

# The Attitude and Willingness of Croatian Citizens to Adopt Cryptocurrencies

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## Abstract

As a result of the Great Recession, one of the most severe economic and financial crises, a worldwide distrust arose, not only in financial instruments, but also in the financial system as a whole. In the absence of trust in the banking system, the expansion of computer technologies initiated the development of an alternative and innovative concept of value known as cryptocurrencies. Since the implementation of the first cryptocurrency – Bitcoin - in 2009, the trend of increasing openness to this new way of doing business and generating profit has been observed worldwide. The aim of this paper was to investigate the acceptance of this decentralized way of digital exchange by Croatian citizens. For this purpose, a survey was conducted among a sample of 506 randomly selected individuals. The data obtained from the survey was analysed using descriptive and non-parametric statistical methods. As expected, statistically significant differences were found in the attitudes of the respondents in relation to their age, but also in relation to their gender. Furthermore, respondents were asked an additional set of questions about the intensity and reasons for their (non-)use of internet banking. This segment was analysed due to the same conditionality: a necessary level of digital literacy. The analysis of the data confirmed the initial hypothesis, which assumed that Croatian citizens have a relatively satisfactory level of digital literacy and that this cannot be considered as an obstacle to more intensive use of cryptocurrencies. This has raised questions about other influencing factors that should be investigated in future research.

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**Keywords:** cryptocurrency, digital literacy, attitudes, Croatian citizens, survey

**Jel codes:** G41, G11, O33

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## Governmental Impact Bonds in Lieu of Asset-Based Taxation to Shore up and Stabilize Government Finances

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### Abstract

This paper proposes a tax reform designed to stabilize government finances by circumventing loss aversion. The requirement of asset conversions to holdings in special government bonds in lieu of increased taxation, particularly capital gains taxation, is analyzed for feasibility. These bonds would return a concessionary interest rate, designed to meet retail financial market demand for impact notes, which is estimated. The objective of these Governmental Impact Bonds conversions would be to transform transfers to governments from households being experienced as emotional losses and material decreases in one's financial portfolio value via taxation, to neutral experiences and net-neutral conversions of appreciated assets to high-grade bond holdings. With reporting generated by the government on the social and economic impact of these investments – like those provided in philanthropy, impact investment, and corporate social responsibility – these conversions could potentially register as positive emotional experiences. Other benefits of this redesign in the tax code explored include: 1. Benefits to individual portfolio stability and capital preservation, 2. Macroeconomic growth with increased governmental spending and investment, 3. Reducing systemic financial risk, 4. Reducing tax evasion, 5. Addressing maturity mismatches in government tax collection and expenditures, 6. Reducing government costs of poor social and economic outcomes due to low and insufficient investment and public spending, and 7. Increased performance on a variety of metrics capturing national well-being. Additional measures to address inflation and liquidity concerns are also explored. Similar use-cases for such vehicles in other economies issuing reserve currency debt and at Multilateral Financial Institutions are discussed as are lessons from previous social impact-type bond issuances.

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**Keywords:** Taxation, Government Finance, Systemic Risk, Social Impact, Industrial Policy

**Jel codes:** G11, G18, G41, H21, H26, H31, H50, H60, O20, O38

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## The Reflection of Artificial Intelligence on the Information Content of the Extended Audit Report (A Comparative Study)

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### Abstract

The objective of the research are to study and analyze the extent to which the use of artificial intelligence techniques reflects the information content of the Extended auditor's report, and to show the benefits of using artificial intelligence in auditing operations, which is reflected in the quality of the audit, as auditing operations based on the use of artificial intelligence techniques lead to accuracy and speed in analyzing all data and documents, in addition to assisting auditors through the conclusions reached from analyzing and interpreting data during artificial intelligence applications in expressing their opinion and professional judgment in many areas that require professional judgment, and thus this is reflected in the quality of the information content of the Extended auditor's report. The researchers used the comparative analytical approach by comparing what is included in the traditional auditor's report with the expanded report according to Standard ISA 700 and related standards by using artificial intelligence techniques. The researchers reached a set of conclusions, namely that the use of artificial intelligence techniques during the auditing process increases the quality of the information content of the Extended auditor's report, through what artificial intelligence provides in terms of analyses and interpretations that support his professional opinion, and that the use of artificial intelligence techniques increases the speed and accuracy of verifying calculations and detecting fundamental errors and part of fraud and knowing the extent of compliance with the approved framework for preparing financial statements.

