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### 14<sup>th</sup> Istanbul Finance Congress (IFC.2025)

*IFC.2025 is an international congress hosted by Işık University, Istanbul, Turkiye. IFC-2025 had participants from 16 different countries, namely; Turkiye, Philippines, Iran, United Arab Emirates, Ethiopia, Bangladesh, Pakistan, Nigeria, Azerbaijan, Poland, Lithuania, United Kingdom, India, Indonesia, Latvia and Tunisia.*

*Hence, IFC.2025 is qualified an "International Congress" by the Higher Education Council of Turkiye.*

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## 14<sup>th</sup> ISTANBUL FINANCE CONGRESS (IFC.2025)

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## 14th ISTANBUL FINANCE CONGRESS | December 25, 2025 | ISTANBUL

### TENTATIVE CONGRESS PROGRAM

14th Istanbul Finance Congress (IFC.2025) hosted by Işık University has participants from 16 different countries, namely; Philippines, Iran, United Arab Emirates, Tunisia, Ethiopia, Bangladesh, Pakistan, Nigeria, Azerbaijan, Poland, Lithuania, United Kingdom, India, Indonesia, Latvia and Türkiye. Hence, IFC.2025 is defined an "International Congress" qualified by the Higher Education Council of Türkiye.

**ZOOM LINK: <https://zoom.us/j/94622746393>**

#### OPENING SPEECHES | SESSION 1 | December 25, 2025, Thursday

10.30-10.40	Prof. Suat Teker, Congress President, Welcoming Speech
10.40-11.00	<b>Keynote Speaker - I:</b> Assoc. Prof. Caner Ozdurak, MARBAS Chief Economist <i>Breaking Point: How Cognitive Capitalism Reconfigures National Competitiveness and Global Economy</i>

#### PRESENTATION SESSIONS

11.00 - 15.00	<b>SESSION 2   <a href="https://zoom.us/j/94622746393">https://zoom.us/j/94622746393</a></b>
	<b>Chair: Assoc. Prof. Cuneyt Dirican, Istanbul Arel University</b>
11.00 - 11.15	<b>The impact of ESG performance on financial performance: evidence from Türkiye</b>
	Busra Turgut Turan, Istanbul Technical University
	Kaya Tokmakcioglu, Istanbul Technical University
11.15 - 11.30	<b>Modeling the Effects of Bitcoin, Gold, Inflation, and USD/TL Parity on BIST 100 Movements</b>
	Huseyin Cetin, Bursa Technical University
11.30 - 11.45	<b>Motivation on employee performance through top leadership commitment in the local water district in Laguna Province</b>
	Emma Africa-Fandino, Batangas State University, Philippines
11.45 - 12.00	<b>The interplay of innovation and sustainability: How ESG and R&amp;D intensity impact financial performance in Turkish firms</b>
	Beste Pazarozyurt, Istanbul Technical University
12.00 - 12.15	<b>Debt Markets in the 19th Century World Economy and Foreign Borrowing of the Ottoman Empire</b>
	Zelha Altinkaya, Yalova University
12.15 - 12.30	<b>Why is bad news priced faster? Negativity bias and loss aversion in Borsa Istanbul</b>
	Semra Demir, Burdur Mehmet Akif Ersoy University
12.30 - 12.45	<b>Global vs. continental financial market infrastructures: a cross-jurisdictional pls-sem multi-group analysis of transaction cost economics</b>
	Hannes Laudenbach, University of Latvia
12.45 - 13.00	<b>Global financial cycles and the dynamics of private credit in emerging market economies: a panel var analysis</b>
	Alper Ozhan, Yeditepe University Sema Dube, Yeditepe University



13.00 - 13.15	<b>Structural determinants of productivity: sector-level evidence from Türkiye</b>
	Sinem Sefil Tansever, Istanbul Ticaret University
13.15 - 13.30	<b>No country for old loans: the rise in credit risk with geographic diversification</b>
	Caner Gerek, Kırklareli University
13.30 - 13.45	<b>Tick size change and institutional ownership: evidence from BIST</b>
	Ahmet Mert Kurumahmutoglu, Istanbul Technical University
	Cumhur Ekinci, Istanbul Technical University
13.45 - 14.00	<b>Statistical analysis of money laundering risks with public financial data sets</b>
	Tuba Aydın, Altınbas University
14.00 - 14.15	<b>The underlying theories of the Indonesian banking sector capital structure policy</b>
	Saiful, Universitas Bengkulu, Indonesia
14.15 - 14.30	<b>The impact of AI-powered embedded finance platforms on credit risk management</b> - Yapay zeka destekli gömülü finans platformlarının kredi riski yönetimine etkisi
	Tutku Unkaracalar, Kırklareli University
14.30 - 14.45	<b>Assessing the impact of inflation on the premium production and market value of insurance companies</b> - Enflasyonun sigorta şirketlerinin prim üretimi ve piyasa değeri üzerindeki etkisinin değerlendirilmesi
	Ilknur Kulekci, Istanbul Gelisim University
	Aysegul Ertugrul, Istanbul Gelisim University
14.45 - 15.00	<b>An alternative and scientific perspective against mainstream (Neoclassical, Neoliberal, Orthodox) assumptions in Türkiye in light of heterodox economics</b> - Heterodoks iktisat ışığında Türkiye'de ana akım (Neoklasik, Neoliberal, Ortodoks) kabullerine karşı alternatif ve bilimsel bakış
	Cuneyt Dirican, Istanbul Arel University

