Studies in Systems, Decision and Control 531

Nguyen Ngoc Thach
Nguyen Duc Trung
Doan Thanh Ha
Vladik Kreinovich *Editors*

Partial Identification in Econometrics and Related Topics

Springer

Studies in Systems, Decision and Control

Volume 531

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Editors
Nguyen Ngoc Thach
Ho Chi Minh University of Banking
Ho Chi Minh City, Vietnam

Nguyen Duc Trung
Ho Chi Minh University of Banking
Ho Chi Minh City, Vietnam

Doan Thanh Ha
Ho Chi Minh University of Banking
Ho Chi Minh City, Vietnam

Vladik Kreinovich
Department of Computer Science
University of Texas at El Paso
El Paso, TX, USA

ISSN 2198-4182 ISSN 2198-4190 (electronic)
Studies in Systems, Decision and Control
ISBN 978-3-031-59109-9 ISBN 978-3-031-59110-5 (eBook)
https://doi.org/10.1007/978-3-031-59110-5

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Preface

To make proper investments in economy, we need to have a good understanding of the future trends: how will demand change, how will prices change, etc. In general, in science, the usual way to make predictions is:

- to identify a model that best fits the current dynamics, and then
- to use this model to predict the future behavior.

In many practical situations—especially in economics—our past experiences are limited. As a result, we can only achieve a partial identification. It is therefore important to be able to make predictions based on such partially identified models—which is the main focus of this book.

This volume emphasizes partial identification techniques, but it also describes and uses other econometric techniques, ranging from more traditional statistical techniques to more innovative ones such as game-theoretic approach, interval techniques, and machine learning. Applications range from a general analysis of GDP growth, stock market, and consumer prices to analysis of specific sectors of economics (credit and banking, energy, health, labor, tourism, international trade) to specific issues affecting economies such as ecology, national culture, government regulations, and the existence of shadow economy. Papers presented in this volume also cover data processing techniques, with economic and financial application being the unifying theme.

This volume shows what has been achieved, but even more important are the remaining open problems. We hope that this volume will:

- inspire practitioners to learn how to apply state-of-the-art techniques, especially techniques of optimal transport statistics, to economic and financial problems, and
- inspire researchers to further improve the existing techniques and to come up with new techniques for studying economic and financial phenomena.

We want to thank all the authors for their contributions and all anonymous referees for their thorough analysis and helpful comments.

The publication of this volume—and organization of the conference at which these papers were presented—was supported:

- by the Ho Chi Minh University of Banking (HUB), Vietnam, and
- by the Vingroup Innovation Foundation (VINIF).

Our thanks to the leadership and staff of HUB and VINIF for providing crucial support.

Our special thanks to Prof. Hung T. Nguyen for his valuable advice and constant support.

We would also like to thank Prof. Janusz Kacprzyk (Series Editor) and Dr. Thomas Ditzinger (Senior Editor, Engineering/Applied Sciences) for their support and cooperation with this publication.

Ho Chi Minh City, Vietnam — Nguyen Ngoc Thach
Ho Chi Minh City, Vietnam — Nguyen Duc Trung
Ho Chi Minh City, Vietnam — Doan Thanh Ha
El Paso, USA — Vladik Kreinovich
December 2023

Contents

Evidence from the Behavior of Subordinated Creditors on the Market Discipline

Le Ngoc Quynh Anh

Abstract This paper evaluates the potential role of subordinated creditors in enhancing market discipline. The following conclusions were drawn in the paper: (i) The study demonstrates that subordinated creditors would impose sanctions on banks that exhibit high levels of risk, notably credit risk and market risk; (ii) Our research reveals indications of a deterioration in discipline when banks are subject to regulatory scrutiny, particularly in developing market banks. (iii) The study's findings highlight the reasons why banks do not report bank risks in accordance with the Basel III framework's third pillar. For bank managers, politicians, and supervisors, our findings have ramifications. Overall, this study is the first effort to use the LASSO regression model to evaluate the subordinated creditors' discipline under new capital and liquidity regulations. This study is also the first to look at how four distinct risk categories affect the discipline of subordinated creditors (as needed by the Basel regulatory framework to increase transparency).

Keywords Subordinated creditors' discipline · Basel III · Bank risk · Capital and liquidity regulation

1 Introduction

According to the evaluation research "McKinsey's Global Banking Annual Review, 2021" of S&P Global Ratings, the common feature of banks in emerging countries in the Asia-Pacific region is that they appear to be quite strong and developed on the surface. However, a closer look shows that the disparity is quite large between banks. These banks are facing the challenges of mature markets, including slowing growth, declining profitability, and higher capital requirements. In many cases, they need to grow to increase their competitive position. Specifically, for banks in emerging economies in the Asia-Pacific region, annual revenue growth slowed down to 5% and

L. N. Q. Anh (✉)
University of Economics, Hue University, Hue, Vietnam
e-mail: lengocquynhanh@hueuni.edu.vn

N. Ngoc Thach et al. (eds.), *Partial Identification in Econometrics and Related Topics*, Studies in Systems, Decision and Control 531,
https://doi.org/10.1007/978-3-031-59110-5_28

nations in the Asia-Pacific area have varying degrees of influence. When comparing banks in the group of developing and developed nations, the analysis's findings indicate that there are both parallels and variations when it comes to the discipline of subordinated creditors. However, it is clear that the subordinated creditors in the group of developing nations respond to the risk profile of banks more strongly than those in the group of industrialized nations. Additionally, achieving Basel III's capital and liquidity requirements generally has a beneficial effect on the group of developing nations and boosts the trust of subordinated creditors more than it does for the group of developed nations. This outcome demonstrates the impact of Basel III compliance and enforcement in both sets of nations, particularly emerging nations, on the trust and lack of discipline among subordinated creditors.

Our findings have several important implications: (1) Assist regulators in formulating risk management plans for banks and ensuring they meet Basel III liquidity and capital requirements. Market discipline has weakened, and bank regulators must compensate by increasing their monitoring responsibilities. (2) The study's findings, in particular, underline the reasons why banks ignore the third pillar of the Basel III framework's obligations for the disclosure of bank risks.

Acknowledgements The research is funded by Hue University, Vietnam (DHH2024-06-146).

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