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**Keywords:** Artificial Intelligence, Extended Report, Information content

**Jel codes:** M42, O33, M15.

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## Analyzing Opinions of Twitter (X) Users on Artificial Intelligence in Education Through Text Mining Methods

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### Abstract

The use of artificial intelligence in the education sector has been gradually increasing over time. It is believed that the use of artificial intelligence in this sector will bring various conveniences and benefits for both students and teachers. This study aims to determine individuals' views on artificial intelligence in education. Opinions shared by individuals on Twitter (X) were used as the primary basis. Tweets obtained through natural language processing methods were analyzed to identify perspectives on the topic. For this purpose, word representation methods cbow and skipgram from the word2vec approach were used. The analyses were conducted using the Python programming language. According to the results obtained, it was concluded that the use of artificial intelligence in education is associated with digital transformation and that some countries are more focused on this issue. In addition to these analyses, the K-means algorithm was used to divide the dataset into three clusters, and the topics and keywords mentioned in these clusters were examined. The dataset was further explored using topic modeling to analyze the words occurring within five separate topics. The findings indicate that AI plays an important role in education in countries such as Korea and India. Educational institutions need AI-based programs to develop digital skills and aim to create personalized learning processes through artificial intelligence.

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**Keywords:** Education, AI, nlp, word2vec

**Jel codes:** C55, C88, I20, L86

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## Sustainable Supply Chains in the Middle East: Challenges, Opportunities, and Strategic Solution

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### Abstract

Global industries especially in areas such as the Middle East, have seen the need to focus on the issue of supply chain sustainability because of the peculiar difficulties that are there. This paper explores the numerous and interrelated factors that explain why environmentally sustainable supply chain initiatives have not been easy to implement in the context of the Middle Eastern region. Consequently, the paper carries out a review of the literature to ascertain historical and recent global and Middle Eastern SCB problems. It highlights areas of significant lack of scholarly and practical studies on this subject. It looks at how to understand and address such challenges in a methodological manner by comparing global and regional approaches in addressing the challenges to find effective means. This paper also offers tangible approaches on how the above challenges can be overcome with emphasis on technical innovation, policy reviews, and participation of stakeholders. Thus, the results of the debate show that each should work together, and the comparisons made with previous studies reinforce that need. In the conclusion, the author appeals to the managers and the governments to take measures towards the improvement of sustainable supply chain management strategies calling for collective action towards sustainability.

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**Keywords:** Sustainable supply chains, Middle East, Environmental sustainability, Challenges, Strategic solutions

**Jel codes:** O16, O30

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## Keys to Happiness: Exploring the Determinants of Job Satisfaction in Private Schools of Afghanistan

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### Abstract

The main objective of this research is to analyze the determinants of job satisfaction among teachers in private schools in Afghanistan. This study utilizes the Minnesota Satisfaction Questionnaire (MSQ) as its foundational framework. The investigated factors include achievement, recognition, advancement, compensation, working conditions, job security, and coworker relationships. Furthermore, job satisfaction is considered a latent variable. Data were gathered through a thoroughly structured and randomly distributed questionnaire, which included demographic information (age, gender, education, and work experience) as well as inquiries related to the research variables. The sample consisted of 206 respondents drawn from the target population. The collected data are tested for reliability and consistency before further analysis. Confirmatory Factor Analysis (CFA) was employed to assess the data and derive conclusions. The findings reveal that all the examined factors significantly contribute to job satisfaction in the studied private schools. The current study has theoretical implications due to the fact that the findings are achieved through accepted scientific research methods. In addition to that, it has practical implications as well, because the managers in educational institutions and other related stakeholders can make informed decisions based on the findings of this study.

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**Keywords:** Job Advancement, Working Condition, High School, Job Security.

**Jel codes:** M10, M12, M54, M19

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## Deep Trade Agreements: Enhancing Bilateral Global Value Chain Integration

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### Abstract

This study investigates how the depth of preferential trade agreements (PTAs) influences bilateral participation in global value chains (GVCs), a key component of modern economic interdependence. Specifically, it aims to examine whether deeper PTAs foster greater integration into GVCs and how this effect differs across various types of bilateral relationships (North-North, North-South, South-North, and South-South). By analyzing a robust dataset of 75 countries between 1995 and 2019, the study applies an enhanced gravity model with the Poisson Pseudo-Maximum Likelihood estimator to address data heterogeneity and zero trade flows. This article contributes to the literature by offering a detailed analysis of how PTA depth influences GVC participation, utilizing advanced PTA depth indices, refined GVC measures, and the largest database analyzed to date. The findings confirm that deeper PTAs significantly enhance GVC integration, particularly in backward linkages. No significant differences were observed between developed and developing countries in PTA effects. However, only North-South and South-North relations showed positive and significant impacts, suggesting that developing countries benefit more from deeper agreements in trade with developed nations, while South-South relations show more limited gains. Provisions related to investment, services, and intellectual property rights are critical drivers of GVC trade, with investment clauses having the strongest effect.

