

# **ENVIRONMENTAL, SOCIAL, AND GOVERNANCE PERSPECTIVES ON ECONOMIC DEVELOPMENT IN ASIA**

**Edited by** William A. Barnett  
and Bruno S. Sergi

INTERNATIONAL SYMPOSIA IN  
ECONOMIC THEORY AND ECONOMETRICS

**VOLUME 29A**

ENVIRONMENTAL, SOCIAL,  
AND GOVERNANCE  
PERSPECTIVES ON ECONOMIC  
DEVELOPMENT IN ASIA

# INTERNATIONAL SYMPOSIA IN ECONOMIC THEORY AND ECONOMETRICS

Series Editor: William A. Barnett

## Recent Volumes:

- Volume 17: *Topics in Analytical Political Economy*  
Edited by Melvin Hinich & William A. Barnett
- Volume 18: *Functional Structure Inference*  
Edited by William A. Barnett & Apostolos Serletis
- Volume 19: *Challenges of the Muslim World: Present, Future and Past*  
Edited by William W. Cooper & Piyu Yue
- Volume 20: *Nonlinear Modeling of Economic and Financial Time-Series*  
Edited by Fredj Jawadi & William A. Barnett
- Volume 21: *The Collected Scientific Works of David Cass – Parts A–C*  
Edited by Stephen Spear
- Volume 22: *Recent Developments in Alternative Finance: Empirical Assessments and Economic Implications*  
Edited by William A. Barnett and Fredj Jawadi
- Volume 23: *Macroeconomic Analysis and International Finance*  
Edited by Georgios P. Kouretas and Athanasios P. Papadopoulos
- Volume 24: *Monetary Policy in the Context of the Financial Crisis: New Challenges and Lessons*  
Edited by William A. Barnett and Fredj Jawadi
- Volume 25: *Banking and Finance Issues in Emerging Markets*  
Edited by William A. Barnett and Bruno S. Sergi
- Volume 26: *Asia-Pacific Contemporary Finance and Development*  
Edited by William A. Barnett and Bruno S. Sergi
- Volume 27: *Advanced Issues in the Economics of Emerging Markets*  
Edited by William A. Barnett and Bruno S. Sergi
- Volume 28: *Recent Developments in Asian Economics*  
Edited by William A. Barnett and Bruno S. Sergi

INTERNATIONAL SYMPOSIA IN ECONOMIC THEORY  
AND ECONOMETRICS VOLUME 29A

**ENVIRONMENTAL, SOCIAL,  
AND GOVERNANCE  
PERSPECTIVES ON  
ECONOMIC DEVELOPMENT  
IN ASIA**

EDITED BY

**WILLIAM A. BARNETT**

*University of Kansas, USA, and  
Center for Financial Stability, USA*

**BRUNO S. SERGI**

*Harvard University, USA, and  
University of Messina, Italy*



United Kingdom – North America – Japan  
India – Malaysia – China

Emerald Publishing Limited  
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2022

Editorial matter and selection © 2022 William A. Barnett and Bruno S. Sergi. Published under exclusive licence. Individual chapters © 2022 Emerald Publishing Limited.

**Reprints and permissions service**

Contact: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-80117-595-1 (Print)

ISBN: 978-1-80117-594-4 (Online)

ISBN: 978-1-80117-596-8 (Epub)

ISSN: 1571-0386 (Series)



ISOQAR certified  
Management System,  
awarded to Emerald  
for adherence to  
Environmental  
standard  
ISO 14001:2004.

