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ABSTRACT PROCEEDING

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ICOAEF XV

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ICOAEF XV

INTERNATIONAL CONFERENCE ON APPLIED ECONOMICS AND FINANCE

WELLCOME MESSAGE

International Conference on Applied Economics and Finance (ICOAEF XV) held on 11th-12th May, 2026 in Kyrgyzstan-Türkiye Manas University, Bishkek/ Kyrgyz Republic. We are glad ICOAEF-XV gathered many successful academics and professionals around the World. 68 papers were submitted, and 57 papers presented during ICOAEF-XV from 16 different countries.

This conference provided as a suitable platform for discussions about the researches. This conference abstract proceeding contains 63 papers presented both online and in person. ICOAEF-XV participants consisted of from 17 different countries, 16 Turkish universities. Scientific board rejected 11 papers directly due to the inconvenience of conference topics, theme and structure of ICOAEF-XV. Scientific committee also requested some corrections to 11 different papers then these papers accepted and presented during the conference. All submissions for ICOAEF-XV scientifically reviewed and evaluated by scientific committee members.

We believe that ICOAEF-XV 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 16 different countries beyond Türkiye. We accepted papers of the participants from Algeria (1), Belgium (1), Turkish Republic of Northern Cyprus (1), Ethiopia (1), France (1), Gambia (1), Greece (1), Italy (2), Iran (1), Kyrgyzstan (13), Latvia (1), Morocco (1), Romania (1), Russian Federation (1), Türkiye (30), United Kingdom (2), and United States (2). Finally, we would like to thank Kyrgyzstan-Türkiye Manas University and our esteemed ICOAEF-XV participants who shared their deep knowledge and experience at ICOAEF-XV. We would like to be together in our following organizations.

On behalf of Conference Organization Committee

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CONTENTS OF ABSTRACT PROCEEDING

ARTIFICIAL INTELLIGENCE FOR INVESTOR-PROTECTION TREATIES IN ENVIRONMENTAL PROJECTS: THE EAST AFRICA–CHINA RELATIONSHIP

Klemens Katterbauer[1], Hassan Syed[2], Rahmi Deniz Özbay[3], Sema Yılmaz[4]

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ABSTRACT

This paper examines the potential role of artificial intelligence (AI) in strengthening investor-protection treaties, with a focus on environmentally sensitive projects in the East Africa–China investment corridor. It situates bilateral and multilateral investment agreements between China and East African states within their legal and economic contexts, tracing their evolution and interaction with sustainable development goals. The study highlights major challenges in infrastructure and natural-resource projects, including environmental degradation, community displacement, and the tension between economic growth and ecological preservation. Particular attention is given to the shortcomings of investor–state dispute settlement (ISDS), criticized for high costs, opacity, and neglect of environmental and social externalities. The paper then explores how AI tools—such as predictive analytics for arbitral outcomes, natural language processing for treaty interpretation, and machine learning for environmental monitoring—can enhance treaty enforcement and dispute resolution. These applications demonstrate AI's potential to improve efficiency, consistency, and accountability in international investment governance. The paper advances recommendations at three levels: normatively, it urges embedding environmental safeguards and sustainability clauses in treaties, drawing from comparative treaty practice and international environmental law; institutionally, it calls for modernization of arbitral institutions to integrate AI-driven case management and evidence review while ensuring procedural fairness; and technically, it proposes deploying AI-powered monitoring systems for real-time environmental assessment, enabling proactive risk mitigation by host states and investors. Drawing on interdisciplinary sources—legal scholarship, empirical studies, and contemporary research on AI in arbitration—the paper contributes to debates on reconciling investment protection with environmental sustainability in an era of global infrastructure expansion.

Keywords: China-Africa Trade, Artificial Intelligence, Investor Protection, Environmental Projects, Treaties.
JEL Codes: F23, H25, H26.

NAVIGATING THE LABYRINTH: THE IMPACT OF PATENT LAW AND AI REGULATIONS ON HEALTHCARE INNOVATION IN CHINA AND AFRICA

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ABSTRACT

The convergence of artificial intelligence (AI) and healthcare promises a paradigm shift in diagnostics, treatment personalization, and drug discovery. However, this convergence occurs within a complex legal and ethical framework, where patent law and nascent AI-specific regulations intersect. This article conducts a comparative analysis of the impact of this regulatory nexus on healthcare innovation in two distinct contexts: China, a state-directed technological superpower, and Africa, a continent of 54 diverse nations pursuing collective technological sovereignty. It argues that while China employs a strategic, top-down model that leverages its patent system to fuel a national AI-healthcare industrial policy, African nations navigate a polycentric and fragmented landscape. The continent's primary challenge lies in balancing the imperative for robust patent protection to incentivize innovation, both foreign and domestic, against the urgent need for equitable access to healthcare. This balancing act occurs within a complex, multi-level governance structure, where nascent continental strategies from the African Union must be reconciled with diverse national priorities and limited institutional capacity, all while avoiding a new wave of technological dependency. The article concludes that the evolving regulatory frameworks in both regions will not only shape their domestic health outcomes but also critically influence the global governance of AI in medicine.

Keywords: AI Regulation, Healthcare Innovation, Patent Law, China, Africa.
JEL Codes: O33, I11, F53.

DETERMINANTS OF HEALTHCARE SERVICE SATISFACTION: AN EXPLAINABLE ARTIFICIAL INTELLIGENCE ANALYSIS USING SHAP

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ABSTRACT

Understanding what drives patient satisfaction with healthcare services is crucial for improving health system performance and policy design. While traditional statistical methods have been widely used to examine satisfaction determinants, they often fall short in capturing complex, non-linear relationships among variables. This study aims to identify and interpret the key factors influencing healthcare service satisfaction in Turkey using an Explainable Artificial Intelligence (XAI) approach. Drawing on data from the Turkey Life Satisfaction Survey 2024 conducted by the Turkish Statistical Institute, this study analyzes responses from 8,462 individuals aged 18 and above. The dependent variable is overall satisfaction with healthcare services, measured on a five-point Likert scale. A total of 19 independent variables were examined, including demographic characteristics, social security status, healthcare utilization patterns, and various problems experienced during healthcare encounters. Three machine learning algorithms—Random Forest, XGBoost, and LightGBM—were trained and compared. The best-performing model was then interpreted using SHAP (SHapley Additive exPlanations) values to quantify each feature's contribution to the prediction. The Random Forest model achieved the highest predictive accuracy. SHAP analysis revealed that service-related problems were the most influential factors affecting healthcare satisfaction. Specifically, problems with appointment scheduling emerged as the strongest predictor, followed closely by waiting time issues and hygiene concerns. These three factors showed nearly equal importance, with mean absolute SHAP values around 0.11. Personal health satisfaction and perceived staff shortages also ranked among the top five determinants. Interestingly, demographic variables such as gender, age, and marital status had relatively minimal impact on satisfaction levels compared to experiential factors. These findings suggest that improving operational aspects of healthcare delivery—particularly streamlining appointment systems, reducing waiting times, and maintaining hygiene standards—could substantially enhance patient satisfaction. The study demonstrates the value of XAI methods in health services research, offering transparent and interpretable insights that can directly inform evidence-based healthcare policies. Future research could extend this approach to regional comparisons or longitudinal analyses.

Keywords: Healthcare Satisfaction, Explainable AI (XAI), SHAP Analysis, Machine Learning, Health Services.
JEL Codes: I11, I12, C45, C55.

THE MACROECONOMIC IMPACTS OF CLIMATE CHANGE ON ASIA-PACIFIC ECONOMIES: SECTORAL VULNERABILITIES

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ABSTRACT

Climate change has become a source of structural vulnerability threatening macroeconomic stability in the Asia-Pacific region, characterised as the "mother of externalities." According to United Nations ESCAP data, the region, which accounts for 60% of global economic growth, is warming at nearly twice the global average, and climate-related disasters cause an average annual economic loss of 924 billion dollars. This figure corresponds to 2.9% of the region's GDP, and it is projected to rise to 953-980 billion dollars in a scenario of a 1.5-2°C temperature increase. The agricultural sector is one of the most vulnerable areas to climate change. According to the Agricultural Heat Stress Score (AHSS) methodology developed by ESCAP, Afghanistan, Pakistan, India, Nepal, and Bangladesh fall into the high-risk category. In the region, agriculture accounts for more than a quarter of GDP and employs a large portion of the rural workforce. In August 2024, floods triggered by the Remal cyclone in Bangladesh submerged approximately 2 million hectares of rice fields. ESCAP's macroeconomic analysis covering 30 countries identifies Afghanistan, Cambodia, Iran, Kazakhstan, Laos, Mongolia, Myanmar, Nepal, Tajikistan, Uzbekistan, and Vietnam as the economies most vulnerable to climate risks. These countries share common characteristics, including low adaptation capacity, limited financial resources, and high dependence on climate-sensitive sectors. In conclusion, the impacts of climate change on Asian economies are no longer future scenarios but real costs reflected in today's financial statements. Regional countries must make a strategic choice between the cost of adaptation investments and the heavy economic losses brought by inaction. The financing cost of the green transition, according to IEA data, ranges between 8-9.4% in Southeast Asia, which is significantly higher than the 5-6.5% range in developed countries. This situation constitutes one of the most significant structural barriers to the region's low-carbon transition.

Keywords: Climate Change, Agricultural Heat Stress, Energy Infrastructure, Labour Productivity, Asia-Pacific Economies.
JEL Codes:

RUSSIAN FIRM ENTRY AND LABOR MARKET DYNAMICS IN KAZAKHSTAN

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ABSTRACT

This paper examines the economic effects of the surge in Russian firm entry to Kazakhstan following the war in Ukraine. It focuses on the interplay between increased entrepreneurial activity and labor market dynamics. The analysis utilizes a structural general equilibrium model with firm dynamics and a frictional labor market to explore the consequences of war-induced firm entry into the Kazakh economy. Our findings suggest that the influx of Russian firms, which introduced approximately 15367 additional entrants in 2022 and 2023, has a positive impact on workers, reflected in increased wages and improved outside options, as heightened labor demand strengthens workers' bargaining positions. Additionally, the unemployment rate decreased by 0.18 percentage points, reflecting improved job prospects driven by the expansion of foreign firms. However, the effect on domestic firms is largely negative. Competitive pressures from Russian-owned firms have led to a decline in profits, an increase in exit rates among domestic firms, and a reduction in the future number of entrants due to intensified rivalry.

Keywords: Firm Dynamics, Labor Markets, Migration, Kazakhstan, Geopolitical Shocks.
JEL Codes:

IS GREEN TRANSITION PREDICTIVE A MACHINE LEARNING EVALUATION OF CARBON PRICE SPILLOVERS ON EUROPEAN EQUITY SECTORS

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ABSTRACT

As the European Union accelerates its decarbonization objectives, the predictive power of carbon pricing for financial markets has become a vital focus for managing systemic risk. This study examines the spillover effects of European Union Emissions Trading System (EU ETS) carbon prices on "clean" (S&P Global Clean Energy) and "dirty" (STOXX Europe 600 Utilities and Energy) equity sectors through a hybrid predictive framework. Moving beyond traditional linear models, we combine Quantile-on-Quantile Regression (QQR) with Machine Learning (ML) algorithms, specifically Random Forest and Gradient Boosting Machines (GBM), to assess whether fluctuations in carbon prices can forecast sectoral return distributions. The theoretical foundation rests on the asset-pricing implications of climate policy uncertainty and the transition risk hypothesis.

Methodologically, we first use QQR to capture asymmetric, state-dependent dependencies across market conditions (bull vs. bear). Next, these quantile-based features serve as inputs for ML models to improve the accuracy of forecasting sectoral volatility spillovers. The expected results aim to determine whether carbon prices hold significant predictive information, especially during periods of high market stress (extreme quantiles). It is hypothesized that ML models will outperform conventional time-series benchmarks by more effectively capturing non-linear tail dependencies, demonstrating that the green transition is a powerful predictive factor for European equity dynamics.

The expected results aim to provide detailed insights for institutional investors seeking to optimize portfolio decarbonization and for policymakers monitoring financial stability risks associated with climate policy changes. By validating the integration of ML with quantile-based metrics, this study seeks to provide a strong framework for understanding the changing links between carbon markets and financial systems.

Keywords: Carbon Pricing, Green Transition, Machine Learning, Quantile-on-Quantile, European Equity Sectors.

JEL Codes:

LIVESTOCK GROWTH IN CENTRAL ASIA: CARBON COSTS AND TECHNOLOGICAL MITIGATION

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ABSTRACT

This study examines the environmental implications of livestock expansion in Central Asia within an extended STIRPAT framework. Following the collapse of the Soviet Union, the region experienced a major restructuring of its agricultural systems, with a sharp contraction in meat production during the 1990s, a recovery after 2002, and a differentiated expansion after 2012. These changes raise the question of whether livestock growth contributes significantly to CO2 emissions and whether technological capacity moderates this relationship.

Using panel data for Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan over 1992–2022, the analysis models per-capita CO2 emissions as a function of GDP, population, energy intensity, agricultural structure, and livestock production. Cross-sectional interdependence detected through Pesaran's CD tests is addressed using Prais-Winsten panel-corrected standard errors (PCSE), fixed-effects models with Driscoll-Kraay standard errors, and spatial autoregressive (SAR) and spatial error (SEM) specifications, with deterministic time trends capturing common temporal dynamics.

The results show that livestock expansion significantly increases emissions. A 1% increase in beef and buffalo production per capita is associated with a 0.34% to 0.54% rise in CO2 emissions per capita, while poultry production shows a smaller positive elasticity (0.08% to 0.30%). Sheep and goat production have a positive but not always significant effect. In contrast, pig production shows a weakly negative association (-0.04 to -0.12%), suggesting substitution toward less carbon-intensive livestock categories. Total meat production remains positive and highly significant (0.55% to 0.82%), confirming a scale effect. In addition, the agricultural share is negatively associated with CO2 emissions.