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**Keywords:** GVC, deep integration, PTA, gravity model, PPML.

**Jel codes:** F13; F14; F15; F63.

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## The Influence of Behavioral Factors on Decision-Making among Female Entrepreneurs in Alagoas/Brazil

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### Abstract

The complexity of emotional, cognitive, and rational aspects involved in the decision-making process has been the subject of study in various fields of knowledge, especially Behavioral Economics. This article aims to analyze the behavior of women entrepreneurs in the state of Alagoas, Brazil, regarding planned decision-making in light of Behavioral Economics. Data was collected through an online questionnaire, focusing on exploratory and descriptive analyses, with company managers, containing questions about sociodemographic aspects, loss aversion, risk bias, degree of commitment, experiences, and support networks. For data analysis, logistic regression was performed to identify the variables that affect the propensity for planned decision-making by entrepreneurs. The results showed that gender, age, income, education, children, level of commitment, loss aversion, framing effect, and gender stereotype are significant variables in this model. It was found that, regarding the probability of planned decision-making, companies with female management are more likely to make planned decisions than companies managed by men. This confirms the points made by Behavioral Economics about the existence of several aspects that demonstrate the different choice processes of men and women. Furthermore, the research findings suggest that women entrepreneurs need expanded public policies, especially concerning gender stereotypes.

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**Keywords:** Female Entrepreneurship, Micro and Small Businesses in Alagoas./Brazil, Behavioral Economics, Decision Making.

**Jel codes:** D91, L26, J16

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## The Effect of Business Income Tax Collection to Economic Growth in Albania: The Importance of Accurate Financial Statements

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### Abstract

This paper aims to explore the critical role of accurate financial statements in the context of business income tax and its subsequent impact on economic growth in Albania. Corporate income tax constitutes a significant source of government revenue, thereby influencing economic development and the provision of public goods and services. Accurate financial statements are essential for determining taxable profits and, consequently, the amount of tax levied. While previous research has examined the effects of accounting manipulation on financial statements, this study adopts a macroeconomic perspective. It is acknowledged that businesses aim to maximize profits and minimize tax liabilities; however, this microeconomic strategy may have broader implications. If a substantial number of businesses engage in tax avoidance, the resultant reduction in government revenue could adversely affect public service provision. This study will analyze various time periods to assess how the collection of businesses income tax impact economic growth, emphasizing the necessity of precise financial reporting for effective fiscal policy.

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**Keywords:** financial statements, tax evasion, economic growth, income tax, informal economy

**Jel codes:** M41, M42, M48

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## Forecasting Yield Curve Parameters in the Croatian Financial Market Using Different Time Series Models

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### Abstract

Forecasting the yield curve in both developed and less developed financial markets has proven effective using the Nelson-Siegel model, which involves forecasting the yield curve parameters: level, slope, and curvature. This research examines the possibility of forecasting these parameters in the Croatian financial market using random walk, autoregression, and vector autoregression models. Additionally, a more sophisticated forecasting method, regime switching, was applied to test the existence of regimes in the parameters and their potential impact on improving forecast accuracy. The analysis covered the period from April 2006 to December 2020, using estimated parameters for level, slope, and curvature. Since the official currency in Croatia was the Kuna until the end of 2022, the analysis was conducted on a sample of bonds with and without currency clauses. The forecast was based on using expanding window method. The forecast for the level, slope and curvature parameters was made for 1, 6 and 12 months out-of-the sample, and a total of 97 out-of-sample forecasts were made. Following the example of most previous researches, the root mean square error (RMSE) was calculated to test the accuracy of the forecast by a certain model. The results indicated that the regime-switching autoregressive model was the most suitable for forecasting the yield curve parameters, regardless of the out-of-sample forecasting horizon or the bond sample. The smallest errors were obtained for the level parameter, followed by slope, and then curvature, which aligns with expectations. Forecasting the parameters of the yield curve with the model that produces the smallest errors results in the most precise forecasting of interest rates, which can serve as an indicator of macroeconomic movements.

