

11<sup>th</sup> INTERNATIONAL CONFERENCE ON  
APPLIED ECONOMICS

# CONTEMPORARY ISSUES IN ECONOMY

POLAND 17–18 JUNE 2021

ABSTRACT BOOK

**EDITED BY**  
ADAM P. BALCERZAK  
ILONA PIETRYKA

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# KEYNOTE SPEAKERS

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### *Does teleworking during pandemic lead to work performance or to counterproductive behaviour? An empirical investigation*

*JEL Classification:* L81; Q01; M30; M31

*Keywords:* teleworking; COVID 19 pandemic; task performance; contextual performance; counterproductive behaviour

#### ABSTRACT

**Research background:** The sanitarian crises triggered by the SARS COVID 19 virus has imposed a rapid and dramatically change of professional and private activities for employees around the world, leading to a profound reconsideration of organizational and societal strategies. While before the pandemic crises, teleworking has been only considered as a way of increasing employees flexibility and allowing them to spend more time with their bellowed ones, beginning with February/March 2020 employees in all industries began practicing on a large-scale teleworking. Faced with a changed working system and environment, job insecurity, difficulties to adapt to technology use, perceiving lower organizational support and reduced interaction to coworkers while practicing teleworking, employees are confronted with numerous problems such as delimitating personal tasks from official duties and responsibilities and managing work-home balance.

**Purpose of the article:** The purpose of this paper is to highlight if teleworking dimensions (autonomy and interaction reduction) generate individual job performance consisting of task performance and contextual performance or lead to a counterproductive work behaviour like difficulties in coping with tasks, exaggerating task difficulty, perceiving job-related problems more difficult, stress, or even leaving the organization.

**Methods:** Data collected from over 600 employees practicing teleworking is analysed by means of PLS SEM.

**Findings & value added:** Results show no significant influence of teleworking dimensions on job performance, but a strong and significant influence on counterproductive behaviour. The paper adds value to extenant research of Social Exchange Theory by showing the consequences of long exposure to teleworking on employees job performance and counterproductive work behaviour.

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### *Artificial Intelligence-based Decision-Making Algorithms, Industrial Big Data, and Internet of Things Sensing Networks in Digital Twin-driven Smart Manufacturing*

*JEL Classification: E24; J21; J54; J64*

*Keywords: digital twin; smart manufacturing; industrial big data; Internet of Things; smart manufacturing*

#### ABSTRACT

**Research background:** The aim of this paper is to synthesize and analyze existing evidence on artificial intelligence-based decision-making algorithms, industrial big data, and Internet of Things sensing networks in digital twin-driven smart manufacturing.

**Purpose of the article:** Using and replicating data from Accenture, Altran, ARUP, Deloitte, DHL, and GAVS, I performed analyses and made estimates regarding cyber-physical system-based real-time monitoring, product decision-making information systems, and artificial intelligence data-driven Internet of Things systems in digital twin-based cyber-physical production systems.

**Methods:** From the completed surveys, I calculated descriptive statistics of compiled data when appropriate. The data was weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. The precision of the online polls was measured using a Bayesian credibility interval. To ensure high-quality data, data quality checks were performed to identify any respondents showing clear patterns of satisficing. Test data was populated and analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey. An Internet-based survey software program was utilized for the delivery and collection of responses. The sample weighting was accomplished using an iterative proportional fitting process that simultaneously balanced the distributions of all variables. The interviews were conducted online and data were weighted by five variables (age, race/ethnicity, gender, education, and geographic region) using the Census Bureau's American Community Survey to reflect reliably and accurately the demographic composition of the United States. Confirmatory factor analysis was employed to test for the reliability and validity of measurement instruments.

**Findings & value added:** The way Internet of Things-based decision support systems, artificial intelligence-driven big data analytics, and robotic wireless sensor networks configure digital twin-driven smart manufacturing and cyber-physical production systems in sustainable Industry 4.0.

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### *The Research on COVID-19 and Economy from 2019 to 2020: Analysis from the Perspective of Bibliometrics*

*JEL Classification:* A10; A14

*Keywords:* COVID-19; economy; bibliometrics

#### ABSTRACT

**Research background:** The outbreak and spread of COVID-19 brought disastrous influences to the development of human society, especially the development of economy.

**Purpose of the article:** Considering that knowing about the situations of the existing studies about COVID-19 and economy is not only helpful to understand the research progress and the connections between COVID-19 and economy, but also provides effective suggestions for fighting against COVID-19 and protecting economy, this paper analyzes the existing studies on COVID-19 and economy from the perspective of bibliometrics.

**Methods:** Firstly, the discussion starts from the statistical analysis, in which the basic distributions of the studies on different countries/regions, different publication sources, different publication years, etc., are presented. Then, the paper shows the cooperation situations of the researchers from analyzing the related citation networks, co-citation networks and cooperation networks. Further, the theme analysis of the related studies is presented, in which the related co-occurrence networks are shown, and then the detailed analyses of the studies are introduced. Based on these analyses, the discussions about future research are presented, and finally we draw a conclusion.

**Findings & value added:** The analyses not only present the basic situation on the research about COVID-19 and Economy, but also show the future research trends, which can provide meaningful research expectations.



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### *How the 2020 pandemic affected tax revenues in Russian regions*

*JEL Classification: H21; R11*

*Keywords: 2020 pandemic; tax revenues; region; resilience; factors*

#### ABSTRACT

**Research background:** The 2020 pandemic has proven to be stressful for regional tax systems. However, these systems reacted differently to lockdown and a decline in business activity, which was associated with both their structures and the specifics of their development.

**Purpose of the article:** is to assess the impact of the 2020 pandemic on tax revenues of Russian regions, as well as to analyze the factors contributing to the resilience of regional tax systems to epidemiological crises.

**Methods:** The study is based on monthly data from the Federal Tax Service of the Russian Federation on total tax revenues in 83 Russian regions for 2013–2020. For data up to March 2020, we construct stationary time series and plotted ARIMA regressions. Based on them, we forecast tax revenues for the period from April to December 2020, if there were no pandemic. The impact of the pandemic is calculated as the deviation of actual tax revenue from the forecast for the corresponding 9 months.

**Findings & value added:** We find that the impact of the pandemic on tax revenues vary over time and space. The crisis hit the fiscal system most negatively in the first three full months of the lockdown (April–June 2020). Some mining regions of the Urals, Western and Eastern Siberia, specializing in the extraction of oil and gas, as well as non-ferrous metals, turned out to be the most vulnerable to the pandemic. The most resistant to it are the central and southern regions of the European part of Russia. Calculation of Pearson's correlations shows that the greatest drop in tax revenues occur in regions with a larger share of the mining industry in gross value added and MET in tax revenues, with a higher GRP per capita and an increased level of general economic instability. The smallest decline in tax revenue or even its growth is observed in regions with a larger share of personal income tax and property tax in tax revenues, a higher share of trade and processing industries, social sphere and public administration in gross value added, a higher degree of economic diversification and a larger share of small business in total turnover. The obtained results are applicable to manage the resilience of tax systems to epidemiological crises.

# RESEARCH PAPERS

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### *Financial Depth and Economic Growth Linkages: The Case for Poland*

*JEL Classification:* G10; G21; G28

*Keywords:* financial regulation; financial depth; economic growth; finance-growth nexus

#### ABSTRACT

**Research background:** The financial crisis of 2007–2009 clearly indicated the strength of the finance-growth nexus and the importance of the depth of the financial system to mitigate risks to the economy.

**Purpose of the article:** This paper studies the linkages between financial depth and economic growth linkages in Poland for the years 1995 to 2019. It utilizes integration and co-integration techniques to capture the long-term and short-term linkages between different measures of financial deepening, economic growth and select growth variables. Financial depth is measured using two distinct measures: the ratio of broad money in the economy to its GDP (i.e. the monetization ratio) and the domestic credit provided to private sector by banks.

**Methods:** The paper uses a combination of ADF and Phillips–Perrons unit root tests, autoregressive distributive lag (ARDL) model and Granger causality tests to estimate results. It finds that financial deepening and economic growth have a two-way causal relationship in the short run but this relationship does not hold in the long run. The control variables comprising of trade volume, investment, government spending and volatility in oil prices and inflation have a significant relationship with economic growth in the long run.

**Findings & value added:** The findings are indicative of the need for further strengthening of the financial sector in Poland, such that the relationship between economic growth and financial deepening is substantiated in the long run. It also finds room for more stringent regulation of the financial system and transparency in information available.

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***Management of working conditions and building a sense of health security of medical workers in the situation of the COVID-19 pandemic***

*JEL Classification: M12; I10; J28; J81*

*Keywords: working conditions; sense of health security; medical workers*

ABSTRACT

**Research background:** Management of Polish health care units has been causing numerous problems for many years due to the strategic role of this sector and its connection with public finances. The problematic areas are related to under-financing, the deficit of medical workers in certain professional groups, the migration of workers from public to private sector, human resources processes but also the state of working conditions. All weaknesses of the health care system in terms of human resources and organization have been exposed as a result of the COVID-19 pandemic. In the face of it, health care units and their employees have been struggling with the problems of increased workload, arduous working conditions, and constant fear for their health and life.

**Purpose of the article:** The aim of the article is to present the opinions of medical workers regarding their sense of health security connected with performing work during the pandemic and to assess the effectiveness of working conditions management.

**Methods:** The study was carried out in December 2020 on a representative sample of Polish medical workers. It focused on learning their opinions on functioning in the workplace in the conditions of the COVID-19 pandemic. The research was conducted using the CATI method, with the use of the Likert scale in the questionnaire. The analyses use the STATISTICA program. The following tests were used: the Kruskal–Wallis ANOVA on ranks, the Mann–Whitney test, the median test and the Pearson's chi-square test.

**Findings & value added:** The research results will help to draw a picture of the working conditions of medical workers during the second wave of the COVID-19 pandemic and their impact on the sense of security. Due to the time of conducting the research, the results are of unique value and allow to show the current situation and problems of the medical environment resulting from the COVID-19 pandemic.

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### *Organizational knowledge as an element of employer branding targeting employees of the generation Z: example of Polish TOP 500 enterprises*

*JEL Classification:* M12; M31; M51

*Keywords:* employer branding; organizational knowledge; generation Z

#### ABSTRACT

**Research background:** Studies developed by management practitioners and theoreticians suggest a growing interest in organizational knowledge (OK) and a broadening understanding of the term. Currently, the concept encompasses not only a set of codified data or information but also knowledge accumulated in the brains of employees. This knowledge poses a challenge for the processes of its positioning, processing and dissemination. This mainly concerns so-called tacit knowledge, i.e. hidden knowledge of which employees themselves may not even be aware. The method of processing such OK is significantly linked to subjective perception of employees, which, in turn, is currently an important element of employer branding (EB) communication.

**Purpose of the article:** The purpose of this study is to analyze, on the basis of a research, the links between the approach to OK represented by the examined organizations and their EB activities in the context of transformations associated with the youngest employees of the generation Z entering the labor market.

**Methods:** The research was conducted in 2019 among organizations ranked as the TOP 500 in Poland. The TOP 500 list includes the organizations that had the best market and financial performance in 2018 according to the methodology used by the Rzeczpospolita newspaper. The analyses use the STATISTICA program. The following tests were used: the Kruskal–Wallis ANOVA on ranks, the Mann–Whitney test, the median test and the Pearson’s chi-square test. The strength of correlations between the variables was evaluated by means of the Spearman’s rank correlation coefficient.

**Findings & value added:** The results of the research suggest that the leading market organizations still see OK in the traditional way, as a resource that should be protected both by individuals and by the organization. Consequently, the resource is not fully used or shared between employees what affect company’s image.

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### *Trade in Services in the European Single Market: The Position of China v. EU Member States*

*JEL Classification:* F14; F15; L80; O14

*Keywords:* trade in services; China; EU Internal Market; service mapping; RSCA

#### ABSTRACT

**Research background:** In last decades, the importance of services in international trade was growing steadily. Until quite recently, the developed economies were perceived as the main players in trade in services. However, last years witnessed a change as a result of which some fast-growing emerging markets, including China, have also become prominent actors. This strong growth of China's trade in services can be explained by the 'opening up' policy focused on the modernization of the existing industries, the development of clean and knowledge-based industries, joining in the servitization process, as well as the development of the service sector itself. The growth that the Chinese economy experienced over recent years brought it to the position of the EU's second-biggest trading partner with the EU being China's the biggest trading partner.

**Purpose of the article:** The aim of the paper is to appraise the position of China in trade in services within the EU internal market vis-a-vis the intra-EU trade in services.

**Methods:** We identified the most important types of services offered by China to purchasers from the EU countries. By using the Revealed Symmetric Comparative Advantage (RSCA) and trade balance (LFI) indices, we classified the Chinese exports to the EU internal market by types of services and by their trade position.

**Findings & value added:** We found out that China is a strong competitor in four categories of services, and the European service providers, especially those who render these services, should be aware of a strong and increasing competitive pressure that may lead to losing their share in the EU market to the Chinese counterparts.

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### *The Influence of EU Investment on Member States' Innovation Performance*

*JEL Classification: O38; O52; B40*

*Keywords: innovation performance; national innovative capacity; EU investment*

#### ABSTRACT

**Research background:** Seeking to ensure competitiveness in the global market, the EU is constantly improving its innovation policy. Compared to other EU initiatives, the Framework Programs for Research and Innovation (FPs) act as the main instrument with the longest history and the largest budget to boost member states' innovation performance. Despite the initial presumptions that these financial inflows should bring positive and constructive effects, the results significantly diverge across the countries with highly uneven and incoherent progress. Therefore, complex and reliable tools must be adopted to evaluate the long-term influence of EU investment and the reasons which distort the innovation performance in separate member states.

**Purpose of the article:** The purpose of this article is to evaluate the influence of EU investment on its member states' innovation performance by using a redeveloped national innovative capacity framework and including technological, non-technological and commercial innovative output.

**Methods:** Panel unit root tests were used to assess the time series stationarity. Autoregressive distributed lag models helped in calculating the long-term influence of EU investment on member states' innovation performance. Finally, by employing dummies, it was analysed how this influence varied over time and across different countries.

**Findings & value added:** The findings provide evidence that EU investment exerts positive long-term influence on the technological innovative output proxied as total, business and higher education institutions' patent applications as well as product and process innovations. The effects were also positive on trademarks and marketing, and organisational innovations. However, small but negative influence was found in the case of patent applications by the government sector and the exports of hi-tech products and knowledge-intensive services. These insights may serve in the designing process of the specific instruments and the future innovation policies, which would bring the maximum benefit for the society and economy.

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### *Creation of international networks: geographies of mergers and acquisitions in the energy sector*

*JEL Classification:* G34; N1; D2; O1

*Keywords:* M&A; energy sector; international networks; sustainability

#### ABSTRACT

**Research background:** Developments, trends, business climate, conditions, factors influencing the geography and results of mergers and acquisitions (M&A) in the energy industry are explored in this research. M&A enable the involved companies not only to maintain, but also to strengthen their competitiveness in the market. In the short term, seeking external growth and enhancing the firm's value through M&A affect the growth not only of the firms involved but also of the entire sector. In the long term, M&A play an important role in achieving sustainable growth and innovation in the energy sector. Energy companies have expanded through M&As, reorganization, and outsourcing, and the industry value chain has undergone structural changes. M&As make the energy industry more concentrated.

**Purpose of the article:** The purpose of the paper is to investigate and analyse 22,458 global M&A conducted in the energy sector during 1995–2020 with special focus on geographies and creation of international networks during M&A events.

**Methods:** Based on previous studies and dataset of M&A events gathered over Thomson Reuters database, authors conduct a structured literature review and descriptive statistical analysis aimed to critically discuss and evaluate international networks and geographies in the energy sector. The research is carried out as a structured assessment of past literature. The findings from scientific articles and studies by various scholars are being categorized, grouped and summarized to discern a meta-analytic view of the work carried out to date.

**Findings & value added:** This paper analyses 22,458 global M&A conducted in the energy sector during 1995–2020 and adds value in understanding international M&A behaviour of countries, industrial chains, and major companies from a geographical, globalization and geopolitical perspective.



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***The importance of intellectual capital in building the competitiveness of banks: an example of Polish listed banks***

*JEL Classification:* G21; O34; J24; M21

*Keywords:* intellectual capital; competitiveness; bank

ABSTRACT

**Research background:** The considerations defined in the article concern the concept of a bank's intellectual capital, which has long been discussed in the literature on the subject, mainly in relation to its components, but also the principles and methods of measuring effectiveness, mainly due to the difficult-to-measure nature of the components. The concept of dividing the bank's intellectual capital into three subsystems: organizational capital, innovative capital and institutional capital was presented. The role of intellectual capital in building the competitiveness of banks was also emphasized.

**Purpose of the article:** The aim of the article is to assess the impact of intellectual capital on the competitiveness of listed banks in Poland with the use of multidimensional statistical analysis.

**Methods:** The article will apply selected methods of multivariate statistical analysis — methods of linear ordering. A synthetic measure (aggregate measure) of banks' competitiveness will be constructed on the basis of selected diagnostic indicators related to the assessment of intellectual and economic capital. The author will use a descriptive analysis of indicators (measures of positioning and differentiation), analysis of correlation and selection of diagnostic indicators, standardization methods: zero unitization, unitization, standardization and normalization over time, variable stimulation — indicator and differential transformation method. Assessment of the choice of the best measure will be used — the method of Luty, Kukuła (2015). The period of analysis will cover the years 2009–2019, the research group will be 11 listed banks included in the WIG-banks sub-index portfolio: Alior Bank, BNP Paribas, Mbank, Citi Handlowy, Idea Bank, ING Bank Śląski, Millenium Bank, PEKAO, PKO BP Santander Bank, BOŚ Bank.

**Findings & value added:** On the basis of a group of 11 listed commercial banks in Poland in 2009–2019, she created a synthetic measure (aggregate measure) of banks' competitiveness based on selected diagnostic indicators related to the assessment of intellectual and economic capital, which, according to the author, have the greatest impact on competitiveness. As a result, rankings of banks in terms of their competitiveness were created and the impact (importance) of individual diagnostic indicators on their summary assessment of competitiveness was determined.

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***The Economic Resilience of the European Union: A Monetary Convergence Approach***

*JEL Classification: E32; F45; O57*

*Keywords: economic resilience; monetary convergence; European Union; global financial crisis*

**ABSTRACT**

**Research background:** The global financial crisis that began in 2008 generates multiple negative effects on the world economy. This crisis also had negative effects on the economic convergence of European Union countries. Each country was more or less affected by the financial crisis and, at the same time, the economy of each European country recovered at its own pace compared to the pre-crisis situation.

**Purpose of the article:** The purpose of this article is to analyze the economic convergence of the EU Member States and to observe the resilience of these states to the effects of the financial crisis of 2008. At the same time, we aim to see how quickly the European economies have recovered after the crisis and what trend their convergence has had following this event.

**Methods:** In order to quantify the impact of the global financial crisis on the economic convergence of European Union countries, an empirical methodology was established, consisting in the construction of a composite index. The impact of the global financial crisis is studied from both nominal and real convergence, while for the composite index are taken into consideration nominal convergence indicators, trade, GDP per capita and unemployment rate.

**Findings & value added:** At European Union level, some countries have encountered serious problems with convergence indicators as a result of the global financial crisis. In most cases, the European economies have had a low level of resilience to the effects of the global crisis. Also, in general, it took a longer period of time for European countries to recover from this crisis. However, in the future, the economic convergence of European countries may be affected again as a result of crises and economic shocks. Therefore, these economies must find solutions to improve their resilience to these situations, but also tools and mechanisms to reduce recovery time.

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### *Usefulness of new media information for Generation Z tourists during the COVID-19 pandemic*

*JEL Classification:* O3; Z3

*Keywords:* information; new media; usefulness; tourism market; Generation Z

#### ABSTRACT

**Research background:** Information and knowledge are economic goods that sustain economic development, including the tourism industry, today. In the past, the tourism sector was affected by various crises, but none of them was as extensive and did not impact tourism on a global scale as it has happened now- during the COVID 19 pandemic. Many tourists are balancing the pros and cons of the decision to take a tourist trip and the media are becoming an important source of information. Although not all media have the same credibility and usefulness which still needs to be investigated. Generation Z, which is a cohort of extremely active travelers, mostly rely on digitally delivered information. New media like the Internet, including social media, enable tourism entities to reach not only local, but also global markets. However, in the studies published so far, social media and the Internet have usually been analyzed as one category, which in the era of changing technologies and the new emerging behaviors of young tourists seems insufficient. Therefore, there is a need to verify the current state of research and determine the usefulness of new media on the tourism market.

**Purpose of the article:** The study aims to investigate the capacity of new media to meet the information needs of potential Gen Z tourists during the pandemic and to identify the characteristics of useful media information.

**Methods:** The study involved a desk research and a diagnostic survey method, including the online survey technique. The collected material was analyzed qualitatively and quantitatively. 434 responses were received to the questionnaire. The study was conducted in October 2020.

**Findings & value added:**The conducted research made it possible to verify the usefulness of online sources of information used by Gen Z respondents during the pandemic. The study determined the relationships between Gen Z tourist behavior, average daily time spent in front of the computer, the amount of tourist expenditure and the usefulness of new media. The main contribution of this study is identification of the features of useful media information about tourism products and services as perceived by Gen Z representatives, which contributes to filling the existing research gap.

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### *Eco-innovation gap in the area of plastic waste management in Poland*

*JEL Classification:* Q53; Q57; Q5

*Keywords:* plastics; circular economy; eco-innovation

#### ABSTRACT

**Research background:** The European Union launched a European Strategy for Plastics in a Circular Economy in early 2018. It aims to achieve an economy in which plastics reuse, repair, and recycling is the norm. The strategy is meant to protect the environment and contribute to innovation and prosperity. The European Union in-tends to direct EU countries towards eco-innovation. In the perspective of plastic, it supporting a system for waste management in a way to promote eco-innovation and sustainability. It is also a comprehensive development of new products to enhance social, economic and environmental aspects of existing ones.

**Purpose of the article:** The starting point is the analysis of the ecoinnovation approach under the concept of circular economy on the subject of plastic in EU. The purpose of this article is to indicate if Poland takes measures to structuralize system for waste management in a way to promote eco-innovation and sustainability. It focuses on the scale (and reduction) of plastic production and consumption in Poland, which takes critical part of environmental degradation.

**Methods:** Statistical and deductive methods will be used in this work. The considerations in this paper will be based, to a great extent, on literature on the subject-matter and secondary data. There will be taken into account: EU strategies in the area of eco-innovation, the level of plastic waste generation, the measures to reduce those through government activities, and the different methods of consumption reduction, reuse and recycling in Poland (compared to EU countries).

**Findings & value added:** There is a great eco-innovation gap in the area of plastic waste management in Poland compared to EU average and even more to leaders. Poland is in severe condition as there are lack of collection coverage as well as controlled disposal. Although the level of plastic waste generation in Poland is lower than in most EU countries, plastic waste is mainly landfilled, which is a big challenge for closing the cycle in the economy.

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### *For Whom The Bell Tolls: Predictive Strength of Macroeconomic Imbalance Procedure (MIP) Indicators*

*JEL Classification: E02; E61; C25*

*Keywords: Macroeconomic Imbalance Procedure; economic crisis; multidimensional crisis; BMA*

#### ABSTRACT

**Research background:** MIP is one of the pillars of the economic crisis prevention procedure. Predictive power of individual indicators has not been tested before their introduction.

**Purpose of the article:** Evaluation of the predictive strength of 14 main and 44 auxiliary MIP indicators in relation to multidimensional crises in the EU countries.

**Methods:** We used Bayesian Model Averaging to test the ability of MIP indicators to correctly predict crisis episodes in the period between 2008 and 2019 in all EU Member States.

**Findings & value added:** This work is novel in its application of BMA to test the predictive strength of all MIP indicators. We identified some main MIP variables which were statistically significant in predicting crises for all EU countries. The other main variables turned out to be less important or not effective in crises prediction and they should be replaced by auxiliary indicators of greater relevance and predictive power.

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### *Retirement risk and the usage of financial products by current retirees in the transition country: evidence from Poland*

*JEL Classification:* G2; I3

*Keywords:* retirement risk; insurance; financial products; retirees

#### ABSTRACT

**Research background:** In many countries which undergone economic transition from centrally-planned to market economy in Europe, the state old-age pension is the main source of income in retirement. However, replacement rates from public pension schemes has been decreasing. Therefore, there is a need to increase the role of supplementary sources of covering the needs of seniors.

**Purpose of the article:** In this paper we examine the usage of financial products supplementing retirement income by seniors aged 65+.

