



Universitatea
Transilvania
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HABILITATION THESIS

SUMMARY

Title: RESEARCH ON BANKING STABILITY, CORPORATE PERFORMANCE AND ECONOMIC GROWTH IN THE CONTEXT OF CURRENT GLOBAL CHALLENGES

Domain: Finance

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BRAŞOV, 2024

The current habilitation thesis summarizes a significant part of the research undertaken by the candidate following the completion of the doctoral thesis at the "Babeş-Bolyai" University of Cluj Napoca and confirmed by Order of the Minister of Education and Research no. 4900 from 11.11.2002.

The first part of the habilitation thesis (B-i) highlights the main achievements and scientific contributions of the author, which are structured on two sections, namely: **Section I.** Research on the impact of democracy, macroeconomic factors, and crises (covid-19 pandemic and economic) on banking stability; **Section II.** Research on corporate performance and sustainable economic growth.

In the first part of the section I (Chapter I.1), I have provided an empirical evidence of the influence of democracy and economic freedom on banking performance using a sample of 27 countries from 2001 to 2020, and accounting-based return on assets (ROA) and return on equity (ROE) as performance measures. The results of the study highlight that democracy is positively associated with banking performance, whereas economic freedom negatively affects it in the sample countries. Additionally, this study adds to the growing literature on the relationship between control variables (macroeconomic determinants, bank-specific factors, or a country's legislative regime) and banking performance. The results of this study (Socol and Iuga, 2023) were published in the International Journal of Finance & Economics (AIS 2022: 0.435).

The second part of section I (Chapter I.2), examines, empirically, the macroeconomic determinants that affecting the rate of NPLs in Romania. The results showed that all selected independent variables (exchange rates of the most used currencies - EUR, USD and CHF, unemployment rate, and inflation rate) have a significant impact on the dependent variable NPL. The study reveals strong correlations between NPLs and the macroeconomic factors studied and that the Romanian economy is clearly connected to the quality of the loan portfolios. Additionally, an econometric analysis of the empirical causes of NPLs shows that the RON–CHF exchange rate has been the main factor in increasing the NPL ratio in Romania. The results of this study (Hada et al., 2020) were published in Sustainability (AIS 2022: 0.527).

The last part of the section I (Chapter I.3), identifies the influence of various economic indicators on the banking systems during economic crises, specifically analyzing the 2008 financial crisis using data from six Central and Eastern European countries. The study investigates the dependence of banks' Z-scores on economic indicators. The non-performing loans (NPL), return on assets (ROA), and return on equity (ROE) are specifically scrutinized to assess their impacts on the Z-score, alongside economic growth, banking concentration, cost-to-income ratio, and non-interest income. The results indicate that the banks' Z-scores are significantly impacted by non-performing loans and banking concentration, with macroeconomic indicators like economic growth, cost-to-income ratio, and return on assets also demonstrating notable effects on bank stability during the economic crisis. The results of this study were included in a book written by Iuga and Mihalciuc (2020), published by the international publisher LAP Lambert Academic Publishing.

In Section II of the habilitation thesis, I presented the most significant contributions to the analysis of research on corporate performance and sustainable economic growth. Several of the studies presented in this section have made important contributions to the development of academic literature, as proved by the large number of citations. *The first part* of this section (Chapter II.1), provides an in-depth analysis of the major crises of the 21st century and their effects on economic growth. The study examined the significant impact of the major economic

crises of the 21st century, including the 2008 economic crisis and the COVID-19 pandemic of 2020, on economic growth. It involved developing two empirical regression models to analyze the influence of macroeconomic indicators on economic growth in EU member countries from Central and Eastern Europe over the period from 2001 to Q2 2020. Introducing COVID-19 cases as an independent variable significantly altered the direction and magnitude of the impact of certain macroeconomic indicators on economic growth, particularly highlighting the exacerbated negative effects for variables with negative coefficients. The results of this study (Iuga and Mihalciuc, 2020) were published in *Sustainability* (AIS 2022: 0.527).

