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Editors

M. Veysel Kaya

Patrycja Chodnicka - Jaworska

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*Henry Giroux Dean of the School of Liberal Arts and Humanities, Woxsen
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“Special thanks to keynote speaker”

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The role of financial deepening and dollarization in the effectiveness of monetary policy: Evidence from Türkiye (2010–2024)

Bilgin Bari

Anadolu University, Türkiye

Abstract

This study analyzes how the effectiveness of the Central Bank of the Republic of Turkey’s (CBRT) policy interest rate on inflation and economic growth changes depending on the degree of financial deepening and dollarization. Covering the 2010–2024 period, the research aims to uncover how monetary transmission has evolved over time and which financial structures strengthen or weaken the effects of interest rate policies. Key indicators representing financial deepening include the ratio of banking sector assets to GDP, the Turkish lira credit-to-deposit ratio, bond market depth, and credit card expenditures. In addition, the share of foreign currency deposits in total deposits—a Proxy for financial dollarization—is incorporated as a critical structural variable. Methodologically, the study utilizes structural vector autoregression (SVAR), time-varying parameter VAR (TVP-VAR), and interaction-based regression techniques. This allows for a nuanced examination of both the short- and medium-term effects of interest rate changes on macroeconomic outcomes, depending on financial conditions.

The study offers an original contribution by being among the few studies focusing on how financial structure—particularly deepening and dollarization—modulates the impact of monetary policy in an emerging market economy. Moreover, the inclusion of credit card expenditures as a transmission channel provides a novel empirical perspective. The study also accounts for period-specific variations, offering policy implications tailored to different financial contexts. Expected results suggest that the impact of policy interest rates on inflation and growth is highly sensitive to the underlying financial structure. These findings emphasize the importance of integrating structural financial indicators into monetary policy design and evaluation processes, especially in countries with fluctuating financial development and high dollarization.

Keywords: Monetary Transmission- Financial Deepening -Dollarization -Time-Varying VAR- Turkey

Jel Codes: E52 – Monetary Policy E44 – Financial Markets and the Macroeconomy G21 – Banks; Depository Institutions; Micro Finance Institutions; Mortgages O16 – Financial Markets; Saving and Capital Investment; Corporate Finance and Governance C32 – Time-Series Models; Dynamic Quantile Regressions; Dynamic Treatment Effect Models

Investigating asymmetric connectedness across commodity markets

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Abstract

Commodities are key to global trade and play a crucial role in driving economic growth and ensuring market stability. This paper offers valuable insights into the asymmetric interconnectedness between major commodity markets and sheds light on the changing structure of these markets during periods of uncertainty, providing valuable information for investors and policymakers. Using a comprehensive dataset spanning from 10 January 1983 to 26 June 2024, this study analyses the spillover effects among the five key S&P GSCI commodity indices (Energy, Agriculture, Industrial Metals, Precious Metals and Livestock) using the asymmetric time-varying parameter vector autoregression (TVP-VAR) connectedness methodology.

Keywords: Asymmetric Connectedness; TVP-VAR; S&P Commodity Indices

Jel Codes: C32; C50; G10

Significance of artificial intelligence (AI) for the future of audit profession development – bibliometric analysis

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Abstract

Contemporary technology and digitalisation processes radically change almost every aspect of our life, economy, and business – the audit profession is no exception. Today, audit methodology relies significantly on technology, and with the development of applicable artificial intelligence (AI), we expect this will become even more pronounced in the coming years. The development of closed AI systems or its integration in existing ERP or other systems, which are controlled and restricted, provides a secure and private platform for applying advanced data analytics on confidential business data to obtain transparent, comprehensive, and reliable results, which help detect weaknesses in the internal control system, improving the effectiveness of risk management and company's operations, and ensure external stakeholders in fair and objective financial reporting. This paper will conduct a comprehensive bibliometric analysis of published research papers on AI in auditing. In this context, we will deal with four research questions: (1) What are the dynamics of publishing scientific articles on the importance of artificial intelligence in the auditing profession? (2) Which are the most used keywords in published papers?; (3) Which countries publish most AI-related papers in auditing?; (4) What are the most significant areas of progress in auditing due to the application of artificial intelligence? To answer these questions, the analysis will cover papers published in journals and conference proceedings referenced in the two most important databases, Web of Science and Scopus, from the early 1990s to most recently published in 2025. To analyse the data, we will use appropriate statistical methods, and to visualise results, we will use VOSviewer, a software tool for constructing and visualising bibliometric networks.