**Methods:** We use data from the survey carried out in 2018 on the representative sample of Polish seniors aged 65+ for whose households' the state old-age pension is the main source of income (1,336 retirees). Logistic regression was performed to study how socioeconomic status and subjective level of satisfaction with expenses in preretirement period influenced the likelihood of using financial products for retirement purposes.

**Findings & value added:** General logistic model showed that factors such as higher level of education, non-dependent work and retiring between 2009–2018 increased chances for using financial products to supplement old-age pension. There are differences between seniors who used particular financial products, what derived from separate regression models dedicated to: bank deposits, capital market instruments and life insurance. Higher likelihood of possessing life insurance products characterized those, who performed employment contract, those who used early retirement and “young” retirees (retired between 2009–2018). The highest chances for utilizing capital market instrument characterized those with higher level of education and performing non-dependent work prior to retirement. The outcomes of the research show that usage of financial products among retired seniors in Poland is moderate and the understanding of financial products is poor. The demand for insurance products connected with medical services will increase, what might be an impulse for the development of such products by insurance companies.

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## *Development of marketplace trade in Poland compared to other European Union countries*

*JEL Classification: C38; R11*

*Keywords: marketplace trade; composite measure of development; Hellwig's linear ordering method*

### ABSTRACT

**Research background:** Traditional (open-air) marketplace trade brings many socio-economic benefits: it affects the local labour market, entrepreneurship and tourism. In many countries, activities are undertaken to support the operation of marketplaces. In recent years, new threats to the development of marketplaces have emerged, such as cheap discount shops, supermarkets and online shops. As a result, the area of market squares has decreased. However, the inhabitants of many cities still enjoy shopping at traditional marketplaces.

**Purpose of the article:** The aim of the paper is to assess the development of the marketplace trade in Poland against the background of other European Union countries. Eurostat does not provide data on Poland. The authors decided to fill this gap. Additionally, the attractiveness of large cities in Poland in terms of the development of fair trade in the years 2008–2019 was assessed.

**Methods:** Attractiveness of large cities in Polans was assessed by means of linear ordering of objects using the Hellwig's composite measure of development.

**Findings & value added:** In the years 1995–2018, the number of marketplaces in Poland remained on a constant level, while since 2003 their area has decreased. However, the total number of marketplaces has increased compared to 1995. The reason for the decrease in the area of marketplaces may be the newly created shopping malls and hotels displacing marketplaces from attractively located areas. Large bazaars also operate in highly developed EU countries and differ from Polish ones in that they are more regionally oriented. A study has shown that the trade in fairs in Poland can move in this direction. An example is the high position of Kraków in the conducted ranking.

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### *Diagnosis of a post-pandemic crisis in cross-border cooperation*

*JEL Classification: F02*

*Keywords: transboundary cooperation; postpandemic crisis; diagnostics; diagnostic algorithm; modeling of crisis processes*

#### ABSTRACT

**Research background:** diagnostics as a research category has been steadily applied in recent years in the assessment of cross-border cooperation. It serves as the most important scientific method and tool to respond to many crisis issues in almost all studies. In international research practice, comprehensive diagnostics is studied, which includes economic, marketing, technical, social, financial, managerial and strategic diagnostics. In the post-pandemic period, a comprehensive diagnostics of broken links and the resumption of activities of many industries (including strategic) in border regions will be conducted. The fact is that these regions may develop in different economic, legal and cultural conditions, and therefore, the comprehensive diagnostics should suggest how to restore the lost positions and outline future development prospects in the most effective way. The study is based on an in-depth analysis of the reasons that emerged as the pandemic spread. For example, an algorithm of the diagnostic process is constructed, which proposes the following sequence of studies. Crisis phenomena that have arisen as a result of the pandemic are studied. Then, key parameters of the situation are defined and research problems are identified. After that, priority problems are identified and diagnosed. Under these conditions, the contradictions are predicted and decisions are made to eliminate them.

**Purpose of the article:** is the diagnosis of processes that affect the current state of affairs and the development of measures to overcome the post-pandemic crisis.

**Methods:** the study uses stages and diagnostic methods. In the first stage, a qualitative identification of an object is made on the basis of general and available parameters. At the second stage, quantitative identification of the object is carried out on the basis of deviations from the norm, which are then compared with the benchmark. For border regions this method is carried out on the basis of three-stage system of object insolvency (financial instability, relative insolvency, absolute insolvency). Besides, the study uses diagnostics of the main processes of cross-border cooperation. It suggests modeling the evaluation of cross-border cooperation because the indicators of this cooperation are heterogeneous in terms of units and there is a problem of comparing them. The study uses a matrix of indexes' movement on the basis of criterion order of movement and actual order of movement of indexes on the basis of rank correlation.

**Findings & value added:** currently, the cross-border economy faces new challenges that test the basic mechanisms of functioning in crisis conditions. All these processes imply taking measures to eliminate the consequences of postpandemic phenomena. The sectors and industries whose activities have been suspended due to the specifics of the pandemic will have to be restored at an accelerated pace. The conducted researches can be used by state authorities in diagnostics of the processes of cross-border cooperation in the period of recovery from the post-pandemic crisis.



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### ***Financial weapons of mass destruction: Could the countrywide FX options debacle happen again?***

*JEL Classification:* G12; G23; G32; L20

*Keywords:* derivatives debacle; institutional asymmetry; FX options; operational risk

#### ABSTRACT

**Research background:** The derivatives debacles described so far in academic literature almost exclusively focus on a single organisation operating in a mature market. Astonishingly little attention was paid to the 2008–09 FX options debacle in Poland, which scale is unheard of. It affected not only an individual organisation but — for the first time — a whole economy, being an example of a situation in which operational risk at the company level has a significant impact on systematic risk.

**Purpose of the article:** The paper tests the hypothesis that financial institutions shroud some aspects of innovative securities or take advantage of a profound information and institutional asymmetry to exploit uninformed clients. The research attempts to embrace the scope and scale of the derivatives debacle in Poland, covering not only the financial but also the managerial aspect of the crisis. It seeks as well an answer to which extent MiFID II, if fully implemented by 2008, could have helped to avoid one of the biggest corporate failures since the transformation of the Polish economy.

**Methods:** Desk research and a primary qualitative content analysis have been used, including over 800 media releases, around 200 companies' financial statements, financial institutions' and industry reports, as well as legal acts.

**Findings & value added:** The research provides evidence supporting the hypothesis on the darker side of financial innovations. It shows that both adequate legal regulations and proper operational risk management are crucial for avoiding similar corporate failures. The study documents that the analysed debacle was caused by financial institutions which offered unsuitable derivatives to clients incapable of evaluating the products' riskiness. In a number of cases, financial institutions breached the trust of their long-term debtors for short-term profit. The problem is significant not only for business relations but business ethics as well.

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### *Determinants of economic fragility and recovery in Central and Eastern European countries*

*JEL Classification: E32; G01; H81; O57*

*Keywords: economic decline; fragility; zombie economics; financial recovery; anti-crisis policy measures*

#### ABSTRACT

**Research background:** The coronomic crisis manifested itself in the fact that many countries of the world, including the USA, China and most Central and Eastern European countries, suspended their economies. The lockdown of economic activity primarily concerned tourism and caused a collapse in stock exchanges which directly affected the real sector of the economy. This COVID-19 crisis and past financial crisis experiences show the research gap that allows to contribute to recognize the determinants of economic fragility and aims at revealing how to mitigate these negative phenomenon in the future and — if happen — offer proper anti-crisis and recovery policy responses.

**Purpose of the article:** The aim of this study is to identify main drivers of economic fragility and recovery in Central and Eastern European countries.

**Methods:** This study focuses on fsQCA (Fuzzy set Qualitative Comparative Analysis) in economic fragility and crisis research. The study concentrates on implementing fsQCA method to identify, compare and evaluate the main drivers of economic fragility in Central and Eastern European countries based on Fragile States Index data. Research covers 2006–2020.

**Findings & value added:** This article shows how an fsQCA approach can overcome the knowledge gap of current conceptual and methodological attempts to expose economic fragility's architecture of causalities. The research indicates and examines the main reasons for economic fragility in Central and Eastern European countries, namely: economic decline, uneven economic development, unemployment, demographic pressure, government debt. As a result of the coronomic crisis and anti-fragility measures the national budgets deficit is growing and its reduction will be one of the main tasks of the post-crisis period. It points out that anti-crisis measures, by their nature, can create conditions for promoting the zombie-ing of the economy.

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### *Forecasting the directions of the EU sugar market development after limiting government intervention*

*JEL Classification: E31; E37; Q17*

*Keywords: sugar market; government intervention; forecasting; trend model; harmonic analysis*

#### ABSTRACT

**Research background:** The EU sugar industry is one of the most regulated industry subjected to import duties, subsidies and quotas. Government intervention in sugar markets significantly affects sugar production, consumption, and trade. The GATT / WTO negotiations led to the commencement of the liberalization process in the EU sugar market, which resulted in reforms aimed at abolishing government support, which resulted in significant changes on the sugar market in EU. In consequence, there were significant changes on the sugar market.

**Purpose of the article:** The study reviews of the current state of the EU sugar market, discusses the likely impacts of various market and trade policy scenarios, and identifies the direction of the EU sugar market changes.

**Methods:** The work uses the forecasts made for 2017–2020 based on empirical data from 1993–2016, and then verified their truthfulness on the basis of real data. The following prediction was used: a trend model in which the variability of the dependent variable is described by a specific explanatory variable, which is time, and harmonic analysis, when there are seasonal fluctuations along with a development trend or a constant average level, the model is built in the form of the sum of the so-called harmonics – sinusoidal or cosine functions of a given period.

**Findings & value added:** The results of the research showed that statistical models are not able to correctly predict not only the forecasted values, but also the directions of their changes. The forecast for sugar production assumed a downward trend, while in fact there were strong fluctuations, initially it increased by 17% in 2017, and in the following year it decreased by 13%. In the case of the forecast of sugar consumption, an average 15% higher growth than in reality was assumed.

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*Overconfident CEO and corporate financial strategy: family versus non-family firms*

*JEL Classification: D91; G32; G41*

*Keywords: managerial overconfidence; financing strategy; investment strategy; firm performance; family firm*

ABSTRACT

**Research background:** The findings on family firms' corporate financial strategy is inconclusive – some show conservative and some show aggressive strategies. While findings on CEO overconfidence show aggressive financial behavior. We wonder what is the impact of overconfident CEO on family firms' corporate strategy.

**Purpose of the article:** Our main research aim is to find any differences in corporate financial strategies and firm performance regarding the status of the company (family or non-family) and CEO characteristics (overconfident or non-overconfident).

**Methods:** to assess the differences between subsamples in terms of corporate strategy we employ statistical significance test used to compare two independent samples. To model the impact of CEO characteristics (overconfidence) and status of firm (family) on corporate financial strategy and firm performance, we applied regression analysis.

**Findings & value added:** we find family firms quite coherent group of companies implementing more conservative corporate financial strategy regardless the CEO characteristics. Behavior of overconfident CEO in family firms is similar to non-overconfident CEO in family firms (more conservative). We can state that the family power can hamper the CEO overconfidence and its impact on financial strategy and firm performance. We find more aggressive behavior of overconfident CEO but only in non-family firms. If the CEO overconfidence has impact, this impact is explicit in non-family firms.

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### ***Macroeconomic determinants of non-performing loan ratio for the commercial banking sector in Poland***

*JEL Classification:* C22; C51

*Keywords:* non-performing loans; banking sector; credit risk

#### ABSTRACT

**Research background:** Non-performing loans (NPL) are one of the major threats to the banking system. They negatively affect the credit supply channel and result in deterioration of the financial indicators of the banking sector. Understanding the relationship between macroeconomic factors and the value of NPL ratio is very important to counteract the growth of NPLs and ensure their safety.

**Purpose of the article:** The aim of the article was to examine the relationship between macroeconomic factors and the value of the NPL ratio for the commercial banking sector in Poland.

**Methods:** The NPL ratio was calculated on the basis of cumulative data for the commercial banking sector. The analysis was performed on the basis of monthly data (from December 31, 2010 to October 31, 2020) and quarterly (from December 31, 2010 to September 30, 2020). On a monthly basis, the following explained variables were adopted: unemployment rate, inflation rate, WIBOR 1M, average exchange rate of USD 1. In quarterly terms, the following explained variables were used, relating to GDP dynamics, money supply dynamics M3, WIBOR 3M, official NBP exchange rate for USD 100, price per square meter of residential real estate. A linear regression model was used to identify the factors determining the NPL value. The explanatory variables were selected using the backward stepwise method. Moreover, the study used a multi-factor regression model.

**Findings & value added:** The one-way analysis on a monthly basis showed a relationship between the NPL and the unemployment rate, WIBOR 1M and the USD 1 exchange rate. There was no correlation between the NPL and the inflation rate. On a quarterly basis, the univariate analysis showed a relationship between NPL and WIBOR 3M, the exchange rate of USD 100, the price of a square meter of residential real estate. There was no correlation between the NPL and the dynamics of GDP and the dynamics of money supply. The multivariate analysis in both approaches showed the significance of all variables except WIBOR 3M on a quarterly basis. This study contributes to the enrichment of the existing literature by focusing on macroeconomic factors influencing the value of NPLs in the banking sector in Poland.

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### *Exporting Innovators in the EEA Countries: Are Central and Eastern European Firms Different?*

*JEL Classification: F12; F14; F23; L25; O31*

*Keywords: exporting; innovation; R&D activities; non-technological innovation; foreign direct investment*

#### ABSTRACT

**Research background:** We contribute to the stream of research that analyzes the export orientation of firms by offering a study of the relationship between specific innovation activities undertaken in companies from several countries.

**Purpose of the article:** The purpose is to compare the innovation-related correlates of exporting activity a wide group of European Economic Area (EEA) member states. Specifically we compare two groups of countries: the West and South European (WSE) countries and the Central and East European countries (CEEC).

**Methods:** We analyse the Community Innovation Survey (CIS) firm-level dataset, and the CIS data collected by Statistics Poland. We focus on firms that introduced product or process innovations while controlling for sample selection.

**Findings & value added:** We find that in-house R&D activities are important for exporters in all WSE countries but only in some CEE countries. For the latter group of countries we obtain a significant role of marketing and organizational innovations for exporting. In virtually all EEA countries the membership in foreign or domestic business groups increases the probability of exporting of innovators.

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### *The Effects of Preferential Trade Agreements: A Theoretical Study*

*JEL Classification: F12; F15*

*Keywords: increasing returns; horizontal product differentiation; monopolistic competition; Preferential Trade Agreements (PTAs); price index effect*

#### ABSTRACT

**Research background:** In recent years, the world economy has experienced a remarkable proliferation of Preferential Trade Agreements (PTAs). PTAs are agreements by which participating countries discriminatorily remove trade barriers among their countries, with protection against nonparticipants being maintained. The traditional theories of PTAs were based on the assumptions of perfect competition, constant returns to scale and product homogeneity. A seminal work, Viner (1950), introduced a concept of “trade creation” and “trade diversion” and showed that if the partner countries are less efficient than those outside the PTA, the formation of a PTA causes members' welfare to deteriorate if their respective external tariffs are maintained.

**Purpose of the article:** In this paper we study the additional effects of PTAs using a theoretical model of monopolistic competition with product differentiation and increasing returns to scale to identify positive effects of PTAs formation that may offset the negative effects of trade diversion and contribute to improved welfare levels in integrating countries.

**Methods:** Our theoretical framework is based on a three-country model of international trade with monopolistically competitive markets with free entry and exit.

**Findings & value added:** In this paper we introduce horizontal product differentiation and increasing returns to scale at the firm level to show that while the traditional concepts of trade creation and trade diversion may still be relevant, but there are also some additional effects stemming from increased product variety and decreased aggregate price indices that contribute to improved welfare levels of integrating countries. The proposed theoretical framework contributes to better understanding of the effects of preferential trade liberalization.

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### *Financial education programs and financial integration: the case of Romania*

*JEL Classification: I22; G00; G53*

*Keywords: financial literacy; education; integration; equity markets*

#### ABSTRACT

**Research background:** The global financial crisis and the European debt crisis emphasized the importance of the financial integration. In order to be viable and to reap the benefits of an integrated financial system, consumers of finance must have a basic understanding of relevant financial concepts. Otherwise, financial integration could spur instability, driven by financial exuberance, and illiterate decisions.

**Purpose of the article:** This article documents the level of financial market integration in the European Union. The paper argues the role of financial education in fostering financial integration. Finally, it reveals the upsides and downsides of the financial education programs implemented by the Romanian authorities over the past decade.

**Methods:** Financial market integration is studied by using a DCC model. The financial education programs are presented by using descriptive and data analysis.

**Findings & value added:** Our results reveal a low level of financial integration in the European Union, especially for Central and Eastern European countries. Financial education programs are able to enhance financial integration. However, these programs should target specific objectives and should be implemented over the long run. Over the last decades, Romania lacked such programs. However, recently, in the light of their importance, the authorities launched numerous education programs.



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### *Social issue as an area of non-financial reporting on the example of selected companies listed on the Warsaw Stock Exchange*

*JEL Classification: M41; K30; F60*

*Keywords: non-financial reports; social issue; GRI Standards; CSR; non-financial indicators*

#### ABSTRACT

**Research background:** The dissemination of the concept of sustainable development has resulted that the social issue is an important area of non-financial reporting. However, the complexity and multidimensionality of this category mean that the indicators used for this are very diverse. The literature on this subject includes numerous publications, but there is lack of answer to the question: are the social category disclosures presented in non-financial reports comparable?

**Purpose of the article:** assess the comparability of non-financial disclosures in the social area in reports of selected companies listed on the Warsaw Stock Exchange. The ten largest listed companies listed in the WIG-20 index were selected for the study.

**Methods:** literature studies, analysis of legal regulations, analysis of secondary data in the form of non-financial reports, as well as methods of induction and synthesis used in the formulation of applications. The study covered non-financial reports for 2019. The study was divided into five categories: (I) Human Rights, (II) Local Communities and Community Engagement, (III) Supplier Social Assessment, (IV) Customer Privacy, and (V) Other, within each, based on GRI Standards, up to three non-financial indicators have been defined. The zero-one system was adopted for the study, where 1 confirms disclosure, 0 means no disclosure.

**Findings & value added:** The conducted empirical study confirmed that the analyzed non-financial reports were not fully comparable in any of the five categories of disclosures. Moreover, in many reports verbal description dominated, with a relatively small share of information expressed in numbers and/or percentages, which in turn creates a field for narration. Non-financial reporting requires an appropriate balance between descriptive reporting and quantified information. This also applies to the disclosure of information on social issues. In this light, it seems necessary to lobby and then start legislative work aimed at increasing the comparability of non-financial reports.

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### *Work organization and the management of healthcare unit in a crisis in the situation of the COVID-19 pandemic*

*JEL Classification: M12; I10; J81; J28*

*Keywords: work organization; the management of healthcare unit; COVID-19 pandemic*

#### ABSTRACT

**Research background:** For many years the health care sector has been an important area of interest for the researchers of various sciences, including management. Numerous problems in the management of health care units result, among others, from the insufficient level of financing, low effectiveness of managing own resources, or poor organization of work. The crisis caused by the COVID-19 pandemic overlapped with an already difficult situation. The difficulty of management is even greater when we have no influence on the conditions of this management, which is typical of the current situation. One of the proposed approaches to the management of organizations in times of the pandemic indicates the possibility of relying on three elements: trust, communication, and flexibility.

**Purpose of the article:** The purpose of this paper is to explore the opinions of medical workers regarding the organization of their professional work and way of managing a healthcare unit in the crisis resulting from the COVID-19 pandemic situation in Poland.

**Methods:** The study was carried out in December 2020 on a representative sample of Polish medical workers and focused on learning opinions on their functioning in the workplace in the conditions of the COVID-19 pandemic. The following tests were used: the Kruskal–Wallis ANOVA on ranks test, the Mann–Whitney test, the median test, and the Pearson's chi-square test.

**Findings & value added:** The results of the research will enable to present the situation regarding the organization of professional work of medical workers and the management of a healthcare unit in Poland in a crisis situation. Due to the time of conducting the research, the results are of unique value and allow to show the current situation and problems of the medical environment arising from the COVID-19 pandemic.

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### *Coronacrisis Recovery, Transatlantic Relationship and European Solidarity*

*JEL Classification: F52; P16; I38*

*Keywords: national interests; economic growth; economic cooperation*

#### ABSTRACT

**Research background:** The coronacrisis has highlighted the fragility of highly interdependent world economic order. However, we are still unable to say how deep and how long the recession is going to be as we have little knowledge of the progress of COVID-19 pandemic and consequent government policies. What we do know is that it is going to be the harshest economic downturn since many decades and many highly developed countries will desperately yearn for growth when it is over.

**Purpose of the article:** The aim of the paper is to analyse the scenario of economic growth as post-pandemic recovery imperative. The tightening of economic cooperation between the US and the EU will be desired, but might lead to socioeconomic consequences in terms of weakened European solidarity.

**Methods:** We employ the perspective of institutionalist political economy in order to understand economic policies carried out during and after pandemic. We also refer to postfunctionalism theory in order to explain the tensions rising within the EU.

**Findings & value added:** Under possible regionalization of world economy after pandemic, Transatlantic Relations will be under pressure to generate growth and competitiveness leading to a dilemma between pursuing economic competitiveness and rebuilding European solidarity. The threat is that when facing US competition, national interests of European powerhouses might lead to less cohesion and more economic divergence.

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### *Relational taxonomy*

*JEL Classification: L29; M10*

*Keywords: relationship assets; relationship benefits; relationship capital; relationship outcomes; relationship quality*

### ABSTRACT

**Research background:** Semantic incommensurability of commonly used but differently understood relationship management characteristics, such as: relationship quality, outcomes, benefits, or assets impedes scientific dialogue among researchers. Studies on the impact of relationship management on business performance are particularly affected.

**Purpose of the article:** To propose a relational taxonomy based on clear criteria that will help to unambiguously classify the existing and potential relational characteristics.

**Methods:** Epistemic inquiry based on, first: deductive analysis of representative examples of the relationship management literature, and second: on a synthesis of the processed material to establish a conceptually consistent relational taxonomy.

**Findings & value added:** Relational taxonomy introducing three dimensions of relationship management characteristics: psychological, structural and behavioral, rooted in the concepts of relationship and intellectual capitals, and corresponding to the concept of relationship capabilities.

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### *Evaluation of changes in the situation on the labour markets of post-communist members of the European Union*

*JEL Classification:* C38; E24

*Keywords:* European labour market; Dynamic Time Warping; Ward's method; cluster analysis

#### ABSTRACT

**Research background:** Since 2004, 11 post-communist countries have joined the European Union. The modernisation process has increased their competitiveness in a globalised economy. This was linked to the implementation of institutional and economic reforms, significant technological changes and improvements in the quality of human capital, as well as fiscal stabilisation policies. These changes have affected the situation on the labour markets in these countries.

**Purpose of the article:** The aim of the study is to assess changes in the situation on the labour market in the European Union with particular emphasis on the post-communist countries in the period 2002–2019.

**Methods:** Every year, the situation of countries in the European labour market has been estimated using the TOPSIS method. A similarity matrix of changes in the synthetic variable for each country was then constructed using the Dynamic Time Warping method. On the basis of this similarity matrix, homogeneous groups of countries were determined using the Ward method.

**Findings & value added:** Four homogenous clusters of countries were formed. The post-communist countries belonged to two groups. In one, there were three countries — Bulgaria, Croatia and Slovenia (with Italy and Greece). This group included the most disadvantaged countries in the European labour market. The rest of the post-conflict countries formed a large group which also included Germany, Malta and Finland. The situation of the countries in this group has improved very much during the analysed period (this was particularly evident for Czechia and Estonia). The added value of the study is the multidimensional assessment of the changes in the labour market situation in post-communist countries.

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### *Ethics in police management as a factor of leadership efficiency*

*JEL Classification: M10; M12*

*Keywords: ethics; police management; leadership; efficiency*

#### ABSTRACT

**Research background:** Problems in law enforcement policy, police organization and management, and the work of an individual police officer cannot be addressed in practice in isolation. These three different levels of police action are based on certain rules that are in their specific moral contexts. The leadership competencies of the organization leaders allow to form the environment of staff cooperation, enable to take actions and responsibilities, and ensure ethical behavior of the employees of the organization. Thus, greater leadership effectiveness can be achieved if the manager is able to communicate with individuals, establish good relationships with them, inspire and persuade them to work together to achieve the common goals and vision of the institution.

