

# ICOAEF XIII ABSTRACT PROCEEDING

ISBN: 78-975-06-4686-7

29<sup>th</sup> (Online) - 30<sup>th</sup> April 2025 Thessaloniki - GREECE













### **EDITOR:**

**Prof. H. Murat ERTUĞRUL** (Anadolu University, TURKEY)















### **ORGANIZING COMITTEE**

**Prof. H. Murat ERTUĞRUL**(Anadolu University, TURKEY)

**Prof. Nikolas L. HOURVALIADES**(American College of Thessaloniki, Greece)

**Prof. Moysis SIDIROPOULOS**(Aristotle University of Thessaloniki, Greece)

PRESENTATION TYPE
In person and Virtual Presentation (Hybrid)

**NUMBER OF ACCEPTED PAPERS** 

NUMBER OF REJECTED PAPERS

**PUBLICATION DATE:** 











#### **SCIENTIFIC COMMITTEE**

Mehmet Ali YÜKSELEN (European University of Lefke / Rector)

Mustafa TÜMER (Social Sciences University of Cyprus / Rector)

Mustafa Arslan ÖRNEK (Yaşar University / Vice Rector)

ibrahim F. BENTER (Cyprus EVKAF Administration)

Alpaslan SEREL (Bandırma Onyedi Eylül University)

Abbas Mirakhor (International Centre for Education in Islamic Finance, Malaysia)

Abdelfeteh Bitat (Universite Saint-Louis Bruxelles, Belgium)

Abdullah OKUMUŞ (İstanbul University)

Adim MAMUTİ (University of New York, Tirana, SUNY Empire State College)

Adel Alaraifi (University of Dammam, Saudi Arabia)

Ahmet INCEKARA (Istanbul University)

Ahmet YÖRÜK (Kadir Has University)

Aktham Issa Al-Magaireh (United Arab Emirates University, United Arab Emirates)

Alaa Alaabed (Islamic International Rating Agency)

Alessandro Belmonte (IMT School for Advanced Studies Lucca, Italy)

Alex Petersen (the University of California, USA)

AlexandruMinea (University of Auvergne, France)

Ali Alp (TOBB University of Economics and Technology, Turkey)

Ali Dayıoğlu (European University of Lefke, North Cyprus (T.R.N.C.)

Alpay Kocak (TUIK, Turkey)

Alper Özün (University of Oxford, UK)

Albulena SHALA (Universiteti i Prishtinës)

Andrea Flori (IMT School for Advanced Studies Lucca, Italy)

Anil K. Bera (University of Illinois, USA)

Antonio Rodriguez Andres (Technical University of Ostrava, Czech Repulic)

Ashraf Imam (University of Dammam, Saudi Arabia)

Aviad TUR-SINAI (The Max Stern Yezreel Valley College Yezreel Valley, Israel)

Aziz Turhan (Banking Regulation and Supervision Agency, Turkey)

Bülent Güloğlu (Istanbul Technical University, Turkey)

Bülent EVRE (European University of Lefke, North Cyprus (T.R.N.C.)

Burçhan Sakarya (Republic of Turkey Ministry of Development)

Carlo Del Maso (BTO Research, Italy)

Charalambos Pitros (University of Salford, United Kingdom)

Christian Richter (University of Bedfordshire Business School, UK)

Clayton W. BARROWS (University of New Hampshire, USA)

Daniel Traian Pele Bucharest University of Economic Studies

Deniz Şişman (Gelişim University, Turkey)

Dilvin Taskin (Yasar University, Turkey)

Djula Borozan (University of Osijek, Croatia)

Dominic Spengler (University of York, UK)

Stefano SIVIERO (Bank of Italy)











# ICOAEF XIII

INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE

Draeme Walsh (Bank of Ireland, UK)

Ebru OĞURLU (European University of Lefke, North Cyprus (T.R.N.C.)

Elva LEKA (Polytechnic University of Tirana, Albania)

Emi Ferra (IMT School for Advanced Studies Lucca, Italy)

Emmanuel Aoudi Chance (VID Specialized University, Norway)

Emre Atilgan (Trakya University, Turkey)

Ercan EREN (Yıldız Teknik University)

Ercan Saridogan (Istanbul University, Turkey)

Erdal Tanas KARAGÖL (Yıldırım Beyazıt University)

Eriona ÇELA (University of New York Tirana, Albania)

Fehiman Emine (European University of Lefke, North Cyprus (T.R.N.C.)

Ferhun Ates (Bank of China Turkey A.S. – Internal Control and Compliance Director)

Hafez Abdo (University of Nottingham, UK)

Halil İbrahim AYDIN (Batman University)

Hanna Kristín Skaftadóttir (Business Intelligence at Bifröst University

Hasan Aydın OKUYAN (Bandırma Onyedi Eylül University)

Ilhan Bora (Cyprus Science University, North Cyprus)

Ilhan ÖZTÜRK (Çağ University, Turkey)

Ivanka Nestoroska (Kliment Ohridski University, Macedonia)

Jan Černohorský (University of Pardubice, Czech Republic)

Jasmin Hoso (American University, USA)

Jean ANDREI Petroleum (Gas University of Ploiesti)

Kemal YILDIRIM (Anadolu University)

Kerem ALKIN (Medipol University)

Khaled Al Falah (University of Dammam, Saudi Arabia)

Khalid Abdulrahman Al Falah (University of Dammam, Saudi Arabia)

Kosta Josifidis (University of Novi Sad, Editor of Panoeconomicus, Serbia)

Lazar Stosic (Editor in Chief, IJCRSEE, Serbia)

Liang Peng (Penn State University, USA)

Majlinda KETA (Faculty of Social Sciences Bulevardi Gjergj Fishta, Albania)

Małgorzata Renigier-Biłozor (University of Warmia and Mazury, Poland)

Mansour AlShamali (Public Authority for Applied Education and Training, Kuwait)

Martin Hnízdo (University of Pardubice, Czech Republic)

Maurizio D'amato (Technical University of Politecnico di Bari, Italy)

Mehmet Ali Soytas (Ozyegin University, Turkey)

Mehmet Şişman (Marmara University, Turkey)

Micheal Scroeder (Centre for European Economic Research, Germany)

Mirjana Radman Funaric (Polytechnic in Pozega, Croatia)

Mona Bouzari (European University of Lefke, TRNC

Muhammad Kashif (Business School, GIFT University Pakistan)

Muzaffer Ercan YILMAZ (Uludağ University)

Nilgun Caglar Irmak (Anadolu University, Turkey)











# ICOAEF XIII

INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE

Nizar Yousef Naim (Ahlia University, Kingdom of Bahrain)

Noorsidi Aizuddin Bin Mat Noor (Universiti Teknologi Malaysia, Malaysia)

Okan ŞAFAKLI (European University of Lefke, North Cyprus (T.R.N.C.)

Omokolade Akinsomi (University of the Witwatersrand, South Africa)

Ong Seow Eng (National University of Singapore, Singapore)

Paloma Taltavull de La Paz, (University of Alicante, Spain)

Paul Alagidede (University of the Witwatersrand, South Africa)

Pejman Bahramian (Girne American University, Cyprus)

Ramazan Sarı (DTU, Denmark)

Rangan Gupta (University of Pretoria, South Africa)

Rezarta Shkurti (Perri) University of Tirana

Rodolfo Metulini (Universita Degli Studi di Brescia, Italy)

Sait KAYGUSUZ (Uludağ University)

Salem Nechi (Qatar University, Qatar)

Samson O. Fadiya (Editorial Advisory Board, IJCRSEE, North Cyprus)

Sergius Koku (Florida Atlantic University/South East European University)

Seyed Alireza Athari (Girne American University, Cyprus)

Serap PALAZ (Bandırma Onyedi Eylül University)

Seyed Alireza Athari (Girne American University, North Cyprus)

Shekar Shetty (Gulf University for Science & Technology, Kuwait)

Siti Muawanah Lajis (Bank Negara Malaysia)

Snežana Todosijević – Lazović (University of Priština, R. Kosovo)

Steven Seggie (ESSEC Business School)

Stanislav Tkachenko (St. Petersburg State University, Russia)

Süleyman YÜKÇÜ (Dokuz Eylül University)

Suna KORKMAZ (Bandırma Onyedi Eylül University)

Sürhan CAM (Cardiff University, UK)

Uğur Emek (Başkent University, Turkey)

Ugur Soytas (DTU, Denmark)

Ünal Seven (TCMB, Turkey)

Vedat Yorucu (Vice President, Cyprus Turkish Economic Association)

Veni Arakelian UCL Centre for Blockchain Technologies (CBT)

Wool Shin (Samsung Group, Korea)

Yener Coşkun (Capital Markets Board of Turkey)

Yılmaz ÖZKAN (Sakarya University)

Zehra CİVAN (Vakıfbank, Turkey)

Zekai ÖZDEMİR (İstanbul University)

Zoran Katanic (High School of Economics Peć in Leposavić, R. Kosovo)













#### WELLCOME MESSAGE

International Conference on Applied Economics and Finance (ICOAEF XIII) held on 29th-30th April, 2025 in American College of Thessaloniki in Thessaloniki/Greece. We are glad XIII. International Conference on Applied Economics Finance (ICOAEF XIII) gathered many successful academics and professionals around the World. 69 papers were submitted, and 65 papers presented during ICOAEF-XIII from 21 different countries.

This conference provided as a suitable platform for discussions about the researches. This conference abstract proceeding contains 65 papers presented both online and in person. ICOAEF-XIII participants consisted of from 21 different countries, 23 Turkish universities in Türkiye. Scientific board rejected 4 papers directly due to the inconvenience of conference topics, theme and structure of ICOAEF-XIII. Scientific committee also requested some corrections to 8 different papers then these papers accepted and presented during the conference. All submissions for ICOAEF-XIII scientifically reviewed and evaluated by scientific committee members.

We believe that ICOAEF-XIII provided an opportunity for national and international participants to present, discuss and share practical and theoretical issues in the fields of Economics, Finance and related social sciences. The papers submitted from 20 different countries beyond Turkey. We accepted papers of the participants from Albania (2), Austria (1), Azerbaijan (1), Belgium (1), Canada (1), China (2), Egypt (2), Germany (2), Greece (12), Hungary (1), India (2), Ireland (1), Italy (1), Japan (1), Kosovo (1), Morocco (1), Poland (1), Romania (2), Türkiye (27), United Kingdom (2), and United States (1). Finally, we would like to thank Freie University and our esteemed ICOAEF-XIII participants who shared their deep knowledge and experience at ICOAEF-XIII. We would like to be together in our following organizations.

On behalf of Conference Organisation Committee

Prof. H. Murat ERTUGRUL

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### CONTENTS OF ABSTRACT PROCEEDING

1.	ASSESSING GENDER EQUALITY IN EUROPEAN LABOR MARKETS: AN EXTENDED MODEL WITH ECONOMIC COMPLEXITY	1
	Burcu Türkcan, Meltem İnce Yenilmez, Waleck Dalpour	
2.	ANALYSIS OF THE INTERACTION OF MONETARY AND MACRO-PRUDENTIAL POLICIES: AN EMPIRICAL VIEW IN THE CASE OF THE WESTERN BALKAN COUNTRIES  Gerti Shijaku	2
3.	DOES A STRATEGY PORTFOLIO OUTPERFORM TWAP AND VWAP? EVIDENCE FROM SIMULATIONS AND STOCK INDEX FUTURE  Xinxin Shi, Huayue Zhang	3
4.	KEY DETERMİNANTS OF ITALIAN RESTAURANT REVENUE IN THE USA AND CANADA: AN ECONOMETRIC APPROACH  Federico Modica, Filippo Sgroi, Anthony Therrien, Caterina Sciortino	4
5.	FINANCIAL NETWORK MODELING WITH GRAPH CONVOLUTIONAL NETWORKS: A CASE STUDY ON BIST 30  Cemal Öztürk, Sezai Tokat	5
6.	FİNANSAL PERFORMANSIN LOPCOW VE COCOSO YÖNTEMLERİ İLE İNCELENMESİ: KONAKLAMA SEKTÖRÜNDEKİ FİRMALAR ÜZERİNE BİR UYGULAMA  Hande Küçükönder, Cem Niyazi Durmuş	6
7.	UNCERTAINTY IN FINANCIAL MARKETS AND ITS INFLUENCE ON DRY BULK SHIPPING	7
	Dimitris Georgoulas, Stratos Papadmitriou	
8.	CAN FIRM-SPECIFIC DETERMINANTS AFFECT UNCERTAINTY OF FIRM'S GROWTH  Tarek Eldomiaty, Monica William	8
	·	
9.	KNOWLEDGE ECONOMY AND ECONOMIC PERFORMANCE IN BRICS-T COUNTRIES: A PANEL DATA ANALYSIS  Kerem Sezerer, Burak Arslan, Erol Kutlu	9
10.	THE HUMAN MIND: COMPREHENDING CAPITAL MARKET KINEMATICS VIA COGNITIVE BIASES  Andreea-Mădălina Vârtei	10
11.	MODELING BANK Z SCORE: PERSPECTIVES FROM THE MENA REGION  Tarek Eldomiaty, Mohamed Diab	11
	Turek Elaomaiy, Monamea Diao	

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

12.	DO GOVERNMENT EXPENDITURES MATTER FOR UNEMPLOYMENT IN TÜRKIYE: A REGIONAL EXAMINATION FROM A GENDER PERSPECTIVE  Nazmiye Tekdemir, Pelin Varol İyidoğan, Eda Yeşil	12
13.	INEQUALITY AS A THRESHOLD: RETHINKING THE EFFICACY OF ENERGY PRICING IN COMBATING ENERGY POVERTY IN THE EU	13
	İrem Didinmez, İrem Yendi, Erdem Seçilmiş  DO CORPORATE TAX RATES SHAPE PRIVATE SECTOR INVESTMENT? A	
14.	PANEL COINTEGRATION ANALYSIS OF OECD COUNTRIES  Semih Çetin	14
15.	EBITDA'S INFLUENCE ON ECONOMIC GROWTH AND DEVELOPMENT AND FIRM RETURNS: INSIGHTS FROM THE UK DURING AND POST COVID-19	15
	Rasha Rashed, Rania Megally, Mina Bishara	
16.	THE ASYMMETRIC IMPACT OF GOVERNMENT EXPENDITURE ON ECONOMIC GROWTH IN TURKEY: A NONLINEAR ARDL APPROACH	16
	Erkan Özata	
17.	BIBLIOMETRIC ANALYSIS OF FINANCIAL TECHNOLOGY RESEARCH IN THE LAST DECADE USING DATA MINING TECHNIQUES	17
	Muhammad Usman, Kadir Kesgin, Fatih Ayhan, Ömer Fark Görçün	
18.	THE POTENTIAL OF NICHE TOURISM IN GREECE- AN EXPLORATORY STUDY ON DANCERS' PERCEPTIONS: THE CASE OF TANGO-TOURISM	18
	Livia Sadikaj, Eirini Tsichla	
19.	STOCK MARKET RESPONSES TO CAPITAL BUFFER ANNOUNCEMENTS DURING THE COVID PANDEMIC: EVIDENCE FROM A NEW GLOBAL DATASET	19
	Mahmoud Metwally, Jens Klose	
20.	HEALTHY LIVING, SMART CHOICES: HOW LIFESTYLE SHAPES CONSUMER BEHAVIOR	20
	Eleni Poulaki, Chrysa Agapitou, Dimitris Folinas, Konstantinos Rotsios, Maria-Theodora Folina	
21.	THE DYNAMIC RELATIONSHIP BETWEEN TÜRKİYE'S ECONOMIC POLICY UNCERTAINTY AND THE BIST 100: EVIDENCE FROM THE DCC-GARCH APPROACH	21
	Hasan Murat Ertuğrul, Burcu Yürük	
22.	OPENNESS, UNIONIZED LABOR MARKETS, AND MONETARY POLICY  Xakousti Chrysanthopoulou, Evangelos Ioannidis, Moise Sidiropoulos	22
	EMOTIONAL RESPONSES AND GENDER DIFFERENCES IN ONLINE HEALTH	
23.	INFORMATION SEEKING: IMPLICATIONS FOR EHEALTH LITERACY AND HEALTH DECISION-MAKING	23
	Evanthia Malinaki	

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

24.	DETECTING ECONOMIC TRANSFORMATION AS A SOCIAL REPRODUCTION MECHANISM, UTILIZING DATA FROM 61 DEVELOPED AND DEVELOPING COUNTRIES, UNDER POLITICAL ECONOMY PERSPECTIVE  Eirini C. Drakou	24
25.	EVALUATING THE INTERNAL MIGRATION IMPACT OF SYRIAN REFUGEES IN TÜRKİYE  *Recep Taşkın, Hakan Ulucan, Semih Tümen*	25
26.	NEOLIBERAL IDEOLOGY AND COUNTERACTING HUMANIST IDEALS: A DIALECTIC MULTI-LEVEL FRAMEWORK FOR SOCIETAL, ORGANIZATIONAL, AND PSYCHOLOGICAL ANALYSIS  Severin Hornung, Thomas Höge, Christine Unterrainer	26
27.	HYSTERESIS EFFECT IN TURKISH LABOR MARKET: EVIDENCE FROM TRADITIONAL AND FOURIER UNIT ROOT TESTS  Burak Darici, Şeyma Şahin Kutlu, Muhammet Kutlu	27
28.	NAVIGATING THE ECONOMIC TSUNAMI: A CORPUS LINGUISTICS APPROACH TO METAPHOR USAGE AND FRAMING OF THE COVID-19 ECONOMIC CRISIS  Filio Chasioti	28
29.	REVISITING THE FELDSTEIN-HORIOKA PUZZLE: THE CASE OF FRAGMENTED GLOBAL ECONOMY  Vasilis Psarras	29
30.	WHO LEADS IN GREEN BONDS? A EUROPEAN ANALYSIS OF INVESTOR CHOICES  Aristea Vidra, Stephanos Papadamou, Moise Sidiropoulos	30
31.	THE INTERPLAY OF DOMINANCE, DIVERSIFICATION, AND REGIONALIZATION SHAPE THE TOURISM GLOBAL VALUE CHAIN  Evangelia Stergiou, Georgios Angelidis, Nikos C. Varsakelis	31
32.	DECODING UK CONSUMER BEHAVIOR FACTORS DRIVING WILLINGNESS TO PURCHASE OWN-LABEL READY MEALS USING TPB FRAMEWORK AND ADVANCED MACHINE LEARNING  Ourania Tremma, Iosif Viktoratos	32
33.	A COMPARATIVE ANALYSIS OF SPIKING AND TRADITIONAL NEURAL NETWORKS FOR ONLINE ADVERTISING  Uruqi Albin, Iosif Viktoratos	33
34.	BEING A CFO IN TÜRKİYE: AN EXPLORATORY STUDY ON DEMOGRAPHIC, EDUCATIONAL, AND CAREER PATHS OF FINANCE AND ACCOUNTING LEADERS  Bülent Kınay	34