Keywords: Audit, Auditors, Artificial Intelligence, Bibliometric Analysis, Technology

Jel Codes: M42 Auditing, G34 Corporate Governance

Dynamic transitions in per capita nuclear and coal energy production: A Markov switching analysis of high-income economies

Ismail Onur Baycan

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Abstract

Nuclear energy continues to serve as a pivotal low-carbon energy source for high-income economies, offering a viable alternative to fossil fuels amidst global decarbonisation efforts. Conversely, coal retains a notable share in the energy mix, contributing disproportionately to greenhouse gas emissions. Understanding the production dynamics of these two energy sources—particularly on a per capita basis—requires advanced econometric modelling due to their inherently nonlinear behaviour. This study employs a hidden Markov model framework to examine the regime-dependent characteristics of per capita nuclear and coal energy production in high-income countries over the period 1965–2023. Parameter estimation is conducted using the Expectation-Maximisation (EM) algorithm integrated with nonlinear filtering techniques. The study aims to comprehensively explain the asymmetric characteristics observed in specific per capita nuclear and coal production regimes, determine the number of regimes, reveal regime classifications, and analyze regime-dependent variance. Additionally, estimated transition probabilities assess the persistence and consistency within specific per capita nuclear and coal production regimes. These results highlight the dynamic and state-dependent nature of nuclear and coal production in the context of long-term energy planning and climate goals, contributing to broader discussions on energy policy design. Findings reveal distinct asymmetric patterns and long-term persistence in energy production regimes, underscoring the dynamic role of nuclear and coal energy within the broader context of sustainable energy planning and policy formulation.

Keywords: Nuclear Energy, Coal Production, Hidden Markov Models, Environmental Economics, Energy Transition

Jel Codes: Q56, F64

Structure of financial assets in insurance companies in Croatia before and after the implementation of the new accounting model for the recognition and measurement of financial instruments and the impact on financial performance

Hrvoje Percevic & Marina Ercegovic

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Abstract

The main purpose of this paper is to identify and compare the structure of financial assets in insurance companies in Croatia before and after the implementation of IFRS 9, as well as to assess the impact of financial asset measurement on the financial performance of insurance companies in Croatia before and after the implementation of IFRS 9. In order to achieve the objectives of the paper, the paper specifically investigates: (a) the structure of financial assets before and after the implementation of IFRS 9; (b) the correlation between the carrying amount of financial assets and the financial performance of insurance companies in Croatia and (c) the correlation between income, gains and losses from investments in financial assets recognized in profit or loss and other comprehensive income and the financial performance of insurance companies in Croatia. The research used methods of descriptive statistical analysis and correlation analysis based on the Pearson correlation coefficient. The paper presents the results of the reclassification of financial assets from categories according to IAS 39 to categories according to IFRS 9. The research results indicated a strong positive correlation between the carrying value of financial assets and the financial performance of insurance companies in Croatia for all categories of financial assets based on IFRS 9. Furthermore, the results showed a strong positive correlation between income from investments in financial assets recognized in profit or loss and financial performance and a weak negative correlation between gains and losses from investments in financial assets recognized in other comprehensive income and the financial performance of insurance companies in

Keywords: financial assets, financial position, financial performance, IFRS 9

Jel Codes: M40, M41

Developing AI-based responsible methodological innovations for improving the public value of research

Tadeusz A. Grzeszczyk

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Abstract

Public investment in research is to support the development of human knowledge, but diverse results, scientific discoveries, and innovations should, above all, be valuable to society. The growing importance of the public value of research and assessment of non-academic benefits implies interest in ways of achieving such effects. One of them is the selection of methodological approaches in terms of improving the quality of research and related benefits observed in the environment of scientific organizations. Recently, there have been more and more opportunities to create the concept of AI-based methodological innovations that are conducive to improving the public value of research. The use of AI technology facilitates the achievement of breakthrough scientific results and the implementation of solutions that monitor and support the improvement of the value of research assessed in terms of its impact on the socio-economic environment. The paper aims to indicate factors determining the use of AI-based responsible methodological innovations to streamline advanced research endeavors, increase scientific performance, and benefit the environment of research organizations. The study uses observations of management processes and evaluation of research projects, quantitative literature research methods, and qualitative and in-depth analysis of selected publications. Determinants of AI-based methodological innovations driving the creation of social compatibility and public value of scientific research are identified. Mechanisms that support the growth of responsible research innovation, obtaining results that go beyond the state of knowledge, and improving the public value of research are outlined. Conclusions are also formulated regarding the effective planning and implementation of research characterized by significant public value and compatibility between science and society.

Keywords: Public value of research, AI-based methodological innovations, Research impact assessment, Responsible innovations

Jel Codes: C18, C31, H43, I23, O38

The colorful economy of the future

Edyta Wojtyla

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Abstract

The "colorful economy" symbolizes a future shaped by sustainability, innovation, and diversity. This presentation explores how integrating green practices, digital transformation, and inclusive values can create a resilient and vibrant economic model. Through real-world examples and forward-thinking ideas, we invite a reimagining of economic development as a dynamic and creative process.