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**Keywords:** Yield curve forecasting; Croatian financial market; Regime switching model

**Jel codes:** C53; E43; G17

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## Entropy-Ranking Portfolios

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### Abstract

We present a new method for computing portfolio weights based on rankings and the method of maximum entropy. The method works on the premises of a data- consistent quantization of returns that allows us to work with discrete random variables rather than continuous ones, and with the cross-sectional information of the continuous returns maintained in their corresponding rankings. We work in a model-free context, with minimal assumptions, avoid the need for moment or covariance estimation and easily handle portfolios of any dimension. The rankings of the returns are used in the method of maximum entropy and predicted rankings based on a probability distribution are obtained. These predicted rankings are then used in constructing the final portfolio weights. Our method offers a number of advantages, compared to other existing methods: simplicity of application, data-consistency, interpretability and performance enhancements. Our empirical application illustrates these advantages suggesting that, at a minimum, the method can easily be used along with standard ones either as a stand-alone application or as a stronger benchmark in performance evaluation of different portfolio selection methods.

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**Keywords:** asset allocation, maximum entropy, portfolio weights, rankings

**Jel codes:** C10, C58, G10, G11, G12

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## Preparing for the Worst: Household Behavioral Responses to Anticipated Risk of Instability

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### Abstract

The economic decision-making behavior of households is intricately linked to their beliefs and expectations regarding future financial and economic stability. Perceived risk of financial consequences, in case of marriage dissolution, may potentially affect intra-household decisions of spouses, thereby, reshaping their behaviour. In this paper, I leverage the 2008 alimony reform in Germany as a quasi-natural experiment to investigate the savings and labor market behaviour of legally married couples when they anticipate risk. Uncertainty around spousal maintenance — metaphorically, marriage insurance — may act as an exogenous shock to the perceived risk of financial instability from a potential divorce, thereby affecting their present behavior. Using retrospective marital histories and rich panel data from German Socio-Economic Panel (GSOEP), and employing the static and dynamic Difference-in-Difference method, I have found significant increase in labor supply of economically weak spouses both at extensive and intensive margin. However, behavioral responses significantly vary depending upon dependency on spousal maintenance, gender roles, income distribution, age cohort and presence of children.

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**Keywords:** Household economics, Savings Behavior, Labor supply

**Jel codes:** D14, D15, G11, G51, J12, J16, K36

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# The Transmission Mechanism of Monetary Policy and Central Bank Digital Currency: A New Monetary Order

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## Abstract

Over the last decade, monetary policy frameworks and instruments have undergone significant modifications. In this regard, Central Bank Digital Currency (CBDC) has emerged as a new money invention to offset the advancement of cryptocurrencies and maintain central ability to distribute cash as a common good. This study critically reviews the existing literature by examining how the adoption of CBDC can change monetary policy transmission channels. We found that CBDC can disintermediate the conventional banking industry and produce inflationary pressure through the money supply unless central banks adopt suitable regulatory frameworks to facilitate a seamless transition. On the other hand, a well-structured CBDC can encourage increased financial inclusion, resulting in a favorable outcome on the interest rate pass-through of monetary policy transmission. Meanwhile, since interest-bearing CBDC can affect bank reserves, deposit rates and lending policies, it can also have an impact on the credit channel. However, the exchange rate and expectations channels are unlikely to be affected. While CBDCs may have an impact on these channels, comprehensive empirical evidence is still limited, and the extent of their influence will depend on various factors, including the design, adoption, and integration of CBDCs within the existing financial system.

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**Keywords:** Digital currency, inventions, transmission channels, industry.

**Jel codes:** E52

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## A New Look at Financial Networks, Contagion and Crises

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### Abstract

We present a new framework that solves the clearing payments of interconnected banks in financial networks. Our method tracks bank funds rather than their payments and deviates from the industry standards of fixed point theorem. Two very important contributions arise from our method. First, a key concept of asymmetry is introduced as a (counter)measure of default risk. We show that this measure should be used to create customized capital requirement ratios rather than one-size fits all values like Basel III. In fact, simulations show that default rates, payment losses are much reduced with the new requirement ratios, which incidentally sum to lower levels than the simple Basel III benchmark. In addition, asymmetry allows us to identify the direction of contagion and the flow of funds in the network. Second key claim of our study is the “full and costless” elimination of payment defaults in networks. As our suggested strategy illustrates how payment risk in financial networks can costlessly be eliminated without the need for any equity, capital requirements should hinge on the credit risks of banks.