Finally, technological capacity, proxied by scientific publications per million inhabitants, is positively associated with emissions on average, while its interaction with meat production is negative and statistically significant, indicating that higher scientific output reduces the emissions elasticity of livestock expansion. Overall, the results suggest that livestock growth constitutes an important driver of emissions in Central Asia, although its environmental impact may vary depending on the structural composition of the economy and the level of technological capacity.

Keywords: Production, CO_2 Emissions, STIRPAT Model, Technological Capacity, Central Asia.
JEL Codes: Q54, Q18, C33.

THE TEICI FRAMEWORK: TRADE, ENVIRONMENT, INSTITUTIONS, COMPLEXITY, AND INEQUALITY IN BRICS SUSTAINABLE DEVELOPMENT. A COMPARATIVE ANALYSIS OF FIVE TRAJECTORIES AND THE JUST TRANSITION TRILEMMA

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ABSTRACT

For more than two decades, the trade-environment nexus in large emerging economies has resisted clean and single-paradigm explanations. The Environmental Kuznets Curve promises eventual improvement with income, and the Pollution Haven Hypothesis warns of regulatory race-to-the-bottom, economic complexity theory identifies structural upgrading as decisive decoupling mechanism, inequality perspectives highlight elite capture that blocks abatement effort, and dependency frames underscore how peripheral specialization perpetuates burden transfer. Each lens illuminates part of the picture; none captures the full conditional surface when confronted with the actual and highly divergent trajectories observed across BRICS and BRICS+ economies from 2000 to 2024.

This paper develops the TEICI framework: Trade, Environment, Institutions, Complexity, Inequality to integrate these five paradigms into a unified conditional logic. Rather than imposing pooled panel estimators that data reject on heterogeneity grounds, the analysis proceeds comparatively, mapping each economy onto a distinct structural typology.

The central contribution is the identification of an irreducible just transition trilemma: emissions reduction, inequality reduction, and trade competitiveness cannot be simultaneously maximised. Pursuit of any two objectives structurally compromises the third. This trilemma is not a policy failure but a consequence of nested regime dependencies, governance quality flips the trade-emissions elasticity, complexity generates U-shaped responses, inequality steepens positive channels under weak institutions.

Drawing on longitudinal profiles of CO_2 trends, Economic Complexity Index series, Worldwide Governance Indicators, and top-to-bottom income ratios over 2000–2024, together with national policy frameworks and BRICS institutional evolution, the paper shows why summit rhetoric escalates while national pathways diverge so sharply. The trilemma explains persistent gaps between declared ambitions and implemented outcomes. By naming the trilemma and furnishing a framework that renders its mechanics legible across heterogeneous cases, the analysis moves beyond paradigm competition toward a conditional, structurally grounded understanding of trade-environment dynamics in the Global South.

Keywords: BRICS+, Trade Openness, Economic Complexity, Inequality, Conditional Environmental Outcomes.
JEL Codes: Q56 F18 O13.

JUST TRANSITION: NAVIGATING SUSTAINABILITY AND INDIGENOUS SELF-DETERMINATION

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ABSTRACT

What happens when sustainability frameworks designed to protect the environment end up harming the communities they aim to support? This study examines that paradox through the lens of the Alaska Native Claims Settlement Act (ANCSA), focusing on how it continues to influence the economic and political realities of Alaska Native communities, especially regarding ESG expectations and Indigenous self-determination. By analyzing ANCSA's institutional structure, including the revenue-sharing mechanisms in Sections 7(i) and 7(j), and the role of Alaska Native corporations in rural economies, the study suggests that standard ESG frameworks are ill-suited to Alaska's unique conditions. These frameworks often assume dense infrastructure, diverse economies, and interconnected energy systems. However, these assumptions do not hold in a state characterized by remote communities, isolated microgrids, high transportation costs, and an ongoing reliance on resource extraction as the primary source of income.

Under ANCSA, Alaska Native corporations have become key economic players, directing resource income toward jobs, dividends, scholarships, social services, and cultural preservation, as shown in their own institutional records and by Alaska Native leaders. In this context, resource extraction is not just an environmental issue; it also supports community well-being, local governance, and Indigenous economic sovereignty. The study concludes that successful sustainability planning in Alaska requires a Just Transition framework that prioritizes Indigenous decision-making and carefully considers sequencing, ensuring economic alternatives are viable before dismantling existing revenue systems. It states that meaningful ESG engagement in remote Indigenous communities must be locally rooted, historically informed, and structurally flexible enough to understand that extraction and cultural preservation are often interconnected rather than separate. Imposing external transition timelines risks worsening, not alleviating, the inequities these frameworks aim to address.

Keywords: Just Transition, Alaska Native Claims Settlement Act, Indigenous Self-Determination, ESG, Alaska Native Corporations, Resource Extraction, Green Colonialism, Remote Communities, Revenue Sharing.
JEL Codes:

ISLAMIC FINANCE AND REAL ECONOMIC OUTCOMES: A CONCEPTUAL FRAMEWORK AND RESEARCH AGENDA

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ABSTRACT

The paper develops a mechanism-based framework for explaining when and how Islamic finance affects real economic outcomes. Rather than treating Islamic finance as a homogeneous institutional label, the paper distinguishes between features embedded in canonical contracts and implementation-equilibrium outcomes generated under real-world legal, informational, and regulatory constraints. Building on a substantially expanded literature base that combines Islamic finance scholarship with the broader economics of finance, contracts, inclusion, and ethical investing, the paper identifies five principal transmission channels: risk sharing, asset-backing and materiality, delegated monitoring and governance, financial inclusion, and ethical or sustainability-oriented capital allocation. Islamic finance can strengthen resilience, widen access, improve investment quality, and align finance more closely with productive activity, but these effects depend on contract composition, institutional quality, Shariah governance, legal enforceability, liquidity infrastructures, and the extent to which practice reflects substance rather than form. The paper also incorporates more recent debates on sukuk, corporate and Shariah governance, displaced commercial risk, green and sustainability sukuk, and the relation between Islamic finance and the Sustainable Development Goals. The concluding research agenda proposes testable hypotheses, measurement strategies, and empirical designs centered on contractual substance, rather than relying on institution-level Islamic labels alone.

Keywords: Islamic Finance, Islamic Banking, Sukuk, Risk Sharing, Financial Inclusion, Shariah Governance, Real Economy, Economic Growth.
JEL Codes:

AN ASSESSMENT ON THE RELATIONSHIP BETWEEN ENERGY TRANSITION AND ECONOMIC DEVELOPMENT IN KAZAKHSTAN, KYRGYZSTAN AND UZBEKISTAN

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ABSTRACT

This study examines the incentive policies applied to renewable energy sources during the energy transition process from a comparative perspective. The study analyzes the country experiences of Kazakhstan, Kyrgyzstan, and Uzbekistan. Grounded in the literature on energy economics, sustainable development, and green transition, the primary objective of this study is to reveal the effects of energy transition on economic growth and sustainable development, and to offer policy recommendations to these countries. As a methodology, existing policy documents, international reports, and country experiences were analyzed comparatively. The findings indicate that due to the environmental costs of fossil fuels and the relatively high initial costs of renewable energy production, governments tend to favor price-based incentive mechanisms, particularly feed-in tariff schemes. While developed countries have effectively implemented these incentives and achieved significant capacities worldwide, the level of support remains insufficient in developing countries. In conclusion, the study demonstrates that while energy transition requires high costs in the short term, it yields multidimensional benefits in the long term, including a reduction in the current account deficit, job creation, and improvements in environmental quality. It is recommended that countries align their policies with the energy transition process.

Keywords: Energy Conversion Costs, Economic Development, Kazakhstan, Kyrgyzstan, Uzbekistan.
JEL Codes:

STANDARDIZATION OF COMMUNICATION TERMINOLOGY AMONG TURKIC STATES: A MODEL PROPOSAL FROM THE PERSPECTIVE OF PUBLIC DIPLOMACY

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ABSTRACT

In recent years, the increasing political, economic, and cultural cooperation among Turkic States has highlighted the need for a shared understanding and standardized terminology in the field of communication. However, differences in historical, linguistic, and institutional developments have led to variations in communication-related concepts across these countries. Such variations result in inconsistencies, semanticshifts, and reduced effectiveness in public diplomacy practices. This study aims to examine the necessity of standardizing communication terminology among Turkic States from the perspective of public diplomacy. The research adopts a qualitative approach and employs comparative document analysis. Official documents, media content, and communication materials from selected Turkic States—primarily Türkiye and Uzbekistan—are analyzed to identify terminological discrepancies. The findings reveal that identical or similar concepts are expressed differently across countries, complicating accurate message transmission and weakening strategic communication efforts.

Based on these findings, the study proposes a multi-stakeholder model for developing a common communication terminology. The model includes institutional coordination mechanisms, the establishment of a digital terminology database, and structured processes for education and dissemination. It emphasizes the importance of collaboration among academic institutions, public bodies, and media organizations.

In conclusion, the standardization of communication terminology is not merely a linguistic initiative but also a strategic tool that can significantly enhance the effectiveness of public diplomacy among Turkic States. By fostering conceptual coherence and mutual understanding, such efforts can contribute to stronger regional cooperation and more effective international communication strategies.

Keywords: Turkic States, Communication Terminology, Public Diplomacy, Strategic Communication, Intercultural Communication.

JEL Codes: F50, Z13, D83.

NONLINEAR EFFECTS OF ECONOMIC GROWTH ON VULNERABLE EMPLOYMENT: EVIDENCE FROM A SEMIPARAMETRIC DYNAMIC PANEL MODEL

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ABSTRACT

This paper examines the relationship between economic growth and vulnerable employment in developing countries. While standard theories predict that economic growth reduces labour market vulnerability through structural transformation, empirical evidence remains mixed and often relies on restrictive functional forms. This study aims to investigate whether this relationship is nonlinear and depends on the level of economic development.

From a theoretical perspective, the relationship between economic growth and vulnerable employment is ambiguous. Growth may reduce vulnerability by expanding formal employment opportunities, but it may also increase vulnerable employment at early stages when the formal sector's absorptive capacity is limited.

To address this issue, we employ a semiparametric dynamic panel model using data for 110 developing countries over the period 1991–2019. This approach allows the marginal effect of economic growth to vary flexibly across income levels while accounting for persistence, heterogeneity, and endogeneity.

The results reveal a robust inverted U-shaped relationship between economic growth and vulnerable employment, with a turning point at which the marginal effect changes sign. At low levels of economic development, growth is associated with an increase in vulnerable employment. Beyond this threshold, however, further growth reduces labour market vulnerability as structural transformation progresses.

These findings highlight the importance of nonlinear modelling approaches and suggest that the employment effects of economic growth are stage-dependent. They also imply that growth alone may be insufficient to improve employment quality without complementary structural policies.

Keywords: Vulnerable Employment, Economic Growth, Nonlinearity, Semiparametric Model.

JEL Codes:

THE IMPACT OF TRADE OPENNESS ON GOVERNMENT SIZE: TESTING THE COMPENSATION AND EFFICIENCY HYPOTHESES IN KYRGYZSTAN

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ABSTRACT

Globalization, with its economic, political, and social dimensions, makes the integration of countries into the international system inevitable. This process also gives rise to economic risks. Trade openness can make a country's economy vulnerable to external shocks. For developing countries, especially the smaller countries that broke away from the Soviet bloc, overcoming the obstacle is challenging. The tendency to increase public spending and the overall size of the public sector to limit the economic risks arising from trade openness is referred to in the literature as the compensation hypothesis. Conversely, the view that trade openness leads to a contraction of the public sector by increasing competitive pressure is referred to as the efficiency hypothesis. This study examines the influence of trade openness on government size in Kyrgyzstan from 1990 to 2024. The Fourier Autoregressive Distributive Lag cointegration test is applied by including economic growth as a control variable. The findings indicate that the variables are cointegrated. In the long run, trade openness has a positive impact on government size, whereas economic growth has a negative impact. An increase of 1% in trade openness leads to a 0.28% expansion in the public sector, whereas a 1% increase in growth results in a 0.21% contraction. In conclusion, the compensation hypothesis is found to be valid for the Kyrgyz economy, while the efficiency hypothesis is not supported.

Keywords: Compensation Hypothesis, Efficiency Hypothesis, Government Size, Trade Openess.
JEL Codes: C12, F14, H11.

AGRICULTURAL HUMAN APPROACH IN SUSTAINABLE GROWTH: A FINTECH-BASED MULTI-COUNTRY COMPARATIVE ANALYSIS

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ABSTRACT

This study argues that increases in agricultural productivity cannot be explained solely by technological investments, but rather depend on the development of human capacity capable of effectively using these technologies. Unlike the existing literature, which predominantly focuses on technology and financial access, this paper introduces the concept of “Agricultural Human 4.0” and emphasizes the human dimension of agricultural transformation.

Within this framework, the study conducts a comparative analysis of Kenya, India, China, and Türkiye, examining the role of financial access, knowledge levels, behavioral factors, and institutional structures in the adoption of agricultural technologies. The theoretical background is grounded in financial inclusion, technology adoption, and behavioral economics literature, while the methodology relies on a qualitative comparative case analysis approach.

The findings reveal that agricultural transformation occurs through different mechanisms across countries. In Kenya, simple and accessible technologies such as mobile money systems enhance financial inclusion and strengthen farmers’ risk management capacity. In India, advanced agricultural technologies are not widely adopted unless supported by hybrid knowledge dissemination systems and behavioral adaptation processes. In China, digital inclusive finance plays a critical role in integrating disadvantaged farmers into production systems and accelerating the adoption of eco-agricultural technologies. In contrast, Türkiye faces structural challenges such as an aging farmer population and low levels of digital literacy, making institutional support mechanisms, including training and financial programs, essential.

The results demonstrate that technological transformation in agriculture depends not only on infrastructure investments but also on the presence of farmers with adequate knowledge, skills, and financial access. In this respect, the study contributes to the literature by developing the concept of “Agricultural Human 4.0” as a human-centered analytical framework. It further argues that agricultural policies should be redesigned from a technology-oriented perspective toward a human-centered approach.

Keywords: Agriculture 4.0, Agricultural Human, FinTech, Digital Finance, Rural Development.
JEL Codes: Q16, O33, G21.