Keywords: Sustainability, Diversity, Innovation

Jel Codes: 044, 031

A critical analysis of the impact of recent tariffs imposed by the USA: its end goal, the countervailing reaction by China, and its influence on major macroeconomic indicators of both countries

Avika Shukla

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Abstract

The recent rounds of tariffs that the Trump administration has announced have led to countervailing tariffs being imposed by other countries. As the US had the highest trade deficit with China, President Trump decided to impose the maximum penalty on this economy. China, on the other hand, reacted by imposing taxes on US goods entering its economy. Economic theory has always indicated that tariffs lead to the misallocation of scarce resources. However, despite this, the primary need for economics to impose protection duties is to help their own agricultural, manufacturing, and service sectors grow, thereby increasing income and employment of their citizens, as well as tax revenues. This paper analyzes the theoretical impact of tariffs on economic growth, indicating that it would lead to a misallocation of resources. It also examines the impact of these taxes on the home country, specifically on growth and employment, as well as on the valuation of the dollar and the yuan. The final impact of the tariff would be documented only shortly before, when a complete year or more would have passed.

Keywords: tariffs, misallocation of resources, trade retaliation, economic growth, currency valuation

Jel Codes: F13 and F14

The impact of projects financed from the European Union Structural Funds on small and medium-sized enterprises in Romania

Simion Cezar-Petre

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Abstract

The purpose of the research is to study the impact of the European Union Structural Funds on small and medium-sized enterprises in Romania. The data were collected through a questionnaire-based survey with the staff of small and medium-sized enterprises in Romania as respondents. The data analysis was carried out both at the national level and at the level of the eight development regions in Romania, but also taking into account the size, field of activity and legal form of the SMEs. The results obtained showed that the projects financed by the European Union Structural Funds constitute the source of financing for the investments and digitalization efforts of small and medium-sized enterprises in Romania. However, the projects financed by the European Union Structural Funds are complex and difficult to implement, Romanian entrepreneurs facing numerous obstacles in terms of their implementation. The most important obstacles in the implementation of projects financed by the European Union mentioned by the respondents of the questionnaire-based survey are excessive bureaucracy and instability of regulations/documentation. Despite all these obstacles, projects funded by the European Union play an important role in business development, with the number of entrepreneurs wishing to access Structural Funds increasing in recent years.

Keywords: project, European Union, impact, Romanian, SME's

Jelcodes: IOO, M21

Relevant aspects regarding managerial training and consulting providers from Romania in 2024

Nicolescu Ciprian

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Abstract

In the context of the transition to the knowledge economy, an increasing number of the economic entities around the world, especially from developed countries, access managerial training and consulting services in order to survive or amplify functionality, competitiveness and performances. The main purpose of the study is to reveal few significant aspects with respect to managerial training and consulting providers from Romania. Based on empirical research conducted in 2024-2025, are presented the following: comparative evaluation of the quality of management training and consulting in Romania and the European Union; assessing the management capacity of organizations providing managerial training and consulting to cope with the complex economic situation in Romania; and assessing the impact of the Covid-19 pandemic and the military conflicts in Ukraine and the Middle East on the management of entities providing managerial training and consulting services. The study also approaches the main strengths and weaknesses of management training and consulting suppliers, and propose medium & short-term directions of action to develop managerial training and consulting in Romania.

Keywords: managerial training, managerial consulting, management, university, European Union

Jelcodes: I23, M53

The importance of financial insurances in Türkiye

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Abstract

Financial insurances in Türkiye have gained increasing significance in recent years, particularly due to rising economic fluctuations and the growing need for guarantees. Classified under non-life insurance, these types of insurance—implemented in various forms around the world—have historical roots dating back to the 1920s. Financial insurance products are of considerable importance for the financial sector, insurers and insureds alike. These products offer an alternative and balanced growth opportunity, especially in contrast to heavily burdened and loss-generating branches such as motor third-party liability insurance. In Türkiye, financial insurance mainly comprises surety insurance, building completion insurance, and trade credit insurance. Among these, surety insurance is the most widely offered product, with premium production showing continuous growth; however, a decline in the number of active companies was observed in 2024. Trade credit insurance recorded the highest increase in premium production, emerging as a standout segment. As of 2024, the introduction of mandatory construction completion insurance for urban transformation projects has led to a significant increase in premium volume. Although the overall share of financial insurance within the non-life insurance market remains low, its potential for development is substantial. To enable broader adoption of these insurance products, it is crucial to strengthen the legal framework and provide incentives or tax benefits to encourage insurance companies to enter this domain. Financial insurance holds strategic importance for the sustainable growth of Türkiye’s insurance sector and should be actively promoted.

