

Economics and Business Review

Volume 9 (3) 2023

CONTENTS

Richard J. Sweeney In Memoriam (*Tadeusz Kowalski*)

Editorial introduction (*Joanna Lizińska, Michał Pilc, Konrad Sobański*)

ARTICLES

Does firm size improve firm growth? Empirical evidence from an emerging economy
Jan Bentzen, Le Thanh Tung

Factors impacting export intensity of SMEs in India
Aditi Goel, Dolly Gaur, Khushboo Gupta, Kanishka Gupta

The choice of external financing source: The role of company size and stock liquidity
Szymon Stereńczak, Jarosław Kubiak

Socio-economic determinants of environmental degradation: Empirical evidence for the Environmental Kuznets Curve
Ömer Faruk Gültekin, Ramazan Sayar, Yılmaz Onur Ari

New technologies in the financial industry: Case of Poland
Małgorzata Iwanicz-Drozdowska, Ewa Cichowicz, Marianna Cicirko, Marcin Kawiński, Agnieszka K. Nowak

Formulary apportionment in the European Union—future research agenda
Markéta Mlčúchová

The relationship between social capital and economic growth on a provincial and regional basis
Abdulguttalip Pilatin, Tunahan Haciimamoğlu

Food security of Ukraine: National and global level
Tatyana Melnyk, Yuliia Tunitska, Dmytro Banas

Spatial interactions in local public debt. Evidence from Poland
Monika Banaszewska

Fertility, fiscal deficit and sustainability of public debt in an endogenous growth model
Hiroki Aso, Mitsuru Ueshina

Does regional trade integration reinforce or weaken capital mobility? New evidence from four free trade areas
Mehmed Ganic, Amila Novalic

Editorial Board

Monika Banaszewska, Ivo Bischoff, Horst Brezinski, Gary L. Evans, Niels Hermes, Witold Jurek, Tadeusz Kowalski (Editor-in-Chief), Joanna Lizińska, Ida Musiałkowska, Paweł Niszczoła, Michał Pilc, Konrad Sobański

International Editorial Advisory Board

Edward I. Altman – NYU Stern School of Business
Udo Broll – School of International Studies (ZIS), Technische Universität, Dresden
Conrad Ciccotello – University of Denver, Denver
Wojciech Florkowski – University of Georgia, Griffin
Oded Galor – Brown University, Providence
Binam Ghimire – Northumbria University, Newcastle upon Tyne
Christopher J. Green – Loughborough University
Eduard Hochreiter – The Vienna Institute for International Economic Studies
Mark J. Holmes – University of Waikato, Hamilton
Andreas Irmen – University of Luxembourg
Bruce E. Kaufman – Georgia State University, Atlanta
Robert Lensink – University of Groningen
Steve Letza – The European Centre for Corporate Governance
Robert McMaster – University of Glasgow
Victor Murinde – SOAS University of London
Hugh Scullion – National University of Ireland, Galway
Yochanan Shachmurove – The City College, City University of New York
Richard Sweeney – The McDonough School of Business, Georgetown University, Washington D.C.
Thomas Taylor – School of Business and Accountancy, Wake Forest University, Winston-Salem
Linda Gonçalves Veiga – University of Minho, Braga
Thomas D. Willett – Claremont Graduate University and Claremont McKenna College
Habte G. Woldu – School of Management, The University of Texas at Dallas

Thematic Editors

Economics: *Monika Banaszewska, Ivo Bischoff, Horst Brezinski, Niels Hermes, Witold Jurek, Tadeusz Kowalski, Ida Musiałkowska, Michał Pilc, Konrad Sobański* • **Finance:** *Monika Banaszewska, Gary Evans, Witold Jurek, Joanna Lizińska, Paweł Niszczoła, Konrad Sobański* • **Statistics:** *Marcin Anholcer, Maciej Beręsewicz, Elżbieta Gołata*

Language Editor: *Owen Eastel*

Paper based publication

© Copyright by Poznań University of Economics and Business, Poznań 2023



This work is licensed under a Creative Commons Attribution 4.0 International License
<https://creativecommons.org/licenses/by/4.0>

<https://doi.org/10.18559/ebr.2023.3>

ISSN 2392-1641

e-ISSN 2450-0097

POZNAŃ UNIVERSITY OF ECONOMICS AND BUSINESS PRESS
ul. Powstańców Wielkopolskich 16, 61-895 Poznań, Poland
phone +48 61 854 31 54, +48 61 854 31 55
www.wydawnictwo.ue.poznan.pl, e-mail: wydawnictwo@ue.poznan.pl
postal address: al. Niepodległości 10, 61-875 Poznań, Poland