15.00 - 17.30	<b>SESSION 3   <a href="https://zoom.us/j/94622746393">https://zoom.us/j/94622746393</a></b>
	<b>Chair: Prof. Dr. Suat Teker</b>
15.00 - 15.15	<b>Beyond linear regression: enhancing predictive accuracy in stock price prediction using machine learning ensemble methods</b>
	Samir Safi, United Arab Emirates University
	Mariam Daibam, United Arab Emirates University
	Dana Almuraqab, United Arab Emirates University
	Dania Awwad, United Arab Emirates University
15.15 - 15.30	<b>Does greater banking inclusion enhance or undermine financial stability in Tunisia? A nonlinear investigation</b>
	Meriem Sebai, University of Tunis El-Manar, Tunisia
	Omar Talbi, University of Tunis El-Manar, Tunisia
15.30 - 15.45	<b>Determinants of participation in off-farm employment among small holder farmers of Jimma Arjo District, East Wollega Zone, Oromia</b>
	Tekle Tamiru Yadeta, Wollega University, Ethiopia

15.45 - 16.00	<b>Do board governance mechanisms influence the intellectual capital–performance relationship? Evidence from an emerging economy</b>
	Raihan Sobhan, University of Dhaka, Bangladesh
16.00 - 16.15	<b>The role of tax incentives and refund mechanisms in promoting export growth in developing economies: Evidence from Pakistan</b>
	Khalid Mahmood, Hazara Univerity, Pakistan
16.15 - 16.30	<b>Closing doors, closing opportunities: The impact of bank branch coverage on SMEs</b>
	He He, Bangor University, United Kingdom
	Ayan Orujov , Bangor University, United Kingdom
	Cem Soner, Bangor University, United Kingdom
	Binru Zhao, Bangor University, United Kingdom
16.30 - 16.45	<b>Financial technology and financial inclusion in Sub-Saharan Africa (SSA) countries</b>
	Olabisi Faseesin, Adekunle Ajasin University, Nigeria
	Adeleke Omolade, Federal University, Nigeria
	Damilola Olatunde Akinbode, Potential Miners International Research Center, Nigeria
	Aina Damilare Ezekiel, Federal University, Nigeria
16.45 - 17.00	<b>Sovereign green bonds and monetary stability: A comprehensive Review</b>
	Krish Bhatnagar, Birla Institute of Technology and Sciences, India
17.00 - 17.15	<b>Triple entry for holding companies</b>
	Reza Mirzaei, MazMaz Group, Iran
17.15 - 17.30	<b>AI in market dynamics and policy: Predicting economic shifts through machine learning</b>
	Goshgar Rasulov, Industrial Technologies, Azerbaijan
	Nijat Mammadli, Vistula University, Poland
	Aygun Musayeva, Vytautas Magnus University, Lithuania



## ABSTRACTS OF THE CONGRESS

### GLOBAL FINANCIAL CYCLES AND THE DYNAMICS OF PRIVATE CREDIT IN EMERGING MARKET ECONOMIES: A PANEL VAR ANALYSIS

*Alper Ozhan, Yeditepe University,*

*Sema Dube, Yeditepe University*

This study investigates the bidirectional macro-financial dynamics of private domestic credit in emerging market economies (EMEs), examining both the external determinants of credit cycles and the subsequent consequences of credit expansion on the domestic economy. Utilizing a quarterly Panel Vector Autoregression (PVAR) framework for a sample of nine major EMEs (Brazil, Chile, India, Indonesia, the Republic of Korea, Malaysia, Mexico, Thailand, and Türkiye) over the period 2003–2023, the analysis employs Generalized Method of Moments (GMM) estimation to rigorously test the stability and causal relationships among real credit, output, inflation, exchange rates, portfolio flows, and policy rates. Regarding the determinants of credit, the results indicate that domestic lending conditions are overwhelmingly driven by external financial variables rather than internal policy levers. Consistent with the "Global Financial Cycle" hypothesis, portfolio investment inflows emerge as the strongest positive driver of real private domestic credit. Furthermore, the findings support the "Balance Sheet Channel" over the traditional Mundell-Fleming trade channel; exchange rate depreciations lead to a sharp contraction in credit supply, validating the "Contractionary Devaluation" hypothesis associated with currency mismatches in EMEs. In terms of consequences, the empirical evidence reveals a significant positive feedback loop between GDP growth and credit. This pro-cyclicality supports the "Financial Accelerator" theory, suggesting that credit expansion improves borrower net worth, which in turn fuels further lending, thereby amplifying the business cycle. However, the study finds that credit growth is not a primary driver of domestic price instability; instead, inflation dynamics are heavily dominated by exchange rate pass-through rather than demand-pull forces generated by lending. Finally, the Central Bank Policy Rate demonstrates a "disconnect" in the direct monetary transmission mechanism but functions as a "Pull Factor" for capital flows, suggesting that EMEs face a "Policy Trilemma" where macroprudential measures may be more effective than interest rates in managing the real effects of credit cycles.