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 / Thessaloniki / Greece

35.	THE IMPACT OF SYRIAN REFUGEES ON INTERNAL MIGRATION IN TÜRKİYE: A GRAVITY MODEL APPROACH  **Recep Taşkın, Hakan Ulucan**	35
36.	BANK CLOSURES, LOCAL ECONOMIC GROWTH, AND LOCAL EMPLOYMENT  Trinh Vu Nguyen, Andras Bethlendi	36
37.	ASSESSMENT OF POLITICAL STABILITY, HUMAN DEVELOPMENT AND ECONOMIC FREEDOM PERFORMANCE OF BRICS-T COUNTRIES: A HYBRID MCDM APPROACH  Toprak Karakuş	37
38.	THE NEED OF GENDER BUDGET TO SUPPORT THE ADOPTION OF GENDER EQUALITY PLANS: THE CASE OF ALEKSANDËR MOISIU UNIVERSITY OF DURRËS  Anxhela Llaftiu, Ela Golemi	38
39.	CHILDREN'S INFLUENCE ON WOMEN'S WAGES  Zeynep Elitaş	39
40.	DISPARITIES IN DETERMINATION OF WAGES OF IMMIGRANTS AND LOCALS: EVIDENCE FROM HOUSEHOLD LABOR FORCE SURVEY MICRODATA  Taylan Akgül	40
41.	DYNAMIC INTERLINKAGES BETWEEN FINANCIAL STRESS INDEX, WORLD UNCERTAINTY INDEX, CRYPTOCURRENCIES AND STOCK RETURNS IN G7 COUNTRIES  Mustafa Kevser, Hale Kirer Silva Lecuna, Ufuk Bingöl	41
42.	FINANCIAL LITERACY AMONG SOCIAL TRADERS: AN ANALYSIS USING THE WIKIFOLIO PLATFORM  Zdravko Tretinjak, Zureck Alexander	42
43.	PREDICTING EMPLOYEE ATTRITION REASONS USING MACHINE LEARNING ON ADMINISTRATIVE SOCIAL SECURITY INSTITUTION DATA  Ezgi Demir, Melike Torun, Fatih Ayhan	43
44.	UNDERSTANDING EMPLOYEE AND NON-EMPLOYEE HAPPINESS USING PERSONALITY PROFILES APPROACH  Didem Ayhan, Arkun Tatar	44
45.	THE RELATIONSHIP BETWEEN GROWTH AND CURRENT ACCOUNT DEFICIT: EVIDENCE FROM QUANTILE CAUSALITY APPROACHES  Yeşim Erönal, Merve Altaylar, Fatih Ayhan	45
46.	THE ROLE OF AGING AND LABOR FORCE PARTICIPATION ON INCOME: EVIDENCE FROM EU COUNTRIES  Yavuz Kağan Yasım	46

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 / Thessaloniki / Greece

47.	EXAMINING THE IMPULSE CONTROL LEVELS OF EMPLOYEES ACCORDING TO THEIR PERSONALITY TRAITS WITH THE FIVE FACTOR MODEL  Arkun Tatar, Didem Ayhan	47
48.	CONNECTEDNESS AMONG GREEN FINANCIAL MARKETS, CARBON MARKET, AND EXCHANGE RATE MARKET: A GLOBAL PERSPECTIVE  Simran Agarwal	48
49.	QUANTILE-ON-QUANTILE CONNECTEDNESS BETWEEN CLIMATE UNCERTAINTY AND FINANCIAL RISK IN THE BANKING SECTOR  Onur Polat	49
50.	CONSUMER BEHAVIOR AND E-COMMERCE: EXAMINING AI-POWERED MARKET TRENDS  Tamerlan Akbarov, Yavuz Tansoy Yıldırım, Yasin Nuri Çakır	50
51.	EXPLORING THE IMPACT OF TOURISM ON GREEN GROWTH: POLICY RECOMMENDATIONS FOR E7 COUNTRIES  Shabir Hashmi	51
52.	TÜRKİYE INTEREST RATE VOLATILITY ANALYSIS: FORECAST AND COMPARISON WITH ARCH/GARCH/SWARCH MODELS  Fatih Mangır, Hasan Murat Ertuğrul	52
53.	BUILDING CHANGE READINESS PSYCHOLOGICAL STATE THROUGH IMPLICIT AND EXPLICIT ATTITUDES: A CONCEPTUAL APPROACH Dimitrios Hatjidis	53
54.	ASSESSING THE ECONOMIC IMPACT OF ENVIRONMENTAL CRIME IN ITALY: A PANEL CAUSALITY ANALYSIS  Gaetano Perone	54
55.	SME FINANCING IN MOROCCO: ASSESSING THE GAP BETWEEN PREFERENCES AND PRACTICES  Imad Jabbouri	55
56.	THE EFFECTS OF INDUSTRY 4.0 ON ACCOUNTING: AN EVALUATION ON THE DIGITALIZATION OF BUSINESSES  Mustafa Çanakçıoğlu	56
57.	THE RISE AND FALL OF THE GERMAN AUTOMOTIVE INDUSTRY: CAUSES OF DECLINE AND PROSPECTS FOR RECOVERY  Cristina Balgar	57
58.	ECONOMIC AND SOCIAL DIMENSIONS OF AGING: AN EMPIRICAL ANALYSIS OF ELDERLY WELL-BEING IN TURKEY  Merve Hamzaoğlu	58

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 / Thessaloniki / Greece

59.	TIME SERIES-BASED COUNTRY CLASSIFICATION OF OECD NATIONS USING GREEN GROWTH INDICATORS: A DTW AND K-MEDOIDS APPROACH  Bige Küçükefe, Ferhun Ateş	59
60.	POWERING PROGRESS: EXAMINING ENERGY USE AND INFRASTRUCTURE DEVELOPMENT IN INDIA'S TRANSPORT SECTOR  Mohammed Shameem P, Irin Maria Antony	60
61.	AN ANALYSIS OF THE RELATIONSHIP BETWEEN ENERGY CONSUMPTION, ENERGY EFFICIENCY, AND CARBON EMISSIONS USING THE ECM APPROACH: THE CASE OF TÜRKİYE  Pınar Gürol	61
62.	IMPACT OF M&A ANNOUNCEMENTS ON THE ACQUIRER IN THE POST-COVID ERA  Panagiotis Kedikoglou Yiannis Krassas, Nikolaos Hourvouliades	62
63.	ENERGY, WATER AND FOOD NEXUS: EV1DENCE FROM TÜRKİYE  Ufuk Bingöl, Mustafa Kevser, Hale Kırer Silva Lecuna	63
64.	THE FUTURE OF TRADE: FROM SELF-REGULATION OF COMPARATIVE ADVANTAGE TO SOCIAL AND ENVIRONMENTAL EFFICIENCY  Grigoris Zarotiadis	64
65.	WHO OWNS US DEBT? SHIFTS IN INVESTOR BASE AND IMPLICATIONS  Manish Sharma	65

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### ANALYSIS OF THE INTERACTION OF MONETARY AND MACRO-PRUDENTIAL POLICIES: AN EMPIRICAL VIEW IN THE CASE OF THE WESTERN BALKAN COUNTRIES

#### Gent Sejko1, Altin Tanku2, and Gerti Shijaku3

- <sup>1</sup> Governor, Central Bank of Albania, Tirane/ Albania, E-mail: gshijaku@bankofalbania.org.
- <sup>2</sup> Director of Research Department, Bank of Albania, Tirane/ Albania, E-mail: atanku@bankofalbania.org.
- <sup>3</sup> PhD in Banking and Finance, Senior Macroeconomic Researcher at Bank of Albania Research Department.

#### **ABSTRACT**

This paper provides an insightful analysis into the dynamics between monetary and macro-prudential policies in the Western Balkans, exploring the impact of different monetary regimes on economic and financial performance. The focus on how these policies interact, particularly with regard to inflation control and financial soundness, is essential for understanding how varying exchange rate regimes influence the effectiveness of policy responses. By using impulse response functions of a panel vector autoregressive model, the paper highlights important differences in policy transmission between economies with independent monetary policies and those without such independence. The finding that independent monetary policies lead to a significant response to macro-prudential changes is important, as it suggests that these economies can better manage economic shocks through policy adjustments. Conversely, in economies without independent monetary policy, the lack of reaction to macro-prudential policy changes suggests a diminished ability to manage financial stability through these tools. This contrast in policy responses has important implications for policymakers. In countries with independent monetary policy, a more flexible approach can be taken in adjusting the monetary stance based on changes in financial conditions. However, in economies without such independence, it becomes crucial to focus on the complementary role of macro-prudential policies, as they may be the primary tool for achieving financial stability, especially when the monetary policy is tied to external constraints, such as exchange rate pegs or currency unions. The paper's conclusions underline the importance of aligning both monetary and macroprudential policies in a way that allows for effective responses to economic and financial shocks. The interactions between these two sets of policies, particularly in light of the level of monetary policy independence, can significantly impact the ability of these economies to maintain stability and growth.

Keywords : Monetary Policy, Macro-Prudential Policy, Western Balkan Countries, Panel, VAR.

JEL Codes: E52, C34.

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 / Thessaloniki / Greece

### ASSESSING GENDER EQUALITY IN EUROPEAN LABOR MARKETS: AN EXTENDED MODEL WITH ECONOMIC COMPLEXITY\*

Burcu Türkcan<sup>1</sup>, Meltem İnce Yenilmez<sup>2</sup>, Waleck Dalpour<sup>3</sup>

- <sup>1</sup>Ege University, İzmir7 Türkiye, E-mail: burcu.turkcan@ege.edu.tr.
- <sup>2</sup> Izmir Democracy University, İzmir/Türkiye, E-mail: <a href="mailto:melteminceyenilmez@gmail.com">melteminceyenilmez@gmail.com</a>.
- <sup>3</sup> University of Maine at Farmington, United States, E-mail: <u>dalpour@maine.edu</u>.

#### **ABSTRACT**

The link between economic complexity and gender equality seems to be one of the critical but underestimated issues of sustainable development in the contemporary world. Although there is an extended literature about gender discrimination in labor markets, there is still a significant gap in the evidence of the emerging determinants of this fact. In this sense, this study explores the relationship between economic complexity and female labor force participation for European countries during the 1995 – 2021 period. The empirical findings suggest that economic complexity has a positive impact on female labor force participation rate in Europe. Moreover, economic growth, fertility, and one-year lagged value of female labor force participation have positive impacts on the female labor force participation. However, it seems that foreign direct investment inflows and tertiary education of women have no significant effect on the dependent variable. The study aims to contribute to the related literature by examining the direct impact of economic complexity on female labor force participation with a comprehensive empirical analysis in European context.

Keywords: Gender Equality, Labor Force Participation, Economic Complexity, Panel Data Analysis, European Union.

JEL Codes:

\_

<sup>\*</sup> This study is based on the research conducted in the Erasmus+ Jean Monnet Project entitled "Gender equality during the times of COVID-19 in EU(GEN-EU)".

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

# DOES A STRATEGY PORTFOLIO OUTPERFORM TWAP AND VWAP? EVIDENCE FROM SIMULATIONS AND STOCK INDEX FUTURE

Xinxin Shi<sup>1</sup>, Huayue Zhang<sup>2</sup>

- <sup>1</sup>B.S., Nanjai University, Tianjin/China, E-mail: 2120223125@mail.nankai.edu.cn.
- <sup>2</sup> Nankai University, Tianjin/ China, E-mail: <u>hyzhang69@nankai.edu.cn</u>.

#### **ABSTRACT**

This paper investigates whether a strategy portfolio, combining the TWAP (Time-Weighted Average Price) and VWAP (Volume-Weighted Average Price) strategies, can outperform individual strategies in executing large orders. The theoretical foundation of this approach is based on portfolio theory, which suggests that combining assets may outperform individual assets.

Assuming the presence of linear price impact, we establish a discrete-time liquidation strategy framework. Through mathematical derivation, we find that the slippage of the strategy portfolio can be represented as a linear combination of the slippage from individual strategies, along with an additional bias term. Therefore, the slippage associated with a strategy relative to market VWAP can be treated as an asset, possessing both measurable returns and variance. Consequently, constructing a strategy portfolio is analogous to assembling an asset portfolio, where slippage serves as the defining characteristic of performance.

We first conduct simulated trading using 100,000 generated datasets to evaluate the performance of the strategy portfolio. When prices follow a random walk, the strategy portfolio does not achieve a higher conditional expectation or lower conditional variance of slippage compared to TWAP and VWAP individually. However, it offers risk-averse investors a broader range of risk-return combinations, enhancing risk management.

We then use minute-by-minute prices and volumes for CSI 300 Index Futures from WIND in three years. In the empirical data, we find that the strategy portfolio's slippage is, on average, greater than zero, indicating its potential to outperform the market VWAP and offering strong profitability. However, the portfolio's slippage also exhibits a higher variance, highlighting the trade-off between risk and reward. Moreover, the paper identifies the significant impact of intraday relative volume distribution on portfolio performance and highlights the role of price trends in reinforcing the relationship between price fluctuations and volume changes. Our results suggest that this portfolio-based approach offers a practical and effective enhancement to the VWAP strategy, providing market participants with a more flexible and robust trading tool.

Keywords : Strategy Portfolio, Algorithmic Trading, VWAP Strategy, TWAP Strategy.

JEL Codes: C61, C63, C65.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### KEY DETERMINANTS OF ITALIAN RESTAURANT REVENUE IN THE USA AND CANADA: AN ECONOMETRIC APPROACH

#### Federico Modica<sup>1</sup>, Filippo Sgroi<sup>2</sup>, Anthony Therrien<sup>3</sup>, Caterina Sciortino<sup>4</sup>

<sup>1</sup>Ph.D. Student, Department of Agricultural, Food and Forestry Sciences, University of Palermo, Palermo/ Italy, E-mail: <a href="mailto:federico.modica@unipa.it">federico.modica@unipa.it</a>.

<sup>2</sup> Full Professor, Department of Economics, Business and Statistics, University of Palermo, Palermo/ Italy, E-mail: filippo.sgroi@unipa.it.

<sup>3</sup>Researcher Fellow, Department of Economics, Business and Statistics, University of Palermo, Palermo/ Italy, E-mail: <a href="mailto:caterina.sciortino@unipa.it">caterina.sciortino@unipa.it</a>.

Machine Learning Engineer, Angel Softwares, Quebéc/ Canada, E-mail: atherrien@angelsoftwares.ca.

#### **ABSTRACT**

The Italian restaurant industry in the United States and Canada has experienced substantial growth, yet the determinants of revenue generation remain underexplored. This study aims to identify the key factors influencing the financial performance of Italian restaurants using a stepwise regression approach. The analysis is based on a dataset comprising 1,413 restaurants and 17 independent variables, capturing operational, financial, and consumer engagement aspects. Stepwise regression results indicates that seating capacity, average meal price, and chef experience are the primary drivers of revenue. The findings suggest that operational efficiency and pricing strategies are crucial for sustaining revenue growth. Additionally, consumer engagement through online reputation and reservation patterns contributes to the overall financial performance of these establishments. The study provides valuable insights for restaurant owners, investors, and policymakers in the food service industry, highlighting the need for strategic management of key operational factors.

Keywords: Italian Restaurants, Revenue Determinants, Stepwise Regression, Restaurant Industry, Business Strategy.

JEL Codes: L83, L25, C51.

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### FINANCIAL NETWORK MODELING WITH GRAPH CONVOLUTIONAL NETWORKS: A CASE STUDY ON BIST 30

Cemal Öztürk<sup>1</sup>

<sup>1</sup>Department of Economics, Pamukkale University, Denizli/ Türkiye, E-mail: <a href="mailto:cemalo@pau.edu.tr">cemalo@pau.edu.tr</a>.

#### **ABSTRACT**

Understanding stock market dynamics is essential for effective risk management and investment decisionmaking. Traditional financial models often fail to capture the intricate relationships between stocks, leading to suboptimal portfolio strategies. This study investigates using a Hybrid Graph Convolutional Network (Hybrid GCN) to model stock price relationships within the Borsa İstanbul 30 (BIST 30) index. By leveraging graph-based deep learning, the aim is to enhance financial network analysis and construct a more robust, data-driven investment framework that improves portfolio performance. Historical stock price data from Yahoo Finance covering a decade was utilized to achieve this. A correlation matrix of stock returns was computed to establish an adjacency structure, where edges indicate significant relationships between stocks. The resulting financial network was processed using NetworkX and formatted for PyTorch Geometric. A Hybrid GCN model was trained to optimize portfolio allocation by learning stock dependencies and price movements. The model's performance was benchmarked against three traditional portfolio allocation strategies: Minimum Variance Portfolio, Risk Parity Portfolio, and Market Capitalization-Weighted Portfolio, which are widely used risk-based approaches in financial markets. Results indicate that the Hybrid GCN model significantly outperforms benchmark portfolios regarding risk-adjusted returns and overall profitability. The annual Sharpe ratio of the Hybrid GCN model was 1.0047, notably higher than the benchmark strategies, where Minimum Variance and Risk Parity portfolios had a Sharpe ratio of 0.3830, and the Market Cap-weighted portfolio had 0.3393. The Hybrid GCN model achieved a cumulative return of 1.0938, outperforming the benchmark portfolios, which yielded 1.0260 for Minimum Variance and Risk Parity, and 1.0217 for the Market Cap-weighted portfolio. Furthermore, the maximum drawdown (MDD) of the Hybrid GCN model was-7.94%, showing improved downside risk control compared to the benchmark models (-9.02% for Minimum Variance and Risk Parity, and-9.05% for Market Cap-weighted portfolio). The Sortino ratio, which measures risk-adjusted returns relative to downside volatility, was 1.8342 for the Hybrid GCN, significantly higher than 0.6835 for Minimum Variance and Risk Parity, and 0.5978 for the Market Cap-weighted portfolio. These findings suggest that a Hybrid GCN-based financial model can enhance portfolio performance by better capturing stock dependencies and optimizing risk-adjusted returns. This research introduces a novel application of Hybrid Graph Convolutional Networks (Hybrid GCN) in financial modeling, demonstrating their potential to optimize portfolio allocation beyond traditional approaches. This study presents a scalable and adaptive strategy for financial forecasting and portfolio construction by integrating graph-based learning. Future research could explore extending this model to broader stock indices and alternative datasets, further validating its applicability in real-world investment strategies.

**Keywords**: Graph Convolutional Networks, Portfolio Optimization, Financial Network Analysis, Stock Market Prediction, Deep Learning.

JEL Codes: C45, C53, G11, G14, G17.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### INVESTIGATION OF FINANCIAL PERFORMANCE BY LOPCOW AND COCOSO METHODS: AN APPLICATION ON COMPANIES IN THE ACCOMMODATION SECTOR

Hande Küçükönder<sup>1</sup>, Cem Niyazi Durmuş<sup>2</sup>

<sup>2</sup> Kadir Has Üniversity, İstanbul/ Türkiye, E-mail: <a href="mailto:cemniyazi.durmus@khas.edu.tr">cemniyazi.durmus@khas.edu.tr</a>.

#### **ABSTRACT**

Since the 20th century, advances in transportation and communication technology have also led to an increase in the demand for tourism on a global scale. This strong tourism development has brought many economic benefits and cultural changes to different countries. Tourism development is considered an effective way to reduce poverty in some countries. Tourism provides many job opportunities that are different from traditional production and the ability to sell local products and promote culture. In this context, it aims to analyze the financial performances of 8 companies in the Accommodation Sector whose stocks are traded in Borsa Istanbul (BIST). For this purpose, an integrated decision model including LOPCOW (LOgarithmic Percentage Change-driven Objective Weighting) and CoCoSo (Combined Compromise Solution) techniques is proposed. The first component of the proposed model provides the weighting of the criteria determined for financial performance evaluation with the LOPCOW method, and the second component ensures that the performance levels of the firms are defined and ranked with the CoCoSo technique. In this context, the proposed model allows practitioners to reach results quickly without needing an extra transformation tool for negative data structures and to evaluate the reliability of the rankings with the flexibility provided by the model parameter. In practice, nine financial ratios obtained from the companies' balance sheets and income statements for 2023 were used. These ratios, which are determined based on the literature review, consist of the current ratio, acid test ratio, financial leverage ratio, short-term foreign resources/total liabilities, receivables turnover rate, asset turnover rate, net profit/net sales, net profit/total assets, net profit/equity. According to the findings of the study, it was determined that the highest priority criterion was the Net Profit Margin and the company with the highest financial performance was Kustur Kuşadası Turizm Endüstri A.Ş.

Keywords : BIST, Financial Performance, Accommodation Sector, MCDM, LOPCOW, COCOSO.

**JEL Codes:** C44, G11, L25, L83, M41.

#### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

#### UNCERTAINTY IN FINANCIAL MARKETS AND ITS INFLUENCE ON DRY BULK SHIPPING

#### Dimitris Georgoulas<sup>1, 2</sup>, Stratos Papadimitriou <sup>3</sup>

- <sup>1</sup> PhDc, Department of Maritime Studies, University of Piraeus, Piraeus/ Greece, E-mail: <u>budi1934@windowslive.com</u>.
- <sup>2</sup> Instructor, Department of Accounting, Economics and Finance, School of Business and Economics, The American College of Greece, Ag. Paraskevi/ Greece, E-mail: <a href="mailto:dgeorgoulas@acg.edu">dgeorgoulas@acg.edu</a>.
- <sup>3</sup> Professor, Department of Maritime Studies, University of Piraeus, Piraeus/ Greece, E-mail: <a href="mailto:stratos@unipi.gr">stratos@unipi.gr</a>.