Key Words: Financial insurances, Insurance sector, Credit insurance, Surety insurance, Building completion insurance

Jel Codes: G22, G28, G52

Time-to-build capital, network and business cycle

Dimin Liu, Manchun Wang

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Abstract

We examine how the time to build for capital influences the transmission of sectoral and aggregate shocks in an economy with input-output linkages. Using granular capital project life-cycle data from India, we document substantial heterogeneity in time to build for capital across sectors. We find that sectors with stronger downstream linkages—those providing essential inputs to the broader economy and thus transmitting shocks more widely—exhibit greater capital intensity and require significantly longer time to build for capital. We incorporate this heterogeneous time to build for capital into a dynamic general equilibrium model with capital inputs and input-output linkages to analyze how these frictions shape business cycle propagation. Our results show that time to build for capital dampens short-run aggregate responses to aggregate productivity shocks while substantially increasing the persistence of their effects. Furthermore, sector-specific shocks to central sectors generate larger and more persistent aggregate effects than shocks to peripheral sectors, with this persistence being further amplified when time to build for capital is present. These findings highlight the critical role of time to build for capital in shaping both the magnitude and duration of economic fluctuations.

Keywords: time to build; network; business cycle

Jel Codes: E23, E32, D57, D85, E37

Economic impact of green house gas emmissions in agricultural Production: Challenges and policy responses¹

Hasim Ozudogru

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Abstract

While the agricultural sector is indispensable for meeting the increasing global demand for food, it simultaneously contributes a substantial share to global greenhouse gas (GHG) emissions. Specifically, agricultural activities are among the leading sources of methane (CH₄) and nitrous oxide (N₂O), which possess significantly higher global warming potential than carbon dioxide (CO₂). This dual role positions agriculture as both a driver and a victim of climate change. This study comprehensively analyzes the complex economic impacts of GHG emissions originating from agricultural production, identifies the key challenges to mitigation, and evaluates the array of policy responses developed to address these issues. The economic repercussions are explored through the lens of production losses caused by climate change, increasing operational costs for farmers due to new practices and potential carbon pricing, and heightened pressures on international trade and competitiveness. The main challenges to effective mitigation are structural, primarily related to technology adoption across diverse farm types, securing adequate financing, and achieving necessary policy alignment across multiple government sectors. The policy response section details the potential of Climate-Smart Agriculture (CSA), the application of carbon pricing and market-based mechanisms, and the implementation of supportive regulatory and international trade measures. The study ultimately underscores the critical necessity of developing and implementing comprehensive, integrated policies that harmoniously embed emission reduction goals with crucial objectives such as economic development and food security to ensure the long-term sustainability and resilience of the global agricultural system.

Keywords: Agricultural Emissions , Climate-Smart Agriculture (CSA) , Economic Impact

Jel Codes: Q1, Q54, Q58

¹ This study was supported by TÜBİTAK (The Scientific and Technological Research Council of Türkiye) under the 2224-A Grant Programme for Scientific Events Abroad in the 2025/2 term.

Risk aversion and macroeconomic volatility

Christian Jensen

University of South Carolina, USA

Abstract

When a household becomes more risk averse, it raises saving to establish a larger cushion with which to stabilize consumption and reduce its exposure to volatility. However, conventional real business cycle models often imply the opposite outcome, with increased risk aversion leading to higher volatility for both households and the aggregate economy, despite holding the variance of shocks and underlying uncertainty unchanged. It applies even for consumption, in terms of which risk aversion is usually defined. The result is driven by precautionary saving and associated general-equilibrium effects that raise the opportunity cost of smoothing consumption as households become more risk averse.

Keywords: Aggregate volatility; Risk aversion; Precautionary saving; Consumption smoothing

Jel Codes: E21, G51, E32

Global spillovers of trade policy uncertainty: Evidence from a global VAR approach

Snezana Eminidou, Andreas Savvides

University of Limassol, Cyprus

Abstract

This paper investigates the global economic effects of U.S. trade policy uncertainty (TPU) using a Global Vector Autoregression (GVAR) model. Based on monthly data from 38 economies covering the period 2000:1–2024:12, we estimate two GVAR specifications: one focused on macroeconomic variables and another on financial variables. A positive TPU shock significantly reduces U.S. imports and exports, lowers inflation, appreciates the real exchange rate, and depresses stock market returns. Our approach extends the analysis to a global context, providing new evidence on how TPU shocks originating in a dominant economy transmit across borders. We find strong international spillovers, with both advanced and emerging economies experiencing trade and output losses. The effects are most persistent in India, South Africa, China, and the Euro Area. Inflation generally falls, currencies depreciate, interest rates decline in developed markets and stock markets broadly react with short-term losses, though responses vary by country. These results highlight the global reach and asymmetric impact of U.S. trade policy uncertainty. By disaggregating trade flows by partner region, we uncover considerable heterogeneity. These findings highlight the global transmission of U.S. trade uncertainty and the heterogeneous responses across trading partners.