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**Keywords:** Financial Networks, Systemic Risk, Basel III Requirements, Default Prevention

**Jel codes:** G32; G38

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## Safeguarding Public Funds: Evaluating the Professionalism and Objectivity of Ghana's Public Auditors

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### Abstract

The effective management and oversight of public funds are essential for promoting good governance, economic development, and public trust in Ghana. As the primary watchdog over government finances, public auditors play a crucial role in ensuring the transparent and accountable use of taxpayer resources. However, concerns have been raised about potential mismanagement and lack of transparency in the utilization of public funds in Ghana. The professionalism and objectivity of public auditors in Ghana are crucial for the integrity of the audit process and the credibility of audit findings. However, concerns about their independence and impartiality arise due to political pressures, conflicts of interest, and resource constraints. While existing studies have examined the general landscape of public financial management in Ghana, there is a paucity of research specifically focusing on the professional conduct and objectivity of public auditors. This study aims to address this research gap by providing empirical insights into the factors influencing the independence and impartiality of public auditors in Ghana. Deploying a qualitative research approach, the study evaluates Ghana's public fund auditing practices, assesses the professionalism and objectivity of auditors, identifies factors affecting their independence and impartiality, and proposes recommendations to enhance public trust. Based on the findings, the study proposes several recommendations to strengthen the professionalism and objectivity of public auditors in Ghana. By addressing the issues of professionalism and objectivity among public auditors, the findings contribute to the ongoing efforts to improve financial management, transparency, and accountability in the public sector.

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**Keywords:** Ethics; Impartiality, Independence, Transparency; Public Sector Auditing

**Jel codes:** H83;G2

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# Mapping the Landscape: A Bibliometric Analysis of Machine Learning and Deep Learning Applications in Sustainable Finance

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## Abstract

The conjunction of sustainable finance and emerging technologies like Machine learning and Deep learning has blossomed in the last few years and ushered in a new era of sustainable investment due to its potential for high cost savings, developing models for climate risk assessment and helping investors making decisions aligned with sustainable goals yet, existing reviews remain limited. Due to the existing dearth and limitations of research on ML and DL adoption within the realm of sustainable finance a comprehensive overview of this field is needed. To bridge this gap the paper seeks to conduct a bibliometric analysis of 459 English articles and reviews published between 2014 and 2024 collected from Scopus database. In this process, the study elucidates the most impactful articles, primary contributing journals, influential authors, institutions, and countries. It also scrutinizes the methodological preferences and diverse research contexts prevalent in sustainable finance. The findings have been visualized through graphs and tables that were derived from co-occurrence, co-authorship, and co-citation analyses conducted using the VOSviewer tool. The results show that DL architectures, particularly neural networks, have exhibited remarkable process in recognizing intricate patterns within unstructured data, fostering the creation of predictive models for climate risk assessment, renewable energy forecasting, evaluating ESG (Environmental, Social, and Governance) performance metrics and sustainable development impact analysis. This study will help investors, business managers and financial institutions to revolutionize decision-making processes and promote the allocation of capital towards environmentally responsible projects.

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**Keywords:** Machine Learning - Sustainable finance - SDG - Artificial Intelligence - ESG

**Jel codes:** F01

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## Identifying Drivers of Intra-EU Trade: An Empirical Study Using Gravity Model

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### Abstract

The purpose of this paper is to identify factors that influence bilateral trade flows among European Union countries. We apply a cross-sectionally dependent panel gravity model to data spanning 24 years, from 1999 to 2022, covering 756 country-pairs among 28 EU member countries, including Great Britain. To assess the drivers of trade from each EU country, we employ the standard gravity model, the gravity model including multilateral resistance as well as the PPML model.

More than two-thirds of EU27 exports are to other EU member countries. More than 90 percent of this intra-export occurs among EU15. Therefore, intra-trade is of fundamental importance for the EU. The analysis considers both geographical and economic factors such as GDP, distance, population, capital, and land endowment, as well as dummy variables for common language, border, and currency. Therefore, among other causalities, the gravity model tests whether changes in intra-EU trade dynamics are due to different rates of economic growth of member states and whether trade is more intensive among countries with similar rates of capital and land endowment.