CREATIVITY, TOTAL FACTOR PRODUCTIVITY AND ARTIFICIAL INTELLIGENCE: AN APPLIED ECONOMIC ANALYSIS

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ABSTRACT

This paper examines creativity as a measurable determinant of economic performance within an applied economics framework, with particular emphasis on its contribution to total factor productivity (TFP), labor market dynamics, and structural economic resilience. Creativity is conceptualized as an intangible component of human capital that enhances innovation capacity, efficiency, and long-term growth beyond traditional sectoral boundaries. The main objective is to evaluate the relationship between creativity-intensive labor and economic performance, and to identify the channels through which creative inputs translate into productivity gains. The theoretical framework integrates human capital theory, endogenous growth models, and productivity analysis, framing creativity as a non-standard input interacting with physical capital, digital infrastructure, and institutional quality. Artificial intelligence is introduced as a general-purpose technology that complements creative labor by improving information processing, reducing innovation frictions, and increasing the scalability of knowledge-based outputs.

Methodologically, the study adopts a mixed approach combining a structured literature review with an empirical analysis based on Eurostat data for European Union countries over the period 2015–2024. Creativity is proxied by employment in creativity-intensive occupations. The empirical strategy employs panel data econometric techniques with fixed effects to account for unobserved heterogeneity across countries and over time, focusing on the relationship between creative labor intensity, employment dynamics, and productivity-related indicators, including post-COVID recovery patterns. The results indicate a robust positive association between creativity-intensive employment and economic performance. Economies with higher levels of creative human capital exhibit stronger labor market resilience, faster adjustment to economic shocks, and improved productivity dynamics. Furthermore, the findings highlight significant complementarities between creativity and digital technologies, particularly artificial intelligence, which appears to amplify the productivity effects of creative inputs. In conclusion, creativity emerges as a relevant driver of TFP and structural economic transformation. The evidence suggests that policies promoting creative skills development, digital infrastructure investment, and artificial intelligence adoption can enhance productivity and support sustainable long-term growth. These results contribute to the applied economics literature by providing empirical evidence on the productivity-enhancing role of creativity in the digital era.

Keywords: Applied Economy, Creativity, Total Factor Productivity.
JEL Codes: O47, J24, O14.

DOES FINANCIAL DEVELOPMENT DRIVE INCLUSIVE ECONOMIC TRANSFORMATION IN EAST AFRICA? EVIDENCE FROM PANEL DYNAMICS

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ABSTRACT

Despite sustained financial sector reforms across East Africa, the extent to which financial development translates into inclusive economic transformation remains an unresolved empirical and policy issue. While financial deepening is widely recognized as a driver of economic growth, its capacity to generate broad-based and equitable development outcomes remains uncertain, particularly in structurally constrained and institutionally heterogeneous economies. This raises important questions about the conditions under which financial development can foster not only growth but also inclusiveness and structural transformation. This study examines the short- and long-run relationships between financial development and inclusive economic transformation in seven East African countries, including Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda, over the period 2010–2023. A heterogeneous dynamic panel framework is employed, using Mean Group (MG), Pooled Mean Group (PMG), and Dynamic Fixed Effects (DFE) estimators, complemented by robustness checks through Fully Modified Ordinary Least Squares (FMOLS) and Feasible Generalized Least Squares (FGLS). This approach accounts for cross-country heterogeneity, non-stationarity, and dynamic adjustment processes, enabling identification of both long-run equilibrium relationships and short-run dynamics. The results indicate a strong and statistically significant long-run relationship, confirming that financial development plays a central role in promoting inclusive economic transformation. However, this effect is strongly conditioned by structural and institutional factors. Institutional quality and capital formation significantly enhance the positive impact of financial development, while unemployment has a persistent negative effect, reflecting structural labor market constraints. Government consumption expenditure shows a positive and significant effect, suggesting that fiscal policy can support the translation of financial development into inclusive outcomes. In contrast, short-run effects are weak, heterogeneous, and often statistically insignificant across countries, indicating structural rigidities, policy transmission delays, and transitional frictions. Overall, financial development alone is insufficient to achieve inclusive transformation without supportive institutions, productive investment, and effective labor market functioning. This study contributes to the literature by providing recent empirical evidence on the finance–transformation nexus using a dynamic heterogeneous panel approach that clearly distinguishes long-run structural effects from short-run adjustment dynamics. The findings offer policy-relevant insights for designing integrated financial and development strategies aimed at inclusive and sustainable transformation in East Africa.

Keywords: Dynamic Adjustment, Economic Transformation, East Africa, Financial Development, Heterogeneous Panel.
JEL Codes:

EXPLORING THE ASYMMETRIC RELATIONSHIP BETWEEN REMITTANCES AND THE REAL EFFECTIVE EXCHANGE RATE IN KYRGYZSTAN

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ABSTRACT

Migrant workers' remittances and the real exchange rate have long been the subject of intense debate among academic researchers and financial experts. As results, no clear consensus has emerged regarding the nature of this relationship. While some studies find that remittances lead to an exchange rate depreciation, others report the opposite effect, thereby highlighting the complexity of the relationship between these two variables. This debate is particularly relevant in transition economies as Kyrgyzstan. Because, Kyrgyzstan is one of the most remittance dependent countries.

In this article, we analyse the relationship between migrants' remittances and the real effective exchange rate. Our results suggest that remittances do not generate Dutch disease in the Kyrgyz context. Furthermore, to overcome the limitation raised in literature that assume that this relationship is symmetric, we use Non-linear autoregressive distributed lags (NARDL). Our findings indicate the existence of asymmetric short- and long-run relationships between remittances and the real effective exchange rate highlights the vulnerability of the Kyrgyz economy to fluctuations in migrant remittances. The results are robust to the use of different alternative model specifications.

Keywords: Real Effective Exchange Rate, Remittance, Kyrgyzstan, Non-linear Autoregressive Distributed Lags (NARDL).
JEL Codes:

LONG-RUN SYMMETRY AND ASYMMETRY IN GDP AND REMITTANCES: IMPLICATIONS FOR EXCHANGE RATE BEHAVIOR

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ABSTRACT

This study investigates the long-run symmetric and asymmetric effects of GDP and remittances on the exchange rate using a Nonlinear Autoregressive Distributed Lag (NARDL) model. The analysis is based on time-series data and focuses on identifying whether positive and negative shocks in key macroeconomic variables produce different long-run impacts on the exchange rate.

The empirical results confirm the existence of a stable long-run relationship among the variables. The estimated cointegrating equation indicates that lagged GDP has a positive and statistically significant effect on the exchange rate, highlighting the persistence of economic activity over time. In contrast, remittances exhibit a negative but statistically insignificant long-run coefficient, suggesting a weak direct influence in the symmetric specification.

To further explore potential nonlinearities, Wald tests for long-run asymmetry were conducted. The results reveal that the null hypothesis of symmetry for GDP shocks cannot be rejected, implying that positive and negative changes in GDP have similar long-run effects on the exchange rate. However, the null hypothesis of symmetry for remittance shocks is rejected at the 5% significance level, indicating the presence of long-run asymmetry. This suggests that increases and decreases in remittance inflows affect the exchange rate differently.

Overall, the findings highlight the importance of accounting for asymmetric dynamics, particularly in the case of remittances, when analyzing exchange rate behavior. These results provide important policy implications for economies that rely heavily on external financial inflows.

Keywords: Exchange Rate, Remittances, GDP, NARDL Model, Asymmetry.
JEL Codes:

DIGITAL ECONOMY: INFORMATION, TRUST, AND POLICY DESIGN UNDER ASYMMETRIC INFORMATION

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ABSTRACT

Digitalization has become a structural transformation that fundamentally reshapes economic activities and the behavior of market actors. In digital environments characterized by high levels of information asymmetry, trust emerges as a critical mechanism influencing economic transactions. While the existing literature predominantly focuses on individual trust perceptions, the role of institutional structures and policy frameworks remains relatively underexplored.

This study aims to analyze the relationship between the digital economy and trust from a policy-oriented perspective, with a particular focus on how institutional regulations shape market outcomes. The study is grounded in a conceptual and theoretical framework that integrates digital economy dynamics with information asymmetry and institutional economics. Methodologically, the research adopts a qualitative and conceptual approach, evaluating existing literature and policy discussions.

The findings suggest that public policies and regulatory mechanisms play a crucial role in reducing uncertainty and strengthening trust in digital markets, particularly in emerging economies. Effective governance structures not only facilitate more efficient market transactions but also contribute to macroeconomic stability and systemic resilience.

In conclusion, the study argues that strengthening digital trust through well-designed institutional frameworks is essential for enhancing global competitiveness and achieving sustainable economic growth. The results highlight the importance of policy-driven approaches in addressing asymmetries and fostering a more reliable digital economic environment.

Keywords: Digital Economy, Digital Trust, Institutional Economics, Public Policy, Information Asymmetry.
JEL Codes: D82, O33, L86.

ANALYZING THE PERCEIVED QUALITY OF MOBILE BANKING APPLICATIONS: A STUDY BASED ON THE MSQUAL MODEL

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ABSTRACT

With the rapid advancement of digitalization, mobile banking applications have become an essential tool for individuals to perform their daily financial transactions. In this context, examining the quality of mobile banking applications and how they are perceived by users has gained significant importance. The aim of this study is to analyze user perceptions of mobile banking applications based on online user reviews. The study focuses on four widely used mobile banking applications in Kyrgyzstan: MBank, Optima24, Eldik Bank, and Aiyl Bank. The research data were collected from user reviews on Google Play and App Store platforms between 2025 and 2026. In evaluating mobile application quality, the MSQUAL model was employed as the analytical framework. Accordingly, mobile application quality was examined in terms of efficiency, system availability, privacy, responsiveness, and fulfillment dimensions. The study applies a qualitative research approach using content analysis. The sample was formed through purposive sampling, including only meaningful reviews that reflect actual user experiences. Short, unclear, and irrelevant comments were excluded from the analysis. This study contributes to the literature by providing empirical insights into the perceived quality of mobile banking applications based on online user reviews within the MSQUAL framework. From a practical perspective, the findings help identify key areas that require improvement in mobile banking applications.

Keywords: Mobile Banking, MSQUAL, Perceived Service Quality, Online User Reviews, Content Analysis.
JEL Codes: L15, M31, M39.

THE RELATIONSHIP BETWEEN HAPPINESS, WELL-BEING, AND URBAN LIFE SATISFACTION: A CROSS-SECTIONAL PRELIMINARY STUDY IN TURKEY

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ABSTRACT

In the field of psychology, focusing solely on pathology leads to the neglect of phenomena such as optimism, hope, future orientation, creativity, and responsibility, resulting in psychology becoming a model devoid of positive attributes. On the other hand, positive psychology, examines emotions and positive behaviors with the aim of promoting human happiness. Thus, approaches aimed at understanding happiness and discovering ways to achieve it constitute one of the fundamental topics of positive psychology. This study aims to examine well-being and urban life satisfaction as predictors of happiness within this context. The study included 744 participants from 15 different cities of Turkey, reached through convenience sampling between March 2025 and March 2026. Participants completed the Oxford Happiness Scale short form, the Warwick-Edinburgh Mental Well-being Scale, and the Urban Life Satisfaction Scale A, along with a short socio-demographic questionnaire. According to the results, no statistically significant difference was found in the average level of happiness among participants living in the 15 different cities. However, statistically significant differences were observed in the average levels of well-being and urban life satisfaction among participants living in different cities. While happiness and well-being shared 47.4% of the variance between themselves, urban life satisfaction explained 4.8% of the variance in happiness and 3.9% of the variance in well-being. The age variable, along with urban life satisfaction, contributed to explaining the variance in well-being. Length of time spent in the city had no effect. Similarly, when considered together with urban life satisfaction, neither the age variable nor the length of time spent in the city had an effect on explaining the variance in happiness. Under these conditions, an increase of approximately 1% was achieved in explaining the variance in both well-being and happiness. When the results are evaluated as a whole, it is observed that urban life satisfaction is a significant component of both well-being and happiness.

Keywords: Happiness, Well-Being, Satisfaction with Urban Life.
JEL Codes: I31, N9, I3.

DETERMINANTS OF HOUSING DEMAND UNDER DIFFERENT INTEREST RATE REGIMES IN TURKEY: EVIDENCE FROM A THRESHOLD GMM APPROACH

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ABSTRACT

This study investigates the determinants of housing demand in Turkey within the nonlinear framework from January 2015 to February 2026. To reflect the stance of the monetary policy, the one-week repo interest rate is used as the threshold variable in the Threshold Generalized Method of Moments (Threshold GMM) estimation. Total housing sales are used as a proxy for housing demand, while the housing price index, mortgage interest rate, construction cost index, industrial production index, and nominal exchange rate are included as explanatory variables. The findings suggest that the optimal threshold value is 13 percent. Accordingly, periods in which the policy interest rate is at or above this value are interpreted as reflecting a contractionary monetary policy stance. Empirical results indicate that higher production significantly increases housing demand, whereas higher mortgage interest rates reduce housing sales in both regimes. Moreover, the significance and impact of the other explanatory factors differ across regimes.

Keywords: Housing Demand, Threshold GMM.
JEL Codes: R21, C32.

THE RELATIONSHIP BETWEEN UNEMPLOYMENT, ECONOMIC GROWTH, R&D, INFLATION, AND FIXED CAPITAL CIRCULATION IN TURKEY: AN ARDL BOUNDS TEST APPROACH (1996-2024)

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ABSTRACT

This study investigates the effects of economic growth, inflation, R&D expenditure, and gross fixed capital formation on unemployment in Turkey over the period 1996–2024 using the ARDL approach. The findings reveal a long-run cointegration relationship among the variables. In the long run, economic growth is found to increase unemployment, while inflation and capital formation reduce unemployment. However, R&D expenditure does not have a statistically significant effect. The error-correction model confirms the system's stability, indicating that approximately 45% of short-run deviations are corrected within one period.

Keywords: Unemployment, Economic Growth, Inflation, R&D Expenditure, Gross Fixed Capital Formation, ARDL.
JEL Codes: E24, O00, O10, O16.