Printed and bound in Poland by:
Poznań University of Economics and Business Print Shop

Circulation: 120 copies



Economics and Business Review

Volume 9 (3) 2023

CONTENTS

Richard J. Sweeney In Memoriam (<i>Tadeusz Kowalski</i>)	3
Editorial introduction (<i>Joanna Lizińska, Michał Pilc, Konrad Sobański</i>)	5

ARTICLES

Does firm size improve firm growth? Empirical evidence from an emerging economy <i>Jan Bentzen, Le Thanh Tung</i>	9
Factors impacting export intensity of SMEs in India <i>Aditi Goel, Dolly Gaur, Khushboo Gupta, Kanishka Gupta</i>	22
The choice of external financing source: The role of company size and stock liquidity <i>Szymon Stereńczak, Jarosław Kubiak</i>	44
Socio-economic determinants of environmental degradation: Empirical evidence for the Environmental Kuznets Curve <i>Ömer Faruk Gültekin, Ramazan Sayar, Yılmaz Onur Ari</i>	66
New technologies in the financial industry: Case of Poland <i>Małgorzata Iwanicz-Drozdowska, Ewa Cichowicz, Marianna Cicirko, Marcin Kawiński, Agnieszka K. Nowak</i>	98
Formulary apportionment in the European Union—future research agenda <i>Markéta Mlčuchová</i>	124
The relationship between social capital and economic growth on a provincial and regional basis <i>Abdualmutilip Pilatin, Tunahan Haciimamoğlu</i>	153
Food security of Ukraine: National and global level <i>Tatyana Melnyk, Yuliia Tunitska, Dmytro Banas</i>	181
Spatial interactions in local public debt. Evidence from Poland <i>Monika Banaszewska</i>	206
Fertility, fiscal deficit and sustainability of public debt in an endogenous growth model <i>Hiroki Aso, Mitsuru Ueshina</i>	224
Does regional trade integration reinforce or weaken capital mobility? New evidence from four free trade areas <i>Mehmed Ganic, Amila Novalic</i>	239

Richard J. Sweeney

In Memoriam

Richard J. Sweeney, International Editorial Advisory Board member for the *Economics and Business Review*, passed away on July 30, 2023 in Claremont, CA. He graduated from UCLA and received his Ph.D. from Princeton. Richard Sweeney was Professor Emeritus of Economics and International Finance at Georgetown University's McDonough School of Business and the Charles M. Stone Professor of Money and Finance at Claremont McKenna College. For several years he also served as editor of the *Economic Inquiry*.

His research was focused on financial markets and methods. His work was published in top finance and accounting journals such as the *Journal of Finance*, the *Journal of Financial and Quantitative Analysis*, the *Accounting Review*, the *Journal of Money, Credit and Banking and Financial Management*. He lectured at several European universities including those in Gothenburg and the Copenhagen Business School as well as giving lectures at the Poznan University of Economics and Business.

I met him for the first time when, with his Swedish colleague Clas Wihlborg, he came to Poznan whilst travelling in Eastern Europe to witness the beginnings of the systemic transformation after the fall of communism. Richard Sweeney helped to develop and shape EBR by publishing in the journal. The last article published by him in EBR was in 2023. We all thank Richard for all his contributions and efforts to help in the development of EBR and for his insights in the development of financial systems in Poland and Eastern Europe. His valued insights and written contributions will be sorely missed.

Tadeusz Kowalski
Editor-in-Chief

Editorial introduction

This issue of *Economics and Business Review* answers the new set of challenges that the economic world faces nowadays. These problems arise both at the micro-and macroeconomic level. The authors of eleven papers have enriched the existing literature by sharing the results of their studies in three areas. First, the key elements of company growth and value are studied. The variety of development paths of entrepreneurship makes this area especially complex considering the sudden changes in the business environment over the last years. The second group of articles deals with quite new factors that give rise to new threats which are appearing but which also create enormous opportunities for economic decision makers. These are environmental issues, new technologies, integration between countries and social capital. The third research set addresses the current dilemmas of public authorities. The papers support answers to the questions about food security, local public debt, sustainability of public debt and the consequences of economic integration.

Just as the substantive considerations in this issue are multi-level there is also a large regional diversification in the articles. The contributors of this issue extend a very diverse worldwide point of views in representing Bosnia and Herzegovina, the Czech Republic, Denmark, India, Japan, Poland, Turkey, Ukraine and Vietnam. The papers employ a variety of research approaches that contribute to the economic debate. In addition to researchers the studies published in this issue may be useful to policy makers and practitioners.