#### **ABSTRACT**

Our study examines the dynamics of freight rates in the dry bulk shipping market. The cargo transported by dry bulk vessels constitutes essential raw materials across multiple industries. Consequently, the cost of shipping these materials holds significant importance for policymakers, consumers, researchers, and industry professionals. Specifically, we focus on the Baltic Dry Index (BDI), a key benchmark for dry bulk shipping rates and a widely regarded indicator of demand trends in global seaborne trade. Due to its significance, the BDI has attracted academic attention, with prior research establishing its interconnections with other maritime and capital markets. However, despite its well-documented influence on economic cycles and financial conditions, the role of financial market uncertainty in shaping BDI fluctuations remains largely unexplored.

To address this gap, our study investigates whether heightened uncertainty in maritime capital markets (as measured by the Google Trends index proposed in previous studies) and the broader U.S. stock market (represented by the CBOE Volatility Index (VIX)) contributes to increased volatility in dry bulk rates represented by the BDI. Using Granger causality tests and impulse response functions (IRF), we assess the extent to which financial uncertainty impacts seaborne activity. Furthermore, by leveraging artificial neural networks (ANNs) and a five-fold cross-validation procedure, we demonstrate that periods of heightened financial market uncertainty reduce the accuracy of models forecasting the BDI and its reliance on fundamental variables. Therefore, an increase in financial uncertainty leads to less economically sustainable transportation networks. However, the use of financial uncertainty indices as inputs in the ANN models helps address this issue.

Our findings are consistent with signal theory, suggesting an information transmission mechanism between stock traders and dry bulk stakeholders. Additionally, by comparing ANN models with and without uncertainty in the U.S. stock market, we demonstrate that the latter serves as a novel and significant determinant of BDI movements. Thus, we provide managers and policymakers from various industries, who rely on the level of BDI for decision-making, with a tool to enhance prediction accuracy, even in periods of high uncertainty. This, in turn, enables them to optimize resource allocation, minimize waiting times, and mitigate inventory mismatches.

Keywords: BDI, Uncertainty, Out-of-Sample Forecast Performance, Artificial Neural Networks, Google Trends, VIX

JEL Codes: G41, R4, C5.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

#### CAN FIRM-SPECIFIC DETERMINANTS AFFECT UNCERTAINTY OF FIRM'S GROWTH

#### Tarek Ibrahim Eldomiaty<sup>1</sup>, Monica Hany William<sup>2</sup>

- <sup>1</sup> Professor of Finance, School of Business, The American University in Cairo, AUC Avenue, P.O. Box 74 New Cairo/ Egypt, Email: <u>Tarek eldomiaty@aucegypt.edu</u>.
- <sup>2</sup> Lecturer of Finance, Arab Academy for Science, Technology, and Maritime Transport, El Moshir Ismail Street, Heliopolis, Cairo/ Egypt, E-mail: <a href="mailto:monica.william@uofcanada.edu.eg">monica.william@uofcanada.edu.eg</a>.

#### **ABSTRACT**

The objective of this paper extends beyond a purely exploratory analysis, aiming to assess the relationship between firm-specific determinants and the uncertain growth trajectory of the firm. The sample includes the non-financial firms listed in the DJIA30 and NASDAQ100, covering quarterly data from March 1996 to December 2022 for 121 companies. The study uses statistical tests including the Hausman specification test for fixed and random effects, Breusch–Pagan/Cook–Weisberg test for heteroskedasticity, and linearity (RESET) test to support the findings. This study finds: (a)firm size positively impact uncertain firm growth, (b)liquidity ratio and fixed-asset turnover have positive impact as well, (c) the firm's age and Tobin Q have negative effect. This paper contributes to the related literature by exploring how firm-specific determinants, which have been shown in prior studies to influence firm growth, also affect the uncertainty surrounding that growth, given its inherently unpredictable nature.

Keywords: Uncertain Firm Growth, Firm Specific Determinants.

JEL Codes: G3 G4, L1.

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### KNOWLEDGE ECONOMY AND ECONOMIC PERFORMANCE IN BRICS-T COUNTRIES: A PANEL DATA ANALYSIS

Kerem Sezerer<sup>1</sup>, Burak Arslan<sup>2</sup>, Erol Kutlu<sup>3</sup>

- <sup>1</sup> Phd Student, Anadolu University, Eskisehir/ Türkiye, E-mail: <u>keremsezerer@anadolu.edu.tr</u>.
- <sup>2</sup> Res. Asst., Anadolu University, Eskisehir/Türkiye, E-mail: <u>barslan@anadolu.edu.tr</u>.
- <sup>3</sup> Prof.Dr., Anadolu University, Eskisehir/Türkiye, E-mail: ekutlu@anadolu.edu.tr.

#### **ABSTRACT**

Knowledge has increasingly been recognized as a fundamental pillar of long-term economic growth in the global economy. This study investigates the dynamics of knowledge-based development by utilizing the World Bank's Knowledge Economy Index, which provides a comprehensive framework through seven critical dimensions. The analysis focuses on BRICS nations—Brazil, Russia, India, China, South Africa—and Türkiye, spanning the years 2000 to 2023. To evaluate the relationship between knowledge economy components and economic performance, advanced panel data techniques, specifically the Augmented Mean Group (AMG) and Common Correlated Effects Mean Group (CCEMG) estimators, are applied. The study's primary objective is to assess Türkiye's position relative to the BRICS economies within the knowledge economy framework and to offer policy insights that could support Türkiye's BRICS membership aspirations. While existing literature often explores the impact of knowledge-related variables on economic outcomes, few studies focus on Türkiye in comparison with BRICS countries. This research fills that gap by offering a comparative and empirical assessment during a critical period of Türkiye's engagement with BRICS. Empirical findings reveal that knowledge economy indicators, particularly regulatory quality and life expectancy at birth, are positively associated with economic performance. Conversely, variables such as exports-to-GDP ratio and foreign direct investment display negative and statistically significant impacts. Notably, digital penetration and service sector employment exhibit limited significance in the models. The findings suggest that Brazil and China are more sensitive to regulatory changes compared to Türkiye. Furthermore, foreign direct investment emerges as a growth driver specifically for Türkiye, while Brazil's growth correlates more with domestic GDP levels. The research underlines considerable productivity disparities between Türkiye and its BRICS counterparts and highlights the economic importance of institutional quality and human longevity.

**Keywords:** Common Correlated Effects Mean Group (CCEMG) Estimator, Knowledge Economy, BRICS-T Countries, Panel Data Analysis.

**JEL Codes:** F63, C33, O57.

# INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE (ICOAEF-XIII)-April 29th-30th, 2025 / Thessaloniki / Greece

# THE HUMAN MIND: COMPREHENDING CAPITAL MARKET KINEMATICS VIA COGNITIVE BIASES

Andreea-Mădălina Vârtei1

<sup>1</sup> Ph.D. Student, Lucian Blaga University of Sibiu, Sibiu/Romania, E-mail: andreea.vartei@ulbsibiu.ro.

#### **ABSTRACT**

This paper explores the influence of behavioral finance on capital markets, focusing on the impact of emotions and cognitive biases on investment decisions and market movements. Against the background of a global economic recovery characterized by volatility and uncertainty, stock markets are becoming increasingly sensitive to investor sentiment. The focal point of this study is to examine how fear, desire, and financial trauma affect the daily stock returns of the crucial stock indices in a comparative analysis of the American, European, and Middle Eastern capital markets. The research pursues a mixed-method approach to quantify the correlations between financial and emotional variables in the shadow of more than two decades of crisis and non-crisis events. This article sets out its perspective on the opening up of a theoretical framework in the contemporary literature on psychological finance. It also shows the contrast between behavioral finance and traditional finance, how they affect investment decisions, and how they deal with biases in unbalanced portfolio strategies. The study then further deepens these elements through a comparative analysis of investor behaviors in the three geographical regions. The findings pinpoint the essential role of emotions in short-term market fluctuation and long-term resilience. Recommendations for reducing emotional volatility in the investment market contribute to the designing of risk-reduction strategies, diversifying portfolios, and mapping emotional market signals.

Keywords: Behavioral Finance, Investor Decision-Making, Cognitive Biases, Investor Sentiment, Capital Market.

JEL Codes: G40, G41, D91.

#### (ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

#### MODELING BANK Z SCORE: PERSPECTIVES FROM THE MENA REGION

#### Tarek Eldomiaty<sup>1</sup>, Mohamed Diab<sup>2</sup>

- <sup>1</sup> Professor, The American University in Cairo, Cairo/ Egypt, E-mail: <u>Tarek\_eldomiaty@aucegypt.edu</u>.
- <sup>2</sup> Mr, Arab Academy for Science, Technology & Maritime Transport, Cairo/ Egypt, E-mail: Mohamed.diab1@adj.aast.edu.

#### **ABSTRACT**

The related existing studies in the literature discussed the Z-score and the variables that affect it. This paper illustrates the modeling of bank Z-score and determines the variables that need enhancement to optimize the bank's Z-score.

Also, the paper Methodology is used through some variables that affect the bank Z-score specifically in MENA region which are profitability, credit risk, interest rate risk, liquidity and capital risk.

Moreover, the sample chosen consists of 50 banks in MENA region over 10 years (2014 to 2023) examined. Finaly it is found that the follows: 1- when profitability increases the Z-score increases and the overall risk will be decreased, 2- when credit risk decreases the Z-score increases and the overall risks decreases, 3- when the liquidity increases then the Z-score increases and overall banks risks decrease, 4- when capital risk increases the Z-score increase and the overall risk decrease, 5- when interest rate risk decreases the Z-score increase and overall risk will decrease.

Keywords: Z-Score, MENA Region, Banks Stability, Profitability, Credit Risk, Liquidity.

JEL Codes: G21.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# DO GOVERNMENT EXPENDITURES MATTER FOR UNEMPLOYMENT IN TÜRKIYE: A REGIONAL EXAMINATION FROM A GENDER PERSPECTIVE

Nazmiye Tekdemir<sup>1</sup>, Pelin Varol İyidoğan<sup>2</sup>, Eda Yeşil<sup>3</sup>

- <sup>1</sup> Ass. Prof. Dr. Nazmiye Tekdemir, Kırıkkale University, Kırıkkale/ Türkiye, E-mail: nazmiyekirik@gmail.com.
- <sup>2</sup> Prof. Dr. Pelin Varol İyidoğan, Hacettepe University, Ankara/ Türkiye, E-mail: pelinv@hacettepe.edu.tr.
- <sup>3</sup> Prof. Dr. Eda Yeşil, Kırıkkale University, Kırıkkale/ Türkiye, E-mail: edayesil@kku.edu.tr.

#### **ABSTRACT**

In Türkiye, the issue of unemployment has long remained at the forefront of governmental policy agendas. In this regard, a substantial body of academic literature has sought to uncover the underlying determinants of unemployment. From a fiscal standpoint, public expenditures—commonly regarded as an indicator for the size of government—have been extensively analyzed in relation to the impact on unemployment dynamics. The existing literature predominantly adopts two contrasting theoretical perspectives. The first posits that increases in public spending may generate a crowding-out effect, thereby exacerbating unemployment. In contrast, the second strand contends that public expenditures can serve as a mitigating factor, contributing to a reduction in unemployment levels. Within this framework, the aim of our paper is to examine the unemployment rate and government expenditure relationship at provincial level over the period 2010-2022 for 26 NUTS regions of Türkiye. Our study has a number of original contributions to the regarding literature. Firstly, we embed a gender perspective to our framework by considering female and male unemployment rates seperately. Another original value of our study is that we use economic classification of government expenditure in terms of current, transfer and investment expenditures. Finally, as an original methodological approach, we apply fixed effect quantile regression procedure which enables to estimate the conditional mean and other quantiles of the dependent variable, that is the unemployment rate. The findings of our empirical analysis are striking, which provide evidence based on quantile approach indicating a gender disparity in favor of male employment. All categorized types of government spending sharpen the women unemployment problem for all quantiles.

 $\textbf{Keywords:} \ \textbf{Unemployment, Government Size, Quantile Regression.}$ 

JEL Codes: H50, J08, C33.

#### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# INEQUALITY AS A THRESHOLD: RETHINKING THE EFFICACY OF ENERGY PRICING IN COMBATING ENERGY POVERTY IN THE EU\*

#### İrem Didinmez<sup>1</sup>, İrem Yendi<sup>2</sup>, Erdem Seçilmiş<sup>3</sup>

- <sup>1</sup> Associate Professor, Institution, Hacettepe University, Ankara/ Türkiye, E-mail: <u>iremdidinmez@hacettepe.edu.tr</u>.
- <sup>2</sup> Associate Professor, Institution, Hacettepe University, Ankara/ Türkiye, E-mail: <a href="mailto:iremyendi@hacettepe.edu.tr">iremyendi@hacettepe.edu.tr</a>.
- <sup>3</sup> Professor, Hacettepe University, Ankara/ Türkiye, E-mail: <u>ies@hacettepe.edu.tr</u>.

#### **ABSTRACT**

Energy poverty refers to a situation in which individuals or households lack sufficient, safe, and affordable access to basic energy services. This issue is closely linked to inadequate energy infrastructure, low income levels, high energy prices, low energy efficiency in housing, and broader social inequalities. Energy poverty significantly diminishes individuals' quality of life and negatively impacts crucial areas such as health, education, and employment. Consequently, addressing energy poverty extends beyond technical solutions and must be considered within the broader frameworks of social justice and income inequality, aligning with Goal 7 of the Sustainable Development Goals (SDGs), "Affordable and Clean Energy."

Within this context, this study examined how income inequality affects energy poverty through energy prices, utilizing a panel fixed-effect threshold model for 24 European Union (EU) member states from 2015 to 2023. The primary aim was to determine how the influence of energy prices on energy poverty changes when income inequality surpasses a specific threshold. In other words, the study tested the hypothesis that the effectiveness of rising energy prices in reducing energy consumption diminishes in societies characterized by high income inequality. Consequently, the research evaluated the role of income inequality in determining the effectiveness of energy policies, highlighting the critical importance of inequality reduction in combating energy poverty, and proposing new, effective strategies for policymakers.

The empirical results demonstrate that once income inequality exceeds a certain threshold, the impact of energy prices on energy poverty weakens. Specifically, when income inequality surpasses a critical threshold, the capacity of higher energy prices to reduce per capita energy consumption diminishes.

This implies that in societies with pronounced inequality, certain higher-income groups maintain their energy consumption regardless of price increases, while lower-income groups cannot further reduce their already minimal energy usage. Thus, rising inequality compromises the efficacy of pricing mechanisms as a tool for managing energy consumption, causing price-based policies to lose their intended control over consumption patterns. These findings underscore the necessity of integrating energy policies with strategies explicitly targeting income inequality.

Keywords: Energy Poverty, Income Inequality, Energy Costs, Panel Threshold Model..

JEL Codes: D63, Q48, C23.

-

<sup>\*</sup> Authors contributed equally to this work.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# DO CORPORATE TAX RATES SHAPE PRIVATE SECTOR INVESTMENT? A PANEL COINTEGRATION ANALYSIS OF OECD COUNTRIES

Semih Çetin<sup>1</sup>

<sup>1</sup> Asst. Prof., Hitit Üniversitesi, Çorum/ Türkiye, E-mail: <a href="mailto:semihcetin@hitit.edu.tr">semihcetin@hitit.edu.tr</a>.

#### **ABSTRACT**

Examining the impact of corporate tax policies on private sector investments is essential for understanding economic growth and development. Private sector investment is one of the key drivers of economic growth and is vital for sustainable growth, job creation and technological development. Tax policies, especially corporate tax rates, influence both the volume and quality of these investments. High corporate tax rates can discourage investment decisions, reduce profitability, and limit capital inflows. Conversely, lower and more competitive tax rates can stimulate investment and enhance overall economic performance.

This study investigates how corporate tax rates affect private sector investments across 38 OECD countries from 2002 to 2022. The analysis employs the share of private sector investments in GDP as the dependent variable, and corporate tax rates as the independent variable. Additionally, openness, per capita income, and regulatory quality were used as control variables to strengthen the analysis.

Panel unit root tests revealed the variables were non-stationary, prompting the use of the Pedroni cointegration test, which confirmed a long-term relationship among the studied variables. Subsequently, the Fully Modified Ordinary Least Squares (FMOLS) method was applied to estimate the relationship's direction and magnitude.

Results indicate a negative relationship between corporate tax rates and private sector investments. Conversely, openness, per capita income, and regulatory quality positively affect private sector investments. These findings suggest corporate tax rates play a significant role in shaping the investment environment, while trade liberalization, economic advancement, and strong institutional frameworks encourage investment.

The study's main contribution lies in applying the FMOLS approach to examine the long-term cointegrated relationship in OECD countries, a method previously underutilized in this area. Moreover, the study highlights the importance of institutional quality, offering valuable insights for policymakers. It recommends policymakers carefully assess corporate tax policies, promote open trade practices, and enhance regulatory quality to create an investment-friendly environment.

**Keywords:** Corporate Income Taxes, Economic Growth, Investment Incentive, FMOLS Panel..

JEL Codes: H25, O47, C23.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### EBITDA'S INFLUENCE ON ECONOMIC GROWTH AND DEVELOPMENT AND FIRM RETURNS: INSIGHTS FROM THE UK DURING AND POST COVID-19

Rasha Aly Rashed<sup>1</sup>, Rania Megally<sup>2</sup>, Mina K. Bishara<sup>3</sup>

#### **ABSTRACT**

This study investigates the impact of earnings before Interest, taxes, Depreciation and Amortization (EBITDA) on firm returns and various economic indicators in the United Kingdom during and after the COVID -19 pandemic. While extensive research exists on EBITDA's influence on firm performance, there is a notable gap in literature addressing its effects during the COVID -19 period on the performance of both the firm and the economy. This paper is the first of its kind that aims providing an impact analysis of the EBITDA's impact on firm returns, main indicators of economic growth and economic development represented in gross domestic product (GDP), inflation rate, unemployment rate, and income distribution (Gini coefficient) before and after the pandemic. Utilizing a Panel dataset of 100 firms from FTSE 100 index, spanning from 2020 to 2024, the study employs advanced statistical techniques, including fixed and random effects analysis and the robustness of findings tested by Hausman test. The results indicate that post- COVID -19, EBITDA has a significantly negative impact on firm returns, GDP and Unemployment rate, while showing no significant effect on inflation rate and income distribution relative to EBITDA's impact during COVID-19.

The findings of this study offer valuable insights for policy makers and business leaders, highlighting the differential impact of EBITDA during and after a major economic disruption. The methodological contribution of this research is through the use of panel data and advanced statistical techniques, which contributes to existing literature and provides comprehensive understanding of EBITDA's role not only in firm's performance but also in economic growth and development.

 $\textbf{Keywords} : \texttt{EBITDA}, \texttt{Firm} \ \texttt{Return}, \texttt{Economic} \ \texttt{Growth}, \texttt{Economic} \ \texttt{Development}.$ 

JEL Codes: L16, L11, O43.

<sup>&</sup>lt;sup>1</sup>Teaching Fellow, University of Birmingham, Birmingham/ United Kingdom, E-mail: <u>r.m.aly@bham.ac.uk.</u>

<sup>&</sup>lt;sup>2</sup>Assistant Professor of Economics, University of Prince Edward Island – Cairo Campus, Cairo/ Egypt, E-mail: rania.megally@uofcanada.edu.eg.

<sup>&</sup>lt;sup>3</sup> Assistant Professor of Finance, University of Prince Edward Island – Cairo Campus, Cairo/ Egypt, E-mail: mina.bishara@uofcanada.edu.eg.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# THE ASYMMETRIC IMPACT OF GOVERNMENT EXPENDITURE ON ECONOMIC GROWTH IN TÜRKİYE: A NONLINEAR ARDL APPROACH

Erkan Özata<sup>1</sup>

<sup>1</sup>Prof. Dr. Anadolu University, Eskişehir/ Türkiye, E-mail: <u>eozata@anadolu.edu.tr</u>.