Empirical evidence suggests that intra-regional trade is more intense among more productive economies, in economies with higher capital intensities, as well as from countries with higher GDP and higher populations. The findings show that the impacts of both distance and common language on trade are significantly negative, whereas the impact of a common border and euro is positively significant. The countries that have introduced the euro, trade more intensively with each other reducing bilateral trade resistance meaning that the trade integration among Eurozone countries is higher due to the elimination of exchange rate uncertainties and transaction costs.

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**Keywords:** European Union, export, gravity model, Internal Market

**Jel codes:** F14, F15, C33

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## Half Drift Forecasting for Random Walks

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### Abstract

We derive a new forecast function for forecasting random walks. The resulting forecast eliminates the a priori average forecast bias and minimizes the a priori average mean-squared error, the average being taken between a driftless and a drifting random walk process. We derive explicit conditions for such “optimality” for this new forecast, show that this is not affected by the presence of unequal variances of the corresponding data generating processes and derive the feasible forecast function, after the estimation of the drift parameter. This new forecast function takes a surprisingly simple form, that of a random walk with half-drift, which makes the computation easy and expedient to use in any forecasting analysis. We explore the efficacy of the proposed approach in an empirical illustration and with simulations and find that, despite its obvious simplicity, the half-drift forecast easily and consistently outperforms its natural benchmarks, the naive and naive with drift forecasts. We also illustrate how this idea can easily be applied in a bivariate setting and how it can assist in uncovering causality in forecasting. Our theoretical and empirical results, combined with the immediate applicability of the method, recommends its immediate use in applications, as it can comfortably stand both on its own as a forecasting method but also, and possibly more importantly, as an improved and more robust forecasting benchmark.

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**Keywords:** average forecast, average MSE, forecast combination, half-drift, random walk

**Jel codes:** C22, C51, C52, C53

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## Causality Channels between Corruption and Democracy: A Threshold Non-Linear Analysis

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### Abstract

This paper focuses on three main limitations of the literature regarding the impact of corruption on democracy. These limitations relate to the distinction between causality and correlation, the components of democracy underlying the impact and the shape of the relationship between corruption and democracy. The study uses recent developments in panel data causality econometrics breaks democracy down into different components and examines the types of the relationship. The results show that Control of Corruption leads to a higher quality of democracy. Regarding the estimated coefficients of the components of democracy, they are significant at the 1% level and their signs and levels are in accordance with expectations except in a few cases. Overall, the results add to the literature in three respects: i). corruption has a causal effect on democracy and, hence, single equation estimation may pose a problem, ii) the assumption of the linearity of the relationships between control of corruption and democracy is also possibly problematic and iii) the channels of transmission of the effects of corruption on democracy can be diverse. Disentangling them is useful from a policy perspective.

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**Keywords:** Corruption; Governance; Causality; Threshold models

**Jel codes:** D73 ; G3 ; O47 ; Q01 ; C24

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## Return of Premium Life Insurance Taxation in Türkiye

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### Abstract

In recent years, life insurance companies have introduced a new type of policy: return of premium life insurance, or ROP life. In most cases, the premiums paid for life insurance belong to the insurance company and are not returnable. The unique feature of ROP life insurance policies is that the premiums paid are returned to the insured on the policy expiry date if the insured survives. When you take out a ROP life insurance policy for a set period, two possibilities are taken into account. In the event of death within the specified term, a predetermined death benefit is paid to the heirs. Secondly, if death does not occur within the specified period, the premiums paid by the insured are refunded. This type of life insurance offers the most important advantage: if the insured survives the specified period, the premiums paid during that period are refunded. This feature makes a ROP life insurance policy a savings account that also provides insurance. The fact that the premium returned at the end of the period is not subject to income tax is an additional advantage for this savings account. However, this policy is more expensive than other term life insurance policies because it insures the risk of death and refunds the premiums when this risk is not realized. You can get the same death coverage as you would with a term life insurance policy by paying two or three times the premium. Furthermore, the high surrender charges in the event of cancellation of a ROP life insurance policy mean that the full premium can only be recovered at the end of the term, making the savings disadvantageous in the short term. It should also be noted that, as a rule, there is no return on the amount saved.

In Türkiye, premiums paid for ROP life insurance can be deducted from the tax base within certain limits (15% of income and the annual minimum wage) and the returned premiums are not subject to income tax. High premiums provide a high level of tax advantage. The option of deducting premiums paid from the tax base may lead taxpayers to opt for a more expensive product in order to obtain a higher tax advantage. On the other hand, allowing the deduction of paid insurance premiums from the tax base implies that this expenditure is made with pre-tax income. In this respect, the tax-free treatment of refunded premiums would allow this income to be completely tax-free.