**Keywords:** Emerging markets, credit cycle, panel VAR, global financial cycle, balance sheet effect.

**JEL Codes:** C23, G21, E44

### THE IMPACT OF ESG PERFORMANCE ON FINANCIAL PERFORMANCE: EVIDENCE FROM TÜRKİYE

*Busra Turgut Turan, Istanbul Technical University,*

*Kaya Tokmakçioğlu, Istanbul Technical University,*

*Nihan Yıldırım, Istanbul Technical University*

Corporate sustainability is an essential component of sustainability performance, focusing on the environmental and social impacts of firms while achieving business objectives and respecting the ability of future generations to meet their needs. It requires transparent disclosure of firms' impacts and mitigation efforts, emphasizing the relevance of Environmental, Social and Governance (ESG) concept. ESG is widely used to evaluate firms' corporate sustainability performance, and its relevance has increased significantly due to the rising stakeholder awareness and expectations on accountability and transparency. Meeting these expectations and improving ESG performance can also deliver financial benefits to firms by building trust and strengthening relationships with stakeholders. However, it requires additional investment and may result in varying impacts on financial/economic performance depending on the industrial and national context. The impact of ESG performance on financial performance has been examined by several studies, which have mostly found it to be positive. Yet, some studies reporting negative, neutral or mixed results leave the research area inconclusive, leaving a research gap for in depth studies on the relationship between ESG and financial performance. In this context, the purpose of this research is to investigate the impact of aggregate ESG performance, along with its individual Environmental, Social, and Governance pillars, on the financial performance of non-financial firms in Türkiye. By providing empirical evidence from Türkiye, an important emerging market, the study aims to contribute to the limited literature on the ESG-financial performance nexus in developing economies. The analysis focused on the firms listed on Borsa Istanbul, using a panel dataset comprising 240 firm-year observations from 40 non-financial firms over the period 2019–2024. ESG ratings are obtained from LSEG (formerly Refinitiv/Thomson Reuters), one of the most widely used global ESG rating providers. Financial performance is measured using return on assets (ROA). The empirical approach includes descriptive statistics, pairwise correlations, and multiple regression analyses to evaluate both the aggregate ESG score and the distinct Environmental, Social, and Governance pillars. The regression results indicate that the overall ESG score does not exhibit a statistically significant effect on the firms' ROA in Türkiye. When the individual pillars are examined, the analysis reveals that the Social pillar has a significant negative effect on ROA, suggesting that social-related activities or disclosures may impose short-term costs that outweigh their immediate financial benefits. In contrast, both the Environmental and Governance pillars exert positive but statistically insignificant effects on





should not be treated as a uniform construct; instead, firms should develop pillar-specific and context-sensitive ESG strategies. Particularly in emerging markets such as Türkiye, where institutional structures, regulatory frameworks, and stakeholder expectations differ from those in developed economies, the differentiated impacts of ESG components become even more pronounced. The study underscores the importance for managers and policymakers to assess how each ESG dimension aligns with strategic priorities and financial outcomes.

**Keywords:** ESG performance, corporate sustainability, financial performance, regression analysis, emerging markets

**JEL Codes:** G30, M14, Q56

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## MOTIVATION ON EMPLOYEE PERFORMANCE THROUGH TOP LEADERSHIP COMMITMENT IN THE LOCAL WATER DISTRICT IN LAGUNA PROVINCE

**Emma Africa Fandiño, Batangas State University-Pablo Barbon, Philippines**

This study investigates the impact of employee motivation and leadership commitment on employee performance within the Local Water Districts in Laguna Province, Philippines. It explores how intrinsic and extrinsic motivations, along with leadership commitment, influence employee performance, and examines whether leadership commitment mediates the effect of motivation on performance. A quantitative research design with a descriptive approach was used. Data were collected via a structured questionnaire administered to 256 respondents selected through stratified random sampling. Statistical tools such as descriptive statistics, t-tests, ANOVA, and regression analysis were employed to analyze the data. The study found that intrinsic motivation significantly influences employee performance, particularly in task and contextual performance. Leadership commitment plays a critical mediating role in translating motivation into improved performance, especially for intrinsic motivation. Significant differences in performance and motivation were observed based on demographic factors like age, gender, and income. This research emphasizes the importance of leadership commitment in fostering a motivated workforce. It suggests that intrinsic motivation is a stronger driver of performance than extrinsic factors. Based on the findings, a comprehensive Human Resource Intervention Program is proposed, focusing on leadership development, motivational strategies, and age-based engagement to enhance overall employee performance.