**Purpose of the article:** The article dwells on the meso-level, which generally is police organization and management. We will provide an answer to the question of how ethics in police management affects the relationship between managers and employees, brings efficiency to policing. The article aims to emphasize the new value of police quality by emphasizing ethics in police management as a factor in leadership effectiveness.

**Methods:** This work was carried out using methods of analysis and synthesis of the scientific literature, as well as the application of logical and analytical methods in the analysis of key issues related to the role of ethics in leadership effectiveness.

**Findings & value added:** This work focuses on organizational ethical aspects that have so far been insufficiently addressed, the role of ethics in leadership effectiveness. The approach to police ethics presented links classical police values to modern management methods. Adherence to and dissemination of ethical principles are the characteristics of communication, which show what the other person is in contact with, how we value him, how much we respect and recognize his value.

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### ***Barriers to gaining support: a prospect of entrepreneurial activity of family and non-family firms***

*JEL Classification:* L26; L38; M21

*Keywords:* entrepreneurial activity; support entrepreneurship; family firms

#### ABSTRACT

**Research background:** This paper explores the approach that focuses on entrepreneurial activities suppressed by restraining forces or different barriers. We investigated a particular type of obstacles reported by entrepreneurs, i.e., those which prevented their gaining access to support instruments. In this paper there was delved into the specificity of family businesses, and explained why perceptions of access to support could differ between family and non-family firms.

**Purpose of the article:** This paper seeks to identify the differences between family and non-family businesses in terms of their perceptions of different barriers that hinder access to support instruments.

**Methods:** The main research processes were based on logistic regression models with a dependent variable: 0 for a non-family firm and 1 for a family firm. dependent variables 13 barriers to the access of public support instruments were adopted. Study was conducted on the sample of 386 Polish business entities.

**Findings & value added:** The results confirmed, on a statistical level, the existence of differences between family and non-family businesses in perceptions of barriers towards gaining support in entrepreneurial endeavours. Obstacles, such as overly-complex bureaucratic procedures and requirements, lack of access to information disseminated by business support institutions, and complicated support settlement procedures, were perceived as far less crucial by family businesses than non-family businesses. Family businesses demonstrated a lower propensity to use real property as collateral for transactions. Family businesses with financial resources that overlap with their own familial resources declared that they found it easier to make their own contributions to satisfy the requirements for support programmes or services. This paper makes several novel and significant contributions to the field. First, we add to existing research focusing exclusively on family entrepreneurial activity by drawing a comparison between family and non-family firms in terms of the perceived barriers towards gaining support. Second, we address different types of barriers. Our findings provide further evidence that different types of businesses perceive certain types of barriers differently. Third, we extend current knowledge on family businesses in Poland.

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*The role and importance of international environment factors in the process of internationalization of Polish enterprises*

*JEL Classification: D22; F20; F21; L21*

*Keywords: enterprise; internationalization; international environment; international management*

ABSTRACT

**Research background:** It is commonly noted that the environment of enterprises changed substantially at the turn of the 20th and 21st centuries. The environment basic and characteristic features are changeability and complexity, i.e. turbulence. It is justified to distinguish the enterprise international environment as a separate category. Many different ways of understanding this category and of classifying its structural elements can be found in the literature.

**Purpose of the article:** The theoretical aim of the article is to identify and characterize the essence and structural elements of the international environment of enterprises. The practical aim is to recognize the impact of the international environment individual elements (political and legal, economic, socio-cultural, ecological and technological factors) on the process of internationalization of Polish enterprises.

**Methods:** The article makes use of a critical analysis of the literature on international management and draws on the results of own surveys conducted among Polish enterprises.

**Findings & value added:** The analysis and monitoring of changes taking place in the international environment are of key significance for the strategy of the enterprise internationalization regardless of the stage or intensity of the internationalization process. The influence of international environment factors is an important aspect that decides whether a given venture undertaken by the enterprise on foreign markets will be a success. As a result of own studies, the role and importance are determined of individual types of international environment factors in the process of internationalization of Polish enterprises. Attention is drawn to the dominant role of factors of the technological environment.



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### *VAT revenues in 2008–2020: trends and challenges of COVID-19*

*JEL Classification:* H20; H21; H26; H30

*Keywords:* tax policy; tax revenues; tax expenditures; VAT; COVID-19

#### ABSTRACT

**Research background:** VAT revenues are particularly vulnerable to economic turbulence, especially if the crisis directly affects private consumption or changes its structure. Even when consumption levels are relatively high, VAT revenues may be lower due to a shift in consumer spending to the most essential goods or services or an increase in public sector consumption. Because of the reduction in operation and the closure of many businesses, the COVID-19 crisis is likely to have an even greater impact on consumption than the previous financial crisis of 2008.

**Purpose of the article:** The purpose of this article is to analyze VAT revenues in OECD countries over the period 2008–2020, identify general trends, and highlight similarities and differences in this regard between the 2008 financial crisis and the COVID-19 crisis.

**Methods:** The analysis covered OECD countries in 2008–2020. The study utilizes the descriptive method with elements of statistical data analysis. The article was prepared on the basis of literature studies and OECD data.

**Findings & value added:** Consumption taxes account for about 33% of all taxes collected in OECD countries, of which 20% is VAT. COVID-19 could change that in an important manner. After the 2008 global financial crisis, tax revenues, including VAT, returned to pre-crisis levels after an average of eight years. VAT revenues in relation to GDP peaked in 2016, and have been stable since then. Due to reduced operation and closure of businesses, the COVID-19 epidemic not only changed the structure of private consumption, but also significantly affected its level. In addition, government actions reducing certain rates have contributed to the decline in VAT revenues. As the survey results indicate, standard VAT rates between 2017 and 2020 were at record high levels, averaging 19.3%. With such high rates, in order to restore VAT revenues after the crisis, governments may have to think about how to broaden the tax base (e.g., temporarily lower rates and stimulate consumption).

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### *Product and process innovation patterns in Polish low and high technology systems*

*JEL Classification:* L16; O31; O33

*Keywords:* innovation; LMT; HT; system; technology

#### ABSTRACT

**Research background:** While the Sectoral System of Innovation (SSI) predicts the existence of technology-related similarities in innovation patterns in the same sectors across countries, the Distance-to-the-Frontier suggests the existence of relevant differences regard of the level of national technological development. Most contemporary analyses of sectoral innovation systems are focused on well-developed economies. In contrast, the evidences from developing countries including new EU members are scarce and lack dynamics.

**Purpose of the article:** The purpose of this paper is to identify and compare product and process innovation patterns in Polish low and high technology systems in two periods: 2009–11 and 2014–16. The main assumption is that divergence and convergence in innovation patterns of LMT and HT systems evolve over time and are strongly influenced by the characteristics of firms, their linkages with other system participants, existing demand and institutional conditions.

**Methods:** Following the third edition of Oslo Manual (OECD, 2005) a harmonized questionnaire and methodology is used to collect information about innovation activity over the period 2009–2011 in 2012 and 2014–16 in 2017. The survey concerns 5252 firms including 873 firms from HT sector. The scope of the research relates to product and process innovation at least new to the firm.

**Findings & value added:** The results show that although intensity of both product and process innovation is greater in HT system, there are some fluctuations in time. Furthermore, the propensity to implement product innovation in LMT sector increased in 2017 compared to 2012 that may suggest the need to design and implement innovation policies regarding technology class and the stage of development of local economy including industry and market structure. The research confirms the positive impact of business support infrastructure and financial instruments.

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***Central bank monetary policy during the Covid-19 pandemic: the irruption of digital currencies***

*JEL Classification:* E52; E58

*Keywords:* Central Bank Digital Currencies; CBDC; expansionary monetary policy; negative interest rates; monetary stimulus

**ABSTRACT**

**Research background:** This article analyzes the monetary policy of the main central banks (ECB, Fed, BOE, BOJ) during the Covid-19 pandemic. The increase in public debt in most eurozone countries and other currency areas is being financed by stimulus policies based on sovereign bond purchases. This trend predates the pandemic but has been exacerbated by the financial needs of governments in the face of this health and economic crisis. In addition, in recent years we have seen a policy of low interest rates and some countries have issued debt at negative rates.

**Purpose of the article:** The emergence of decentralized cryptocurrencies on the market represents significant competition for fiat currencies issued by central banks, and many are considering the creation of centralized virtual currencies. The case of Sweden will be discussed, as will that of China, which has already launched the digital yuan and the proposed digital euro. These currencies, known as Central Bank Digital Currencies (CBDCs) can serve as an alternative to private digital payment platforms, as some countries are seeing a reduction in the use of cash.

**Methods:** The research methodology consists of analyzing the evolution of different macroeconomic variables, showing the composition of central banks' balance sheets and the coincidences or possible differences in their stimulus programs.

**Findings & value added:** It can be seen that the main central banks are developing an expansionary policy that has significantly increased their respective balance sheets and how these policies are not only aimed at acquiring government fixed income securities, but also include other financial assets such as corporate bonds.

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### *Revitalisation as a tool for the development of Cittaslow cities*

*JEL Classification: O21; Q01; R51; R58*

*Keywords: revitalisation; city development; network of cities; Cittaslow; slow city*

#### ABSTRACT

**Research background:** Cities are nowadays struggling with social, economic, ecological and spatial problems, which often accumulate in an area that is important for the development of a city, such as the historical center, disused industrial areas, or degraded residential housing estates. A possible solution is to implement revitalisation measures as an instrument to activate the socio-economic functions of degraded (crisis-stricken) areas.

**Purpose of the article:** The aim of this article is to discuss the specific character of revitalisation processes in cities which are members of the Polish National Cittaslow Network, where revitalisation is presented as a tool of a local but also supralocal development strategy, and to compare the approach to planning revitalisation in Cittaslow cities versus all cities in Poland.

**Methods:** A critical analysis of the literature and an analysis of source documents (municipal revitalisation programs) were made. The results of the authors' own study (a survey questionnaire addressed to mayors of cities which belong to the Polish National Cittaslow Network in 2020) were presented against the background of the data reported from a study on revitalisation measures taken by Polish municipal government, which was carried out by Statistics Poland.

**Findings & value added:** Beside individual revitalisation programs in Cittaslow member cities, there is an ongoing Supralocal revitalisation program of the cities of the Cittaslow network. This is an innovative approach to planning parallel revitalisation in several cities. Moreover, the revitalisation measures and activation of crisis-stricken areas are pointed to as one of the major effects achieved owing to the membership in the Cittaslow network. This testifies to the fact that competition among cities (for example, to obtain funds for revitalisation from EU sources), owing to the network collaboration can evolve towards effective coopeition of cities. This is also important for building the resilience of slow cities.

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### *Competitive profiles of Polish companies in the Silesian Region in 2020*

*JEL Classification:* M21; L10; L20

*Keywords:* company competitiveness; competitive profile; competitive potential; strategy of competition; competitive advantage

#### ABSTRACT

**Research background:** The concept of competitiveness is used to define the ratio of enterprises to competitors and results from many internal features and the ability to deal with an external environment. However, comparing main elements of company competitiveness to each other does not give detailed position in the market sector, which is the main area of competition. Therefore it is necessary to look for a different method of companies comparison in the field of their competitiveness.

**Purpose of the article:** The purpose of this paper is to present a assessment method of company competitiveness based on competitive profiles in a market sector. The competitive profiles consists of different variables of a competitive potential, a strategy of competition and a competitive advantage. This method is shown based on results of the Company Competitiveness Barometer conducted in 2020 in more than 200 Polish companies in the Silesian Region. The Company Competitiveness Barometer is an online research tool for assessing company competitiveness which has been used by the authors since 2012.

**Methods:** The questionnaire used in the Company Competitiveness Barometer contains 48 questions. 45 of them are related to the characteristics of the company that are affecting its competitiveness, and 3 questions are metric questions. The questionnaire can be found on [www.sensorium24.com](http://www.sensorium24.com).

**Findings & value added:** The papers presents results of the Company Competitiveness Barometer 2020 made in Polish companies in the Silesian Region and it is just next step in examing company competitiveness every year. Added value is the competitive profiles assessment method which is an original contribution to company research methodology.

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*The evaluation of European banking sectors efficiency with the use of DEA method: financialisation perspective*

*JEL Classification:* G21; N20

*Keywords:* financialization; efficiency; banking sector; DEA

ABSTRACT

**Research background:** Financialization covers the economy as a whole as well as its sectors. The study was limited to the banking sector. The authors assume that financialization is the growth of the banking sector, having an impact on the real sphere. The effectiveness of banks is usually assessed using parametric methods, therefore it is interesting from the research point to assess effectiveness using non-parametric methods. The application of the non-parametric DEA method required the determination of specific inputs and effects. The inputs were: household consumption expenditure, employment of people aged 24–64, the ratio of bank deposits to GDP. The effects were: loans to the private sector, loans granted by financial institutions, mortgage loans, loans to enterprises. The study included: determining the input-oriented non-radial BCC model in 28 European banking sectors in 2017 and determining the changes in the efficiency of the surveyed entities using the Malmquist index between 2008 and 2017.

**Purpose of the article:** This article aims to examine the effectiveness of financialization, limited to banking sectors in the European Union countries.

**Methods:** To determine the effectiveness of financialization, the authors used input-oriented non-radial BCC model of DEA method, and to determine the changes of effectiveness the Malmquist index was used.

**Findings & value added:** As a result, it was established that, with certain outlays and effects, seven countries are on the border of efficiency in 2017. The effective countries are Cyprus, Denmark, France, Luxembourg, Malta, Sweden and the United Kingdom. Then, the effectiveness of individual inputs for the studied countries was determined and benchmark leaders were identified. The analysis of the dynamics of changes in the efficiency of banking sectors has shown that the highest values of the Malmquist index between 2008 and 2017 were calculated for Sweden (efficiency increase by 37.7%).

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### *FinTech digital inclusion of society: selected aspects of the banking environment*

*JEL Classification:* G21; I25

*Keywords:* FinTech; digital inclusion; banking

#### ABSTRACT

**Research background:** The digitization of banking services in recent years has had a substantial impact on banking distribution channels. The increasing use of the Internet in mobile or pocket devices presents a significant challenge for the banking sector.

**Purpose of the article:** The purpose of the article is to analyse the impact of the banking environment factors on the FinTech digital inclusion of society. The explanatory variables were divided into four groups, which include the macroeconomic and technological environment of the banking sector, the infrastructure of the banking system and selected measures of the banking sector effectiveness.

**Methods:** As part of the research, an analysis of factors was carried out from the broadly understood banking environment influencing the FinTech digital inclusion of society in the European Union countries in 2012–2019. The data for the research was obtained from the IMF (Financial Access Survey), ECB (Statistical Data Warehouse), Eurostat, BIS, ESMA databases.

**Findings & value added:** The article specifies the essential relationship between the explanatory variables and FinTech digital inclusion of society, confirming the previous literature research and indicating new variables affecting digital inclusion — including the functioning of the innovation hub and the level of employment in the area that uses information and communication technology — ICT.

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*The size of a flat as a determinant of the duration of property ownership: an analysis on the example of a housing cooperative stock*

*JEL Classification: R38; R4*

*Keywords: property value; court procedure duration; flat characteristic*

ABSTRACT

**Research background:** The research on the residential market focuses primarily on analyses of the size and quality of the housing stock, investments, or on seeking dependencies with socio-economic factors and the analysis of prices and the construction of residential property price indices. An equally important issue is assessing the intensity of trade in particular types of flats. A standard view is that those small flats are more frequently traded on the market than the large ones.

**Purpose of the article:** The proposed study analyses the duration of residential property ownership by the same owner (from the date of purchase to the date of sale). It depends on the characteristics of the property, including its size. The research will verify the hypothesis that the ownership of small residential units lasts shorter. The analysis will be carried out on the homogeneous, in terms of ownership rights, cooperative housing market in Stargard. The article focuses on the effects of the building location, resulting in a more frequently sale.

**Methods:** The study assesses the valuation model basing on a case study of a town of Stargard in Poland. In the empirical part of the paper, the regression analysis is employed to examine residential property value in a local housing estate and the duration analysis to explore ownership duration time. The study uses the nonparametric Cox proportional hazard models estimated separately for flats in surface groups and the Cox proportional hazard model with explanatory variables dependent on time.

**Findings & value added:** This research is important in the socio-spatial connection to the housing market. It shows that current practice related to buying a small flat as an investment in the housing market is appropriate. Due to the rapid price increase of small flats and their high turnover, the chances for a good investment are increasing. Using the Cox model, we show that poor location in the old city housing estate and larger floor area increased the risk of a property being sold quickly. The results are essential due to the unique role residential real estate plays in the investment market in Poland.



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*The role of aid funds in supporting the functioning of SMEs in Poland during the pandemic*

*JEL Classification: A10; D22; E22; E44; G00*

*Keywords: economics; firms; finance; capital; money market*

ABSTRACT

**Research background:** The SME sector is the engine of the economy in Poland because it generates a number of jobs, stimulates the market and increases the level of competitiveness of the regions. Moreover, the described sector is less affected by the effects of any crisis. Especially during a pandemic, attention should be paid to entrepreneurs in this area.

The article consists of three parts. The first theoretical one, which is an introduction to the subject of the SME sector. The importance of the sector in question for the Polish economy was shown. The second segment of the work presents the possibilities of obtaining financing by micro, small and medium-sized enterprises during the pandemic and presents the conditions for obtaining the said financing. Part three describes the importance of finance for the SME sector.

**Purpose of the article:** The aim of the article is to present the activities of micro, small and medium-sized enterprises in Poland and to present the possibilities of using state aid funds during the pandemic.

**Methods:** The analysis used a literature review on the subject and the data available at the Local Data Bank of the Central Statistical Office of Poland (GUS), empirical analysis.

**Findings & value added:** A detailed analysis of the acquisition of financing by SMEs in Poland during the pandemic will show how significant the funds are for the sector in question and allow for possible measures to be taken in the field of aid for SMEs, which as already mentioned, constitute a pillar for the entire economy.

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### *Investment risk evaluation in Lithuanian peer-to-peer lending platforms: complex approach*

*JEL Classification:* G23; G32; G51

*Keywords:* crowdfunding; credit risk; financial innovations

#### ABSTRACT

**Research background:** Many authors (Cai et al., 2016; Galea, 2020; Lenz et al., 2016; Omarini, 2018; Zhang et al., 2018) note that from investors perspective the process of investment in peer-to peer lending platforms is complicated and requires number of decisions in order to make successful investment. Therefore, lack of investment knowledge increases the probability of unsuccessful investments, which in P2P market usually appears as default risk, meaning that investor lose all or part of his funds. Borrower's default risk is widely analyzed by other authors (Ding et al., 2019; Emekter et al., 2015; Yoon et al., 2019; Hu et al., 2019; Lin et al., 2017; Li et al., 2019; Liu et al., 2018; Serrano-Cinca et al., 2015; Wang et al., 2019; Zhang et al., 2017). However, there is a lack of research that cover other types of investment risks, such as platform risk. What is more the first peer-to-peer platform in Lithuania was launched only in 2015, therefore there is a lack of research regarding investment risk evaluation in this particular market.

**Purpose of the article:** to make complex evaluation of the investment risks in peer-to-peer lending platforms in Lithuania.

**Methods:** Lithuanian based peer-to-peer lending platforms that have actively engaged in activities in the year 2019 are included into research sample. For platform risk evaluation in each P2P lending platform 12 assumptions on risky platform characteristics are tested. Evaluation of borrower's risk in P2P lending platform is based on defaulted loans distribution among credit rating groups and overall defaulted loans amount in total platform portfolio.

**Findings & value added:** Based on Lithuanian peer-to-peer lending platforms' borrower's default risk and platform risk measurement it was found that borrower's default risk is higher than platform risk in Lithuanian peer-to-peer lending platforms. This research provides more extent risk evaluation of the p2p platforms investment in Lithuanian as different types of investment risks are taken into consideration.

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### *Legal and economic determinants of restructuring processes in health care entities in Poland*

*JEL Classification:* I11; I19; K23

*Keywords:* management in a health care entity; restructuring in health care; restructuring law; medical law

#### ABSTRACT

**Research background:** The majority of problems in the health care system originate in the limited financial resources, but the efficiency of the system is also — indirectly — affected by the management of these resources, which is sometimes not as effective as it might be. These problems become particularly apparent in the Polish public health care, undergoing constant reforms. This brings into focus the issue relating to restructuring processes, which are determined by relevant legal regulations and the competences of people in charge, who need to maintain the consistency of implementation.

**Purpose of the article:** The article aims to analyse legal and economic determinants in the restructuring of health care entities in Poland, with particular emphasis on the possible application of restructuring proceedings to these entities. Further, it identifies key success factors for restructuring processes from the perspective of management.

**Methods:** The following legal acts were included in the analysis: the Act of 15 May 2015 — Restructuring Law, the Act of 15 April 2011 on medical activity, the Act of 23 April 1964 — Civil Code, the Act of 28 February 2003 — Bankruptcy Law. The review of good management practices in the research area was presented.

**Findings & value added:** Based on the analysis, recommendations concerning the implementation of restructuring processes in health care entities were formulated. The benefits stemming from the application of restructuring proceedings to health care entities were discussed. The key elements of the restructuring plan, accompanied with practical guidelines, were presented.

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### *Abenomics and EU–Japan Economic Partnership Agreement*

*JEL Classification:* F13; F14; F53

*Keywords:* international trade; EU; Japan; Abenomics

#### ABSTRACT

**Research background:** In early 2013, Shinzō Abe announced a plan of economic reforms known as Abenomics, within which trade policy is focused on regional FTAs/EPAs and strategic partnerships (SPAs), that became one of the priorities of government. The Abe administration presented a “proactive contribution to peace”, which has had a crucial influence on Japan’s new trade policy and its engagement in economic regionalism. After six years of negotiations, the EU–Japan EPA, and the Strategic Partnership Agreement (SPA) were signed on July 17, 2018. These agreements confirm that economic relations have entered a new, higher phase of development and opens new prospects for deeper cooperation.

**Purpose of the article:** This paper focuses on Abenomics, showing the measures undertaken by Japan’s administration and exploring to what extent new trade policy contributes to stimulating FTAs/EPAs. The main purpose of this paper is an attempt to evaluate potential EU–Japan EPA effects from the perspective of EU and Poland economies.

**Methods:** To achieve the purpose of the paper, analysis of trade data was required (based on the Ministry of Foreign Affairs of Japan, European Commission, and the World Bank data) as well as in-depth analysis of the text of EU–Japan Economic Partnership Agreement.

**Findings & value added:** The assessment of the potential impact of the EU–Japan EPA reveals that the agreement will contribute to a mutual GDP growth and will promote trade in goods and services by eliminating tariffs and reducing non-tariff barriers between the parties. Furthermore, the EU–Japan EPA is important for the Polish economy. Liberalization of imports from Japan, which mainly includes modern technologies as well as machinery and equipment for various sectors of the economy, will significantly contribute to accelerating the economic development of Poland. In turn, the liberalization of exports will be an opportunity to increase of Polish food exports.

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### *The Relationship of Marketing Communication and Customer Behavior in the Online Store Industry*

*JEL Classification:* A12; A13; O

*Keywords:* online store; marketing communication; customer behavior; digital marketing; brand awareness

#### ABSTRACT

**Research background:** The article fills a crucial gap in the literature in the realm of investigating and understanding consumer behavior in the digital environment. Research in the field of ever-shifting digital marketing communication is particularly important.

**Purpose of the article:** The key purpose of the research paper is to investigate the relationship between the frequency of seeing marketing messages by respondents and their market behavior.

**Methods:** Various approaches to online marketing communication and descriptions of consumer behavior were analyzed in the theoretical framework of the article. The aforementioned goal was achieved through the survey conducted in 2020 on the sample of 461 respondents, who had access to the Internet. Data were collected using a Google Form and then the empirical data were analyzed using Spearman's correlation coefficient in Microsoft Excel application. In addition to mentioned methods, the research involved observation of the carrying out the online marketing communication of the surveyed units.

**Findings & value added:** The findings prove that the frequency of seeing marketing content by respondents has an impact on the Spontaneous Brand Awareness Rate, the Aided Brand Awareness Rate, the frequency of store website visits, the propensity to repurchase, and online store reviews. I argue that there is a strong relationship between the quantity and the variety of online marketing messages broadcasted by an online store and the engagement of customers in the digital activity of the online store. The research will help entrepreneurs in developing future online marketing communication strategies and it will indicate the development of online communication toolkits. The research paper confirms the importance of maintaining a relationship with customers who shop online.

