BOOK OF ABSTRACTS

https://imaef.econ.uoi.gr/

University of Ioannina

Department of Economics

ISSN: 1791-9800

Table of contents

Foreword

We are pleased to write this Foreword to the Proceedings of the Ioannina Meeting on Applied Economics and Finance 2024 (IMAEF 2024), held in Argostoli, Kefalonia, Greece, from June 17-19, 2024. This marks the ninth year of the International Meeting on Applied Economics and Finance, organized by the Department of Economics at the University of Ioannina. IMAEF provides an international forum for exchanging ideas on applying theory to various issues in economics and finance.

Since the last meeting, the world has continued to face the war in Ukraine along with a new war in the Middle East, both of which involve many countries and organizations. These events, coupled with the previous public health and economic crisis due to the COVID-19 pandemic have exacerbated the economic situation created by the pandemic.

There is an urgent need to design and implement policies for growth resurgence, focusing on the young generation and other vulnerable populations, as well as building buffers and mechanisms to enhance financial resilience. Additionally, the improvement in both the quantity and quality of data highlights the need for more appropriate empirical methods and tools to capture the multiple factors influencing the economic behavior of private and public decision-makers, thereby better supporting decisions and policy formulation.

In this context, the research presented in these proceedings offers new directions in a wide range of areas, from applied economics to financial markets and political economy. The proceedings include extended abstracts from 62 papers, all of which have been accepted for presentation at the Meeting and inclusion in the proceedings after peer review. The presenting authors represent institutions from 9 countries.

Plenary speeches by Professor Tobias Berg (Department of Finance, Goethe University Frankfurt, Germany) and Evi Pappa (Department of Economics, Universidad Carlos III de Madrid, Spain) covered advanced topics in Applied Finance and Macroeconomics.

In conclusion, the Organizing Committee of IMAEF 2024 would like to thank the contributors to the meeting, whose efforts will hopefully ensure its great success.

Nikos Benos, Yorgos Goletsis

Session 1

Macroeconomics I

Climate Risk and Green Bonds: Evidence from Greece

Athanasios Tsagkanos

Department of Business Administration, University of Patras, University Campus – Rio, P.O. Box 1391, Patras 26504, Greece

Abstract

The potential impact of climate change on financial markets has become an increasingly important topic in recent years. Climate change is a slow and gradual process that is expected to have long-term impacts on the economy. Dong and Liu (2023) investigate the impact of climate risks on stock prices and explore the measures that corporate managers may take to mitigate the associated risks. Considering that the authors suggest as future research the investigation of the impact of climate risks on bond markets, in this study, we examine the connectedness and spillovers of climate risk with corporate green bonds in Greece that has not attracted any attention in the relevant literature. Of course, there are certain studies like the one by Dafermos et al. (2018) which make focus on the effect of climate change on corporate bond prices. However, no attention is attracted by green bonds. Also, Greece is a country with intense activity that aims for a successful green transition in all areas of business activity. However, there is no specific policy that manages climate risk for the benefit of this transition.

To investigate our research questions, we adopt two main variables (as well as a set of necessary control variables). The first one is the Greek Green Bond Index (GGBI) which we construct according to certain criteria. The reason is the lack of official Green Bond Index in Greece. This is used as a proxy for the green bonds. The other variable is the DISADAY (following with a slight modification Elnahas et al. 2018) which is the cumulative number of disaster days during a month in the country. This is used as a proxy for climate risk. The analysis covers monthly the period from January 2019 to February 2024. 2019 is the first year of green bond entry into the Greek money market. Also, the use of monthly (within a month we can measure the

climate risk) observations is necessary to have a sufficient sample of data for our analysis.

Significant results are extracted by our analysis. The most important is a bidirectional time-varying causal relationship from green bonds to climate risk and vice versa. This relationship becomes clearer by using the Bayesian VAR model that considers the presence of structural breaks. More precisely, we detect a transmission from climate risk to green bonds. Furthermore, the control variables have significant effect as well. At the same time, we examine and confirm the robustness of our results using different indicators for the main variables and a different econometric model (the switching VAR model).

This study makes a significant contribution to the literature by providing insights into the complex relationship between climate risks and financial risks. At first the findings have important implications for investors aiming to achieve better risk-adjusted performance and sustainability of their portfolios. It is particularly important for investors when building their investment strategy to consider the effect of climate risk on green corporate bonds since it can significantly change their market valuation. On the other hand, policymakers are interested in designing and implementing policies aiming to the mitigation of the climate change risk and the transition to a more sustainably economy. In this direction, they should incorporate into their policy that focuses on the development of green finance (so that it has the expected results) a proper climate risk management.

Keywords: Climate Risk, Corporate Green Bonds, Market Risk, Spillover effect, Bayesian VAR model

JEL Codes: C11, G10, G11, Q50

Economic Fluctuations in Small Open European Union Economies during the COVID-19 Pandemics

Karol Szomolányi, Martin Lukáčik, Adriana Lukáčiková

University of Economics in Bratislava, Department of Operations Research and Econometrics

Abstract

This paper explains the business cycle characteristics in the small open European Union Countries during the COVID-19 pandemic. The business cycle characteristics of the countries were identified by the statistical panel evaluation of the cyclical components of GDP and its selected items, labour, and average product of labour. The cyclical components were computed from the data series obtained from the EUROSTAT portal for all European countries. Data suggests that during the pandemic period from the second quarter of 2020 to the second quarter of 2021, the cyclical characteristics in the big European Union countries were similar to the pandemic cyclical characteristics observed by other world studies: Economic activity was relatively highly volatile, in comparison with other crises, consumption was relatively higher volatile, while the investment's volatility was relatively low. The average product of labour was countercyclical, and the trade balance was pro-cyclical. On the other hand, the cyclical characteristics of the European Union's small countries did not differ from other historical business cycle characteristics: The economic volatility, including consumption and investments, was similar to other crises, even if the average product of labour was rather acyclical. The paper used the open economy real business cycle model to explain the pandemic economic phenomena in small open European Union countries during the pandemic.

The model from the literature consists of households, firms producing final goods, firms producing tradable composite goods, and firms producing importable, nontradable and exportable goods. The firms' inputs producing importables, exportables, and nontradable are capital and labour. The inputs of the firms producing the composite goods are the domestic absorptions of importables and exportables. The inputs of the firms producing final goods are tradeable and nontradeable composite goods. The theoretical model has been modified to allow applications of labour market shocks, total factor productivity shocks, and consumption shocks. Various adjustment investment costs and debt elasticity of interest spread are considered. The values and parameters adjusting the given shocks were calibrated so that the calculated theoretical moments corresponded closely to the observed cyclic characteristics. According to the results, short-term fluctuations in the model economy correspond to pandemic cyclical characteristics if shocks in terms of trade were applied in addition to the decrease in labour supply and increase in investment adjustment costs. In small countries, the model results suggest that trade shocks were more significant, investment adjustment costs were higher, and the elasticity of the interest spread increased. Financial frictions were higher in small European Union countries due to the pandemic.

Keywords: COVID-19 pandemics, European Union, small countries, business cycle, MXN model

JEL Codes: C61, E32, F41

Commodity price uncertainty comovement: Does it matter for global economic growth?

Laurent Ferrara[1], Aikaterini Karadimitropoulou[2], Athanasios Triantafyllou[3]

[1] *SKEMA Business School - University Côte d'Azur & CAMA, Australian National University*

[2] *University of Piraeus*

[3] *ESSEX Business School*

Abstract

Global economic activity is surrounded by increasing uncertainties from various sources. In this paper, we focus on commodity prices and estimate a global commodity uncertainty factor by capturing comovement in volatilities of major agricultural, metals and energy commodity markets through a group-specific Dynamic Factor Model. Then, by computing impulse response functions estimated using a small-scale Structural VAR model, we find that an increase in the common commodity price uncertainty results in a substantial and persistent drop in investment and trade, for a set of emerging and advanced economies. We also show that a global commodity uncertainty shock is more detrimental for short- and long-term economic growth than usual financial and economic policy uncertainty shocks. Last, our methodology turns out to be an efficient way to disentangle "good" and "bad" macroeconomic effects of oil price uncertainty: when an oil price uncertainty shock is common to all commodities, then the macroeconomic effect is likely to be negative, similar to a global demand shock. However, when the uncertainty shock is only specific to the oil market, the short-run effect tends to be positive.

Keywords: Commodity uncertainty, dynamic factor model, investment, trade flows, comovement, uncertainty shocks.

JEL Codes: C51, C53, Q02

Fiscal Tightening and Skills Mismatch

Konstantinos Mavrigiannakis[1], Andreas Vasilatos[2], Eugenia Vella[2]

[1] *University of Cyprus*

[2] *Athens University of Economics and Business*

Abstract

This paper explores a novel link between fiscal tightening and the vertical skills mismatch rate, specifically focusing on the case of Greece where the mismatch rate exceeds one-third. We employ a variety of structural Bayesian vector auto regressions and identification strategies to demonstrate that fiscal tightening increases mismatch.

We then introduce skills mismatch into a DSGE model with heterogeneous households and labor frictions. Consistent with the empirical data, the model shows that a fiscal tightening shock raises the mismatch rate. This result holds true for production function specifications both with and without capital-skill complementarity.

The paper extends the fiscal consolidation literature by revealing new unintended consequences for skills mismatch and thus labor misallocation. It shows that fiscal tightening, both through tax increases and spending cuts, can raise the skills mismatch rate. This finding is significant as it adds a new dimension to the understanding of the impacts of fiscal policy on labor markets.

The implications of this research are far-reaching. It suggests that policymakers need to consider the potential impact of fiscal tightening on skills mismatch when designing fiscal policies. This is particularly relevant for economies with high levels of skills mismatch, such as Greece. The findings also highlight the need for further research into the mechanisms through which fiscal policy impacts skills mismatch and labor market outcomes more broadly.

Keywords: Skills mismatch, fiscal shocks, capital-skill complementarity, SVAR, DSGE model

JEL Codes: J24, F41, J63, E62, 041

Session 2

Human Capital

Wages, collective bargaining, monopsony power

Andreas Moustakas[1], Nicholas Giannakopoulos[1], Ioannis Laliotis[1], Vassilis Monastiriotis[2]

[1] *Department of Economics, University of Patras*

[2] *London School of Economics, European Institute, London,UK*

Abstract

This study empirically investigates the impact of decentralized collective bargaining on wages under different conditions regarding labor market monopsony. It is well known that during wage negotiations, firm-level contracting reflects the employee's power (Card, Lemieux and Riddell, 2003), whereas labor market concentration reflects the employer's power (Berger, Herkenhoff and Mongey, 2022). The wage outcome of this bargaining depends on the relative strength of the two negotiating parties. Recently, Dodini, Salvanes and Willén (2022) have studied the impact of the interaction of the employee and employer power on labor market outcomes. The rationale behind this attempt, is based on the idea that while in a labor market with monopsonistic power the existence of abnormal profits will create room for rent sharing that can be extracted by labor unions, the lack of outside options puts pressure on the ability of the labor union to extract these rents.

Greek labor markets serve as a great case for examining the impact of decentralized collective bargaining on wages under different conditions of labor market concentration. The interest arises from the fact that Greek labor markets are composed of a limited number of companies with a large number of employees, as well as from the fact that in 2011, Greece underwent an industrial relations reform that allowed companies with fewer than 50 employees to engage in firm-level bargaining, resulting in a 4.8% increase in the likelihood of engaging in firm-level contracting as examined by Giannakopoulos and Laliotis (2020).

Using matched employee-employer data from Hellenic Statistical Authority, Structure of Earnings Survey for 2002, 2006, 2010, 2014 and 2018, we are able to identify firms with different levels of labor market monopsony by using a labor market concentration measurement based on the Herfindahl-Hirschman index (Rinz, 2022; Popp, 2022). This measure was calculated on the level firm-level, and it is consisted by the square of firm's number of workers by occupation and region divided by the total number of workers by occupation and region. In addition, for these firms, we know the type of collective bargaining regime and more specifically, whether employees are represented during wage negotiations by a firm-specific labor union. For analytical purposes, linear regression models with interaction terms are adopted in order to obtain estimates for the wage impact of the decentralized bargaining in firms with labor market monopsony. The results of estimated coefficients confirm the expectation that decentralized collective bargaining is associated with a wage premium (Card and De la Rica, 2005), labor market concentration leads to wage markdowns (Berger et al., 2023), and lastly, employees under firm-level bargaining are indeed extracting higher rents from the abnormal profits generated in concentrated labor markets (Dodini, Salvanes and Willén, 2022).

Keywords: monopsony, unions, collective bargaining, labor market concentration

JEL Codes: J42, J51, J52, J63

Skill requirements for emerging technologies in Ireland

Elisa Staffa, Adele Whelan, Seamus McGuinness, Paul Redmond

Economic and Social Research Institute and Trinity College Dublin

Abstract

In the present work, we analyse online job advertisements data (OJA) and other employment data for Ireland relating to three relevant areas of emerging technology labour market demand: Artificial Intelligence, Automation and Blockchain. We identify relevant ISCO occupations related to emerging technology jobs and produce a demand and supply forecasting model at graduate entrant level over a medium-term horizon for these jobs. Finally, we analyse the skills most commonly required by employers in Artificial Intelligence, Automation and Blockchain related jobs.

This research intends to inform policymakers in the education field: findings will inform any national skills development policy and university curricula development strategies of the Irish Department of Further and Higher Education, Research, Innovation and Science (DFHERIS), in order to ensure that the growth of employment in emerging technologies will not be restricted as a consequence of skill mismatches. Moreover, we aim to bridge the gap between employers' expectations on skill requirements acquired by graduates within the education process and employees' skills profiles, in a fast-paced changing and technology driven labour market.

By mapping emerging technology jobs to the ISCO Occupational Classification system, we calculate demand forecasts at graduate level for AI, Automation and Blockchain related jobs over a medium-term horizon, by using the existing Cedefop occupational forecasting data. On the supply side, we employ data on graduates in areas relevant to emerging technologies and produce linear forecasts of graduate supply. For the skill requirements analysis, we calculate the relative frequency of skills appearance across the job postings' descriptions and rank from the most common to the least common skill required per each emerging technology area. We then map the most required skills into Technical, Business, and Transversal skills.

First, we present trends in emerging technology related OJA for Ireland in the last years. Second, we find that within Automation, AI and Blockchain jobs, the highest shares of job advertisements are mostly located among high educated/ high skilled occupations (i.e., ICT Professionals, Science and Engineering Associate Professionals). However, smaller shares of OJA are also located among some low educated/ low skilled occupations (i.e., Electrical and Electronic Trades Workers).

By comparing demand and supply forecasts, our results show that Ireland's graduates supply in Automation, AI, and Blockchain related jobs is expected to meet the forecasted labour demand over the next few years.

Finally, our skill requirements analysis show that while a solid knowledge of technical skills is consistently required among AI, Automation and Blockchain-related jobs, also non-technical and transversal/business skills are highly required by employers. The most demanded technical skills are often technology-specific (i.e., 'Control Systems' for Automation, 'Machine Learning' for AI, 'Agile Methodology' for Blockchain), but there is some degree of overlap between AI and Blockchain skill requirements. When it comes to transversal skills, most of the skills are consistently required across the three emerging technology areas (i.e., 'Communications' and 'Problem-solving'), while very few skills are technology specific. The most demanded business skills are common to three emerging technology areas (i.e., 'management', 'operations'), but generally less required.

Keywords: Artificial Intelligence, Automation, Blockchain, Online vacancies, Labour Demand and Supply, Skills

JEL Codes: J24, I23, O33

Integration success of immigrants in Greece

Konstantinos Terzakis

[1] *Department of Management Science and Technology of the University of Peloponnese*

Abstract

Purpose

Tackling immigration is an issue of a high importance on the agenda of policy makers, in a word widely scale. Countries as Greece came up against with the immigrants' challenge many times during last year reaching high and low immigration flows, depending the occurring circumstances (in the political, economic and social sector). Nevertheless, until today there is no thorough research regarding the social, economic and cultural integration of immigrants in Greece. In particular, regarding the case of Peloponnese Region in Greece, there are no reports of researches available focusing on immigrants' cultural, labor or social integration.

Methodology

For this purpose, an extended survey was conducted in order to gather, process analyse and interpret its results. The sample is consisted of 2.500 immigrants residing in the Peloponnese Region in Greece. A questionnaire survey divided in three sections administered in the five Regional Units of the Peloponnese Region in person. Through targeted questions was attempted to examine cultural, social and labor aspects of immigrants' life. Main demographic characteristics such as age, gender, income level and family status were used as independent variables in the statistical tests that were conducted. The questions of each section were used as dependent variables and eventual relationship between them was investigated through chi square analysis. Each model was tested to find its fit to the data. Multinomial regressions helped us to detect the predictive factors. Finally, via multiple linear regression tests, we pinpointed correlation between independent and dependent variables and specified whether this

correlation is negative of positive, as well the percentage to which the model can be explained by the independent variables.

Findings

Social integration:

The majority has made the first step of entering in social networks, by making Greek friends, overcoming the language obstacle. Few of the them are even married to Greek. Half of the sample has already been naturalized themselves or a member of their family and the 77,8% is convinced that the following five years their personal and general condition will be improved. On contrary, the 89,32% is not property owners in Greece.

Cultural integration:

Greek customs have been adopted by the 96,44%. The lack of time prevented the rest from following the local customs. The 97,08% has attended at least once a cultural event (cinema, theater, exhibitions etc.), with the limited exception of those who face financial difficulties. The major part (77,8%) declared that at home they speak both their mother tongue and Greek, indicating an important integration step. Immigrants in Peloponnese resulted in preferring both Greek and their own cuisine (71,5%) and the Greek movies and TV is the choice they make for their own entertainment.

Labor integration:

For the 50% of the sample, took almost a year to find a job, and even then, their occupation was not relative to their studies. In general, they expressed a mediocre job satisfaction.

The statistical analysis revealed that gender, age and financial status played a crucial role in the given answers. Detailed findings which resulted from various statistical tests (chi square, correlation and multinominal, binary, ordinal, logistic and linear) will be presented.

Implications

Important knowledge is provided which could be studied by policy makers, in order to apply better/different/updated policies which will tackle the major issue of immigration and immigrants' integration in a more effective way.

Keywords: integration success, acculturation, immigrants', Greece.

JEL Codes: J15, J28, J61

School-to-work transition and youth unemployment: Empirical evidence from the Greek Labour Market

Eirini Triarchi[1], Dimitrios Kolias[2], Thaleia Papoutsi[3], Kostas Karamanis[1]

[1] *Department of Accounting and Finance, University of Ioannina, University of Ioannina, Hellenic Open University, Greece*

[2] *School of Social Sciences, Hellenic Open University, Greece*

[3] *University of Ioannina, Greece*

Abstract

The nexus of youth unemployment and the efficacy of educational systems in preparing individuals to enter the labour market emerges as a critical subject of study, especially given the swift advancement of technology. The critique surrounding current educational models raises concerns that they may not fully prepare young individuals for the demands of the labour market. As the economic landscape evolves rapidly due to technological innovation and globalisation, there's an emerging consensus on the urgent need for educational reform. Such reform is aimed at bridging the gap between the skills imparted by academic institutions and those sought after by employers.

This paper aims to identify the challenges young individuals face in securing post-education employment, examining the effectiveness of educational curricula and adult education programs in equipping them with relevant skills for the labour market. Further, it seeks to discover potential correlations between socio-demographic factors, such as gender, age, level of educational attainment, and employment. The study's literature review indicates that most research provides ambiguous results regarding youth unemployment and educational efficacy. The paper's analysis, utilising a structured survey methodology developed in 2021 and involving 266 participants, investigates various dimensions of education and employment, including the impact of internships, study dedication, and the duration of educational pursuits on skill development in Greece. The Greek labour market piques our interest due to high youth unemployment rates, making it one of the top three EU countries even after the peak of the financial crisis.