AN ANALYSIS OF THE RELATIONSHIP BETWEEN INFLATION AND INTEREST RATES IN KYRGYZSTAN WITHIN THE FRAMEWORK OF THE FISHER HYPOTHESIS

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ABSTRACT

Fisher's hypothesis posits a direct relationship between inflation expectations and nominal interest rates and plays an important role in financial market theory. Despite a substantial body of empirical literature examining this relationship across different countries, it remains relatively underexplored in the context of the Kyrgyz economy, indicating a clear gap in the existing research. Therefore, the objective of this study is to investigate the long-run relationship between inflation and interest rates in Kyrgyzstan using annual data covering the period 1994–2025.

To achieve this objective, econometric time series techniques are employed, including unit root tests to examine stationarity, the autoregressive distributed lag (ARDL) approach, and bounds testing to determine the presence of cointegration. The empirical results indicate the existence of a stable long-run relationship between inflation and nominal interest rates. Specifically, the findings confirm that an increase in inflation leads to a rise in nominal interest rates, which is consistent with the theoretical predictions of the Fisher hypothesis.

Keywords: Fisher Effect, Inflation, Interest Rate, ARDL Model.
JEL codes: E31, E43, C22, E44.

ENTROPY-BASED SUSTAINABLE ECONOMY

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ABSTRACT

It is now widely accepted that we live in a consumer society. Alongside individual consumption, global consumption has also reached its peak or is rapidly approaching it. The issue is no longer “how much we have grown,” but rather how long this growth can be sustained. The rate at which resources—formed over millions of years—have been consumed in the last few centuries has led to the rapid depletion of natural resource capacity. The issue is not limited to energy; water, soil, and biodiversity are also under significant pressure. This study argues that economic growth should be evaluated not only through increases in production but also together with the entropy cost generated during the production process.

The sustainability of production depends on the available factors of production and natural resources. Traditional economic approaches have analyzed production mainly through labor and capital, often neglecting natural resources or assuming, incorrectly, that these resources are infinite. Today, natural resources are not only economic inputs but also geopolitical instruments of power. Energy resources, rare metals, minerals, and strategic raw materials lead countries to compete and even conflict. The unequal distribution of resources across the world indicates that the economic system faces not only an efficiency problem but also an access problem.

Production is a physical process. The entropy-based sustainable economy approach becomes relevant precisely at this point. Based on the second law of thermodynamics, this approach focuses not on reducing cost per unit of output—as in traditional efficiency models—but on the loss of resources used in production. It suggests that economic activities generate disorder (entropy) and that every production process involves a loss of resources. In other words, as the economy grows, it produces not only output but also an often-overlooked cost. This cost is the concept of entropy.

The global economy is no longer facing a matter of choice but a boundary. Otherwise, the current growth model will inevitably encounter its physical limits and experience a structural breakdown.

Keywords: Fisher Effect, Inflation, Interest Rate, ARDL Model.
JEL Codes: E31, E43, C22, E44.

STATE VS. TIME DEPENDENCY IN PRICE SETTING: EVIDENCE FROM RUSSIAN ENTERPRISES

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ABSTRACT

The price adjustment mechanism plays a key role in understanding the transmission mechanism of monetary policy. Despite an extensive literature, these mechanisms remain understudied for developing economies characterized by high inflation. This paper examines the extent to which Russian enterprises adjust prices based on time-dependent and state-dependent factors.

The empirical analysis is based on the Bank of Russia's monthly Monitoring of Businesses for 1999–2020 and is implemented using a multinomial logistic model. Time-dependent factors are modeled with hazard dummies, while state-dependent factors are estimated using individual enterprise estimates of demand dynamics, production volumes, costs, and expectations.

The results indicate that price revisions are largely explained by time-dependent factors. However, the best model performance is achieved by accounting for both time-dependent and state-dependent factors simultaneously. An asymmetric dependence of price changes on these factors is revealed. Price declines are driven more by time-dependent factors than price increases. Additionally, it was found that small businesses, as well as those in the service and construction sectors, revise prices less frequently, whereas retailers revise prices more frequently. These findings provide insight into the mechanisms underlying inflation in Russia and can inform the implementation of monetary policy.

Keywords: Survey Data, Price Setting, State-Dependent Pricing, Time-Dependent Pricing.
JEL Codes: E31, D22, L11, C25.

TRADE INTEGRATION AS A CATALYST FOR GOVERNANCE: PANEL GRANGER CAUSALITY EVIDENCE FROM BRICS+ AND TÜRKİYE (2002-2023)

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ABSTRACT

This study empirically examines the causal relationship between international trade commitments and the quality of institutional governance in the expanded BRICS+ countries and Turkey, using data from the period 2002–2023. The study stems from the ongoing debate in the literature regarding whether strong institutions are a prerequisite for trade or whether trade integration triggers institutional transformation. To reveal the directional relationship between the variables, the panel causality method of Dumitrescu and Hurlin (2012) was applied. In the analysis, the level of trade integration was measured using a cumulative Regional Trade Agreement (RTA) intensity index, which goes beyond traditional indicators based solely on bilateral agreements. The institutional quality indicator was represented through a composite index constructed with Principal Component Analysis (PCA) from World Bank governance data. The results of the panel causality test indicate a unidirectional relationship between the variables. In the model established from RTA intensity to institutional quality, the hypothesis of "no causality" was strongly rejected; Thus, it was determined that trade integration creates a Granger causality on institutional quality ($Z = 3.956$; $p < 0.01$). In contrast, no statistically significant finding was reached regarding whether institutional quality determines the intensity of trade agreements ($Z = 1.0269$; $p = 0.3045$). Therefore, no causal relationship was found from institutional quality to trade integration. The findings reveal that trade integration acts as a transformative mechanism supporting institutional improvement in developing economies. Within this framework, the study demonstrates that trade agreements are not only tools that provide economic and commercial gains, but also strategic policy tools that can accelerate internal reform processes.

Keywords: Regional Trade Agreements, Institutional Quality, Granger Causality, Trade Integration.
JEL Codes: F15, C23, O43.

ASSET PRICING UNDER CONDITIONS OF RISK AND UNCERTAINTY: THEORY, EVOLUTION, AND BIBLIOMETRIC EVIDENCE

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ABSTRACT

This paper investigates the evolution of mainstream asset pricing theory through the lens of risk and uncertainty, aiming to clarify how financial economics has conceptualized, measured, and incorporated these two related but distinct notions into the pricing of financial assets. Starting from the foundational distinction introduced by Knight and the probabilistic critique advanced by Keynes, the paper traces the development of asset pricing from the Modern Portfolio Theory, the Capital Asset Pricing Model, and the Arbitrage Pricing Theory toward later frameworks that explicitly acknowledge downside risk, non-normality, behavioral responses, and the presence of fundamental uncertainty. In addition, the paper discusses recent developments in factor-based pricing models and the emerging ESG-oriented segment of the literature. Methodologically, the study combines a conceptual and historical review of the main asset pricing frameworks with a bibliometric investigation designed to map the intellectual structure and thematic evolution of the field over time. The evidence suggests that the literature has evolved from restrictive models built on measurable risk, normality, and equilibrium assumptions toward more flexible frameworks that recognize volatility clustering, fat tails, downside asymmetry, model instability, and the increasingly important role of uncertainty in shaping investor behavior and asset valuation. At the same time, the bibliometric results indicate that the literature remains fragmented across several partially disconnected streams, with classical pricing theory, behavioral finance, volatility modeling, and ESG-related approaches often developing in parallel rather than within a unified framework. The paper argues that this fragmentation reflects a deeper unresolved tension within financial economics, as many mainstream asset pricing models remain rooted in measurable and quantifiable notions of risk, while actual financial markets are frequently governed by uncertain environments, shifting expectations, and forms of uncertainty that cannot be reduced to stable probability distributions. In this sense, the study contributes by providing both a structured synthesis of the theoretical evolution of asset pricing and a critical discussion of the extent to which existing models remain adequate under various conditions. Overall, the findings suggest that the future development of asset pricing theory depends not only on refining risk measurement but also on explicitly integrating uncertainty into the core of asset pricing models.

Keywords: Bibliometric Analysis, Asset Pricing, Uncertainty, ESG, Asset Pricing Models.
JEL Codes: B26, D81, G11, G12, G14, C10, C18, C58, Q56.

CLIMATE SHOCKS, PANDEMIC, AND DEBT SPIRALS: MICRO-EVIDENCE FROM TRANSITION ECONOMIES

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ABSTRACT

This paper investigates the determinants of household borrowing behavior in transition economies, specifically focusing on how different forms of financial stress and idiosyncratic shocks dictate the choice between formal and informal credit channels.

The study is situated within the literature on financial inclusion and household coping strategies. It explores the "bifurcation" hypothesis, which suggests that formal financial institutions and informal social networks serve distinct socioeconomic strata, often leaving vulnerable households trapped in sub-optimal borrowing cycles.

The empirical analysis utilizes microdata from the Life in Transition Survey, covering households across 28 post-socialist economies. The study employs binary logit models to estimate average marginal effects for five distinct outcome variables that capture the progression from credit demand to successful access. The models control for a comprehensive suite of socio-demographic factors, household assets, and country-level heterogeneity.

The results reveal a deeply bifurcated credit market. While idiosyncratic shocks, such as distress related to food, healthcare, and utility payments, significantly increase the likelihood of seeking credit, they primarily channel households toward informal networks. Formal financial systems largely fail to provide an emergency buffer, remaining accessible predominantly to households with higher income and greater financial security. Utility payment stress is identified as the most frequent predictor of borrowing attempts, whereas a history of loan default is the strongest predictor across all outcomes, indicating entrenched debt-spiral dynamics. Notably, climate shocks and healthcare emergencies are the only stressors that uniquely activate demand in both formal and informal sectors simultaneously. In contrast, the impact of COVID-19 follows the informal-only pattern characteristic of basic subsistence distress.

The study concludes that significant institutional gaps persist in transition economies, where formal credit is not yet a viable safety net for the most vulnerable. Policy recommendations emphasize three priorities: the development of formal emergency credit instruments tailored for distressed households, the implementation of parametric climate-linked lending facilities, and the strengthening of credit information infrastructure to interrupt structural debt-spiral dynamics and promote inclusive financial resilience.

Keywords: Transition Economies, Coping Strategies, Financial Inclusion.
JEL Codes: D14, G21, G51.

THE IMPACT OF REAL EFFECTIVE EXCHANGE RATE MOVEMENTS AND VOLATILITY ON PRIVATE DEBT INFLOWS TO PUBLIC SECTORS IN DEVELOPING COUNTRIES

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ABSTRACT

This paper investigates the impact of real exchange-rate movements and its volatility on private external debt inflows to the public sector in developing countries over the period 2000–2022. Using panel of 32 developing economies, the study employs a dynamic panel specification estimated with a hybrid bias-corrected method-of-moments that accounts for persistence, endogeneity, and country-specific heterogeneity. The results provide strong evidence that real effective exchange rate (REER) appreciation significantly increases private external debt inflows, while its volatility exerts a statistically significant negative effect, underscoring the importance of both the movement and stability of the exchange rate. Quantitatively, a one-percent real appreciation of the domestic currency raises private external debt inflows by about 0.07 percent, whereas higher volatility systematically discourages inflows by increasing uncertainty over debt-servicing costs and balance-sheet risks. These findings remain stable across alternative estimators—including Dynamic Fixed Effects and System GMM—different exchange-rate definitions, and alternative volatility measures such as GARCH-based specifications. The adverse effect of volatility is particularly persistent, confirming that exchange-rate uncertainty is a key deterrent to sustained private external borrowing. Overall, the findings suggest that, for developing countries, maintaining exchange-rate stability and macroeconomic policy credibility—while prudently managing exposure to global financial cycles—is essential for sustaining private external debt inflows.

Keywords: REER, REER Volatility, Hybrid Biase-Corrected Model, Developing Countries.
JEL Codes:

POLLUTION ABATEMENT IN COURNOT-BERTRAND MIXED DUOPOLY MODEL

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ABSTRACT

This paper examines the effects of adopting abatement technology within a Cournot-Bertrand mixed duopoly framework. In this setting, a regulator offers tax incentives to firms that implement emission-reducing technologies in their production processes. The model unfolds in three stages: firms first decide on investments in emission-reduction strategies, the regulator sets an optimal tax policy aimed at maximizing social welfare, and finally, firms determine their output levels. Our findings indicate that social welfare is maximized when both firms adopt abatement technologies, minimized when neither firm does so, and is suboptimal when only one firm chooses abatement while the other does not.

Keywords: Mixed Duopoly, Environmental Regulation, Abatement Technology.
JEL Codes:

DOES FOREIGN CAPITAL FUEL ECONOMIC GROWTH? EVIDENCE FROM FDI STOCKS IN TÜRKİYE

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ABSTRACT

This study examines the long-run relationship between foreign direct investment (FDI) stocks and sustainable economic growth in Türkiye over the period 1970–2024 within an endogenous growth framework. Unlike the majority of existing studies that rely on FDI flows, this analysis constructs separate stocks of domestic and foreign capital using the Perpetual Inventory Method (PIM), enabling a more precise disentanglement of the growth effects of different capital types. The empirical model incorporates a Hall–Jones human capital index and a liberal democracy index as a proxy for institutional quality. The Autoregressive Distributed Lag (ARDL) bounds testing approach is employed to investigate both short- and long-run dynamics, The results reveal that, while FDI stocks generate transitory positive effects in the short run, they exert a negative and statistically significant impact on output per worker in the long run — a finding that is robust across all estimation techniques. Institutional quality emerges as a consistent and significant positive driver of growth, whereas human capital, measured by years of schooling, is negatively associated with output per worker, likely reflecting the divergence between quantitative educational expansion and skill quality. Domestic capital accumulation yields no robust long-run contribution to growth. These findings suggest that the volume of foreign capital inflows alone is insufficient to foster sustainable growth; rather, the sectoral composition of FDI and the quality of domestic institutions are decisive factors. Policy implications emphasize the need to redirect FDI incentive strategies toward technology-intensive and manufacturing-oriented investments, alongside institutional reform.