**Keywords:** Employee motivation, employee performance, top leadership commitment, mediation, local water district

**JEL Codes:** 3 JEL codes

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## MODELING THE EFFECTS OF BITCOIN, GOLD, INFLATION, AND USD/TL PARITY ON BIST 100 MOVEMENTS

**Huseyin Cetin, Bursa Technical University**

In this research, the main objective is to analyze the effects of Bitcoin, gold, Turkey's CPI, and USD/TL parity on changes in the BIST 100 between February 2021 and March 2025. The originality of this study lies in comparing the effects of these specific variables on the BIST 100. High inflation, drastic exchange rate variations, and growing public interest in cryptocurrencies were all factors in Turkey between 2021 and 2025 that had a significant impact on financial market asset allocation and investor behavior. Assessing the integration of digital and traditional assets in developing markets such as Turkey requires an understanding of these relationships. Since Bitcoin is a key component of the cryptocurrency market and is considered by many investors an alternative investment tool, changes in its price may influence the performance of the BIST 100. Including Bitcoin adds another aspect of originality to this research. According to the E-GARCH analysis, Bitcoin and gold prices do not have a significant effect on the performance of the BIST 100. However, it was found that Turkey's CPI and the USD/TL parity have significant positive effects on changes in the index. In the second stage of the analysis, a Markov regime-switching regression was applied to observe the regime-dependent effects of the variables. In the first regime, none of the variables were statistically significant. In the second regime, Bitcoin had a significant negative effect, while the USD/TL parity, gold, and Turkey's CPI all showed significant positive effects on the BIST 100. These results suggest that, in certain periods, investors may sell their BIST holdings to buy Bitcoin before an anticipated Bitcoin price increase, which could lead to a temporary decline in BIST 100 performance. Conversely, during some periods when the USD appreciates against the Turkish lira and gold prices rise, investors may redirect their profits into the BIST 100. For the third analysis, a Bayesian VAR impulse response analysis was implemented to observe the innovation impact of the variables on BIST 100 performance. It was found that Bitcoin, USD/TL parity, and Turkey's CPI have positive innovation impact, while gold has a negative innovation influence on the BIST 100. Observing the first-period innovation impact reveals that Bitcoin has the most positive influence among the variables. After the first period, the dominance of Bitcoin's innovation declined, while the USD/TL's innovation influence began to rise; in the final period, Turkey's CPI became the dominant factor for innovation impact. The study reveals that digital and traditional financial assets are becoming more connected in Turkey, providing valuable insights for investors, policymakers, and portfolio managers in managing market risks and developing investment strategies.

**Keywords:** Turkey's CPI, bitcoin, gold, bist 100, USD/TL parity

**JEL Codes:** C58, E44, G15





## THE IMPACT OF AI-POWERED EMBEDDED FINANCE PLATFORMS ON CREDIT RISK MANAGEMENT: NEW PARADIGMS, OPPORTUNITIES, AND CHALLENGES

*Tutku Unkaracalar, Kırklareli University*

The purpose of this study is to examine, from a multidimensional perspective, the structural transformation created by artificial intelligence-supported embedded finance platforms in credit risk management. The invisible integration of financial services into digital ecosystems transforms credit risk assessment processes by moving them away from traditional banking towards a more dynamic, behavioural and data-based structure. Within this framework, the study aims to evaluate the effects of artificial intelligence algorithms on risk prediction performance, forms of data use and levels of transparency by analysing the platforms Stripe, Unit and Weavr in a comparative manner. Adopting a qualitatively oriented exploratory approach, it examines multiple data sources consisting of platform documentations, financial technology reports and the academic literature through content analysis. In addition, an original conceptual model explaining artificial intelligence-based credit risk management in the context of embedded finance has been developed. This methodological approach makes it possible to evaluate both the technological infrastructure and the ethical and regulatory dimensions in a holistic manner. The study shows that the analysed platforms exhibit clear differences in data processing capacity, algorithmic modelling techniques and risk management approaches. While Stripe's processing of behavioural data with deep learning models produces dynamic and highly accurate risk predictions; Unit's transparent analytical structure based on regulatory compliance strengthens auditability in the credit assessment process; and Weavr's modular risk engine allows flexible, sector-based credit assessments. However, it has been determined that critical problems such as data privacy, algorithmic bias and model explainability persist in all platforms. This study reveals that artificial intelligence-supported embedded finance platforms go beyond technical innovation in credit risk management and create a new financial architecture, and it offers original contributions to the literature both at the level of comparative platform analysis and at the level of a conceptual framework explaining the data-impact relationship. The findings constitute an important basis for future research on algorithmic transparency, regulatory compliance and the ethical boundaries of the use of alternative data

**Keywords:** Embedded finance, artificial intelligence, credit risk management, fintech, algorithmic bias

**JEL Codes:** G20, G24, O33

## ASSESSING THE IMPACT OF INFLATION ON THE PREMIUM PRODUCTION AND MARKET VALUE OF INSURANCE COMPANIES

*Ilknur Kulekci, Istanbul Gelisim University*

*Aysegul Ertugrul, Istanbul Gelisim University*

The purpose of this study is to analyze the relationship between inflation, premium production, and market value of insurance companies operating in the insurance sector listed on Borsa Istanbul, and to determine the direction of causality among these variables. In this study, quarterly data of six insurance companies operating on Borsa Istanbul for the period between December 2014 and June 2025 were utilized. In the analysis, the variables used were the inflation rate (INF), total premium production (LNPP), and the market-to-book value ratio (PB). Unit root tests were applied to examine the stationarity of the variables, and the Granger causality analysis was subsequently conducted to determine the causal relationships among them. The analysis results indicate a statistically significant bidirectional causal relationship between the inflation rate and premium production. This finding reveals that both variables mutually influence each other. In contrast, no statistically significant effect of inflation on the market-to-book value ratio of insurance companies has been identified. Findings are consistent with the direction of the relationship predicted by the theoretical framework and align with the general trend observed in the existing literature. In this context, it can be stated that an increase in inflation weakens premium production and indirectly reduces market value, whereas lower inflation enhances premium production and strengthens the financial performance of the sector. The results emphasize the importance of maintaining price stability to ensure sustainable growth in the insurance industry. Therefore, policymakers and industry managers should take inflation dynamics into account when developing pricing strategies and long-term risk management policies.