The empirical analysis finds that gender and age influence most individual's decision-making in attending an adult education program. This highlights the potential of adult education initiatives in addressing employment challenges across different age groups. A positive correlation exists between the educational attainment level and the relevance of jobs to fields of study, suggesting that higher educational attainment is associated with improved alignment between individuals' qualifications and the demands of employment opportunities. Internship programs, commitment to studies, and the overall educational experience are crucial factors in acquiring the required skills in the labour market. While there is a clear call for educational reforms to better prepare youth for employment, particularly in technology-driven economies, the study emphasises the need for further research to deepen our understanding of the impact of an economic crisis on youth employment. Moreover, evaluating the efficacy of adult education programs in enhancing job prospects remains crucial. The findings of this study contribute to the debate on the role of education in mitigating youth unemployment and underscore the importance of aligning educational systems with the dynamic requirements of the labour market to foster a smoother transition for young individuals into the workforce.

Keywords: Youth unemployment, Labour Market, School-to Work transition, Educational system, Financial Crisis, Greece

JEL Codes: J24, J64, I20

Session 3

Microeconomics I

Endogenous Information Acquisition in an Investment-Trading Game

Pasqualina Arca[1], Evangelos Litos[2], Anastasia Papadopoulou[3]

Università di Sassari

University of Leicester

University of Bristol

Abstract

In this paper we study information acquisition in an investment trading game where (i) entrepreneurs base their investment decisions on their expectations about both an unknown underlying economic fundamental and the price at which they may sell their capital to the financial markets in the future; and (ii) traders operating in the financial market use the aggregate investment to learn about the fundamental.

At the beginning of the game a new investment opportunity with unknown profitability (the fundamental) arises. There are two sectors in the economy: the real sector populated by entrepreneurs and the financial sector populated by traders. In the first period each entrepreneur has to decide how much to invest in the new project. In the second period before the profitability of the project is revealed, a fraction of entrepreneurs is hit by a liquidity shock and sells its capital to the financial sector. Information is incomplete as each agent in the economy does not know the profitability of the project, but it knows the prior distribution of this fundamental. In addition, entrepreneurs have free access to a public signal about the fundamental value of the project. Before they make their investment decision they can also acquire at some cost a private signal by paying attention to listen to it. As attention to the signal increases the overall precision of the signal increases. In the financial sector, traders also have free access to a public signal about the fundamental value and they also observe the aggregate capital invested in the economy.

We first characterise the benchmark economy, in which only the entrepreneurs have incomplete information about the fundamental, while traders are perfectly informed. In this case there does not exist any information spillover between the real and financial sectors, in line with existing literature. This is so because traders are informed and thus do not need to infer the profitability of the project from aggregate investment. As a result, the market clearing price in the financial sector is always equal to the fundamental value of the project.

We then characterise the equilibrium outcome in terms of the information acquired and how this information affects agents' actions in the incomplete information case. Our results show that, relative to the benchmark economy, entrepreneurs pay less attention to private information implying that the equilibrium precision of the private signal is lower than in the benchmark case. With endogenous information acquisition of the private signal, the economy exhibits two different types of equilibrium. In one type, entrepreneurs acquire the private signal and in the other entrepreneurs rely only on public information. Moreover, the exogenous precision of the private signal and the precision of traders' signal play an important role in entrepreneurs' decisions to pay attention to the private signal.

Keywords: Endogenous information acquisition, information spillover, trading, asset pricing

JEL Codes: G11, G12, G14

Downstream cross-holdings and upstream collusion

Konstantinos Charistos[1], Ioannis N. Pinopoulos[2], Panagiotis Skartados[3]

[1] Department of Economics, University of Ioannina, Greece

[2] Department of Business Administration, Athens University of Economics and Business, Greece

[3] Department of Economics, University of Crete, Greece

Abstract

Cross-holdings (CH) –the case where two or more firms hold non-controlling minority shares in each other– is a widespread business phenomenon. CH may raise competitive concerns due to unilateral and coordinated effects. Unilateral effects arise from an individual incentive for acquiring firms to behave less aggressively (thus reducing competitive pressure between them). Economic theory suggests that CH, even though non-controlling, raise prices and reduce consumer surplus. Coordinated effects arise if CH raise the likelihood of collusion.

Antitrust enforcement regarding minority shareholdings is limited. In many countries, antitrust authorities have the competence to review acquisitions of minority shareholdings, but despite that, such acquisitions usually go unchallenged. In the European Union (EU), the merger regulation does not apply when the minority acquisition does not give the acquirer control over the target firm. Nevertheless, the European Commission (EC) acknowledges that acquisitions of non-controlling minority stakes may harm consumers and competition.

CH between firms in one stage of a supply chain may have a significant impact on the behavior of firms located at other stages of the chain. CH between downstream firms (i.e., final-good producers/sellers) affect their demand for essential inputs, which in turn affects the input suppliers' (upstream firms') behavior.

We investigate the effects of downstream passive CH on the sustainability of upstream collusion. We consider two competing vertical chains, downstream Cournot and homogeneous final goods. Although symmetric CH weaken downstream competition, they can also reduce upstream collusion. Under a general demand, downstream CH: (i) always decrease upstream collusive profits, (ii) decrease punishment profits if demand exhibits constant curvature, (iii) have an ambiguous effect on the profits from deviation. Using specific demand functions, we show that downstream CH can impede upstream collusion. We validate our results by considering various extensions of the base model.

Our result is relevant to competition policy. The aforementioned lenient antitrust treatment of CH is usually justified on the grounds that (any) undesirable effects do not substantially weaken competition. By focusing on vertically related markets, we highlight a desirable effect of cross-holdings between firms: they can have positive implications regarding the collusive behavior of their input suppliers.

Keywords: competing vertical chains; cross-holdings; passive ownership; tacit collusion.

JEL Codes: D43; L13; L40; L81

Discrimination in Hiring Decisions and Blind Hirings

Dimitris Minos[1], Philippos Louis[2], Dimitrios Xefteris[2]

[1] *King's Business School, King's College, London*

[2] *University of Cyprus*

Abstract

Discrimination in hiring is a persistent issue leading to inefficient labour markets. Several policies have been suggested to tackle these issues with varying degrees of effectiveness. In this paper we induce statistical discrimination in the lab and test whether "blind hirings" (i.e. removing all identifying characteristics in the initial stages of the hiring process) can correct these inefficiencies. The results from the lab experiment suggest that this type of policy can only be effective if the formerly discriminated group is sufficiently small. If on the other hand the group is large, it may lead to less overall hiring and further losses in welfare.

What Determines Cartel Duration? Global Evidence Using Quantile Regression Analysis

Michael L. Polemis[1,2,3]

[1] *University of Piraeus, Department of Economics, email: mpolemis@unipi.gr*

[2] *Hellenic Competition Commission, Athens, Greece*

[3] *Hellenic Open University, Patras, Greece*

Abstract

The longevity of cartels has been a highly contested topic among economists and managers, with numerous researchers arguing that cartels are inherently unstable and their endurance is usually short-lived. Understanding the main factors that influence a cartel duration is essential from a managerial point of view let alone the competition policy perspective. Despite having a rich body of literature, there has been no systematic evaluation of the existing driving factors to determine the current understanding and identify potential paths for future research. The present paper is the first study to employ quantile techniques and thus allowing for a more thorough and precise depiction of the data compared to the traditional regression analysis.

The interpretation of the independent variables comes as follows. Duration denotes the average case duration (measured in years) of each cartel case. Cartelists denote the number of participants per cartel case. Fines denote the total fines imposed by the National Competition Agency (NCA) on cartel participants per case (measured in million USD). Cover is a dummy variable equal to one if the cartel has global coverage and zero otherwise. Bid is a dummy variable equal to one if the cartelists made rigged bids (collusive tenders), and zero otherwise. Third is a dummy variable equal to

one if there was support by third parties per cartel case and zero otherwise. Trend denotes the (linear) time trend accounting for the increasing effect of leniency applications and awards given by the competition authorities to the cartel applicants. Moreover, u denotes the error term.

The empirical findings support that the number of cartelists imposes an asymmetric effect, reducing (increasing) the lifespan of the collusion only in the short (long) lived cartels. Operating internationally and having a third-party facilitator both lengthen cartels, but the magnitudes of these effects decline monotonically over the range of the distribution. Relative to price-fixing, bid rigging lengthens cartels in the bottom 20% of the distribution but has no significant effect elsewhere. Finally, the prevalence of leniency programs appears to have no significant effect on cartel duration, except in the very bottom of the distribution where the effect is small in magnitude.

Keywords: Collusion; Longevity; Cartelists; Sanctions; Cartel facilitators

JEL Codes: L41; L13; D43; C31

Session 4

Applied Finance

Greek GDP forecasting using Bayesian multivariate models

Zacharias Bragoudakis[1], Ioannis Krompas[2]

[1] *Bank of Greece & Department of Economics, National and Kapodistrian University of Athens*

[2] *NBG Economic Research, Ph. Cand. Panteion University*

Abstract

Building on a proper selection of macroeconomic variables for constructing a Gross Domestic Product (GDP) forecasting multivariate model (Kazanas, 2017), this paper evaluates whether alternative Bayesian model specifications can provide greater forecasting accuracy compared to a standard Vector Error Correction model (VECM). To that end, two Bayesian Vector Autoregression models (BVARs) are estimated, a BVAR using Litterman's prior (1979) and a BVAR with time-varying parameters (TVP-VAR). The three models mentioned earlier are estimated using the abovementioned variables. The models are estimated over sixteen years (2000:Q1 to 2015:Q4), whereas the remaining sample (2016:Q1 to 2023:Q2) is to be used for evaluating their forecasting performance. The VECM and the BVAR model are estimated using EViews 10, while the TVP-VAR is estimated using the BEAR Toolbox 4.2 (Dieppe et al. 2016).

Standard OLS VARs is the Bayesian VARS (BVARs), initially proposed by Sims (1980) and Doan, Sims, and Litterman (1984), who through Bayesian shrinkage sought to further improve the forecasting performance of the multivariate econometric models available at the time. The BVARs' superiority in forecasting is well established as the literature is rich in Bayesian multivariate models that outperform either standard frequentist or DSGE models, for example, see Gupta and Mabundi (2010). To estimate a BVAR, the formulation of priors is necessary, with the most popular one being the so-called Minnesota prior (Litterman, 1979). However, since its introduction several more advanced priors have been proposed, such as the one by Sims and Zha (1998). Furthermore, advances in Bayesian statistics and computational capabilities have enabled the use of more complex BVARs, such as the Time-Varying Parameter VARs

(TVP-VARs) with the most prominent work on such models being that of Cogley and Sargent (2002;2005), Primiceri (2005), and more recently Carriero (2015).

This advantage of inputting a researcher's belief or knowledge as a BVAR prior has an extra argument in favor of Bayesian specifications, when it comes to specifically forecasting Greek macroeconomic variables. This is because as the time series usually used in estimating Greek macroeconomic models' coefficients start at the year 2000, a significant portion of the sample is comprised of observations that occurred during the economic crisis. This may lead to obtaining coefficients that do not accurately reflect the data generating process of the economy over the long run, and hence it makes sense to limit the parameter space that OLS would have to "search" for coefficient estimation by imposing priors consistent with general macroeconomic stylized facts. Despite that, the application of BVARs in forecasting Greek macroeconomic activity is rather limited, with the most prominent work being that of Louzis about macroeconomic and credit variables forecasting using BVARs (2017) and Greek GDP nowcasting (2018). We also employ a TVP-VAR to allow the coefficients to change throughout the sample, thus generating forecasts based on the most recent state of the business cycle. The forecasting exercise comprises of a one-quarter ahead, a two-quarter ahead and a four-quarter ahead pseudo out-of-sample forecasts.

The BVAR is found to have statistically significant forecasting gains against the benchmark and the TVP-VAR. Furthermore, the BVAR requires only minimal modifications to account for the effect of pandemic observations on its coefficients, and that is for the longer-term forecasting. This forecasting exercise demonstrated that even the most basic of Bayesian priors provided forecasting gains when it comes to Greek GDP forecasting, but this is only one of the available priors a researcher is available to choose. One could extend this research to include more advanced Bayesian priors such as the Sims-Zha prior (Sims and Zha, 1998) that incorporates the existence of unit roots and cointegrating relationships. Another way this research could be extended is by using the TVP-VAR estimated above (possibly using a larger sample if available, to account for the model's intensive parameterization), to compute the variation in the relations between macroeconomic variables, as expressed by the time-varying coefficients, and thus examine structural changes of the Greek economy over time. This model can also be used to perform impulse response analysis on specific dates, which

allows examining how differently exogenous shocks would affect the Greek economy, at different points in time.

Keywords: Bayesian VARs, Forecasting, GDP, VECM

JEL Codes: C11, C51, C52, C53

A Kernel Function Implementation of Jump-Tests for Improved Detection under Microstructure Noise

Emmanouil Daousis, Theodoros Simos

Department of Economics, University of Ioannina

Abstract

In this study, we address the impact of microstructure noise on non-parametric jump identification methods, which tend to detect jumps of higher size, potentially leading to a higher rejection rate of the null in both simulated and real-world data. As such the procedures are likely to capture large but infrequent jumps rather than small and frequent ones.

We utilize an extensive Monte Carlo simulation to evaluate the performance of the jump-identification procedures. Those are tested under a range of conditions, including different sampling frequencies, volatility levels, and degrees of microstructure noise contamination. The aim was to improve the power of the jump tests under noisy conditions where the distinction between jump and diffusion becomes challenging. The test statistics are constructed on the difference between the Realized variance and an estimator of the quadratic variance. As such, we use two kernel-based estimators in place of the Realized and Quadratic variance and derive the asymptotic behavior of the tests. The simulation scenarios include jumps of different sizes and frequencies in both the price and the volatility process and different levels of noise with first a Gaussian and later with a t-distribution. Furthermore, we include in the data-generating process the existence of zeros, simulating the effects of staleness.

The findings from the Monte Carlo simulations reveal several key insights. Firstly, the sampling frequency holds a significant role in the performance of the jump identification procedures. Higher frequencies tend to show higher size, whereas lower frequencies result in tests with lower size. Secondly, traditional RV estimators exhibit significant size distortions when microstructure noise is present. In contrast, kernel-based estimators, demonstrate more stable performance, maintaining accuracy despite

noise contamination. Thirdly, the modified procedures show greater power and size characteristics, especially in higher frequencies. Fourthly, the effects of staleness have a negative and significant impact on the properties of the jump-tests, specifically, it tends to lead to higher power and size. To remedy this shortcoming we recommend resolving to 30 seconds of sampling frequency.

We apply the jump detection procedures to financial data to observe whether our results from the simulation exercise carry through. We report an empirical application based on high-frequency FOREX data, namely the EUR/USD, EUR/GPB, and EUR/JPY. The data covers a period of 5 months from June 1st to 13 October 2023. The results from the empirical exercise indicate that a diffusion process without jumps fails in explaining the return characteristics of the exchange rates.

In conclusion, the research shows that incorporating kernel-based estimators can have a positive and significant impact on the power and size properties of the jump tests under noisy high-frequency data. We recommend the use of multiple jump tests and the selection of methodologies based on specific data characteristics, such as frequency, noise levels, and the presence of zero values.

Keywords: nonparametric jump measures, jump-test, kernel functions, microstructure noise, Monte Carlo simulations

JEL Codes: C14 , C15, C22, C58

Domestic and Foreign Sovereign Debt Stability

Leonardo Barros Torres[1], Wojtek Paczos[2], Kirill Shakhnov[1]

[1]*University of Surrey*

[2]*Cardiff University and Polish Academy of Sciences*

Abstract

Debt stability studies typically focus on the stability and incentives to default on foreign debt. Domestic debt, however, constitutes a substantial portion of overall public debt in both emerging and advanced economies. Despite the growing prevalence of domestic debt, instances of outright default are noticeably rare. This study asks two research questions. First, what factors drive debt stability in domestic and foreign markets? Second, what are the differences between domestic and foreign debt; in their economic role and their stability?

To answer these questions we construct two distinct models. The first is a simple and general model of an endowment economy. The economy is subject to output shocks and the government has to cover an exogenous stream of expenditures. To cover expenditures government can either tax or borrow on domestic and foreign markets. Taxation is costly and these costs can vary over time. Taxation costs come in a simple form of an exogenous and time-varying tax distortion. The model admits an analytical solution and we derive closed-form formulas for domestic and foreign debt stability. The results highlight that debt stability in each market depends on the size of the respective debt, the level of output, and the level of tax distortion. The model highlights an important trade-off. Foreign debt can be used to smooth consumption when output is volatile but is inherently less stable. Domestic debt cannot smooth consumption, as it is only a redistribution within an economy, but its stability threshold is an order of magnitude higher. Domestic debt can play a useful role, as it can smooth volatile tax distortions.

The second model is a more specific model of a production economy, with volatile government expenditures. Tax distortions arise endogenously. The model does not admit a closed-form solution and we solve it numerically for a plausible set of parameter values. The model confirms the trade-off between domestic and foreign debt and that domestic debt is inherently more stable. It also shows that the perfect separation is never possible: while productivity shocks mostly drive foreign debt issuance and government expenditures mostly drive domestic debt issuance, the stability of both debts depends on both shocks and is history-dependent. In particular, when domestic debt is high, domestic default is strictly preferred to foreign default, and when the debts are of similar sizes, or foreign debt is higher, foreign default is strictly preferred to domestic default. The analysis further reveals that foreign debt stability remains almost insensitive to the level of domestic debt, and vice versa. The model derives additional conclusions about optimal debt issuance and optimal taxation in the face of endogenous domestic and foreign debt fragility. Optimal foreign debt issuance is countercyclical, while optimal domestic debt issuance is procyclical. Labour tax is optimally acyclical when debts are stable, but becomes countercyclical when debts are fragile.

Keywords: sovereign debt, debt stability, selective default, debt composition, distortionary tax

JEL Codes: F34, G15, H63

Threshold Endogeneity in Threshold VARs: An Application to Monetary State Dependence

Dimitris Christopoulos, Peter McAdam, Elias Tzavalis

[1] *Athens University of Economics & Business*

[2] *European Central Bank*

Abstract

We contribute a new method for dealing with the problem of endogeneity of the threshold variable in threshold vector auto-regression (TVAR) models. Drawing on copula theory, the method enables us to capture the dependence structure between the threshold variable and the vector of TVAR innovations. Ignoring this structure can lead to a threshold bias endogeneity problem which can produce biased estimates of the threshold parameter and the variance-covariance matrix of the TVAR innovations, and thus invalidate impulse response analysis. This is confirmed by Monte Carlo analysis. For the gaussian copula note that the dependence between the threshold variable and TVAR innovations is a linear structure.

The method has several attractive features: (i) It is a free-of-instruments approach and can allow for different dependence structures of the threshold and innovation terms across the model regimes. (ii) It allows the distribution of the threshold variable to be of unknown form and (iii) It can work satisfactorily even in cases where the dependence structure between the innovations and the threshold variable is nonlinear.

A Monte Carlo analysis demonstrates that the method works well and efficiently controls for the enndogeneity effects of the threshold variable on the parameter estimates, including the threshold parameter. This is true even where the correlation structure between the threshold variable and the TVAR innovations changes considerably across the states.