The opening paper **Does firm size improve firm growth? Empirical evidence from an emerging economy** by Jan Bentzen and Le Thanh Tung explores the relationship between firm size and firm growth. The empirical sample covers public companies in Vietnam. The research tests the validity of Gibrat's law for various industries. It discusses The Law of Proportionate Effect that states that the expected increase in firm size is proportionate to the initial firm size. The empirical results do not give support to the hypothesis of the independence of initial company size.

The article by Aditi Goel, Dolly Gaur, Khushboo Gupta and Kanishka Gupta entitled **Factors impacting export intensity of SMEs in India** analyses the impact of firm characteristics on their export intensity. The results based on the sample of fifty SMEs indicate that the expenditure on research and development, selling and distribution translates in to a much better export performance. The estimates also indicate that the international experience of man-

agers significantly helps companies to expand in markets abroad. The article offers clear recommendations for SMEs in developing countries with respect to their expansion towards international markets.

The paper entitled **The choice of external financing source: The role of company size and stock liquidity** by Szymon Stereńczak and Jarosław Kubiak enriches the literature on corporate finance decisions by investigating whether firms of different sizes and stock liquidities differ in the choice of external sources of financing. The broad sample includes companies listed in CEE countries. With the background of the pecking order theory and information asymmetry the results show that companies with less liquid shares prefer issuing debt more than others.

The next article is written by Ömer Faruk Gültekin, Ramazan Sayar and Yılmaz Onur Ari and is titled **Socio-economic determinants of environmental degradation: Empirical evidence for the Environmental Kuznets Curve**. This study identifies socio-economic determinants of environmental degradation based on data from sixty two countries that cover the period of 1995–2019. The results reveal that there is not a single Kuznets Curve that can be applied to all countries which suggests that environmental policies should be adjusted more carefully for different country groups. However, the study also shows some common trends among the analysed countries revealing that the amount of schooling and life expectancy are positively correlated with pollution, while democracy, trade openness and economic freedom are correlated negatively.

The next paper prompts a reflection on innovation as discussed in the paper entitled **New technologies in the financial industry: Case of Poland** proposed by a research team: Małgorzata Iwanicz-Drozdowska, Ewa Cichowicz, Marianna Cikirko, Marcin Kawiński and Agnieszka K. Nowak. The special interest of the authors is in the scope and consequences of the application of new technologies within the banking and insurance sectors in Poland. It points to the importance of customers' needs, cost-cutting and the achievement of more efficient internal processes.

The article on **Formulary apportionment in the European Union—future research agenda** by Markéta Mlčúchová is inspired by a recent legislative initiative in the European Union to replace separate accounting with formulary apportionment. The aim of that initiative is to harmonise the corporate tax regulations among European member countries. Anticipating the increase in the scholarly discourse on the formulary apportionment method the study uses a systematic literature review to synthesise the existing knowledge on this topic. Furthermore, based on a set of one hundred and eleven reviewed articles eight main thematic clusters concerning the formulary apportionment method are being identified.

The research paper entitled **The relationship between social capital and economic growth on a provincial and regional basis** is authored by Abdulmuttalip Pilatin and Tunahan Haciimamoğlu. The study uses the data for

Turkey for the period of 2007–2018 and employs the panel Granger causality test to analyse the relationship between the social capital index and economic growth at the provincial level. The results show that there is no single type of relationship between social capital and economic growth and that such a relationship seems to depend on local characteristics. More precisely the results reveal that there is a unilateral relationship from the GDP to the social capital in sixteen provinces, from the social capital to GDP in nine provinces and bilateral causality in forty five provinces. At the same time, no significant relationship has been found in eleven provinces.

The next article aims to assess the level of food security in Ukraine in comparison to global regions and European countries. It is written by Tatyana Melnyk, Yuliia Tunitska and Dmytro Banas and entitled **Food security of Ukraine: National and global level**. The study compares a broad set of indicators (including population dynamics, food balance, FAO indicators and the Global Food Security Index) and concludes that Ukraine is lagging behind European or global levels of food security with the exception of fish products. The study also identifies barriers to improving Ukraine's food security that consist of such factors as incomplete reforms, inadequate funding, underdeveloped infrastructure, corruption and non-compliance with standards.

The next paper by Monika Banaszewska, entitled **Spatial interactions in local public debt. Evidence from Poland**, extends the finance literature. The issues raised in this paper are of great importance for local authorities. The study is based on a broad sample of municipalities in Poland and offers empirical evidence of positive spatial interactions among local budgetary policies. The study also documents a strong persistence in debt levels and suggests that municipal debt in Poland serves as the instrument of local development policies.