**Keywords:** insurance premium, income tax, ROP life

**Jel codes:** H24, K34

## What are the Effects of Gender Legislation on Board Committees? Evidence from France

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### Abstract

This study investigates the impact of the French gender quota law on the composition of board committees, specifically monitoring and advisory committees, within firms listed on the SBF 120 index from 2005 to 2017. This comprehensive analysis reveals that the 2011 gender quota law significantly increased female representation in both committee types, with a more substantial effect in monitoring committees. The law's second stage had a more pronounced impact on committee composition. Our findings indicate that boards anticipated the law by increasing female appointments prior to its implementation. However, female members in monitoring and advisory roles did not significantly influence decision-making processes before or after the law's enactment. These results remain consistent across various domains, including corporate social responsibility, innovation, and growth strategies.

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**Keywords:** gender diversity, gender quota, advisory committee, monitoring committee, law stages.

**Jel codes:** G30; G39

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## The Effect of Income on the Consumption of Soft/Sugared Drinks to Mothers in China

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### Abstract

The topic of the relationship between the energy density and personal economic status is a prolonged question in health economics study. There are numerous papers focusing on this issue. However, with a majority of them seeking the correlation between income and food consumption, few has mentioned another carbohydrate resource, soft/sugared drink. In our research, we are trying to test the effect of individual income on personal soft/sugared drink assumption, using the sample of mothers in modern China. An instrumental variable method is employed in our research, when we define whether the mother's first-born is male as the instrument. Our research finds that there is no significant effect of income on soft/sugared drink behaviors (including drink soft/sugared drink or not and the frequency of drinking soft/sugared drink) for these mothers.

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**Keywords:** consumption, soft drink, China

**Jel codes:** A10, I10

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## Corporate Financial Distress in Albania: Evaluating Traditional and Machine Learning Classification Methods

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### Abstract

This article investigates the effectiveness of various classification techniques in predicting financial distress for Albanian firms. The dataset includes 16 financial ratios from the financial statements of 187 largest non-financial businesses operating in Albania covering the period from 2011 up to 2014 and ranked by 2014 revenues. The methods used in predicting financial distress are Logistic Regression, Ada Boost, Naïve Bayes, Decision Trees, Support Vector Machine (SVM), Neural Network, and Random Forest. To compare the effectiveness of the models applied we used Classification Accuracy (CA), Confusion matrix, Area Under the Curve (AUC), F1 score, Precision and MCC as evaluation criteria. The results demonstrate that the superior predictive ability of ensemble methods, with random forest achieving more accurate forecasts as compared with other methods, followed by Ada Boost. Neural network models struggle in performance, based on the results of this research, due to small and imbalanced datasets.

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**Keywords:** Financial Distress, Prediction Accuracy, Machine Learning Models

**Jel codes:** G33, C58, C53, C45

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## Real Estate and Systemic Risk in the Banking System

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### Abstract

Systemic risk in the banking system has been the focus of financial and economic research for several decades because it can cause dangerous, uncontrollable consequences for the whole financial system that cannot be mitigated through traditional macroprudential policy tools. European Systemic Risk Board warns about high European banks' exposures to risks from the real estate sector and concludes that systemic risk to financial stability remains severe. In this paper, we develop a new non-linear dynamic model that sheds more light on the root causes of rising and amplifying systemic risk in the banking system, which is deeply connected with the processes of the real estate market. We consider in detail and modelling the emergence of an endogenous self-enforcing spiral of systemic risk amplifying due to a mechanism of specific interactions between the real estate sector, including households and construction companies, the banking system, and the whole economy that we call “collateral accelerator.” Our non-linear dynamic model of Lotka-Volterra type helps to find that in a homogeneous banking system, the collateral accelerator mechanism operates more intensively, leads to a structural shift that distorts a regular supply and demand adjustment in the real estate market and amplifies the buildup of systemic risks in the banking system. We determined the key drivers that can impact the collateral accelerator's dynamics. Our paper's results can help strengthen banks' strategic management and improve macroprudential regulation of systemic risk in the banking system.