In *the second part* of the section (Chapter II.2), I examine and explain whether there is a positive or negative linear relationship between sustainability reporting, inadequate management of economic, social, and governance (ESG) factors, and corporate performance and sustainable growth. The findings obtained from our empirical study suggest that the inadequate management of sustainability-related ESG factors has a substantial negative effect on the financial performance of reporting firms, as we predicted. The results indicate that the various aspects of sustainability (governance, social, and environmental) are not equally applicable to financial performance. The results of this study (Oprean-Stan et al., 2020) were published in *Sustainability* (AIS 2022: 0.527).

In *the third part* of the section (Chapter II.3), I have estimated and compared the volatility transmission mechanism in agricultural futures returns during crisis periods, with a specific focus on the COVID-19 pandemic. Key findings reveal significant disruptions and heightened volatility in these markets during the COVID-19 period, with notable deviations from traditional market behaviors. The results of this study (Iuga et al., 2024) were published in *Research in International Business and Finance* (AIS 2022: 0.784).

The fourth part of this section (Chapter II.4), explores the deep, yet insufficiently studied, effects of AI on societal, economic, and environmental aspects. It particularly examines how brain drain influences governmental AI implementation capabilities, addressing a gap in existing literature. The study investigates the interplay between government AI implementation and brain drain, factoring in macroeconomic conditions, governance quality, educational levels, and R&D efforts. Utilizing 2022 data from European Union countries, the research employs instrumental-variables regressions (2SLS and LIML) to counteract endogeneity and uses clustering methods for categorizing countries based on their government AI levels, alongside spatial analysis to detect cross-national spillovers and interactions. The findings reveal brain drain's detrimental effect on governmental AI preparedness, highlight clustering tendencies, and identify spatial interdependencies. This paper underscores the need for strategic policy-making and institutional reforms to bolster government AI capabilities. It advocates for a paradigm shift in government frameworks post-New Public Management era, tailored to the new challenges posed by AI. The results of this study (Iuga and Socol, 2024) were published in the *Journal of Business Economics and Management* (AIS 2022: 0.352).

The fifth part of this section (Chapter II.5), focuses on analyzing the impact of climate change, expressed by temperature and CO₂ emissions, on healthcare spending in the European Union member states using available data from 2000 to 2020. In addition to prior research, this paper incorporates supplementary control variables such as governance, macroeconomic factors (GDP and inflation) and human development index. Empirical findings suggest that an increase in temperature and CO₂ emissions levels, along with improvements in governance, economic growth, inflation, and human development, contribute to higher healthcare expenditures. Rising

temperature and CO₂ emissions are directly increasing the health burden (burden carried by individuals) and force governments to enhance health spending. The paper is notable for its comprehensive approach, filling a significant gap in existing literature by combining climate change variables with governance, economic and human development indicators. The results of this study (Socol et al., 2023) were published in *Frontiers in Environmental Science* (AIS 2022: 0.983).

The *last part* of the section (Chapter II.6), analyses whether military expenditures influence GDP in 27 European Union (EU) member states from 1998 to 2021 by studying two specific clusters: NATO and non-NATO members."The findings indicate that the current values of military expenditures positively influence GDP in both clusters, while past values of military expenditures positively influence GDP in the NATO EU countries and negatively affect GDP in the non-NATO EU countries. There are several key differences between NATO EU members and non-NATO EU members, particularly in regard to their security commitments and defence spending. The results of this study (Iuga and Socol, 2023) were published in *E&M Economie a Management* (AIS 2022: 0.148).

The second part of the habilitation thesis (B-ii) presents the career development plan, which includes the candidate's perspectives on teaching and research activities. Future research directions include investigating the impact of digitalization on the volume and quality of the money supply; the impact of governance on Internet banking in the European Union with technological progress as the moderator; and government investment in health and macroeconomic factors impact.

The third part of the habilitation thesis (B-iii) includes the bibliographic references that underpin the research included in current habilitation thesis.