#### **ABSTRACT**

The relationship between government expenditure and economic growth has been a subject of extensive debate and research in economics, with theoretical foundations tracing back to prominent figures like Wagner, Keynes, Peacock, and Musgrave. This discourse has led to the emergence of two primary schools of thought regarding the direction of causality, one suggesting that public expenditure is a consequence of economic growth, as posited by Wagner's Law, and the other asserting that public expenditure is a tool used by governments to stimulate economic activity and reverse downturns, as proposed by Keynesian economics. This study investigates the asymmetric effects of government expenditure on economic growth in Türkiye using a Nonlinear Autoregressive Distributed Lag (NARDL) model. The analysis covers the period 1998-2023 and includes gross domestic product (GDP) as the dependent variable, while government expenditure, gross fixed capital formation, and foreign direct investment (FDI) are employed as independent variables. In particular, government expenditure is decomposed into its positive and negative partial sums to capture potential asymmetric impacts on economic growth. By employing the NARDL methodology, this paper examines both the long-run and shortrun asymmetries in the relationship between fiscal spending and economic performance. Additionally, the study explores the direction of causality between variables through appropriate causality tests. The empirical findings aim to provide new insights into the effectiveness of expansionary and contractionary fiscal policies in promoting sustainable economic growth in Türkiye. Policy implications are discussed in light of the asymmetric nature of government spending impacts.

 $\textbf{Keywords} : Economic \ Growth, \ Government \ Expenditure, \ Fiscal \ Policy, \ Asymmetric \ Impact.$ 

JEL Codes: O40, E12, E62.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# BIBLIOMETRIC ANALYSIS OF FINANCIAL TECHNOLOGY RESEARCH IN THE LAST DECADE USING DATA MINING TECHNIQUES

Muhammad Usman<sup>1</sup>, Kadir Kesgin<sup>2</sup>, Fatih Ayhan<sup>3</sup>, Ömer Faruk Görçün<sup>4</sup>

- <sup>1</sup> University of Warsaw, Warsaw/ Poland, E-mail: m.usman@uw.edu.pl.
- <sup>2</sup> Bandırma Onyedi Eylul University, Balikesir/ Türkiye, E-mail: <u>kkesgin@bandirma.edu.tr</u>.
- <sup>3</sup> Assoc.Prof., Bandırma Onyedi Eylul University, Balikesir/Türkiye, E-mail: fayhan@bandirma.edu.tr.
- <sup>4</sup> Assoc.Prof., Kadir Has University, İstanbul/ Türkiye, E-mail: omer.gorcun@khas.edu.tr.

#### **ABSTRACT**

This study conducts a comprehensive bibliometric analysis of research conducted in the field of Financial Technology (FinTech) over the past decade. The rapidly evolving nature of FinTech and its increasing impact on the global economy have made it essential to understand the direction and influence of academic studies in this field. Therefore, this research was undertaken to explore the overall dynamics of academic production in FinTech, analyze its thematic evolution, and guide future research. For this study, a Python-based program was developed and integrated with the APIs of databases such as Web of Science, Scopus, and TR Dizin to extract and process bibliometric data. In the data extraction process, relevant publications were selected using specific keywords and subject headings, with only peer-reviewed articles and book chapters included in the analysis. The extracted data were processed based on parameters such as publication year, author information, journal name, citation counts, and geographical distribution. The study employs various analytical techniques, including citation trends, cocitation networks, keyword analysis, and the geographical distribution of research outputs. Additionally, predictive models such as Linear Regression (LR) and Support Vector Regression (SVR) were applied to forecast citation and publication trends for upcoming years. To train these models, data from the past five years were used, and model performance was assessed using cross-validation techniques. To enhance the reliability of the findings, different parametric and non-parametric tests were conducted.

The research results indicate that academic publications related to FinTech are concentrated in specific thematic areas, with increasing academic interest particularly in financial innovation, blockchain technologies, and regulatory issues. In terms of geographical distribution, the United States, China, and the United Kingdom stand out as the most significant contributors. Studies from these regions primarily focus on financial services, digital banking, and decentralized finance.

The limitations of this study include the analysis being restricted to data extracted from specific academic databases and the exclusion of grey literature (reports, policy documents, etc.). Future research can be expanded to include other components of the FinTech ecosystem, particularly examining the impact of start-ups and the implications of regulatory changes on academic output. This study provides valuable insights for academics, policymakers, and practitioners for future research and innovation in the field of FinTech.

Keywords: Financial Technology (FinTech), Bibliometric Analysis, Data Mining, Citation Trends, Predictive Modeling.

JEL Codes: G00, G10, O33.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# THE POTENTIAL OF NICHE TOURISM IN GREECE - AN EXPLORATORY STUDY ON DANCERS' PERCEPTIONS: THE CASE OF TANGO-TOURISM

#### Livia Sadikaj<sup>1</sup>, Eirini Tsichla<sup>2</sup>

- <sup>1</sup> Undergraduate student, American College of Thessaloniki, Thessaloniki/ Greece, E-mail: <u>liviasadikaj@gmail.com.</u>
- <sup>2</sup> Assistant Professor, American College of Thessaloniki, Thessaloniki/ Greece, E-mail: etsichla@act.edu.

#### **ABSTRACT**

The current study examines the perspectives of international tango dancers to shed light on the potential of tango tourism as a niche tourism segment in Greece. As travellers are looking for more culturally immersed and meaningful experiences during their vacation time (Richards, 2018), dance tourism - tango in particular - has become a distinctive motivator that combines both passion and travel. This exploratory research seeks to understand the primary variables affecting dancers' participation in tango-related travel and to assess whether Greece could emerge as a tango destination.

Employing a quantitative approach, the research is rooted in the niche and cultural tourism theory. An online survey was undertaken to gather data from active tango dancers worldwide. The main motivators of tango travel, the importance of a different experience, logistical factors in destination selection, and the opinions of respondents regarding the advantages and disadvantages of traveling in Greece for tango tourism were investigated.

Survey findings showcase that the three most influencing factors during decision-making for tango tourists are: cultural discovery, emotional connection with the dance, and the availability of holiday packages involving tango events. Additionally, participants prioritized dimensions like authenticity, local atmosphere, and community bonding between tango dancers. Nonetheless, the participants stressed the need for more international promotion of tango events in Greece, high-quality event management, and enhanced infrastructure to stimulate tango-incentivized tourism.

Based on these results, there seems to be a considerable potential for more proactive development of tangotourism in Greece, which could be facilitated by Destination Marketing Organizations (DMOs), event managers, and travel agencies. Additionally, Greece can draw in an exclusive and loyal segment of tango tourists all year long by leveraging the sentimental and social elements of tango.

This exploratory study provides a basic understanding of a tourism niche that is both promising and understudied. Thus, future studies into the habits, preferences, and financial benefits of tango dance-inspired visitors, could yield important insights that benefit policymakers and local entrepreneurs to diversify Greece's tourism economy.

Keywords: Tango, Tango Tourism, Tango Dancer, Motivations, Perceptions, Greece, Niche.

JEL Codes: Z32, Z33, L83.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### STOCK MARKET RESPONSES TO CAPITAL BUFFER ANNOUNCEMENTS DURING THE COVID PANDEMIC: EVIDENCE FROM A NEW GLOBAL DATASET

#### Mahmoud Metwally<sup>1</sup>, Jens Klose<sup>2</sup>

- <sup>1</sup> Technische Hochschule Mittelhessen, Justus Liebig Universität, Gießen/ Germany, E-mail: mahmoud.metwally@w.thm.de.
- <sup>2</sup> Technische Hochschule Mittelhessen, Gießen/ Germany, E-mail: jens.klose@w.thm.de.

#### **ABSTRACT**

The COVID pandemic provides the first opportunity to investigate the effects of capital buffer measures on a global scale during a period of stress. We construct a novel global capital buffer announcement dataset, capturing the direction and intensity of measures for the pandemic years 2020 and 2021. Using a panel VAR model, we examine the responses of stock prices to these announcements for 52 countries. While controlling for the effects of the number of COVID cases, containment measures, monetary and fiscal policies, as well as other macroprudential measures, we find that stock prices reacted negatively to capital buffer easing announcements. The negative response was primarily driven by Capital Conservation Buffer (CCOB) announcements, while markets barely reacted to announcements related to other buffers. We find no differences between the responses of overall and financial sector indices, indicating that announcements conveyed economy-wide signals. Moreover, we conduct sample splits based on the capital adequacy ratio, the level of stock market development, the government debt-to-GDP ratio, and the initial severity of the pandemic. These reveal substantial cross-country heterogeneity in stock price responses to CCOB announcements. Our policy recommendations support a stronger reliance on the Countercyclical Capital Buffer (CCyB) during periods of stress as it avoids the negative market reactions associated with the CCOB.

Keywords: Macroprudential Policy, Capital Buffers, Stock Prices, COVID.

JEL Codes: E44, E52, E58, G01, G21.

#### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

#### HEALTHY LIVING, SMART CHOICES: HOW LIFESTYLE SHAPES CONSUMER BEHAVIOR

Eleni Poulaki<sup>1</sup>, Chrysa Agapitou<sup>2</sup>, Dimitris Folinas<sup>3</sup>, Konstantinos Rotsios<sup>4</sup>, Maria-Theodora Folin<sup>5</sup>

- <sup>1</sup> Agricultural University of Athens, Athens/ Greece, E-mail: <a href="mailto:epoulaki@gmail.com">epoulaki@gmail.com</a>
- <sup>2</sup> Assistant Professor, University of Piraeus, Piraeus/ Greece, E-mail: <a href="mailto:caga@unipi.gr">caga@unipi.gr</a>.
- <sup>3</sup> Professor, International Hellenic University, Katerini/ Greece, E-mail: folinasd@ihu.gr.
- $^4$  Professor, American College of Thessaloniki, Thessaloniki/ Greece, E-mail:  $\underline{krotsios@act.edu}$ .
- <sup>5</sup> Student, University of Macedonia, Thessaloniki/ Greece, E-mail: <u>ics22059@uom.edu.gr</u>.

#### **ABSTRACT**

A healthy lifestyle is a key factor influencing various aspects of daily life, including consumer behavior. Modern consumers are showing an increasing interest in health and well-being, which is reflected in their choice of products and services that enhance their well-being. Within this framework, the research was conducted with the primary objective of studying the impact of a healthy lifestyle on consumer behavior. To achieve this, a quantitative survey was chosen, and an electronic questionnaire was conducted. The survey targeted potential consumers aged 18 years and above, resulting in 359 participants. The collected data were appropriately processed and analyzed using descriptive and inferential statistics. The findings identified that consumers have positive attitudes toward health and healthy lifestyle issues and observed the tendency to adopt healthy practices in their daily lives. Moreover, the study confirmed that a healthy lifestyle- particularly in terms of diet and exercise—is related to consumer behavior. This study suggests that marketing strategies can be more effective by emphasizing the benefits of consuming healthy products, such as improved health and overall well-being. Additionally, it recommends collaborating with experts to develop strategies that encourage healthier and more informed consumer choices.

Keywords: Consumer Behavior, Healthy Lifestyle, İmpact, Nutritional Habits, Health, Healthy Diet.

**JEL Codes:** D11, I12, M31.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

# THE DYNAMIC RELATIONSHIP BETWEEN TÜRKİYE'S ECONOMIC POLICY UNCERTAINTY AND THE BIST 100: EVIDENCE FROM THE DCC-GARCH APPROACH

Hasan Murat Ertuğrul<sup>1</sup>, Burcu Yürük<sup>2</sup>

- <sup>1</sup> Prof. Dr., Anadolu University, 26005, Eskişehir/ Türkiye, E-mail: <a href="mailto:hmertugrul@anadolu.edu.tr">hmertugrul@anadolu.edu.tr</a>.
- <sup>2</sup> PhD., Uşak University, 64100, Uşak/ Türkiye, E-mail: <a href="mailto:burcu.yuruk@usak.edu.tr">burcu.yuruk@usak.edu.tr</a>.

#### **ABSTRACT**

In recent years, Türkiye has been experiencing an environment of economic uncertainty due to global economic fluctuations and changes in domestic politics. Economic uncertainties directly affect investors' risk perception and expectations, causing fluctuations in capital flows and the stock market. Although the interaction between financial markets and economic uncertainty has been frequently addressed in the literature for developed economies, it constitutes a critical research area especially for emerging economies with high economic vulnerability. This study aims to analyze the dynamic change in the relationship between economic uncertainty and the stock market over time. Accordingly, the study analyzes the dynamic relationship between the Türkiye Economic Policy Uncertainty Index (Türkiye-EPU), which is based on the content analysis of local media news in Türkiye, and the BIST 100 index using the Dynamic Conditional Correlation (DCC -GARCH) method. The study utilizes monthly Türkiye-EPU and BIST 100 data covering the period 2006M1-2024M12. The empirical findings of the study show that dynamic correlation strengthens during periods of intense uncertainty such as the COVID-19 pandemic and the Russia-Ukraine conflict, as well as global uncertainties such as the Gezi Park events, referendums and elections specific to the Türkiye economy. During such periods, the BIST 100 index experienced significant declines and high volatility was observed in investor behavior.

Keywords: Economic Policy Uncertainty Index, BIST 100 Index, DCC-GARCH.

JEL Codes: C22, D80, G11.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

#### OPENNESS, UNIONIZED LABOR MARKETS, AND MONETARY POLICY

Xakousti Chrysanthopoulou<sup>1</sup>, Evangelos Ioannidis<sup>2</sup>, Moïse Sidiropoulos<sup>3,4</sup>

- <sup>1</sup> Post-Doc Researcher, Department of Economics, Aristotle University of Thessaloniki, Thessaloniki/ Greece, E-mail: xchry@econ.auth.gr.
- <sup>2</sup> Assistant Professor, Department of Economics, Aristotle University of Thessaloniki, Thessaloniki/ Greece, E-mail: <a href="mailto:ioannide@econ.auth.gr">ioannide@econ.auth.gr</a>.
- <sup>3</sup> Professor, Department of Economics, Aristotle University of Thessaloniki, Thessaloniki/ Greece, BETA, University of Strasbourg, Strasbourg/ France, E-mail: <a href="mailto:msidiro@econ.auth.gr">msidiro@econ.auth.gr</a>.

#### **ABSTRACT**

This paper extends the micro-founded DSGE open economy model by incorporating unionized labor markets. Unlike the standard framework with atomistic unions, large labor unions consider broader economic conditions and internalize the impact of their wage settlements on the aggregate economy. By emphasizing the interplay between internal and external sources of economic distortions and monetary policy regimes, we demonstrate that the economy's openness, the degree of wage-setting centralization, and different monetary policy regimes influence unions' wage-setting behavior and macroeconomic outcomes. The analysis identifies three key effects—the monetary policy effect, the intertemporal substitution effect, and the open economy effect—that large unions internalize when adjusting their wage demands in response to policy actions and external conditions. This novel wage-based mechanism alters the New Keynesian Phillips curve, with implications for the conduct of monetary policy, particularly in shaping the economy's response to shocks and equilibrium determinacy. The real effects of monetary policy shocks under different policy settings depend on large unions' internalization effect. In a unionized labor market, the impact of monetary shocks on the real economy is amplified compared to the standard case with atomistic unions. Additionally, interactions among large unions, openness, and monetary policy regimes affect determinacy properties of equilibrium (i.e., uniqueness of the solution path) under various forms and timing of monetary policy rules. These findings underscore the importance of accounting for labor market structures in monetary policy design to ensure stability and optimal economic outcomes.

Keywords: Large Unions, Monetary Policy, New Keynesian Phillips Curve, DSGE Model, İmpulse Response Functions.

JEL Codes: E24, E32, E52.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### EMOTIONAL RESPONSES AND GENDER DIFFERENCES IN ONLINE HEALTH INFORMATION SEEKING: IMPLICATIONS FOR EHEALTH LITERACY AND HEALTH DECISION-MAKING

#### Evanthia Malinaki<sup>1</sup>

<sup>1</sup>Adjunct Professor, ACT & AUTH, Thessaloniki/ Greece, E-mail: <a href="mailto:emailnak@act.edu">emailnak@act.edu</a> & <a href="mailto:emailnak@act.edu">emailnak@act.edu</a> & <a href="mailto:emailto:emailnak@act.edu">emailnak@act.edu</a> & <a href="mailto:ema

#### **ABSTRACT**

The availability of online health information enables individuals to engage more actively in health-related decision-making. A key factor in this process is eHealth literacy, the capacity to access, assess, and apply digital health information. Research shows gendered patterns in Internet use: men typically use it more overall, while women more often seek health content. Yet, searching for health information can provoke emotional reactions that affect decisions and perceptions of health inequality. This study examined how emotions—such as fear, satisfaction, and anxiety—following online health searches influence decision-making, eHealth literacy, and perceived disparities, alongside gender-based differences in information-seeking.

A total of 2,699 participants (1,753 women, 933 men, 13 undisclosed) aged 17-84 years (M = 31.18, SD = 13.47) completed an online survey in Greece in summer 2020, recruited through snowball sampling.

Initial results showed that positive emotions post-search were significantly correlated with: more frequent use of the Internet for health content (r = .35, p < .01), trust in information reliability (r = .51, p < .01), change in health decisions (r = .46, p < .01), enhanced self-efficacy (r = .47, p < .01), and likelihood to consult others (r = .38, p < .01). In contrast, negative emotions were linked to lower eHealth literacy (r = .27, p < .01) and higher perceived inequality (r = .20, p < .01).

Hierarchical regressions revealed gender significantly predicted emotional outcomes in both the first ( $R^2 = .06$  for negative, .14 for positive) and second steps ( $R^2 = .08$  for negative, .14 for positive), all p < .001.

In conclusion, frequent online health searches are associated with positive emotional outcomes, which in turn enhance information engagement. Gender differences show men respond more positively than women to digital health content, suggesting a need for tailored approaches in eHealth literacy initiatives.

**Keywords:** E-health Literacy, Online Health Information, Emotional Responses, Gender Differences, Health Disparities.

**JEL Codes:** 

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

# DETECTING ECONOMIC TRANSFORMATION AS A SOCIAL REPRODUCTION MECHANISM, UTILIZING DATA FROM 61 DEVELOPED AND DEVELOPING COUNTRIES, UNDER POLITICAL ECONOMY PERSPECTIVE

Eirini C. Drakou<sup>1</sup>

<sup>1</sup>Dr, Department of Economics, University of Thessaly, Thessaly, Greece, idrakou@yahoo.gr.

#### **ABSTRACT**

This paper explores the inter-relations between the key development factors which economic transformation literature indicates, by using exploratory factor analysis (EFA) of a dataset of 43 variables, spanning between 2017-2019, for 61 developed and developing countries. The aim is to apply systems thinking, under DSRP framework, in the interpretation of results, in order to highlight structural patterns and evolutionary processes that are unified as economic transformation. The interpretative and guiding key proved to be the fundamental importance attributed to the innovators and entrepreneurs initiating and driving the process, being the social group that forms synergisms of multi-stakeholder networks, inducing inclusive decision-making and setting the rules for open, active involvement of new entrants. This political economy perspective creates the ground for theoretical concepts of creative destruction, path dependence, path creation and transaction costs to be placed in an exploratory dialogue between them. The theoretical underpinnings lay in the field of new endogenous growth, being a platform for incorporating institutional economics, innovation system approach and complexity theory. With this lens, a structural sequence is detected, starting with institutional protection, leading to entrepreneurial culture instigation, enabling productive connections and institutionalizing successful business practices. With political inclusiveness as the motor of the evolutionary trajectory, the emerging momentum tries to overcome the historical dependence of practices from old needs, which raise resistance to institutional change, altogether constituting a reproduction system of a new development life-cycle. This system emerged by EFA, detecting covariance between variables and therefore causality and structure indication. This methodology produced eleven latent factors/performance indicators and four structural dimensions, integrated in a complex systemic framework that constitutes a holistic approach on economic transformation. This paper contributes to development policy under systems thinking, which can be viewed as a strategic tool for path creation towards an envisioned future.

 $\textbf{Keywords:} \ Transformation, Inclusiveness, Political Economy, Systems \ Thinking, Creative \ Destruction.$ 

**JEL Codes:** F43, 036, P11.

### **EVALUATING THE INTERNAL MIGRATION IMPACT OF SYRIAN REFUGEES IN TÜRKİYE\***

### Recep Taşkın<sup>1</sup>, Hakan Ulucan<sup>2</sup>, Semih Tümen<sup>3</sup>

- <sup>1</sup> Doctorate Student, Pamukkale University, Department of Economics, Denizli/ Türkiye, E-mail: <u>rtaskin@pau.edu.tr.</u>
- <sup>2</sup> Anadolu University, Department of Economics, Eskisehir/ Türkiye, E-mail: <a href="https://doi.org/no.com/html/html/html/">https://doi.org/no.com/html/</a>. Pakanulucan@anadolu.edu.tr.
- <sup>3</sup> TED University, Department of Economics, Ankara/Türkiye, E-mail: <a href="mailto:semih.tumen@tedu.edu.tr">semih.tumen@tedu.edu.tr</a>.