As an application of the method, we examine state dependency in candidate monetary VARs. For a baseline case, we find that when expected inflation exceeds a threshold parameter above the officially announced rate 2%, the effects of monetary policy on both inflation and output are faster and stronger than otherwise. We find that ignoring threshold endogeneity tends to overstate the threshold parameter and the effects of monetary shocks on output and inflation in the high-inflation state and understates them in the low-inflation state. Compared to the endogenous threshold VAR, both the linear and the exogenous threshold VAR, considered in the literature, suggest that prices are sticky and output sluggish in response to monetary shocks in the high-inflation state. Our results, by contrast, are more in line with state-dependent pricing models (in which inflation reactions are faster and output reactions more muted) and consistent with models which suggest that monetary policy is more efficient in high-inflation states.

Keywords: VAR; State Dependency; Copula; Monte Carlo; Monetary Policy; Impulse Response; Davig-Leeper.

JEL Codes: E40; E50; C32.

Session 5

Sustainability, Environment & Policy

Sustainability Premium and Tourism's Economic, Environmental, and Social Effects

Sofia Xesfingi[1], Dimitris Fotis[1], Sotiris Karkalakos[1], Nikos Papastamatiou[2]

[1]*Department of Economics, University of Piraeus*

[2]*Omega Corporation*

Abstract

Sustainability in tourism is a topic of global relevance, finding multiple mentions in the United Nations Sustainable Development Goals. The complex task of balancing tourism's economic, environmental, and social effects requires detailed and up-to-date data. The tourism industry is of tremendous economic relevance, accounting for an estimated 10% of global GDP in the years before the Covid-19 pandemic. Though strongly affected by restrictions and other uncertainties in international travel, the sector is expected to resume growth and fully recover throughout the coming years. Tourism is also of high importance for economic development, which is underlined by its inclusion in the United Nations' Sustainable Development Goals (SDGs), where it is directly mentioned in three of the 17 goals. Between 2008 and 2018, the relative importance of tourism for the respective country's GDP increased in 43 out of 70 countries that report to the UN. At the same time, it has been criticized to have adverse environmental and social effects, causing 8% of the global carbon emissions in 2013. To balance the economic, environmental, and social impacts of tourism, the relevance of sustainable tourism becomes evident. In order to monitor and manage tourism in view of sustainability, granular and accurate spatio-temporal data is needed. The terms "ESG" and "sustainability" have become buzzwords with normative connota- tions among entrepreneurs, corporate managers, investors, and policy-makers (e.g., Berg et al., 2020; Cornell, 2021; Cumming et al., 2022; Gillan et al., 2021; Pástor et al., 2020). To stop or, at least, slow down detrimental trends in the ESG dimensions, such as climate change, multiple agents discuss ways to improve sustainability in our economy.

The ESG debate impacts tourism and airflights in several ways, for instance, it affects the availability of parking slots at the airport.

Our goal is to estimate the causal effect regional ESG properties have on tourism's Economic, Environmental, Social effects. In addition to OLS models, we rely on several two- stage approaches. These models control for observed and/or unobserved heterogeneity, which is often pronounced in relevant literature. We argue, both theoretically and empirically, that a sufficient condition for tourism flows to effect sustainable change is that sustainability-oriented tourism facilities obtain higher demand for tourism services. We use a machine learning approach on online platform data alone to answer the research question. Thus, our study is different from others that discuss rule-based classification systems used by traditional sustainability labels. These labels require detailed in- formation about waste, water use, and other factors to determine an accommodations' level of sustainability. While highly accurate and true to the causal relationships of sustainability, the corresponding data collection procedures are expensive and not feasible quickly at scale. The classifiers introduced below rely on correlated but not necessarily causal factors. Our estimates can guide policy makers towards initial interventions and allow for detailed monitoring of the associated effects. In relation to existing frameworks of sustainable tourism indicators.

Keywords: Sustainable tourism; Platform data; Imbalanced classification; Supervised learning

JEL Codes: L26, M13, Q01, C23, O40, Z32

Fossil fuel subsidies and female labour market participation in face of the sustainability transition

Stella Tsani[1], Chrysoula Chitou[2]

[1] *Department of Economics, National and Kapodistrian University of Athens, Sofokleous 1, 10559, Athens, Greece.*

[2] *Department of Economics, University of Ioannina, 451 10, Ioannina, Greece*

Abstract

Fossil fuel subsidies have significant economic and environmental implications, but their gendered effects on labor markets have remained largely unexplored. This study addresses this critical gap by investigating the intricate relationship between fossil fuel subsidies and female employment rates, thereby shedding light on broader implications for gender equality within the labor force. Employing a mixed-methods approach, integrating both qualitative and quantitative analyses, we begin with a systematic literature review to establish a knowledge base and identify research gaps. This review shows that while there is extensive literature on the economic and environmental impacts of fossil fuel subsidies, their gendered effects remain under-researched. Existing studies suggest that subsidies often reinforce reliance on traditional energy sectors, which are male-dominated. Following the systematic literature review, we conduct extensive empirical analyses using econometric methods to assess the relationship at both regional and global levels. The empirical assessment utilizes recent data on fossil fuel subsidies and female employment rates, examining both production and consumption subsidies. Our models incorporate various control variables to account for socioeconomic factors, ensuring robust and reliable results. We also perform sensitivity analyses to test the robustness of our findings across different model specifications. The results reveal a significant negative relationship between fossil fuel subsidies and female employment rates. This relationship is particularly pronounced in oil-exporting countries, where subsidies are more substantial, and the economy is heavily reliant on the fossil fuel industry. The findings offer policymakers with evidence-based analysis on the impact of energy policies on gender equality, and scientifically driven recommendations incorporating gender perspectives into energy policy discussions.

Keywords: fossil fuel subsidies; female employment rates; energy policy

JEL Codes: H20; J16; Q48

Weathering the Storm: Sectoral Economic and Inflationary Effects of Floods and the Role of Adaptation

Matteo Ficarra[1], Rebecca M. Mari[2]

[1] *Geneva Graduate Institute*

[2] *Bank of England*

Abstract

This paper investigates the impact of floods on economic output and prices at the industry level for local authorities in England using highly granular climate and economic data. We use precipitation z -scores as an instrument for floods to deal with endogeneity stemming from adaptation capital and we obtain dynamic impulse responses to the shock on GDP and inflation with a local projection approach (LP-IV). We find significant heterogeneities across sectors in terms of size, timing and sign, with sectoral output (prices) declining (increasing) up to 20% (250 bp) following a 1 sd flood shock. This evidence explains well the delayed response of GDP and inflation found in the literature. Our estimates suggest that reduced investment can only partially explain the decline in output, and only in manufacturing. The response of the number and value of real estate market transactions is instead consistent with a wealth effect that is line with the demand-side behaviour in wholesale and retail trade. To shed more light on the interaction among sectors, we use input-output tables and show that flood shocks propagate through the production network. Using local authority expenditure on flood defences and a proxy for adaptation capital, we further find that investments in adaptation strongly reduce the likelihood of flooding, but they are less effective at mitigating economic damages once a flood hits, and only in some sectors. Our analysis highlights the importance of disentangling the economic impact of climate change at the sectoral level and the importance of adaptation.

Keywords: floods, natural disasters, economic activity, inflation, fiscal adaptation, local projections.

JEL Codes: Q54, Q58, E23, E31

Geopolitical risk and FDI inflows: The moderating role of water and energy risks

Theodore Kapopoulos, Athanasios Sakkas, Konstantinos Drakos

[1] *Athens University of Economics and Business, School of Business, Department of Accounting and Finance*

Abstract

Geopolitics are now of major concern to financial market participants, business and policy makers since tensions could trigger cross-border allocation of investment and intensify concerns about economic and financial fragmentation. Failure to address the impacts from an economic perspective could threaten economic and financial stability. The motivation behind this paper is to investigate how major geopolitical events can adversely affect the international business environment, thereby increasing business risk for managers and investors alike. We strive to understand and present the linkage between the business environment and geopolitical risk by conducting an in-depth analysis of the different channels that transmit risk to businesses. To conceptualize what is called the international business environment, we use FDI as a proxy for it. As such, we capture the international business environment as well as capital movements.

Using a panel of 43 economies between 1985 and 2022, this paper establishes a link between FDI inflows and geopolitical risk. We distinguish the idiosyncratic component of geopolitical risk from the global geopolitical risk index provided by Caldara and Iacoviello (2022). We then incorporate both global and idiosyncratic risks into a static FDI regression model, controlling for other economic and institutional determinants. Additionally, we investigate whether water and energy risks, when interacting with geopolitical risk, influence the behaviour of international investors. To test this hypothesis, we estimate the interaction effect of water stress and energy intensity as proxies for water and energy risks, respectively.

Our research uncovers several new findings. Firstly, we find that both global and host country idiosyncratic geopolitical risks explain a great part of FDI volatility. Secondly,

we find that energy- and climate-related risks, when interacting with geopolitical confrontation, can curtail the negative impact of geopolitical risk on FDI. Thirdly, the robustness analysis sheds light on a wide variety of factors, such as government effectiveness, life expectancy, and the degree of industrialization that explain FDI fluctuations across countries and over time.

Our findings imply that foreign investors perceive high energy intensity and water stress as moderating factors that could motivate host country policymakers to avoid involvement in geopolitical confrontations, thereby supporting peacebuilding to prevent or resolute conflicts.

While our paper is closely related to previous research on the determinants of FDI, it differs in that we are interested in the specific form of uncertainty posed by geopolitical events. Our results contribute to two strands of literature. First, we contribute to the literature that examines the link between international investment flows and uncertainty driven by geopolitical shocks. Second, we contribute to the literature that connects climate- and energy-related risks with a host country's ability to attract foreign investment.

Keywords: foreign direct investment inflows, geopolitical risk, interaction effects, panel data analysis

JEL Codes: F2, F5, M2

Session 6

Inequality

Wage Reforms and Equality Gains: Evidence from Greece

Alexandros P. Bechlioulis[1], Michael Chletsos[2], Tryfonas Christou[3], Aikaterini E. Karadimitropoulou[2]

[1] *Department of Economics, University of Ioannina, Greece*

[2] *Department of Economics, University of Piraeus, Greece*

[3] *European Commission*

Abstract

This paper studies the impact of wage reforms on wage inequality. We focus on interventions on the institutionally defined minimum wage and how such interventions shape differently the wage inequality in the lower segment of the wage distribution. Given that labour market outcomes can be substantially different depending on the responsiveness of wages to the economic environment, an interesting question arises: Do opposing minimum wage reforms have (non-) symmetric effects on wage inequality?

To answer this question, we introduce a novel measure of wage dispersion defined as the difference between the nominal and the occupation-mean wage, which is the mean wage for each employee per economic occupation for each year. The introduction of this new measure controls for market segmentation, alleviating for potential heterogeneity bias, and allows for potentially different impacts of business cycles on different economic activities.

By using this measure and data from the Greek labour market over the 2010-2013 and the 2017-2020 periods, when a minimum wage cut in 2012 and increase in 2019 were introduced in the labour market, we study the effect of minimum wage reforms on the wage dispersion in the lower tail of the wage distribution. To draw causal inference, we apply modern difference-in-difference estimation techniques, in which we define as a treatment group the minimum wage workers and as a control group the rest of low-wage workers who are paid a wage determined by the intersection of demand and supply.

Our findings unveil the non-symmetric effects of the two reverse minimum wage reforms. We observe that a mild minimum wage increase in 2019 causes a decrease in wage dispersion from the occupation-mean wage in the lower tail of the wage distribution, while a large minimum wage cut in 2012 does not affect the wage dispersion of that bottom segment of the labour market.

To understand these effects, wage rigidity seems to be the economic mechanism through which the policy interventions affect the wage inequality among low-wage workers. In the post-2011 period, Greece shows a low and decreasing value of adjusted collective bargaining coverage rate (this value declines from 51.5% to 14.2%), when the average EU rate is higher than 80%. Low values of this rate are strongly associated with either upward wage rigidity or absence of downward wage rigidity. Hence, the presence of an upward wage rigidity in the Greek labour market explains the negative impact of the 2019 reform on wage dispersion, while the absence of a downward wage rigidity leads to no impact of the 2012 minimum wage cut on wage dispersion in the lower tail of the wage distribution.

Importantly, our paper equips policymakers with a solid understanding of the effects of minimum wage reforms on the wage inequality at the bottom segment of the labour market.

Keywords: wage inequality, minimum wage reform; modern difference-in-difference analysis; wage rigidities

JEL Codes: C31, J08, J31

Is economic inequality good or bad for health. Empirical evidence of income inequality on infant mortality

Michael Chletsos

[1]University of Piraeus

Abstract

1. Objectives

Income inequality has been increased considerably in many OECD countries during the last twenty years. Although the average real disposable household incomes increased in all OECD countries, on average by 1.6%, the disparity in the distribution of household's income has been rising in the vast majority of OECD countries (Cingano 2014:8).

Income inequality affects economic growth, unemployment, poverty and social exclusion. During the last years there is an interest of scientists on the relationship between income inequalities and health. Income and health are related in a bi-directional manner (Ona et al. 2021). Jurgen and Torben (2020) consider that income inequality is the major determinant of population health. The objective of this paper is to investigate the impact of income inequalities on infant mortality.

2. Methods

In order to investigate the impact of income inequality on infant mortality, we used a pool 29 OECD countries for the period 2000 – 2021. Income inequalities are presented by Gini coefficient and Kuznets ratio. The econometric method used is panel data. We control for growth rate and government expenditure.

3. Results

The preliminary results suggest that a rise in income inequality is associated with an increase in infant mortality, whereas an increase in the growth rate and in the ratio of government spending to GDP is associated with a decrease in infant mortality. Similar

results emerge when using the Kuznets ratio instead of the Gini coefficient as an income inequality index.

4. Discussion

The effect of income inequality on infant mortality is a key index for the public health to evaluate the effectiveness of healthcare systems, social policies, and overall living conditions within a community or country. Lower mortality rates generally indicate better access to healthcare, improved living standards, and a higher quality of life for children and infants.

JEL Codes: I14, I15, J13, I31

Keywords: economic inequality, health, infant mortality, Gini coefficient, public health

Immigration, economic growth and income inequality

Michael Chletsos, Konstantinos Kontos

University of Piraeus

Abstract

Immigration is a phenomenon which is continuously growing in scale (UNDESA, 2022), and has important economic implications for both the countries which immigrants come from, and for the countries which host them. The economic impact of immigration owes to the fact that it is – from a purely economic point of view – essentially a reallocation of labor on the global scale. As such, immigration (especially at today's levels) can change the magnitude and composition of entire countries' labor forces, which will then impact their productive capacities, the size of the economy, and living standards.

Scientific literature on the economic impact of immigration generally agrees on certain key areas. First, that immigration is beneficial to economic growth (e,g, Coppel, Dumont & Visco, 2001; Dritsakis, 2008; Muysken & Ziesemer, 2013; Boubtane, Dumont & Rault, 2016; Borjas, 2019; Burchardi et al., 2021), and this is true for both the origin and host countries (di Giovanni, Levchenko & Ortega, 2015; Ahmed, Go & Willenbockel, 2016). Second, that immigrants tend to be low-skilled or unskilled (Borjas, 1994; Hanson et al., 2002; Passel, 2005; Card, 2009; Xu, Garand & Zhu, 2016), and as such, their native counterparts lose most from immigration (Aydemir & Borjas, 2007; Okkerse, 2008; Borjas, 2017; Lin & Weiss, 2019). The opposite also holds true; if immigrants are high-skilled, low- or unskilled natives benefit (Edo, 2019; Lin & Weiss, 2019). High-skilled natives benefit in any case (Lin & Weiss, 2019), because both low-skilled and high-skilled immigrants are complements to them, rather than substitutes, as is the case with low- or unskilled natives (Borjas, Grogger & Hanson, 2008; Ottaviano & Peri, 2012; Haas, Lucht & Schanne, 2013; Özden & Wagner, 2014). Third, that unemployment will rise with increased immigration, if there exist wage rigidities; if there are instead no such rigidities, unemployment is less likely to rise, but wages will fall (Chassamboulli & Palivos, 2013; Edo, 2019).

The fact that immigration boosts economic growth, and that wage differentials among natives do not tend to increase in response to immigration (Card, 2009; d'Amuri, Ottaviano & Peri, 2010; Manacorda, Manning & Wadsworth, 2012; Ottaviano & Peri, 2012; Edo, 2019), suggests that increased growth benefits natives more than immigrants. Unskilled natives are expected to lose most from immigration, increasing the gap between them and high-skilled natives. This doesn't happen, which reveals the presence of some kind of redistribution towards unskilled natives. This is what Borjas (2019) called the "immigration surplus", which is appropriated by natives. In addition to the fact that high-skilled immigrants benefit most from immigration (Lin & Weiss, 2019), there are implications for a given country's income inequality – namely, that it is likely to increase in response to immigration.

These implications, until now and to the best of our knowledge, have not been thoroughly analyzed by literature, which is our aim in this study. We use micro and macro data, primarily from Eurostat and the World Bank, and we analyze the impact of immigration on income inequality for a panel of countries of the European Union.

Keywords: immigration, growth, income inequality, wages, labor economics, redistribution

JEL Codes: E25, J61, O11, O15

The effects of uncertainty on income and wealth inequality: Time-series evidence from industrialized countries

Don Bredin[1], Stilianos Fountas[2], Paraskevi Tzika[3]

[1] *University College Dublin, Ireland.*

[2] *University of Macedonia, Greece*

[3] *Swansea University, UK*

Abstract

The measurement of macroeconomic uncertainty and the study of the effects of uncertainty on macroeconomic variables has been a topic of considerable research in the last ten years in the applied economics literature. This literature has mushroomed following the seminal papers by Baker et al (2016) and Jurado et al (2015) which have attempted to measure economic policy and macroeconomic uncertainty, respectively. More recently, the pandemic, the invasion of Ukraine, the energy crisis and the current inflationary episode have led to rising uncertainty and increasing interest in the study of uncertainty effects on the macroeconomic environment. At the same time, economists have emphasized the rising economic inequality and its relationship with economic growth. Given the limited evidence on the uncertainty-inequality nexus, the focus of this research project is to analyze from an empirical point of view the impact of macroeconomic uncertainty on income and wealth inequality.

Our aim is to estimate impulse response functions (IRFs) using various methodologies including rolling IRFs for several industrialized countries since 1990 to analyze the impact of uncertainty (measured by the EPU index and the WUI) on the Gini measure of income and wealth inequality. Given the occurrence of various recent events such as the Great Recession, the Eurozone sovereign crisis, the pandemic and more recently the energy crisis, it is anticipated that the effects of uncertainty on inequality will not be uniform across time but time dependent.

To serve the purpose of this paper, and since the variables used have different frequencies (some of them are measured on a quarterly basis while inequality has

annual frequency), and to avoid losing important information using interpolation or extrapolation methods, Mixed Frequency Vector Autoregressive (MF-VAR) models are applied (Ghysel, 2016). These models emerged as powerful tools for analysing time series data with multiple frequencies since they allow for variables measured at different intervals.

The low-frequency variable is the inequality index (wealth or income), while the high-frequency variables are the World Uncertainty Index (WUI), GDP growth, the GDP deflator, stock market index, and the short-term interest rate. We estimate the MF-VAR model for 11 European countries, specifically, Ireland, Belgium, Denmark, France, Germany, Greece, Italy, Spain, the Netherlands, the UK, and Portugal. Our sample includes both core and periphery countries given the presumption of the literature that the results may differ across the two groups. Afterwards, the IRFs are estimated to identify the dynamic responses of the examined variables to uncertainty shocks (Koop et al., 1996; Pesaran and Shin, 1998). The IRFs are estimated using three different approaches, i.e., first, Cholesky decomposition, second, using rolling IRF to examine the dynamic evolution of the responses of inequality to uncertainty shocks throughout the examined years and especially during crisis periods, and third using local projections, due to the lack of knowledge regarding the data generating process (Jordà, 2005). Early evidence shows that uncertainty shocks affect inequality differently across countries, with core countries experiencing an increase in inequality. Moreover, there is significant evidence that the uncertainty effects on inequality are time varying.