Keywords: FDI Stocks, Sustainable Economic Growth, ARDL, Endogenous Growth, Türkiye.
JEL Codes:

SMART LOGISTICS VILLAGE

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ABSTRACT

This study examines the concept of logistics within the framework of its historical development and current strategic role; the emergence, development, and functions of logistics villages are investigated; and then the concept of smart logistics villages, which has gained importance with the digitalization process, is evaluated in detail. Logistics is an integrated process encompassing the planning, implementation, and control of the flow of goods, services, and information between production and consumption points. Globalization, increasing competition, and changes in customer expectations have made logistics a strategic competitive element for businesses. In this context, effective logistics management plays a critical role not only in providing cost advantages but also in improving service quality. Logistics villages are important infrastructure investments that bring together different modes of transportation in a single center, enabling logistics activities to be carried out faster, more efficiently, and at lower costs. These centers allow for the integrated execution of activities such as warehousing, handling, distribution, and customs clearance, and are also among the important elements supporting regional development. Today, the digital transformation process in the logistics sector has accelerated due to the impact of technological developments. Smart logistics villages, which have emerged in line with this transformation, The Internet of Things (IoT), artificial intelligence, big data analytics, and blockchain-based systems offer more transparent, traceable, and efficient logistics systems. These structures increase energy efficiency and contribute to reducing environmental impacts in line with sustainability goals. Turkey's geostrategic location offers significant advantages in terms of international trade; the Marmara Region, in particular, stands out as a center where logistics activities are concentrated. In this context, Kocaeli province, with its industrial infrastructure, ports, transportation networks, and proximity to Istanbul, has a strategic position for smart logistics village investments. In the final section of the study, the planned logistics village in Kocaeli was evaluated using the SWOT analysis method; the project's strengths and weaknesses, as well as the opportunities and threats it may face, were analyzed. Based on the findings, strategic recommendations were developed for the region's logistics potential.

Keywords: Logistics, Logistics Village, Smart Logistics Village, Kocaeli, SWOT Analysis.
JEL Codes:

OIL PRICES AND THE BIST100: AN ASYMMETRIC ANALYSIS FOR THE PANDEMIC AND POST-PANDEMIC PERIOD

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ABSTRACT

Oil prices constitute a strategic external shock that affects the entire economic structure through production, the supply chain, and consumption channels. As one of the key determinants of macroeconomic and financial stability, fluctuations in oil prices present a critical area of analysis. While increases in oil prices reduce total output by triggering production costs and inflation, they also cause interest rates to rise and generate pressure on the stock market by lowering corporate valuations. Therefore, the aim of this study is to empirically examine the causal effects of oil prices on the Turkish stock market. The study uses the WTI oil price and the BIST100 index as variables, with the analysis period defined as 2019Q1-2025Q3 to encompass the COVID-19 pandemic and its aftermath, a period marked by global economic turmoil. Methodologically, in addition to the symmetric causality analysis developed by Hacker and Hatemi-J (2006), Hatemi-J's (2012) asymmetric causality analysis and asymmetric impulse-response functions based on Hatemi-J's (2014) work were applied to identify latent causal relationships during turbulent periods. The findings of the symmetric causality analysis indicate that there is no causal relationship from oil prices to the BIST100 index. In contrast, the results of the asymmetric causality analysis reveal the existence of significant causality from the positive and negative components of oil prices to the positive and negative components of the BIST100 index, respectively. Furthermore, the findings from the asymmetric impulse-response function analysis suggest that declines in oil prices have the potential to mitigate downward trends in the BIST100. The study's findings provide guidance for policymakers regarding the measures they should take and for investors regarding their risk management strategies, particularly during periods of disruptions in global oil supply.

Keywords: Oil Prices, BIST100, Asymmetric Causality, Asymmetric Impulse-Response.
JEL Codes: C32, G14, Q43.

TIME-SERIES DEMAND FORECASTING FOR THE TURKİSH ELECTRICITY MARKET: AN EMPIRICAL INVESTIGATION

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ABSTRACT

Electricity demand forecasting plays a vital role in ensuring grid stability, supply security, and operational efficiency in modern energy markets. This study presents an empirical investigation of time-series demand forecasting for the Turkish electricity market using two advanced gradient boosting machine learning algorithms: XGBoost and LightGBM. Hourly electricity demand data for the year 2020 were obtained from the official EPİAŞ Transparency Platform. The dataset was chronologically divided into training (80%) and testing (20%) sets, and model performances were assessed using R^2 and MAPE metrics. The empirical findings revealed strong seasonal and weekly patterns in Turkish electricity demand. Quantitative results demonstrated that both models achieved acceptable forecasting accuracy; however, XGBoost outperformed LightGBM across both evaluation metrics. The findings confirm that gradient boosting methods are effective tools for electricity demand forecasting and provide a practical framework for energy planners and market operators. This study contributes to the growing literature on machine learning applications in energy forecasting, particularly for developing economies with dynamic electricity markets.

Keywords: Electricity Demand, Time Series Forecasting, Machine Learning, Gradient Boosting.
JEL Codes: Q47, C22, L94.

DIGITAL DIVIDE AND HOUSEHOLD WELFARE IN KYRGYZSTAN: EVIDENCE FROM PANEL DATA

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ABSTRACT

This study investigates the relationship between digital exclusion and household welfare in the Kyrgyz Republic, a transition economy where disparities in digital access and usage remain substantial across income groups, regions, and the urban-rural divide. Using data from the Kyrgyz Integrated Household Survey (KIHS), covering 3,981 households observed annually from 2019 to 2024, the paper estimates how the digital divide affects per capita household consumption as a proxy for living standards. Digital exclusion is measured through a composite Digital Divide Index constructed via principal component analysis across two dimensions - internet access and usage intensity - with higher values indicating greater exclusion. The empirical strategy combines pooled OLS, panel fixed-effects models, and instrumental variable estimation to address unobserved household heterogeneity and potential endogeneity. The preferred panel fixed-effects specification indicates that a one-unit increase in the DDI is associated with approximately 1.1 percent lower per capita consumption ($p < 0.001$). Heterogeneity analyses show that the welfare cost of digital exclusion is more pronounced among rural households (-1.3%) than urban ones (-1.0%), and disproportionately affects lower-income households (-1.3%) compared to higher-income ones (-0.8%), suggesting that pre-existing socioeconomic disadvantage amplifies the negative effects of limited digital engagement. These findings carry practical implications for policy in Kyrgyzstan and similar transition economies. Targeted investments in community-level digital infrastructure, device affordability, and digital literacy - particularly in rural and economically vulnerable settlements may contribute to more inclusive welfare outcomes as the digital economy expands.

Keywords: Digital Divide, Household Welfare, Household Consumption, Panel Data, Kyrgyzstan.
JEL Codes: D12, I31, O33.

TIME-VARYING CAUSAL RELATIONSHIP BETWEEN ECONOMIC POLICY UNCERTAINTY AND THE BIST BANKING INDEX

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ABSTRACT

Economic uncertainties on a global scale have become a key risk factor affecting investor decisions and financial market stability. Risks arising from such uncertainties can erode investor confidence and disrupt the functioning of market mechanisms. The Economic Policy Uncertainty (EPU) index, developed by Baker et al. (2016) to measure these risks, is recognized in the literature as a key indicator of market volatility. The banking sector, which plays a central role in risk and liquidity management within the financial system, is one of the sectors most sensitive to policy uncertainties. Therefore, understanding the relationship between uncertainties and the banking sector is also important for managing both sectoral and systemic risks. The primary objective of this study is to empirically analyze the causal relationship between uncertainty and the banking sector. The study uses the EPU and the BIST Banking Index as variables, and the analysis period is defined as 1997:M1–2025:M11 to cover periods of global economic turmoil. Given that policy shocks generate heterogeneous and time-varying effects in emerging markets, the study employs the time-varying Granger causality method developed by Shi et al. (2020). The findings from the analysis indicate the presence of statistically significant causality from the EPU to the BIST Banking Index and show that these causal relationships exhibit a dynamic structure across different time periods. Notably, the causal relationship was observed to be more pronounced during periods of significant uncertainty, such as the COVID-19 pandemic and the Russia-Ukraine Conflict (RUC). The study's findings suggest that changes in the EPU serve as an early warning signal for the banking sector for portfolio managers, while for policymakers, they highlight the necessity of a dynamic risk management approach centered on global policy shocks.

Keywords: Economic Policy Uncertainty (EPU), BIST Banking Index, Time-Varying Granger Causality.
JEL Codes: C32, G14, Q43.

FOOD PRICE TRANSMISSION UNDER SEQUENTIAL GLOBAL SHOCKS: EVIDENCE FROM WHEAT-IMPORTING CIS ECONOMIES

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ABSTRACT

This study examines how international wheat price shocks transmit into domestic food inflation in six wheat-importing CIS economies—Armenia, Azerbaijan, Belarus, Kyrgyzstan, Tajikistan, and Uzbekistan—over the period 2015M1–2024M12. The analysis distinguishes between a baseline vulnerability effect and a sequential shock effect arising from the COVID-19 pandemic and the Russia–Ukraine war. Using a two-way fixed effects framework with interaction terms, the results show that pre-existing COVID-period vulnerability amplifies price pass-through, indicating that weakened macroeconomic conditions increase exposure to external food price shocks. However, this relationship reverses under sequential shocks: during the war period, the marginal effect of vulnerability becomes negative, suggesting an attenuation of transmission in more vulnerable economies. This pattern points to a path-dependent and non-additive inflation process, where prior exposure to inflationary stress alters the response to subsequent disturbances. By incorporating shock sequencing into the analysis, the paper moves beyond the standard assumption of monotonic amplification and provides new evidence on how repeated global shocks reshape price transmission dynamics in small open economies. The findings have direct policy relevance for food security and inflation management in import-dependent regions.

Keywords: Food Price Inflation, Price Transmission, Wheat Prices, Vulnerability, Sequential Shocks, CIS Economies.
JEL Codes:

THE ROLE OF ISLAMIC FINANCE IN ADDRESSING THE ADVERSE EFFECTS OF NATURAL DISASTERS: A MODEL PROPOSAL

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ABSTRACT

Natural disasters are increasing in both frequency and severity, creating substantial socio-economic pressures, particularly for vulnerable and developing countries. At the same time, the Islamic finance industry—holding assets exceeding USD 4.3 trillion—offers a significant yet underutilized potential for disaster risk reduction (DRR) and resilience-building efforts. Despite the emergence of global mechanisms such as the Loss and Damage Fund and the Green Climate Fund, current financial architectures remain inadequate in ensuring sustainable and timely recovery for disaster-affected countries.

This paper explores the contribution of Islamic finance to DRR financing frameworks, with a particular emphasis on social finance instruments due to their flexibility, inclusiveness, and rapid deployment capacity. In addition, complementary Islamic financial tools such as sukuk and takaful are examined for their potential to enhance risk-sharing and long-term resilience. Building on this analysis, the study proposes an integrated and complimentary Islamic Disaster Risk Financing Model for DRR financing. The model combines social finance mechanisms (zakat, waqf, and infak) with market-based instruments to improve coordination, strengthen resource mobilization, and enhance systemic resilience to disasters.

Keywords: Islamic Social Finance, Disaster Risk Reduction, Disaster Risk Financing, Sustainable Development.
JEL Codes: G21, G23, H84, Q01, Q54, Z12.

OPTIMIZING HEALTHCARE FINANCING IN KYRGYZSTAN

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ABSTRACT

Kyrgyzstan's healthcare system is undergoing reform aimed at improving the accessibility and quality of medical services. Given limited resources, optimizing the structure of healthcare funding sources is particularly urgent. Part of the population is not fully covered by the compulsory health insurance system. The compulsory health insurance system in the Kyrgyz Republic merely redistributes taxes and insurance premiums collected by tax authorities and the Social Fund. Despite increased public spending, problems persist with a high share of private spending, inefficient use of resources, and an inefficient allocation of resources. A bias toward inpatient care persists. Although outpatient care is recognized as a priority, spending at this level remains low and does not meet international standards. Addressing these issues requires a comprehensive approach, including reform of the compulsory health insurance system, increased public funding, and the introduction of modern resource management mechanisms.

Keywords: Compulsory Health Insurance, Health Financing, Public Health Expenditure, Resource Allocation Efficiency, Kyrgyzstan Health System.
JEL Codes: I10, I11, I13, H51.

FINANCING OF THE HEALTHCARE SYSTEM IN THE KYRGYZ REPUBLIC: CURRENT STATE, CHALLENGES, AND WAYS OF IMPROVEMENT

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ABSTRACT

This study presents a comprehensive analysis of the current state of health care financing in the Kyrgyz Republic. The aim of the research is to identify the structure of financing sources, major challenges, and prospects for sectoral development. The study employs comparative analysis, official statistical data review, legal framework assessment, and econometric modeling. Budgetary, insurance-based, mixed, and private health financing models are examined together with relevant international experience. The findings indicate that the Kyrgyz Republic's health system is based on a multi-channel financing model; however, insufficient resources, a high share of out-of-pocket payments, and limited financial protection remain persistent challenges. Although the absolute volume of public health expenditures has increased, their share in the total budget remains unstable. The role of the Mandatory Health Insurance Fund as an important institution for pooling and redistributing financial resources has gradually strengthened. Econometric results reveal a statistically significant impact of public and external financing sources on the dynamics of health expenditures. Based on the findings, policy recommendations include stronger resource consolidation, expansion of primary health care, improvement of strategic purchasing mechanisms, and enhancement of financial protection for the population.

Keywords: Health Care, Financing, Budget, Health Insurance, Kyrgyz Republic.
JEL Codes: I10, I11, I13, H51.