### **ABSTRACT**

This paper investigates the impact of the Syrian refugee influx on internal migration flows in Türkiye by focusing on province-level population movements during the 2010s. The study explores whether the increasing presence of Syrian refugees has altered the movement of the native population across provinces. The study uses pairwise interprovincial native migration flow data from TurkStat and province-level refugee distribution data from the Ministry of Interior. The study employs an instrumental variable strategy based on two distance-related instruments to address potential endogeneity between refugee settlement patterns and internal migration flows. The analysis reveals a significant association between the share of refugees in a province and the native outflows from that province. The results show that as refugee density increases in a province, internal migration from that province to other regions also rises. These findings underline the importance of accounting for local demographic pressures when designing migration policies. Results also point to the broader effects of forced migration on internal mobility patterns.

Keywords: Migration, Instrumental Variables, Security Expenditure, Education Expenditure, Türkiye.

JEL Codes: C36, F22, H50, H72.

\_

<sup>\*</sup> This study is derived from Recep Taşkın's doctoral thesis titled "Suriyeli Mültecilerin Türkiye'de İç Göç Üzerine Etkileri" at the Department of Economics, Pamukkale University.

### NEOLIBERAL IDEOLOGY AND COUNTERACTING HUMANIST IDEALS: A DIALECTIC MULTI-LEVEL FRAMEWORK FOR SOCIETAL, ORGANIZATIONAL, AND PSYCHOLOGICAL ANALYSIS

Severin Hornung<sup>1</sup>, Thomas Höge<sup>2</sup>, Christine Unterrainer<sup>3</sup>

- <sup>1</sup> PhD, University of Innsbruck, Department of Psychology, Innsbruck/ Austria, E-mail: <a href="mailto:severin.hornung@uibk.ac.at">severin.hornung@uibk.ac.at</a>.
- <sup>2</sup> PhD, University of Innsbruck, Department of Psychology, Innsbruck/ Austria, E-mail: thomas.hoege@uibk.ac.at.
- <sup>3</sup> PhD, University of Innsbruck, Department of Psychology, Innsbruck/ Austria, E-mail: christine.unterrainer@uibk.ac.at.

### **ABSTRACT**

The objective of this predominantly conceptual contribution is to present a theory-based multi-level framework of the complex and dynamic ideological forces shaping contemporary societies, institutions, and subjectivities. Theoretical building blocks of the model are interdisciplinary critiques of neoliberalism, (psycho-)analytic social psychology, and radical humanist ethics. Elaborating and extending an existing psychodynamic model of political, social, and fantasmatic logics of neoliberal ideology, interactions among societal, organizational, and psychological structures and processes are subjected to dialectical analysis and theoretical integration. The proposed model positions theory-based tripartite sets of dimensions of neoliberal economistic ideology versus humanist ethical ideals as antipodes on three levels (macro, meso, micro) and with respect to three domains of socio-psychological relatedness (identity, interactions, institutions). On the societal (macro) level, neoliberal political logics of individualism, competition, and instrumentality are contrasted with humanist ideals of individuation, solidarity, and emancipation. On the organizational (meso) level, social logics of neoliberal workplace practices emphasize self-reliance, competition, and economic rationalization, while humanistic management advocates for self-actualization, community, and social transformation. On the individual (micro) level, psychoanalytic theory suggests that fantasmatic neoliberal logics of success, superiority, and submission manifest as antipodes to humanist values of personal evolution, equality, and empowerment. Drawing on social character theory, the framework illustrates, how neoliberal ideologies influence modes of relatedness towards self, others, and authorities, resembling ego-oriented, market-driven, and authoritarian societal tendencies. Conversely, humanist ideals are positioned as countervailing ethical and re-civilizing forces. Linking psychoanalytic theories and theorizing on ideologies, the model offers a dynamic framework for examining and critiquing the socially corrosive effects of neoliberal political economy as well as for envisioning and mobilizing potentials for radical humanist transformation on the levels of society, organizations, and individuals. Exemplary applications of parts of the model in previous studies and future research needs and opportunities are discussed.

**Keywords:** Neoliberal Ideology, Humanist Ideals, Analytic Social Psychology, Psychodynamics, Social Character Theory, Dialectic Analysis. **JEL Codes:** B50, P00, Q5.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### HYSTERESIS EFFECT IN TURKISH LABOR MARKET: EVIDENCE FROM TRADITIONAL AND FOURIER UNIT ROOT TESTS

### Burak Darıcı<sup>1</sup>, Muhammet Kutlu<sup>2</sup>, Şeyma Şahin Kutlu<sup>3</sup>

<sup>1</sup>Prof. Dr. Bandirma Onyedi Eylul University, Bandırma/ Türkiye, E-mail: <a href="mailto:bdarici@bandirma.edu.tr">bdarici@bandirma.edu.tr</a>. <sup>2</sup>Asst. Prof. Bandirma Onyedi Eylul University, Bandırma/ Türkiye, E-mail: <a href="mailto:mkutlu@bandirma.edu.tr">mkutlu@bandirma.edu.tr</a>. <sup>3</sup>Assoc. Prof.Bandirma Onyedi Eylul University, Bandırma/ Türkiye, E-mail: <a href="mailto:ssahin@bandirma.edu.tr">ssahin@bandirma.edu.tr</a>.

### **ABSTRACT**

Unemployment hysteresis is defined as a situation where the movement of unemployment rates is not stationary over time. In other words, it is a situation where shocks occurring in the economy cause permanent effects on the unemployment rate. In addition, the unemployment rate continues to increase due to the hysteresis effect after the shock. This study empirically tested the hysteresis effect in the Turkish labor market. The literature uses traditional unit root tests and Fourier function unit root tests to investigate unemployment hysteresis. For this purpose, ADF, KPSS, FADF, and FKPSS tests were used in the study. The findings provide recommendations for policymakers.

Keywords: Hysteresis, Unit Root Tests, Türkiye.

JEL Codes: E24, J01.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### NAVIGATING THE ECONOMIC TSUNAMI: A CORPUS LINGUISTICS APPROACH TO METAPHOR USAGE AND FRAMING OF THE COVID-19 ECONOMIC CRISIS

### Filio Chasioti<sup>1</sup>

<sup>1</sup>Assistant Professor in English Language and Literature, American College of Thessaloniki (ACT), Thessaloniki/ Greece, E-mail: <a href="mailto:fchasiot@act.edu">fchasiot@act.edu</a>.

### **ABSTRACT**

This paper examines the role of metaphors in shaping perceptions of economic events and influencing understanding of the COVID-19 pandemic's economic crisis (2019-2022), by employing a corpus linguistics approach. The News on the Web (NOW) Corpus is used, which constitutes a dynamic English-language corpus developed by Mark Davies (2013) containing over 14 billion words from online newspapers and magazines across 20 countries. For this paper, the temporal scope was restricted to January 2019 to December 2022 (prepandemic, peak pandemic, and initial recovery phases). Conceptual Metaphor Theory (CMT) (Lakoff & Johnson, 1980) is also implemented, as it is posited that abstract discourse domains, such as economics, are understood through more concrete source domains (e.g., war or illness). Critical Discourse Analysis (CDA) (Fairclough, 1995) also provides key notions for understanding how metaphor use contributes to ideological positioning as well as to the legitimation of economic narratives and practices in media outlets which discuss economic topics.

A mixed-methods methodological approach is followed to identify, analyze, and classify metaphorical language. The methodology consists of three key stages, following the MIP method (Pragglejaz Group, 2017): data extraction (employing collocation and keyword analysis, n-grams, and frequency lists), metaphor identification and classifications [drawing upon source domains, as outlined in the CMT framework (Lakoff & Johnson, 1980)], and critical discourse analysis.

The findings identified three main metaphorical frames: (a) health metaphors ("financial recovery," "economic disease"), (b) war metaphors ("battle against recession"), and (c) natural disaster metaphors ("economic tsunami"). The findings also suggest a rise in health metaphors as the crisis unfolded (2020 onwards). The health and war metaphorical frames depict economic challenges as either diseases requiring expert intervention (Pühringer & Hirte, 2015), or as ongoing battles demanding aggressive responses (Joris et al., 2019; Roberts, 2013). Natural disaster metaphors, on the other hand, tend to represent the COVID-19 economic crisis as a complex, naturally occurring phenomenon, inducing emotional responses, while concealing relevant sociopolitical and ideological factors (Trčková, 2011).

By integrating a corpus linguistics methodology and CDA, the findings position the use of metaphors within broader communicative media practices, highlighting their functions in terms of shaping perceptions and influencing understanding within public discourse.

Keywords: Linguistics, Discourse Analysis, COVID-19 Pandemic, Conceptual Metaphors.

JEL Codes: Z13, D83, E65.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### REVISITING THE FELDSTEIN-HORIOKA PUZZLE: THE CASE OF FRAGMENTED GLOBAL ECONOMY

Vasilis Psarras<sup>1</sup>

<sup>1</sup> Economist, DeHavilland Europe, Brussels/ Belgium, E-mail: <a href="mailto:vasileios.psarras@dehvaillandeurope.eu">vasileios.psarras@dehvaillandeurope.eu</a>.

### **ABSTRACT**

The Feldstein and Horioka Puzzle, first presented in 1980, found evidence of capital immobility and a high correlation between domestic Investment and Savings in OECD countries. The purpose of this paper is to revisit this relationship throughout the past five decades and a wide range of developed and developing countries while also incorporating additional macroeconomic factors explaining the Puzzle. In the cross-section analysis, 107 developed and developing countries are used from 1970-2019 with five-year averages, expanding the initial Feldstein and Horioka approach and applying an Instrumental Variables analysis. In the time series analysis, 29 developed and developing countries are examined from 1970-2019, building an Error Correction Model, with trade openness, financial development, and economic growth as additional explanatory variables. The main conclusion is that developed and developing countries offer different results concerning the existence of the Feldstein and Horioka Puzzle and the importance of the additional explanatory variables. However, fragmentation in international capital markets even today affects the relationship between Savings and Investment, despite the significant drop from the original work of 1980.

Keywords: Mobility, Feldstein-Horioka Puzzle, Savings-Investment, Fragmentation, Instrumental Variables, Error Correction Model

JEL Codes: F02, F21, F32.

### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### WHO LEADS IN GREEN BONDS? A EUROPEAN ANALYSIS OF INVESTOR CHOICES

Vidra Aristea<sup>1</sup>, Papadamou Stephanos<sup>2</sup>, Sidiropoulos Moise<sup>3</sup>

- <sup>1</sup> PhD Graduate, Aristotle University of Thessaloniki, Thessaloniki/ Greece, E-mail: <u>varistea@econ.auth.gr.</u>
- <sup>2</sup> Professor, University of Thessaly, Volos/ Greece, E-mail: <a href="mailto:stpapada@econ.uth.gr">stpapada@econ.uth.gr</a>.
- <sup>3</sup> Professor, Aristotle University of Thessaloniki, Thessaloniki/ Greece, E-mail: <u>msidiro@econ.auth.gr.</u>

#### **ABSTRACT**

Climate change presents an urgent and systemic risk, demanding a fundamental reallocation of financial investments towards sustainable assets. This paper examines the relationship between green and conventional bond holdings across different types of European investors by employing a Panel Vector Autoregressive (PVAR) framework. Using novel ECB data on securities holdings by sector, we reveal a positive link between green and conventional bond allocations. Our results highlight the leading role of the European Central Bank (ECB) in supporting green finance through its holdings, particularly since the introduction of climate-oriented asset purchase programs. Conversely, national governments continue to concentrate on conventional bonds, reflecting a divergence from the ECB's climate strategy. This misalignment suggests the need for enhanced coordination between central banks and fiscal authorities to effectively mobilize green investments. Our study contributes to the literature by shifting focus from price dynamics to portfolio composition, offering new insights into investor behavior in the evolving European green bond market.

Keywords: Green Bond Holdings, Central Bank, Green QE, Institutional Investors.

JEL Codes: E58, G20, Q43.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### THE INTERPLAY OF DOMINANCE, DIVERSIFICATION, AND REGIONALIZATION SHAPE THE TOURISM GLOBAL VALUE CHAIN

### Evangelia Stergiou<sup>1,</sup>, Georgios Angelidis<sup>2</sup> and Nikos C. Varsakelis<sup>3</sup>

- <sup>1</sup> PhD (c), Aristotle University of Thessaloniki, Department of Economics, Thessaloniki/ Greece, E-mail: evangevs@econ.auth.gr.
- <sup>2</sup> PhD (c), Aristotle University of Thessaloniki, Department of Economics, Laboratory of Economic Analysis and Policy (LEAP), Thessaloniki/ Greece, E-mail: <a href="mailto:angelidig@econ.auth.gr">angelidig@econ.auth.gr</a>.
- <sup>3</sup> Professor, Aristotle University of Thessaloniki, Department of Economics, Laboratory of Economic Analysis and Policy (LEAP), Thessaloniki/ Greece, E-mail: <a href="mailto:barsak@econ.auth.gr">barsak@econ.auth.gr</a>.

#### **ABSTRACT**

This paper provides a comprehensive analysis of the tourism global value chain, focusing on the dominance of certain countries, the diversification of value-added flows, and the regionalization of tourism GVCs. The study employs weighted directed network analysis using data from the World Input-Output Database (WIOD) for the period 2000–2014. This approach allows for the quantification of the relationships between countries in the tourism GVC, highlighting the direction and intensity of input flows. Germany, the UK, and China are central hubs for receiving inputs and services within the tourism industry, reflecting their strong demand for tourism-related activities and their role as key destinations. Japan, China, and the USA exhibit the highest out-degree values, indicating their significance as suppliers of inputs for the global tourism industry. Sweden and Italy show the highest out-weight entropy, suggesting that these countries have diversified and balanced outflows of inputs to various partners in the tourism GVC. Poland and Sweden exhibit the highest in-weight entropy, indicating a diversified inflow of inputs from multiple sources. The tourism GVC network is regionalized into four distinct zones: East Asia, North Central Europe, Northeast Europe, and North America. The findings underscore the growing interconnectedness of countries in the tourism sector, driven by globalization and the integration of tourism-related activities. The study reveals that the tourism GVC is characterized by the dominance of key countries, diversified input flows, and strong regional patterns.

 $\textbf{Keywords:}\ \textbf{Tourism,}\ \textbf{Global Value Chains,}\ \textbf{Network Analysis,}\ \textbf{Diversification,}\ \textbf{Regionalization.}$ 

JEL Codes: F10, F14, Z23.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## DECODING UK CONSUMER BEHAVIOR: FACTORS DRIVING WILLINGNESS TO PURCHASE OWN-LABEL READY MEALS USING TPB FRAMEWORK AND ADVANCED MACHINE LEARNING

### Ourania Tremma<sup>1</sup>, Iosif Viktoratos<sup>2</sup>

<sup>1</sup>Assistant Professor, University College Dublin, Department of Agriculture and Food Science, Dublin/ Ireland, E-mail: ourania.tremma@ucd.ie.

<sup>2</sup>Adjunct Professor, ACT College, Department of Computer Science, Thessaloniki/ Greece, E-mail: ivictor@act.edu.

### **ABSTRACT**

The UK own-label ready meals (OLRM) market has grown significantly post-COVID-19, driven by affordability and convenience. This study explores the factors influencing UK consumers' willingness to purchase OLRM, using the Theory of Planned Behavior (TPB) framework, which links attitudes, subjective norms (SN), and perceived behavioral control (PBC) to behavioral intentions. The objectives were to evaluate consumer perceptions, identify key predictors, and assess price sensitivity.

A quantitative approach surveyed 340 UK respondents online. Advanced feature engineering created TPB construct scores, generating single-factor (e.g., convenience, healthiness), pairwise (e.g., family influence\*retailer trust), and contextual feature interaction. SHAP (SHapley Additive exPlanations) analysis identified convenience, healthiness, and SN (friends and family influence) as top single-factor predictors, with high values increasing purchase likelihood. Pairwise interactions, notably family influence combined with retailer trust, significantly amplified predictions, underscoring the combined role of social approval and retailer reputation. Gaussian Mixture Model (GMM) clustering, optimized via BIC and silhouette scores and visualized in a heatmap, segmented consumers into six distinct profiles: three high-potential clusters with strong positive attitudes and family influence, one influenced by external factors like promotions, and two low-potential clusters with negative. An approach to develop a predictive model selection was performed by comparing via 5-fold nested cross-validation Linear Regression, Random Forest, XGBoost, and the novel TabPFN (Tabular Pre-trained Foundation Network). Random Forest performed best but achieved a modest test R2 of 0.3881 due to constrained data and other unmodeled factors like taste. TabPFN, a transformer-based model, introduces a state-of-the-art (SOTA) contribution, with potential to outperform traditional ML methods in larger datasets, advancing predictive modeling in consumer behavior studies. Price sensitivity, influenced by economic pressures, was secondary to SN and convenience.

This study enhances consumer behavior analysis through explainable AI, clustering, and SOTA transformer models, highlighting family influence and convenience as key drivers. Retailers should leverage these insights for targeted marketing. Future research should expand the dataset to improve predictions.

**Keywords:** Own-Label Ready Meals, Theory of Planned Behavior (TPB), SHAP Analysis, Gaussian Mixture Model (GMM) Clustering TabPFN (Tabular Pre-trained Foundation Network)

### A COMPARATIVE ANALYSIS OF SPIKING AND TRADITIONAL NEURAL NETWORKS FOR ONLINE ADVERTISING

Albin Uruqi<sup>1</sup>, Iosif Viktoratos<sup>2</sup>

<sup>1</sup>Postgraduate student ACT College, Department of Computer Science, Kosovo, E-mail: <a href="mailto:albinuruqi@gmail.com">albinuruqi@gmail.com</a>. <sup>2</sup>Adjunct Professor, ACT College, Department of Computer Science, Thessaloniki/ Greece, E-mail: <a href="mailto:ivictor@act.edu">ivictor@act.edu</a>.

### **ABSTRACT**

This work investigates Spiking Neural Networks (SNNs) as a novel and biologically inspired approach to predict click-through rate (CTR) in personalized online advertising systems. CTR is a critical metric for assessing user engagement and advertisement profitability, directly influencing the effectiveness of online advertisements. A comparative analysis of contemporary state-of-the-art methodologies has been implemented, encompassing traditional machine learning algorithms and Artificial Neural Network (ANN)-based architectures, alongside novel Spiking Neural Network (SNN)-based models. The training and evaluation processes for these models have been conducted utilizing well-established public datasets to ensure reproducibility and relevance. To maximize robustness and reliability, all models have been subjected to rigorous testing and validation protocols, including k-fold cross-validation procedures and systematic hyperparameter optimization techniques. Moreover, the models have been engineered with an emphasis on interoperability and scalability, specifically designed to facilitate seamless integration and deployment within web-based platforms and distributed computing environments. The outcome of this research includes a comparative analysis of prediction accuracy between ANN and SNN models. Findings demonstrate that the SNN-based models for CTR prediction are competitive with state-of-the-art models. This work not only introduces a novel model for CTR prediction but also sets a new standard in predictive modeling. By being the first to explore the application of SNNs in CTR prediction, this research holds significant scientific and social implications, paving the way for future innovations in developing more efficient and accurate CTR prediction algorithms, and potentially transforming the landscape of personalized advertising.

 $\textbf{Keywords}: Artificial\ Intelligence,\ Machine\ Learning,\ Click-Through\ Rate\ (Ctr),\ Artificial\ Neural\ Networks,\ Spiking\ Neural\ Networks.$ 

JEL Codes:

BEING A CFO IN TÜRKİYE: AN EXPLORATORY STUDY ON DEMOGRAPHIC, EDUCATIONAL, AND CAREER PATHS OF FINANCE AND ACCOUNTING LEADERS

### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

#### Bülent Kınay<sup>1</sup>

<sup>1</sup> PhD, Akdeniz University, Antalya/ Türkiye, E-mail: <u>bulentkinay@gmail.com</u>.