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### *Developing Methods to Assess the Public Value of Research*

*JEL Classification:* C52; H43; I20; O30; O35

*Keywords:* Social impact assessment; Public value of research; Assessment methods; Basic research; Applied research

#### ABSTRACT

**Research background:** In many countries, research evaluation systems are currently being improved, which apply not only to individuals and teams carrying out these studies, but also to scientific institutions. The impact of scientific research on the economy and society is evaluated, and this assessment is carried out within individual scientific disciplines and fields. This type of assessment is important because its results often determine the position in the ranking of scientific institutions and the level of public funding granted. Despite the existence of several useful assessment methods, it may sometimes be difficult to properly select them for specific fields of science.

**Purpose of the article:** The aim of the article is to present the results of the systematic literature review on the methods of assessing the public value of research conducted within economics, business and management.

**Methods:** Basic bibliometric methods supported by specialized software were used in the analysis of the literature. Bibliometric data was collected using the most widely mentioned repositories: Scopus and WoS. The research used performance indicators, such as e.g. number of papers, total number of citations and average number of citations per paper. In addition, the key, most productive and most cited authors in selected subject areas were identified. The most-cited papers in 1999–2019 were synthetically analyzed and discussed.

**Findings & value added:** The obtained research results made it possible to evaluate the state of knowledge and recent major achievements regarding methods to assess the public value of research, as well as to identify publications of key importance for this type of research. The thesis about the lack of a coherent methodological framework for carrying out this assessment has been positively verified. This created the basis for proposing possible directions for the development of methodological research on the building of new approaches and methods of assessment.

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### *Economic implications of the EU Eastern enlargement for New Members States*

*JEL Classification: F13; F15; P2*

*Keywords: EU enlargement; synthetic control method; New Member States*

#### ABSTRACT

**Research background:** During the largest enlargement of the European Union (EU) in 2004, 10 new members states acceded to the EU. The group of New Members States (NMS) was enlarged by Bulgaria and Romania, that joined the EU in 2007. There are many economic studies analyzing the partial effects of European integration (focused on trade, investment and/or structural funds), but there is still little work to quantify the overall benefits ex post.

**Purpose of the article:** The purpose of the paper is to analyze the economic implications of the accession of New Members States (NMS) to the European Union in 2004 and 2007. Compared to previous studies analyzing the effects of accession to the EU, we check for the importance of quality of economic institutions for the matching process of the analyzed economies with their comparators.

**Methods:** The estimation of effects of the integration with the EU was carried out as a comparative case study using the synthetic control method. The method of synthetic control method has been developed by Abadie and Gardeazabal (2003) was also used to analyze the economic effects of countries joining the EU (Campos, Coricelli, and Moretti, 2014, 2019). This approach consists of construction counterfactuals for countries that joined the European Union. Our paper is based on more recent data and on a broader set of depended political variables as well as a broader set of comparator countries.

**Findings & value added:** The results of the econometric analysis show a positive impact on the country performance 6 and 12 years after the EU accession to the EU. The gains from accession are large but not universal. For 5 of the 10 analyzed countries the difference in levels of GDP per capita against the counterfactual is at least 30 percent.

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### *Simplified VAT Schemes for Small Businesses and their Application in Germany*

*JEL Classification: H20; H23; H31*

*Keywords: value-added tax; simplified schemes; Germany*

#### ABSTRACT

**Research background:** Taxes may significantly decrease profits from running economic activities and discourage taxpayers' investment decisions. Their effect on enterprises depends on a number of diversified factors — these intrinsic to the design of the tax itself as well as these directly related to the form, character and the scale of the business operations. According to certain studies value added tax is considered to be a contribution generating relatively high compliance costs. Such costs are particularly ponderous for small entrepreneurs. For this reason the legislators usually implement certain legal instruments aiming at reduction of tax burden for this particular group of businesses. As value added tax is a levy that is harmonized in the European Union to the large extent, most of the provisions concerning its design are applicable in every Member State. However there exist some differences when it comes to the taxation of certain categories of taxpayers. Member States which encounter difficulties in applying universal VAT norms to small entrepreneurs, due to the structure and nature of their activity, are entitled to adopt simplified procedures for calculating and collecting tax. These procedures usually take the form of flat-rate schemes, tax exemptions, tax reductions or particular provisions concerning VAT chargeability.

**Purpose of the article:** This paper is aimed to evaluate application of such procedures in Germany.

**Methods:** Selected logical, quantitative and comparative methods are applied to achieve this objective.

**Findings & value added:** While some Member States have implemented these procedures only to a limited extent German government provided for more options to choose from for small and medium sized enterprises. At the same time the application of simplified VAT procedures is favored and as such widely applied by the entrepreneurs in this country.



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### *Theoretical analysis of the safety failure factors affecting the supply chain of dairy industry in Pakistan*

*JEL Classification:* Q18; Q12

*Keywords:* dairy industry; supply chain management; safety failure factors; interpretive structural modeling; MICMAC analysis

#### ABSTRACT

**Research background:** A total of twenty five barriers have been identified through literature reviews and the opinion of an expert team including managerial and technical experts from dairy industry and academics.

**Purpose of the article:** The aim of this paper is to explore the safety failure factors of dairy supply chain by using interpretive structural modeling technique (ISM) and MICMAC analysis in Pakistan context.

**Methods:** Interpretive structural modeling (ISM) is applied to analyze the mutual interaction among barriers and to develop a structural model. MICMAC technique is used to identify the importance of barriers based on their driving and dependence power by depicting eight independence barriers, one linkage barrier, four autonomous barriers and twelve dependence barriers.

**Findings & value added:** ISM based model and MICMAC analysis will help decision makers in dairy industry to plan their supply chain activities more effective and efficient by managing the identified barriers. The results of this study shows that the factor/barrier '(A15) companies sell unsafe dairy products' is at level one and located on the top of ISM hierarchy. This barrier has strong dependence power and weak driving power. Likewise, the remaining factors/barriers have been founded at different levels, and finally, the barriers including (A25) Lack of supervision by relevant authorities, (A24) Lack of environmental testing by the Environmental protection agency (EPA) and (A18) Farmers are not equipped with the latest farming technology; are the base barriers of ISM-based model.

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### *Economic Abuse and Criminal Responsibility: Lithuanian Case Law on Domestic Violence*

*JEL Classification: K42; K14; K38*

*Keywords: economic abuse; domestic violence*

#### ABSTRACT

**Research background:** Economical issues have multidimensional correlation to domestic violence: economic factor is one of the essential causes of domestic violence; economic abuse (also known as financial abuse) is a form of domestic violence (e.g. restriction or denial of financial resources, economic activities, etc.); victims of domestic violence inter alia suffer negative economic effect; economic empowerment of victims or vulnerable groups is one of the effective strategies to prevent violence; etc. Though it is underresearched in Lithuania it is not less widespread nor less serious as physical or sexual violence.

**Purpose of the article:** The objective of the article is to determine the scope of domestic violence perpetrators' criminal responsibility for economic abuse.

**Methods:** Desk research methodology based on case study is used: empirical research of Lithuanian case law. Historical, comparative, statistical data analysis is used as methods for data analysis.

**Findings & value added:** Economic abuse as a form of domestic violence is almost noncriminalized in Lithuania. The law enforcement officers do not recognize this form of violence. So, prosecution is limited to physical, sexual and the most serious forms of psychological domestic violence. During criminal proceedings economic abuse is considered as evidencing physical violence or contextualizing systemic domestic violence but not as an independent basis for prosecution. Other areas of law do not effectively fill in the gaps. Therefore, the perpetrators who used typical patterns of economic abuse their victims go unpunished. This outcome strongly contributes to the state's failure to prevent repeat victimisation and leaves victims to suffer the negative cumulative effect (i.e. physical, psychological, social and economic) of domestic violence. The findings of the research provide support for the extension of criminalisation and prosecution of economic abuse against intimate partner in Lithuania.

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### ***Market Differentiation Potential of Traditional Food Quality Labels: Consumer and Producer Expectations***

*JEL Classification:* D91; M11; M31

*Keywords:* geographical indications; qualitative approach; labeling; quality; buying decisions

#### ABSTRACT

**Research background:** In the last few decades more consumers are choosing food products based on their local and traditional attributes as well as environmental issues. The food industry have introduced several strategies to guarantee product quality (quality schemes and quality labelling). With their rising number it is hard for consumers to differentiate between them.

**Purpose of the article:** The purpose of the paper is to investigate how consumers perceive traditional food quality labels and to confront consumer expectations with the producer's motivation to supply certificated traditional products. An attempt has been made to answer the following research questions: whether and to what extent food quality labeling is an appropriate way to differentiate traditional food products in the market?

**Methods:** The analysis has been based on literature studies and empirical data obtained from qualitative research in 2020. Six focus groups were conducted, with 7–8 participants in each, among traditional food producers and consumers in Poland.

**Findings & value added:** As the results of this study show, awareness of food quality labels in Poland is quite low. The respondents agreed that for direct sale on the farm, quality label is not a decisive purchasing criterion for the consumer, but it may distinguish the product from others on regional retail and gastronomic markets. Overall, the findings confirm the need to intensify promotional and educational activities to increase consumer awareness of the food quality labels in Poland. Results add value to recent consumers' behavior knowledge by analyzing role of food quality labels in consumer decision-making and the possible motives for producers that choose to feature them. These findings may be useful in developing effective educational and marketing activities in the traditional food sector.

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### *How Employee Capital Plans qualify under the IORP II Directive?*

*JEL Classification: G11; G23; J32; J26*

*Keywords: ECP; employee capital plan; individual pensions; occupational pensions; pension*

#### ABSTRACT

**Research background:** The pension system in Poland is undergoing another major reform. Between 2019 and 2021 Employee Capital Plans (ECP) are being implemented. This common system of voluntary pension savings schemes is a new element of the third pillar. The purpose of the ECP is to cover the majority of employees and to provide additional pension security for the large part of the labour force in Poland. Since Poland is still implementing the reform, and the system is still quite young, the research background is limited. The most important analyses on the ECP were conducted and published by the members of the Pension Institute: Antoni Kolek, Marek Zbigniew Szczepański, Marcin Wojewódka, Oskar Sobolewski, Adrian Prusik, Tomasz Jedynak and Sebastian Jakubowski. Also, works of Piotr Wrzesiński, Elżbieta Ociepa-Kicińska and Dawid Dawidowicz shall be mentioned.

**Purpose of the article:** This article tries to provide deeper, both legal and economic, analysis of the ECP. On the legal ground, it considers whether ECP provide “cover against biometric risk” or “guarantees a given level of benefits” for the purposes of Article 13(2) of EU Directive 2016/2341 (the “IORP II Directive”). If no such cover and no such guarantee are provided, then an ECP scheme is not required to comply with the technical provisions, buffer and other funding requirements applicable to an IORP which is classified as a “regulatory own fund” in Article 15 of the IORP II Directive. From the economic perspective, the purpose of the article is to answer the question of how much the ECP members are covered against the risk of longevity.

**Methods:** To achieve the research objective the method of critical legal dogmatics and the economic analysis of law method are employed.

**Findings & value added:** The article explores how the ECP schemes are classified under the IORP II Directive. It also answers the question of how much the ECP members are covered against the risk of longevity.

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### *The impact of the COVID-19 pandemic on the level of integration of European stock markets*

*JEL Classification:* F02; F36; F65; G01; G15

*Keywords:* euro area stock markets; financial integration; index of integration; pandemic

#### ABSTRACT

**Research background:** Integration is one of the key aspects of the development and growth of financial markets. It stimulates their development and contributes to economic growth. Integration helps to weaken and eliminate barriers to international investment. Integrated financial markets have easier access to foreign capital. However, strong integration also carries risks: it facilitates the transmission of disturbances between markets, might limit benefits of portfolio diversification and affect the (in) efficiency of stock markets. The literature has also shown that the level of integration varies over time and rises especially during financial crises. The outbreak of the pandemic and worldwide lockdown have slowed the world economy down. European stock markets have also recorded significant declines of stock exchange quotations.

**Purpose of the article:** The aim of this paper is to analyse the dynamics of financial integration between the Euro area stock markets over the period 2000–2020, with focus on the COVID-19 pandemic.

**Methods:** The analysis is focused on the monthly closing prices of major indices of the Euro area stock markets. It uses the dynamic measures of financial integration based on the principal component analysis. The first measure is the index of integration, which measures the proportion of total variance explained by the first principal component in the overall variance of the initial variables. The second measure is coefficient of determination of the regression model with principal components as the regressors. Segmentation index captures the variation in loadings of the first principal component.

**Findings & value added:** The conducted research indicates that level of integration increased during the global financial crisis and European debt crisis. In the years 2015–2019, the interconnectedness between the markets were lower. However, since March 2020, there is a significant growth of integration continuing until the end of the examined period.

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### *Transparency of publicly available information on fiscal and monetary policy in Poland*

*JEL Classification: E58; H30; H60*

*Keywords: fiscal policy; monetary policy; transparency*

#### ABSTRACT

**Research background:** The quality of the information provided by the fiscal and monetary authorities and the correct flow of this information between the authorities and society is very important in a democratic state. Ensuring transparency of fiscal policy reduces fiscal risk and corruption and supports public acceptance of fiscal reforms. Ensuring transparency of monetary policy allows market participants to anticipate central bank reactions and take into account their effects in investment and consumption decisions.

**Purpose of the article:** The aim of the article is to examine the transparency of fiscal and monetary policy in the light of international standards and to assess the quality of information provided to the public by the fiscal and monetary authorities in Poland. An additional aim of the article is to identify the economic and social consequences of the limited transparency of this information and to recommend specific changes increasing its transparency.

**Methods:** Qualitative analysis, deductive and inductive reasoning were used. In order to determine the level of transparency of publicly available information on fiscal and monetary policy in Poland, certain indicators and good practices formulated by the International Monetary Fund and the International Budget Partnership were used.

**Findings & value added:** There are no publications in the national literature dealing with the problem of transparency of publicly available information on fiscal and monetary policy in the context of the coordination of these policies. There is no coherent, clear and reliable information about public finance, with particular emphasis on the state budget, which would allow every citizen to control the government's fiscal policy actions. There is a lack of readable, reliable, complete information for citizens on the coordination of actions taken by fiscal and monetary authorities to achieve specific goals of the state's financial policy.

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### *Purchase intentions: importance of eco-packaging in accordance with demographics*

*JEL Classification: D12; M31; P46*

*Keywords: consumer behaviour; age; gender; incomes; education*

#### ABSTRACT

**Research background:** consumption of goods and services has increased dramatically around the world over the last decade, destroying natural resources and causing significant damage to the environment. As companies take on social responsibility and face competition, they are gradually realizing the importance of creating an eco-image, which is why many companies have begun to develop eco-marketing strategies in order to gain a competitive advantage. One of the most important aspects of eco-marketing is product's packaging. However, there is a lack of research in the scientific literature that could confirm or negate the impact of organic product packaging on consumer purchasing intention. The deep studies investigating the relationship between ecological product packaging and consumer purchasing intention in the Lithuanian market have also not been found.

**Purpose of the article:** to evaluate importance of eco-packaging for consumer's purchase intentions in accordance with demographics.

**Methods:** A questionnaire survey was applied to 402 respondents in Lithuania. The main dimensions in the questionnaire analysing the importance of eco-packaging for consumer's purchase intentions were consumer attitude, consumer concern for the environment, consumer personal norms, consumer intentions to pay, consumer purchase intentions, the meaning of information to the consumer. Analyses were made using the nonparametric test of Mann–Whitney U for gender analyses and the nonparametric test of Kruskal–Wallis H for age, education level, and incomes.

**Findings & value added:** Gender and education as a demographic factor showed statistically significant differences in terms of consumer attitudes, consumer concerns about the environment, consumer personal norms, consumer willingness to pay, consumer's purchase intentions, and information. Age and income as demographic factors have a statistically significant influence on the consumer's attitude, willingness to pay, and consumer's purchase intentions.

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### ***Competitive potential and the competitive position of advanced technology in the European Union countries***

*JEL Classification:* O1; O3

*Keywords:* competitiveness; competitive potential; competitive position; advanced technology sector; European Union

#### ABSTRACT

**Research background:** For many years, macroeconomic research has focused on the high-tech sector, which is considered the basis for economic development. In this sector there are both manufacturing enterprises (high-technology industry) and service enterprises (knowledge-based services). It should be noted that the sector is undergoing frequent and major innovation transformations and its economic and social importance is constantly growing.

**Purpose of the article:** Despite ongoing research and systematisation of information on advanced technologies, there is still a research gap regarding its importance from the perspective of international competitiveness. The question therefore arises as to what influences competitive potential and how does it contribute to the competitive position of the high-tech sector in the Countries of the European Union? This was a prerequisite for research to assess the competitive potential and competitive position of the high-tech sector in the Countries of the European Union.

**Methods:** The starting point of the considerations was to define the competitiveness of the industry, competitive potential and competitive position. Subsequently, on the basis of the selected indicators, the competitive potential was assessed and the competitive position established. Labour productivity, labour costs and the country's share of the number of companies were used to assess the potential. On the other hand, the competitive position was assessed using the index of comparative advantages revealed, the export coverage ratio and the share of EU countries in intra-EU exports. A synthetic competitiveness indicator was also calculated to identify the relationship between the potential and position of the high-tech sector in the Countries of the European Union.

**Findings & value added:** The research identified decisive factors that influence the competitive potential and competitive position of the sector and the relationship between them.



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*Do inter-municipal arrangements differ in their policies depending on their size? The importance of cooperation in the post-COVID-19, digitally biased societies and industry 5.0*

*JEL Classification: D71; D78; H72; H77; O38; R10*

*Keywords: Inter-municipal cooperation; economies of scale and scope; spillovers; post-COVID-19 societies; Poland*

ABSTRACT

**Research background:** The literature on inter-municipal cooperation focusing on the characteristics of its members and factors driving a decision to start cooperating is abundant. Various studies indicate that small municipalities are particularly vulnerable to economies of scale and scope, hence they are more likely to start cooperating than bigger units. On the other hand, small municipalities face incentives to free-ride on bigger local governments due to spillovers. However, it is unclear if there exists an effect size between IMC-arrangements (measured by population) and types of tasks performed jointly by partners (often of a different number).

**Purpose of the article:** This paper aims to fill the existing gap by testing whether a share of expenditures on one of the three categories of tasks ('economies of scale and scope tasks', 'spillover tasks', 'multi tasks') in total expenditures incurred jointly differs significantly depending on the size of an IMC-arrangement.

**Methods:** For that purpose, the Kruskal-Wallis rank test was used. To pinpoint which specific medians are statistically different from the others in each year, Dunn's multiple comparison test with the Bonferroni adjustment was performed. The research is based on Polish inter-municipal unions and their financial statements over the period 2003–2018 and covers 2541 observations.

**Findings & value added:** The results show that the vast majority of statistically significant differences were observed in the share of expenditures on 'economies of scale and scope tasks' in total expenditures suggesting that very small unions spent more of their budget on these tasks than medium sized unions and small unions (over several years). No significant differences were noted in the share of 'spillover' expenditures. Significant differences in 'multi' expenditures occurred only in 2017 and 2018 indicating small unions spent more than very small arrangements. These first results add to the literature by driving a conclusion that smaller unions concentrate more on reducing per capita spending.

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### *System transformation in Poland and Eastern Germany: two versions of the Social Market Economy?*

*JEL Classification:* B22; E02; E29; E65; G28; P21

*Keywords:* system transformation; shock therapy; economic system; Social Market Economy; institutional framework

#### ABSTRACT

**Research background:** The process of systemic transformation in the countries of Central and Eastern Europe, including Poland and Eastern Germany, which began in the early 1990s, can be described as a unique event in the entire economic history of the world. Therefore, in a situation where it was necessary to decide on the model and pace of stabilisation, it was difficult to refer to the experience of other countries. The 30 years that have passed since the beginning of the systemic transformation in Poland and East Germany have been a convenient time to undertake an assessment of the course of the transformation process, the changes that have taken place in these economies and to describe the economic models that have shaped them. The reason for this lies in the importance of this subject and the consequences which the countries of Central and Eastern Europe, including Poland and East Germany, continue to face.

**Purpose of the article:** The aim of the article is to compare the course and consequences of the systemic transformation in Poland and East Germany, to highlight subconsciousness and differences and to determine to what extent the shape of the economic system meets the assumptions of the SME.

**Methods:** The method used in this paper is a comparative analysis and critical study of literature.

**Findings & value added:** The main added value of the article is a comparative analysis of the Polish and East German system transformation from the perspective of 30 years from its beginning, its successes and failures and a reference to the assumptions of the social market economy, as well as an attempt to answer the question about the contemporary characteristics of both economies.

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### ***Principle of financial adequacy of local government units vs local government healthcare expenditures***

*JEL Classification:* H72; H75

*Keywords:* local government expenditures; healthcare expenditures; LGU; UMP

#### ABSTRACT

**Research background:** The economic crisis caused by the pandemic revealed problems related to the financing of the tasks of local government units (LGUs). Moreover, these problems are related to the violation of the constitutional principle of adequacy in financing public tasks, including tasks related to health protection. The analysis covered 12 cities of the Union of Polish Metropolises, whose health expenditure in 2012–2019 accounted for over 50% of total health care expenditure in cities with poviats rights (MNPP). Additionally, based on the Local Data Bank of the Central Statistical Office, differences were observed in the size of the health infrastructure available in the analyzed cities, despite the lack of differences in the number of public tasks in this field.

**Purpose of the article:** The implementation of the principle of financial adequacy of local government units based on an analysis of local government spending on health care, taking into account the current situation caused by the COVID 19 pandemic.

**Methods:** Research methods typical of the social sciences were used, such as empirical cognition methods, including observation. Descriptive analysis, deductive and inductive reasoning were also used. The study of reports on implementing local government budgets and data from the Local Data Bank of the Central Statistical Office was used.

**Findings & value added:** The conclusions from the analysis of financial confirm that local governments' concerns about their financial situation are justified. The decrease in the investment potential of communes and poviats, dynamically growing current expenses, and the apparent increase in total income are the fundamental causes of the analysis. These causes, concerning the diversified number of medical entities in the analyzed cities' self-government, confirm that the principle of financial adequacy in the area of health care is strongly undermined. Besides, the economic situation caused by the COVID 19 pandemic has highlighted financial and organizational problems in local government units.

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***Conceptual issues of the fiscal capacity measurement: what are the theoretical and empirical implications?***

*JEL Classification:* H10; H11; H30; H62; H63

*Keywords:* fiscal capacity; fiscal space; public revenue; public expenditure; tax compliance

ABSTRACT

**Research background:** In the economic approach, the fiscal capacity, also referred to as the extractive capacity, is related to fiscal policy and in a narrow sense it means the state's ability to collect public revenue. In a broader sense, however, it is the ability of the state to collect public income and spend it on specific social goals (e.g. effective delivery of public goods), which is related not only to the income side, but also to the expenditure side of public finance. Due to a number of existing interpretative doubts, the phenomenon in question can also be applied to the fiscal space.

**Purpose of the article:** The aim of the article is to review the existing theoretical and empirical research on fiscal capacity, and to indicate the direction in which future research related to the fiscal capacity measurement should develop.

**Methods:** To carry out the study a descriptive method with elements of the analysis of statistical data was used. The paper looked at literature concerns with the meaning of fiscal capacity and its measurement. Analysis was conducted on the basis of literature dedicated to the of the concept of state capacity dimensions in a broader sense too. In addition the authoress used the measure of the World Bank (efficiency of revenue mobilization rating) for the years 2005–2019.

**Findings & value added:** A precise interpretation of fiscal capacity seems to be a relatively complicated task, as there is no consensus on the definition of fiscal capacity yet. The meaning of this concept is different, depending on the „field of science involved“. It is undoubtedly a multi-dimensional concept. Moreover, there is disagreement about how fiscal capacity should be measured. At simple approach, fiscal capacity can be measured as the share of tax revenue in total public revenue or the share of tax revenue in GDP which, however, seems to be insufficient. Among the more developed and probably more attractive measurement methods are the proposals such researchers as e.g.: A. Savoia and K. Sen, and M. Ottervik. Savoia and Sen proposed the use of an expert assessment of the general model of public revenue mobilization (not only the tax structure, but also revenues from all sources that are actually obtained), while M. Ottervik suggested, in order to operationalize the fiscal capacity – instead of the level of extraction measurement – the use of tax compliance which seems to be a useful and promising field of analysis. If the fiscal capacity would be considered on the fiscal space context, then its various indicators should be considered, such as: structural balance, medium-term budgetary objective, change in the structural balance in percentage points of GDP etc.

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### *The EU budget policy in terms of achieving integration goals*

*JEL Classification:* E6 ;F36; F42; F43; F45

*Keywords:* EU expenditure; sources of revenue; level of financing EU activity; integration stages and goals

#### ABSTRACT

**Research background:** The backbone of the EU's financial system is the general budget, which comprises the organisation's expenditure and revenue. This system underwent a very long evolution before it obtained its present form, and it changed along with the advancement of the European integration process.