ANALYSIS OF SCHOOL EDUCATION FUNDING IN KYRGYZ REPUBLIC AND ITS IMPACT ON THE QUALITY OF EDUCATION

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ABSTRACT

This study focuses on the analysis of school education funding in the Kyrgyz Republic and its impact on educational quality. The objective of the study is to assess the dynamics of public spending on general secondary education, identify patterns of its distribution, and determine the relationship between funding and Nationwide Standardized Test (ORT). In international practice, education quality is assessed using comparative studies such as PISA and TIMSS, which allow for the comparison of educational outcomes across countries. In the Kyrgyz Republic, participation in such studies has been limited, complicating an objective assessment of educational quality in an international context and reinforcing the need for national indicators such as ORT. The study utilizes a comprehensive approach combining comparative and statistical analysis, regulatory review, and econometric modeling tools. The theoretical component of the study examines education funding as a factor in human capital formation, as well as international models of school education funding and various approaches to assessing educational quality. The study results demonstrate that school education occupies a priority position in the structure of public expenditures in the Kyrgyz Republic. However, increased budget funding does not always automatically guarantee an improvement in the quality of education, as educational outcomes depend not only on the amount of funds spent but also on the structural characteristics of the education system. An econometric model built on data for 2006–2024 revealed a positive and statistically significant impact of real public spending on secondary education on the average ORT score. Furthermore, the results demonstrated the significance of structural factors, including the number of test takers and the teacher-to-student ratio. Based on the findings, the study formulates recommendations for increasing the effectiveness of budget funding for school education, improving the resource allocation system taking into account regional and personnel differences, and strengthening the monitoring of educational quality.

Keywords: School Education Quality, Education Financing Models, Efficient Allocation of Educational Resources, Education Financing in Kyrgyzstan.

JEL Codes: I21, I20, H52, C22.

DEVELOPMENT OF GREEN FINANCING IN THE KYRGYZ REPUBLIC: CURRENT STATUS AND PROSPECTS

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ABSTRACT

Green financing has become an essential component of sustainable economic development, aimed at supporting environmentally friendly projects, mitigating climate change, ensuring the efficient use of natural resources. In recent years, global interest in green finance has increased significangtly, reflecting the growing need to integrate environmental considerations into financial decision-making at both national and international levels. Green finance encompasses a wide range of financial instruments, including green bonds, green loans, and investment funds that support renewable energy, energy efficiency, sustainable agriculture, and waste management.

In the context of the Kyrgyz Republic, the development of green financing is particularly relevant due to the country’s dependence on natural resources and vulnerability to climate change. Although initial steps have been taken, including cooperation with international organizations and the promotion of green projects, the level development of green financial instruments remains limited. Key challenges include the lack of comprehensive regulatory framework, insufficient institutional capacity, limited access to long-term financing, and low awareness among market participants.

At the same time, there are significant opportunities for expanding green financing in Kyrgyzstan. These include the development of national taxonomies and regulatory mechanisms, strengthening public-private partnerships, attracting international climate funds, and promoting sustainable investment practices. The implementation of green financing mechanisms can contribute not only to environmental protection but also to economic growth and increased investment attractiveness of the country.

The study is based on the analysis of theoretical approaches to sustainable development and green economy, as well as the review of international practices and available data on the development and green economy, as well as the review of international practices and available data on the development of green finance. The findings highlight the importance of strengthening institutional and regulatory frameworks to ensure the effective development of green financing in the Kyrgyz Republic.

Keywords: Green Finance, Sustainable Development, Green Economy, Green Investments, Kyrgyz Republic.
JEL Codes: Q01, Q56, G20, O16.

WHY SHARED VALUE FAILS IN PRODUCER CONTEXTS: A DIAGNOSTIC FRAMEWORK FOR STRUCTURAL MISALIGNMENT

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ABSTRACT

This study examines why shared value approaches often fail to generate inclusive and sustainable outcomes in producer-centred, commodity-dependent contexts. It argues that dominant frameworks, particularly Creating Shared Value, rely on assumptions derived from stable, consumer-oriented environments and lack the analytical tools to account for structural misalignments affecting producers. The objective is to develop a diagnostic framework capable of identifying the conditions under which economic and social value creation diverge rather than co-evolve.

The theoretical framework integrates contingency theory and paradox management to conceptualise shared value systems as context-dependent and tension-laden configurations. Rather than assuming linear value creation, the study emphasises how competing logics and structural constraints shape outcomes.

Methodologically, the study adopts an abductive qualitative design based on interview data from Rwanda's coffee sector. Empirical materials are iteratively analysed to construct a diagnostic model that maps the interrelations between contingent factors, paradoxical tensions, and developmental states within the value chain.

Findings show that shared value failure is not incidental but structurally produced through persistent misalignments between governance arrangements, resource access, and value distribution mechanisms. These misalignments generate enduring tensions that inhibit producer-level upgrading and limit the simultaneity of economic and social gains.

The study concludes by proposing a transferable diagnostic and enablement framework that allows practitioners and policymakers to identify structural constraints, prioritise corrective interventions, and monitor pathways toward more inclusive and functionally coherent value systems. This approach contributes to rethinking shared value as a contingent and diagnostically grounded process rather than a universally applicable strategy.

Keywords: Shared Value, Contingency, Paradox, Diagnostic Framework, Structural Misalignment.

JEL Codes:

BEYOND EDUCATION: LANGUAGE SKILLS AS A KEY DRIVER OF MIGRATION IN KYRGYZSTAN – EVIDENCE FROM THE LiK SURVEY

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ABSTRACT

This study analyzes the factors determining migration in Kyrgyzstan based on data from the Life in Kyrgyzstan (LiK) survey. The focus is on the probability of migration over the past 12 months. Logistic regression is used to assess the impact of education, age, income, and proficiency in Russian.

The results show that the model is statistically significant overall, indicating that the included factors jointly influence migration decisions. However, educational attainment and individual income do not have a statistically significant effect on the probability of migration.

At the same time, proficiency in Russian emerges as a key factor: individuals with higher language proficiency have a significantly higher probability of migrating. Marginal effects indicate an increase in the probability of migration by approximately 7–9 percentage points. Age exhibits a weak nonlinear (inverted U-shaped) relationship with the probability of migration; however, this effect is only marginally significant.

Overall, the results suggest that migration in Kyrgyzstan is determined to a lesser extent by formal human capital, such as education, and to a greater extent by access to external labor markets, mediated by language skills.

Keywords: Kyrgyzstan, Labor Migration, Life in Kyrgyzstan (Lik), Russian Language Proficiency, Human Capital, Logistic Regression.
JEL Codes: F22, J61, J24, C25.

THE AGRICULTURAL PRODUCTS TAX WITHIN THE SCOPE OF TURKEY'S ECONOMIC DEFENSE PLAN

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ABSTRACT

Although Turkey did not directly participate in the Second World War, it was deeply affected by the political, economic, and social consequences of the conflict and was compelled to adopt a wartime economic regime. Mobilization, the withdrawal of a significant portion of the male labor force from production, rising military expenditures, shrinking imports, inflation, black market activities, and food supply problems created extraordinary pressure on the state and the economy. Under these conditions, the government developed an economic defense strategy based on strong state intervention in order to finance defense expenditures, secure the subsistence of the army and major urban centers, and preserve economic stability.

Within this framework, the National Protection Law, the activities of the Soil Products Office, the Wealth Tax, and the Agricultural Products Tax became the main instruments of wartime economic management. Among these measures, the Agricultural Products Tax occupies a particularly significant place because it directly targeted the agricultural sector and incorporated peasants into the fiscal structure of the economic defense plan. Enacted by Law No. 4429 in 1943 and revised by Law No. 4553 in 1944, the tax aimed to provide additional state revenue and guarantee food supplies during wartime. Initially imposed at varying rates depending on product groups and later standardized, the tax was collected in kind, meaning that a certain portion of agricultural production had to be delivered directly to the state.

The in-kind nature of the tax, its direct imposition on crops, and its similarity to earlier agrarian taxation led many contemporaries and later scholars to describe it as a “second tithe.” While the abolition of the tithe in the early Republican period had been considered a major step in favor of the peasantry, the reintroduction of a tax with similar characteristics during the war generated serious dissatisfaction in the countryside. In practice, the implementation of the Agricultural Products Tax produced substantial administrative and social difficulties. Problems related to estimation commissions, measurement procedures, transportation, storage, and low procurement prices placed a particularly heavy burden on small and medium-scale peasants. By contrast, larger landowners were often in a more advantageous position to cope with or even benefit from wartime market conditions.

As a result, although the Agricultural Products Tax served short-term fiscal and logistical purposes within Turkey’s economic defense plan, it also had significant negative consequences. It weakened state-peasant relations, contributed to a decline in agricultural incentives, and intensified political dissatisfaction in rural society. Therefore, the Agricultural Products Tax should be understood not merely as a fiscal measure, but as a central instrument of wartime state intervention that reveals the economic, social, and political dimensions of Turkey’s economic defense strategy during the Second World War.

Keywords: Agricultural Products Tax, Economic defense plan, World War II World War II, National Defense Law, Wealth Tax.

JEL Codes:

EXCHANGE-RATE PASS-THROUGH AND DISTRIBUTIONAL DRIVERS OF INFLATION: EVIDENCE FROM TÜRKİYE

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ABSTRACT

Since COVID-19, inflation has re-emerged as a major economic concern worldwide. Türkiye has experienced a distinct inflationary episode, particularly after 2021, during which both exchange-rate dynamics and distributional factors contributed to the persistence of high inflation.

Against this background, this paper examines the role of exchange-rate pass-through and distributional dynamics in shaping inflation across regimes in Türkiye. The main objective is to assess whether the transmission of unit profits, unit labour costs, and exchange-rate movements to inflation varies with the level of inflation, and to identify how the relative importance of these channels changes across regimes. Rather than relying on macroeconomic cycle classifications, the analysis focuses on inflation regimes, with particular attention to the activation of exchange-rate pass-through in high-inflation environments.

The analysis is grounded in a distributional view of inflation, which emphasizes firms' pricing behaviour and cost pressures, captured by unit profit and unit labour cost dynamics, rather than purely demand-side factors. Within this framework, inflation is treated as a state-dependent process in which price-setting behaviour may change once inflation exceeds a certain threshold. High-inflation environments may therefore affect both the strength of transmission mechanisms and the set of channels through which prices adjust.

Methodologically, the study employs a discrete threshold regression model that allows the relationship between inflation and its determinants to vary across regimes defined by lagged inflation. This approach enables the endogenous identification of inflation thresholds and captures nonlinearities in pass-through dynamics. The empirical analysis is based on quarterly data for Türkiye covering the period 2005-2025.

The results point to clear regime-dependent inflation dynamics. In low-inflation environments, inflation is primarily associated with distributional factors, particularly unit profit growth, while exchange-rate pass-through remains weak and statistically insignificant. Once inflation exceeds a critical threshold, exchange-rate pass-through becomes large and significant, emerging as an important driver of inflation. At the same time, the contribution of unit profits remains positive but declines relative to the baseline specification, suggesting partial overlap with exchange-rate dynamics, while the role of labour costs remains limited and stable.

Overall, the findings indicate that inflation regimes affect not only the magnitude but also the composition of inflation drivers.

Keywords: Exchange Rate Pass-Through, Inflation Regimes, Distributional Dynamics, Threshold Regression.

JEL Codes: E31, F41, C22.

THE PRESTON CURVE: ANALYSIS OF THE EXTERNAL BALANCE DYNAMICS AND STRUCTURAL VULNERABILITY

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ABSTRACT

External balance, a fundamental determinant of macroeconomic stability in the globalized economy, is of vital importance for developing countries. This study aims to examine the concept of the balance of payments within the framework of international economics theory and discuss the external balance dynamics of the Turkish economy in light of structural factors. Utilizing a descriptive evaluation method based on a literature review, the study analyzes the current account balance, foreign trade deficit, and financing composition of Turkey. The findings indicate that Turkey's chronic current account deficit is largely driven by the trade deficit in goods, which is directly related to the import dependency of its manufacturing industry. An examination of the financing structure reveals that the deficit is predominantly covered by short-term portfolio investments (hot money) rather than foreign direct investment, rendering the economy highly vulnerable to external shocks. Furthermore, abnormal fluctuations in the net errors and omissions account highlight risks concerning the financing quality and analytical reliability of the external balance. The study emphasizes that the external deficit problem can be resolved through permanent structural policies involving the transformation of the production structure and the increase of national savings, rather than temporary borrowing or trade restrictions.

Keywords: Balance of Payments, Current Account Deficit, Financing Quality, Net Errors and Omissions, Turkish Economy.
JEL Codes: E60, H80, G31.

THE PRESTON CURVE: ANALYSIS OF THE EXTERNAL BALANCE DYNAMICS AND STRUCTURAL VULNERABILITY

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ABSTRACT

The non-linear relationship between economic development and human progress is one of the fundamental debate areas of modern economic literature. This study aims to re-analyze the link between per capita income and life expectancy at birth within the framework of the Preston Curv., In the analysis conducted using a sample some countries from the World Bank database, it was found that life expectancy increases rapidly at low income levels, but this increase diminishes at a marginal level after a threshold income level of approximately $20,000 - $30,000. Non-income factors examined through residual analysis reveal the transformative power of education level, income inequality, and environmental conditions on health outcomes. Findings demonstrate that high-income but high-inequality countries, such as the USA, show negative deviation, while countries with strong human capital investment, like Vietnam and Spain, diverge positively. The study emphasizes the necessity of inclusive and fair distribution-oriented policies rather than pure economic growth in increasing welfare.

Keywords: Preston Curve, Life Expectancy, Human Capital, Income Inequality, Health Economics.
JEL Codes: E20, F60, I10.

RUSSIA'S FOREIGN POLICY IN CENTRAL AFRICAN REPUBLIC: HISTORICAL BACKGROUND AND FUTURE PROSPECTS

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ABSTRACT

The foreign policy of Russia in Africa has been gradual in nature. Specifically, the Central African Republic has a long history of relations with Russia even during the times of the Soviet Union. Bilateral relations between CAR and Russia are more rooted in addressing the current problems of security on the ground but positioning Russia in the global stage of international politics. Russia already ensures security of the president, benefits from the minerals of diamond and gold, has access to market of its products, challenging the western cultures through ensuring its dominance. The future bilateral relations need now to give more focus to sustainable development which includes livelihoods, health, education, technological and infrastructural development. As it stands, the bilateral relations are more based on economic, political and security which are definitely good but need materialized and localized. This paper therefore aim to study the Russia-CAR bilateral relations through Neo-Realist framework of analysis. The paper shall use qualitative secondary data to better capture not the intentions of Russia-CAR relations but also perceptions and thoughts of scholarly work.

