commercial banks in Poland, especially with the use of market bonds.

The corporate bond market is the primary research area for the objectives set out in this dissertation. It has been developing dynamically for over 15 years and has become a permanent part of the structure of the Polish financial system. There is no doubt that bonds issued by commercial banks are its fundamental component. It can therefore be concluded that long-term investor demand for debt securities issued by banks will remain stable. However, the subject of this study should also be viewed from the perspective of the banks themselves, which will allow to estimate the potential supply of bonds. Banking activity is specific and significantly different from the activity of traditional enterprises. Therefore, it should be clarified how the issue of own bonds fits into the business model of a commercial bank.

Although the role of banks in the structure of the financial system varies from economy to economy, their importance is always strategic to the smooth functioning of the entire system. The theoretical achievements of the literature on the subject constitute the context of the conducted analyses. The models of the financial system proposed by the researchers should be mentioned here. Although they are highly simplified, they are still the most popular theoretical background for research on the financial system. Among these models, two basic ones should be distinguished - the model based on banks, also known as the continental model, and the one based on financial markets, known as the Anglo-Saxon model. In this work, the author questions the relevance of this division and analyses the evolution of the continental model.

The subject, objectives and hypotheses of the dissertation

The main objective of this dissertation is to reveal the evolution of the financing structure of Polish commercial banks in light of the theory of financial markets models, with particular emphasis on the role of bank bonds. Taking into account the complexity of the research area, auxiliary objectives were defined:

1. Characterisation of the Polish corporate bond market, including the structure of issuers and the structure of investors.
2. Analysis and characteristics of available and used sources of financing for Polish banks against the background of the European banking sector.
3. Analysis of changes in the structure of liabilities of Polish and European commercial banks in 2004–2018.
4. Research on the role of foreign financing of Polish banks in the debt securities market.
5. Identification and categorization of factors influencing changes in the financing strategy of the Polish and European banking sector.
6. Categorization of factors behind changes in the financing policy of Polish banks on the debt securities market.
7. Analysis of the impact of changes in the strategy of financing activities by commercial banks on their investment policy and financial stability.

The main hypothesis put forward in this paper was formulated as follows: The use of the debt securities market in financing banking activities by Polish commercial banks in the years 2004-2018 is part of the evolution of the continental model of financial markets

Research methods and source material

The paper is theoretical and empirical in nature. The theoretical part focuses on: the theory of financial markets, the theory of financial system models and the theory of financial intermediation. The study of the achievements of the literature on the subject is to help diagnose such aspects as the potential effects of changes in the structure of the banking sector from the perspective of financial stability, the reasons for changes in the financing policy of European banks, the specificity and changes in classic models of the financial system or the challenges facing commercial banks in foreseeable future.

Empirical research conducted for the purposes of this paper can be divided into market and sectoral research based on their perspective. In the market part, mainly the Polish corporate bond market was analysed. Due to its specificity, low level of development and low data transparency, it was necessary to analyse 4,779 bond issues issued by 641 entities representing 8 sectors of the economy. Verifying sectoral hypotheses involved examining the time series of data on individual sources of financing the banking sector or the long-term development of the European bank bond market. The analysis used not only the official data of the institution, but also conducted its own research covering, inter alia, equity financing of the Polish banking sector using the Warsaw Stock Exchange. Empirical research was mainly done on the basis of descriptive statistics tools. Therefore, the verification of the hypotheses presented in this paper was carried out on the basis of theoretical considerations and empirical research.

The arguments in this paper are based on both national and international scientific achievements. The sources were not only books, scientific articles or legal acts, but also reports from recognized institutions and materials from conferences organized by central banks and institutions uniting financial institutions.

Data from Bloomberg, Fitch Polska, the Warsaw Stock Exchange and the Polish Financial Supervision Authority was used for empirical research on the Polish corporate bond market. On the other hand, the analysis of the banking sector was based primarily on the data of the National Bank of Poland, the Polish Financial Supervision Authority, the European Central Bank, the European Banking Authority (EBA) and Eurostat.

The structure and content of the dissertation

Chapter 1 focuses on the Polish corporate and banking bond market. Its purpose is not only to present the history, structure and outline of the regulatory framework of the Polish treasury and corporate bond market, but above all to summarize the empirical analysis carried out. Due to the importance of commercial banks for the development and stability of the real economy and the specificity of their operating activities, bank bonds should be analysed with several additional aspects in mind.

Chapter 2 attempts to look at bank bonds from the perspective of a banking institution. At the beginning, the specifics of the Polish banking sector are presented, taking

into account the historical outline, ownership structure, allocation policy and concentration in the sector. This provides the context for analysing the business financing strategy. The second part of the chapter summarizes the most important sources of financing, the banking sector, each time comparing the Polish sector to the European one.

Chapter 3 aims to analyse the theoretical models of financial markets and the European bank bond market. The theoretical part emphasizes the role and structure of the financial market, discusses its academic classification and attempts to analyse the role of financial intermediaries in the given models of the financial system. The empirical data on the European bank bond market was also compared with the assumptions on the evolution of the continental financial system. Moreover, the chapter concerns the categorization of drivers of changes in the financing policies of the European banking system. The basic division proposed in this paper distinguishes between macroeconomic and sectoral factors. An attempt was also made to assess the impact of these changes on the stability of the financial system. The reflections in this chapter may be the starting point for future research related to the evolution of the Polish banking system.

The summary of the dissertation is the final part, where the conclusions resulting from the analyzes carried out by the author are presented. The author also proposed further areas of research that may be carried out in the future in order to expand the knowledge proposed in this dissertation.

The results of the dissertation

In the analysed period, Polish commercial banks increased the share of debt securities in the financing structure. Before 2004, the share of bonds in the sector's liabilities did not exceed 1 percentage point, which should be considered a marginal level. Until the end of the analysed period, it consistently increased to 5.18–8.05%, depending on the analysed data source. Moreover, significant levels of the use of wholesale and market capital were also indicated. At the end of 2018, they were close to 40% and 10.16%, respectively. The research on the structure of financing of Polish banks carried out in this paper is based on the observed analogous changes in the structure of European commercial banks. Both the analysis of empirical data and the review of the literature on the subject confirm a significant increase in the role of market debt capital in the structure of financing sources for

the activities of European banking institutions. The main hypothesis presented in the paper has been positively verified. Moreover, in the author's opinion, the previously set goals have been achieved.