Keywords: Trade Policy Uncertainty, Global Vector Autoregression (GVAR), Emerging Markets, International Spillovers, Trade Patterns

Jel Codes: F13, F40, F47

Decentralized finance and blockchain adoption in developing regions: A 2025 Perspective

Quynh Mong

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Abstract

This paper examines the evolving role of cryptocurrencies, blockchain, and crypto ETFs in emerging economies through a structured framework integrating literature review, quantitative data, qualitative applications, and balanced assessments of opportunities and challenges. Drawing on Malladi and Dheeriyaa (2019) on crypto volatility and Christopher and Jumma (2021) on economic redefinition, the study incorporates 2025 data, including 861 million global crypto users (11% penetration), \$2.36 trillion APAC on-chain volume (69% growth), and crypto ETFs reaching \$3.9 trillion in market capitalization. Evidence indicates that cryptocurrencies such as Bitcoin and Ripple demonstrate resilience in volatile markets, while blockchain and ETFs provide decentralized, low-cost, and transparent channels for investment and economic participation. Adoption fosters financial inclusion (path coefficient 0.45) and empowerment (0.48), exemplified by Kenya’s IBM-Twiga microfinance and Nigeria’s \$59B crypto transactions (2023–2024). Emerging economies—India, Pakistan, Vietnam, Brazil, and Latin America—lead adoption, leveraging crypto for remittances, hedging, DeFi, and ETF-based investments for the unbanked. Challenges including volatility, regulatory uncertainty, and environmental impacts suggest hybrid policy responses. Historical events, from Bitcoin’s 2009 genesis to 2025 hash rate surges, illustrate adoption drivers and setbacks. The study highlights blockchain, cryptocurrencies, and crypto ETFs as scalable, secure, and transformative tools for economic growth, financial inclusion, and market innovation in developing regions.

Keywords: Blockchain, Cryptocurrencies, Financial Efficiency, Emerging Economies, Market Correlation

Jel Codes: G15, O16

Climate-induced migration and economic adaptation: Policy challenges for European Union in the post-2025

Riffat Rehman

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Abstract

Climate change is increasingly recognized as a driver of human mobility, reshaping migration patterns and posing significant economic and policy challenges for the European Union (EU). In the post-2025 era, the EU will confront growing pressures from climate-induced migration, both within its borders and from neighboring regions severely affected by environmental stressors. This paper explores the economic adaptation strategies and policy responses required to address these emerging dynamics. The study highlights how climate-induced migration affects labor markets, welfare systems, and regional development, while also creating opportunities for workforce diversification and innovation. It emphasizes the need for integrated policies that link climate action, migration management, and economic adaptation to strengthen resilience. Particular attention is given to cross-border governance, investment in green infrastructure, and the design of inclusive labor market policies to ensure the successful integration of climate migrants. By analyzing case studies and EU policy frameworks, the paper argues that a holistic, forward-looking approach is essential to transform climate migration challenges into pathways for sustainable growth and social stability.

Keywords: Climate-Induced Migration, Economic Adaptation, European Union, Policy Challenges, Post-2025

Jel Codes: Q54, F22, O52

Systemic risk analysis of crypto assets based on volatility spillover index and time–frequency decomposition

Yuhan Qin

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Abstract

In recent years, high volatility and regulatory uncertainty in the crypto market have led to short-term liquidity shocks in major European, American, and Asian economies, and the slow permeation of institutional risks in the long term. Consequently, this paper proposes a VAR–GFEVD spillover framework based on MODWT and BK frequency-domain decomposition, and conducts empirical analysis on data from six major cryptoassets (BTC, ETH, BNB, LTC, SOL, and XRP). Empirical results show that short-term spillovers are strongest, with conditional variance exceeding 80\% in crisis phases and exhibiting significant high stickiness. Long-term risks manifest as the slow permeation of institutional shocks. Furthermore, asset roles reverse under different indicators: BTC shifts from a risk source to a risk taker under squared returns, while LTC shifts from a risk taker to an amplifier during extreme volatility, remaining a vulnerable risk taker under long-term conditional variance. Therefore, a multi-indicator, multi-frequency framework is more robust for identifying systemic risks.