Certificate Number 1985  
ISO 14001



INVESTOR IN PEOPLE

# CONTENTS

<i>List of Figures</i>	vii
<i>List of Tables</i>	ix
<i>About the Contributors</i>	xi
<b>Chapter 1. The Neo-Fisherianism to Escape Zero Lower Bound</b> <i>Siddhartha Chattopadhyay</i>	1
<b>Chapter 2. Do Machine Learning Models Hold the Key to Better Money Demand Forecasting?</b> <i>Taniya Ghosh and Sakshi Agarwal</i>	21
<b>Chapter 3. The Role of Money in the Monetary Policy: A New Keynesian and New Monetarist Perspective</b> <i>Masudul Hasan Adil, Neeraj R. Hatekar and Taniya Ghosh</i>	37
<b>Chapter 4. Return and Volatility Linkages Between Bitcoin, Gold Price, and Oil Price: Evidence from Diagonal BEKK–GARCH Model</b> <i>Surachai Chancharat and Julaluk Butda</i>	69
<b>Chapter 5. Sin Stock Proportion and Investment Manager Education Background in Indonesian Equity Funds</b> <i>Taufik Faturohman, Karina Agri Widjaya, Yulianti and Kurnia Fajar Afgani</i>	83
<b>Chapter 6. Banking Development and Household Welfare in Thailand: Evidence from a Panel Survey</b> <i>Kanokporn Intharak, Surachai Chancharat and Jakkrich Jearviriyaboonya</i>	101
<b>Chapter 7. Financial Literacy: Does It Improve Well-being? A Case Study of Farmers in Khon Kaen, Thailand</b> <i>Natchaya Thongrak, Surachai Chancharat and Ploypailin Kijkasiwat</i>	117

<b>Chapter 8. Interlinkages and Diversification Opportunities among Emerging Bond Markets: BRIC and BRICS Comparison</b> <i>Adefemi A. Obalade, Tsepang Moeti, Vijen Moodley, Yusuf Randeree and Paul-Francois Muzindutsi</i>	131
<b>Chapter 9. Inflation Volatility in Indonesia Using ARIMA Model: Before and During COVID-19</b> <i>Setyo Tri Wahyudi, Rihana Sofie Nabella and Kartika Sari</i>	151
<b>Chapter 10. Education and Socialization Investment Galleries to Improve Capital Market Inclusion</b> <i>Dito Rinaldo and Vina Anggilia Puspita</i>	169
<b>Chapter 11. Relationship Between Income Smoothing and Earnings Announcement</b> <i>Agustin Palupi</i>	185
<i>Index</i>	195

# LIST OF FIGURES

## Chapter 1

Fig. 1. Impulse Response under Policy A.	10
Fig. 2. Impulse Response under Policy B.	12
Fig. 3. Impulse Response under Steeper NKPC.	13

## Chapter 2

Fig. 1. Time series graphs of all the variables in Logarithmic form.	25
Fig. 2. Working of a Decision Tree.	28
Fig. 3. Actual and Predicted M1 of Training Dataset.	29
Fig. 4. Actual and Predicted M1 of Test Dataset 1.	30
Fig. 5. Actual and Predicted M1 of Test Dataset 2.	30
Fig. 6. Actual and Predicted M1 of Training Dataset.	33
Fig. 7. Actual and Predicted M1 of Test Dataset 1.	33
Fig. 8. Actual and Predicted M1 of Test Dataset 2.	34

## Chapter 4

Fig. 1. Trading Volume in the Cryptocurrency Market.	70
Fig. 2. Daily Closing Prices and Returns of the Variable.	76

## Chapter 8

Fig. A1. BRIC Impulse Response (2007:1–2010:11).	148
Fig. B1. BRICS Impulse Response (2010:12–2020:5).	149

## Chapter 9

Fig. 1. Inflation in Indonesia.	153
Fig. 2. Conceptual Framework.	156
Fig. 3. Stages of Making the ARIMA Model.	158
Fig. 4. Inflation in Indonesia January 2005–June 2020.	159
Fig. 5. Correlogram of Inflation in Indonesia January 2005–June 2020.	160
Fig. 6. White Test Through Residual Correlogram.	161
Fig. 7. Residual Inflation of ARIMA Model.	162
Fig. 8. Forecasting Inflation in Indonesia for the Next 6 Months.	163

## Chapter 10

Fig. 1. The Level of Public Understanding of the Capital Market.	170
Fig. 2. The Level of Public Understanding of the Trading Mechanism in the Capital Market.	171
Fig. 3. Development of GIBEI Visits in West Java.	172



Fig. 4.	Conceptual Framework.	175
Fig. 5.	Students' Level of Understanding of Fundamental and Technical Analysis Techniques.	178
Fig. 6.	Indonesian Capital Market Education Model.	180

# LIST OF TABLES

## Chapter 2

Table 1.	Unit Root Tests.	27
Table 2.	Evaluation Metrics.	30
Table 3.	Variable Importances as generated by Random Forest Regression.	31
Table 4.	ARDL Model Estimation.	32
Table 5.	Evaluation Metrics.	34