Keywords: Foreign Policy, International Relations, History, Soviet Union, Russia, Central African Republic.
JEL Codes:

SPATIAL DETERMINANTS OF FIRM ENTRY IN TÜRKIYE

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ABSTRACT

Firm entry plays a central role in regional economic development by shaping local competition, employment creation, and structural transformation. However, entrepreneurial activity is rarely distributed evenly across space. Firms tend to concentrate in locations offering stronger market access, deeper financial systems, better infrastructure, and richer production networks. While such concentration may enhance productivity through agglomeration economies, it can also reinforce existing regional disparities, particularly in emerging economies. This paper examines the regional determinants of firm entry in Türkiye, a country characterized by substantial economic and institutional heterogeneity across provinces. Using a balanced provincial panel covering the period 2010–2024, we investigate whether firm entry exhibits spatial dependence and identify the local economic factors associated with regional variation in entry rates. To account for spatial interactions across neighboring provinces, we employ spatial panel econometric models that explicitly capture both geographic spillovers and local structural conditions. The empirical findings indicate significant spatial dependence in firm entry across Turkish provinces, suggesting that entrepreneurial dynamics are not confined to administrative boundaries. The results further show that higher levels of financial development and real GDP per capita are consistently associated with greater firm entry. These relationships remain robust across alternative model specifications, spatial weight matrices, and additional control variables. From a policy perspective, the findings suggest that regional entrepreneurship policies should account not only for local economic fundamentals but also for spatial spillovers across provinces. Policies aimed at improving financial access and strengthening regional economic capacity may contribute to a more balanced geographic distribution of entrepreneurial activity.

Keywords: Firm Entry, Spatial Econometrics, Türkiye.

JEL Codes:

THE IMPACT OF THE CIRCULAR ECONOMY ON VALUE CREATION IN ALGERIAN ENTREPRISES WITH THE 7Rs MODEL: ENPC-ANNEX TLEMCEN

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ABSTRACT

The aim of this paper is to analyze the impact of the circular economy on value creation within Algerian entreprises, using the Model of 7Rs (the ENPC-annex Tlemcen as a case). The central issue concerns how circular economy practices, particularly the 7Rs framework (Rethink, Refuse, Reduce, Reuse, Repair, Refurbish and Recycle) affect the entreprise's value creation; The analysis is based in field observations, interviews with staff, and the examination of internal data. The results shown that the entreprise implements several circular economic practices such as recycling Polyvinyl Chloride (PVC) and Polyethylene (PE) pipes, reusing recycled materials, and reducing waste. Also, we conclude that the algerian entreprise who adopted the philosophy and the practices of the circular economy are capable to creating economic, environmental and social value.

Keywords: Circular Economy, Value Creation, Circular Economy Model, 7Rs Model, Algerian Entreprise, Recycling, Sustainability.
JEL Codes:

THE EVOLUTION OF SOCIAL MEDIA'S IMPACT ON CONSUMER BEHAVIOR: A LITERATURE REVIEW FROM A PSYCHOLOGICAL WELL-BEING PERSPECTIVE

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ABSTRACT

This study aims to examine the evolution of the impact of social media on consumer behavior from a psychological well-being perspective. With the acceleration of digitalization, social media has assumed a central role in individuals' communication, information access, and purchasing decision-making processes. This transformation has led to social media evolving from merely a communication tool into an ecosystem that influences consumer behavior in a multidimensional way. Based on a literature review, the study addresses the impact of social media on consumer behavior over time from a holistic perspective.

The research findings show that the impact of social media on consumer behavior has developed in three main stages. In the first stage, the information-focused period, consumers heavily relied on electronic word-of-mouth communication (eWOM), online reviews, and user-generated content when making purchasing decisions, and social media emerged as a trust-building source of information. In the second stage, social media evolved into an interaction and experience-oriented structure; consumers became individuals who actively interacted with brands, created content, and participated in the process. In this process, elements such as influencer marketing, parasocial interaction, and consumer experience played a decisive role.

In the current period, the impact of social media is examined within the context of psychological well-being. Social comparison, fear of missing out (FOMO), digital addiction, and emotional states directly influence consumer behavior. Social media shapes not only the cognitive but also the emotional and psychological processes of individuals, guiding their consumption decisions. However, the effects of social media are twofold; alongside positive outcomes such as social connection and perceived support, negative effects such as anxiety, loneliness, and impulsive consumption can also occur. In conclusion, this study reveals that social media is making consumer behavior increasingly complex and multifaceted; it integrates marketing and psychology literature, offering significant theoretical and practical contributions to the field.

Keywords: Social Media, Consumer Behavior, Psychological Well-being, Digital Consumption, Impulse Buying.

JEL Codes: M31, D91, L86.

INSTITUTIONAL ALIGNMENT AND TRANSFORMATIVE CAPACITY: ECONOMIC DEVELOPMENT AS A REPRODUCTIVE SYSTEM

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ABSTRACT

This article develops a meso-level framework for understanding economic development as a systemic condition underpinning transformative change. While sustainability transitions research has significantly advanced explanations of socio-technical transformations, it pays limited attention to the institutional configurations that enable coordination and acceleration across multiple domains. Addressing this gap, the paper conceptualizes economic development as a "reproductive system": a dynamic configuration of interdependent institutional, political-economic, and productive conditions that jointly sustain transformative capacity over time.

Drawing on insights from institutional economics, innovation systems, political economy, and sustainability transitions, the study proposes that transformative capacity emerges when governance legitimacy, entrepreneurial risk-taking, collaborative innovation, and productive capabilities become aligned. To empirically investigate this proposition, Exploratory Factor Analysis (EFA) is applied to a dataset of 43 institutional and structural indicators across 61 developed and developing economies over the period 2017–2019.

The analysis identifies four dominant and strongly interrelated latent dimensions—Inclusiveness, Riskiness, Productivity, and Pioneering—which together form a coordinated founding core of transformative capacity. These dimensions are not independent drivers but mutually reinforcing components of a systemic configuration. Their alignment is associated with enhanced innovation dynamics, cross-domain coordination, and the structural anchoring of new technologies and practices.

Rather than indicating a deterministic tipping point, the findings suggest the existence of a condition of institutional convergence under which experimentation, learning, and structural upgrading become self-reinforcing. This perspective reframes transformative change as an emergent outcome of systemic alignment rather than as a result of isolated policy interventions or sectoral dynamics.

The article contributes to the literature in three ways. First, it complements sustainability transitions frameworks by introducing a meso-institutional substrate explaining cross-sectoral acceleration. Second, it demonstrates that innovation and creative destruction are institutionally embedded processes. Third, it reframes transformation policy as a challenge of fostering institutional alignment rather than steering individual technologies or sectors.

Overall, the study highlights the importance of institutional coherence in enabling sustained and inclusive economic transformation.

Keywords: Economic Transformation, Sustainability Transitions, Institutional Change, Political Economy, Innovation Systems, Deep Transitions.

JEL Codes:

FRAUD DETECTION IN THE BANKING SECTOR BASED ON BEHAVIORAL BIOMETRICS: AN ANALYSIS WITH MACHINE LEARNING APPROACHES

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ABSTRACT

This study aims to investigate the effectiveness of behavioral biometrics in enhancing security and detecting fraudulent activities in the banking sector. With the rapid digitalization of financial services, traditional authentication methods have become insufficient against increasingly sophisticated fraud attempts. Therefore, this research focuses on the integration of behavioral biometric data—such as keystroke dynamics, mouse movements, and transaction patterns—into fraud detection systems.
The study adopts a quantitative and experimental research design. Behavioral data will be obtained from publicly available datasets or simulated environments, followed by preprocessing and feature engineering processes. Various machine learning algorithms, including Logistic Regression and Random Forest, will be implemented alongside anomaly detection techniques such as Isolation Forest. The performance of these models will be evaluated using standard metrics, including accuracy, precision, recall, F1-score, and ROC-AUC.
The findings are expected to demonstrate that behavioral biometrics can significantly improve fraud detection accuracy compared to traditional security approaches. Additionally, the study aims to provide a comparative analysis of different machine learning models in identifying anomalous user behavior. This research contributes to the literature by offering a data-driven approach to strengthening banking security systems and highlights the practical applicability of behavioral biometrics in real-world financial environments.

Keywords: Anomaly Detection, Banking Security, Behavioral Biometrics, Fraud Detection, Machine Learning.
JEL Codes: L86, M15, C88.

AI-SUPPORTED CODE REVIEW TOOL: QUALITY CONTROL AND AUTOMATION IN SOFTWARE DEVELOPMENT PROCESSES

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ABSTRACT

In today's digital economy, the architectural complexity of software systems increasingly challenges the limits of traditional quality control methods. In particular, the widespread adoption of microservices and cloud-based large-scale systems has transformed manual code review processes into a significant bottleneck, making a fundamental paradigm shift toward automated quality assurance inevitable within the industry. This study proposes a comprehensive artificial intelligence (AI)-supported code review framework designed to enhance both the technical resilience and overall efficiency of the Software Development Life Cycle (SDLC). Traditional peer review processes discussed in the existing literature inherently impose a high cognitive burden on developers and create conditions prone to unavoidable human errors. The accumulation of these errors leads, in the long term, to increased technical debt and costly operational expenditures for software projects.To minimize these risks, this study strategically leverages advanced machine learning paradigms and deep learning approaches. The theoretical framework synthesizes Natural Language Processing (NLP) techniques with static code analysis principles in a hybrid structure within the context of data-driven software engineering. Throughout the methodological process, the Python programming language was effectively utilized for advanced data management and model development stages. To train the neural architectures, large-scale software repositories gathered from diverse sources were subjected to rigorous preprocessing and curation procedures, enabling the detection of complex semantic vulnerabilities and performance-oriented structural bottlenecks. Preliminary evaluation results obtained within the scope of the study indicate that the proposed AI-based model has the potential to significantly improve both review output speed and defect detection accuracy compared to conventional methods. In particular, the autonomous structure of the system enables the early elimination of low-level errors, allowing human resources to focus on more complex design-related problems. Consequently, the research demonstrates that integrating intelligent automation solutions into code review processes not only optimizes human capital but also creates a sustainable economic advantage for organizations by reducing long-term maintenance costs arising from security breaches and software defects.

Keywords: Automated Code Review, Machine Learning, Software Quality Assurance, Python-Based Analytics, Technical Debt.
JEL Codes: L86, M15, O30.

KAZAKİSTAN VE KIRGIZİSTAN'DA PİYASA VE DEMOKRASİ TERCİHLERİ: KARŞILAŞTIRMALI POLİTİK EKONOMİ PERSPEKTİFİ

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ÖZET

Karşılaştırmalı politik ekonomi açısından vatandaşların ekonomik ve siyasal sistemlere yönelik tercihleri önemli bir rol oynamaktadır. Bu çalışma, Orta Asya'da yer alan Kazakistan ve Kırgızistan örnekleri üzerinden bireylerin piyasa ekonomisi ve demokratik yönetime ilişkin tutumlarını incelemektedir. Sovyet mirası, coğrafi yakınlık ve kültürel benzerlikler gibi ortak özelliklere sahip olmalarına rağmen, iki ülke farklı yönetim pratikleri geliştirmiştir. Bu farklılıklar, vatandaşların ekonomik ve siyasal düzene ilişkin algılarını şekillendiren ayrışmış yapısal bağlamlar yaratmaktadır.

Kazakistan, hidrokarbon gelirlerini devlet varlık fonları aracılığıyla yöneten kaynak zengini bir ekonomi olarak öne çıkmaktadır. Bu model, devletin vergilendirmeye olan ihtiyacını azaltırken yeniden dağıtım harcamalarının sürdürülmesini ve makroekonomik istikrarın korunmasını mümkün kılmıştır. Böylece rejim meşruiyeti büyük ölçüde performans temelli bir zeminde şekillenmiştir. Buna karşılık Kırgızistan, daha sınırlı mali kaynaklara sahip olmasına rağmen, sık siyasal krizler eşliğinde görece daha çoğulcu ancak kurumsal olarak daha kırılgan bir yönetişim yapısı geliştirmiştir. Sovyet sonrası devletlerde rejim meşruiyeti ve piyasa ekonomisine yönelik tutumlara ilişkin literatür genişlese de, devlet tipinin bireysel güven ve tercih ilişkisini Kazakistan-Kırgızistan karşılaştırması üzerinden ele alan çalışmalar sınırlıdır. Bu çalışma bu boşluğu doldurmayı amaçlamaktadır.

Araştırmada, Avrupa İmar ve Kalkınma Bankası ile Dünya Bankası tarafından 2022–2023 yıllarında yürütülen ve ulusal düzeyde temsiliyet sağlayan Life in Transition Survey IV (LiTS IV) veri seti kullanılmıştır. Ortalama marjinal etkiler temelinde tahmin edilen yedi ikili logit modelinin sonuçları, ülke sabit etkileri kontrol edildiğinde Kazakistan vatandaşlarının Kırgızistan vatandaşlarına kıyasla daha düşük düzeyde piyasa yanlısı, demokrasi yanlısı ve rekabet odaklı tutumlar sergilediğini göstermektedir. Ayrıca kentsel yerleşimin piyasa yönelimini ve otoriter alternatiflere karşı direnci artırdığı, Sovyet sonrası kuşağın ise piyasa ekonomisi ve demokrasiye ilişkin tutumlarını ayrıştırdığı tespit edilmiştir.

Anahtar Kelimeler: Karşılaştırmalı Politik Ekonomi, Piyasa Ekonomisine Yönelik Tutumlar, Demokratik Yönetişim, Orta Asya.