The subsequent contribution constructs an overlapping-generations model to analyse the effect of fiscal deficit on fertility and sustainability of public debt. The paper is written by Hiroki Aso and Mitsuru Ueshina and is entitled **Fertility, fiscal deficit, and sustainability of public debt in an endogenous growth model**. The study shows that an increase in fiscal deficit reduces fertility because of a lowering disposable income. What is more the numerical simulation suggests that an increase in child allowance raises fertility but may negatively affect the sustainability of public debt if the fiscal deficit is large. The paper claims that countries relying on the public budget to address fertility decline should reduce the fiscal deficit instead of increasing the child allowance.

The issue closes with an article by Mehmed Ganic and Amila Novalic titled **Does regional trade integration reinforce or weaken capital mobility? New evidence from four free trade areas**. It analyses whether a higher level of trade openness and the presence of legal protection for investors enhances the impact of trade bloc membership on capital mobility. The empirical re-

search is based on data for 2000–2020 of four trade blocs: Eurasian Economic Union, Central American and Dominican Republic Free Trade Agreement, Central European Free Trade Agreement, and the Pacific Alliance. The study employs fully modified and dynamic ordinary least squares estimators and a panel quantile regression cointegration estimator. The results indicate that while a country's membership in a trade bloc generally improves capital mobility the legal protection provided to investors and high trade openness do not necessarily have such an impact in the trade blocs analysed.

*Joanna Lizińska
Michał Pilc
Konrad Sobański
Lead Editors*

Aims and Scope

The **Economics and Business Review** is a quarterly journal focusing on theoretical, empirical and applied research in the fields of Economics and Corporate and Public Finance. The Journal welcomes the submission of high quality articles dealing with micro, mezzo and macro issues well founded in modern theories and relevant to an international audience. The EBR's goal is to provide a platform for academicians all over the world to share, discuss and integrate state-of-the-art Economics and Finance thinking with special focus on new market economies.

The manuscript

1. Articles submitted for publication in the **Economics and Business Review** should contain original, unpublished work not submitted for publication elsewhere.
2. Manuscripts intended for publication should be written in English, edited in Word in accordance with the **APA editorial** guidelines and sent to: secretary@ebr.edu.pl. Authors should upload two versions of their manuscript. One should be a complete text, while in the second all document information identifying the author(s) should be removed from papers to allow them to be sent to anonymous referees.
3. Manuscripts are to be typewritten in **12' font in A4 paper** format, one and half spaced and be aligned. Pages should be numbered. Maximum size of the paper should be up to 20 pages.
4. Papers should have an abstract of about 100-150 words, keywords and the Journal of Economic Literature classification code (**JEL Codes**).
5. Authors should clearly declare the aim(s) of the paper. Papers should be divided into numbered (in Arabic numerals) sections.
6. **Acknowledgements** and references to grants, affiliations, postal and e-mail addresses, etc. should appear as a separate footnote to the author's name a, b, etc and should not be included in the main list of footnotes.
7. **Footnotes** should be listed consecutively throughout the text in Arabic numerals. Cross-references should refer to particular section numbers: e.g.: See Section 1.4.
8. **Quoted texts** of more than 40 words should be separated from the main body by a four-spaced indentation of the margin as a block.
9. **References** The EBR 2022 editorial style is based on the **7th edition** of the Publication Manual of the American Psychological Association (**APA**). For more information see APA Style used in EBR guidelines.
10. **Copyrights** will be established in the name of the **E&BR publisher**, namely the Poznań University of Economics and Business Press.

More information and advice on the suitability and formats of manuscripts can be obtained from:

Economics and Business Review

al. Niepodległości 10

61-875 Poznań

Poland

e-mail: secretary@ebr.edu.pl

www.ebr.edu.pl

Subscription

Economics and Business Review (E&BR) is published quarterly and is the successor to the Poznań University of Economics Review. The E&BR is published by the Poznań University of Economics and Business Press.

Economics and Business Review is indexed and distributed in Scopus, Clarivate Analytics, DOAJ, ERIH plus, ProQuest, EBSCO, CEJSH, BazEcon, Index Copernicus and De Gruyter Open (Sciendo).

Subscription rates for the print version of the E&BR: institutions: 1 year – €50.00; individuals: 1 year – €25.00. Single copies: institutions – €15.00; individuals – €10.00. The E&BR on-line edition is free of charge.