**Keywords:** Inflation, premium production, market value, insurance companies, Granger Causality

**JEL Codes:** G22, E31, C32

## DEBT MARKETS IN THE 19TH CENTURY WORLD ECONOMY AND FOREIGN BORROWING OF THE OTTOMAN EMPIRE

*Zelha Altinkaya, Yalova University*

Foreign debt has long been one of the central themes in international economics. It is widely argued that, when used productively, external borrowing to finance infrastructure, healthcare, education, and industrial investment—particularly in countries with insufficient domestic savings and capital—can foster long-term economic growth by enhancing productive capacity and efficiency. Throughout the last century, international loans have served not only as instruments for financing development and growth but also as mechanisms for managing current account deficits when export revenues proved inadequate to finance imports. By contrast, in the 19th century, the predominant motive for borrowing was the financing of wars among states. Foreign debt often functions as a signal of confidence for international investors, indicating the credibility of the borrowing country. Furthermore, it integrates economies into global capital markets, thereby facilitating investment,



trade, and financial cooperation. Nonetheless, access to international credit and the accumulation of excessive external debt entail significant economic and political risks. Creditors, in certain circumstances, may employ debt as a means of exerting influence. The challenges faced by heavily indebted poor countries (HIPC) under unsustainable debt burdens have thus become a major issue in international governance. Moreover, a debt crisis in one country can generate contagion effects, undermining regional or global financial stability. Consequently, foreign debt has retained its relevance and importance within both national and international economic systems throughout history. Comparable dynamics were evident in the 19th century, when capital flows originated from the industrialized nations of the era and were directed toward less industrialized economies. The Ottoman Empire's borrowing practices constitute a significant case in this regard. Initially, the Empire contracted foreign loans to finance the costs of the Crimean War; however, within two decades, it became unable to meet its repayment obligations. Despite this, further borrowing ensued—particularly to fund railway construction—leading to a deepening of the debt burden. The establishment of the Ottoman Public Debt Administration effectively deprived the Empire of control over its fiscal sovereignty and its standing within international credit markets. This development was not merely a technical default; rather, the Ottoman Empire's foreign indebtedness evolved into a profound threat to its political autonomy and national independence. Although extensive research has examined this topic, the present study seeks to contribute to the literature through a comparative analysis of the international order, focusing on the borrowing conditions prevailing in global financial markets during the 19th century—especially the interest rates and lending terms applied to Latin American countries at a time when the Ottoman Empire was similarly indebted. The study employs a historical case study methodology to contextualize these dynamics within broader patterns of global financial relations.

**Keywords:** International economics, foreign capital, foreign debt, Ottoman, world economy, 19<sup>th</sup> century.

**JEL Codes:** F00, F 30, F34

## WHY IS BAD NEWS PRICED FASTER? NEGATIVITY BIAS AND LOSS AVERSION IN BORSA ISTANBUL

*Semra Demir, Burdur Mehmet Akif Ersoy University*

Irrational investor tendencies supporting behavioral finance theories highlight the crucial role of investor psychology in financial markets. The aim of this study is to identify the tendencies of investors in Türkiye regarding risk management and uncertainty. In this context, the study utilizes the Geopolitical Risk Index (GPR) developed by Caldara and Iacoviello (2022) and the Borsa Istanbul 100 (XU100) index as variables. The analysis covers monthly data from January 2013 to November 2025. To determine the stationarity of the variables, the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests are employed. Given the mixed integration levels of the variables, the non-linear autoregressive distributed lag (NARDL) model is estimated to investigate the non-linear relationship and asymmetric effects between the variables. The calculated F-statistic (5.78) exceeds the upper critical value (5.15) at the 5% significance level; thus, the null hypothesis is rejected, confirming a long-term cointegration relationship. The coefficient for positive shocks related to GPR is found to be positive and statistically significant, whereas the coefficient for negative shocks is insignificant. The findings reveal that the XU100 index responds asymmetrically to geopolitical risks. Positive shocks—representing increases in geopolitical risk—have a statistically significant (at the 5% level) and positive effect on the stock market. Conversely, negative shocks—representing decreases in geopolitical risk—do not exhibit a statistically significant impact. These findings indicate that investors in the Turkish stock market price in bad news (increased risk) by rallying, yet they disregard good news. In behavioral finance, this tendency is known as “negativity bias.” The results suggest that investors focus more on bad news (Negativity Bias) precisely because they fear loss (Loss Aversion). Consequently, they react faster and more strongly to increased geopolitical risk—perceiving it as a threat that often signals a currency shock—and take immediate action. Ultimately, investors utilize the stock market as a “Hedge Against Inflation” to protect their capital from erosion.