Keywords: Uncertainty, income inequality, wealth inequality, Mixed-frequency VARs

JEL Codes: C32, D3, D8, E32

Session 7

Macroeconomics II

Minimum wage adjustments and household consumption

Nicholas Giannakopoulos, Ioanna Kontogianni[1], Ioannis Laliotis

[1] *Department of Economics, University of Patras*

Abstract

This study investigates the impact of minimum wage adjustments on household consumption in Greece (2008-2022). During this period, Greece underwent a series of minimum wage policy changes. Our focus is on the 2012 cut, implemented to accommodate the country's structural adjustment program under the supervision of the International Monetary Fund, the European Central Bank and the European Commission, and the 2019 increase; the first one after seven years of remaining stable. Given that (a) both adjustments were quite substantial, i.e., by 22% in 2012 and by 11% in 2019, and (b) they moved in opposite directions, our objective is to provide evidence of what minimum wage adjustments imply for outcomes beyond the labour market, i.e., how they affect spending patterns of households given their level of dependence on this sort of policy instrument.

We use nationally representative cross-sectional data from the Greek Household Budget Survey (HBS), and restrict the sample to include households with at least two adults employed in the private sector. Using detailed information on family income, households were grouped into 3 categories, i.e., those highly dependent on the minimum wage; those weakly dependent, and those not reliant on minimum wage adjustments. Conditional on household characteristics, regional and time fixed effects, our estimates from the pooled sample of households shed light on the how spending behavior varies with the relevance of the minimum wage for the total household income. To accommodate concerns regarding the cross-sectional nature of the HBS data, we create a pseudopanel dataset after collapsing all observations by income category and year, in order to quantify the implications of minimum wage adjustments on spending behavior by incorporating interaction terms between household indicators and time dummies for the year of the minimum wage reform and the succeeding one.

Our findings suggest that the exposure to the minimum wage affects household's spending behavior across twelve goods and services categories. Households that are more dependent on the minimum wage tend to spend a larger portion of their total income on food and housing expenses, rather than clothing, transport, leisure activities, and education. Moreover, home ownership, age, education level, and labor market status are also significant predictors of expenditure patterns. Following the 2012 minimum wage drop, highly affected households increased their expenditure share on food, transport and communications, and decreased it on alcohol, leisure activities and dining out. This trend reversed after the 2019 increase, with household income being shifted towards discretionary categories, such as clothing and restaurants. Spending behavior of weakly dependent households was not significantly affected by any minimum wage adjustment. Our findings are indicative of the fact that minimum wage policies have heterogeneous impacts on series of behaviors that extent beyond traditional labour outcomes such as wages and employment, and call for a careful and thorough consideration of all possible transmission mechanisms of minimum wage adjustments.

Keywords: Minimum wage, consumption, low-wage households, Household Budget Survey (HBS), Greece

JEL Codes: D12, J31, C31

State dependent fiscal multipliers in a Small Open Economy

Xiaoshan Chen, Jilei Huang, Petros Varthalitis

[1] *Durham University Business School*

[2] *Shandong University*

[3] *Athens University of Economics and Business*

Abstract

We compute state dependent fiscal multipliers using in an estimated small open economy medium scale DSGE model for a country that is a member of Eurozone, focusing specifically on the case of Ireland over the period 2000-2019. State dependency refers to the state of public finances, specifically we quantify fiscal multipliers across states of high/low public debt. Our open economy setup enable us to assess the impact of a fiscal stimulus on aggregate output but also its compositional effect in the small open economy with two-sectors, namely, tradable and non-tradable. We find a non-linear negative relationship between public debt and the fiscal multiplier. Additionally, government spending compared to other fiscal instruments, is more likely to simulate the economy in states of high public debt. The latter effect works mostly through the non-tradable sector.

Keywords: Fiscal multipliers,Small Open Economy, State dependent

JEL Codes: E30, E60, F41

Taylor Rules and Bank Leverage: Navigating Monetary Policy for Financial Stability

Xakousti Chrysanthopoulou[1], Nikolaos Mylonidis[2], Alexandros Tsioutsios[2]

[1] *Aristotle University of Thessaloniki, Department of Economics, Thessaloniki, Greece*

[2] *University of Ioannina, Department of Economics, Ioannina, Greece*

Abstract

Taylor rules are simple monetary policy rules that prescribe how a central bank should adjust its interest rate policy instrument to stimulate/dampen aggregate demand and restore its price stability and full employment objectives. Yet, price or/and output stability do not ensure financial stability. The new paradigm that emerged after the Global Financial Crisis reignited discussions on the desirability of including financial stability as an additional macroeconomic objective. Should central banks follow "*lean against the wind*" policies, i.e., react to financial variables alongside with expected inflation and output?

At the same time, numerous studies have highlighted significant supply or cost side effects of monetary policy beyond the standard aggregate demand channel. In this vein, the underlying rationale of the cost channel relates to a firm's liquidity constraint that forces it to borrow from the financial intermediary to pay for the working capital costs. Thus, an increase in the policy interest rate and/or the lending rate directly increases the firm's marginal cost. Under markup pricing, this leads to the co-movement of prices and interest rates, i.e., to the infamous "*price puzzle*".

However, despite the ample empirical evidence supporting the existence of the cost channel, theoretical research on its implications for "*lean against the wind*" policies remains limited, as most studies focus on the standard aggregate demand channel.

The paper aims to address this gap by examining the implications of the presence of the cost channel for the "*lean against the wind*" policy. Specifically, we probe into the augmented Taylor-rule response of monetary policy as a tool to achieve financial stability while controlling for the presence of a cost channel. We show that the bank leverage-adjusted Taylor rule, including a response to bank leverage in addition to expected inflation and output, is a *theoretically* optimal monetary policy. The analysis is conducted in a New-Keynesian Dynamic Stochastic General Equilibrium (DSGE) model with a cost channel or a bank lending channel due to a target level for banks' leverage. Our analytical results also indicate that optimal monetary policy should increase interest rates due to rising bank leverage. We validate this theoretical finding empirically for the US and Eurozone. Furthermore, we find that this optimal response is conditional on the degree of interest rate pass-through and, thereby, on the characteristics of the financial structure, and the tightness of bank capital requirements. A proactive central bank that targets financial stability besides the inflation rate and the output gap is, therefore, a preferred alternative.

Keywords: Financial structure; Monetary policy; Taylor rule

JEL Codes: E44; E52; E58; G28

Fiscal and monetary policy mixes in a member-country of the Eurosystem

Vasiliki Dimakopoulou[1], George Economides[2], Apostolis Philippopoulos[3]

Foundation for Economic and Industrial Research (IOBE), and Athens University of Economics and Business

Athens University of Economics and Business, CESifo, and Hellenic Open University

Athens University of Economics and Business, CESifo, Hellenic Observatory at the LSE, and Hellenic Fiscal Council

Abstract

We search for fiscal-monetary policy mixes in a high-debt open economy that is a member of the Eurosystem (ES) in the current circumstances. This is investigated in a dynamic general equilibrium model calibrated to the Greek economy, in which fiscal policy is conducted under the rules of the Stability and Growth Pact and quantitative monetary policy is conducted subject to the rules of the ES. That is, a distinct feature of the paper is that it incorporates the key features of the fiscal and monetary regime in the Euro Area. The point of departure is the current situation, meaning that transition dynamics are driven by adverse imported energy inflation and supply shocks, as well as positive investment shocks mimicking the aid from the EU's ongoing Resilience and Recovery Fund (RRF).

Within the above setup, we search for policy mixes that can guarantee stability and determinacy in an otherwise unstable economy.

Before we start, we argue that, in almost all papers by researchers in the European Central Bank (ECB) and National Central Banks in the ES, it is assumed (explicitly or implicitly) a regime of monetary dominance, in which monetary policy controls inflation (typically meaning that the central bank sets its policy nominal interest rates as a function of inflation according to a Taylor rule), while fiscal policy ensures public debt sustainability (typically meaning that tax-spending policy instruments respond to public debt imbalances). A regime of "fiscal dominance is institutionally ruled out" on

the grounds that it would violate the mandate of the ECB and the ES. Also, in case the models include quantitative easing policies (QE) the argument is that they help to “support price stability and stimulate economic activity”; there is no mention of public debt management, although ES’s cumulated net holdings of sovereign bonds were 31.8% of total EA public debt at the end of 2022, while, at the same time, in most member-countries, there is no evidence of systematic stabilizing reaction of national fiscal policies to rising public debt.

By contrast, our paper does not make the counter-factual assumption of monetary dominance. Nor we ignore the public financing implications of QE policies. Then, we find that, under specific conditions, which have to do, as possibly expected, with the amount and composition of domestic debt, as well as with the volume of QE in conjunction with the ES restrictions, debt-contingent quantitative monetary policies by the ECB can on its own stabilize the economy. This confirms the vital role that the ECB’s policies have played at least so far. In turn, within this family of policies, we search for policy mixes that can also allow the Greek debt to GDP ratio to fall over time, as well as Greece to repay its debt to the EU’s public institutions by 2070, and that all this can hopefully happen without hurting the real economy. Our preliminary results seem to indicate that debt-contingent fiscal and quantitative monetary policies, in conjunction with reforms in the fiscal policy mix, can reinforce each other confirming the importance of policy complementarities.

Keywords: Fiscal policy, Debt stabilization, Monetary policy, Euro Area

JEL Codes: E5, E6, O5

Session 8

Macroeconomics III

Unveiling Economic Realities: Constructing a Social Accounting Matrix for the Greek Economy and Analysing Multipliers for Enhanced Decision-Making

Afentoula Mavrodi, Georgios Kolias, Nikolaos Mylonidis, Christos Gogos, Kostas Karamanis

[1] *Hellenic Open University, 18 Aristotelous St, 26335, Patras, Greece*

[2] *Department of Accounting and Finance, University of Ioannina, 45110, Ioannina, Greece*

[3] *Department of Economics, University of Ioannina, 45110, Ioannina, Greece*

[4] *Department of Informatics and Telecommunications, University of Ioannina, 47150, Arta, Greece*

Abstract

Ensuring a country's sustainable development in terms of long-term growth, natural resources preservation and social equity promotion is fundamental while paving paths in the new decade. The Social Accounting Matrix (SAM) is a valuable tool that is used to analyse complex economic systems and facilitate informed decision-making regarding resources allocation, income distribution, poverty and inequality. SAM can be accompanied with economic models simulating and further assessing the impact of different economic national or global shocks, events, policy changes. This assessment relies heavily on the financial interactions between the interdependent economic activities of individual economic entities (households, firms, government, and the rest of the world). In recent years, Greece is continuously facing significant economic and social problems questioning to a great extent the resources and income distribution. The aim of this study is to assess the interactions among economic entities and hence the monetary flows (inputs-outputs) to and from each entity to identify the economic aspects that need special attention and/or optimisation to boost grown and equity in the Greek economy. To succeed in this the authors performed secondary (archival) research to collect all necessary data to construct a national SAM for the year 2015. To the best of authors' knowledge this the latest national SAM constructed for the Greek economy. SAM construction was followed by the disaggregation of the 'Activities' and 'Commodities' accounts to provide a more detailed picture of the characteristics and structure of the Greek economy during the year under investigation. 2015 was chosen as a year since it signaled great changes in the structure of the Greek economy and it was, hence, deemed an important starting point in the analysis. Through further modeling, multipliers analysis was conducted to assess the impact on key economic indicators, such as direct output and income distribution. The findings of the study showed that in 2015 the Greek economy although a capital-intensive economy appeared to be directly dependent on the provision of services and exhibited both fiscal and trade deficits. The subsequent multiplier analysis further supports these findings, as the Services sector presented the largest output and income multipliers compared to other sectors. Since the industrial sector is supporting primarily the intermediate production and is exporting the largest part of the production (export-leakages), the above findings do not come as a surprise. By integrating data from multiple sources to construct the SAM and employing analytical techniques, this study sheds light to the Greek economy's dynamics, offering valuable insights for policymakers and researchers.

Keywords: SAM, multipliers, Greece, growth, equity, policy impact

JEL Codes: E01, E16, H30, O10, R15

European Structural and Investment Funds (ESIF) and regional cohesion in EU member-states

Nikolitsa Spilioti[1], Athanasios Anastasiou[2]

[1] *Department of Management Science and Technology, Laboratory of Data Science and Digital Transformation, University of Peloponnese, Greece*

[2] *Department of Management Science & Technology, Director of Laboratory of Data Science and Digital Transformation University of Peloponnese, Greece*

Abstract

This paper presents a meticulously conducted and extensive comparative analysis of the absorption patterns of European Structural and Investment Funds (ESIF) throughout the 2014-2020 programming period across a diverse array of European countries, with a particular emphasis on the Greek context. The primary objective of this study is to offer a comprehensive understanding of both shared trends and variations in fund absorption dynamics, thereby providing valuable insights into the intricate factors that shape the utilization of ESIF.

Methods and Tools: Quantitative analysis serves as a cornerstone of the methodological framework, enabling rigorous examination and comparison of ESIF absorption dynamics. Statistical software packages such as SPSS are utilized to conduct regression analysis, econometric modeling, and other quantitative techniques. These analyses allow researchers to assess the impact of various factors such as macroeconomic conditions, administrative efficiency, and policy frameworks on ESIF absorption rates. Additionally, Python coding language is utilized for custom analyses and data processing, ensuring compatibility with Geographic Information Systems (GIS) software.GIS software, particularly QGIS, plays a crucial role in spatial analysis and visualization within the methodological framework. QGIS enables researchers to integrate ESIF absorption data with geospatial information, such as administrative boundaries and socio-economic indicators. Through spatial analysis techniques, researchers can identify spatial patterns and disparities in fund absorption across

different regions. Python scripting capabilities in QGIS facilitate advanced spatial analysis and automation of repetitive tasks, enhancing the efficiency of data processing and visualization.The study adopts a formal and extensive comparative approach, leveraging SPSS for statistical comparisons and QGIS for spatial comparisons. By juxtaposing ESIF absorption dynamics across various European countries, researchers can identify commonalities and differences in fund utilization strategies. Statistical tests and spatial analysis techniques help quantify and visualize these comparative insights, allowing for a nuanced understanding of cross-country variations in ESIF absorption patterns. Moreover, Python scripting in both SPSS and QGIS enables seamless integration and automation of comparative analyses, ensuring consistency and reproducibility.

Thematic analysis constitutes another essential component of the methodological framework, focusing on the thematic priorities guiding ESIF allocation. SPSS is utilized for statistical analysis of thematic allocation patterns, while QGIS facilitates spatial visualization of thematic priorities across different regions. Through thematic analysis, researchers assess the alignment between ESIF funding priorities and overarching development objectives, providing insights into the relevance and impact of thematic funding areas such as innovation, sustainability, and social inclusion. Python scripting enhances the analytical capabilities of both SPSS and QGIS, enabling advanced thematic analysis and visualization techniques.Contextualization is integral to the methodological framework, enabling researchers to situate ESIF absorption dynamics within broader socio-economic contexts. SPSS and QGIS facilitate the integration of contextual factors such as historical, political, and institutional contexts into comparative and thematic analyses. By considering these contextual factors, researchers gain a holistic understanding of the drivers shaping ESIF absorption rates and their implications for regional development. Python scripting further enhances contextual analysis by enabling the incorporation of additional data sources and the implementation of sophisticated analytical techniques.

Furthermore, this analysis delves into the thematic priorities guiding ESIF allocation, encompassing critical areas such as innovation, sustainability, social inclusion, and infrastructure development. By contextualizing these thematic priorities within the broader socio-economic landscape, the study sheds light on their implications for regional development trajectories and cohesion. Through an in-depth exploration of thematic allocation patterns, the research seeks to offer valuable insights into the alignment between ESIF funding priorities and overarching development objectives.

Through its findings, the study aims to inform evidence-based policymaking and strategic interventions aimed at enhancing the effectiveness and impact of ESIF utilization across European nations.

Keywords: European Structural and Investment Funds, ESIF, fund absorption, comparative analysis, European countries, regional development, socio-economic factors, thematic priorities, cohesion policy

JEL Codes: E50, F40, H70

The role of culture in mitigating information asymmetries in portfolio choice decisions

Stefanos Ioannou[1], Tamilyam Memanova[2], Nikolaos Mylonidis[2]

[1] *Oxford Brookes Business School, Oxford Brookes University, Headington Campus, OX3 0BP, Oxford, UK.*

[2] *Department of Economics, University of Ioannina, 45110, Greece.*

Abstract

We expand the literature on investment home bias by considering the impact of novel indicators associated with information asymmetries and cultural proximity. Our findings show that foreign portfolio investors' decisions are negatively affected by the presence of between-country informational asymmetries. In contrast, religious proximity fosters trust and thus increases the willingness of investors to invest in foreign financial assets. Finally, we detect a 'financial center bias', conceptually related to home bias. All else the same, countries hosting global financial centers are more likely to invest reciprocally.

Keywords: International capital flows; Portfolio investment; Informational Asymmetries; Cultural proximity; Financial center bias.

JEL Codes: G11; G14; Z12.

Intangible Capital and Business Cycles in the Eurozone

Vasiliki-Eirini Dimakopoulou[1], Stelios Sakkas[2], Petros Varthalitis[3]

[1] *University of Athens, Department of Economics, Athens, Greece.*

[2] *University of Cyprus - Economics Research Centre.*

[3] *Athens University of Economics and Business, Department of Economics, Athens, Greece.*

Abstract

Over the last decades the importance of intangible capital as a factor of production steadily rises. Advanced economies rapidly transform their production structures towards intangible intensive economic activities. At least since 1995, European economies have seen a significant rise in the intangible intensity of their production activities. Figure 1 illustrates the ratio of intangible to tangible investment during 1995-2017 in European economies. Intangible investment increases from 32% in 1995 to 58% in 2017 as a share of tangible investment. At the same time, we observe a similar reallocation of hours worked towards occupations related to the production of intangible assets. That is the share of hours worked to occupations related with the production of intangibles rises from 9% in 1998 to 20% in 2017.

As Haskel and Westlake (2017) point out intangible capital affects modern economies in a fundamentally different way than tangible capital. Their argument stems from the structural economic characteristics of intangible assets. In particular, intangible investment is a non- rivalrous input in the sense that it can be used in multiple production activities at the same time. In addition, intangibles assets are difficult to measure both at micro and macro level. Finally, these assets involve irrecoverable costs which means that they cannot be liquidated or sold. Thus, most of the times intangible capital cannot be used as a collateral.

We build a dynamic general equilibrium model in the spirit of McGrattan and Prescott (2005, 2010). The model consists of households, firms and government. We assume a final and an intermediate good sector. The intermediate good sector consists of

corporate firms which have access to two production technologies. That is a corporate firm can produce: (i) tangible goods and (ii) intangible assets. Both production technologies utilize tangible and intangible capital and hours worked to produce their outputs. We assume that tangible and intangible capital have different economic characteristics. First, tangible capital is assumed to be a rivalrous input in contrast with intangible capital which is assumed to be a non-rivalrous input. This captures the fact that machinery and equipment can be used in a single production activity; on the other hand knowledge and business processes can be used to produce multiple tangible goods/services and new intangible assets at the same time. Second, we assume that only tangible capital can be used as a collateral. Thus, as intangible intensity of the corporate sector rises, the borrowing constraints are more likely to bind and as a result firm's economic decisions become more vulnerable to structural shocks. In this setup, we incorporate nominal fixities and financial frictions.