**Purpose of the article:** The aim of the study is to analyse changes in the expenditure and revenue policy in the EU budget in 1985–2020 and within the current multi-annual budgetary framework 2021–2027, carried out from the point of view of: achieving the main goals by the group of member countries at various stages of the development of European integration and the effectiveness of financing common tasks through various sources of budget revenues.

**Methods:** A critical assessment of the scientific *acquis* related to economic integration, a comparative examination of literature and EU documents concerning the European integration process and the evolution of general budget as well as an analysis of empirical studies and statistical data on EU budget expenditure and its financing system were used. The most important source of data were reports from the European Commission and the Court of Auditors.

**Findings & value added:** The study is of a cross-sectional and comprehensive nature, and the assessment of the EU budget policy was carried out on the basis of the most important stages in the process of deepening economic integration — starting from the common market, through the monetary union, EU enlargement to CEE countries, up to the stage related to the EU's need to achieve the so-called sustainable competitiveness and recovering from the Covid-19 crisis. At that time, the priorities in the budget expenditure policy were changing: the transition from expenditure on the common agricultural policy to expenditure on the cohesion policy, and then the modernization of the European Union through research and innovation; fair climate and digital transitions as well as reforms and investments for the euro area. The system of own resources has also evolved — from the domination of VAT, to contributions from Member States based on GNI and supply with new forms of income more adapted to new challenges and the current EU strategy (such as a plastics charge). Among new potential sources of revenue the most desirable one would be from the Emissions Trading System which could deliver quantitatively meaningful sums and would be a strong signal of the EU commitment to climate neutrality.

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### *Financial supervision and bank financial stability: the case of selected European countries*

*JEL Classification:* G21; G28

*Keywords:* financial supervision; bank financial stability; Core Principles for Effective Banking Supervision

#### ABSTRACT

**Research background:** In recent years, there has been a significant increase in interest in the topic of financial stability around the world. It is perceived as the fundamental value of financial systems and even as a common welfare. The literature indicates the diversity of its determinants, which shows that financial stability is complex and ambiguously defined.

**Purpose of the article:** Analysing the impact of the features of prudential supervision over the financial market in selected European Union countries on the financial stability of banks operating in them.

**Methods:** Research methods used in this paper include domestic and foreign literature review, statistical analysis of data of banks operating in selected European Union countries and econometric analysis tools (random effects regression for panel data). The paper presents the results of panel study on the factors affecting the financial stability of 2108 banks in 12 selected European countries, carried out using data obtained from the BankFocus, EUROSTAT and ECB databases. The study covered the years 2011–2018.

**Findings & value added:** An analysis of compliance with the Core Principles for Effective Banking Supervision by selected European countries was carried out and the shape of supervision over the financial markets in these countries was described in the paper. The paper positively verified the hypothesis regarding the occurrence of a statistically significant impact of the supervisory model, its location towards the central bank and the level of implementation of the BCBS Core Principles on financial stability (measured using capital adequacy ratios and the Z-score and MLPS indices) in the countries studied.

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### *Human capital as a factor of local economic development*

*JEL Classification: O10; R58; R11*

*Keywords: economics; regional economics; economic of development; human capital*

#### ABSTRACT

**Research background:** Local development as a problem of practical importance has also become an important object of theoretical research in contemporary economics. The application values of the search for local answers to global challenges has contributed to the development of research on the impact of various factors on local economic development.

**Purpose of the article:** The aim of the article is therefore to define the role of one of the factors influencing local development which is human capital. It was assumed that human capital and its changes contribute to an increase in the dynamics of economic development of the studied commune.

**Methods:** The study uses qualitative (logical) analysis methods and quantitative analysis methods. The qualitative analysis used mainly the method of literature studies and the methods of inductive and deductive reasoning. In turn, in the analysis of statistical data, correlation and regression analyzes were used, as well as multivariate comparative analysis using the Hellwig method. Statistical material was collected for the Ustka commune (Pomorskie Voivodeship), and the research period covers the years 2004–2017.

**Findings & value added:** The presented analysis indicates that the hypothesis about the significant role of human capital in the local economic development of the examined local government unit can be considered correct. Four variables describing human capital in the Ustka commune were examined, and it can be concluded that these variables positively contributed to the increase in the level and dynamics of economic growth of the analyzed commune. The considerations conducted here indicate the usefulness of the model for a commune with a predominance of tourist services, and further research could be carried out for communes with a different (e.g. industrial or agricultural) specificity.

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### *External sources of financing in the management of innovation processes in the SME sector enterprises*

*JEL Classification:* O31; L20; G32

*Keywords:* innovations; sources of financing; external sources of financing; SMEs

#### ABSTRACT

**Research background:** Effective management of innovation processes, regardless of the business size, is the main element in building a competitive advantage. Operating in a changing environment, enterprises wanting not only to stay on the market, but also to constantly develop, must undertake innovative activities. Their implementation, however, requires significant financial outlays, and the return on invested funds from this type of investment takes place only after several years. Own financial resources are insufficient, especially in smaller business entities, hence the necessity to use funds from outside the enterprise. However, due to the high risk accompanying innovative activity, access to external sources of financing, especially for entities from the SME sector, is often difficult and limited, which unfortunately translates into the scale of innovative activity of this group of enterprises.

**Purpose of the article:** The aim of the article is to analyze the extent to which the various sources of financing are used by small and medium-sized enterprises in the implementation of innovative projects, and to show the relationship between not only own, but most of all external sources of funding sources and the scale of innovative activity of SMEs in Poland.

**Methods:** Based on the method of analysis and criticism of literature, the article presents the most important issues related to the subject matter. Then, on the basis of statistical methods, the scope and sources of financing the innovative activities of enterprises in the SME sector in Poland were analyzed and the indexes of dependence between the examined values will be estimated.

**Findings & value added:** The analysis will be based on examining the dependence of the scale of innovative activity of enterprises in the SME sector in Poland on the possibility of using not only own financial resources, but also funds from external sources.



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### *Digital transformation: new challenges and opportunities*

*JEL Classification: O10; O14; O33; C1*

*Keywords: digital transformation; digitalization; digital economy and society index; digital economy*

#### ABSTRACT

**Research background:** Digital technologies, which are gaining recently, are rapidly changing the quality of life of people and opening new opportunities for a business. Artificial intelligence is becoming a key to build an open and democratic society. The PricewaterhouseCoopers (PwC) study found that global GDP could grow to 14% by 2030 as a result of the development of artificial intelligence. Digital instruments became especially relevant in 2020 during the pandemic COVID-19. The crisis caused by the COVID-19 pandemic has become a significant catalyst for the spread of digital technologies around the world, including in Ukraine.

**Purpose of the article:** The aim of the study is to determine the new challenges and opportunities caused by digital transformation.

**Methods:** The methodological apparatus includes: expert appraisal method; factor analysis method regression and correlation model.

**Findings & value added:** The use of digital technologies allows you to implement remote work, develop new forms of distance work with business process participants, which is especially relevant during the COVID-19 pandemic. However, in Ukraine insufficient attention is paid to the development of artificial intelligence. Success in this area belongs to private initiatives, which slows down digitalization and does not ensure effective integration of Ukraine into European society.

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### *Wage convergence after euro adoption: the case of Slovakia*

*JEL Classification: E24; F14; F15; B29*

*Keywords: euro adoption; monetary integration; economic convergence; European Union*

#### ABSTRACT

**Research background:** According to the theory of integration, welfare increase is the long-term indirect effect of joining the euro area. Monetary integration accelerates the processes of economic convergence, including income convergence, which is particularly desired by the societies of catching-up economies. The countries of the Visegrad Group are institutionally and structurally similar. But only Slovak Republic adopt euro in 2009, another Visegrad countries stay by their own currencies. So it is a good opportunity to assess the effects of joining the euro zone on wage growth in the medium term through a comparative analysis with other countries.

**Purpose of the article:** The aim of the research is to assess the impact of joining the euro area on the wage growth rate in Slovakia. So the theory of the monetary union is verified on the example of Slovakia.

**Methods:** The research was carried out using the comparative method. Three types of convergence are taken into account: beta (less developed countries exhibit a faster rate of growth than more developed ones), sigma (income differentiation decreases over time), and gamma (countries change their ranks in the ranking). An extension of the implementation of the concept of beta, sigma and gamma convergence is the estimation of convergence for variables other than GDP, i.e. for the wage growth rate and the labor productivity rate. The analysis covers the 2009–2019 period.

**Findings & value added:** The study confirms the existence of beta and sigma convergence. On the other hand, no gamma convergence was found. The higher rate of wage growth in Slovakia as compared to other countries of the Visegrad group was also not confirmed.

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***The realization of the human right to food: an interdisciplinary approach combining law and economic sciences***

*JEL Classification: K00; K38; O10*

*Keywords: human rights; right to food; food law; food and nutrition security; Global Food Security Index*

ABSTRACT

**Research background:** Human rights have been experiencing a cautious renaissance recently. Human rights are universal moral laws of a basic nature, belonging to every individual in his contacts with the state. There is an ongoing dispute on whether human rights are universal or culturally conditioned and related to relativism. The realization of the right to food differ within existing law systems, political systems or socio-economic systems in world regions. There is a significant role of the state in ensuring food and nutrition security (FNS).

**Purpose of the article:** The aim of this paper is to analyze the realization of the right to food and to frame challenges of interpreting of measurement results of FNS in different world regions.

**Methods:** We will apply a narrative literature review, dogmatic and comparative analyses of the law provisions which contribute to ensuring FNS, analysis of secondary data deriving from FAO, the Economist Intelligence Unit etc.

**Findings & value added:** The number of undernourished people in Sub-Saharan Africa and South Asia is on the rise, and the number of overweight/obese people in North America and Europe is growing. During COVID-19 pandemic, as a result of lockdown, the number of malnourished people has been increasing. The problem is that existing FNS indicators do not take sufficient account of economic dimension of the issue, whereas prices and income are key causes of the insecurity. Moreover, the bulk of existing FNS indicators reflects the issue of underconsumption of calories, but does not reflect the obesity issue.

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***Banking sector development and economic growth of counties in Poland: Is Schumpeter right?***

*JEL Classification:* G21; O16; R51

*Keywords:* banking network; banking services; regional economic growth

**ABSTRACT**

**Research background:** A well-developed network of banking branches is a basic condition for local financial development and the availability of credit and other banking services for enterprises. The link between financial development and economic growth advocated by Schumpeter has become the subject of extended research. In most cases, however, it concerned the economy of the entire country.

**Purpose of the article:** The subject of this study is to assess the impact of the development of banking network and accessibility of banking services on the economic situation of counties in Poland between 2014 and 2018.

**Methods:** The fixed-effects regression method was used, which is suitable for panels with short time series and large numbers of entities. We evaluated the development of the banking network by the number of branches per 1,000 inhabitants and 1 km<sup>2</sup>, while the economic situation is assessed by the value of production, the number of employees and the average salary in a county. Data on the number of bank branches within counties come from Intelicase Research and macroeconomic data from the Central Statistical Office.

**Findings & value added:** The results obtained confirmed the Schumpeter paradigm that financial development and availability of banking services helps to invest in non-financial sector and thus promote economic growth. We have observed a positive impact of branch density on economic growth, and the results are consistent for applied banking development indicators and the specifications of the controlled variables. Our findings underline the fundamental role which banks play in supporting financial intermediation activities in counties, largely achieved through an extensive branch network. The scale of the relationship between the banking development and economic growth is significantly influenced by the size of the counties' economy and investment expenditure of the local governments.

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### *How can traditional masculinity affect advertising efficiency?*

*JEL Classification:* M37; M31

*Keywords:* Advertising; Marketing; Masculinity; Gender roles

#### ABSTRACT

**Research background:** Researchers have long argued that masculinity as a concept has become a product and that various versions of masculinity are being sold to consumers for decades. Advertising shows what the lives of consumers could be: the confidence, the lifestyle, the material possessions, the type of a man, if only the consumer would purchase the main product being advertised. The question arises how to advertise a complicated product such as masculinity? A product that is constantly changing and a subject for current cultural shift.

**Purpose of the article:** The purpose of this research is to examine how effectively advertisers are using masculinity, particularly traditional masculinity in their marketing message by analyzing consumer opinions about relevant advertisements. In order to draw conclusions and suggestions of how advertisers should depict traditional masculinity in their marketing message, we must first analyze how effective are the current attempts to sell traditional masculinity.

**Methods:** The researchers have decided to use several key methods to assess the effectiveness of advertising when using traditional masculinity in their marketing appeal. The main method of analysis is discourse analysis, which includes qualitative content analysis, sentiment analysis and taking into the consideration the whole context of masculinity as an ever-changing concept in society.

**Findings & value added:** The expected findings of this research include key suggestions of how advertisers should use traditional masculinity in their advertising message to enhance and perhaps broaden their appeal to the audience, so the advertisement can help the company increase market share and brand loyalty.

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***Formation of future logistics landscape: Ukrainian case***

*JEL Classification: M110; J240; I250; O520*

*Keywords: logistics landscape; key logistics drivers; supply chain skills; logistics competences; Z-generation*

**ABSTRACT**

**Research background:** Attractiveness and openness for cooperation with external partners, the inflow necessary for economic growth and investment to large extent depends on the effectiveness of logistics in the country. Having a strong transit potential, the efficiency of its use in Ukraine remains low — according to the LPI rating, Ukraine has never risen above 61 out of 160 countries, and in terms of Logistics Competence — no more than 68. Such an indicator points to the obvious importance of in-depth study of supply chain skills and logistics competences, as a critical important factor in the quality preparation of future logistics and supply chain professionals. Ukrainian labor market in the field of logistics covers 1.5 million people who, in the vast majority, do not have the appropriate vocational education. Consequently, the study of the vision of the prospects for the development of logistics and SCM by representatives of the Z generation of some EU countries will make it possible to actualize the role of supply chain skills and logistics competences as a catalyst for qualitative improvements of the logistics landscape.

**Purpose of the article:** The purpose of the article is to clarify the term "logistics landscape" taking into account the key drivers of logistics and supply chain development, explore the perspectives of logistics and SCM development by Z generation of some EU countries, actualize the role of supply chain skills and logistics competences as a catalyst of qualitative improvements in the logistics landscape.

**Methods:** The article used theoretical (critical analysis of sources, data systematization, statistical analysis, comparative analysis, hypothesis formulation, etc.) and empirical (survey methods, observation, critical analysis, hypothesis).

**Findings & value added:** This study will be valuable to present and future professionals in the field of logistics, as well as scientists, educators, entrepreneurs and managers of all levels of management, authorities. Entrepreneurs and government officials will be able to better understand current development trends and key success factors in logistics and SCM. Current and future professionals will have a better vision of their career prospects. For educators, this study can significantly add academic value to the training of modern and future logistics professionals.

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### *Transformation of household behavior regarding the maintenance (formation) of stocks of consumer goods in emergency situations (pandemics)*

*JEL Classification: H1; D04; D15; D23; E21*

*Keywords: stocks; consumer goods; emergency situations ; pandemics*

#### ABSTRACT

**Research background:** The world economy has undergone significant transformations during 2020. The global pandemic has affected the economy of households, businesses and the state. The transformation of the economy in emergency conditions is largely due to the formation of stocks. In critical moments of limited access to products of different levels of need, people began to create stocks, or further increase existing ones. In the case of households, these were stocks of basic necessities (food and hygiene products), firms were forced to stockpile products that could not be sold until indefinitely due to restrictions, and states had to adjust existing stocks or build new ones according to new, previously untested schemes.

**Purpose of the article:** The purpose of the article is to present and investigate the problems associated with the transformation of household behavior regarding the maintenance (formation) of stocks of consumer goods in emergencies (pandemics).

**Methods:** The study is based on a theoretical analysis of the scientific literature on food stocks in a pandemic (emergency), statistical analysis and surveys.

**Findings & value added:** The behavior of households in relation to food stocks in a pandemic (emergency) was studied. Signs of controversy have been identified. The impact of such behavior on the macroeconomic parameters of the relevant sectors of the economy. It is proposed to assess as a promising direction of typical (standard) behavior of households in case of emergencies and actualized anticipatory activities of public authorities to form insurance stocks of products to solidify the risk of depletion of stocks of products by businesses, individuals and the state. The transformation of consumer behavior in relation to the maintenance of stocks of consumer goods in anticipation of emergencies is proved (substantiated). The existence of more intensive spread of rational behavior of households in the conditions of expectation of probable crisis situations and absence of rational / value behavior of states on formation of strategic stocks (on the example of vaccine stocks) in the conditions of high information entropy and limited / monopolized supply of strategic products in the global world.

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### ***Measuring the impact of cluster specification on the innovativeness of companies: evidence from Polish business clusters***

*JEL Classification:* O1; O3; L20; L29

*Keywords:* clusters; leadership; cooperation; innovativeness

#### ABSTRACT

**Research background:** Innovations are introduced by competitive companies. All possibilities of cooperation to use competitive advantages are applied here. One of the most common methods, increasingly used by companies, is organising clusters or cluster initiatives operating within a specialised sector, competing with each other, exploiting the potential of cooperation and its impact on creating new business ideas. However, these efforts could be unviable due to the lack of an effective leader of the group. One should underline a crucial role of the leader in such an organised network since the leader makes improvements and takes initiatives for all the network and its partners. These concepts prompt us to undertake the research on the role of clusters' specification on enhancing willingness to innovate in general. This study aims to point out the main characteristics of clusters and to investigate their impact on companies' innovativeness. The main problem to address is the magnitude of specific effects that might boost introducing new solutions in firms' networks.

**Purpose of the article:** The purpose of this study is to investigate the impact of factors defining cluster specification that might affect the innovativeness of companies.

**Methods:** The authors construct a model consisting of latent variables such as incentives of coordinator of cluster or cluster initiative, cooperation of firms with local authorities, cooperation between entrepreneurs, or localisation. The results are subject to the Structural Equation Modelling (SEM) analysis using Partial Least Squares algorithm.

**Findings & value added:** The conducted analysis leads to several findings. Firstly, incentives provided by the cluster coordinator enable companies to increase the willingness to introduce innovations in general. Secondly, however, the influence of other cluster characteristics on the propensity to innovate for firms functioning within specific Polish business clusters is scant.



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### *Regional specialisations in the light of dynamic changes in the employment structure*

*JEL Classification: J21*

*Keywords: employment structure; employment dynamics; regional specialisations*

#### ABSTRACT

**Research background:** Among the determinants of the socio-economic development of the region, an important role is played by its endogenous potential. It is reflected in the industry structure of the region, formed in the process of its historical development. The industry structure is the basis for the development of regional specialisations. One of the criteria for defining specialisations is the employment structure by sections and divisions of the national economy. The definition of regional specialisations is indispensable for planning the development policy and for formulating regional strategies.

**Purpose of the article:** The aim of the paper is to identify changes in the regional specialisation of the Małopolskie province on the basis of the employment structure by sections and divisions of the national economy and evaluation of changes in the economic profile of the region in the context of its development strategy.

**Methods:** The analysis will be carried out using methods of statistical analysis based on CSO data on the employment structure for the years 2009–2018. For the identification of regional specialisation the Florence Specialisation Index will be also applied.

**Findings & value added:** The added value of the paper is the assesment to what extent the changes in the regional specialisation reflected in the existing employment structure fit in with areas of economic activity identified in the regional development strategy as areas with the greatest growth potential in the region. For this purpose, a methodology will be proposed to identify sectoral specialisation of regions based on the employment structure. Detailed analysis will be conducted on the basis of CSO data unavailable in public statistics, which will make it possible to draw more in-depth conclusions than those published in the literature so far.

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### *The use of the dynamic time warping (DTW) method to describe the COVID-19 dynamics in Poland*

*JEL Classification:* C32; C38; I15

*Keywords:* Covid-19; dynamic time warping; hierarchical clustering

#### ABSTRACT

**Research background:** The Covid-19 outbreak is the biggest public health challenge since the Spanish flu in 1918. The impact of Covid-19 on our daily lives and economy has led to a great scientific interest in this novel virus. In recent months, the evolution of the epidemic in different countries has been analyzed, implementing mathematical models. The existing literature on the spread of the coronavirus lacks econometric analyzes of the development of this epidemic in Polish voivodeships.

**Purpose of the article:** The aim of the paper is to find the similarities in the evolution of time series for people infected with and died from Covid-19 in Polish voivodeships using dynamic time warping (DTW) as a measure of the distance between time series.

**Methods:** The DTW method makes it possible to compare time series of different lengths, which is important when analyzing data for Polish voivodeships because the coronavirus has not spread to individual voivodeships at the same time. This method also allows an adjustment of the time axis to find similar but phase-shifted sequences. Using DTW method, we will jointly analyze the number of infected and deceased people in each voivodeship. After measuring the similarities between the time series, a hierarchical grouping for voivodeships will be performed.

**Findings & value added:** We apply the concept of DTW to identify groups of voivodeships affected to varying degrees by the Covid-19 pandemic. Carrying out the classification is very useful as it will identify similarities and patterns in the evolution of a pandemic between Polish voivodeships.

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***Adaptive models of business performance management in a global industry***

*JEL Classification:* C61; M20; M21

*Keywords:* business performance; benchmarking; metallurgy; empirical models of performance targets

**ABSTRACT**

**Research background:** For ensuring sustainable competitive advantage in the highly turbulent global environment, there is a need to use modern models of performance management and the creation of appropriate tools. The company's performance management is considered from the standpoint of the process approach as a mechanism for adapting to the external environment's challenges. As a result of introducing such management, the company's maximum level of consistency with their targets identified at the industry level is ensured. For setting targets, it is proposed to use advanced tools for benchmarking research.

**Purpose of the article:** The article aims to develop a methodological approach to managing the company's performance in the global market based on the empirical models of performance targets with correlations between Operational Key Performance Indicators (proxy variables) and Key Strategic Performance Indicators (KSPI) and also evaluation and testing of the proposed method on the materials of the metallurgical industry.

**Methods:** The methodology of performance management is proposed to be formed based on synergetic use of tools of continuous improvement systems, integrated life cycle models, and intensified model of corporate social responsibility, which reflects the modern three-pronged ideology of sustainable development and resource efficiency. Methods of statistical, structural, correlation, and regression analysis were used to form empirical models for measuring strategic performance management. Methods of economic and graphic analysis were used to analyze the activities of companies in the metallurgical industry.

**Findings & value added:** The proposed approach to performance management allows to justify and compare the target and actual results of activities, identify the range of improvement, and form mechanisms for achieving higher performance. The technique of measurement of the level of strategic efficiency provides 1) definition of the general level of strategic efficiency; 2) its structural decomposition according to three perspectives of measurement — financial efficiency, a realization of entrepreneurial potential, and socially oriented management; 3) identification of relevant industry success factors and determination of KSPI-group goals. An appropriate system of evaluation indicators has been identified for each perspective and KSPI-group.

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### *Network externalities in the process of digital technologies diffusion*

*JEL Classification: O1; O33*

*Keywords: ICT; network effect; technology; cost of technology*

#### ABSTRACT

**Research background:** Digital technologies diffusion is potentially subjected to the network effects (externalities), that are analogous to 'imitation effect' where for an individual the value of new technology depends on how many people has already adopted it and uses it. Emerging network externalities are the principal phenomenon driving the process of technology diffusion and determining its in-time dynamics. Diffusion of new technologies occurs and speeds up if either the cost of adoption and usage drops over time or the benefits rise; people's valuation of new technology increases in the number of others buying/using the same technological solution.

**Purpose of the article:** The main research target of this paper is to capture the network effects and its determinants enhancing the process of digital technologies diffusion.

**Methods:** In our research we rely on network effects identification method specified in Baraldi (2012) and Arroyo-Barrigüete et al. (2010) and we adopt the installed base approach and inverse demand function using panel regression analysis. Our empirical sample covers 20 high-income countries, for the period 2000–2019.

**Findings & value added:** Our work contributes to the state-of-the-art by examining the network effects that drive the process of digital technologies diffusion, but it also extends our understanding of the latter by tracing major determinants of fast network expansion, like e.g. costs of access and usage. Our main findings support the initial supposition that the installed base strongly enhances diffusion of new technologies, while other factors like e.g. costs are not of the prime importance.