### **ABSTRACT**

In today's corporate environment, the Chief Financial Officer (CFO) position, responsible for leading companies' accounting and finance functions, has become a key role in top management with increasing strategic value. As a result, the individual characteristics of CFOs are gaining importance. This study examines whether companies include a CFO position in their top management and whether CFO characteristics differ based on firm size. It particularly focuses on notable differences in CFOs' demographic profiles, professional experiences, and educational backgrounds. To this end, as of January 2024, the study analyzes a total of 76 companies, including all firms listed on the Borsa Istanbul BIST 30 (XU030) index (n=30) and all SMEs listed on the BIST SME INDUSTRY (XKOBI) index (n=46). Data related to CFOs were obtained from annual reports and LinkedIn profiles of the companies. The data were systematically organized and analyzed using content analysis. The findings reveal significant differences between medium-sized and large-scale companies regarding the presence of a CFO and the characteristics of CFOs. CFOs in XU030 companies are appointed at a higher average age, possess more extensive professional experience, and exhibit greater international visibility. In line with their firms' global and strategic demands, CFOs in large-scale companies also tend to have postgraduate or doctoral degrees, international experience, and advanced qualifications. Previous work experience in biggest accounting firms appears to ease the path to the CFO position. On the other hand, XKOBI companies are less likely to appoint a CFO compared to large firms. Notably, a considerable number of these SMEs have no accounting or finance leader in their top management. The results indicate that the role and qualifications of CFOs in XU030 firms have evolved beyond traditional responsibilities such as financial reporting and compliance, moving toward strategic business and operational leadership. This study contributes to the literature on the accounting profession and education. It not only provides a foundation for academic research but also offers guidance for executive training programs and corporate governance reforms. Additionally, it offers valuable insights for those pursuing a CFO career as well as for accounting professionals, professional bodies, and human resources consultants.

**Keywords:** Chief Financial Officer, CFO Career, Accounting Profession, CPA, Accounting Education.

JEL Codes: M10, M12, M41.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

## THE IMPACT OF SYRIAN REFUGEES ON INTERNAL MIGRATION IN TÜRKİYE: A GRAVITY MODEL APPROACH\*

### Recep Taşkın<sup>1</sup>, Hakan Ulucan<sup>2</sup>

- <sup>1</sup> Doctorate Student, Pamukkale University, Department of Economics, Denizli/ Türkiye, E-mail: rtaskin@pau.edu.tr.
- <sup>2</sup> Anadolu University, Department of Economics, Eskisehir/ Türkiye, E-mail: <a href="mailto:hakanulucan@anadolu.edu.tr">hakanulucan@anadolu.edu.tr</a>.

### **ABSTRACT**

This study investigates the impact of the spatial distribution of Syrian refugees on the internal migration patterns of native residents in Turkey. Using inter-provincial migration data from the Turkish Statistical Institute (TÜİK) and refugee population statistics from the Directorate General of Migration Management, we analyze the 2010s period through the panel gravity model of migration. Using this model, the study addresses potential endogeneity with province-pair fixed effects. The results indicate that provincial movements of Syrian refugees are strongly associated with the pairwise movements of natives. Our findings contribute to the broader literature on immigration-induced displacement and offer policy insights into managing demographic pressure.

Keywords: Migration, Internal Migration, Gravity Model, Türkiye.

JEL Codes: C36, F22, R23, O52.

\_

<sup>\*</sup> This study is derived from Recep Taşkın's doctoral thesis titled "Suriyeli Mültecilerin Türkiye'de İç Göç Üzerine Etkileri" at the Department of Economics, Pamukkale University.

### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### BANK CLOSURES, LOCAL ECONOMIC GROWTH, AND LOCAL EMPLOYMENT

### Trinh Vu Nguyen<sup>1</sup>, Andras Bethlendi<sup>2</sup>

<sup>1</sup>PhD student, Department of Finance, Faculty of Economic and Social Sciences, Budapest University of Technology and Economics, Budapest/Hungary, E-mail: <a href="mailto:trinhvu.nguyen@edu.bme.hu">trinhvu.nguyen@edu.bme.hu</a>.

<sup>2</sup> Associate Professor, Department of Finance, Faculty of Economic and Social Sciences, Budapest University of Technology and Economics, Budapest/ Hungary, E-mail: <a href="mailto:bethlendi.andras@gtk.bme.hu">bethlendi.andras@gtk.bme.hu</a>.

### **ABSTRACT**

Bank closures disrupt the flow of credit to businesses and adversely affect the potential investment activities of firms, leading to a decline in local employment. This study empirically investigates the impact of bank closures and local economic growth on Hungarian local employment. Utilizing annual data covering all 20 counties in Hungary for 2013–2019, this study employs fully modified least squares (FMOLS) to estimate the empirical results of the study. The findings of the study show that healthy bank closures increase local unemployment, whereas unhealthy bank closures reduce local unemployment. In addition, the increase in newly established corporations and local economic growth helps create more job opportunities, which in turn helps reduce local unemployment. The growth of investment from the national economy into the locality creates momentum for local economic development through many economic projects, thereby reducing the local unemployment rate. Besides, local unemployment rose as a result of the escalation in national gross fixed capital formation. The study suggests that policymakers should pay more attention to bank consolidation and limit the closure of healthy local banks. At the same time, introducing M&A policies to encourage consolidation in the banking sector, especially for weak banks, will help stabilize the national financial system and promote local employment opportunities and economic growth.

Keywords: Bank Closures, Local Economic Development, Local Employment, Healthy Banks, Unhealthy Banks.

JEL Codes: R11, E2, G33.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## ASSESSMENT OF POLITICAL STABILITY, HUMAN DEVELOPMENT AND ECONOMIC FREEDOM PERFORMANCE OF BRICS-T COUNTRIES: A HYBRID MCDM APPROACH

Toprak Ferdi Karakuş 1, Emre Kadir Özekenci <sup>2</sup>

<sup>1</sup>Res. Asst., Çağ University, Mersin/ Türkiye, E-mail: <a href="mailto:toprakkarakus@cag.edu.tr">toprakkarakus@cag.edu.tr</a>. <sup>2</sup>Assoc. Prof. Dr., Çağ University, Mersin/ Türkiye, E-mail: <a href="mailto:ekadirozekenci@cag.edu.tr">ekadirozekenci@cag.edu.tr</a>.

### **ABSTRACT**

This study evaluates the performance of BRICS-T countries in terms of political stability, human development, and economic freedom using hybrid multi-criteria decision-making (MCDM) methods. Based on a literature review, the criteria were determined as voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, control of corruption, economic freedom index, and human development index. The data were obtained from the World Bank, Heritage Foundation, and UNDP reports. The weights of the criteria were calculated using the MEREC method, while the performance rankings of the countries were determined through CRADIS, SPOTIS, and RSMVC methods. According to the MEREC results, the most important criteria were identified as human development index, regulatory quality, and voice and accountability, whereas control of corruption, government effectiveness, and economic freedom index were the least important. Overall findings indicate that the United Arab Emirates, South Africa, and India show the highest performance, while the Russian Federation, Ethiopia, and Iran rank lowest in terms of the evaluated indicators.

Keywords: Political Stability, Human Development, Economic Freedom, BRICS-T, MCDM.

JEL Codes: O31, O40, C33.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## THE NEED OF GENDER BUDGET TO SUPPORT THE ADOPTION OF GENDER EQUALITY PLANS: THE CASE OF ALEKSANDËR MOISIU UNIVERSITY OF DURRËS

### Anxhela Llaftiu 1, Ela Golemi 2

<sup>1</sup>Msc., Sports University of Tirana, Tirana/ Albania, E-mail: allaftiu@ust.edu.al.

<sup>2</sup> Assoc. Prof., Aleksandër Moisiu University of Durrës, Durrës/ Albania, E-mail: ela.golemi@bankacredins.com.

### **ABSTRACT**

Nowadays, gender equality in Albanian academia has become a necessary foundation for the sustainable development of Higher Education Institutions (HEIs). This paper is aimed at inquiring into the Leaky Pipeline phenomenon in the case of Aleksandër Moisiu University of Durrës (UAMD) as it is identified as a content gap from the analysis of the Gender Equality Plan (GEP) document for a four-year period (2022–2025). Pursuing a qualitative approach it will be applied the thematic analysis of the GEP document related to the five main areas established as a focus in this plan, to evaluate the extent to which gender equality objectives are supported by budget allocations. Moreover, we will expand the method by using the comparative content analysis of UAMD GEP related to the GEP of the University of Tirana as the pioneer in the implementation of the GEP and Gender Budgeting approach. The main results will show that UAMD has been committed to accomplishing in this period a great number of positive actions that will all be financed by internal and external gender budget allocations. From the content analysis has been realized that the gender-related objectives are also in compliance with many important Sustainable Development Goals (SDGs).

Keywords: Gender Equality Plan, Gender Budget, Leaky Pipeline, Sustainable Development Goals, Higher Education Institutions.

JEL Codes: D63, H61, I23.

### (ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### CHILDREN'S INFLUENCE ON WOMEN'S WAGES

#### Zeynep Elitaş1

<sup>1</sup> Asst. Prof. Dr., Anadolu University, FEAS, Eskişehir/Türkiye, E-mail: <u>zeynepelitas@anadolu.edu.tr</u>.

### **ABSTRACT**

The "family gap "or "motherhood gap" in earnings reflects a persistent trend: mothers earn less than their childless counterparts. Evidence shows a sustained wage disparity, with mothers earning less than women without children. While often labeled as "unexplained," part of the wage gap between mothers and non-mothers can be linked to lower levels of labor market experience among mothers, as documented in prior studies. As motherhood often leads to career interruptions, part-time work, or time out of the workforce altogether factors that directly impact wage growth, skill accumulation, and job tenure. However, it's also important to recognize that labor market experience likely doesn't explain the entire gap. This study provides estimates of the wage differences for working mothers in Türkiye using cross-sectional data from the Turkish Household Labor Force Survey (HLFS), 2013 and 2023. To examine wage patterns, both pooled and sector-specific regressions are employed, including individual, household, and work-related variables, focusing on employed women aged 25 to 44. The regression results reveal a clear and consistent motherhood wage penalty in the overall labor market, as well as within the industry and services sectors. Specifically, the pooled model indicates that each additional child is associated with a 7.76% reduction in wages, highlighting the persistent economic cost of motherhood for working women aged 25-44. In both industry and services, motherhood continues to carry a strong and significant wage penalty 6.71% and 7.40% reductions, respectively suggesting that more formalized or structured work environments may not accommodate caregiving responsibilities as flexibly, potentially leading to wage losses through reduced hours, career interruptions, or employer bias. In contrast, in agriculture, the relationship appears weaker and even slightly positive— about 0.85% —possibly due to informal work dynamics, family labor structures, or measurement differences in rural employment. Overall, these findings emphasize that the motherhood penalty is not uniform across sectors. The wage disadvantages associated with children are particularly concentrated in more formal employment sectors, pointing to the need for targeted policy interventions—such as improved parental leave, flexible work options, and childcare support—especially in industry and services where the penalty is most pronounced.

Keywords: Wage Gap, Motherhood, Children, Sector, Türkiye.

JEL Codes: J12, J13, J31.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### DISPARITIES IN DETERMINATION OF WAGES OF IMMIGRANTS AND LOCALS: EVIDINCE FROM HOUSEHOLD LABOR FORCE SURVEY MICRODATA

Taylan Akgül<sup>1</sup>

<sup>1</sup> Assistant Professor, Anadolu University, Eskişehir/ Türkiye, E-mail: takgul@anadolu.edu.tr.

#### **ABSTRACT**

Türkiye traditionally takes immigrants from East European and Middle Eastern countries mainly because of cultural similiarites, historical ties and near geographic distance. Other than these regular migration reasons, wars and civil wars have been another significant trigger of migration to Türkiye recently. Spesificially, about 3.6 million Syrians have migrated to Türkiye since 2013. Total population immigrants in Türkiye is estimated about 4.5 million.

Household Labor Force Survey (HLFS is main source of information and data on the Turkish labor market but it contains limited information on immigrants. All respondents are asked whether they were born in Türkiye or abroad. Also those who were born abroad are required to state the year of entry to Türkiye. However, the country of origin is not asked. Therefore a origin-country based analysis is not possible.

In this study, we analyze the disparities between wage determination of immigrants and locals with a focus on gender dimension. For his purpose, we estimate the wage equations for pooled, male and female samples. In our OLS regression model, the dependent variable is the logarithm of wages. The independent variables include age, age squared, firm size, and a series of interaction terms (cross-dummies) that combine immigrant or local status with employment registration status, public versus private sector employment, industry sector, full-time versus part-time work, and skill level. We run this regressions for years 2013 and 2023 in order to check whether the wage determination have structural dimensions or not.

The most striking result is that; for unskilled workers, being migrant strongly and negatively affects the wage wheras the case is almost reverse for skilled workers. Thus, the migrant/local wage gap diminshes as skill level rises. The effect is more evident in female sample. Another result shows that the gap is wider in private work places, part-time workers and unregistered employees. We also find that there are sectoral disparities.

**Keywords:** Wage Gap, Migration, Wage Equation, Micro-Econometrics.

**JEL Codes:** J31, J61, C51.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## DYNAMIC INTERLINKAGES BETWEEN FINANCIAL STRESS INDEX, WORLD UNCERTAINTY INDEX, CRYPTOCURRENCIES AND STOCK RETURNS IN G7 COUNTRIES

### Mustafa Kevser<sup>1</sup>, Hale Kırer Silva Lecuna<sup>3</sup>, Ufuk Bingöl<sup>3</sup>

<sup>1</sup>Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: <a href="mailto:mkevser@bandirma.edu.tr.">mkevser@bandirma.edu.tr.</a>
<sup>2</sup>Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: <a href="mailto:hkirer@bandirma.edu.tr.">hkirer@bandirma.edu.tr.</a>
<sup>3</sup>Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: <a href="mailto:ubingol@bandirma.edu.tr">ubingol@bandirma.edu.tr</a>.

#### **ABSTRACT**

This study investigates the dynamic interlinkages among the World Uncertainty Index (WUI), the OFR Financial Stress Index (OFR FSI), major cryptocurrencies with the highest market capitalization—Bitcoin (BTC), Ethereum (ETH), and Ripple (XRP)—and stock returns in the G7 countries (Germany, France, the United Kingdom, Italy, Japan, Canada, and the United States). The analysis is based on quarterly data from September 2015 to December 2024, encompassing both pre- and post-pandemic phases, including the distinct period of the COVID-19 crisis. To capture potential nonlinear dependencies, we employ Kernel-based Regularized Least Squares (KRLS) with a Radial Basis Function (RBF) kernel across all G7 countries. Each country's model is trained on first-differenced quarterly stock returns, using WUI, OFR FSI, BTC, ETH, and XRP as predictors. Model parameters are optimized using time-series cross-validation. The empirical findings reveal substantial heterogeneity in the strength of nonlinear relationships across countries. The KRLS model demonstrates moderate predictive power for Japan (R<sup>2</sup> = 0.336) and France (R<sup>2</sup> = 0.127), suggesting the presence of nontrivial nonlinear effects. Italy also exhibits a mild nonlinear association (R<sup>2</sup> = 0.056). In contrast, the models for the United States, Germany, the United Kingdom, and Canada yield negative R<sup>2</sup> values, indicating poor out-of-sample generalization and limited evidence of stable nonlinear dynamics. These results imply that nonlinear patterns may be more effectively captured in markets with distinct structural or behavioral characteristics, such as Japan's monetary regime or divergent trends in cryptocurrency adoption. This study provides practical implications for investors, portfolio managers, and policymakers, especially during periods of heightened uncertainty and market instability. Recognizing the interconnectedness of cryptocurrencies, financial stress, and equity markets can enhance both financial stability and portfolio risk management. The findings underscore the importance of market-specific modeling strategies in the face of growing cross-market integration.

**Keywords:** Financial Stress Index, World Uncertainty Index, Cryptocurrencies, Stock Returns, G7 Countries, Kernel-Based Regularized Least Squares (KRLS).

**JEL Codes:** D81, C58, R53.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

## FINANCIAL LITERACY AMONG SOCIAL TRADERS: AN ANALYSIS USING THE WIKIFOLIO PLATFORM

### Zdravko Tretinjak<sup>1</sup>, Alexander Zureck<sup>2</sup>

<sup>1</sup> M. Comp. Sc., FOM University of Applied Sciences, Germany, E-mail: <a href="mailto:zdravko.tretinjak@fom-net.de.">zdravko.tretinjak@fom-net.de.</a>

<sup>2</sup> Prof. Dr., MBA, Institute for Strategic Finance, FOM University of Applied Sciences, Germany, E-mail: <u>alexander.zureck@fom.de.</u>

### **ABSTRACT**

This study explores the level and characteristics of financial literacy among social traders active on the Wikifolio platform in 2020. It focuses on investment behavior, decision-making patterns, and risk management to draw conclusions about the financial knowledge of participating traders. By analyzing trading activities, preferred sectors, and geographic tendencies, the research provides nuanced insights into the financial decision-making of social traders. The findings not only offer an overview of behavioral trends but also serve as a valuable basis for assessing the financial competence of investors operating within digital financial markets.

Keywords: Social Trader, Trader Behavior, Financial Literacy.

JEL Codes: G11, G23, G53.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### PREDICTING EMPLOYEE ATTRITION REASONS USING MACHINE LEARNING ON ADMINISTRATIVE SOCIAL SECURITY INSTITUTION DATA

### Ezgi Demir<sup>1, 2, 3</sup>, Melike Torun<sup>4</sup>, Fatih Ayhan<sup>5</sup>

- <sup>1</sup>Dr. Lancaster University, Artificial Intelligence Center, Lancaster, LA1 4YW United Kingdom, dr.ezgidemir34@gmail.com
- <sup>2</sup> Sumer Robotics, Engineering & Consultancy Ltd., London, W1T 6EB, United Kingdom, sumerrobotics@gmail.com
- <sup>3</sup> Assoc. Prof. Dr., Istanbul Nisantasi University, Faculty of Economics, Administrative and Social Sciences, Istanbul, Türkiye, E-mail: dr.ezgidemir34@gmail.com.
- <sup>4</sup>Assoc. Prof. Dr., Istanbul University-Cerrahpasa, Faculty of Health Sciences, Istanbul/Türkiye, E-mail: melike.torun@iuc.edu.tr.
- <sup>5</sup> Assoc, Prof.Dr., Bandırma Onyedi Eylul University, Faculty of Economics and Administrative Sciences, Department of Economics, Balıkesir/Türkiye, E-mail: <a href="mailto:fayhan@bandirma.edu.tr">fayhan@bandirma.edu.tr</a>.

### **ABSTRACT**

In this study, it has been presented a machine learning-based approach to predict employee attrition reasons using structured administrative data submitted to Turkey's Social Security Institution. The dataset comprises monthly personnel records from three companies, including key features such as monthly salary, bonus payments, total working days, and reported absenteeism. Additionally, each record contains a categorical variable denoting the reason for employment termination, used as the prediction target. Following an initial data cleansing phase, it has been standardized column names, removed header artifacts, and converted financial and temporal fields into numeric formats. Missing values have been addressed through imputation, and categorical fields, including exit codes, it has been encoded using Label Encoding. The primary goal is to identify patterns that could help forecast the likely reason for an employee's departure, framed as a multi-class classification task. For modeling, it has used Random Forest Classifiers due to their robustness with tabular data and ability to handle non-linear feature interactions. The input features included salary, bonus, total workdays, and absence days. The dataset has been split into training and testing subsets, and model performance has been evaluated using accuracy and confusion matrix metrics. Initial results suggest that, while predictive power is limited by feature sparsity and class imbalance, distinct attrition patterns emerge, particularly for exit types related to performance, resignation, or disciplinary action. In this study it has been highlighted the potential of leveraging administrative labor data for predictive insights in HR and policy contexts. By automating exit reason classification, organizations can proactively identify high-risk profiles and improve workforce planning strategies. The study also demonstrates the importance of data quality, feature engineering, and ethical considerations when working with sensitive human resource information.

Keywords: Employee Attrition, Machine Learning, Random Forest, Administrative Data, HR Analytics.