We calibrate intangible capital intensity using data for the Eurozone countries over the period 1995-2017 (taken from EUKLEMS-INTANProd database). We seek to answer the following questions: How the business cycle properties differ in the relatively high intangible intensive EZ economies with respect to the relatively low intangible intensive EZ economies? Does a neoclassical growth model augmented with intangible capital account for these differences? Which is the role played by nominal rigidities and financial constraints under this setup?

Keywords: DSGE, Investment, Intangibles.

JEL Codes: E13, E32, E22.

Session 9

Cultural Economics

Investigating the topicality of Basil The Great's conception of money and social-economic justice

Ileana Tache, Titus Suciu

Transilvania University of Brasov, Faculty of Economic Sciences and Business Administration

Abstract

This paper investigates the economic aspects found in the teachings of the influential theologian and Church father Basil the Great ((330-379), very little discussed in the history of economic thought. Basil the Great's legacy is approached in the literature mainly in relation to his theological convictions, ecclesiastical politics and ascetism, but interesting aspects of economic and social justice can be found in his writings. This study was animated by a deep interest in ancient realities and literacy and in understanding the economy of the Greco-Roman era in which Christianity arose.

A parallel between early Christian Church ideas and those of later utopian socialists is also intended, uncovering their similarities and differences. Early church ideas, as illustrated in some quotes presented in the text of the paper, resonate with later utopian socialism, having Charles Fourier (1772-1837) and Robert Owen (1771-1858) as the most illustrious representatives. The comparison revealed some similarities, but their motivation appears as completely diverse: religious belief as opposed to a secular vision.

Finally, Basil the Great's relevance for the present times is brought to light, with interesting findings linked to the Basiliads proposed by Basil, which continue the tradition of helping the vulnerable people and to other current challenges: inequality, wealth distribution and responsible stewardship of the environment and common resources.

The research methods used in this paper are the historiographical and textual analysis, biographical research, comparative study and interdisciplinary approach.

The study reveals that Basil the Great was a significant figure in early Christian history, particularly in the Eastern Christian tradition. His balanced thought on charity, community and the importance of helping those in need can inspire the present world to creating a more compassionate and equitable society. While he did not write on economic theory in the modern sense, his sermons about economic justice, charity and the proper use of wealth contain insights and principles that can be discussed in the context of economic thought. Even though the economic reflections are rudimentary and utopian sometimes, Basil the Great's writings remain a valuable inheritance – considering that studying them a unique moral thrill is revealed.

Basil's attempt to construct a better world cannot be forgotten because it can still be heard as a living voice in the present times, including concerns linked to corporate social responsibility. The Basiliads currently organized - institutions and organizations drawing inspiration from Basil's teachings in the realm of philanthropy, community service and brotherhood - are a telling example of the fact that Basil's ideas continue to be implemented, supporting his plea for a fairer and more equitable world.

This paper had two ambitious aims: presenting Basil the Great's contribution to economic thought and comparing early Christianity economic thought to the socialist tradition. A future research direction could be that of dedicating a whole paper on its own right to each one of the above-mentioned messages.

Keywords: Basil the Great, economic and social justice, inequality, wealth distribution, Basiliads

JEL Codes: B0, B11, B31, N0

The Global Happiness Curve: Income, Wellbeing, and the Path Beyond Wealth

Nikolaos Antonakakis, Luca Ticini

[1] *Webster Vienna Private University, Business and Management Department, Vienna, Austria*

[2] *Webster Vienna Private University, Department of Psychology, Vienna, Austria*

Abstract

The longstanding debate on whether money can buy happiness has been a pivotal subject of investigation in the fields of psychology, philosophy, and economics. This study examines the complex dynamics between income levels and subjective wellbeing across a diverse range of countries. Utilizing data spanning from 2005 to 2022 for 155 countries, sourced from the World Happiness Report and the World Bank, this research employs a comprehensive analytical approach to examine various polynomial relationships between income and measures of subjective wellbeing, namely cognitive wellbeing and emotional wellbeing.

Our findings unveil distinct empirical regularities in the relationship between income and happiness, manifesting through different proxies of subjective wellbeing and across various groups of countries. First, our analysis highlights a non-linear relationship between income and happiness in advanced economies, where increased income is associated with elevated happiness levels but at a rate of diminishing returns. This pattern reflects the economic principle of declining marginal utility of income, aligning with theories from both economics and psychology. Second, a significant insight from our study is the identification of specific income levels that delineate the complex relationship between money and wellbeing. We identify $14,000 as the income level at which happiness reaches its minimum and $72,000 as the point where happiness is maximized for individuals in advanced economies. Beyond this optimal income level of $72,000, any further increase in earnings paradoxically leads to diminishing happiness, even escalating into feelings of distress, marking a critical juncture in the

dynamics of income and happiness. Third, and contrary to the findings in advanced economies, the relationship between income and happiness in developing countries appears to be monotonic. This implies that, within these regions, increases in income consistently correlate with proportional increases in happiness, without the observed thresholds that initiate a decline in wellbeing. This distinction underscores the variability in how economic factors influence happiness across different socio-economic landscapes.

Beyond income, the study emphasizes the importance of social support, freedom to make life choices, and perceptions of corruption as significant factors influencing happiness. These, along with healthy life expectancy and employment status, are pivotal in shaping subjective wellbeing across countries, indicating the multifaceted nature of happiness determinants.

The implications of our study are profound, suggesting that economic policies aimed at improving subjective wellbeing should carefully consider the income-happiness relationship's nuanced nature. For advanced economies, where a non-linear relationship prevails, policy measures such as Universal Basic Income (UBI) could provide a foundational level of financial security, potentially enhancing overall happiness without reaching diminishing returns associated with higher income levels. Furthermore, as automation and AI begin to replace routine jobs, policies supporting shorter workweeks, like the four-day workweek, could offer workers more leisure and free time, contributing to improved wellbeing without necessarily increasing income.

In developing countries, where the relationship between income and happiness is monotonic, policies focused on economic development and poverty alleviation remain critical. However, ensuring that these efforts are coupled with measures to improve social support systems, enhance freedom, and reduce corruption is essential for sustainable wellbeing improvements.

By presenting a nuanced understanding of how income influences happiness across different contexts, this research contributes to a more informed dialogue on economic policy and wellbeing. It also opens avenues for future research to explore how income interacts with other determinants of happiness, providing insights into fostering wellbeing in an equitable and sustainable manner. These findings can guide policymakers in designing and implementing policies that not only address economic

growth but also enhance the quality of life for individuals across different socio-economic spectrums.

Keywords: Happiness, Money, Subjective Wellbeing, Income, non-linear effects, threshold

JEL Codes: C33; E22; E24; J11; O47

A linear regression on NBA game results before, during and post - the pandemic. The effect of the home-court crowd and how it may affect the result of a game

Yiannis Salogiannis, Athanasios Anastasiou

[1] *University of Peloponnese*

Abstract

Basketball is one of the most popular sports in the world and the National Basketball Association seems to be the greatest league on the world. Many issues related to NBA basketball have been studied.

Home-court advantage is the basic idea that the home team is more likely to win. The home-court advantage seems to be such a big contributing factor regarding the outcome of the game. Not once in NBA games history we had the opportunity to examine and do research so we can study the effects of the lack of home-court attendance on NBA games. The pandemic gave us the opportunity and if we can lay a foundation of typical home-court advantage is crucial.

During the Covid-19 pandemic there were no attendance for the fans on courts and in some cases there were not even traveling for the teams. Speaking in theoretical bases this new special factor appears strong enough to take away the home court advantage from these games.

The methods of statistics and especially linear regression find application in many fields of science, either as evidence of the relationship between factors in a phenomenon, or as a first attempt to predict an event, based on obvious factors that influence this phenomenon.

In this study we will test these methods. Choosing the NBA basketball league and testing the results the years before the pandemic, the pandemic's years and the years after the pandemic to feed our models, we will test through linear regression and various related methods so we will reveal how this no home-court attendance factor, may affect

the outcome of the final result. Besides, our research has an application in monitoring the betting market, which may be useful to bettors or betting companies.

By comparing games before, through and post the pandemic, the results of the research revealed for the first time that during pandemic this factor didn't benefited the home-court team and in contrary benefited the away team more than usual.

Keywords: Sportsbetting, effectiveness, efficiency, return on investment, forecasting, outcome, evaluate, pandemic, covid-19

JEL Codes: E50, F40, H70

Your Sins Are Not Forgiven: Christian Judges in Supreme Courts

Evangelos V. Dioikitopoulos[1], Rigissa Megalokonomou

[1] *Department of Economics, Athens University of Economics and Business*

Abstract

In this paper, we advance the hypothesis that a critical cultural aspect, religion, can shape the quality of justice institutions. To this end, we examine whether a higher share of religious judges in judicial committees influences trial outcomes. We use novel data on appeals cases that have been decided by first-level courts and are subject to re-evaluation by the Supreme Court in Greece. Five judges are randomly assigned to each case, and trial outcomes are the product of a voting process among the assigned judges. We use judges' first and family names to derive novel measures of religiosity. We rely on psychology and sociology literature which shows that given names can reflect cultural identities of parents, and thus people for whom religion is more central or important are on average more likely to choose religious names for their children. We proceed in the following way. We first use judges' first names to distinguish between Christian and non-Christian names by examining whether judges' first names are linked to (Greek Orthodox) Christian Saints or not. To scientifically tighten this distinction, we take into account the chronology of names, i.e., whether they appear before and after Christ using a database of 400,000 ancient Greeks from the universe of epigraphic studies. Then, we map judges' family names to their places of origin and we then derive regional measures of religiosity using the World Values Survey. We find three main results. First, we find strong correlation between the religiosity indexes derived from first and family names. Judges who have a religious first name are also likely to be coming from regions that score higher in several religiosity indexes. Second, committees which are randomly assigned to a higher share of religious judges are less likely to overturn or challenge the first-level court decision. This suggests that religious judges may be more conservative in judging and harsher towards the convicted defendants. Third, we use historical data that reveal that part of the effect is attributed to intergenerational transmission of culture.

Session 10

Finance & Banking

The Institutional Sentiment Index of (Central) Bank of Greece and its discretional role evaluating Greek governments during 1998-2021

Christos Bardas, Vasileios Vlachos, Stephanos Papadamou

Department of Economics, University of Thessaly

Abstract

Purpose of this paper: The Central Bank of Greece, one of only eight private central banks globally (Roussow, 2013, Eichengreen et al, 2016), faces scrutiny since the 2008 debt crisis over its accountability, transparency, and independence. This paper evaluates these aspects using FinBERT, a Large Language Model (Huang et al, 2023), to analyze the Bank's communications from 1998 to 2021. Building on the work of Alesina & Stella (2010) on the theory of rules versus discretion, this study highlights the significant role of Central Bank in monetary and fiscal policy. The research utilizes an Institutional Sentiment Index to assess the policies of Greek governments under the Central Bank of Greece oversight, noting that the government owns a minor 18% stake. This approach, informed by extensive analysis of central bank communications by Bholat et al. (2015), Siklos et al (2013) and others, offers a novel method to evaluate the performance of Central Bank and the discretionary nature towards governmental policy, contrasting with a strict rules-based approach.

Methodology of this paper: This study adopts a methodology using a dictionary based on Baker et al. (2016) and modified by Hardouvelis et al. (2018) for Greece, in which he created the Fiscal and Debt Uncertainty Index. This research, spanning from 1998 to 2021, draws on terms like “reforms,” “privatisation,” “public debt,” and “government debt” to compile the Institutional Sentiment Index, evaluating documents and texts related to Greek economic policies under the Bank of Greece and that of European Central Bank. Utilizing over 16,000 pages of central bank reports to shareholders and governments, the FinBERT algorithm analyzes sentiment across years, categorising sentences as ‘negative’, ‘neutral’, or ‘positive’. This methodology constructs a comprehensive dataset, forming the core Institutional Sentiment Indices and weighted

sub-indices for detailed analysis. These indices are then correlated with macroeconomic indicators like ‘public debt’, ‘% GDP growth’, inflation, and unemployment, alongside political variables such as ‘election year’, offering insights into monetary policy effectiveness and central bank credibility. The inclusion of ‘political type of government’ as a variable enhances the analysis, contributing to the understanding of policy impact on economic conditions.

Findings of the paper: The results interpret the discretional role of (Central) Bank of Greece throughout the period. For instance, a sub-index which refers to Governors stating all positive comments related to ‘reforms’, ‘privatisation’, ‘public debt’, under Spearman’s rho correlation is statistically significant at 5% with the variable “% growth gdp”. Governors tend to increase negative comments when ‘public debt’ -a critical macro variable, increases. This correlation is statistically significant at 5%. The variable ‘political type of government’ is a dichotomous variable as ‘single-party=1’ and ‘coalition type of government=0’. The findings indicate there is a positive correlation between single-party governments and variable 'reforms' and it is statistically significant at 1% and 5% levels. This observation aligns with the results presented by Bawn & Rosenbluth (2006), Pettersson-Lidbom (2008) and Back et al (2017) reinforcing the connection between government type and policy reform initiatives.

Last but not least, there is no statistically significance at any level (neither 1%, 5%, 10%) between ‘election-year’ and all variables analysed, indicating that Central Bank Governors are independent to whether elections are taking place in the Greek state or not. The findings come in alignment with the characteristics of the Central Bank Governors such as independent, credible and transparent as pointed by literature (Cukierman, 2008, Papadamou et al, 2014, EU -Transparency Index, 2017).

Implications of the paper: This study employs FinBERT, an innovative Large Language Model tool, for text analysis and sentiment identification, spotlighting the Central Bank of Greece's challenges in independence and transparency. It proposes the Institutional Sentiment Index for evaluating central bank governors, enhancing research on credibility and policy impact on macroeconomic indicators.

Keywords: Central Bank; Central Bank Communication, Public Debt; Reforms; Large Language Models, FinBERT, Sentiment Analysis

JEL Codes: D02; E5; E58; H6; O2; C55

On prudential regulation and banking conduct

Eleni Dalla

Department of Economics, Democritus University of Thrace, Komotini, Greece

Abstract

The recent downfall of Credit Suisse and Silicon Valley Bank points out that banking crises are always an imminent issue. This is the reason why banking is one of the sectors subjected to prudential regulation, consisting mainly of capital adequacy limits, to sustain financial stability. While this is true, banking is strongly characterized by asymmetric information and market power. Hence, a microeconomic approach of banking is necessary to capture the complexity of recent development in money and finance.

In this paper, we apply the industrial organization approach to banking, ignoring any frictions generated by information asymmetries. This approach studies the effect of banking sector's structure on the monetary policy transmission, the stability of the financial system, and the allocation of capital, treating banks as profit maximizing banking firms (Freixas & Rochet, 2023). Traditional models in the field adopt Cournot models, allowing banks to compete in output, or Bertrand models, which assume that banks compete in prices. Following Dalla (2023), we use a Cournot – Bertrand model with two outputs and product differentiation as the theoretical context of our analysis. According to this mixed-oligopoly model, banks compete in different decision variables, with bank 1 competing according to the Cournot game and bank 2 acting according to the Bertrand one. This asymmetric conduct can be attributed to unobserved banking characteristics.

The purpose of this paper is to investigate the effects of public intervention in the banking sector, given the individual bank's conduct. This intervention takes the form of prudential regulation, which refers to a change in the capital requirements ratio that is imposed by a prudential authority to achieve financial stability. This is a crucial issue in banking literature that deals with the trade–off between competition and stability

(Beck et al., 2013; Berger et al., 2009; Vives, 2019). Generally, although competition is efficient, any competition policy should consider the specific characteristics of the financial sector and it must be coordinated with regulation. As Vives (2016) suggests prudential regulation should take into consideration "the interactions of different conduct and structural instruments used". Our findings show that stringent regulation tends to weaken the transmission of monetary policy, promoting financial stability. At the same time, it decreases the optimal interest rate spread, with different results for different types of banking behavior. Thus, in terms of practical implications, the policy consequences for regulation and monetary policy depend on the type of banking conduct. The calibration and simulation of the model for the Euro Area confirm our theoretical findings.

Keywords: prudential regulation, Cournot - Bertrand model, capital requirements, product differentiation, Euro Area

JEL Codes: G21, G28, L13, E52

Finance and Happiness Across the World

Ioannis Petrakis, Georgios A. Panos[1]

[1] *Aristotle University of Thessaloniki*

Abstract

We propose that financial inclusion and resilience serve as the mechanisms through which financial sector development influences happiness. To measure financial inclusion, we utilize macroeconomic data from the Global Findex, while life satisfaction data is sourced from the World Happiness Report. Additionally, we incorporate relevant variables from the World Development Indicators and the World Governance Indicators. We augment our analysis using household-level data, employing cross-sectional data from the 2017 wave of the Household Finance and Consumption Survey (HFCS) in 17 European Union countries. Finally, we proceed to the individual level, utilizing microdata from the 2021 Global Findex encompassing 123 countries. The estimation results at the country level reveal that financial inclusion has a positive impact on life satisfaction. When measuring inclusion as account ownership at a financial institution, the positive effects can reach up to 21.7%. Furthermore, individuals who are both financially included and financially vulnerable tend to experience even greater happiness, with potential increases of up to 32% if they own a debit or credit card. The micro-econometric analysis conducted at the household level, using data from the HFCS, also demonstrates significant positive effects of financial inclusion on life satisfaction. Additionally, when considering the interaction between formal finance and financial vulnerability, the results indicate that financially vulnerable households are more likely to experience higher levels of happiness when they have access to formal finance. The positive effects of financial inclusion can reach up to 19.2% for the highest category of life satisfaction, specifically when measuring inclusion through account ownership and access to finance via non-collateralized debt. Notably, other proxies also exhibit substantial magnitudes. We find that financial inclusion has negative effects on financial stress. Additionally, when examining the individual domains of financial stress separately, financial inclusion exhibits negative effects across all domains. Causal mediation analysis indicates that financial resilience plays a mediating role in the relationship between financial inclusion and financial stress. Furthermore, alternative variables such as government transfers and remittances reception are found to have a moderating role. When analysing the sources of financial resilience, it is revealed that savings and income from work have the highest negative effects on financial stress. Other sources, including informal borrowing from friends or relatives, selling assets, and borrowing from a financial institution, follow with lower magnitudes of negative effects.

Keywords: Financial inclusion, Financial resilience, Global Findex, HFCS

JEL Codes: G11; G53; D10; D11; C58

Can a stringent regulatory and supervisory framework mitigate the impact of economic policy uncertainty on bank instability?

Chris Magnis[1], Stephanos Papadamou[1], Athanasios P. Fassas[2]

[1] *Department of Economics, University of Thessaly, Volos, Greece*

[2] *Department of Accounting and Finance, University of Thessaly, Larissa, Greece*

Abstract

Purpose of the paper: The main purpose of this study is to investigate the impact of economic policy uncertainty and the new regulatory and supervisory framework on the risk taken by financial institutions. More specifically, it examines whether any effect of increased economic policy uncertainty on bank risks can be reduced via a stringent regulatory and supervisory framework scheduled by authorities. These measures of stringent regulation and supervision can be higher barriers to entry, deposit insurance and more strict capital regulation. Below we can present the main hypotheses to be tested.

H1: A higher level of economic policy uncertainty increases banks' risk-taking.

H2: A more stringent regulatory and supervisory framework mitigates the effects of economic policy uncertainty on banks' risk-taking.

Methodology of the paper: We obtained data from banking institutions in eight developed countries (Australia, Canada, France, Germany, Italy, Japan, UK, USA) from 2004 to 2019. Our sample covers a significant period on an annual basis. Based on the research of Kanagaretnam et al. (2014); Jin et al. (2018); Kanagaretnam et al. (2019) and Dal Maso et al. (2020) we examine our first research hypothesis according to the following model:

Risk Takingk = f(EPU, Bank-Level Variables, Country-Level Variables) + ε [1]

The dependent variable is risk-taking which is proxied by the z-score, the volatility of the return on assets, and the variability of the net interest margin.