## Chapter 3

Table 1.	A Review of Empirical Literature on MDF and Its Stability and Covers the Authors' Details, Countries, Sample Covered, Methodology, and Findings of the Studies.	53
----------	---	----

## Chapter 4

Table 1.	Descriptive Statistics.	77
Table 2.	Unit Root Test Results.	77
Table 3.	Estimates of Diagonal BEKK–GARCH Model for the Bitcoin, Gold, and Oil Returns.	78

## Chapter 5

Table 1.	Sin Stocks Invested by Equity Funds in Indonesia.	92
Table 2.	Descriptive Statistics of Mutual Fund.	93
Table 3.	Correlation Matrix between Independent Variables.	93
Table 4.	Revised Correlation Matrix Between Independent Variables.	94
Table 5.	Regression Result Based on the FEM.	95
Table 6.	Multinomial Logistic Regression Result.	96

## Chapter 6

Table 1.	Descriptive Statistic.	111
Table 2.	Unit Root Test Result.	111
Table 3.	Relationship Between Banking Development, Household Income and Volatility.	112
Table 4.	Relationship Between Banking Development, Household Consumption and Volatility.	113

## Chapter 7

Table 1.	Personal Characteristics of the Sample.	121
Table 2.	Information on Skills and Knowledge.	122

Table 3.	Financial Cognitive Measurement Data.	123
Table 4.	The Number and Percentage of Financial Knowledge.	123
Table 5.	The Percentage, Mean and Standard Deviation of Financial Attitudes.	124
Table 6.	Financial Behavior Data.	124
Table 7.	Comparison of Differences Between Individual Characteristics and the Well-being of Farmers in the Northeast of Thailand.	125
Table 8.	Results of the Analysis of the Coefficient of Correlation with Financial Literacy Affecting the Well-being of Farmers in the Northeast of Thailand ( $n = 400$ ).	126

### **Chapter 8**

Table 1.	BRIC Unit Root Tests at Level (2007:1–2010:11).	138
Table 2.	BRICS Unit Root Tests at Level (2010:12–2020:5).	139
Table 3.	Breaking Unit Root Tests with Intercept Only for BRIC and BRICS.	139
Table 4.	BRIC VAR (2007:1–2010:11).	140
Table 5.	BRICS VAR (2010:12–2020:05).	141
Table 6.	BRIC Variance Decomposition (2007:1–2010:11).	142
Table 7.	BRICS Variance Decomposition (2010:12–2020:5).	143

### **Chapter 9**

Table 1.	ADF Unit Root Test Results.	161
Table 2.	ARIMA Estimation Results and Best Model Selection.	161

### **Chapter 10**

Table 1.	GIBEI Data in West Java, Indonesia for the 2016–2019 Period.	177
Table 2.	Expansions for IDXIG and EMA.	177
Table 3.	Descriptive Analysis.	178
Table 4.	Regression Test Results.	178

### **Chapter 11**

Table 1.	$t$ -Test Results.	190
----------	--------------------	-----

## ABOUT THE CONTRIBUTORS

**Masudul Hasan Adil** is an Institute Postdoctoral Fellow in the Humanities and Social Sciences, Indian Institute of Technology (IIT), Palakkad, Kerala, India. He has completed his PhD in Monetary Economics from the Mumbai School of Economics and Public–Policy, Mumbai, India and MPhil in the area of Public Finance from the School of Economics, University of Hyderabad, Hyderabad, India. His research interests focus in the areas of macroeconomics, monetary economics and public finance.

**Kurnia Fajar Afgani**, MBA, is the Full-Time Lecturer in the Business Risk and Finance Interest Group at the School of Business and Management ITB, West Java, Indonesia. His research interests are Islamic finance and business economics. His teaching interests include business economics and Islamic Finance. He graduated with the Master of Business Administration from the School of Business and Management (SBM) ITB and has also obtained the Bachelor of Business Administration from Parahyangan Catholic University (Unpar). He worked for the Bank BJB Syariah for around 10 years before taking this position as a Faculty Member of the SBM ITB until present.

**Sakshi Agarwal** has completed her Postgraduation in Economics from the Indira Gandhi Institute of Development and Research, Mumbai, India. She completed her graduation in Economics from Delhi University. She has worked as a Data Analyst Intern with PwC – U.S. Advisory. She is currently working as a Business Analyst with American Express, Gurgaon, India. Her research interests are in macroeconomics, econometrics and finance.