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**Keywords:** Systemic risk in banking system, real estate, dynamic model

**Jel codes:** E3, E44, G01, G21, A12, B16, B22, C02

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## Assessing the Causal Impact of Culture on Socio-Economic Variables in European Countries

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### Abstract

Despite the growing attention to the impact of culture on socio-economic indicators, there is a lack of causality evidence. Scholars have noted that cultural values or norms, as well as vibrant cultural environment can have a positive impact on GDP growth, labour productivity, the attraction of human capital and the improvement of human well-being. However, the issue of endogeneity is not thoroughly debated. Not only can culture impact economic development, but socio-economic environment also affects the cultural indicators. Therefore, it is essential to identify the causal effects of culture. This article aims to assess whether culture has a causal impact on socio-economic variables. The Granger procedure is utilised to evaluate causal relationships, describing the cultural environment with a comprehensive set of 45 cultural indicators across 30 European countries. This enables the comparison of the relationship between culture and socio-economic variables using the same method across different countries. Additionally, cultural indices are constructed. The research is extended by employing a panel VAR model. The key finding of this article demonstrates a causal impact of culture on socio-economic indicators, confirmed by both the Granger procedure and panel VAR estimations.

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**Keywords:** cultural economy, economics & development studies, Granger causality, panel VAR

**Jel codes:** Z1, C32, E71

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## Effect of International Experience on Under Graduate Agricultural Students

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### Abstract

The paper examines the effect and outcomes of the students' international experiences under the Institutional Development Plan (IDP) at Acharya N G Ranga Agricultural University (ANGRAU), Andhra Pradesh, India. The responses of 121 interns to an online survey are independently estimated and applied to the employment, academic, and civic impact models using variance-based partial least squares structural equation modelling. The personal, social, academic, employment and civic impacts of international experiences are detailed in the study. The results showed that the IDP grant has a statistically significant impact on academic outcomes. Having a mentor has a statistically significant association with positive personal and social impacts in academic, employment and civic impact models. The personal and social impacts have a full mediation effect on the relationship between student intern/internship characteristics and academic, employment, or civic outcomes. In the context of globalization, it is important to comprehend the effects of international experience/internship at undergraduate level in curriculum development for the future social, intellectual, professional, and personal lives of the internees. The academic institutions that facilitate global experiences and foreign host institutions that offer internships can gain from the study to create internships that benefit both host and student populations.

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**Keywords:** Agricultural Education, Experiential Learning, Structural equation model, Institutional Development plan

**Jel codes:** I23, Q00

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## Micro Origins of Aggregate Fluctuations in a Network Economy: Liquidity Issue

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### Abstract

This paper investigates liquidity dynamics in financial and monetary markets, particularly within a network economy, emphasizing the importance of understanding liquidity for financial stability and economic health. The research utilizes the Structural Vector Autoregression (SVAR) model and employs both Cholesky decomposition and B-model identification to analyze causal relationships and capture complex dynamics in the US economy. The study highlights the significance of disruptions in debt payments by firms and the role of the money market in financing current liabilities. The findings also reveal the crucial role of the quick ratio and network effect in the economy's business cycle, compared to other variables. Robustness checks using different identification methods and network measures validate the reliability of findings. Policymakers, regulators, and market participants can utilize these insights to manage liquidity risks effectively and establish resilient frameworks, promoting market stability and overall economic well-being.

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**Keywords:** Liquidity, Business cycle, aggregate volatility, SVAR, input-output linkages, intersectoral network

**Jel codes:** E32, E40, E50, E60, G20, G33.

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## The Transformation of the Tourism Industry

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### Abstract

As the world cautiously steps into the post-pandemic era, it is crucial to assess the evolving dynamics within the tourism sector, which has historically been a significant contributor to global economic growth and cultural exchange. For many economies the tourism sector is a determining factor of economic and social stability. This paper examines the emerging trends within the tourism industry as it navigates recovery and adaptation in the post-pandemic landscape. Also, at the paper are analysed the shift towards domestic tourism, the increased emphasis on sustainable and health-oriented services, the integration of advanced technologies, and the strengthening of resilience and preparedness strategies. The findings suggest that the tourism industry is undergoing a transformation, characterized by a more profound commitment to sustainability, resilience, digital integration, and community engagement. These trends not only facilitate recovery but also reposition the sector for future growth and challenges. The paper contributes to the literature by providing insights into how the tourism sector can leverage these trends to enhance its adaptability, competitiveness, and sustainability in the face of ongoing global uncertainties.

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**Keywords:** Tourism, transformation, competitiveness, development

**Jel codes:** O10, Z30, Z32

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