Building upon the previous model, our study delves into the potential influence of the regulatory and supervisory framework on the risk-taking behaviors of banking institutions.

Risk Takingk = f(EPU, Regulatory & Supervisory Framework, Bank-Level Variables, Country-Level Variables) + ε [2]

Our main estimation methodology for the above two equations is the panel pooled and fixed effect regression.

Findings: The panel data analysis employed reveals that economic policy uncertainty works as a catalyst for bank instability. An increase in economic policy uncertainty can contribute to increased financial instability. Conversely, a more stringent regulatory and supervisory framework for banks corresponds to reducing the impact of economic policy uncertainty on the level of bank risk. Undoubtedly, this pattern appears to be more noticeable in the banking industries of countries with substantial deposit insurance and significant barriers to market entry.

Implications: The findings of our study indicate that during periods characterized by a higher degree of economic policy uncertainty, banks tend to engage in riskier behavior, while the opposite holds as well. Ultimately, the study demonstrates that a strong and comprehensive framework for regulations and supervision appears to be highly effective in reducing bank instability, especially during periods of significant uncertainty in economic policy. The results of our sensitivity tests demonstrate a high level of resilience and reliability. Policymakers by scheduling regulation based on our main findings by adopting deposit insurance and barriers to entry measures can smooth the negative effect of increased policy uncertainty on financial institutions' stability.

Keywords: Financial Stability; EPU; Regulatory & Supervisory Framework; Banks

JEL Codes: G21, G28, E58

Session 11

Socioeconomics

Security and Stability Implications of Refugee Flows in Europe: A Panel VAR analysis

Kyriakos Emmanouilidis, Sotirios Bellos

City College, University of York Europe Campu

Abstract

Refugee flows, although not a new phenomenon, gained particular attention after the end of the first decade of the 21st century. Various areas worldwide, particularly those characterized by high levels of development, have encountered a notable increase in displaced individuals seeking refuge and asylum. This upsurge is attributed to factors such as armed conflicts, civil unrest, and economic disparities that force many people to flee their homes in search of safety and better opportunities. Europe is a notable example of a region witnessing an escalation in refugee movements due to its attractiveness for a variety of reasons, e.g. economic stability, legal framework for asylum applicants, humanitarian values, quality of social services etc., but also because of its geographical proximity to Africa and Asia, where substantial waves of immigration are being generated.

Large immigration flows, particularly driven by refugee migration, may exert significant pressures on host economies and societies, reshaping longstanding operational norms that were in place before the emergence of this social phenomenon. Economically, mass population displacements have the potential to increase fiscal budgets, induce changes in labor market dynamics, and even put a strain on public services and welfare systems. Politically, they may be associated with anti-migrant sentiments, which can lead to demonstrations, street violence, social tensions, and the rise of populist and far-right parties. In this uncharted territory, policymakers should address the challenges presented by the influx of refugees while simultaneously striving to preserve and foster social cohesion within host societies.

Aiming to empirically uncover some of the aforementioned issues, the study explores the consequences of refugee inflows on political stability, economic growth, and military and civilian expenditures for a group of 35 European countries spanning the period from 2000 to 2022. The research also focuses on the European regions directly affected by the refugee flows, i.e. South Europe, as well as those located in the northern part of the continent, while taking into account important events that may have shaped the interrelationships under consideration. The analysis is conducted in the framework of Panel Vector Autoregressive (PVAR) models, which allow the endogenous determination of all system variables as well as the determination of transitional effects on the system's variables after exogenous shocks (IRFs).

The findings indicate that refugee flows can raise security concerns by causing increases in defense budgets, whereas they can be detrimental to the host country's GDP growth rate and level of political stability. The estimates for the two geographical zones, i.e. Southern and Northern Europe, further confirm these conclusions, although the size of the effect is not uniform across the two regions.

Keywords: Refugee Flows, Military Expenditure, Political Stability, Economic Growth

JEL Codes: F22, F52, J61, H53, H56

COVID-19 Infection Rate and Social Disadvantage in Ireland: An Area-Level Analysis

Anne Devlin, Adele Whelan, Seamus McGuinness

Economic and Social Research Institute

Abstract

Existing research has shown that deprived areas were impacted to a greater extent by the COVID-19 pandemic in a multitude of ways but particularly in terms of the health impacts. This research examines the health impacts of the pandemic on people living in disadvantaged areas in Ireland. The analysis is conducted by using area-level COVID-19 infection rate data at the Electoral Division (ED) level for Ireland alongside ED level measures of deprivation based on the Pobal Haase Pratschke Relative Deprivation (HP Relative Deprivation Index). Additional area-level information from the Census is also utilised. This work builds on previous work that examined the economic impact of COVID-19 on disadvantaged areas in Ireland in terms of pandemic related unemployment.

Descriptive analysis suggests that the average COVID-19 infection rate in the most deprived areas was more than a third higher than the average in the most affluent areas. The results of formal modelling show that infection rates were highest in the most deprived areas even when controlling for ethnic make-up, prevalence of poor health, and age structure at the area-level. The results are also consistent when occupational make-up of an area is controlled for. Areas with higher shares of ethnic minorities as well as areas with poorer health at the area level also had higher infection rates. This is consistent with the existing international literature.

We also find that higher infection rates were also found in non-deprived areas located in border counties. This latter finding in particular has significant policy ramifications given the porous border between Ireland and Northern Ireland.

In terms of ICU admission, deprivation is not correlated with high ICU admission rates due to COVID-19. High ICU admission rates are more likely in areas with higher

proportions of Irish Travellers, black people, and most importantly areas with higher levels of poor health. Areas with higher shares of people infected with COVID-19 who had underlying clinical conditions also had higher rates of ICU admission in line with priors. These factors are also highly correlated with area-level deprivation so while deprivation does not have a direct impact on ICU admission rates at the area-level it appears to be mediated through these other area-level factors e.g. ethnicity and health.

From a policy perspective, there are important lessons to be learned about health inequalities during a pandemic as well as the impact of pre-existing inequalities. COVID-19 also continues to have long-term impacts on people who were infected so a better understanding of how it was spatially distributed is important for planning healthcare resources and supports going forward.

Keywords: COVID-19, social deprivation, inequality

JEL Codes: B55, I14, I18, I32

Defined-contribution plans and retirement-financing behaviour in the United Kingdom

Ioannis Petrakis, Georgios A. Panos

[1] *Northumbria University*

[2] *Aristotle University of Thessaloniki*

Abstract

The aging global population has led to the increasing need for modern pension systems to ensure long-term financial security for citizens. In this study, we examine the impact of the adoption of the pension scheme auto-enrolment in 2012 on retirement financing behaviours in the United Kingdom. To conduct the empirical analysis, we utilize data from the 2018 cross-section second wave of the Financial Capability Survey. To address selection bias, a Heckman correction model is employed, and endogenous treatment regressions are used to account for endogeneity biases. The empirical strategy follows a sequential decision-making logic, in modelling the process of decision-making regarding pension participation and retirement financing. We begin by examining the determinants of the decision to contribute to a pension plan, followed by the determinants of the choice of a defined-contribution plan. Subsequently, we explore the effects of defined-contributions plan participation on the decision to rely solely on pensions as retirement funds or to explore alternative investments. Finally, we investigate the effects on financial behaviours. By employing this analytical approach, we aim to provide a comprehensive understanding of the complex relationship between auto-enrolment, retirement-financing decisions, and subsequent financial behaviours. The findings reveal that the implementation of auto-enrolment and defined-contribution (DC) pension plans has encouraged individuals to become more actively involved in pension contributions. Treated individuals are more inclined to diversify their retirement funds by investing in both liquid and illiquid assets. Additionally, positive effects are observed in retirement financing outcomes, which align with the life-cycle theory. The causal mediation analysis in this study considers alternative variables that can potentially influence the causal relationship between defined-contribution plan participation and financial outcomes. Specifically, the analysis examines the mediating role of financial literacy and information exposure in this relationship, as well as the moderating roles of retirement security and professional advice for retirement planning and finances. The results of causal mediation analysis demonstrate that financial literacy and exposure to multiple financial information sources play a mediating role in the causal relationship between auto-enrolment and retirement finances, while retirement security and seeking professional advice have a moderating role. These factors help to enhance and optimize the effects of defined-contribution plan participation on financial outcomes. Their presence further underscores the importance of considering multiple factors and resources in the planning and decision-making process for retirement finances.

Keywords: Financial literacy, Auto-Enrolment pension scheme, Defined contribution pensions, Retirement planning

JEL Codes: H31; D02; D12; D31

Intergenerational Mobility in Greece: A Spatiotemporal Study

Athanassios Stavrakoudis

Applied Informatics and Computational Economics Lab, Department of Economics, University of Ioannina, Ioannina, Greece

Abstract

The current study examines the intergenerational mobility (IM) based on educational attainment. First, a spatial division of Greece was constructed taking into consideration all administrative changes in communities and municipalities form 1971 till 2011. Then, census data are mapped onto the respective regions on individual basis and aggregated accordingly to the regions' population in order to have adequate sample size for each region. The dataset (10% for censuses of 1971, 1981, 25% for 1991, 2001 and 2011) contains all persons of the sampled household allowing the identification of parental/child relationship within household. Aggregation of data in regions is also performed not only within administrative divisions but also taking into consideration the terrain (mountains, small islands, etc). Educational attainment is mapped to ISCED codes in order to have a harmonized view of educational level, even though every census had different codification of it. As it expected form the household structure many kids live their parental household after the age of 18, making the identification of parental/child relationship unavailable. However there is still at least 55% of young people of age 23 yo (especially in the cities) still leaving with their parents allowing a good interpretation of the data when university education level is under investigation. The current study examines both upword and downword mobility, in comparison to father or mother or both parents. It also considers the size and facilities of the house as a proxy variable of the household wealth. An interactive web based application is also developed in order to highlight the main results of this study (http://stavrakoudis.econ.uoi.gr:9988/pontos/igm/).

In order to account IM measures the following indicators are taken into account:

- IM_upirt takes the value of 1 if the child i at regiorn r at cencus year t has better ISCED educational level that its parent(s)
- IM_downirt takes the value of 1 if the child i at regiorn r at cencus year t has lower ISCED educational level that its parent(s), while it could in principle could have at the least the same level according to its age

The main findings of this study are:

- Educational inequality is persistent. Although educational level is higher in 2011 than in 1971, regions with lower educational attainment in 1971 remain in the same quantile (approximately) of educational attainment.
- Poorer regions show higher educational mobility.
- Richer regions might show downword mobility.
- Cultural traditions matter, the Muslim minority in Thrace demonstrate the lowest educational mobility.
- Remote communities (mountains, small islands) show lower mobility than the cities.

Keywords: intergenerational mobility, census data, spatial analysis, Greece

JEL Codes: I24, J62, O15

Session 12

Applied Economics I

Doubling down: The synergy of CCyB release and monetary policy easing

Cristina Jude, Grégory Levieuge

Banque de France & University of Orléans

Abstract

At the height of the COVID-19 crisis, many countries have reduced their countercyclical capital buffer (CCyB) for the first time since its implementation, while also cutting key policy rates. In this paper, we exploit this quasi-natural experiment to gauge the combined effects of these two policies on bank lending rates (BLRs).

Our analysis first relies on a New Keynesian macroeconomic model with a banking sector and financial frictions to study the individual and combined effects of macroprudential and monetary policies on credit conditions. We show that the CCyB release lowers bank lending rates to firms and, to a lesser extent, mortgage rates. We also reveal that a CCyB relief strengthens the impact of a policy rate cut, thus improving the transmission of conventional monetary policy. Similarly, a policy rate cut enhances the impact of a CCyB relief on lending rates. As evidence of complementarity, the joint action of these two policy instruments has a greater impact than the sum of their individual effects.

In a second step, we empirically validate these theoretical predictions through a DID analysis performed on a sample of 54 countries. Results confirm that the CCyB release and, in some cases, lower policy rates, have put downward pressure on BLRs during the COVID-19 crisis. Even more important, as an evidence of synergy, their joint effect further accentuates the decline of BLRs. On one hand, the lower the policy rate, the greater the benefit of CCyB relief (with an average additional decline in corporate BLRs of around 11 bps for any 1 pp decline in CCyB). This suggests that macroprudential easing gave leeway to economies close to their effective lower bound. On the other hand, releasing the CCyB has acted as a catalyst for a better transmission of policy rate cuts. While the transmission of policy rates to BLRs appears seemingly dampened in non-treated economies at the height of the crisis, releasing the CCyB allows an additional easing of about 18 bps for corporate BLRs for every 100 bps cut in the policy rate. We find the effect of the policy-mix to hold for mortgage rates as well, but to a much smaller extent. The housing market has actually came to a halt with the containment measures in the spring of 2020, thus being less responsive to policy measures. These results are robust to different specifications and are not questioned by the numerous placebo tests we carry out.

While statistically significant, the combined impact of CCyB release and monetary policy easing on BLRs is rather modest. In absolute terms, the estimated impact is at the lower range of estimations for capital requirements increases typically found in the literature. This may be due to insufficient room for maneuver, as CCyB was far from 2.5% in many jurisdictions. In this case, our results support the adoption of a positive neutral rate for CCyB, as already done in the UK, Sweden and the Netherlands. Additional mitigating factors may explain this weak effect: a stigma effect, the dissuasive consequences of the dividend ban associated with the CCyB release, banks' wealth effects, the fact that the CCyB constraint was not truly binding for many banks when the crisis emerged, regulatory uncertainty, or the downward rigidity of BLRs.

Keywords: Countercyclical capital buffer, Monetary policy, Policy complementarity, Lending rates, COVID-19

JEL Codes: G21, G28, E52, E44

Subjective well-being case study: The results of attending and participating in a local running event in Ioannina, Greece

Ioannis Papaiakovou

University of Ioannina

Abstract

Purpose

Subjective well-being, as individuals' cognitive and affective evaluations of their satisfaction with life, depends on a wide range of factors. Physical activity as one of these factors has significant benefits for physical and mental well-being, while an emerging literature examines the impact of sports participation on subjective well-being. The aim of this study is to examine if active sport participation and sport attending can directly affect (positively or negatively) other elements of subjective well-being. There is a variety of studies focused on sport events, examining the economic impact of this event, or the health impact for all the participants, but this study tried to examine the event from a more personal perspective, asking the attendants to evaluate their decision by their own personal standards.

Methodology

In order to assess the level of Subjective Well-Being experienced by individuals, the Subjective Well-Being Inventory (SUBI) was used. SUBI was developed by Sell (1994), is designed to assess an individual's subjective well-being across multiple domains, and consists of 40 items of 3point scale, which form 11 dimensions which are General well-being - positive affect, Expectation-achievement congruence, Confidence in coping, Transcendence, Family group support, Social support which are positively directed and Primary group concern, Inadequate mental mastery, Perceived ill-health, Deficiency in social contacts and General well -being-negative affect, which are negatively directed, where higher scores of positive/negative directed subscales indicate better/worse perceived well-being by individuals. Sport engagement of athletes was assessed by using the Sport Engagement Scale (SES)

(Guillén & Martínez-Alvarado, 2014), which is an adaptation of the Utrecht Work Engagement Scale (UWES) of Schaufeli & Bakker (2003), for the sports environment. This scale includes 15 items of a 7point Likert scale, designed to measure individual's engagement in sports and physical activity. It encompasses 3 dimensions of Vigor, Dedication and Absorption, referring to the psychological and emotional involvement that individuals have with sports or physical activities and a Total sport engagement factor. Finally, fans involvement with sports is assessed by the of Sport Engagement Questionnaire (SEQ) of Theodorakis & Wann (2008), which consist of 5 items in 8point Likert scale related to sports engagement of sports fans, resulting one single factor of Sport fandom.

Findings

This paper will add new and important empirical evidence to the matter of engagement in community sport events as significant subjective well-being factor. It was found that the frequency of attending a sport events, both as an active and non-active participant, is related positively with subjective well-being, as the higher the frequency the higher the life satisfaction levels reported. Indeed, empirical literature has revealed that self-reported happiness increases with the frequency of participation in sports event. Present findings suggest that the relationship between engagement in sports activities in the community and subjective well-being is not affected by the demographic profile of the active and non-active participants. No statistically significant differences were found in terms of gender, age and family status, although there is empirical evidence that men may benefit more than women by participating in sports activities as regards their well-being. Individuals who actively participated in the Marathon event reported higher life satisfaction level. Education and frequency of participation were found to be significant mediation factors of the sports participation - subjective well-being relationship, with more educated and more frequent participants reporting higher life satisfaction

Implications

Following the findings of this specific research, engagement in community sports activities upgrades subjective well-being, and the power of this relationship is affected by the frequency of participation and other demographic variables. The event was supported and organized by local authorities and almost 95% of the participants were living in the surrounding area so the findings can have a deep impact in public policy

decisions, especially in areas where subjective well-being is sidelined and needs to be boosted. These results could be useful for local authorities if they intent to maximize the positive outcome on local people's subjective well-being by organizing sport events for specific subgroups of the community.

Keywords: subjective well-being, sports participation, local sport events, local development, economic growth

JEL Codes: I3, Z2

Linkages among lamb prices in the UK: Evidence from the time-varying frequency connectedness approach

Panos Fousekis[1], Dimitrios Panagiotou[2], Vasilis Grigoriadis[2]

[1] *Department of Economics, Aristotle University, Thessaloniki, Greece*

[2] *Department of Economics, University of Ioannina, Ioannina, Greece*

Abstract

This work investigates prices linkages among lamb prices in the UK using weekly data from September 2019 to February 2024 and the recently proposed time-varying frequency connectedness approach. For the total sample, the empirical results suggests total connectedness of the system of interrelated lamb markets was not high and that the superior quality (expensive) lamb cuts at the retail level were, typically, net transmitters of shocks to the inferior quality (cheap) ones and to the price of lamb at the wholesale level; this applied, in most cases, both for the high (less than 3 months) and low (> 3 months) frequency. During the COVID-19 pandemic, total connectedness increased dramatically. However, the impact of COVID-19 did not last for long; from the summer of 2020, connectedness has exhibited a clear downwards trend that was only temporary interrupted with the beginning of the war in Ukraine.

Keywords: price linkages, lamb, frequency connectedness, COVID-19.

JEL Codes: Q13, C10

Co-movement between Arabica and Robusta futures prices under different market states and time-scales

Panos Fousekis[1], Dimitrios Panagiotou[2]

[1] *Department of Economics, Aristotle University, Thessaloniki, Greece*

[2] *Department of Economics, University of Ioannina, Ioannina, Greece*

Abstract

This work investigates contemporaneous co-movement between the futures prices of Arabica and Robusta coffee beans using the notion of Quantile Coherency and daily prices during 2015 to 2023. Relative to alternatives, Quantile coherency is highly flexible since it allows the link between stochastic processes to depend both on the sign and the size of the underlying shocks as well as on the horizon (time-scale) on which futures markets traders operate. From the static (full-sample) analysis it appears that the two prices are well connected to each other; the strength of co-movement tends to increase (almost) monotonically with the time-scale while adjustments to incoming innovations are likely to be completed within one month; the evidence of asymmetric linkages across market states and time time-scales is limited. From the dynamic (rolling-windows) analysis follows that the magnitude and (often) the sign of the coherency coefficients varies widely over time. Nevertheless, the direction of these changes is, in most cases, the same across all time scales considered.