**Julaluk Butda** is an Officer at the Khon Kaen University Savings and Credit Cooperative Limited, Thailand. She holds both the Bachelor of Economics and the Master of Business Administration in Finance from Khon Kaen University, Thailand. Her research interests include asset pricing and time series data analysis.

**Surachai Chancharat** is an Associate Professor in the Faculty of Business Administration and Accountancy, Khon Kaen University, Thailand. He received his PhD from the University of Wollongong, Australia. His research interests include financial economics, asset pricing and applied econometrics. He has published his research in various journals and presented his results at national and international conferences.

**Siddhartha Chattopadhyay** is an Assistant Professor in the Department of Humanities and Social Sciences, Indian Institute of Technology Kharagpur.

He has received his PhD in Economics from the State University of New York at Albany. He has earned his MA in Economics from the Delhi School of Economics. His research interests are in macroeconomics, development economics and applied econometrics. His recent works have been published in journals like *Economic Modelling*, *Scientific Reports (Nature)*, *Journal of Earth System Science*, *PLOS ONE*, *Bulletin of Economic Research*, *Journal of Economic Interaction and Coordination*, *International Journal of Central Banking*, etc.

**Taufik Faturohman** is currently a Lecturer at the School of Business and Management Institute of Technology Bandung (SBM ITB), West Java, Indonesia. He received a PhD in Economics and Finance from Curtin Business School, Curtin University of Technology, Western Australia. The title of his dissertations is “An Examination of the Growth of Islamic Banking in Indonesia from 2003–2010.” He obtained his MBA from ITB and graduated with honor (*cum laude*). He earned the Bachelor’s degree in Materials Engineering, also from ITB. His research interests include Islamic banking, Islamic finance, corporate finance, business risk management and economics.

**Taniya Ghosh** is a Faculty Member at the Indira Gandhi Institute of Development Research (I.G.I.D.R), a research institute founded by the Reserve Bank of India. She has a PhD in Economics from the University of Kansas. Her research interests are in the fields of macroeconomics, international economics, development economics and time series. Her research focuses on topics in theoretical and applied macroeconomics with special interests in growth models, monetary policy, fiscal policy and vector autoregression models. Her current work also includes topics in chaos and bifurcation, and nonlinear optimal control in macroeconomics. Her recent works have appeared in *Economic Modelling*, *International Journal of Finance and Economics*, *Bulletin of Economic Research*, *Journal of Behavioral Finance*, *International Review of Economics and Finance*, *Computational Economics*, *Open Economies Review*, *Economic Theory Bulletin* and the *Journal of Economic Asymmetries*.

**Neeraj R. Hatekar** is a Professor of Econometrics at MSE-PP, University of Mumbai. His research interests include macroeconomics, history of Indian economic thought, game theory and behavioral economics.

**Kanokporn Intharak** is a Senior Economist at the Bank of Thailand. She received the Bachelor of Economics and the Master of Science in Finance from Thammasat University, Thailand. She is currently a Doctoral Student in Business Administration at the Faculty of Business Administration and Accountancy, Khon Kaen University, Thailand.

**Jakkrich Jearviriyaboonya** is an Assistant Professor in the Faculty of Economics, Khon Kaen University, Thailand. He received his PhD in Economics from the National Institute of Development Administration, Thailand. His research interests include international finance and monetary economics.

**Ploypailin Kijkasiwat** is a Lecturer in Finance, Faculty of Business Administration and Accountancy, Khon Kaen University, Khon Kaen, Thailand. She received her PhD (Finance and Accounting) from the University of Waikato, New Zealand. Her thesis is entitled “Impacts of Symbiotic Relationships on Risk, Return and Value of Micro-, Small and Medium Enterprises.” She received a Degree; MBA from the College of Graduate Study in Management, Khon Kaen University, Thailand; and BBA (Second Class Honours) from Khon Kaen University, Thailand. Her research interests include entrepreneur finance, SMEs and startup finance, private equity and venture capital.

**Tsepang Moeti** is a Finance Postgraduate Student in the School of Accounting, Economics and Finance at the University of Kwazulu-Natal, South Africa. His research interests include financial markets and investment analysis.

**Vijen Moodley** is a Finance Postgraduate Student in the School of Accounting, Economics and Finance at the University of Kwazulu-Natal, South Africa. His research interests include financial markets and investment analysis.