Keywords: Cryptoassets, Systemic risk, Spillover Index, Time frequency decomposition, GARCH

Jel Codes: G15, C58, G01, G14

Energy poverty and community power in practice: Demonstrating the viability and impacts of a hybrid mini-grid in rural South Africa

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Abstract

Rural energy poverty continues to undermine development in South Africa, where millions of households remain unconnected to the national grid. While hybrid mini-grids offer a promising solution, their viability has often been dismissed due to the technical failures of earlier pilot projects. This study presents empirical evidence from Upper Blinkwater, a remote, off-grid village in the Eastern Cape, where South Africa's first municipal-led hybrid mini-grid achieved sustained success. The project demonstrates how decentralized renewable energy systems (DRES) can effectively reduce energy poverty when rooted in inclusive, community-driven approaches. Using a mixed-methods design, the study combines qualitative data from 44 in-depth interviews with community members and stakeholders, and quantitative pre/post-intervention data to assess household-level changes in energy access. The analysis is framed using Arnstein's Ladder of Citizen Participation to evaluate the depth of community engagement across the project lifecycle. Findings reveal that participation reached levels of delegated power and citizen control, with residents actively involved in planning, technical maintenance, security, and energy education. Quantitative results show a 34.3% reduction in per capita energy expenditure, increased adoption of efficient appliances, and improved household energy use and quality of life. Women benefited particularly from reduced domestic burdens and expanded entrepreneurial opportunities. Community trust, local ownership, and system sustainability were enhanced by inclusive governance structures and continuous dialogue. This case challenges long-held assumptions about mini-grid infeasibility in South Africa and offers a replicable model for rural electrification that centers community empowerment. The findings have broad implications for policy and practice, advancing just energy transitions aligned with SDGs 1, 5, 7, and 13.

Keywords: Energy poverty, hybrid mini-grids, rural electrification, community participation, Arnstein's Ladder, gender empowerment, sustainable development

Jel Codes: Q42, Q48

Renewable energy, urbanization, and carbon emissions dynamics: A global panel analysis of heterogeneous impacts and policy moderators

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Abstract

This study examines the complex relationships between urbanization, carbon dioxide (CO₂) emissions, and the use of renewable energy in 94 countries between 2000 and 2022 using a dynamic panel data technique and the Generalized Method of Moments (GMM) framework. The study, which separates developed and developing countries, finds notable differences in the persistence of emissions, the benefits of renewable mitigation, and the consequences of urbanization. The results demonstrate that synergistic infrastructure integration increases the effectiveness of renewable energy in urban settings and that it greatly cuts emissions, especially in emerging nations where the benefits of "green leapfrogging" are evident. Socioeconomic position affects how urbanization affects emissions; in wealthy nations, sustainable urban design may allow decoupling, while in impoverished ones, emissions may increase. Moreover, governance quality and energy intensity are two important regulators influencing these processes. These results highlight the significance of context-specific climate policies that incorporate renewable energy initiatives, institutional enhancements, and urban growth management. By offering comprehensive, policy-relevant insights into the conditional pathways through which energy transitions and urbanization jointly influence emissions, the study advances the field of climate change economics and aids in the creation of distinctive mitigation strategies that are in line with the socioeconomic realities of different countries.

Keywords: Climate Change, Carbon Emissions, Renewable Energy Adoption, Urbanization, System GMM, Governance Quality, Energy Intensity, Green Leapfrogging, Sustainable Urban Development

Jel Codes: O , N

Algorithmic trading and artificial intelligence in financial markets – A critical analysis

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Abstract

This paper examines advantages and disadvantages of the Integration of artificial intelligence (AI) into algorithmic and high-frequency trading (HFT), exploring its transformative impact on financial markets. It reviews the evolution of algorithmic trading, from early quantitative models to modern AI-driven strategies, highlighting applications of supervised, unsupervised, and reinforcement learning across banking, asset management, and quantitative trading. Special attention is given to the role of deep learning, natural language processing, generative AI, and sentiment analysis in enhancing market prediction, optimizing portfolio management, and automating trade execution. The study also analyzes case applications, such as the Supertrend strategy, and discusses opportunities and challenges, including regulatory compliance, model interpretability, market stability, and systemic risk. Findings suggest that while AI offers significant advantages in speed, efficiency, and predictive power, its adoption requires robust governance, explainable models, and coordinated oversight to ensure ethical, transparent, and resilient market operations.

Keywords: Artificial Intelligence (AI) – Algorithms – Trading – High frequency trading

Jel Codes: C53 G11 G12

Revisiting the resource curse narrative in resource-endowed Economies: Are governments committed to changing the resource curse narrative in SSA?

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Abstract

This study looks at how government commitment influences the dynamics of natural resource abundance and economic growth in Sub-Saharan Africa (SSA). Using a sample of 25 SSA nations from 1980 to 2018 using the panel dynamic fixed effect (DFE) model, the study found that the government's commitment to resource governance in Sub-Saharan Africa (SSA) is insufficient to change the resource curse narrative. This evidence supports an alternate estimator. Therefore, during global geopolitical tensions, tariff wars, and limited global financial support, this research advocates for robust institutional changes that would harness natural resource riches to boost growth. Again, policymakers must distinguish between short-term and long-term strategies to appropriately manage natural resource riches, considering the various consequences of each period. This study brings a new viewpoint to the resource curse debate by illustrating how governments' commitment to natural resource governance supports economic growth in resource-rich countries.