**Keywords:** Behavioral Finance, Negativity Bias, Loss Aversion, NARDL Approach

**JEL Codes:** G41, G14, C22, D81

## THE INTERPLAY OF INNOVATION AND SUSTAINABILITY: HOW ESG AND R&D INTENSITY IMPACT FINANCIAL PERFORMANCE IN TURKISH

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In the contemporary global landscape, relying solely on cost leadership is no longer sufficient for maintaining a competitive advantage. Firms are now compelled to navigate a dual challenge: adhering to rigorous sustainability standards while simultaneously driving technological advancement. For emerging economies like Turkey, which shares deep economic ties with the European Union, this pressure is intensified by regulatory frameworks such as the European Green Deal. Consequently, companies must innovate through Research and Development (R&D) to survive, while also improving Environmental, Social, and Governance (ESG) performance to maintain legitimacy.

However, the simultaneous pursuit of these strategies presents a significant financial challenge. Both innovation and sustainability initiatives are capital-intensive and compete for the same finite pool of corporate resources. This forces managers into a “resource constraint dilemma,” where they must balance the immediate costs of compliance and development against uncertain future returns. This research empirically investigates the complex interrelationships among R&D intensity, ESG performance, and firm financial performance—measured by Return on Assets (ROA)—within the specific context of the Turkish market.

The study analyzes a dataset of companies listed on Borsa Istanbul (BIST) over the period of 2020 to 2024. Financial and ESG data were sourced from the Refinitiv database, while R&D expenditure data was manually collected from Turkishtime. The empirical analysis employs two distinct statistical approaches to test the hypotheses. The results from the static model indicate a positive association between both ESG scores, R&D

intensity, and firm profitability. However, the dynamic model, which accounts for profit persistence (the influence of past success), reveals that the most significant determinant of current performance is prior financial performance. These findings suggest that while R&D and ESG are value-enhancing strategies, their impact is not instantaneous. Instead, they function as long-term investments where financial benefits lag behind the initial expenditure. The study concludes that managers and investors should not expect an immediate surge in profits within the same year of investment, but rather view these strategies as essential for long-term viability.

**Keywords:** ESG, R&D Intensity, Corporate Governance, Firm Financial Performance, Turkey

**JEL Codes:** O32, M14, L25

## GLOBAL VS. CONTINENTAL FINANCIAL MARKET INFRASTRUCTURES: A CROSS-JURISDICTIONAL PLS-SEM MULTI-GROUP ANALYSIS OF TRANSACTION COST ECONOMICS

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This study examines how transaction costs arise and differ across Global and Continental financial market infrastructures (FMIs) by applying a cross-jurisdictional Transaction Cost Economics (TCE) framework. Motivated by regulatory and technological transformation following MiFID II/MiFIR, the research analyzes whether the structural determinants of transaction costs vary between internationally integrated stock exchange groups and regionally focused market operators. The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) combined with permutation-based Multi-Group Analysis (MGA) to evaluate how infrastructure transactions, market economics, and infrastructure operations interact in shaping transaction cost outcomes. Two anonymized datasets were constructed from audited financial statements, trading statistics, historical listing archives, and industry factbooks covering 2012–2023. All variables were transformed using natural logarithms to ensure statistical comparability. The PLS-SEM results reveal consistently high explanatory power for both institutional clusters (Global FMIs:  $R^2 = 0.995$ ; Continental FMIs:  $R^2 = 0.975$ ), confirming that the TCE-FMI model effectively captures structural cost dynamics across jurisdictions. The MGA findings identify significant cross-group differences in four of the five hypothesized relationships. Global FMIs exhibit markedly lower sensitivity of transaction costs to trading activity and stronger dependence on market economics, indicating greater scalability and stronger integration into international capital flows. Conversely, Continental FMIs remain more volume-driven, with operational structures that are more sensitive to fluctuations in trading intensity. Only the relationship between infrastructure operations and transaction costs shows no significant difference, suggesting a convergent operational cost architecture for personnel, technology, and overhead resources across jurisdictions. Overall, the study demonstrates that regulatory frameworks and institutional scope materially shape the cost architecture of financial markets. Global infrastructures appear to benefit from broader market reach, automation, and technological maturity, while Continental infrastructures retain a more traditional, activity-dependent cost structure. These results extend Transaction Cost Economics to the context of modern digitalized FMIs and provide a replicable methodological design for future cross-jurisdictional research on regulatory transformation and market infrastructure governance.

**Keywords:** Transaction Cost Economics, Financial Market Infrastructures, PLS-SEM, Multi-Group Analysis, MiFID II / MiFIR Regulation