JEL Kodları: P16, D72, O53

MARKET AND DEMOCRACY CHOICES IN KAZAKHSTAN AND KYRGYZSTAN: A COMPARATIVE POLITICAL ECONOMY PERSPECTIVE

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ABSTRACT

From a comparative political economy perspective, citizens' preferences regarding economic and political systems are significant. This study examines attitudes toward the market economy and democratic governance in Kazakhstan and Kyrgyzstan, two countries in Central Asia. Despite sharing characteristics such as a Soviet legacy, geographical proximity, and cultural similarities, the two countries have developed distinct governance practices. These differences create distinct structural contexts that shape citizens' perceptions of the economic and political order.

Kazakhstan is a resource-rich economy that manages its hydrocarbon revenues through sovereign wealth funds. This model has reduced the state's reliance on taxation while enabling redistributive spending and maintaining macroeconomic stability. Thus, regime legitimacy has largely been shaped by performance. In contrast, despite having more limited financial resources, Kyrgyzstan has developed a relatively more pluralistic yet institutionally fragile governance structure accompanied by frequent political crises. While literature on regime legitimacy and attitudes toward the market economy in post-Soviet states has grown, studies examining the relationship between state type and individual trust and preferences through a Kazakhstan-Kyrgyzstan comparison are limited. This study aims to fill this gap.

The study uses the Life in Transition Survey IV (LiTS IV) dataset, which was conducted by the European Bank for Reconstruction and Development and the World Bank in 2022–2023 and provides national-level representation. Results from seven binary logit models, estimated based on average marginal effects, indicate that Kazakhstani citizens exhibit lower levels of pro-market, pro-democracy, and competition-oriented attitudes than Kyrgyz citizens when controlling for country fixed effects. Additionally, urban residence was found to increase market orientation and resistance to authoritarian alternatives, and the post-Soviet generation was found to have distinct attitudes toward the market economy and democracy.

Keywords: Comparative Political Economy, Attitudes Toward the Market Economy, Democratic Governance, Central Asia.
JEL Codes: P16, D72, O53.

KIRGIZ CUMHURİYETİ'NDE BANKA KREDİLERİNİN YAPISAL VE DİNAMİK ANALİZİ (2015–2025)

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ÖZET

Kırgız Cumhuriyeti'nin bankacılık sektörü benzeri görülmemiş bir genişleme yaşamaktadır: toplam kredi portföyü 2024 yılında %32,2 artarak 340,7 milyar soma ulaşmış ve 2025 yılının ilk çeyreğinde 489,3 milyar soma yükselmiştir. Bu çalışma, söz konusu hızlı kredi büyümesinin üretken sermaye birikimini mi teşvik ettiğini, yoksa uzun vadeli katma değer yaratmadan ithalata bağımlı tüketimi mi desteklediğini değerlendirmektedir. 2015–2025 dönemi için kredi dinamikleri, reel hanehalkı gelirleri ve GSYİH büyümesi analiz edilerek önemli bir yapısal dengesizlik ortaya konulmuştur. Bulgulara göre, kredi portföyündeki güçlü artışa rağmen büyüme ağırlıklı olarak tüketici sektöründen kaynaklanmaktadır (yıllık %77,8'e kadar), buna karşılık sanayi kredilerinin payı yalnızca %4,1 gibi oldukça düşük bir seviyede kalmaktadır. Bu durum, mevcut finansal kaynakların sürdürülebilir sanayileşme için bir temel oluşturmaktan ziyade, kısa vadeli talebi ve ithalatı beslediğini göstermektedir.

Anahtar Kelimeler: Kırgız Cumhuriyeti, banka kredileri, tüketici kredileri, GSYİH, yapısal dengesizlik.

JEL Kodları:

STRUCTURAL AND DYNAMIC ANALYSIS OF BANK LENDING IN THE KYRGYZ REPUBLIC (2015–2025)

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ABSTRACT

The banking sector of the Kyrgyz Republic is experiencing an unprecedented expansion: the total loan portfolio surged by 32.2% in 2024 (reaching 340.7 billion soms) and accelerated to 489.3 billion soms by Q1 2025. This study evaluates whether such rapid credit growth fosters productive capital accumulation or primarily stimulates import-dependent consumption without creating long-term added value. By analyzing the dynamics of lending, real household incomes, and GDP growth for the 2015–2025 period, the research reveals a critical structural imbalance. Despite the massive portfolio expansion, the growth is driven by the consumer sector (up to 77.8% annually), while the share of industrial loans remains disproportionately low at 4.1%. The findings suggest that current financial resources fuel immediate demand and imports rather than establishing a foundation for sustainable industrialization.

Keywords: Kyrgyz Republic, Bank Lending, Consumer Loans, GDP, Structural Imbalance.
JEL Codes:

THE DEVELOPMENT AND PROSPECTS OF THE DIGITALIZATION OF THE TAX SYSTEM IN KYRGYZSTAN

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ABSTRACT

The tax system is one of the key mechanisms for ensuring public revenue, fiscal stability, and sustainable economic development. In recent years, the tax system of the Kyrgyz Republic has been actively developing: tax revenues have increased, institutional reforms have been implemented, and digital instruments have gradually been introduced into tax administration. In this context, the digitalisation of the tax system is becoming an important direction for improving transparency, simplifying taxpayer interaction with tax authorities, reducing informal economic activity, and increasing the efficiency of tax revenue collection. The purpose of this study is to examine the impact of tax system digitalisation on tax revenues in the Kyrgyz Republic. The empirical analysis is based on quarterly data for 2014-2024 and applies the ARDL approach, which allows assessing both short-run and long-run relationships between the selected variables. The results show that digitalisation has a positive impact on tax revenues. In particular, the development of digital payment infrastructure and information and communication technologies contributes to greater transparency of transactions, improved tax compliance, and more effective tax administration. The findings confirm that digitalisation is not only a technological reform but also a strategic factor in strengthening the fiscal capacity and future development of the tax system in the Kyrgyz Republic.

Keywords: Tax System, Digitalization, Tax Revenue, Tax Administration, Fiscal Policy, ARDL, Kyrgyz Republic.
JEL Codes:

KIRGIZİSTAN’DA VERGİ SİSTEMİNİN DİJİTALLEŞMESİNİN GELİŞİMİ VE GELECEĞİ

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ÖZET

Vergi sistemi, kamu gelirlerinin sağlanması, mali istikrar ve sürdürülebilir ekonomik kalkınmanın temininde kilit mekanizmalardan biridir. Son yıllarda Kırgızistan Cumhuriyeti’nin vergi sistemi aktif bir şekilde gelişmektedir: vergi gelirleri artmış, kurumsal reformlar hayata geçirilmiş ve vergi idaresine kademeli olarak dijital araçlar dahil edilmiştir. Bu bağlamda, vergi sisteminin dijitalleşmesi, şeffaflığı artırmak, vergi mükelleflerinin vergi daireleriyle etkileşimini basitleştirmek, kayıt dışı ekonomik faaliyeti azaltmak ve vergi gelirlerinin tahsilatında verimliliği artırmak için önemli bir yön haline gelmektedir. Bu çalışmanın amacı, vergi sisteminin dijitalleşmesinin Kırgızistan Cumhuriyeti'ndeki vergi gelirleri üzerindeki etkisini incelemektir. Ampirik analiz, 2014-2024 dönemine ait üç aylık verilere dayanmaktadır ve seçilen değişkenler arasındaki hem kısa vadeli hem de uzun vadeli ilişkileri değerlendirmeye olanak tanıyan ARDL yaklaşımını uygulamaktadır. Sonuçlar, dijitalleşmenin vergi gelirleri üzerinde olumlu bir etkiye sahip olduğunu göstermektedir. Özellikle, dijital ödeme altyapısı ile bilgi ve iletişim teknolojilerinin gelişimi, işlemlerin şeffaflığının artmasına, vergi uyumunun iyileşmesine ve vergi idaresinin daha etkili hale gelmesine katkıda bulunmaktadır. Bulgular, dijitalleşmenin sadece teknolojik bir reform değil, aynı zamanda Kırgızistan Cumhuriyeti'nde mali kapasitenin güçlendirilmesi ve vergi sisteminin gelecekteki gelişimi açısından stratejik bir faktör olduğunu teyit etmektedir.

Anahtar kelimeler: Vergi Sistemi, Dijitalleşme, Vergi Geliri, Vergi Idaresi, Maliye Politikası, ARDL, Kırgızistan Cumhuriyeti.
JEL Kodları:

THE RELATIONSHIP BETWEEN CRYPTOCURRENCY AND MONEY SUPPLY, AND TÜRKIYE

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ABSTRACT

Digital currencies today represent approximately 90% of the money in circulation. When you make a bank transfer through internet banking or a bank's mobile application, or when you send or receive payments using your bank or credit cards (such as PayPal or Google Wallet), you are essentially conducting a "digital currency transaction." Cryptocurrency, on the other hand, is a type of digital currency but differs in that it is its own currency. The most well-known cryptocurrency is Bitcoin, but there are over 1,000 other types, including Ethereum, Bitcoin Cash, Litecoin, Ripple, and IOTA.

The concept of cryptocurrency entered our lives after 2008 and has become a market with increasing transaction volumes every day. Known for its high returns and rapid declines, it operates similarly to the stock market. As of December 2024, there are over 10,000 cryptocurrencies in circulation. Its decentralized nature and the widespread belief that cryptocurrencies will be the money of the future have led to negative attitudes among states regarding its adoption.

Keywords: Cryptocurrency, Digital Currency, Bitcoin, Satoshi, Central Bank.

JEL Codes:

KRİPTO PARA VE PARA ARZI İLİŞKİSİ VE TÜRKİYE

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ÖZET

Dijital paralar bugün dolaşımdaki paraların yaklaşık %90'ını temsil etmektedir. İnternet bankacılığı veya bankanın mobil uygulaması aracılığıyla banka havalesi yaptığınızda, banka veya kredi kartlarınızdan (Paypal veya Google Cüzdan) bir ödeme gönderip, aldığınızda, esas itibariyle 'dijital para işlemi yapıyorsunuz' demektir. Kripto para ise, bir dijital para türüdür ama dijital paradan farklı olarak, kendisi bir para birimidir. En bilineni Bitcoin iken, Ethereum, Bitcoin Cash, Litecoin, Ripple ve IOTA gibi 1000'in üzerinde cinsleri vardır. Kripto para kavramı hayatımıza 2008'den sonra giren, her geçen gün daha çok işlem hacmine sahip olan ve yüksek getirisinden ve hızlı düşüşünden kaynaklı, borsa gibi hareketli olan bir piyasadır. Aralık 2024 itibariyle dolaşımda 10 binden fazla kripto para vardır. Merkeziyetsiz olması, ve gelecekte kullanılacak paranın kripto para olduğuna dair yaygın inanç devletler açısından olumsuz bir tutum sergilemelerini sağlamaktadır.

Anahtar kelimeler: Kripto Para, Dijital Para, Bitcoin, Satoshi, Merkez Bankası

JEL Kodları:

TAX EVASION CRIMES

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ABSTRACT

The state, in fulfilling its constitutional and statutory duties on behalf of the public, requires material power, much like an individual. The most fundamental source of this material power is the value defined as "tax." Since the protection of this value is tantamount to the protection of the public interest, the acts constituting violations thereof—which are examined in the present study—are regulated as Tax Evasion Crimes under Article 359 of the Tax Procedure Law.

Owing to the technical nature of the matter, the unlawfulness envisaged in Tax Evasion Crimes may arise through a wide variety of acts. Accordingly, the relevant provision enumerates numerous such acts, which are at times structured as alternative modes of a single offense and at other times regulated as distinct offenses under separate paragraphs of the same article. This has necessitated a separate examination of the elements of the offense for each distinct act within Tax Evasion Crimes. In this study, the elements of the offenses set out in the provision are analyzed in light of doctrinal debates, scholarly opinions, and Court of Cassation decisions. With respect to the specific forms of appearance of tax evasion crimes, the concursus (içtima) regime under the Tax Procedure Law is evaluated within the framework of the universal procedural principle of "non bis in idem," drawing on relevant decisions of the Court of Cassation, the Constitutional Court, and the European Court of Human Rights.

Keywords: Tax, Tax Evasion Crimes, Turkish Tax Procedure Law, Turkish Constitutional Court, European Court of Human Rights, Non bis in idem.
JEL Codes: K34, K42, H26.

THE IMPACT OF PANDEMICS ON THE RESTRICTION OF FUNDAMENTAL RIGTHS AND FREEDOMS

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ABSTRACT

"Pandemics are like comprehensive manuals through which the state can read the disruptions in the development of society" - Rudolf Virchow

As of the end of April 2024, with approximately 705 million cases and 7 million deaths, Covid-19 (Coronavirus Disease 2019) has spread to almost every part of the world. On January 30, 2020, the World Health Organization (WHO)—the United Nations' specialized agency for health—declared the outbreak a "Public Health Emergency of International Concern (PHEIC)" following the second meeting of the International Health Regulations (IHR) Emergency Committee regarding the novel coronavirus (2019-nCoV) outbreak. On March 11, 2020—the day the first case of the novel coronavirus disease was detected in Türkiye—the WHO announced that the situation had reached the level of a pandemic.

The global Covid-19 outbreak has become a paramount issue in international politics. The emergence of the outbreak and its social, economic, and political impacts form the focal point of media discussions worldwide. In particular, academic and political circles are engaged in extensive debate regarding how the outbreak will shape the future of states.

The coronavirus—or Covid-19—outbreak poses a challenge of a magnitude unprecedented for modern states since the Industrial Revolution. Although numerous constitutions and international conventions empower relevant authorities to declare a state of emergency during various crises—including dangerous infectious disease outbreaks—only a portion of the states combating Covid-19 have chosen to do so. Conversely, it is observed that governments exercise "extraordinary powers" even in states that have not declared a state of emergency. Furthermore, the need for measures—generated by the Covid-19 pandemic on an unprecedented scale within the modern state apparatus—poses significant challenges for the concept of constitutionalism and for constitutional law.

Keywords: Covid-19 Pandemic, Human Rights, Concept of Constitutionalism, State of Emergency, Extraordinary Powers.
JEL Codes: K19, K38, K42, I18.