Keywords: Government commitment, resource curse, natural resource, economic growth, SSA.

Jel Codes: ADR, MDPI, RDF

Nanoparticle-infused wound dressings: A novel alternative to injectable therapies for enhanced healing and drug delivery

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Abstract

Chronic and acute wounds pose significant challenges in healthcare, often requiring prolonged treatment and frequent interventions. Traditional injectable drug therapies, while effective, have limitations such as systemic side effects, low patient compliance, and inefficient drug delivery to the wound site. Nanoparticle-infused wound dressings offer a promising alternative by providing localized, sustained drug release while enhancing the wound healing process. These advanced dressings integrate nanoparticles (NPs) such as metallic, polymeric, lipid-based, and hydrogel-based systems to improve antimicrobial activity, promote angiogenesis, and facilitate tissue regeneration. Nanoparticles enable controlled drug release, protect bioactive agents from degradation, and enhance penetration into deeper wound layers, making them highly effective for chronic wounds like diabetic ulcers, burns, and surgical incisions. Moreover, functionalized NPs can incorporate antimicrobial agents, growth factors, and anti-inflammatory compounds, significantly reducing infection risks and promoting faster healing. Emerging studies highlight the potential of silver, gold, chitosan, and lipid-based NPs in improving wound care outcomes compared to conventional approaches.

Keywords: Nanoparticles, Wound dressings, Drug delivery, wound healing, Injectable alternatives, Nano medicine.

Jel Codes: Health and Welfare, Technology and Science

Criticality of elements in group III-V-based semiconductors in solar panels: A review of major approaches and analyses

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Abstract

This review paper seeks to address these questions using group III-V elements (i.e., boron, aluminum, antimony, arsenic, gallium, indium, and phosphorus) employed in semiconductors in photovoltaic (PV) technology as a case study: what defines a material or metal as critical? Which are the current methodological approaches to assess criticality of a material? What is the assessed degree of criticality of these elements according to the results from existing studies? It is determined that these elements are overall critical, not only because they appear in most of critical raw material lists from various countries but also are frequently researched in literature due to its economic importance and potentials to supply disruption. To answer these research questions, the paper explores the development of criticality assessments over time in terms of core criteria to define criticality of a metal, established methodologies for quantitative and qualitative assessments and their results; then generally evaluates the criticality for elements in group III-V in four proposed aspects: geological availability, geopolitical risks, technological potential and market dynamics. This paper aims to address the existing gap in the literature by systematically examining the importance of materials used in PV technology within the context of criticality assessment. In doing so, it provides a comprehensive perspective that goes beyond fragmented discussions found in the literature—either those focused solely on general criticality assessments or those limited to a narrow set of elements (primarily indium and gallium).

Keywords: criticality studies, critical material, supply risk, criticality assessment

Jel Codes: Q01, Q39, Q49

The grammar of inequality: How gendered language shapes gender norms

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Abstract

This study examines the impact of gendered language on gender-related attitudes/behaviors. Using data from 31 countries, we establish that the use of a gendered language is associated with worse attitudes related to gender relations. Women who use a more gendered language are 2.7 to 4.1 percent more likely to think that wife beating is justified (for different reasons). Similar to this, we find that women who speak a more gendered primary language are also likely to report 2.9 to 13.5 percent lower participation in decision making across various domains. Our findings show that language has a profound effect on actual behaviors, and the results are consistent with existing studies regarding the impact of gendered language on disparities in gender behavior.

Keywords: Gender norms, Sex-based grammar, Gendered Language

Jel Codes: J12, J6

Invisible engines: Informality, credit and consumption at the base of the pyramid in Brazil

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Abstract

This paper investigates the dynamics of informality, credit, and consumption at the base of the pyramid in Brazil, highlighting how millions of low-income households sustain economic growth despite structural financial exclusion. Using field data and case studies, we show that informal credit, rotating savings, and local consumption networks operate as invisible engines of resilience. These practices mitigate the absence of access to formal banking, but also reinforce inequality by concentrating risk on vulnerable groups. The analysis connects the microdynamics of household finance to macroeconomic stability, offering insights into how informal practices shape aggregate demand, debt sustainability, and social vulnerability. By exposing the paradox of informality — simultaneously fostering inclusion and exclusion — the paper contributes to debates on inequality, household finance, and development. Our findings suggest that policy frameworks must recognize these parallel systems to avoid misdiagnosing the role of the poor in sustaining economic cycles.