**JEL Codes:** G18, G28, D23

## STRUCTURAL DETERMINANTS OF PRODUCTIVITY: SECTOR-LEVEL EVIDENCE FROM TÜRKİYE

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The purpose of this study is to investigate how market concentration, capital intensity, labour share, and macroeconomic conditions shape sectoral productivity in Türkiye. Although substantial research highlights the link between market structure and productivity, empirical evidence from emerging economies, particularly at the sector level, remains limited. Türkiye represents an important case due to its structural heterogeneity, frequent macroeconomic fluctuations, and the coexistence of highly concentrated and highly competitive industries. This study aims to fill this gap by providing sector-level evidence based on the Annual Industry and Service Statistics (AISS) for the period 2009–2022. The analysis employs fixed-effects panel regressions. Labour productivity (lnprod) is modelled as a function of market concentration (HHI), capital–equipment ratio (lncr), employment scale (lnemployment), and the adjusted labour share (adj\_ls). Additional models include exchange rate, interest rate, year fixed effects, and a linear time trend. Robust standard errors are clustered at the industry level. The results consistently indicate that increases in market concentration are associated with higher sectoral productivity across all model specifications. Although the magnitude of the HHI coefficient declines when macroeconomic controls or time effects are added, the positive and statistically significant relationship remains highly robust. Capital intensity is another strong and stable predictor of productivity, indicating that sectors employing more capital-intensive production technologies tend to achieve higher efficiency levels. In contrast, the effect of employment size becomes statistically insignificant when macroeconomic shocks are controlled for, suggesting that sector size alone does not drive productivity. The adjusted labour share has a persistent adverse impact on productivity, consistent with the idea that higher-productivity sectors allocate a smaller share of value added to labour. Finally, exchange rate and interest rate dynamics affect productivity in expected directions. The study concludes that productivity differences across sectors in Türkiye are shaped by both structural characteristics, particularly concentration and capital intensity, and macroeconomic conditions. The persistence of the concentration–productivity relationship suggests that market structure plays a significant role in sectoral performance.

**Keywords:** Market concentration, productivity, capital intensity, labour share, panel data analysis

**JEL Codes:** L11, O47, C23

## NO COUNTRY FOR OLD LOANS: THE RISE IN CREDIT RISK WITH GEOGRAPHIC DIVERSIFICATION

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This paper investigates the impact of geographic income diversification of large European banks on credit risk. Using a hand-collected dataset on geographic income shares, this study shows that greater geographic diversification increases the non-performing loans (NPL), a finding that challenges the traditional view that diversification is a stabilizing force. When foreign activities are disaggregated by region, the increase in credit risk is found to stem only from European operations, whereas activities in the rest of the world are statistically insignificant. Furthermore, the analysis identifies regulatory conditions in the home market as the driver of the positive relationship. The results also indicate that the positive association between geographic diversification and credit risk is stronger for banks that rely more on deposit-based funding. Overall, the findings, which remain robust across alternative diversification measures and econometric methods, highlight that diversification within integrated European markets can intensify, rather than mitigate, credit risk, questioning its conventional role as a stabilizing mechanism in the European banking sector.

**Keywords:** Bank business model, income diversification, European banking

**JEL Codes:** G20, G21

## TICK SIZE CHANGE AND INSTITUTIONAL OWNERSHIP: EVIDENCE FROM BIST

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Tick size changes generally do not provide Pareto improvements as they impact investors differently. Conventionally, smaller ticks reduce spreads and transaction costs, though they also reduce market depth since liquidity provision is harmed by smaller profit margin and cheaper undercutting. The reduction in depth leads to higher price impact cost since large order liquidity is affected. Therefore, how institutional investors are affected by tick change has always been a subject of interest. Literature shows that even though investors generally benefit from smaller tick sizes, institutional investors might prefer larger tick sizes. Existing studies mostly examine institutional investors' reaction to tick size changes by focusing on trading activity (volume or turnover). However, investment activity (ownership) represents another dimension of response. Among others, how institutional investors would respond to tick size changes and whether they would change their portfolio preferences remain relatively unexplored questions. Moreover, the ownership of foreign institutional investors who have influence on emerging markets has never been studied. The purpose of this study is to investigate the effects of tick size change on institutional ownership with a special focus on foreign investors. In this context, exploiting the tick size increase on BIST, we examine the ownership of institutional investors through mutual funds, pension funds and foreign investors. Using a difference-in-differences (DiD) model in an event window of 90 working days, we analyze ownership ratios in liquid and illiquid stocks. We take intermediaries as a proxy for ownership and calculate ownership ratios on a daily basis. Excluding the stocks that underwent stock split, capital increase through a rights issue or tick size change through price movements, the treatment and control groups consist of 16 (12) and 29 (114) liquid (illiquid) stocks respectively. The results show that, for liquid stocks, the treatment group experienced a decrease on institutional ownership ex-post across all groups. In other words, all the three types of institutional investors (i.e. mutual funds, pension funds, foreign investors) are inclined to hold smaller tick stocks in their inventory, suggesting that they benefit more from smaller tick when they are investing. This might indicate that they prefer immediacy to large order liquidity, potentially compensating price impact cost through order splitting. The lack of significant change in illiquid stocks may be market-specific as they likely disregarded illiquid stocks. Results could also imply that they have different tick preferences for trading and investing. Further research addressing the trading activity would likely provide more comprehensive evidence.