**JEL Codes:** J63, C55, C81.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### UNDERSTANDING EMPLOYEE AND NON-EMPLOYEE HAPPINESS USING PERSONALITY PROFILES APPROACH

Didem Ayhan<sup>1</sup>, Arkun Tatar<sup>2</sup>

- <sup>1</sup> Assof.Prof., Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: dayhan@bandirma.edu.tr.
- <sup>2</sup> Assoc.Prof., Manisa Celal Bayar University, Manisa/Türkiye, E-mail: <a href="mailto:arkuntatar@yahoo.com">arkuntatar@yahoo.com</a>.

### **ABSTRACT**

In recent years, the level of happiness has decreased significantly in Türkiye due to new economic conditions. In these new economic conditions, working or not working in a job that generates income is a determining factor in terms of happiness. Personality traits also play an important role at this point. In this study, the personality profiles of those who do not work in a job that generates income (housewives, unemployed, retired, etc.), those who work in a job that generates income, and students, who are different from these two groups, were examined depending on their happiness levels. The study was conducted in 2024 via a web-based form. The short-form Oxford Happiness Scale and the Big Five Personality Test were used in the study. Those who did not work in a job that generates income (31.9%), adult students over the age of 18 (33.9%), and those who worked in a job that generates income (34.3%) were included in the study. Participants were between the ages of 18-75 and 258 were female (%50.8) and 250 were male (%49.2). In the study, firstly, the participants were divided into two groups as below average (50.4%) and above average (49.6%) according to their total happiness scale score average. Then, working status and happiness groups were compared in terms of five factor personality total scores with MANOVA. In terms of working status, there was a statistically significant difference between the total scores of the personality factors Extraversion, Agreeableness and Emotional Stability of the three different groups. There was no statistically significant difference between the total scores of the personality factors Conscientiousness and Intellect/Imagination. In terms of happiness level, there was a statistically significant difference between the two groups all personality factors total scores were found to be statistically significant. There was no interaction between the working status and happiness groups in terms of the five factor total scores. The most significant difference observed in the results in terms of the five factor total scores occurred between the two groups with low and high happiness. The results were discussed, and suggestions for future research were presented.

Keywords: Personality, Employee, Happiness, Personality Profiles.

**JEL Codes:** D23, D91, D2.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## THE RELATIONSHIP BETWEEN GROWTH AND CURRENT ACCOUNT DEFICIT: EVIDENCE FROM QUANTILE CAUSALITY APPROACHES

Yeşim Erönal<sup>1</sup>, Merve Altaylar<sup>2</sup>, Fatih Ayhan<sup>3</sup>

<sup>1</sup>Istanbul University, Faculty of Economics, Department of Economics, İstanbul/ Türkiye, E-mail: <a href="mailto:yesimeronal@istanbul.edu.tr">yesimeronal@istanbul.edu.tr</a>
<sup>2</sup>MS., Koç University, Graduate School of Sciences and Engineering, Data Science, Istanbul/ Türkiye, E-mail: <a href="mailtaylar21@ku.edu.tr">mailtaylar21@ku.edu.tr</a>
<sup>3</sup> Assoc, Prof.Dr., Bandırma Onyedi Eylul University, Faculty of Economics and Administrative Sciences, Department of Economics, Balıkesir/ Türkiye, E-mail: <a href="mailtaylar21@ku.edu.tr">fayhan@bandirma.edu.tr</a>

### **ABSTRACT**

The relationship between economic growth and current account deficit continues to be debated in the economics literature. The frequent co-occurrence of high growth periods with increasing current account deficits brings decision makers face to face with the question of "growth or current account?". This study examines the relationship between economic growth and the current account deficit in Turkey, a developing economy, during the 2000–2024 period. In the research, the quantile Granger causality test and the quantile-on-quantile Granger causality test are jointly employed, based on the assumption that the connection between economic growth and the current account deficit is not independent of the levels of either variable. The quantile Granger causality technique relies on the assumption that causal relationships may vary at different levels of economic growth (i.e., relationships by quantiles rather than by the mean). According to the findings, no statistically significant relationship is detected in the lower and middle quantiles ( $\tau = 0.1-0.7$ ), whereas in the higher quantiles ( $\tau = 0.80-$ 0.90) -in other words, during periods of strong economic growth- it is concluded that the current account deficit is a Granger cause of economic growth. This finding indicates that the current account deficit is a decisive factor that cannot be overlooked in periods of high economic growth. However, since the quantile Granger method is not sufficient to precisely determine at which levels of the current account deficit the link with economic growth occurs, the quantile-on-quantile Granger causality analysis has also been applied. The results obtained through this method also reveal the existence of causality relationships in periods of high economic growth. Additionally, it is found that high levels of current account deficits are also a Granger cause of growth. In conclusion, both techniques demonstrate a significant relationship between the current account deficit and economic growth during high-growth periods. Moreover, the finding that high levels of current account deficits may also trigger high growth constitutes a notable contribution of the quantile-on-quantile analysis. These findings suggest that policymakers should take the pressure on the current account balance into account when developing sustainable economic growth policies.

Keywords: Quantile-On-Quantile, Causality, Current Account Deficit

JEL Codes: C14, C21, C22.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### THE ROLE OF AGING AND LABOR FORCE PARTICIPATION ON INCOME: EVIDENCE FROM EU COUNTRIES

Yavuz Kağan Yasım<sup>1</sup>

<sup>1</sup> Assoc. Prof., Hacı Bayram Veli University, Ankara/ Türkiye, E-mail: <a href="mailto:yavuz.yasim@hbv.edu.tr">yavuz.yasim@hbv.edu.tr</a>,

### **ABSTRACT**

This study examines the effects of demographic changes—particularly the elderly population ratio and labor force participation—on a country's per capita income. The analysis focuses on the pressure exerted by an aging population on economic growth in the European Union (EU) member states. The study uses World Bank data to conduct a comprehensive analysis. The findings indicate that increases in both the elderly population ratio and labor force participation have statistically significant and negative effects on per capita income across the entire income distribution.

The impact of the elderly population becomes more pronounced at higher income levels; while it is relatively limited in the lower income quartile (-0.062), it becomes significantly more negative in the upper quartile (-0.127). Labor force participation, on the other hand, also shows a negative impact on income across all quartiles, though the magnitude of this effect slightly decreases as income levels rise. For instance, the effect of labor force participation on income is measured at -0.210 in the 25th percentile (0.25), whereas it decreases to -0.181 in the 90th percentile (0.90).

These results suggest that the influence of the elderly population on income intensifies with higher income levels, while the increase in labor force participation may reflect growth in low-productivity employment. The rising share of the elderly population appears to slow economic growth by reducing the share of the productive workforce. Ultimately, the study highlights the differentiated effects of demographic structure and labor market dynamics on income distribution and underlines the economic risks faced by aging societies in sustaining economic welfare.

Keywords: Aging, Labor Force Participation, Demografic Change, Income Per Capita.

JEL Codes: J11, J21, D31.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## EXAMINING THE IMPULSE CONTROL LEVELS OF EMPLOYEES ACCORDING TO THEIR PERSONALITY TRAITS WITH THE FIVE FACTOR PERSONALITY MODEL

Arkun Tatar<sup>1</sup>, Didem Ayhan<sup>2</sup>

<sup>1</sup> Doç. Dr., Manisa Celal Bayar Üniversitesi, Manisa/ Türkiye, E-mail: arkuntatar@yahoo.com.

<sup>2</sup> Doç. Dr., Bandırma Onyedi Eylül Üniversitesi, Balıkesir/ Türkiye, E-mail: dayhan@bandirma.edu.tr.

### **ABSTRACT**

When a person controls their behavior, they do not act on impulse. Thus, they can make a conscious effort to choose actions that lead to desired results. In the organizational field, self-control has been examined as a part of personality traits such as conscientiousness. The personality trait of conscientiousness, which is positively related to job performance, refers to being purposeful, determined, disciplined, organized, punctual, reliable and having a sense of duty. The personality trait of conscientiousness is also inversely related to inefficient work behavior. In this context, this study aims to examine the level of impulse control in employees according to their personality traits. In this way, it is aimed to show the importance of the impulse control levels of individuals with different personality traits in the work environment. A total of 868 people (working in a job that generates income), 497 males (57.3%) and 371 females (42.7%), between the ages of 18-73 (mean = 31.96, s = 11.24), participated in the study. Participants completed the 80-item lexical-based adjective checklist of the impulsivity scale and the 35-item form of the Five Factor Model inventory. The five-factor (Extroversion, Agreeableness, Conscientiousness, Emotional Stability and Intellect) personality scores of the employees were divided into two groups as above average and below average, and the groups were compared with one-way variance analysis (ANOVA). According to the results, differences in impulse control levels were determined between the five-factor groups. The impulse control levels of the groups above average in all five factors were determined to be high. The results showed that more studies are needed to reveal the differences to be observed in different occupational groups. The differences observed in the level of impulse control provide clues about determining the personality traits of the individuals to be selected for occupational groups. The current research reveals the relationships between the level of impulse control, personality traits and employee behavior.

**Keywords:** Impulsivity, Personality, Five Factor Model, Employee.

JEL Codes: D23, D91, M51, D2.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### CONNECTEDNESS AMONG GREEN FINANCIAL MARKETS, CARBON MARKET, AND EXCHANGE RATE MARKET: A GLOBAL PERSPECTIVE

Simran Agarwal<sup>1</sup>

<sup>1</sup>IIT Bombay/ India, E-mail: <u>simran\_agarwal@iitb.ac.in</u>.

### **ABSTRACT**

The present study comprehensively probes the volatility and return spillover dynamics among green finance, carbon, and exchange rate markets using daily drawn data from October 14, 2014 to July 30, 2024. The aim is to analyze the evolving connectedness between the said markets through these three distinct analytical approaches: the TVP-VAR model to assess return spillovers, the DCC-GARCH method to inspect volatility spillovers, and the Wavelet Coherence approach to explore time-varying correlation in the time-frequency realm. The study outcomes indicate that the connectivity amid these markets varies with time, with more robust connections observed during periods of market volatility. Green stocks emerged as the primary "shock transmitters" during the China-US trade war. In contrast, green bonds, carbon futures, and exchange rate markets primarily received shocks during this period. However, these dynamics reversed while the world faced the COVID-19 pandemic, when green stock markets became "shock receivers." At the same time, green bonds, carbon futures, and exchange rate markets played a more active role in transmitting risks. The results also highlighted that such sustainable bonds function as "a safe haven" against exchange rate volatility, and that carbon futures provide short-term hedging benefits against exchange rate risks. Furthermore, combining green stocks and bonds in a portfolio enhances diversification and resilience to economic shocks. These findings are particularly relevant to policymakers and investors seeking to understand the risks associated with these market indices from a global perspective.

Keywords: Green Finance Market, Carbon Market, Exchange Rate Market, TVP-VAR, DCC-GARCH, Wavelet Coherence.

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### QUANTILE-ON-QUANTILE CONNECTEDNESS BETWEEN CLIMATE UNCERTAINTY AND FINANCIAL RISK IN THE BANKING SECTOR

Onur Polatl<sup>1</sup>

<sup>1</sup> Bilecik Şeyh Edebali University, Bilecik/ Türkiye, E--mail: <u>onur.polat@bilecik.edu.tr</u>.

### **ABSTRACT**

This study examines the dynamic interdependencies between climate uncertainty and financial risk in the banking sector using a quantile-on-quantile (QQ) connectedness framework. By employing a novel approach that integrates financial risk meters (FRMs) with climate uncertainty indexes, we explore how climate-related economic fluctuations affect systemic risk in banking institutions across different quantiles of risk exposure. Our dataset consists of a panel of U.S. banks covering the period from June 2006 to August 2023, capturing various financial crises, including the 2007-2008 Global Financial Crisis, the COVID-19 pandemic, and the 2023 U.S. bankingturmoil. Our methodology extends prior financial risk measurement techniques by incorporating penalized quantile regression (LASSO) to construct the FRM and applying the QQ connectedness model to assess non-linear, asymmetric risk spillovers. The empirical findings reveal that climate uncertainty exerts heterogeneous effects on financial risk, with high quantiles of climate risk amplifying bank fragility, particularly among small- and mid-sizedbanks. Our results underscore the heightened sensitivity of the banking sector to climate shocks during economic downturns, illustrating the growing importance of climate-related financial risk management. These findings contribute to the existing literature by providing evidence of a complex, quantiledependent relationship between climate risk and financial instability in the banking sector. Policymakers and financial regulators should incorporate climate uncertainty into systemic risk assessment models to mitigate potential financial vulnerabilities. The study highlights the necessity for banks to integrate climate risk considerations into stress testing and risk management frameworks to enhance financial resilience.

Keywords: Financial Risk Meter (FRM), Climate Risks, US Banks.

### CONSUMER BEHAVIOR AND E-COMMERCE: EXAMINING AI-POWERED MARKET TRENDS

Tamerlan Akbarov<sup>1</sup>, Yavuz Tansoy Yıldırım<sup>2</sup>, Yasin Nuir Çakır<sup>3</sup>

- <sup>1</sup>Odlar Yurdu University, Azerbaijan, E-mail: <u>akbarobt@gmail.com</u>.
- <sup>2</sup> Bandirma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: <a href="mailto:ytyildirim@bandirma.edu.tr">ytyildirim@bandirma.edu.tr</a>.
- <sup>3</sup> Bandirma Onyedi Eylül University, Balıkesir/ Türkiye, E-mail: <u>ycakir@bandirma.edu.tr</u>.

### **ABSTRACT**

Al-powered chatbots help customers with their shopping experience and product recommendation systems that analyze consumer behavior to suggest products also help improve conversion rates. This study uses a mixed-method approach, which combines empirical data from consumer surveys with qualitative insights from the industryliterature. Generally, we must note that, Research shows that such Al-powered recommendation systems, chatbots, and predictive analytics improve customer satisfaction and conversion rates. Moreover, machine learning-powered pricing strategies also help to adjust purchasing behaviors and assist to conduct sentiment analysis. The all findings of research beget that personalization and automation bolster customer loyalty as they raise data privacy issues. According to the findings, companies that maximize their Al usage are more competitive; however, ethics are still important to consider. Comprehending these dynamic Al-fueled consumer patterns helps companies to make marketing choices sharper and to enhance the user experience in the online space.

Keywords: Al in E-Commerce, Personalization, Consumer Behavior, Online Shopping Trends, Machine Learning.

## EXPLORING THE IMPACT OF TOURISM ON GREEN GROWTH: POLICY RECOMMENDATIONS FOR E7 COUNTRIES

Shabir Hashmi<sup>1</sup>

<sup>1</sup> Suzhou City University, Jiangsu/ China, E--mail: <a href="mailto:smhashmi@szcu.edu.cn">smhashmi@szcu.edu.cn</a>.

### **ABSTRACT**

In recent years, green growth has gained prominence as a vital strategy with significant economic and environmental benefits. As a result, researchers and policymakers are exploring ways to promote green growth. In this context, an emerging body of research has begun examining the factors influencing green growth. This study aims to assess the impact of tourism on green growth within the E7 countries. The long-term analysis revealsthat tourism contributes positively to green growth. Additionally, the findings from the MMQR method indicate that tourism enhances green growth across the 10th to 60th quantiles. Sensitivity analysis further supports these results, highlighting the robustness of the empirical evidence. Based on these findings, we recommend fostering tourism in E7 countries as a means to advance green growth.

Keywords: Green Growth, Tourism, Ecotourism, MMQR, SDGs, E7.

## TÜRKİYE INTEREST RATE VOLATILITY ANALYSIS: FORECAST AND COMPARISON WITH ARCH/GARCH/SWARCH MODELS

Fatih Mangır<sup>1</sup>, Hasan Murat Ertuğrul<sup>2</sup>

<sup>1</sup> Selçuk University, Konya/ Türkiye, E--mail: iafmangir@gmail.com.

<sup>2</sup> Anadolu University, Eskişehir/ Türkiye, E-mail: hmertugrul@anadolu.edu.tr.

### **ABSTRACT**

The aim of this study is to analyze interest rate volatility in Turkey using ARCH, GARCH and SWARCH models and to compare the forecast performance of these models. The theoretical framework of the research is based on financial time series analysis and aims to measure the risk of interest rates through volatility models. The research tries to understand the change in volatility in interest rates over time by examining monthly interest rate data between the period 1964 and 2024. Stasis tests and structural breakdown analyses show that interest rates are not stable and regime changes took place during the years of significant economic crisis (1994, 2001, 2018). As a result of the research, volatility estimates were made using GARCH (1.1) and SWARCH (2.1) models, and it was determined that the SWARCH model performed better. In particular, the SWARCH model was able to predict volatility more accurately during periods of crisis, allowing periods of high volatility to be accurately captured. These findings show that interest rates in Turkey are highly volatile and economic crises have had significant effects on interest rates. The research also reveals policy recommendations such as the establishment of early warning systems, careful management of the interest-inflation balance, and structural reforms.

**Keywords:** Interest Rate Volatility, ARCH Model, GARCH Model, SWARCH Model, Financial Time Series, Structural Breaks, Volatility Forecasting, Economic Policy.

## BUILDING CHANGE READINESS PSYCHOLOGICAL STATE THROUGH IMPLICIT AND EXPLICIT ATTITUDES: A CONCEPTUAL APPROACH

Dimitrios Hatjidis<sup>1</sup>

<sup>1</sup> American College of Thessaloniki, Pylea/ Greece, E--mail: <a href="mailto:dhatjidis@act.edu">dhatjidis@act.edu</a>.

### **ABSTRACT**

One of the major factors defining the success or failure of every organizational change is employee's psychological state called change readiness attitude. Even though stellar organizational researchers approached the term from different angles, should be concerned with the sensory and emotional aspects of how individuals react to organizational change due to their critical role in forming attitudes based on their feelings as well as their thoughts towards a particular change. This conceptual article critically reviews, based on a theory synthesis research design, the literature on implicit and explicit attitudes and the way they set the stage and expand our understanding on the formation phase of change readiness. The findings signify the sequential character of the formation process starting with personal and workplace factors that generate the initial perception on an individual's mental activities, and successively trigger the creation of implicit or/and explicit attitudes pathways as well as their dominant role, in forming the foundation of change readiness psychological state. The study contributes valuable insights to the change management team that can enhance proactive planning of the initiation and transition phases and enriches change readiness literature by presenting, understanding, and possibly redirecting mental attitudes which are the main building components of employees' behaviors in the workplace. Managerial implications relevant to the findings and pathways for further research are also discussed.

 $\textbf{Keywords:} \ \textbf{Implicit Attitudes, Explicit Attitudes, Change Readiness Psychological State, Formation Phase.}$ 

## ASSESSING THE ECONOMIC IMPACT OF ENVIRONMENTAL CRIME IN ITALY: A PANEL CAUSALITY ANALYSIS

Gaetano Perone<sup>1</sup>

<sup>1</sup> University of Pisa, Pisa/ Italy, E--mail: <a href="mailto:gaetano.perone@ec.unipi.it">gaetano.perone@ec.unipi.it</a>.