Keywords: Informality, Household Finance, Consumption, Financial Exclusion, Inequality

Jel Codes: O17 – Informal Economy, Shadow Economy D14 – Household Saving, Personal Finance E21 – Consumption, Saving, Wealth

Tourism as a culture-oriented transformative conductive: Cultural transition from cities to destinations

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Abstract

It is projected that more than 60 percent of the world's population will live in cities by 2050 (Güneralp et al., 2020; Mahtta et al., 2022). Urbanization has a paramount significance on the tourism system (Cohen and Cohen, 2019). The basis of the understanding that the tourism sector has a culturally transformative effect is derived from the claim that city culture is transferred to destinations (Nunez, 1963). This claim has evolved over the following decades into the idea that the tourism sector is among the factors that ensure cultural diffusion (Macleod, 2004). In fact, it is claimed that the travellers that constitute the demand side of the tourism system are mainly those residing in metropolitan areas (Wahab and Cooper, 2001) and metropolitan-focused visitors are among the main factors that initiate the cultural transition process in the destination (Ward, 2008). With these ideas in mind, the tourism system plays a media-like role in global cultural dissemination tools (Özekici, 2019). The role of interest is thought to be enacted through metropolitan travelers. Which in turn constitute a role that differs what media apparatuses has been carrying out.

Although the need to test the spread of non-media elements of global consumer culture is heavily emphasized in the literature (Steenkamp, 2019), It has been observed that this need has not yet been met. Through this study, it will be examined to what extent the tourism system carries city culture to destinations and which factors play a role in this cultural transfer process. In order to meet the explanatory research purpose, a qualitative research design will be adopted. For this purpose, the perspectives of 40 hosts in the relevant destinations in Turkey, which host some of the destinations that host western tourists coming from metropolitan areas in the world, will be analyzed through open, axial and selective coding process. Through the emerging themes and research findings, theoretical implications will be provided in eliminating the uncertainty about the impact of tourism-oriented migrations on the cultural system of destinations (Forsyth et al., 2012), advancing the acculturation literature from a tourism perspective (Özekici and Ünluönen, 2019), clarifying the position of the tourism sociology field within the sociology discipline (Cohen and Cohen, 2019: 167), and clarifying the arguments of modernization theory (Kuppens, 2013). Similarly, by revealing the impact of host-tourist interaction on the destination system through research findings, the destination management department will be enlightened on which strategies need to be clarified on the long-term destination policy and planning process. This stands out as the main practical implication of the study.

Keywords: Migration, Tourism Sociology, Urbanization, Acculturation, Cultural Transformation

Jel Codes: Z32, Z10

From CSR to career choices: Unraveling the influence of organizational attractiveness and prestige on generation Z’s job pursuit intentions

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Abstract

As Generation Z rapidly enters today’s labor market, they tend to prioritize social responsibility and ethical values over traditional career motivations. This study aims to examine the effect of Corporate Social Responsibility (CSR) practices on Generation Z’s job pursuit intentions, focusing on the mediating roles of organizational attractiveness and prestige.

The research was conducted using quantitative data collected from undergraduate students enrolled in various universities in Ankara. The results of the pilot study show that CSR significantly influences how young job seekers perceive potential employers. CSR initiatives contribute to enhancing organizational attractiveness and prestige, which in turn positively impact Generation Z’s intentions to pursue employment with such organizations.

The study emphasizes that CSR should not be regarded as a superficial communication strategy, but rather as a sincere and sustainable commitment embedded in the organizational culture. Companies aiming to appeal to Generation Z are therefore encouraged to move beyond symbolic CSR efforts and integrate responsible practices into their core identity and everyday operations.

Keywords: Corporate Social Responsibility, Generation Z, Organizational Attractiveness, Organizational Prestige, Job Pursuit Intentions

Jel Codes: M14, M12, J24

The Effects of Climate Change on the Financial Sector: Risk Dynamics and Strategic Opportunities²

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Abstract

This study investigates the dual impact of climate change on the financial sector—as both a systemic risk and a catalyst for strategic transformation. Drawing upon sustainable finance and stakeholder theory, the paper categorizes climate-related risks into physical, transition, and liability types. It also examines how financial institutions are adapting to these evolving risks through instruments such as green bonds, sustainable banking practices, and digital innovations like FinTech and InsurTech. Particular attention is paid to Turkey's climate finance landscape, highlighting recent regulatory developments and institutional responses. The findings emphasize that addressing climate change is not only a financial imperative but also a responsibility that aligns with broader sustainability goals. The paper concludes with a call for interdisciplinary research and proactive policy-making in the climate-finance nexus.

Keywords: climate change, risk, sustainability

Jel codes: Q54

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