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### ***An assessment of CSR disclosure across EU public interest companies***

*JEL Classification:* G30; M48

*Keywords:* corporate social responsibility; public interest companies

#### ABSTRACT

**Research background:** Public interest companies play an increasingly important role in national and global economies. Corporate social responsibility (CSR) of such companies draws attentions in public and corporate governance agendas addressing CSR strategies, policies, actions as well as information disclosure practices. In European Union issues of CSR disclosure had gained momentum since 2018 when a new non-financial information disclosure Directive 2014/95/EU was enforced. The new requirement brought interest of researchers and practitioners aiming to assess whether companies that are required to disclose CSR reports comply with the provisions of the new Directive. Although CSR and CSR information disclosure are quite frequently discussed topics yet our analysis revealed that results or scientific research are ambiguous and limited, lacking complex studies which cover all EU countries and assess compliance of corporate CSR disclosures with the provisions of Directive 2014/95/EU.

**Purpose of the article:** is to measure the level of CSR disclosures across largest EU public interest companies and assess their compliance with the provisions of 2014/95/EU Directive.

**Methods:** the research used content analysis method for the analysis and evaluation of information disclosed in CSR reports of 543 largest EU public interest companies participating in the United Nations Global Compact. Collected data was constructed into disclosure indexes which were benchmark against the provisions of Directive 2014/95/EU.

**Findings & value added:** The level of CSR disclosures on average was 76.5% across all regulated disclosure areas. This suggests that majority of large European public interest companies complied with the provisions of Directive 2014/95/EU from the first reporting period. However, the level of CSR disclosure varied significantly across different disclosure areas and different EU countries with the lowest numbers reported in employees related indicators. Such results generally support results of previous research yet identify the need for further analysis including identification of its influencing factors and impact on competitive environment in EU.

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### *China's international trade and global value chains under One-Belt One-Road initiative*

*JEL Classification: F13; F14; C23*

*Keywords: One-Belt One-Road; China; gravity trade models; global value chains*

#### ABSTRACT

**Research background:** China is regarded as the “world factor” highly involved in international trade and plays a dominant role in global value chains. Additionally, “One-Belt One-Road” (OBOR) initiative was proposed by the Chinese government as further promotion of China in international market.

**Purpose of the article:** In this study, we examine the potential effects of “One-Belt One-Road” (OBOR) initiative on China's trade flows and global value chain connections. The purposes of our research are: (1) examining the impact of OBOR on China's bilateral trade flows and GVC (2) analyzing and determining whether some corridors are more important

**Methods:** The empirical analysis is based on the augmented gravity model of international trade, which comprises China and its 197 partners in the period 2000–2018. In GVC, we take value-added data and the value contributed by a partner to China's exports as the dependent variable in the gravity model.

**Findings & value added:** In general, there is a significant positive correlation between OBOR and the volumes of China's export. Similar relationships are indicated for value contributed to China's total exports. However, some of the results are blurry by OLS and FE methods. Among the six economic corridors established by OBOR, Bangladesh–China–India–Myanmar (BCIM), China–Pakistan (CP) and China Indochina Peninsula (CIP) were proven to play a prominent role in promoting China's export and GVC.

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### *Socio-economic factors of political trust in modern Russia*

*JEL Classification: B52; D63; D73*

*Keywords: political trust; levels of authority; subjective decile of wealth; interpersonal trust; mass media*

#### ABSTRACT

**Research background:** We are guided by concepts linking political trust with the perceived rank of people in the wealth hierarchy, their confidence in other people, and the means they use to learn about events at home and abroad.

**Purpose of the article:** The aim of the article is to assess and analyse at the micro level the impact of subjective welfare, interpersonal trust and the intensity of usage of television & radio or the Internet to search for news on political trust in the Russian president, federal, regional, and local governments.

**Methods:** The study is based on microdata from the Life in Transition Surveys provided by the European Bank for Reconstruction and Development. Ordinal logit regressions are constructed to evaluate the impact of test and control variables on political trust in four levels of Russian government in 2010 and 2016.

**Findings & value added:** We identify a reverse of political trust in the upper levels of the Russian government between 2010 and 2016, when the impact of perceived welfare level changes sign from positive to negative. This phenomenon is explained by the focus of the policy of the federal centre on supporting the poor groups of the population, as well as its distancing from business. In contrast, the positive, albeit inconsistent, effect of subjective wealth on trust in lower-level governments is due to the benefits that businesses can gain from interaction with local authorities. Our models show the positive impact of controlled television and radio on trust in the upper echelons of power, along with the negative impact of the freer Internet on political trust in regional and local authorities. We also confirm the hypothesis of a positive and significant relationship between interpersonal and political trust, highlighting the role of social capital. The analysis reveals in Russia the features of the hierarchical model of political trust, which could be controlled through building a democratic state and civil society.

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*Involvement of companies in sustainable development initiatives independently and in the supply chain: empirical analysis*

*JEL Classification:* Q01; Q20; Q50; M11; M14

*Keywords:* sustainable development; sustainable supply chain; green design; green operations; reverse logistics and waste management

ABSTRACT

**Research background:** The idea of sustainable development, in the face of the challenges encountered by contemporary society, is gaining increasing popularity. Although initially developed as a macroeconomic concept, currently it recognizes the substantial role that companies play in its successful implementation. Initiatives in the field of sustainable development may be undertaken by companies independently as part of their own activities. However, it is increasingly often indicated that they should be implemented together with entities forming the supply chain as an element of sustainable supply chain management.

**Purpose of the article:** Determining the degree of involvement of companies in various identified activities in the field of sustainable development and indicating to what extent these activities are carried out independently and to what extent jointly with supply chain partners.

**Methods:** The quantitative research was conducted in September 2020 with the use of CATI (Computer-Assisted Telephone Interview) technique and a standardised survey questionnaire. A total of 500 randomly selected companies located in Poland participated in this study. The respondents were representatives of the top management of the companies.

**Findings & value added:** Based on the literature analysis, 28 activities in the field of sustainable development have been identified in which companies can become involved. These activities were divided into 3 groups — green design (1), green operations (2), and reverse logistics and waste management (3). The article presents the scale of involvement of respondent companies in particular activities. In total, 355 out of 500 researched companies were involved in at least 1 sustainable development initiative.



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### *Gold Market and Selected Nordic Stock Markets: Granger Causality*

*JEL Classification: G11; G15; C32*

*Keywords: Nordic stock markets; domestic gold price; Granger causality; VAR models*

#### ABSTRACT

**Research background:** The turbulence in financial markets, especially stocks, make investors seek safer ways of capital allocation. Gold exhibiting a low or negative correlation with stocks can constitute an alternative form of investment for them. The price volatility of aforementioned assets have impact on investors' decisions. That is why the assessment of interrelations between stock and gold returns is important. The direction of causality between the analyzed variables is reflected by the fact that investors tend to transfer their funds from gold markets to more profitable markets, or return to gold markets.

**Purpose of the article:** The aim of this paper is to investigate the causal relationship between the rates of return on stock markets in three Nordic countries, represented by their respective indices — OMXH25 (Finland: the Helsinki Stock Exchange Index), OMXS30 (Sweden: the Stockholm Stock Exchange Index) and OSEAX (Norway: the Oslo Børs All Share Index) — and the returns from investment in gold.

**Methods:** The VAR model was applied in the analysis to perform a Granger non-causality linear test, along with decomposition of variance and the impulse response function. The study covered the period between September 2001 and October 2020. The author used quotes of the aforementioned indices and gold prices expressed in domestic currencies to calculate monthly returns constituting variables of the model.

**Findings & value added:** The study showed no causality between the analyzed rates of return, except in Norway, where the gold market was found to have an impact on the stock market, assuming a statistical significance of 0.14. In the other two countries, changes in gold prices did not affect stock prices, and vice versa. The research focuses on linkages between gold-stock markets of selected Nordic countries which in comparison with countries classified as key producers and consumers of gold were not under investigation so far.

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*Intersectoral technological progress spillover effect measurement using agent-based modelling: case of Lithuanian manufacturing industry*

*JEL Classification: O14; O32; O47*

*Keywords: technological progress; agent-based modelling; intersectoral technological progress spillover; manufacturing industry; economic development*

ABSTRACT

**Research background:** There exists various methods for technological progress assessment and evaluation in the context of economic development. Each of the methods possess unique advantages and disadvantages while analyzing technological progress fluctuations. In most neoclassical growth theories technological progress measures are incorporated as exogenous variables, thus excluding evaluation of factors influencing technological progress variation throughout time.

**Purpose of the article:** The aim of this article is to suggest improvements on classical technological progress evaluation methodologies for manufacturing industries, distinguish the effect of intersectoral technological progress spillover effect from internal factors affecting technological progress growth and perform practical case study for Lithuanian manufacturing industry.

**Methods:** In earlier research papers linear time series regression and vector autoregression methods were used to assess technological progress values and form equations explaining influence of different manufacturing level indicators on technological progress growth. This research paper uses results of previously mentioned methods and performs simulation analysis utilizing agent-based modelling framework.

**Findings & value added:** Carried out vector autoregression analysis indicated that two variables, which affect technological progress most significantly, are gross profit value and labor productivity measure. Sensitivity analysis suggests that effect of these two variables on technological progress growth is different. Increase in gross profit value influences technological progress growth for wider range of sectors operating in Lithuanian manufacturing industry (15 out of 18 analyzed sectors' technological progress values are affected by changes in gross profit, while changes in labor productivity influence technological progress values in case of 9 sectors). Rising gross profit values also generate intersectoral technological progress spillover effect more easily, while growth in labor productivity measure has stronger influence on technological progress fluctuations for sectors which manage to exploit this effect.

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### *Mirror Data Asymmetry in International Trade by Commodity Group*

*JEL Classification:* F14; C10; C82

*Keywords:* Intra-Community trade; Mirror data; COMEXT; quality of data

#### ABSTRACT

**Research background:** Transactions in international trade in goods are recorded in two sources, on the side of the seller's country and on the side of the buyer's country. The confrontation of such data makes it possible to measure their quality. An inconsistency between the data is called mirror data asymmetry.

**Purpose of the article:** The aim of the paper is to adapt methods developed by the Authors to study mirror data asymmetry to commodity group markets examination. The quality of data on trade within specific commodity groups (CN chapters) in intra-Community trade was compared. The data were aggregated by country. The indicators used allow for the indication of commodity groups with high mirror data compatibility and those with data asymmetry between intra-Community supplies (ICS) and acquisitions (ICA). Moreover, the commodity groups for which the value-based and quantity-based approaches give different results have been identified.

**Methods:** Based on the literature on the subject and their own research, the Authors have developed a group of methods for studying the asymmetry of mirror data. The proposed indicator formulas are based on various data aggregation approaches. The research used data on intra-Community supplies and acquisitions of goods broken down into 97 chapters of the Combined Nomenclature (CN). Differences between the ICS and ICA in particular commodity groups were aggregated for all pairs of EU countries. The data comes from the Comext database, provided by Eurostat.

**Findings & value added:** The results of the analysis are rankings of the Combined Nomenclature (CN) chapters by the quality of data on ICS and ICA. Lists of CN chapters have been created for discrepancies both in value and weight of goods. Thus, areas of necessary intensification of the work of public statistics services to improve data reliability were identified.

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### *The Good, The Bad or The Ugly: Financialization through heterodox and mainstream lenses*

*JEL Classification:* B26; B50; E42; G20

*Keywords:* financialization; heterodox approach; mainstream; financial crises

#### ABSTRACT

**Research background:** beginning in the late 1970s, heterodox economists paid increasing attention to the phenomenon of financialization, related to its fourth wave, which exceeded previous waves in intensity and scope. Still, financialization, identified with the growing role of finance in the economy, as well as with its impact on the social, cultural and environmental aspects of society's functioning, was rather omitted within the economic mainstream. Despite growing importance in subsequent years — due to perspective of the global financial crisis 2007–2009 — financialization still escapes unambiguous interpretations. One of the crucial sources of such state is lack of consistent theoretical background for studying this phenomenon.

**Purpose of the article:** to identify and explain differences in perception of financialization within heterodox economics and the mainstream. This, in turn, helps for better understanding of determinants and consequences of the very phenomenon.

**Methods:** narrative approach, comparison of heterodox and mainstream approach to financialization

**Findings & value added:** We add to existing literature by presenting clear distinction in understanding and interpreting financialization by the both heterodox and mainstream economists. We find that the main source of problems are oversimplifications in understanding and monetary and financial spheres in mainstream analyses.

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### ***Reshaping financial systems: The role of ICT in the diffusion of financial innovations: recent evidence from European countries***

*JEL Classification:* G11; G12; G23; O16

*Keywords:* information and communication technology; exchange-traded funds; financial innovations; diffusion of innovations; stock index derivatives

#### ABSTRACT

**Research background:** Exchange-traded funds (ETFs) are among the fastest-growing types of innovative financial product. The emergence and spread of these instruments has been facilitated by the digital revolution. Information and Communication Technology, as a set of general purpose technologies, is profoundly reshaping the global economic landscape, laying solid foundations for unrestricted and unbounded flows of information and knowledge among geographically separated actors, eliminating information asymmetries, furthering the rapid diffusion of financial innovations worldwide and facilitating the rise of new types of network.

**Purpose of the article:** This work contributes to the literature by exploring the linkages between variations in ICT penetration and the development and expansion of financial innovation on stock exchanges in ten European countries: France, Germany, Hungary, Italy, Norway, Poland, Spain, Switzerland, Turkey and the United Kingdom.

**Methods:** The analysis covers the period from 2004 to 2019, using panel and country-specific regression models to verify the relationship hypothesized between increasing ICT penetration and the development of exchange-traded funds.

**Findings & value added:** Our findings indicate that ICT spread evenly in all the countries, laying solid foundations for the development of innovative financial products. We also find that ICT positively influenced the diffusion of ETFs, regardless of the other possible determinants considered, but that despite the high level of ICT adoption in most of the economies analysed, ETF market development has not been universal, with substantial between-country differences.

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*Differences between determinants of men and women monthly wages across selected European Union states: evidence from the Labour Force Survey data*

*JEL Classification:* J31; C20

*Keywords:* labour market; wages; wages determinants; differences in men and women wage determinants; ordered logit model

ABSTRACT

**Research background:** There is a broad discussion in the literature on the situation of men and women in the labour market — about the differences in their remuneration among others. Due to the fact that women constitute a slightly different group of employees (in terms of the characteristics of the workplace), certain factors will have a different impact on the level of their remuneration. Hence the question arises which factors these differences draw and how large are the dissimilarities.

**Purpose of the article:** The aim of the study is to diagnose and assess the differences in the impact of selected factors on the level of men and women monthly wages.

**Methods:** Due to the nature of the explanatory variable (remuneration decile, a variable measured on an ordinal scale), the ordered logit model is applied in the analysis. The data involves individuals taken from the Eurostat's Labour Force Survey.

**Findings & value added:** Diagnosed variables that usually indicate a similar impact on the wages (as for the sign, regardless of country and sex) are level of education and job tenure, supervisory position, part-time or full-time work, work position (ISCO), size of enterprise, country of work. However, this impact often varies in intensity. Variables that are characterise by a large variation in the impact on the level of remuneration (depending on the sex and country) is essentially enterprises economic activity (industry). This paper adds to the empirical literature on the men and women wages by applying a new approach to comparison of the men and women wages. In addition we can look at these differences through cross-country analysis.

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***Relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP) in the largest U.S. companies***

*JEL Classification:* D24; F23; M14

*Keywords:* sustainable development; corporate sustainability; CSP–CFP relationship

ABSTRACT

**Research background:** The sustainable development at the enterprise level is understood as the integration of economic, environmental and social dimensions aimed at meeting the needs of all firm's stakeholders in the present and in the future. Therefore, it is crucial to evaluate the relationship between economic, environmental and social sustainability performance of a company and its financial performance.

**Purpose of the article:** Considering the business model for sustainability as well as the debatable results of empirical research on the relationship between corporate sustainability performance (CSP) and corporate financial performance (CFP), the essential aim of the paper is to answer the question whether the improvement of corporate sustainability performance in its particular dimensions brings about the higher total revenues of a company.

**Methods:** The main method of empirical research is panel regression models based on Cobb–Douglas production function, which has been extended to include variables of corporate sustainability scores. The selection between pooled OLS model, random-effects model and fixed-effects model has been made with the use of the F-test, the Breusch–Pagan test and the Hausman test. Additionally, descriptive statistics and the Pearson correlation coefficients have been analyzed. The empirical studies were conducted in the period 2014–2019 among the 59 largest U.S. companies listed on the Fortune 500 ranking between 2015–2020.

**Findings & value added:** The research hypothesis assuming the existence of positive relationship between corporate sustainability performance (CSP) at both aggregate and disaggregate levels and corporate financial performance (CFP) expressed by TR due to the occurrence of certain statistically insignificant coefficients in estimated panel regression models cannot be positively verified.

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### *Role of Cost-Benefit Analysis in making decisions about the development of electromobility in urban public transport*

*JEL Classification: A11; D61; R41*

*Keywords: cost-benefit analysis; decision making; zero-emission buses; urban public transport*

#### ABSTRACT

**Research background:** Polish act on electromobility and alternative fuels obliges 83 cities to prepare every three years cost-benefit analysis (CBA) using zero-emission buses (ZEB) in urban public transport. First-time obligated institutions prepared them in 2018. Almost all prepared CBAs showed that implementing ZEB in public transport systems required polish law from the financial and the economic perspective is not justified. However, these Polish cities develop ZEB in their public transport systems.

**Purpose of the article:** The research aims to detect the main advantages and disadvantages of using CBA as a tool in the decision-making process of implementing ZEB in urban public transport in Poland. It is also essential to define conditions for limiting the uncertainty of their results.

**Methods:** The research used a synthetic review of the literature that focuses on the main advantages and disadvantages of using CBA in transport investment decisions. It also used a comparative analysis of the methodology used to prepared CBAs by the six most prominent public transport authorities (PTA) in Poland.

**Findings & value added:** CBA is the primary tool used to evaluate transportation projects in Poland. It is an obligatory attachment in European Funds applications, so the methodology should not be alien. The analysis of documents shows that Polish cities use a different methodology in their CBAs. It makes the results of CBAs prepared by the analyzed institutions incomparable. Economic and financial indicators important in the decision-making process omitted in some analyzed CBAs. The lack of systematic guidelines for preparing CBAs to implement the ZEB decrease their objectivity and increase decision uncertainty.



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*Overloaded, but not exhausted while teleworking during COVID-19? Evidence for a work overload and exhaustion relationship mediated by role clarity and moderated by self-efficacy and task interdependence*

*JEL Classification: D23; J81*

*Keywords: teleworking during COVID-19; emotional exhaustion; role clarity; task interdependence; work overload*

**ABSTRACT**

**Research background:** The global COVID-19 pandemic created an unprecedented challenge not only for employees' well-being, but also for the nature of their work, as teleworking has become the norm for many of them almost overnight. Thus, there is a need to a more fine-grained understanding of the specific job demands experienced while teleworking during COVID-19 and the specific resources that mitigate the detrimental effects of demands to help employees adopt resilient responses during and beyond COVID-19.

**Purpose of the article:** Drawing upon the job demands-resources model, the current study aims at investigating the relationship between work overload (a job demand) and employee well-being (i.e., burnout), considering role clarity (a job resource) as a mediator in this relationship, and task interdependence and self-efficacy as two potential boundary conditions.

**Methods:** In order to examine the relationship between work overload, role clarity and emotional exhaustion moderated by task interdependence and self-efficacy, we used survey data from 701 Romanian employees at a large information technology company, who worked from home during COVID-19. To test our hypotheses, we used PROCESS macro for SPSS and run Models 4, 14, and 16 based on Ordinary Least Squares regression analyses.

**Findings & value added:** The results indicate that role clarity partially mediates the relationship between work overload and emotional exhaustion while teleworking during COVID-19. Moreover, the results from the moderated mediation analysis show that role clarity, self-efficacy, and task interdependence interact in their effects on emotional exhaustion. In particular, we found that work overload positively relates to exhaustion via role clarity, especially for teleworkers with high task interdependence. The highest level of exhaustion occurred in employees with low role clarity and high task interdependence, despite high self-efficacy. However, the lowest level of exhaustion occurred when role clarity and self-efficacy were high, even though task interdependence was also high.

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*What affects employment by NGOs? Counteraction to precarious employment in the nonprofit sector in COVID-19 pandemic*

*JEL Classification: E24; E02; J21; L31; O15; D25*

*Keywords: COVID-19; contract employees; precarious employment; barriers to activity; NGOs*

ABSTRACT

**Research background:** The precarious employment in non-governmental organizations has not been the subject of previous thorough scientific considerations. Meanwhile, the dominance of flexible forms of employment in an organization evokes a sense of instability, insecurity and uncertainty among employees. It weakens the relationship between staff and the organization, which, by not providing employees with prospects for permanent employment, creates a threat to its own development. The COVID-19 pandemic is reinforcing these fears as the situation in the labor market continues to deteriorate.

**Purpose of the article:** The purpose of this study is to identify the factors affecting NGOs employment of contract employees, as a key condition for crowding out precarious employment.

**Methods:** Based on the national representative survey of 1 500 of NGOs logistic regression analysis were carried out.

**Findings & value added:** Its results indicate that NGOs are increasing the employment of contract staff in order to cope with the excessive bureaucracy of public administration. A stimulating impact on employment is also provided by difficulties in maintaining good staff and volunteers, as well as a lack of a sense of security in running an organization. In turn, the lack of people ready to selflessly get involved in an organization's activities, as well as difficulties in accessing premises appropriate to NGOs both reduce the desire among staff to be employed full-time.

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### *What drives the dividend decisions in BRICS countries?*

*JEL Classification: G35*

*Keywords: payout policy; dividend smoothing; emerging markets; BRICS*

#### ABSTRACT

**Research background:** We examine the dividend payout policies across companies listed on the main stock exchanges in BRICS countries. On the contrary to the highly developed capital markets, the literature regarding dividend policy on BRICS' stock exchanges is scarce.

**Purpose of the article:** The purpose of this paper is threefold: verification of the existence of dividend smoothing pattern; selection of the significant drivers that affect both dividend levels and dividend smoothing; examination of differences between dividend policy of cross- and single-listed companies from stock markets of Brazil, Russia, China, India and South Africa (BRICS).

**Methods:** Having a unique dataset of 564 companies that paid dividends for at least 11 consecutive years in the period of 1995–2015, we applied a GMM two-step estimator to assess the speed of dividend adjustment (SOA) coefficient. Having used the rolling estimation technique to obtain a time series of the SOAs for individual companies, we employed the linear panel regression to indicate the determinants of the SOA. Then we expanded the research to specify the determinants of the levels of dividends paid by BRICS companies.

**Findings & value added:** The SOA coefficient at the level of 0.45 (0.6 in the cross-listed firms subsample) confirmed a moderate level of dividend smoothing within BRICS countries. Among the firm-level characteristics affecting the SOA the most important were: ownership dispersion, age and size of a firm, retained earnings, leverage, long term debt, asset tangibility, liquidity risk ratio, and issuing the depositary receipts (DR). Two relevant market factors were found: market capitalisation and turnover in relation to GDP. Similar characteristics had a significant impact on dividends' levels. Our paper is the first comprehensive attempt to investigate the dividend policy and determinants of dividend smoothing among BRICS countries. Moreover, DR issuers have not been examined in terms of dividend smoothing thus far.

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### *The Impact of Foreign Direct Investments on the Economic Development of the Eastern Partnership Countries*

*JEL Classification: F21; O19; O57*

*Keywords: foreign direct investments; economic development; Eastern Partnership countries; transition economies*

#### ABSTRACT

**Research background:** Foreign direct investments are considered to be one the most important factors that generate economic growth and development of a country. However, foreign direct investments have a different impact on each country depending on several economical, political, social, and governmental factors.

**Purpose of the article:** The purpose of the article is to outline how foreign direct investments influence the economic development of the Eastern Partnership countries in the context of the recent political and economical evolution in the region. Considering the availability of the necessary statistical data, we made an analysis for the last 20 years, from 2000 to 2019.

**Methods:** Two panel models are estimated in order to quantify the impact of the foreign direct investments on both economic growth and economic development. The relationship between the variables is controlled by several country-specific characteristics, such as governance indicators, corruption status, global competitiveness and economic freedom.

**Findings & value added:** Even if the level of economic development of the Eastern Partnership countries differs a lot from country to country, all six countries are still in economic transition and have to attract more and more foreign direct investments. However, recent conflicts, economic and political instability in the region negatively affected the economic development and the attractiveness of the countries for foreign direct investments.

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### *Diversification and economic conditions of greenhouse gas emissions from industry and agriculture in the European Union countries*

*JEL Classification:* Q01; Q53; Q54; Q56; R11; R12

*Keywords:* economic development; greenhouse gas emissions; agriculture; industry; regional differentiation

#### ABSTRACT

**Research background:** One of the biggest challenges of the present time is the climate crisis, and the effects of global warming are widely known. The cause of the unfavorable climate change is the growing emission of greenhouse gases, and the pollution is caused by unlimited and ubiquitous human activity, agricultural and industrial production.