**Keywords:** Tick size, ownership, institutional investors

**JEL Codes:** G11, G14, G18

## STATISTICAL ANALYSIS OF MONEY LAUNDERING RISKS WITH PUBLIC FINANCIAL DATA SETS

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This study statistically examines money laundering (ML) risk in Türkiye over 2015-2024 using public financial datasets. We conceptualize ML not only as a criminal phenomenon but also as a structural threat to macroeconomic stability, fiscal discipline, and the integrity of financial intermediation. The analysis integrates official data from the Central Bank of the Republic of Türkiye (CBRT), Ministry of Treasury and Finance, Banking Regulation and Supervision Agency (BRSA), Financial Crimes Investigation Board (MASAK), Turkish Statistical Institute (TurkStat), and the Financial Action Task Force (FATF). Two dependent measures are employed: (i) a Money Laundering Index (MLI) constructed from shadow economy, cash intensity, tax revenue shortfall, financial depth, and FATF alignment; and (ii) Suspicious Transaction Reports (STRs) as a system-level signal of risk perception and supervisory capacity. Explanatory variables include FATF Compliance Score, cash density, tax collection gap, GDP growth, inflation, interest rate, financial-institution size, and compliance cost. We estimate correlations and regression models (time-series/panel formulations as permitted by data), supported by robustness checks, to assess directional associations between ML proxies and macro-financial indicators. Results indicate that higher ML intensity is negatively associated with financial stability and fiscal control: greater cash intensity and a wider tax gap co-move with higher STR volumes and MLI values; ML pressures complicate monetary control and are consistent with heightened volatility in interest and inflation dynamics. Conversely, improvements in FATF compliance are associated with lower ML risk proxies and reduced STR intensity after controlling for business-cycle conditions-albeit with non-trivial compliance costs borne



macro-fiscal and sectoral signals; and (3) sustain FATF-aligned reforms while optimizing the distribution of compliance burdens. Limitations stem from proxy measurement (no direct ML dataset), external shocks (e.g., COVID-19), and annual granularity for select variables; hence, results support analytical rather than statistical generalization. Overall, the paper translates public finance data into actionable AML intelligence and a scalable evidence base for policy design.

**Keywords:** Anti-Money Laundering (AML), Illicit Financial Flows (IFFs), Shadow/Informal Economy, Suspicious Transaction Reports (STRs), Public Data Analytics

**JEL Codes:** O17, H26, G28

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## AN ALTERNATIVE AND SCIENTIFIC PERSPECTIVE AGAINST MAINSTREAM (NEOCLASSICAL, NEOLIBERAL, ORTHODOX) ASSUMPTIONS IN TÜRKİYE IN LIGHT OF HETERODOX ECONOMICS

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Neoclassical theories and neoliberal approaches, as well as orthodox monetary economics, are generally accepted as mainstream economics. Latest global (and local) economic and financial developments cannot be well explained by mainstream economic understanding, which does not help to cope with the problems created by itself as well. In Türkiye, especially after the pandemic, many unorthodox economic policies were under criticism by mainstream economists and commentators. Negative real interest rate (interest rate can be the cause of inflation based on Gibson Paradox, Neofisherian, Wicksell-Keynes Model, MMT, etc.), exchange rate protected deposit, macro prudential measures have been told as experimental economics and have no place in economic science, besides it was claimed strongly that returning to orthodox monetary policies by increasing central bank policy rate and tightening monetary policy will attract foreign investments, will solve foreign trade deficit, budget deficit and Turkish Lira depreciation as well as will lead to disinflation. As time passes and those claims have been proven as nonsense and invalid by looking at the macro figures, it was claimed that without tightening fiscal policies, those aims could not be achieved. Historical misconceptions of the mainstream economist can be explained by heterodox economics realities as well as their lack of orthodox and neoclassical knowledge. Bernanke et al. (2004) found that the policy rate has no impact on inflation in supply and energy inflation; hence reminds there are types of inflation. Inflation is not always and everywhere a monetary phenomenon, as Friedman suggested, surprisingly (for newcomers) admitted by him in his FT interview that central banks cannot control money supply. Because money is created by commercial banks when they open loans, which means loans are not provided after deposit taking, instead, vice versa has been proved, even Keynes in his book of 1930. Hence, claiming that wages, credit cards, or consumer loans (i.e. money supply) are the cause of inflation every time is not valid. Besides, government spending can be disinflationary under supply-side economic policies, and if productivity is achieved. Such arguments of mainstream economists, in general, are based on their confusion about correlation and causality. Many articles also show that the causality is two-way in these variables. On the other hand, an exchange rate protected deposit is a Turkish Lira option (DCD) product with one-way foreign currency, which should not be calculated among dollarization and the losses created by it in the central bank balance sheet are transitory until profit happens and does not affect its policies, as well as those losses are not paid by citizens' taxes. Heterodox new theories admit that any government borrowing with its local currency will not default (Kelton, 2020). Optimal foreign exchange reserves of central banks, as per Guidotti and Greenspan (1999), are problematic if government debts cannot be rolled over; otherwise, only interest rate cost will happen. Central bank swaps could be accepted under this rule, and since FX reserves excluding swaps are not valid under the IMF IRFCL Guidelines (2013), such an argument of the mainstream is also not scientific. Finally, experimental and neoliberal economics are under B5 Heterodox Approaches JEL Codes in AEA, which again mainstream economists in Türkiye failed to be aware of in general, as they failed to be aware of the existence of Mises's "Epistemological Problems of Economics" book (1933) because they also made fun of the word "epistemology". As the main conclusion, those assumptions on the economy and its impacts should be investigated in detail.

**Keywords:** Heterodox, Mainstream, Orthodox, Neoliberal, Neoclassical, Economics, Finance, Swap, Central Bank, Inflation

**JEL Codes:** B13, B25, B52, E12, E13, E42, E44, E51, E58, E62

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