Keywords: price co-movement, coffee, quantile coherency, asymmetry

JEL Codes: Q13, C10

Session 13

Human Development

A latent class approach to the motives of moonlighting

George Agiomirgianakis[1, 2], Nikolaos Kanellopoulos[3], Anastasia Pseiridis[4], Nikolaos Rachaniotis[5], Nicholas Tsounis[6,7]

[1] *Hellenic Mediterranean University (HMU)*

[2] *Economic Analysis and Policy Lab, School of Social Sciences, HOU*

[3] *Centre of Planning and Economic Research (KEPE)*

[4] *Panteion University*

[5] *University of Piraeus*

[6] *University of Western Macedonia*

[7] *Hellenic Open University (HOU)*

Abstract

Purpose

Multiple job holders are often regarded as a homogeneous group in terms of the motives behind their choice to moonlight. However, theory suggests that if one faces hour constraints in his/her primary job, he/she may undertake a second job to increase his/her income. On the other hand, there are some moonlighters who are particularly interested in the activities of their second job (for example, an aspiring actor who has a day job and acts during the weekends). This suggests that, at least in theory, there is significant heterogeneity between the reasons people choose to moonlight. The purpose of this paper is to examine such differences in the motives of highly skilled moonlighters in Greece.

Methodology

This study uses data from a survey among 400 moonlighters who hold a second job in tertiary distance learning. Latent Class Analysis (LCA) was used to create homogenous groups of moonlighters with similar motives/expectations behind their choice to moonlight. Individual level class membership indicators are used as

dependent variables in a multinomial logit model to explore their relationship with demographics and other labour supply determinants.

Findings

Three subclasses of moonlighters are identified: Those with strong monetary incentives (Class 1: 31% of the population), those driven by career motivations (Class 2: 43% of the population), and those showing a combination of both monetary and career motivations (Class 3: 26% of the population) .

Characteristics of these groups suggest that ceteris paribus as age increases it is more probable to belong to money driven moonlighters. The probability to belong to class 1 also slightly increases along with the hours working on the main job but seems to decrease with the hours spent on the second job. On the contrary, working hours have a negative impact on belonging to class 3 and second job hours are found insignificant. Moreover, we find that class membership is strongly associated with the nature of the main job. Thus, compared to regular tertiary teaching staff (DEP) other university teachers are less likely to moonlight for money but are more probable to moonlight to improve their career. Moonlighting for monetary reasons is also less likely for public servants and self-employed. Class 3 membership seems to be higher for public servants.

Originality/value

This study contributes to the understanding of the motives that drive highly educated individuals to moonlight. We provide evidence that moonlighters cannot be considered as a homogenous group regarding the reasons they undertake multiple jobs. Unobserved factors suggest that for a number of moonlighters there are strong financial motives, while for others the reasons are related to the improvement of their career. A third smaller group seems to combine both motives. From a policy perspective, diverse motives suggest that different actions should be taken if one wants to attract specific groups of employees.

Keywords: Moonlighting; motives; behaviour; Greece

JEL Codes: J22; J24

Accidents, disasters and crises: The effect on citizen perceptions and preferences

Sotirios Georganas[1], Phoebe Koundouri[2], Alina Velias[3]

[1] *City University*

[2] *AUEB*

[3] *LSE and AUEB*

Abstract

Economic preferences are not necessarily stable, unlike what the textbook model would require. People might change in terms of fundamental parameters or even the way they view big economic decisions, such as Brexit. Indeed although leaving the EU commanded a majority at the time of the referendum in 2016, only 32% of Britons still thought it was a good idea in late 2023. A major question exists whether changes in information lead to such drastic changes in views and preferences, or whether such behavior is less rational and explainable using behavioral tools.

This paper utilizes natural experiments in Greece to investigate the impact of crises on citizen preferences. Leveraging a nationally representative sample (n=3000+), we align multiple data collection waves with events like fires, floods, and train crashes. Analyzing the temporal dynamics post-events, we observe fluctuations in preferences akin to hot-cold visceral states. Our findings contribute to the literature on how major events shape individual preferences. Methodologically, we explore the effectiveness of primes in comparison to real-life events, discerning the reliability of primes as proxies for experiences. The study holds implications for policymakers, highlighting the malleability of public sentiment in shaping expectations of government interventions during and after crises, providing valuable insights for effective governance and crisis management.

Methodologically, this paper provides an interesting contribution towards the body of evidence on the effectiveness of primes and other similar manipulations designed to increase the salience of topics in an individual’s mind. As we collect individual responses right after the real events, we are in a position to compare them with reminders of such events in the later waves as well as compare the effect of such reminders to individuals in different countries, who have not been exposed to the event directly. By comparing the responses derived from primes with those derived from real-life events, the study aims to discern the reliability of primes as proxies for actual experiences.

The findings have implications for policymakers, shedding light on the malleability of public sentiment and its potential role in shaping public expectations of government interventions during and after different crises. As governments strive to make informed policy decisions, understanding the evolving nature of citizen preferences in response to a variety of impactful events is essential for effective governance and crisis management.

Keywords: preferences, environment, natural experiment, disasters

JEL Codes: C93, Q51, D70

The Fourth Dimension of Human Development

Alexandros Bechlioulis, Claire Economidou, Nicolas Topaloglou

[1] *Department of Economics, University of Ioannina*

[2] *Department of Economics, University of Piraeus*

[3] *Department of International & European Economic Studies, Athens University of Economics & Business*

Abstract

Over the last two decades, digital technologies have grown rapidly changing the way people behave, work and communicate and affecting the human development. Through this new environment, the current work considers a new dimension in the benchmark Human Development Index (HDI) by including the country's digital performance. By using a data-driven methodology, the stochastic bounding test, we select, among 24 information and communication technology indicators of 148 developed and developing economies, an optimal set that better describes the country's digital performance. Considering this set of indicators, we construct an optimal index for digital performance and then, we build an augmented HDI for the countries of our sample. We further examine whether the involvement of the digital performance leads to changes in the country ranking when we compare the baseline HDI with the augmented HDI.

Keywords: Digital performance, Human Development Index, information and communication technology, stochastic bounding

JEL Codes: C14, C61, I31, O15

Session 14

Applied Economics II

Advance taxation and corporate compliance

Kristjana Jace, Evangelos Koumanakos, Aggeliki Skoura

Hellenic Open University

Abstract

This paper relates to the incomplete literature on advance taxation and compliance. Advance taxes are essential for modern tax systems. The regular tax enforcement model proposes that partial tax evasion may be optimal even under zero penalty and infers that the associated observed levels of low probability of detection and penalties are too low to explain the level of tax compliance in advanced economies. Empirical and experimental evidence shows that advance tax payments could play an efficient role in the enforcement strategy of tax authorities. Advance tax is the income tax paid in advance for the income earned in a particular financial year. Usually, the tax is to be paid when the income is earned. Still, under the tax provisions of advance tax, the payer must estimate the income for the entire year.

In this paper, we exploit the population of corporate tax returns corresponding to companies accounts at the micro level in Greece for the period 1999 - 2018 to investigate the impact of the introduction of the advance tax in 2005. We show that the majority of start-ups to which a special regime was applied (reduced advanced tax for the first three years of operations) do indeed reduce their average income when they exited the special regime. More interestingly, looking at another period (1999 - 2004), when the reduced rate regime was not in force, we observe that firms increase their taxable income in their third to fourth year of operation. At the same time, comparing by year the incomes of the two groups, it appears that the reduction of the companies paying reduced rates was sharper compared to that of the companies not subject to the regime.

In addition using Orbis database, we are dealing with businesses in countries applying similar legislation in order to expand the analysis at international level.

Altogether, the outcomes from our baseline tests using this methodology document that the magnitude of tax avoidance associated with advance tax rates is substantial in both statistical and economic terms. Of course, there are other important aspects that we have not examined, but they deserve attention. To understand these effects would be highly cost-effective, though empirically difficult.

Keywords: corporate tax compliance, advance taxation

JEL Codes: H22, H26, P43

The impact of policy interventions on corporate tax compliance

Kristjana Jace, Evangelos Koumanakos, Aggeliki Skoura

Hellenic Open University

Abstract

How is it possible for companies to both exaggerate their earnings to investors and at the same time minimize their earnings for tax purposes? The straightforward explanation lies in the fact that companies around the world maintain dual financial records: one for declaring 'book profits' to investors and another for declaring 'tax profits' to tax agencies. These two sets of profit declarations often look very different from each other and adhere to their own unique sets of regulations.

In the proposed study we exploit a unique dataset and institutional setting to examine whether/how a particular Greek reform targeted on tax filing process validation affects corporate tax compliance.

In Greece, prior to 2010, nearly 35–40% of both large and small firms in Greece reported taxable profits equal to their accounting profits (BTD=0) . A possible explanation for this is that there was little scrutiny by tax authorities especially on deductions and expenses. In 2010, as the fiscal crisis began, the tax system came under review. This culminated in the passing of Law 3842/2010, which mandated that a certified accountant or tax consultancy office in the case of small firms, and auditing firms in the case of larger firms, co-sign on tax returns as well as financial statements and be liable in case of detected evasion. Firms were also required to submit supplementary documents displaying analytically all adjustments made to accounting profits in order to yield taxable profits. As a consequence the share of firms reporting revenues and accounting profits on their tax forms without adjustments declined sharply after 2010, to about 15% for small firms and less than 10% for large firms.

Although this reform was implemented in Greece in the post-crisis period, it constitutes an ideal setting for advancing the long standing international debate about the advantages and disadvantages of aligning book and tax corporate books and also about

what would something like that mean for tax compliance. In this sense the results of the proposed study can be highly generalizable and informative for policy makers outside Greece as well. Given that the said reform was not the only thing affecting firm’s tax behavior, other events like statuotory tax rate fluctuations or changes in the tax compliance status that have occurred during the sample period (1999-2018) are confounding the analysis.

Keywords: corporate tax compliance, policy effect

JEL Codes: H22, H26, P43

The Role of Economics and the Quality of Antitrust Enforcement in DGCOMP Revisited

Yannis Katsoulacos[1], Galateia Makri[2]

[1] *Emeritus Professor of Economics, Athens University of Economics and Business; Affiliated Professor, Jiangxi University of Finance and Economics, China.*

[2] *Athens University of Economics and Business; Hellenic Competition Commission*

Abstract

This paper extends the dataset and substantially improves the methodology applied in empirically measuring the role of economics in antitrust enforcement by EC's DGCOMP, first presented in Katsoulacos and Makri (2021). Infringement decisions reached from1992-2021 are examined thus including a number of important decisions in digital and hi-tech markets from 2018-2021. The revised methodology clarifies the role of potential screens of assessment and maps these screens to 8 potential Legal Standards (LSs), taking now into account also the Quick Look LSs. And it allows one to distinguish evidence presented depending on the burden of proof. Thus, we capture the role of economic analysis and evidence that DGCOMP applies in proving the conduct is anticompetitive, through the new Cumulative Economic Analysis Indicator (CEAI), as distinguished from the role of efficiency analysis presented by the defendants and then assessed by DGCOMP, which is now independently measured; these together allow one to measure a new indicator of the Total Economic Evidence (TEE) presented during assessment.

Decisions are categorized into four main conduct groups and the CEAI indicators are used to measure the Weighted Average Cumulative Economic Analysis Indicator (WACEAI) adopted for each conduct group. We then calculate indices of the quality of enforcement by the extent of deviation of WACEAI from its optimal level for each conduct group relative to the maximum theoretical deviation, and also calculate an overall index of quality of enforcement by DGCOMP across all conduct groups. Furthermore, we examine the evolution of these indicators over time from 1992 – 2021.

Finally, we provide again evidence about how the probability of annulment of appealed decisions is related to the LS adopted in reaching these decisions.

We show that, on average over the whole period examined, economic analysis plays a relatively modest role in DGCOMP antitrust decisions reached (from 1992 to 2021). However, considering the evolution of LSs over time, we find that there is a significant improvement in the quality of enforcement in abuse of dominance cases, with LSs approaching, in more recent years, their theoretically optimal level (of full effects-based).

The overall quality of enforcement by DGCOMP, measured by closeness to the socially optimal evidentiary (or legal) standards can be considered as 'high' (0.85 with max.1). In addition, the Total Economic Evidence indicator, including economic efficiency arguments presented by defendants and examined by the authority shows that the indicator takes quite high values (0,7 with max.1) in the abuse of dominance decisions. While these indicators are higher than other countries for which our methodology has been applied (China, France, Greece, Russia), they are lower than they are in the case of an authority with similar experience and resources (CMA of UK).

We finally re-confirm the result in Katsoulacos and Makri (2021) regarding the relationship between LSs adopted and the outcome of the judicial review of the decisions appealed —indeed the annulment rate is lowest exactly for those (abuse of dominance) cases in which more economic analysis is applied, or LSs adopted are closest to effects-based.

Keywords: antitrust, economic analysis, legal standards, Per Se, effects-based enforcement

JEL Codes: L4, K21

Special Session I

'Quantitative Econ History' - part I

Looking for trust: The weak accumulation in Greece during the 19th century

Nicos Christodoulakis

Emeritus Professor at the Athens University of Economics & Business. Hellenic Observatory, LSE.

Abstract

Using long term statistical series for Greece, the study discusses the adjustments that took place in Greece during the 19th century in order (i) on one hand to build a banking system capable of supporting domestic investment and growth, and (ii) on the other hand to accumulate foreign reserves enough to support the viability of the currency regime and, thus, regain access to international markets.

Using appropriate econometric techniques, the paper finds that the Banking system and the process of accumulating foreign exchange reserves were following sensible rules, favorably compared even with modern emerging market practices. Nevertheless, accumulation was so weak that the inability to achieve creditworthiness and trust among the most developed economies became endemic, and Greece was denied the precious access to capital and bond markets in Western Europe.

Finally, the weak accumulation process of the banking system led to state bankruptcy and collapse in 1893. Afterwards, the International Economic Control was imposed in 1898 to redress public finances and prepare the country for a more credible and lasting participation in the Gold Standard that finally took place in 1910 and enabled Greece to prepare for the Balkan Wars and the Great War later on.

Keywords: Historical Study, Banking system, Foreign reserves.

JEL Codes: E20, E22, G21, H63, N13

Dictatorship and Education: Unraveling the Effects of Reducing Compulsory Schooling Years in Greece

Nicholas Giannakopoulos[1], Ioannis Laliotis[2]

Department of Economics, University of Patras

Abstract

We study the effect of political regime change on education and its effects on fertility outcomes. We focus on Greece's military dictatorship, a regime characterized by a conservative ideology, repression, and nationalism policymaking. After the coup of 1967, the regime reduced the compulsory years of schooling from nine to six years. This change led to fewer enrollments in secondary schooling. For analytical purposes, we use census micro data and exploit the greater exposure to the reduction in compulsory schooling years experienced by birth cohorts that reached secondary schooling age shortly after the 1967 coup. We show that those affected had higher levels of primary education completed. This finding applies to both males and females. Using measures for women's completed fertility at older ages we find that the cohorts affected by the political regime change are found to have more children during their lifetime. These results suggest that the reduction in compulsory schooling hindered social mobility and plausibly contributed to the increase in inequality observed under dictatorship.

Keywords: Education, political regime, inequality, redistribution, Greece

Remnants of civil war: Left coalition and electoral oppression in cold war Greece

Vassilis Logothetis[1], Giorgos Melios[2]

[1] *University of Ioannina*

[2] *London School of Economics*

Abstract

In contemporary literature, there is an increasing interest in the study of political divisions and their effects on economic development and the political process. In this paper, we focus on the case of Greece and use econometric tools of causal inference, based on the geographical variation of the radio signal strength of the illegal KKE station "Voice of Truth", to examine the electoral success of the EDA in the 1958 elections. Next, we collect new quantitative data on the geographic distribution of violence in the 1961 election and empirically examine the causal relationship between the two. We then use data from individual questionnaires to quantify the long-run impact of the 1961 events on contemporary political beliefs and institutional trust. Our findings contribute to our understanding of the complex effects of civil conflict on the political and economic landscape, demonstrating how violence and electoral repression can cause polarization and have a lasting impact on democratic processes and social trust.

JEL Codes: N14, O43

Special Session II

'Quantitative Econ History' - part II

“Votes for Women” on the edge of urbanization

Pantelis Kammas[1], Vassilis Sarantides[2]

[1] *Department of International and European Economic Studies, Athens University of Economics and Business, Patission 76, Athens 10434, Greece*

[2] Department of Economics, Athens University of Economics and Business, Patission 76, Athens 10434, Greece

Abstract

A rich and growing empirical literature has associated women’s enfranchisement with various public policy changes, such as increased government spending or changes in the composition of government spending. However, the influence of women’s enfranchisement on the electoral fortunes of political parties, which in turn shape these policy changes, has been much less investigated.The paper at hand empirically investigates the potential existence of a gender voting gap in Greece using data from parliamentary elections before and after the enfranchisement of women in 1952. Specifically, on May 28, 1952, a new electoral law granted voting rights to all adult women in Greece, regardless of personal characteristics such as education and income, thereby doubling the electorate. Interestingly, the Ministry of Interior failed to update the electoral registers on time, thus preventing women from participating in the general election that took place some months later, on November 16, 1952. Eventually, the reform was enacted, and women were able to vote in seven specific electoral prefectures where by-elections took place in 1953 and 1954 for strictly exogenous reasons. To this end, we construct a unique community-level dataset for these seven Greek electoral prefectures, where we can observe the change in electoral outcomes between 1953/54 and 1952 – i.e., with and without women in the electorate. This allows us to employ a difference-in-differences (DD) methodology, where we exploit the uneven spatial variation of female electors as a measure of the received 'dosage' of the franchise reform in different communities. Our empirical findings provide evidence in favor of a traditional gender voting gap in the urban electoral prefecture of Thessaloniki—the second most urbanized prefecture of Greece after the capital city of Athens—while no effect is found in the panel of the remaining six predominantly rural electoral prefectures of Drama, Epidavros-Limira, Evros, Grevena, Phthiotis, and Rethymno. Moreover, our empirical analysis suggests that the pro-right shift caused by suffrage is positively associated with differences in the level of women classified as 'Out of Labor Force'. These results, obtained from aggregate data, are in line with individual and intra-household evidence, which suggests that in an economic environment characterized by limited demand for female labor force participation, women tend to support the sanctity of family values more vigorously. As a result, they tend to vote more conservatively compared to their male counterparts, giving rise to the traditional gender voting gap. This is because if the family were to break up, the man has the option to utilize his marketable skills and start a new family, while the woman, primarily equipped with household-specific skills, would face a significant drop in her economic welfare.

Keywords: women’s suffrage; political preferences; women’s labour market participation

JEL Codes: D72

Cooperative versus Commercial banks in Greece. A comparison analysis of their credit policy and more.

Ioannis Lolis

Department of Economics, University of Ioannina, Greece

Abstract

Taking as a starting point the discussions with executives of Cooperative banks, as well as the data published by the Bank of Greece regarding the NPLs and NPEs of Greek banks (commercial and cooperative), this study attempts to conclude whether Greek cooperative banks 'differ' from their commercial counterparts. We rely on data from the period 2014 to 2016 concerning balance sheets from more than 20,000 Greek businesses that are financed by the Greek banking system. The data were retrieved from the ICAP database and concern figures that arise from the processing of the published balance sheets of these businesses.

Specifically, we examine the ratio of professional loans in the Greek banking system regarding their issuance by a cooperative or a commercial bank per sector of activity, size of business, and based on their financial performance as this emerges from their balance sheets. It appears that cooperative banks predominantly finance small and medium-sized enterprises and proportionally more than commercial banks the secondary sector of the economy. This fact confirms the constitutional purpose of the cooperative banks, which is none other than the support and strengthening of professionals and small-medium enterprises operating in their domicile area.

Regarding the effort to analyze the credit policy of cooperative banks against commercial banks, a logit regression was used having as the main variable the index, coverage ratio = EBITDA/financial expenses, and as control variables indices that measure coverage, efficiency, and liquidity of the financed businesses. These indices are 'encountered' in a plethora of articles dealing with credit risk.