**Purpose of the article:** The aim of the article was to compare and evaluate the level, trends and diversity of greenhouse gas emissions from industry and agriculture in the countries of the European Union in 2010–2018, and to examine whether there is a link between the level of greenhouse gas emissions and the economic development of countries and other economic indicators characterizing the industry and agriculture sector.

**Methods:** The assessment of the issues taken into account included indicators that deal with the emission of greenhouse gases such as carbon dioxide, methane and nitrous oxide (Y01–Y09), economic indicators (X01–X06), as well as indicators showing the climate-related expenditure and losses of EU countries. The source of empirical data was information from the European Statistical Office. The research period was 2010–2018. The empirical data were subject to statistical analysis.

**Findings & value added:** In the European Union countries, the share of greenhouse gas emissions from industrial processes and agriculture is diversified, gradually increasing and in 2018 was 8.8% and 10.1% respectively. Agricultural production emits significantly more methane and nitrous oxide, while industry emits more carbon dioxide. On the basis of the study it was found that there is a significant impact of the economic development of the country on the level of greenhouse gas emissions from agriculture, while there is no impact in the case of industry. In order to avoid aggravation of adverse climate change, all EU member states should take effective, efficient and sustainable actions in industry and agriculture to reduce the level of greenhouse gas emissions as soon as possible.

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### *Factors influencing the housing situation in cities belonging to the Cittaslow network in the Warmińsko-Mazurskie Voivodship*

*JEL Classification: I31; J11; O12; O18*

*Keywords: housing situation; quality of life; Cittaslow network*

#### ABSTRACT

**Research background:** Research on the level and quality of life has been ongoing since the 1970s. It took into account several hundred objective and subjective factors, which were gradually aggregated into thematic areas. It was found that four spheres of life are of key importance for the global assessment of the quality of life of members of society: professional work, family situation, housing situation and income.

**Purpose of the article:** The aim of the article is to assess the housing situation in the cities of the Warmińsko-Mazurskie Voivodship belonging to the Cittaslow network.

**Methods:** A multidimensional comparative analysis of factors — economic, demographic, investment and social — affecting the housing situation has been made. The data were obtained from the local data bank.

**Findings & value added:** The idea of the international Cittaslow movement is to promote in smaller towns (up to 50 thousand inhabitants) a culture of good, harmonious life as an alternative to the big city rush and globalization. The cities associated in the Network strive for sustainable development, an urban policy that ensures proper relations between economic growth, environmental protection and improvement of the quality of life of the inhabitants. The Polish National Network of Cittaslow Cities — „Cities of Good Life” is the second largest national network in terms of number of members (after the Italian network). It consists of 33 cities, among which there are 23 cities from the Warmińsko-Mazurskie Voivodship. They are diverse in terms of size and rate of depopulation, level of social and economic development, distance from Olsztyn, character of the local community and housing situation.

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### *Conditions of participation of farms in regional economic systems*

*JEL Classification: M21; O13; R58*

*Keywords: regional economic systems; cooperation; farms*

#### ABSTRACT

**Research background:** With the growing population, epidemiological threats, climate threats, the lack of clear prospects for obtaining safe energy, increasing environmental pollution, food production systems must develop in a sustainable manner – without negative impact on the environment and sanitary conditions, with economical use of energy, and at the same time securing the quantitative and qualitative demand for food, which is systematically growing. While stimulating the development of farms, various theories of enterprises should be taken into account, e.g. consumerist and neoclassical. However, more and more important in this respect should be cooperative theories, transaction cost theories, agency theories that prefer cooperation of entities (synergistic effect).

**Purpose of the article:** Identification of the most important conditions for the participation of farms in regional economic systems.

**Methods:** Data for analysis will be obtained from national and European statistical systems. Data analysis methods will include measures of central tendency and dispersion, and measures of correlation.

**Findings & value added:** The way to increase the synergistic effect resulting from strategic cooperation in food chains is, in the first place, an increase in the participation of farms, especially in regional economic systems. Farms sell their products to direct food consumers to a minimal extent. They do not compete directly with other farms for a position on the food market (except for small-scale direct sales), but they compete for a position in the supply systems of processing enterprises. The possibilities of selling raw materials by farms depend on the market effectiveness of enterprises in the food sector. The added value of the research will result from the identification of the relationship between the variability of endogenous factors characterizing farms and the most important exogenous factors that may affect the increase in the participation of farms in regional economic systems.

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### *Multiple dimensions of job quality in the frames of Global Value Chains*

*JEL Classification: F16; F66; J81*

*Keywords: job quality; working conditions; GVC; Poland*

#### ABSTRACT

**Research background:** The association between involvement in Global Value Chains (GVC) and labour market outcomes are well recognized in the literature. The main emphasis is on the impact from GVC on wages and employment, while the other aspects of working conditions are less analysed.

**Purpose of the article:** In this paper we aim to explore the linkages between the global production fragmentation processes and the well-being of workers in Poland. In particular we focus on the selected measures of job quality, like the social environment, work intensity and working time quality to examine their dependence from the international trade involvement.

**Methods:** To this end we use data derived from different data sources. Our main goal is to merge individual data describing the job quality and well-being of workers with the sectoral level data containing information on the involvement in global production processes. To fulfil this aim, we take into account the data coming from Eurostat and Eurofond (like the European Union Structure of Earnings Survey and European Working Conditions Survey) and from World Input Output Database. We use econometric strategy to discover the relationship between working conditions and diversified set of covariates including individual, company, sector and country level characteristics.

**Findings & value added:** Our findings show moderate association between working conditions and GVCs' ties among Polish workers. We show an important heterogeneity in the response to the international trade impact on the individual worker's well-being. Our main contribution covers the multidimensional approach in analysing the working conditions, what significantly expands the previous evidence existing in the literature. Our results are robust to different model specifications.



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***Advertising activities in the age of globalization: standardisation or adaptation? Consumer evaluation of advertising activity of foreign enterprises on the Polish market***

*JEL Classification: M37; M21; M21*

*Keywords: advertising; advertising perception; global and adapted advertising; foreign enterprises; attractiveness and competitiveness of advertising*

ABSTRACT

**Research background:** Intensification of globalisation processes in the contemporary world entails consequences for all areas of the socio-economic life. This concerns also advertising, which is particularly sensitive to the developments occurring in the global environment. Expansion into foreign markets presents enterprises with the dilemma of how to advertise – the use of standardized or adapted advertising. The attitude of the audience on the target market is of key importance. This article is also in this context, focusing on the impact of globalization on the perception of the advertising activity of foreign companies operating on the Polish market among its recipients.

**Purpose of the article:** Assessment of the degree of acceptance of standardized advertising activities conducted on the Polish market by foreign enterprises, their attractiveness and impact on competitiveness, made from the perspective of Polish consumers.

**Methods:** The basis is the results of surveys conducted in 2019 and 2020 on a sample of Polish consumers aged 15 and more selected using the quota method. The subject of the research were opinions on advertising activities used on the Polish market by foreign companies, taking into account the differentiation into global and adapted advertising. The respondents assessed the level of attractiveness and acceptance of activities related to advertising standardization procedures.

**Findings & value added:** The results of the presented research show that Polish consumers perceive the phenomenon of advertising globalization and have mixed feelings about it. They highly appreciate the attractiveness of standardized advertisements, but at the same time indicate a mismatch with Polish realities and not always positive influence on the competitiveness of foreign enterprises.

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***Future professions of economics graduates as perceived by university staff and business representatives***

*JEL Classification:* A23; M51; O15

*Keywords:* jobs; occupations of the future; evolution of occupations; occupations at risk of redundancy

**ABSTRACT**

**Research background:** Observations of the changes that have taken place over the last decades — such as market globalisation, internationalisation of business relations, development of the capital market and the effects of restrictions resulting from COVID-19 pandemic — indicate that their results have become an important trigger of the need to adjust the competences that employees should demonstrate in the face of the emerging transformations on the labour market. These trends are further increasing the demand for completely new professions and an evolution of the existing ones.

**Purpose of the article:** The aim of this article is to identify groups of professions which will gain or lose importance for economics graduates in the future. The implementation of this objective will serve as an impulse to optimise the curricula of economics studies as regards their adaptation to the requirements of the labour market.

**Methods:** The study was based on a structured interview with experts based on a survey questionnaire with open-ended and semi-open-ended questions. The survey, carried out in November and December 2020, covered 43 experts who were divided into two groups. Group one included 13 employees of two Polish universities of economics. The other group consisted of 30 managers. An affinity diagram was used to analyse the results of the study.

**Findings & value added:** The research was conducted based on primary sources. The added value of the article consists in identifying the positions in which graduates of economic studies will find employment in the future, on the one hand and, on the other hand, the positions at risk of redundancy. The experts concluded that, in the years to come, economics graduates are going to find employment mostly in analytical, expert and conceptual positions, whereas jobs, where routine work is performed, are going to lose their significance. These observations imply the need to revise and optimise curricula in order to better adapt the graduates to the requirements of the labour market.

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### *Importance of hard and soft competences of economics graduates in the opinion of university employees and business representatives*

*JEL Classification:* A23; M51; O15

*Keywords:* competence model; hard competences; soft competences; importance of competences; competences of economics graduates

#### ABSTRACT

**Research background:** The changes visible over the last decades — such as market globalisation, internationalisation of business relationships, development of the capital market and the effects of restrictions imposed as a consequence of the threat of COVID-19 pandemic — indicate that their results have made it necessary to change the competences that employees should demonstrate in the face of these transformations on the labour market. A review of current research on the formation of competences demanded by employers on the labour market clearly points out that hard and soft competences are complementary.

**Purpose of the article:** The purpose of the article is to identify the differences in evaluation of importance of economics graduates' hard and soft competences from the perspective of university lecturers and business representatives. Meeting this objective will serve as an impulse to optimise curricula of economics studies, regarding adaptation of graduates to the requirements of the labour market.

**Methods:** The study was based on a questionnaire drawn up pursuant to five point Likert scale, based on which respondents expressed their evaluation of importance of the competences included in the proposed model of competences of economics graduates. The study has been completed in November–December 2020 and covered 43 individuals. The respondents were representatives of two groups. Group one included 13 employees of two Polish universities of economics. The other group consisted of 30 managers. Statistical relationships and correlations between the variables have been examined using the Mann–Whitney U test and Student's t test, and Statistica software, ver. 13.

**Findings & value added:** Research based on original sources indicates that soft competences are more important. It is particularly symptomatic that this belief is held mostly by practitioners. They are the group which evaluates fitness of graduates for work in real-life conditions, then observes the results obtained by them in their assigned positions. The added value of the article consists in identification of the growing importance of soft competences of economics graduates. It implies the need to review and optimise curricula to better suit the requirements of the labour market.

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***Determinants of choosing the company's innovation strategy in conditions of unstable environment***

*JEL Classification: A11*

*Keywords: innovation; enterprise; strategy*

ABSTRACT

**Research background:** Innovations are becoming an increasingly important factor increasing the competitiveness of enterprises. The effectiveness of innovative activities largely depends on the selection of the appropriate innovation strategy

**Purpose of the article:** The aim of the article is to identify the key determinants of the choice of the company's innovation strategy in conditions of unstable surroundings and to present a scheme of its creation for an enterprise operating in a dynamic market.

**Methods:** The methods of critical analysis and synthesis, generalization and logical methods as well as the desk research method were used in the research process. The method of critical analysis allowed to identify the gap in the identification of conditions and determinants of the choice of the company's innovation strategy. The generalization method allowed for the explanation of the procedure to be followed in the process of creating an innovation strategy in an unstable environment.

**Findings & value added:** In the process of creating the company's innovation strategy, the directions and scope of innovative activity are determined by: the nature of the impact on the market (offensive or defensive), the degree of involvement in the creation of an innovative product (own, joint or transferred innovations), financial possibilities and intellectual capital resources. The innovative activity of the enterprise must be focused on the directions ensuring the maximum multiplier effects. In an unstable environment, the innovation strategy must provide for the diversification of innovative activities in order to reduce risks and to find the market niches. The article presents a diagram of creating a company's innovation strategy and the concept of assessing the effectiveness of its implementation, based on the elasticity index of generated profits.

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### *Changes in the GCI 4.0 methodology: is the game worth the candle?*

*JEL Classification:* C43; C39; O10

*Keywords:* competitiveness; composite indicators; GCI; sensitivity analysis

#### ABSTRACT

**Research background:** The Global Competitiveness Index (GCI) has been accused of containing multiple methodological flaws. As a result, significant methodological changes were introduced in 2018. An important question remains whether those were only ‘cosmetic’ changes or rather meaningfully contributed to improving the quality of the index.

**Purpose of the article:** The paper investigates whether the methodological modifications in the GCI structure increase its ability to capture the real competitiveness of economies. We also consider whether the selection of weights of individual elements included in the GCI is optimal or could they be improved.

**Methods:** To answer this question, we apply consistency analysis based on sensitivity analysis in order to compare the assigned weights with the measured importance.

**Findings & value added:** Our research results indicate that the WEF weights do not reflect the measured importance of the variables — both in the old and new versions of the index. Besides, many variables turned out to be insignificant in explaining the GCI variance; therefore, they could be eliminated from the set of diagnostic variables without affecting the index's value. In the old version, 61 variables out of 114 could be eliminated. In the case of the GCI 4.0, this figure is 35 out of 103. The new rankings obtained by weight optimization and reduction of diagnostic variables reveal a strong positive correlation with the original ones. It means that it is possible to achieve a similar picture of the situation by reducing the costs and time of obtaining redundant data. Most of the redundant indicators are survey or opinion-based.

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### *Sensitivity of bank growth to business cycle and competition: cross-country analysis*

*JEL Classification: E32; G21; G28; G32*

*Keywords: bank growth; procyclicality; competition; market structure*

#### ABSTRACT

**Research background:** Procyclicality of banking activity is of huge interest for supervisory and regulatory decision-makers. This paper focuses on cyclicity of banking growth due to its importance for financial stability.

**Purpose of the article:** This paper attempts to find out what is the role of competitive environment in shaping the sensitivity of growth in banking to business cycle.

**Methods:** We look at asset growth, loans growth, deposit growth and leverage growth as proxies of banking growth. In this study we apply panel data analysis of a huge cross-country sample of commercial banks operating in both high and low-income economies. We use several estimation techniques, such as fixed effects and GMM 2-step estimators. The results are tested for robustness using inter alia change in estimation technique and change in the definition of the business cycle measure.

**Findings & value added:** The analysis of a panel covering banks in over 90 countries over the period of 2004–2015 shows that banking growth is procyclical. However, in perfectly competitive banking industry it turns out to be countercyclical. Banking sectors with decreased competition are associated with increased procyclicality of bank growth. This study is the first to test the role of competition for banking growth in a wide cross-country context.

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### *Protection for maternity: social, economic and political trends in selected EU countries*

*JEL Classification: J11; J13; J18*

*Keywords: maternity; paternity; family policy; maternity and paternity benefits*

#### ABSTRACT

**Research background:** In times of a demographic crisis, family policy aims to halt population decline. Paid maternity allowance is one of the instruments of family policy and crucial for sustainability of labour market. It is an element of health and economic protection of working women and their children during the perinatal period.

**Purpose of the article:** Authors attempt to identify differences within adopted models for calculating the maternity benefit influences changes in the expenditure on maternity' and paternity' benefit as well on the level of the on birth and total fertility in Bulgaria, Germany, Ireland, and Poland between 2009–2019.

**Methods:** The paper was written on the basis of available literature, current legislation, reports of social security institutions. During undertaken research comparative, descriptive and interdependence analysis methods were used. First, overview of the family policy trends and instruments of the social protection of the maternity in Europe were presented. Then, characteristic of the construction of the maternity allowance in selected countries was performed. Finally, a comparative analysis of family policy influence of on birth and total fertility was carried out.

**Findings & value added:** All the selected countries differ greatly in the approach to maternity allowance e.g. the duration of the maternity/paternity leave, amount and construction of the paid benefit. The research allows to assess the validity of the government's actions, the impact of benefit increases and the changes being made to the number of births of children in selected countries. This paper by extending the literature on overview of the trends in the policy and construction the maternity allowance in selected countries provide the guidelines for private and public, sector e.g. HR teams the government members and policies makers in other countries.

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***Missing productivity effects of AI-driven acceleration in OECD countries: revising the modern productivity paradox***

*JEL Classification:* O33; O47

*Keywords:* productivity paradox; artificial intelligence; patents; modern technologies; OECD

ABSTRACT

**Research background:** In the recent decades we have witnessed a significant slowdown in the pace of productivity growth worldwide. Such a trend is recorded in official statistics for the majority of economies, regardless of the level of their development (e.g. the US, the Euro Area, Japan, China, India, or Mexico). At the same time, we observe an impressive development of advanced digital production technologies based on artificial intelligence, machine learning, or cloud computing.

**Purpose of the article:** We aim to provide new empirical evidence on the puzzling mismatch between the expectations related to the adoption and diffusion of modern technologies (and AI in particular) on one hand, and its poor reflection in official productivity records.

**Methods:** We employ the recently released data on AI development and adoption from OECD-STI database. We embed the information from AI-related scientific publications, open source software and patents into an augmented model of productivity growth estimated for OECD countries.

**Findings & value added:** So far, the modern productivity paradox has been well described for the US while we lack detailed cross-country evidence on this phenomenon. Moreover, our results allow us to confront the AI-productivity paradox with alternative explanations of registered productivity growth slowdown based on the 'mismeasurement hypothesis'.



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### ***Analyzing return predictability of socially responsible mutual funds using machine learning approach***

*JEL Classification:* G17; G23; C53

*Keywords:* socially responsible funds; fund performance predictability; artificial neural networks

#### ABSTRACT

**Research background:** In the last decade combining financial objectives and social responsibility in mutual funds has become a hot topic. Academia follows this trend and studies determinants of SR fund returns. However, most studies concentrate on US equity SR funds that are analyzed using standard multi-factor regressions.

**Purpose of the article:** In this pioneer study we investigate the possibility of predicting returns of Socially Responsible mutual funds of different styles and domiciliation using artificial neural networks. We do so with the Morningstar data on over 1500 SR funds and their attributes in 2005–2019.

**Methods:** Our ANN model is a multi-layered feed forward model with back-propagation that is benchmarked with ARIMA models. We propose a simple strategy of a loss-averse investor. We train the net for 5 years and predict a SR fund return in the following year. When predicted return is positive, an investor buys SR fund shares, and when it is negative he redeems them. Then we move the observation window for a year, train the network again for 5 years and forecast the return for the following year. It gives us 10 annual forecasts for 1500 funds of different styles and domiciliation.

**Findings & value added:** This is a pioneer study on the return prediction of SR mutual funds using machine learning. Results show that the use of proposed system allows achieving higher returns than passive investing or investing with the use of traditional regression models. This way we confirm the recent findings on the effectiveness of machine learning in mutual fund predictions and add a brick to finding the determinants of these predictions in the SR mutual fund sector.

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### *Model of the impact of intangible resources on the financial potential of high technology enterprises*

*JEL Classification:* C31; E22; G32; O34

*Keywords:* soft model; intangible resources; financial potential; high technology enterprises

#### ABSTRACT

**Research background:** As a result of economic changes over the last few decades, the structure of enterprise resources has changed significantly. Therefore, their development potential was concentrated on intangible resources. A reflection of these changes is the emergence of the Resource-Based View of the Firm (RBV) which has its roots in the works of scientists such as: J.A. Schumpeter, A. Marshall, or E.H. Chamberlin. The importance of the resource theory is mainly based on the technological potential, people's knowledge or the improvement of management techniques.

**Purpose of the article:** The aim of this article is to analyze the strength and direction of the impact of intangible resources on the financial potential of high-tech enterprises. In the article, as a case study, the impact of intangible resources on the financial potential of CD Projekt S.A. will be presented. from the high-technology industry (Section C, subclass 26.20.) in 2011–2019. The choice of the company as the research object was primarily determined by the type of business activity, the high position of the enterprise among the fastest growing companies and a significant share of intangible resources.

**Methods:** To achieve the aim of the article, the soft modeling method was used which allows to study the relationship between directly unobservable variables. The soft model consists of internal (theoretical) and external (measures) model. In the constructed soft model, two unobservable (hidden) variables constituting the internal model were adopted: intangible resources (IR) and financial potential (FP). Hidden variables were defined based on the potential set of indicators (observable variables).

**Findings & value added:** Specification of the model of the soft impact of intangible resources on the financial result of high-tech enterprises based on the concept of the resource theory. Identification of the most important variables shaping the intangible resources of high technology enterprises, their impact on the financial potential of enterprises, together with the analysis of the dynamics of changes. Defining proposals for recommendations for high-tech companies based on the results of empirical research.

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### *Is it possible to predict merger outcomes? Case of the Czech Republic*

*JEL Classification:* G34; L25

*Keywords:* merger and acquisition; predictors; synergistic effects; Kendall-Tau correlation; Czech Republic

#### ABSTRACT

**Research background:** Available and relatively cheap financial resources motivate company managers and private investors to look for atypical ways of their appreciation. One of such options is mergers and acquisitions (M&As). Executing an M&A, however, is associated with a risk that the merger will fail and the return from the invested capital will thus be negative.

**Purpose of the article:** The main objective of this article is to identify financial ratios that can be used to predict the merger outcome. Such financial ratios could then be used to predict the value of the synergy effect (expected return) achieved through the merger.

**Methods:** The research sample consists of 50 mergers implemented between private companies in the Czech Republic. They were divided into two groups based on the development of their sales and profits into successful (in which sales and profits grew) and unsuccessful (with no growth in sales or profits). Financial ratios were calculated for each of the merging companies and for each merger. The increase/decrease in value of the companies achieved by the combination were then calculated. The financial ratios that correlated with an increase/decrease in value following the combination of the companies were subsequently identified using the Kendall–Tau correlation coefficient.

**Findings & value added:** Our research identified ratios that positively correlate with synergy values. They are the ratios based on cash flow (namely CF to Assets, CF to Sales and CF to Interest), Return on Assets and Added Value to Labour Cost. When planning a merger, these ratios can be used to estimate the merger effects and/or the amount of appreciation of the capital invested.

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***Liberalizing and harmful interventions in international trade: direction, scale and dynamics: case of Poland***

*JEL Classification:* F13; F15; F50

*Keywords:* protectionism; international trade; Poland; interventions

ABSTRACT

**Research background:** By implementation of export controls on COVID-19 vaccines, EU grounded new concerns on protectionism in international trade, that is on a rise since the Global Financial Crisis. What is noteworthy, EU is not homogenous in introducing liberalizing and harmful interventions in international trade. EU countries are diversified as regards to degree of protectionism level. Although common commercial policy as well as customs union and establishing of competition rules necessary for the functioning of the single market are areas of exclusive competences of the EU, one can observe both protectionism by EU bodies and member states.

**Purpose of the article:** The aim of the paper is to analyze both liberalizing and harmful interventions in international trade implemented by Poland, in terms of structure, direction and dynamics. The goal to achieve is to answer crucial question: to what extent, EU protectionism is shaped by EU bodies only — and to what extent by Poland by itself.

**Methods:** To achieve the purpose of the paper, statistical analysis was required (based on the Global Trade Alert & World Integrated Trade Solutions databases) as well as in-depth analysis of sources: Polish state interventions since 2009.

**Findings & value added:** An analysis reveals both country-specific direction of interventions as well as country-specific sectors affected by liberalizing and harmful interventions. Although part of all interventions are those of EU bodies, Poland use for instance state aid to stimulate national businesses as not all kinds of state aid are forbidden by EU law (types listed on not so short list in Article 107 of TFEU). Thus, as member states differ in their economic interests, one can observe differentiation in state interventions in scope of international trade.

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### *Catering to investor sentiment for dividends: contestability or collusion of the largest shareholders?*

*JEL Classification:* G30; G32; G35; G41

*Keywords:* dividend payout; the catering effect of dividends; contestability & collusion of the largest shareholders; investor sentiment for dividends

#### ABSTRACT

**Research background:** Dividend payouts have been the subject of scientific research for many years. Although many studies focus on the impact of ownership on dividend payouts, there is still a lack of research on the influence of the contestability and collusion of the largest shareholders on the catering effect of dividends. This research gap motivated us to investigate this issue and determine whether the interactions between large shareholders have an impact on aligning dividends with investor sentiment.

**Purpose of the article:** The article assesses the impact of the relationship between the largest shareholders (i.e., contestability or collusion) on the adjustment of dividend payouts to investor sentiment. The following research hypothesis has been formulated: If there is contestability between the first and second-largest shareholders, the strength of the catering effect of the dividend is greater than in the case of collusion, both in the years of positive and negative dividend premiums.