### **ABSTRACT**

This study aimed to investigate the influence of Italian organized environmental crime (Ecomafia) on economic growth and employment in Italy from 2012 to 2022. Ecomafia is one of Italy's most significant and well-structured illicit power organizations. Its activities encompass illicit trafficking of hazardous waste, unlawful land cementation, illegal extraction of soil and sand, unauthorized wildlife trade and fishing, control of agrifood supply chains, and forest arson (D'Alisa et al., 2017; Perone, 2020). The modus operandi of Ecomafia is distinctive, as it primarily engages in victimless actions, in contrast to traditional clan operations characterized by intimidation and homicide. Although it does not elicit immediate societal alarm, Ecomafia exhausts natural resources and contaminates the environment, endangering human health (D'Alisa et al., 2017). Moreover, it profoundly affects the economic and entrepreneurial landscape, undermining their legitimate and autonomous operations (Germani et al., 2016; Perone, 2020). The escalating prominence of the Ecomafia phenomenon has garnered heightened scrutiny within scientific literature over the past decade; nonetheless, with limited exceptions (Perone, 2018; Germani et al., 2020), these studies have predominantly concentrated on the illicit waste trade, overlooking the potential ramifications of Ecomafia on economic performance. This study seeks to address this gap by examining the relationship between environmental crimes, economic growth, and both overall and irregular employment, utilizing a distinctive dataset from 2012 to 2022 across 20 Italian regions. The panel data analysis employed pooled ordinary least squares estimation with Driscoll and Kraay's standard errors (OLS-DK) and the Praise-Winston model with panel corrected standard errors (WP-PCSE). The general method of moments (GMM) estimation for panel vector autoregression (PVAR) was utilized to investigate causality. The preliminary findings revealed that Ecomafia's ecocrimes were negatively and significantly connected with GDP and the overall employment rate, while demonstrating a positive and significant association with the irregular employment rate. An increase of 10 ecocrimes per 100,000 inhabitants corresponded with an average reduction of 228.46 euros in GDP per capita and a 0.7% decline in the employment rate. Conversely, an increase of 10 ecocrimes per 100,000 inhabitants correlated with an average rise of 0.18% in the irregular employment rate. Additionally, a significant unidirectional correlation existed from ecocrimes to GDP, and from irregular employment to ecocrimes. A significant bidirectional causality was established between ecocrimes and the total employment rate. This underscored that ecocrimes causally precede and directly impact economic activity in Italian regions, while the rise of informal employment fosters conditions conducive to the emergence and expansion of ecocriminal activities. The findings revealed that Ecomafia's unlawful activities significantly hindered economic growth and legitimate employment in Italian areas during the past decade, while also facilitating the expansion of illegal and underpaid jobs. In this regard, tackling the infiltration of Italian environmental mafias and their businesses is paramount and should be prioritized on political agendas to provide a healthy economic environment marked by equitable market competition and adequate employment conditions and remuneration.

Keywords: Environmental Crime, Irregular Employment, Economic Growth, Italy, PCSE, Panel Causality.

### SME FINANCING IN MOROCCO: ASSESSING THE GAP BETWEEN PREFERENCES AND PRACTICES

Imad Jabbouri<sup>1</sup>

¹residence De L Universite Al Akhawayn Ifrane, Morocco, E--mail: i.jabbouri@aui.ma.

### **ABSTRACT**

We examine the financing practices and preferences of Moroccan small and medium-sized enterprises (SMEs) to identify their financing difficulties. We aim to uncover Morocco's financing supply and demand mismatch by juxtaposing preferences and practices. We survey 365 Moroccan SMEs through a structured questionnaire. Our results show that for internal financing, Moroccan SMEs prefer self-financing. In contrast, they prefer short-term bank loans for external financing. We document notable discrepancies between financing preferences and practices. Our study presents a firm and manager archetype that can be useful in crafting financial products that better service Moroccan SMEs' needs. Further, it highlights key deficiencies in the current Moroccan financial ecosystem from a supply and demand perspective, providing policymakers with a basis to improve the accessibility of financing. Our study is the first large-scale survey of Moroccan SMEs that contrasts preferences and practices for various financing sources.

Keywords: SMEs, Access to Financing, Financing Preferences and Practices, Emerging Economies.

### THE EFFECTS OF INDUSTRY 4.0 ON ACCOUNTING: AN EVALUATION ON THE DIGITALIZATION OF BUSINESSES

Mustafa Çanakçıoğlu<sup>1</sup>

<sup>1</sup>İstanbul Gelişim University, İstanbul/ Türkiye, E--mail: mcanakcioglu@gelisimedu.tr.

### **ABSTRACT**

In 2011, the term fourth industry, which integrates digitalization, automation, and advanced technologies such as artificial intelligence in production and industrial processes, was used for the first time at the Hannover Trade Fair in Germany. Among the general components of Industry 4.0 are concepts such as the Internet of Things (IoT), Augmented Reality (AR), Cloud Computing, Autonomous Robots, 3D Printers (3D Printing), Big Data, and Analytics. Although Industry 4.0 has many advantages, it also brings severe challenges, such as high start-up costs, the need for a qualified workforce and the re-skilling of the workforce, data security and the risk of cyber attacks, and the problem of compliance with old production systems. In this digitalization process created by Industry 4.0, there have been critical transitions and processes in accounting, as in many professions. Although this process has many benefits and challenges, there have been significant developments in Automation, Artificial Intelligence, Machine Learning, Big Data, Blockchain, and Cloud-Based Accounting Systems within the scope of digitalization in accounting. In our study, the stages and steps of the strategic roadmap are explained to carry out and manage the transition process of businesses to digital accounting in a planned manner. In this roadmap, issues such as determining the digitalization strategy of enterprises, strengthening the technological infrastructure, increasing the digital competencies of accountants, planning legal and corporate compliance processes, increasing automation, creating performance evaluation and continuous improvement processes are mentioned. In addition, the strategic roadmap, in which the impact of Industry 4.0 on accounting is discussed, was associated with SWOT analysis, and the Strong and weak Opportunities and threats of Digitalization in Accounting were examined. Finally, this strategic roadmap is also discussed concerning the balanced scorecard introduced by Kaplan and Norton in 1992. This relationship has been investigated in terms of Financial, Customer, Internal Processes, and Learning and Development Perspectives. As a result of the study, the measures and suggestions to be taken for businesses to adapt to these digitalization processes and developments.

**Keywords:** Industry 4.0, Digitalization in Accounting, Swot Analysis, Balance Score Card.

### THE RISE AND FALL OF THE GERMAN AUTOMOTIVE INDUSTRY: CAUSES OF DECLINE AND PROSPECTS FOR RECOVERY

Cristina Balgar<sup>1</sup>

<sup>1</sup> Institute for World Economy, Romanian Academy, Romania, E--mail: <a href="mailto:anacristinabalgar@gmail.com">anacristinabalgar@gmail.com</a>.

### **ABSTRACT**

The automotive industry, once the cornerstone of Germany's manufacturing power and a symbol of its global economic reputation, is now facing one of the most critical phases in its post-war history. This article explores the structural, regulatory and market-driven causes behind the decline in competitiveness observed in recent years, particularly since 2018 - a pivotal year that marked a turning point just beyond the industry's peak economic performance. The analysis highlights the German automotive sector's delayed transition to electric mobility (e-mobility) and digitalisation, its heavy reliance on internal combustion engine technologies, and its vulnerability to increasingly stringent environmental regulations and a paradigm shift in consumer expectations. Against this background, the article examines the industrial policy measures currently under consideration at the federal and EU levels, as well as the strategic adjustments made by major German automotive companies. Drawing upon theoretical insights from the literature on structural industrial change and global competitiveness frameworks, and utilising a multidimensional and evidence-based approach, the study maps the challenges, assesses the policy responses, and reflects on the prospects for recovery and long-term transformation within the industry. The findings reveal a complex interplay between delayed technological adaptation, shifting global dynamics and regulatory pressures, all of which have contributed to the sector's declining competitiveness while shaping its uncertain path forward. Ultimately, the article concludes that the industry's future depends on its ability to embrace structural change while managing global constraints with adaptive, innovation-driven strategies.

Keywords: German Automotive Industry, Competitiveness Decline, E-Mobility, Industrial Transformation, Industrial Policy.

### ECONOMIC AND SOCIAL DIMENSIONS OF AGING: AN EMPIRICAL ANALYSIS OF ELDERLY WELL-BEING IN TURKEY

Merve Hamzaoğlu<sup>1</sup>

<sup>1</sup>İstanbul Kültür University, İstanbul/ Türkiye, E--mail: <a href="mailto:mhmervehamzaoglu@gmail.com">mhmervehamzaoglu@gmail.com</a>.

### **ABSTRACT**

The link between aging and economic/social well-being is a major concern in demographic transition and economic perspectives. The changing age structure among aging populations significantly affects income distribution, public finance, and labor markets. A rising share of older people usually leads to a decline in the productivity of the workforce, negatively affecting the economic output and growth unless offset by higher labor force participation or technical progress. Aging populations also increase public spending on pensions, healthcare, and long-term care, which questions the fiscal viability of welfare systems. Disparities in income security further shape economic well-being in aging societies as older people—especially women and those with lower workforce participation—face more vulnerability to poverty and social exclusion. Since the aging is becoming a threat to the European Union's productivity, this demographic change creates major economic problems, such as strain on public pension systems, healthcare infrastructure, and labor market sustainability. Aging has been recognized by the EU as a key policy concern nowadays; it has stressed the need for active aging policies, long-term care changes, and lifelong learning to preserve productivity and guarantee economic wellbeing throughout member countries. Despite its relatively younger population, Turkey's population is aging more quickly than in prior decades. This demographic shift could potentially intensify challenges for the labor market, pension system, and healthcare services. This study explores the economic and social well-being status of the elderly population in Turkey by conducting an empirical analysis using the Turkey Elderly Profile Survey 2023 data set run by TURKSTAT. The study addresses the aging problem in Turkey by observing disparities among various groups within the elderly population in terms of health status, educational level, income, living arrangements, and social activity participation. The results provide insightful analysis of the needs and issues of the aging population, therefore guiding the revision of social policies and programs meant to improve their integration into society and well-being.

Keywords: Aging, Economic Disparities, Social Well-being.

## TIME SERIES-BASED COUNTRY CLASSIFICATION OF OECD NATIONS USING GREEN GROWTH INDICATORS: A DTW AND K-MEDOIDS APPROACH

Bige Küçükefe<sup>1</sup>, Ferhun Ateş<sup>2</sup>

- <sup>1</sup> Tekirdağ Namık Kemal University, Tekirdağ/ Türkiye, E--mail: <a href="mailto:bkucukefe@nku.edu.tr">bkucukefe@nku.edu.tr</a>.
- <sup>2</sup> Indipendent Researcher, Türkiye, E-mail: <u>ferhunates@gmail.com</u>.

### **ABSTRACT**

This study aims to classify OECD countries based on their environmental sustainability performance using multivariate time series data derived from key green growth indicators. The analysis utilizes six core variables from the OECD's Green Growth dataset, including energy productivity, production-based CO<sub>2</sub> emissions, renewable energy supply, municipal waste recycling rate, greenhouse gas productivity, and real GDP per capita. For each country, multivariate time series were constructed over time, and country similarities were measured using the Dynamic Time Warping (DTW) distance metric. These DTW distances were used to perform clustering via both TimeSeriesKMeans and K-Medoids (PAM) algorithms, allowing for methodological comparison and robustness. The results yielded four major clusters of countries, which were interpreted in terms of regional, economic, and environmental characteristics. Most European countries were grouped under "high environmental awareness," while developing economies were clustered based on relatively lower energy efficiency and emissions performance. Cluster-level indicator averages were analyzed and visualized through bar plots, radar charts, and a world map, allowing for meaningful country profiling and comparative interpretation. This study offers a robust methodological framework for comparative policy evaluation in social science research and provides data-driven classification insights for decision-makers in the field of green growth.

Keywords: Dynamic Time Warping (DTW), K-Medoids, Green Growth, OECD Countries, Time Series Clustering.

## POWERING PROGRESS: EXAMINING ENERGY USE AND INFRASTRUCTURE DEVELOPMENT IN INDIA'S TRANSPORT SECTOR

Mohammed Shameem P1, Irin Maria Antony2

<sup>1</sup> Gitam University, India, E--mail: mohammedshameemp@gmail.com.

<sup>2</sup> M.E.S. College, Mahatma Gandhi Universirt, Inida, E-mail: <u>irinmaria94@gmail.com</u>.

### **ABSTRACT**

The increasing investment in infrastructure development, particularly in social overhead capital such as transportation, reflects the commitment of the Indian government towards the aspiration of being a welfare state. This study advocates for incorporating energy consumption as a critical perspective in the literature on public spending. It examines the impact of public spending on transport infrastructure, infrastructure performance, and economic growth on energy consumption in India's transport sector from 1987 to 2019. Using an ARDL bounds test approach followed by FMOLS, DOLS, and CCR methods, the results reveal both long-run and short-run relationships between the variables. The findings indicate that economic growth and transport infrastructure performance positively affect energy consumption, underscoring the role of demand-driven factors. However, increased spending on transport infrastructure is found to reduce energy consumption.

 $\textbf{Keywords:} \ \mathsf{Transport} \ \mathsf{Energy} \ \mathsf{Use}, \ \mathsf{Public} \ \mathsf{Infrastructure}, \ \mathsf{Economic} \ \mathsf{Growth}, \ \mathsf{ARDL}, \ \mathsf{Long-Run} \ \mathsf{Relationships}.$ 

## AN ANALYSIS OF THE RELATIONSHIP BETWEEN ENERGY CONSUMPTION, ENERGY EFFICIENCY, AND CARBON EMISSIONS USING THE ECM APPROACH: THE CASE OF TÜRKİYE

Pınar Gürol<sup>1</sup>

<sup>1</sup> İstanbul Ticaret University, İstanbul/ Türkiye, E--mail: <a href="mailto:pinargurol@gmail.com">pinargurol@gmail.com</a>.

### **ABSTRACT**

Due to the significance of energy consumption, energy efficiency, and limiting carbon emissions in mitigating global climate change, countries are increasingly prioritizing the reduction of carbon emissions. In Türkiye, the main sectors where energy is consumed are transportation, industry, residential, and services. This study analyzes the relationship between per capita carbon dioxide (CO<sub>2</sub>) emissions, energy consumption, and energy efficiency in Türkiye using data from the period 1990–2023. The study employs per capita energy consumption data from the industry, transportation, and residential sectors, and uses "GDP per unit of Total Energy Supply" as an indicator of energy efficiency. The analysis is conducted within the framework of the Error Correction Model (ECM) to evaluate the long-term relationship between the variables.

**Keywords:** Carbon Emissions, Transportation Sector, Industrial Energy Use.

### IMPACT OF M&A ANNOUNCEMENTS ON THE ACQUIRER IN THE POST-COVID ERA

Panagiotis Kedikoglou<sup>1</sup>, Yiannis Krassas<sup>2</sup>, Nikolaos Hourvouliades<sup>3</sup>

- <sup>1</sup> American College of Thessaloniki, Thessaloniki/ Greece, E--mail: <u>20239021@STUDENT.ACT.EDU</u>.
- <sup>2</sup> American College of Thessaloniki, Thessaloniki/ Greece, E--mail: <u>YKRASSAS@ACT.EDU</u>.
- <sup>3</sup> American College of Thessaloniki, Thessaloniki/ Greece, E--mail: HOURVOUL@ACT.EDU

### **ABSTRACT**

This study investigates the impact of mergers and acquisitions (M&A) announcements on the acquirer stock performance within the context of the post-COVID era. Through analyzing abnormal returns and trading volumes across a diverse sample of recent transactions, it is found that relative deal size (transaction value scaled by the acquirer's market capitalization) exhibits a statistically significant positive relationship with abnormal trading volume and abnormal returns. The model calculates abnormal returns and trading volumes by comparing observed stock performance to market-adjusted benchmarks. Contrary to some pre-pandemic literature that put an emphasis on strategic alignment (vertical vs. horizontal deals), the findings of this study show no significant influence of merger type on market response. The results agree with those of previously published behavioral science theories, emphasizing managerial overconfidence and attention-driven trading in the volatile post-COVID markets. The changing dynamics of market efficiency of the post-pandemic economies are highlighted in this study.

 $\textbf{Keywords:} \ \text{Mergers and Acquisitions, Event Study, Abnormal Returns, Post-COVID Markets, Investor Attention.}$ 

(ICOAEF-XIII)-April 29th-30th, 2025 /Thessaloniki / Greece

### ENERGY, WATER AND FOOD NEXUS: EVIDENCE FROM TÜRKİYE

Ufuk Bingöl<sup>1</sup>, Mustafa Kevser<sup>2</sup>, Hale Kırer Silva Lecuna<sup>3</sup>

- <sup>1</sup> Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E--mail: <u>ubingol@bandirma.edu.tr</u>.
- <sup>2</sup> Bandırma Onyedi Eylül University, Balıkesir/ Türkiye, E--mail: <u>mkevser@bandirma.edu.tr</u>.

#### **ABSTRACT**

This study examines the dynamic relationships between food imports, food exports, energy consumption, temperature, and water withdrawal in Türkiye over the period 1992–2021. Using the Autoregressive Distributed Lag (ARDL) approach, the analysis employs an effective sample covering 1996-2021 due to the lag structure of the models. The results confirm the existence of long-run cointegration for both food imports and exports. In the case of food imports, energy consumption and water withdrawal significantly influence import levels in the long run, while water availability emerges as the key short-run driver. The error correction model indicates a relatively fast adjustment speed of 25% per year toward the long-run equilibrium. Conversely, for food exports, although cointegration is confirmed, individual long-run coefficients are statistically insignificant. Short-run dynamics reveal that food exports are highly sensitive to fluctuations in energy consumption, with a slower adjustment speed of 8.43% per year. These findings provide practical insights for policymakers, exporters, and importers considering the critical links between water management, energy consumption, climate change, and food markets. The results highlight the interconnectedness of energy production and consumption, food imports and exports, and water availability-finite and vital resources that, if mismanaged, could exacerbate the risks of famine and resource conflicts. Governments should carefully consider these patterns when designing policies, recognizing that informed, integrated strategies can mitigate risks, strengthen food security, and promote more sustainable resource use for the benefit of humanity.

**Keywords:** Food Policies, Climate, Water Usage, Enery Consumption, Türkiye.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

## THE FUTURE OF TRADE: FROM SELF-REGULATION OF COMPARATIVE ADVANTAGE TO SOCIAL AND ENVIRONMENTAL EFFICIENCY

Grigoris Zarotiadis<sup>1</sup>

<sup>1</sup> Aristotle University of Thessaloniki, Thessaloniki/ Greece, E--mail: <u>gzarotia@econ.auth.gr</u>.

### **ABSTRACT**

From the very begining of modern economic theory in Adam Smith's work, trade liberalization has been anticipated as a prerequisite for the spatial (international) division of labor towards achieving, in the well known self-regulating way, the efficient trade-off between utilizing comparative advantages and avoiding unnecessary transportation. Nevertheless, as reality involves capital centralization and oligopolies on the one hand and product differentiation on the other, the resulted path in global economy is characterized by excesses in favor of oligopolistic speculation but to the detriment of economic efficiency. In the present paper, we first review the relevant literature categorizing it into basic sections from the classical orthodoxy to its neoclassical evolution and from theories of imperfect competition to subversive heterodox approaches. Based on this, in the second part we describe the present phase of global economic architecture where the previous period of multilateral consensus is being challenged in the context of the evolving formation of competing blocs and spheres of influence. Following, in the third art, we propose the term of "SOCIAL AND ENVIRONMENTALLY EFFICIENT SPATIAL ALLOCATION OF LABOR" and we conclude with policy proposals for the role of Europe (in wider sence) in contemporary circumstances.

Keywords: Theory of Trade, Contemporary Economic Antagonisms, Efficient Spatial Allocation of Labor.

(ICOAEF-XIII)-April 29th-30th, 2025/Thessaloniki/Greece

### WHO OWNS US DEBT? SHIFTS IN INVESTOR BASE AND IMPLICATIONS

Manish Sharma<sup>1</sup>

<sup>1</sup> Hosei University, Tokyo/ Japan, E--mail: <u>manish.sharma.68@hosei.ac.jp</u>.

### **ABSTRACT**

This paper analyzes the changes in US treasury debt ownership and their implications for financial market dynamics, sovereign risk, and debt sustainability. The main objective is to track the shifts in the investor base over the past two decades and articulate how these changes affect the pricing, liquidity and resilience of the US sovereign bond market. The theoretical framework draws on the literature on government debt management and international capital flows with particular focus on investor heterogeneity and demand elasticity in deciding market depth. The Study combines descriptive analysis with statistical modeling. We use panel data from US treasury, Fed Flow of Funds data, IMF's CPIS survey and publicly available bond pricing data from 2003-2023. We divide the data into the categories of individual, corporate and sovereign debt holders. A vector autoregression model is deployed to understand the interplay of changes in the investor base, yield curve shifts and macroeconomic variables. The preliminary findings reveal an ongoing decline in foreign holdings, especially from China and Japan during the last decade. On the other hand, foreign private holdings have mostly remained stable, with geoeconomic concerns playing limited role. The paper intends to look at the changes in the global demand for US treasury debt amid the instability creeping into the global financial system, and the ongoing changes in the risk perception towards various asset classes.

Keywords: Sovereign Bond Markets, Interest Rate Risk, Global Capital Flows, Investor Base Dynamics, Treasury Securities.

**JEL Codes:** G11, G15, H63.