The results of the study converge on the fact that businesses financed by cooperative banks tend to be less robust based on their financial data compared to other businesses that are entirely financed by commercial banks. According to the data of the Bank of Greece, this is confirmed by the fact that cooperative banks showed more NPLs compared to commercial banks during the examined period. Finally, it must be mentioned that the model used in this study would be more valid if it could incorporate qualitative data of the businesses, but this was not possible since the database from which our data were drawn did not contain such information.

Keywords: cooperative banks, commercial banks, credit risk

JEL Codes: G21

Urbanization and Human capital: unveiling the impact of Universities on European cities in 700-1800

Nikolaos Benos[1], Michail Papazoglou, Maurizio Conti, Stamatis Tsoumaris

University of Ioannina, Greece

Abstract

The objective of our research is to investigate the impact of the establishment of universities in medieval and early modern Europe on city growth in the very long-run. We focus on universities because it was a novel institution at the time, which has been argued to be an important driver of the commercial revolution through the development of legal institutions and the industrial revolution via knowledge creation and dissemination. Despite its importance, this topic remains relatively unexplored and has, until now, been largely confined to a single country in a specific time period. We construct a comprehensive dataset for Europe, combining the population data of Buringh (2021) enriched with information from multiple sources covering the period 700-1800. We use urbanization as a proxy for city growth. Our study incorporates meticulous details on university establishment, along with time-invariant characteristics, such as geography (first nature characteristics) and pre-existing infrastructure (second nature characteristics).

In the absence of a clear natural experiment, we adopt a staggered Difference-in-Differences (DID) identification strategy. We allow the university effect to vary by cohort (i.e. century of foundation) and over time (i.e., century) by estimating various versions of an appropriately modified Poisson model with city fixed effects, given that population data are heavily skewed towards zero. We are careful to estimate models that are reasonably robust to possible violations of the parallel trend assumption by: a) allowing for cohort-specific linear time trends; b) including either NUTS1 or NUTS2 linear trends; c) including interactions of predetermined characteristics with century fixed effects. Inference is based on spatially robust standard errors due to spatial error dependence.

Our findings reveal a consistently positive and substantial Average Treatment effect on the Treated (ATT) of university presence on city population during the period 1200-1500, and positive but imprecisely estimated afterwards. Our results are mainly driven by the early university cohorts and are consistent with the relevant historical literature. We perform various robustness checks. Specifically, our results do not vary if we consider a city as treated when a university was in operation in any century for more than 30 or more than 50 years and are also robust to dropping from the sample universities which stopped operating at some point in time. Methodologically, we highlight the importance of dealing with violation of parallel trends; when the cohort linear time trends are omitted, a positive and sizable ATT is evident across all centuries.

Next, we shed light into possible mechanism(s) behind the above findings by letting the cohort and century-specific ATT depend on predetermined characteristics. The main findings are largely intact. Moreover, distance from the coast weakens the impact of universities, which may highlight the fact that universities may have been particularly important in fostering long distance trade. This is likely due to the role of universities in human capital accumulation, and therefore the empowerment of a middle class engaged in maritime trade-related activities, and the provision of legal training, which facilitates essential contracts for commercial transactions.

Keywords: Urbanisation, Human capital, Universities, Staggered Difference-in-Differences

JEL Codes: N10, N13, N90, N93, O11, O18, R11

IMAEF 2024

Participants

NAME	AFFILIATION
Antonakakis Nikolaos	*Webster Vienna Private University, Austria*
Bardas Christos	*University of Thessaly, Greece*
Batistatou Anna	*University of Ioannina, Greece*
Bechlioulis Alexandros	*University of Ioannina, Greece*
Bellos Sotirios	*City College, University of York Europe Campus, Greece*
Benos Nikolaos	*University of Ioannina, Greece*
Berg Tobias	*Goethe University Frankfurt, Germany*
Bragoudakis Zacharis	*Bank of Greece, Greece*
Charistos Konstantinos	*University of Ioannina, Greece*
Chitou Chrysoula	*University of Ioannina, Greece*
Chletsos Michael	*University of Piraeus, Greece*
Christodoulakis Nicos	*Athens University of Economics & Business, Greece*
Christogeorgou Konstantina	*University of Ioannina, Greece*
Chrysanthopoulou Xakousti	*Aristotle University of Thessaloniki, Greece*
Dalla Eleni	*Democritus University of Thrace, Greece*
Daousis Emmanouil	*University of Ioannina, Greece*
Devlin Anne	*Economic and Social Research Institute, Ireland*
Dimakopoulou Vasiliki-Eirini	*National and Kapodistrian University of Athens, Greece*
Dioikitopoulos Evangelos	*Athens University of Economics and Business, Greece*
Economidou Claire	*University of Piraeus, Greece*
Emmanouilidis Kyriakos	*City College, University of York Europe Campus, Greece*
Ficarra Matteo	*Geneva Graduate Institute, CIES, Switzerland*
Fotis Dimitrios	*University of Piraeus, Greece*
Fountas Stylianos	*University of Macedonia, Greece*
Garg Pankaj	*Global Health Segmentation Solutions, United Kingdom*
Garg Svetlana	*Global Health Segmentation Solutions, United Kingdom*
Georganas Sotiris	*City University London, United Kingdom*
Giannakopoulos Nicholas	*University of Patras, Greece*
Goletsis Yorgos	*University of Ioannina, Greece*
Grigoriadis Vasilis	*University of Ioannina, Greece*
Jace Kristjana	*Hellenic Open University, Greece*
Kanellopoulos Nikolaos	*Centre of Planning and Economic Research (KEPE), Greece*

NAME	AFFILIATION
Kapopoulos Theodore	*Athens University of Economics and Business, Greece*
Karadimitropoulou Aikaterini	*University of Piraeus, Greece*
Karamanis Kostas	*University of Ioannina, Greece*
Kontogianni Ioanna	*University of Patras, Greece*
Kontos Konstantinos	*University of Piraeus, Greece*
Koumanakos Evangelos	*Hellenic Open University, Greece*
Laliotis Ioannis	*University of Patras, Greece*
Levieuge Grégory	*Banque de France, France*
Logothetis Vassilis	*University of Ioannina, Greece*
Lolis Ioannis	*University of Ioannina, Greece*
Makri Galateia	*Hellenic Competition Commission, Greece*
Mavrodi Afentoula	*Hellenic Open University, Greece*
Minos Dimitrios	*King's College London, United Kingdom*
Moustakas Andreas	*University of Patras, Greece*
Mylonidis Nikolaos	*University of Ioannina, Greece*
Paczos Wojtek	*Cardiff University, United Kingdom*
Panagiotou Dimitrios	*University of Ioannina, Greece*
Panos Georgios	*Aristotle University of Thessaloniki, Greece*
Papadamou Stephanos	*University of Thessaly, Greece*
Papadopoulou Anastasia	*University of Bristol, United Kingdom*
Papaiakovou Ioannis	*University of Ioannina, Greece*
Pappa Evi	*Universidad Carlos III de Madrid, Spain*
Petrakis Ioannis	*Newcastle Business School, United Kingdom*
Polemis Michael	*University of Piraeus, Greece*
Sakkas Stylianos	*University of Cyprus, Cyprus*
Salogiannis Yiannis	*University of Peloponnese, Greece*
Sarantides Vassilis	*Athens University of Economics and Business, Greece*
Spilioti Nikolitsa	*University of Peloponnese, Greece*
Staffa Elisa	*The Economic and Social Research Institute, Ireland*
Stavrakoudis Athanassios	*University of Ioannina, Greece*
Suciu Titus	*Transilvania University of Brasov, Romania*
Szomolányi Karol	*University of Economics in Bratislava, Slovakia*

NAME	AFFILIATION
Tache Ileana	*Transilvania University of Brasov, Romania*
Terzakis Konstantinos	*University of Peloponnese, Greece*
Triarchi Eirini	*University of Ioannina, Greece*
Tsagkanos Athanasios	*University of Patras, Greece*
Tzavalis Elias	*Athens University of Economics and Business, Greece*
Varthalitis Petros	*Athens University of Economics and Business, Greece*
Vella Evgenia	*Athens University of Economics and Business, Greece*

IMAEF 2024

Sponsors

Gold Sponsor

Sponsors

Communication Sponsor

IMAEF 2024

Conference Programme

University of Ioannina, Department of Economics

MEETING PROGRAMME

Monday 17/6

08.30-09.30	**Registration**		
09.30-09.45	**Welcome** ***N. Benos, Y. Goletsis - Organising Committee***		
09.45-10.00	**Opening Remarks** ***A. Batistatou - Rector of the University of Ioannina***		
10.00-11.45	**S1 - Macroeconomics I** *Main Hall* ***Chair: E. Vella***	**S2 - Human Capital** *Hall 1* ***Chair: E. Triarchi***	**S3 - Microeconomics I** *Hall 2* ***Chair: M. Polemis***
	Athanasios Tsagkanos *Climate Risk and Green Bonds: Evidence from Greece*	**Andreas Moustakas, Nicholas Giannakopoulos, Ioannis Laliotis, Vassilis Monastiriotis** *Wages, collective bargaining, monopsony power*	**Pasqualina Arca, Evangelos Litos, Anastasia Papadopoulou** *Endogenous Information Acquisition in an Investment Trading Game*
	Karol Szomolányi, Martin Lukáčik, Adriana Lukáčiková *Economic Fluctuations in Small Open European Union Economies during the COVID-19 Pandemics*	**Elisa Staffa, Adele Whelan, Seamus McGuinness, Paul Redmond** *Skill requirements for emerging technologies in Ireland*	**Konstantinos Charistos, Ioannis N. Pinopoulos, Panagiotis Skartados** *Downstream cross holdings and upstream collusion*
	Laurent Ferrara, Aikaterini Karadimitropoulou, Athanasios Triantafyllou *Commodity price uncertainty comovement: Does it matter for global economic growth?*	**Konstantinos Terzakis** *Integration success of immigrants in Greece*	**Dimitris Minos, Philippos Louis, Dimitrios Xefteris** *Discrimination in Hiring Decisions and Blind Hirings*
	Konstantinos Mavrigiannakis, Andreas Vasilatos, Eugenia Vella *Fiscal Tightening and Skills Mismatch*	**Eirini Triarchi, Dimitrios Kollas, Thaleia Papoutsi, Kostas Karamanis** *School-to-work transition and youth unemployment: Empirical evidence from the Greek Labour Market*	**Michael L. Polemis** *What Determines Cartel Duration? Global Evidence Using Quantile Regression Analysis*
11.45-12.15	**Coffee Break**		
12.15 - 13.15	**Keynote Speech I: Evi Pappa** *Regressive Trend Inflation Shocks* *Main Hall* ***Chair: N. Mylonidis***		
13.15-14.15	**Lunch**		
14.15-16.00	*Main Hall*	**S4 - Applied Finance** *Hall 1* ***Chair: E. Tzavalis***	**S5 - Sustainability, Environment & Policy** *Hall 2* ***Chair: K. Charistos***
		Zacharias Bragoudakis, Ioannis Krompas *Greek GDP forecasting using Bayesian multivariate models*	**Sofia Xesfingi, Dimitris Fotis, Sotiris Karkalakos, Nikos Papastamatiou** *Sustainability Premium and Tourism's Economic, Environmental, and Social Effects*
		Emmanouil Daousis, Theodoros Simos *A Kernel Function Implementation of Jump Tests for Improved Detection under Microstructure Noise*	**Stella Tsani, Chrysoula Chitou** *Fossil fuel subsidies and female labour market participation in face of the sustainability transition*
		Leonardo Barros Torres, Wojtek Paczos, Kirill Shakhnov *Domestic and Foreign Sovereign Debt Stability*	**Matteo Ficarra, Rebecca M. Mari** *Weathering the Storm: Sectoral Economic and Inflationary Effects of Floods and the Role of Adaptation*
		Dimitris Christopoulos, Peter McAdam, Elias Tzavalis *Threshold Endogeneity in Threshold VARs: An Application to Monetary State Dependence*	**Theodore Kapopoulos, Athanasios Sakkas, Konstantinos Drakos** *Geopolitical risk and FDI inflows: The moderating role of water and energy risks*

Tuesday 18/6

09.30-10.30	**Keynote Speech II: Tobias Berg** *CBDCs, Payment Firms, and Geopolitics* *Main Hall* ***Chair: N. Benos***		
10.30-12.15	**Special Session I: 'Quantitative Econ History' - part I** *Main Hall* ***Chair: V. Logothetis***	**S6 - Inequality** *Hall 1* ***Chair: S. Fountas***	**S7 - Macroeconomics II** *Hall 2* ***Chair : V. Dimakopoulou***
	Nicos Christodoulakis *Looking for trust: The weak accumulation in Greece during the 19th century*	**Alexandros P. Bechlioulis, Michael Chletsos, Tryfonas Christou, Aikaterini E. Karadimitropoulou** *Wage Reforms and Equality Gains: Evidence from Greece*	**Nicholas Giannakopoulos, Ioanna Kontogianni, Ioannis Laliotis** *Minimum wage adjustments and household consumption*
	Nicholas Giannakopoulos, Ioannis Laliotis *Dictatorship and Education: Unraveling the Effects of Reducing Compulsory Schooling Years in Greece*	**Michael Chletsos** *Is economic inequality good or bad for health. Empirical evidence of income inequality on infant mortality*	**Xiaoshan Chen, Jilei Huang, Petros Varthalitis** *State dependent fiscal multipliers in a Small Open Economy*
	Vassilis Logothetis, Giorgos Melios *Remnants of civil war: Left coalition and electoral oppression in cold war Greece*	**Michael Chletsos, Konstantinos Kontos** *Immigration, economic growth and income inequality*	**Xakousti Chrysanthopoulou, Nikolaos Mylonidis, Alexandros Tsioutsios** *Taylor Rules and Bank Leverage: Navigating Monetary Policy for Financial Stability*
		Don Bredin, Stilianos Fountas, Paraskevi Tzika *The effects of uncertainty on income and wealth inequality: Time series evidence from industrialized countries*	**Vasiliki Dimakopoulou, George Economides, Apostolis Philippopoulos** *Fiscal and monetary policy mixes in a member country of the Eurosystem*
12.15-12.45	**Coffee Break**		
12.45-14.30	**Special Session I: 'Quantitative Econ History' - part II** *Main Hall* ***Chair: N. Benos***	**S8 - Macroeconomics III** *Hall 1* ***Chair: S. Sakkas***	**S9 - Cultural Economics** *Hall 2* ***Chair : E. Dioikitopoulos***
	Pantelis Kammas, Vassilis Sarantides *"Votes for Women" on the edge of urbanization*	**Afentoula Mavrodi, Georgios Kolias, Nikolaos Mylonidis, Christos Gogos, Kostas Karamanis** *Unveiling Economic Realities: Constructing a Social Accounting Matrix for the Greek Economy and Analysing Multipliers for Enhanced Decision Making*	**Ileana Tache, Titus Suciu** *Investigating the topicality of Basil The Great's conception of money and social economic justice*
	Ioannis Lolis *Cooperative versus Commercial banks in Greece. A comparison analysis of their credit policy and more.*	**Nikolitsa Spilioti, Athanasios Anastasiou** *European Structural and Investment Funds (ESIF) and regional cohesion in EU member states*	**Nikolaos Antonakakis, Luca Ticini** *The Global Happiness Curve: Income, Wellbeing, and the Path Beyond Wealth*
	Nikolaos Benos, Michail Papazoglou, Maurizio Conti, Stamatis Tsoumaris *Urbanization and Human capital: unveiling the impact of Universities on European cities in 700-1800*	**Stefanos Ioannou, Tamilyam Memanova, Nikolaos Mylonidis** *The role of culture in mitigating information asymmetries in portfolio choice decisions*	**Yiannis Salogiannis, Athanasios Anastasiou** *A linear regression on NBA game results before, during and post - the pandemic. The effect of the home court crowd and how it may affect the result of a game*
		Vasiliki-Eirini Dimakopoulou, Stelios Sakkas, Petros Varthalitis *Intangible Capital and Business Cycles in the Eurozone*	**Evangelos V. Dioikitopoulos, Rigissa Megalokonomou** *Your Sins Are Not Forgiven: Christian Judges in Supreme Courts*
14.30-15.30	**Lunch**		

Dinner will follow at 20.45

Wednesday 19/6

09.30-11.15	**S10 - Finance & Banking** *Main Hall* ***Chair: S. Papadamou***	**S11 - Socioeconomics** *Hall 1* ***Chair: A. Stavrakoudis***	**S12 - Applied Economics I** *Hall 2* ***Chair : D. Panagiotou***
	Christos Bardas, Vasileios Vlachos, Stephanos Papadamou *The Institutional Sentiment Index of (Central) Bank of Greece and its discretional role evaluating Greek governments during 1998-2021*	**Kyriakos Emmanouilidis, Sotirios Bellos** *Security and Stability Implications of Refugee Flows in Europe: A Panel VAR analysis*	**Cristina Jude, Grégory Levieuge** *Doubling down: The synergy of CCyB release and monetary policy easing*
	Eleni Dalla *On prudential regulation and banking conduct*	**Anne Devlin, Adele Whelan, Seamus McGuinness** *COVID-19 Infection Rate and Social Disadvantage in Ireland: An Area Level Analysis*	**Ioannis Papaiakovou** *Subjective well-being case study: The results of attending and participating in a local running event in Ioannina, Greece*
	Ioannis Petrakis, Georgios A. Panos *Finance and Happiness Across the World*	**Ioannis Petrakis, Georgios A. Panos** *Defined contribution plans and retirement financing behaviour in the United Kingdom*	**Panos Fousekis, Dimitrios Panagiotou, Vasilis Grigoriadis** *Linkages among lamb prices in the UK: Evidence from the time-varying frequency connectedness approach*
	Chris Magnis, Stephanos Papadamou, Athanasios P. Fassas *Can a stringent regulatory and supervisory framework mitigate the impact of economic policy uncertainty on bank instability?*	**Athanassios Stavrakoudis** *Intergenerational Mobility in Greece: A Spatiotemporal Study*	**Panos Fousekis, Dimitrios Panagiotou** *Co-movement between Arabica and Robusta futures prices under different market states and time-scales*
11.15-11.45	**Coffee Break**		
11.45-13.30	*Main Hall*	**S13 - Human Development** *Hall 1* ***Chair : C. Economidou***	**S14 - Applied Economics II** *Hall 2* ***Chair: Y. Goletsis***
		Konstantina Christogeorgou, Yorgos Goletsis, Nikolaos Mylonidis *From EEs to DEEs: what makes the difference?*	**Kristjana Jace, Evangelos Koumanakos, Aggeliki Skoura** *Advance taxation and corporate compliance*
		George Agiomirgianakis, Nikolaos Kanellopoulos, Anastasia Pseiridis, Nikolaos Rachaniotis, Nicholas Tsounis *A latent class approach to the motives of moonlighting*	**Kristjana Jace, Evangelos Koumanakos, Aggeliki Skoura** *The impact of policy interventions on corporate tax compliance*
		Sotirios Georganas, Phoebe Koundouri, Alina Velias *Accidents, disasters and crises: The effect on citizen perceptions and preferences*	**Yannis Katsoulacos, Galateia Makri** *The Role of Economics and the Quality of Antitrust Enforcement in DGCOMP Revisited*
		Alexandros Bechlioulis, Claire Economidou, Nicolas Topaloglou *The Fourth Dimension of Human Development*	**Yorgos Goletsis, Garoufalia Naka, Kostas Athanassakis, Michael Doumpos** *On the application of MultiCriteria Decision Aid for Health Technology Assessments.*
13.30-14.30	**Farewell Lunch**		
Meeting end			