**Paul-Francois Muzindutsi** is an Associate Professor of Finance in the School of Accounting, Economics and Finance, University of KwaZulu-Natal, South Africa. His research interests include financial markets, behavioral finance, financial risk management, time series analysis of macroeconomic variables and development economics.

**Rihana Sofie Nabella** is a Junior Lecturer and Researcher at the Department of Economics, Faculty of Economics and Business, Universitas Brawijaya, Malang East Java, Indonesia, and had the Master’s degree in economics from Universitas Brawijaya. During her study at Master’s degree, she received research funding assistance from Bank Indonesia Institute for her thesis. Her research interests include monetary economics, finance and banking, macroeconomics, economic development and Islamic economics.

**Adefemi A. Obalade** is a Postdoctoral Fellow in the Discipline of Finance, at the University of Kwazulu-Natal, South Africa. His research interests include financial market, financial economics and time series analyses, environmental finance and sustainability reporting.

**Agustin Palupi** did her Postgraduation in Science of Accounting at the University of Indonesia in 2007. Currently, she works as a Lecturer of Economic Faculty at Trisakti School of Management. She teaches about financial accounting standard in Indonesia, accounting theory and accounting research methodology.

**Vina Anggilia Puspita** is a Lecturer and Researcher at Politeknik Piksi Ganesha, Indonesia. Her major is Financial Management. Her research interests include capital market, corporate performance and corporate governance. She has participated and presented papers in a number of international conferences and has a number of research publications in refereed journals. She is also a Business

Practitioner and Active in the capital market as a Sharia Investor, Speaker and Chairman of investment gallery at Politeknik Piksi Ganesha.

**Yusuf Randeree** is a Finance Postgraduate Student in the School of Accounting, Economics and Finance at the University of Kwazulu-Natal, South Africa. His research interests include international finance and investment analysis.

**Dito Rinaldo** is a Lecturer and Researcher at STIE EKUITAS, Indonesia. He is also a Practitioner in business and an Investor in the Indonesian Islamic Capital Market. He is an Activist in the MSME development program to improve the performance of Indonesian MSMEs. He holds a Doctorate in Financial Management from Padjadjaran University. His research interests include good corporate governance, corporate financial performance, MSME performance and capital market. He has participated and presented papers in several international conferences and has some research publications in refereed journals.

**Kartika Sari** is a Junior Lecturer and Researcher at the Department of Economics, Faculty of Economics and Business, Universitas Brawijaya, Malang East Java, Indonesia. She received the Master's degree in Economics from Universitas Brawijaya. She received funding for a thesis on the theme of Islamic economics from an Indonesian bank institution. Her main study program is Islamic economics. The research she conducted was related to Islamic economics, banking finance, economic development, environment and macroeconomics.

**Natchaya Thongrak** is a Postgraduate Student at the Faculty of Business Administration and Accountancy, Khon Kaen University, Khon Kaen, Thailand. She received BBA (First Class Honors) from Khon Kaen University, Thailand. Her research interests include financial literacy and financial economics.

**Setyo Tri Wahyudi** is an Associate Professor and the Head of the Undergraduate Program in Economics, Finance, and Banking at the Department of Economics, Faculty of Economics and Business, Universitas Brawijaya (UB), Malang East Java, Indonesia. He has more than 15 years of working experience in education and research related to economics fields. His research and publication areas include regional economics, finance and banking, monetary economics and macroeconomics. He has been the 1st Best Lecturer and 1st Best Head of the Study Program at UB. In writing, he has produced four textbooks covering econometrics, statistics, and quantitative research methods and more than 60 articles published in various journals, both national and international.

**Karina Agri Widjaya** is a Supervisor for her family business on agricultural products selling. She graduated from the School of Business and Management Institut Teknologi Bandung with the Bachelor's degree in Management in 2017. In her Bachelor's degree, she took Finance as her major. Currently, she is a Student at Gadjah Mada University, Indonesia, taking "Magister Manajemen Agribisnis" (MMA).

**Yulianti** is a Student in the Master of Science and Management Institut Teknologi Bandung, Indonesia. She was graduated from the Faculty of Economy University of Indonesia. Her background is as a Medical Laboratory Technologist and has worked at the Pramita Laboratory as a Quality Assurance Manager. Her research interests are behavioral economics, econometrics, Islamic finance and Islamic banking.