**Methods:** The main research method is a panel regression model (pooled OLS and fixed effects). We use the F test, the Breusch–Pagan test, and the Hausman test. Our research is supplemented with descriptive statistics and the Pearson correlation coefficient. The research sample consists of Polish companies from the electromechanical industry sector listed on the main market of the Warsaw Stock Exchange (WSE) in the years 2009–2020.

**Findings & value added:** We propose pioneering research concerning the catering effect in the context of interactions between the largest shareholders. The main research results are as follows: a) if a dividend premium is positive, strong collusion between the largest shareholders makes the catering effect weaker than in case of contestability; b) in the years of a negative premium, both the catering effect and the impact of interactions between major shareholders on dividend payouts are not observed.

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### *Structural funds, economic growth and convergence across regions in Spain*

*JEL Classification: C23; R11; R58*

*Keywords: Economic growth; convergence; structural funds; Spain*

#### ABSTRACT

**Research background:** Spain acceded to European Economic Community in 1986. As a country with large regional disparities could count on serious financial support from Cohesion Policy. Considering the period of all financial perspectives in 1989–2020 Spain has received the structural aid in the total amount of EUR 180 billion. Structural support provided by Cohesion Policy let to transform Spanish economy to make it more innovative and competitive. The effects of the regional policy have been observed in the length in express ways and motor ways, protection of environment, higher level of human capital or in the increase in investment expenditure. In this context, it is legitimate in cognitive terms to assess the role of this aid in the regional growth and convergence.

**Purpose of the article:** The aim of the study is to assess the impact of Cohesion Policy on growth and convergence in Spain.

**Methods:** The article resorts to panel data analysis. I applied different estimation procedures, including the ordinary least square estimator, the fixed effects estimator and the GMM estimator.

**Findings & value added:** The study contributes to the economic literature by filling the gap in the research on the effectiveness of Cohesion Policy in Spain. Previous studies mostly focused on the particular financial perspective. While this paper provides analyzes of the impact of Cohesion Policy on convergence at regional level during all financial perspectives in 1989–2016. The econometric analysis confirmed the positive relationship between structural funds and economic growth in Spanish regions. However, the impact of Cohesion Policy on convergence turned out to be insignificant.

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### *Determinants of the human capital redistribution: what pushes out and what pulls to the regions of Masovia Voivodeship?*

*JEL Classification: E24; R23; O15*

*Keywords: human capital; migration; push and pull factors; Masovia Voivodeship; regions*

#### ABSTRACT

**Research background:** The issue of determinants of redistribution, concentration and dispersion of human capital has been a research topic undertaken by representatives of broadly understood social sciences. It is worth mentioning that one of the basic factors determining the concentration of the discussed resources, as well as their dispersion, are the processes of population migration, which are a derivative of, inter alia, the differentiation of the attractiveness of particular areas. This paper deals with the issue of the level of human capital as one of the key determinants of the socio-economic development of Mazovia. Paper presents and discusses the results of the author's empirical research aimed at the diagnosis of the main factors pushing human resources out of the Mazovia Voivodeship and the factors that attract people to it.

**Purpose of the article:** The main aim of this paper is to diagnose the factors pushing out of and attracting human resources to the regions of the Mazowieckie voivodship.

**Methods:** The survey on a representative sample of n=1,233 employers whose business activity is registered in the Warsaw capital region and Mazowieckie region (NUTS 2) was carried out using two research techniques: Computer Assisted Telephone Interview and Computer Assisted Web Interview. Statistical inference was carried out using non-parametric tests. The relationships between the variables were tested with the chi-square test. The Mann-Whitney U test was used to study the relationship between two independent groups.

**Findings & value added:** This paper indicates the key factors pushing human resources out of individual regions and the factors that, according to employers, encourage people to settle in the Warsaw capital region and Mazowieckie region. Particular attention was paid to factors related to the availability of educational institutions, health care facilities, cultural institutions, the level of wages, costs of living, investment attractiveness and the so-called environmental values.

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*The COVID-19 crisis and its implications for local government finance: Polish experience*

*JEL Classification: H11; H71; H72; G18*

*Keywords: the COVID-19 crisis; local government; centralization; fiscal imbalance; local public debt*

ABSTRACT

**Research background:** The COVID-19 crisis differs significantly from previous crises, both in terms of causes, scale, and effects. This, in turn, contributes to specificity of its impact on the local government finance system, considered in terms of income, expenditure and budgetary outcomes of local government units.

**Purpose of the article:** The aim of the paper is to define the specificity and the manner the current pandemic crisis affects the finances of local government units as well as propose particular recommendations regarding the necessary reforms and changes of the local finance system weakened by the crisis.

**Methods:** To assess the specificity and effects of the analyzed crisis, aggregate data of the Ministry of Finance on the implementation of local government budgets were used. Comparisons were made for the three quarters of 2019 and 2020, taking into account changes in: 1) particular categories of budget revenues and expenditure; 2) budgetary outcomes (general and operational); 3) debt of local government units.

**Findings & value added:** The pandemic crisis has become a pretext for the intensification of fiscal centralization processes in Poland. The structure of local government budget revenues deteriorated (the mechanism of masking the decrease in own revenues with the increase in transfer revenues). There has also been an increase in the current budgetary expenditure of local government, and — what is important — a significant part of it is arbitrarily induced by central legal regulations. Another disturbing symptom related to the pandemic crisis is the attempt to centralize the investment activity of local government units (see the Government Fund for Local Investments and the discretionary and not transparent system of granting investment subsidies from it). As a result of the measures described, the fiscal autonomy of local government in Poland was weakened. It should be added that the negative effects associated with it accumulate mainly in the largest local government units, i.e., in cities with poviát status.



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### *Perception of local food in direct sale from buyer's perspective: a case of Poland*

*JEL Classification: A14; D10; M3*

*Keywords: consumer; sustainability of food systems; sustainable consumption*

#### ABSTRACT

**Research background:** In industrialized countries, both government bodies, local authorities, and consumers express a growing interest in local food. The legitimacy of the expansion and promotion of the local food concept stems from the support of regional development while maintaining the principles of sustainable development in the social, economic, and environmental dimensions. In order for the local food sector to develop, it is essential to learn about the opinions of consumers and to recognize their expectations towards the production and distribution of this food.

**Purpose of the article:** Therefore, this research aimed to identify buyers' perception of local food and to reveal the attributes (values) affecting this perception. The scope of this research is complementary to the cognitive gap, and has a practical dimension.

**Methods:** A mixed-method approach was adopted in the study to explore the research problem. Qualitative research (n=5 mini-FGI) and quantitative research (n=770 interviews) were conducted. The results obtained were statistically analyzed using the Statistica 13.3 software, using: arithmetic mean, standard deviation, median, the principal component analysis, one-way ANOVA, and correlation analysis.

**Findings & value added:** The study revealed that local food is perceived by an integrated set of features, among which product attributes, socio-economic and environmental benefits resulting from its production and distribution are equally important. The perceived attributes related to the quality of local food products reflect consumer confidence in its producers and should be considered as indicators of expectations towards these products. The survey has shown that local products are ranked higher than mass food because they are perceived as of better quality, healthier, and safer. The distinctive attributes of local food products make them superior over conventional foods, constitute their added value, and should be used in constructing a marketing message. The study results are a valuable source of information for producers and entities acting for the development of local food systems. They also provide a number of key insights that can be used in designing marketing communication.

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*Regional eco-efficiency of the agricultural sector in V4 regions, its dynamics in time and decomposition on the technological and pure technical eco-efficiency change*

*JEL Classification: C14; D24; O13; Q01; R11*

*Keywords: agricultural eco-efficiency; Visegrad regions; Malmquist index; technological change; pure technical eco-efficiency*

ABSTRACT

**Research background:** Agriculture plays a vital role in producing food to ensure food security but it is one of the biggest contributors to environmental pollution. One of the main goals of the new CAP is to set higher ambitions for environmental actions, which brings into the front the concept of agricultural eco-efficiency. The notion of eco-efficiency encompasses the economic and also ecological dimensions of sustainable agriculture.

**Purpose of the article:** The main goal of this paper is to evaluate the eco-efficiency of agricultural production and its dynamics during the years 2013, 2015, and 2017 of NUTS 2 regions within the Visegrad 4 (V4), i. e. The Czech Republic, Slovakia, Hungary, and Poland. The part of the main goal is to verify the research hypothesis that all the biggest agriculture producers are eco-efficient.

**Methods:** V4 regional eco-efficiency of the agricultural sector in V4 is expressed by the Malmquist productivity index and is estimated using the output-oriented Data envelopment analysis (DEA) model, under the assumption of constant return to scale (CRS) — CCR model (Charnes, Cooper, and Rhodes, 1978). Malmquist index is decomposed to technical eco-efficiency change (EC) and technological change (TC). Based on the eco-efficiency, technological and pure technical eco-efficiency change, V4 regions are classified into three groups: the most progressive regions, the progressive regions, and the regressive regions.

**Findings & value added:** CZ02: Central Bohemia, CZ04: Northwest, HU33: Dél- Alföld, HU31: Észak-Magyarország, HU32: Észak-Alföld, PL21: Malopolskie, PL41: Wielkopolskie, SK01: Bratislava region, and SK02: Western Slovakia have an eco-effective agricultural sector, the remaining V4 regions have eco-ineffective agricultural sector. The research hypothesis, that all the biggest agricultural producers are eco-effective is not confirmed. During the analyzed years, 19 V4 regions improve their agricultural eco-efficiency. The main contributor to eco-efficiency improvement is technological progress, which indicates that producers implement innovations that lead to more eco-efficiency agricultural production.

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### *Management of medical workers in the crisis related to the COVID-19 pandemic*

*JEL Classification: M12; J81; J28*

*Keywords: management of medical worker; crisis situation; COVID-19 pandemic*

#### ABSTRACT

**Research background:** The COVID-19 pandemic caused a crisis and thus influenced many changes in terms of the management of organizations and the functioning of people which they employ. The employers were forced to revise their activities in a short time, including those regarding the organization of work and ensuring a sense of security for the employees at the workplace. In the face of the COVID-19 crisis, the management of medical workers requires special attention. The activities had to take into account not only the implementation of adequate procedures related to the appropriate performance of professional duties and the proper flow of information, but also the support for the employees. And most importantly, this skillful help for medical workers as well as initiatives to shape good employee relations may turn out to be key factors which will translate into trust in the employer and identification with the organization.

**Purpose of the article:** The aim of this study is to analyze the opinions of Polish medical workers regarding the activities of their employers in the context of the COVID-19 pandemic in relation to selected aspects of personnel management.

**Methods:** The study was carried out in December 2020 on a representative sample of Polish medical workers. It focused on learning their opinions on functioning in the workplace in the conditions of the COVID-19 pandemic. The research was conducted using the CATI method, with the use of the Likert scale in the questionnaire.

**Findings & value added:** The results of the study will enable to present the situation regarding the management of Polish medical workers in the crisis related to the COVID-19 pandemic. Due to the time of conducting the research, the results are of unique value and allow to show the situation and problems of the medical environment resulting from the COVID-19 pandemic.

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### *Executive compensation and the financial performance of Polish listed companies from the corporate governance perspective*

*JEL Classification:* G32; G38; M41; M52

*Keywords:* executive compensation; corporate governance; financial performance; comprehensive income; Polish market

#### ABSTRACT

**Research background:** The level of compensation earned by CEOs and the relationship between executive pay and companies' performance is one of the most widely studied issues in the corporate governance literature. Studies conducted in the last several decades have provided evidence that CEO pay should be aligned to accounting financial measures.

**Purpose of the article:** The main purpose of this paper is to determine the relationship between executive compensation and organizational financial performance. In particular, the effect of net income and comprehensive income as the accounting measures of financial performance on executive compensation is compared.

**Methods:** The research comprised listed companies on the Warsaw Stock Exchange (WSE). The role and effect of accounting financial measures on executive compensation are analyzed based on three regression models. The period of analysis spanned ten years, from 2009 to 2018.

**Findings & value added:** There are three conclusions that can be drawn from the study. Firstly, executive compensation in the analyzed companies largely depends on the accounting measures of financial performance, based on net income and comprehensive income (excluding return on equity). Secondly, its level is significantly and positively influenced by the company's size, book to equity ratio, market capitalization, debt ratio, and dividend rate. Thirdly, comprehensive income has a stronger effect on executive compensation than net income.

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### *Quality costs in historical hospitality services: case study of the Sycamore Manor Hotel*

*JEL Classification:* L15; L83; M41

*Keywords:* categorization; historic building; hotel; prices; quality costs

#### ABSTRACT

**Research background:** The hotel industry is one of the most important elements of modern tourism. Among the many types of hotels, historical hospitality deserves special attention. Historical hotels are among the most sophisticated types of hotels. The emergence and operation of historic hotels is associated with expensive renovation and revitalization procedures, appropriate arrangement combining tradition with modern technological achievements, as well as ensuring the expected level of quality in accordance with the given categorization. The motivation for research is the uniqueness and specificity of historical hotels on the tourist market, including in particular the aspects of ensuring an appropriate level of quality.

**Purpose of the article:** The aim of the publication is to diagnose the level of knowledge about quality costs and their calculation in historical hospitality services. For the correct implementation of the research objectives, the example of one of the oldest historical hotels in Poland was used – the Sycamore Manor Hotel.

**Methods:** The main research method is the case study. In the conducted research, the procedure of triangulation of research techniques was used: analysis of the content of documentation, observation and interview. The interview was divided into three thematic blocks (general questions, quality costs, quality costs calculation). The research object is the Sycamore Manor Hotel. The article was created with the use of compact materials, netographic information and statistical data. Literature studies come from the areas of accounting, hotel services and quality management.

**Findings & value added:** Quality costs and their calculation are not used in historical hospitality services. The low level of employees' knowledge of quality costs, which requires supplements and appropriate training, may result from the optional use of the management accounting tool, i.e. quality costs calculation. The employees of the Sycamore Manor Hotel are aware of the processes and their importance in the context of the quality of the services provided, but the lack of involvement of the organization in the quality costs deprives it of the possibility of gaining a competitive advantage on the demanding market of hotel services.

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### *Foresight in normative economics: an example of a public university*

*JEL Classification: A13; A19; D21*

*Keywords: foresight; normative economics; public university; planning*

#### ABSTRACT

**Research background:** The research area covered the issue of foresight from the perspective of normative economics exemplified by a public university. Foresight is a method that supports making decisions and facilitates mobilization to joint actions, which is reflected in normative economics. An economic entity, for example, a public university, can carry out tasks more efficiently and effectively using foresight instruments.

**Purpose of the article:** The aim of the study is to (1) identify the possibilities of using the foresight method in the activities of a public university, (2) indicate areas of public university activity that should be improved with the use of foresight instruments from the point of view of economic effectiveness and efficiency, (3) identify barriers limiting application of the foresight method.

**Methods:** participant observation, critical analysis of the literature on the subject, Delphi method, CAWI survey technique.

**Findings & value added:** Foresight can be analysed within the framework of normative economics. When using the participant observation method and other research methods, it can be concluded that foresight is gaining more and more importance in achieving the goals and tasks of a public university. There are areas that should be covered by foresight in the first place, as they are important for the effective and efficient achievement of results by public universities. This method is subject to certain barriers that limit the possibilities of its application at a public university.

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### *Expression of the impact of social business on the economy in Lithuania*

*JEL Classification:* O35

*Keywords:* social business; impact; benefit

#### ABSTRACT

**Research background:** Social business solves problems that cannot be solved by traditional businesses, government agencies, and traditional non-governmental organizations. The secrecy and uniqueness of social business in solving the most sensitive problems of society, being able to survive independently and ensure the continuity of activities gives this form of activity an advantage and determines its growing popularity. Such businesses are based on the laws of the market, use effective ways based on proven business principles to meet social needs and solve existing societal problems.

**Purpose of the article:** The aim of the article is to substantiate the impact of social business on the country's economy, which allows to calculate the benefits of social business according to the established criteria.

**Methods:** The benefits for social business were assessed using social performance and impact assessment studies, which assessed changes in key areas such as: change in income, change in housing, change in criminal activity, change in health, and change in income. The benefit-cost ratio and return of social business was determined by conducting the following studies: evaluation of the results of work in a social enterprise using two questionnaires, evaluation of the impact of work in a social enterprise using two research groups and two questionnaires.

**Findings & value added:** The significant positive increase in gross income and labour income over the last month, as well as the number of avoided arrests and changes in stable housing and reduced number of persons counseled on alcohol and drug addiction, led to a positive current net benefit per person employed in the social enterprise for all groups. It amounts to EUR 1.63 per year, with a return of EUR 0.63 per euro spent on social enterprise support.

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### *Own investment capacity of Polish municipalities whose cities belong to the Cittaslow network*

*JEL Classification: H72; R51; O12*

*Keywords: Cittaslow; investment capacity; operating surplus; budget; municipalities*

#### ABSTRACT

**Research background:** The implementation of the Slow City philosophy in small cities in Poland is an attempt to search for new development paths. Both city and rural residents require access to the same public infrastructure, which is a key factor in local development, and it is financed from the local budget. There is a concern that the investment potential of municipalities whose cities are part of the Cittaslow network is insufficient and that the lack of own funds will become a development barrier.

**Purpose of the article:** The aim of this study was to identify the relative level of investment potential of municipalities whose cities belong to the Cittaslow urban network compared to other urban and rural municipalities in Poland in the period 2015–2020.

**Methods:** The studies used indicator analysis and comparative analysis. Based on data of the Ministry of Finance concerning municipal budgets a set of five financial indicators was established and the Perkal method were used in building the synthetic measure of the investment capacity.

**Findings & value added:** The budget revenues of the municipalities whose cities belong to the Cittaslow network were higher than average for urban and rural municipalities, as well as their debt levels, but they were less able to repay debt. The average level of self-financing of investments was high in only a few of them. Current investment capacity was similar to that of other urban and rural municipalities, i.e., rather low and in a downward trend. The studied group had high volatility of investment potential, but it was lower than in the group of urban-rural municipalities. In conclusion, there were not significantly different in investment capacity from the reference group.



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### *Organisational Solutions Towards Wellbeing Concept Implementation: Survey Results*

*JEL Classification: I31; J81; J28; M51*

*Keywords: wellbeing; health promotion; human resources policy; institutional implementation*

#### ABSTRACT

**Research background:** Practical activities focused on caring for a sense of fulfillment and quality of work are the elements of the general corporate policy of human resources management. They gain in importance in situations when the possibility of acquiring and retaining qualified employees decreases, and the aging process of the staff begins to be more noticeable. The concept of 'wellbeing' appeared in its initial version as part of positive psychology, and then in the positive theory of organization, supplementing the science of organization and management with the analysis of phenomena ignored in the approach of traditional psychology and the economic efficiency paradigm of enterprise. The new perspective is focused on the analysis of numerical indicators and results, disregarding the most important factors for human beings – happiness, satisfaction, sense of fulfillment – thanks to this, the scope of organizational measures and indicators was expanded, taking into account such concepts as flourishing and wellbeing.

**Purpose of the article:** The purpose of this article is to analyze the impact of activities undertaken by enterprises in the field of employees' wellbeing as well the significance of signing the Diversity Charter on the range and type of undertaken practices.

**Methods:** The survey was conducted on a group of 200 enterprises in Poland, including 50 entities – signatories of the Diversity Charter and 150 other enterprises cooperating with the Responsible Business. Research goals of survey were defined as exploring: (1) the institutional foundation of 'well-being' activities, (2) the activities undertaken as part of the 'well-being' concept, (3) the impact of a formal declaration related to responsible employment and the effectiveness of the organization's activities within the 'well-being' concept.

**Findings & value added:** The results of survey suggest that investments in employees' wellbeing results the increase of employee's effectiveness, engagement and retention, and are worth of considering. The added value of survey is the knowledge of the kind activities addressed employees wellbeing and their institutional arrangement within the companies.

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### *Persistence of pre-IPO earnings in CEE stock markets*

*JEL Classification:* G34; G32; G23

*Keywords:* Earnings quality; Financial reporting; Earnings management; Initial Public Offering; Leverage

#### ABSTRACT

**Research background:** The company's earnings is one of the main determinants of investment decisions on the capital market. Thus, the reliability of disclosed financial information is crucial for an efficient allocation of capital. Unfortunately, the knowledge that the reported earnings is an economic category susceptible to manipulation is quite common and literature provides ample evidence of such practices worldwide. This problem grows especially in the case of an initial public offering, as there is a problem of a significant asymmetry of information between stock market investors and the original owners of the company.

**Purpose of the article:** The main aim of the paper is to assess the persistence of earnings reported by companies in the IPO process and to empirically identify financial characteristics associated with persistent earnings. The usefulness of historical financial information is directly related to the issue of earnings quality. Therefore, this paper contributes to the stream of study on the quality of financial reporting of new stock companies.

**Methods:** I employ a simple single-factor regression model to recognize the earnings persistence in new listed companies. Pre-IPO earnings are an explanatory variable. Then, I use multiple regression analysis to identify factors influencing this metric of reported earnings quality.

**Findings & value added:** Using a sample of companies from stock exchange markets in Central and Eastern Europe (i.e. Warsaw Stock Exchange, Bulgarian Stock Exchange, Bucharest Stock Exchange, Belgrade Stock Exchange, Prague Stock Exchange) that went public between 2010 and 2019 I find that, generally, pre-IPO earnings lacks persistence. The capital structure seems to be a factor that significantly influences this qualitative feature of the reported financial results.

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### *Do family businesses perform better than non-family businesses? Case of the Czech companies*

*JEL Classification:* L25; L26; M21

*Keywords:* family businesses; performance; Kolmogorov-Smirnov test; Czech Republic

#### ABSTRACT

**Research background:** Recent research conducted in the field of entrepreneurship focuses on better understanding of specific features of family businesses, which, according to estimates, make 55–90% of all business entities in EU member states. Foreign studies emphasize stronger resilience of family businesses in the face of adverse changes in their business environment, their ability for long term survival, as well as a higher level of socially responsible behaviour.

**Purpose of the article:** The main objective of this article is to find whether there are statistically significant differences in performance between family and non-family businesses. The results will be used to determine whether the performance of family businesses differs from that of non-family businesses, and to identify the specific features of family business. The information will also be used to enhance our knowledge of family entrepreneurship, and to determine whether the conclusions of foreign studies are also valid for family businesses in the Czech Republic.

**Methods:** To identify differences in the performance of family and non-family businesses, we compared the results of two sets of data with financial results. Due to the fact that there is currently no register of family businesses, we first had to identify which are family businesses and complement them with non-family businesses. We used the accounting data of almost 8,000 businesses from the years 2014–2018 for the analysis. We defined 44 financial ratios and tested them using the nonparametric two-sample Kolmogorov–Smirnov test.

**Findings & value added:** The analyzed sample consists predominantly of small businesses. We identified a total of 24 ratios whose median values differ statistically at the significance level of 5% — e.g. current assets to sales, retained earnings to total assets and labour cost to sales. We can deduce from the results that there are differences in performance between family and non-family businesses.

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### *Placement prospects of the business in terms of pandemic threats*

*JEL Classification:* R19; R39; R58

*Keywords:* business placement; pandemic; placement factors; safety; 3D printing

#### ABSTRACT

**Research background:** The COVID-19 pandemic demonstrated that global production chains significantly reduce the security of states and companies: in the face of problems with the movement of goods and people, there have been disruptions in the supply of goods. States and companies should influence the location of safety-critical businesses by limiting their acceptable space. This means the need to form a list of businesses that are important to the security of the state or company and are sensitive to pandemic threats, as well as the need to establish acceptable placement for such businesses.

**Purpose of the article:** To assess the prospects of business placement in terms of pandemic threats, it is necessary to improve theoretical approaches to the study of factors of business placement. On this basis, it is possible to conduct a qualitative study of pandemic threats as factors in the placement of businesses and to develop recommendations for states and companies to limit the space for the acceptable placement of relevant businesses.

**Methods:** Morphological analysis is used as the main research method.

**Findings & value added:** It is advisable to divide the business placement factors into internal factors, which are generated by the “business” side and external generated by the “place” side, as well as for the past, present and future. Internal and external factors of business placement form complementary pairs of factors, which are characterized by the strength of the impact, as well as the possibility of artificial creation, cost and duration. Business placement factors need to be investigated over time, for which it is advisable to use the term PPF-research (past-present-future-research). Pandemic threats were in the past, are now and, with a high probability, will be factors in the placement of many types of business in the future. Business placement under the influence of pandemic threat factors in targeting sales markets sharply increases the attractiveness of production using 3D printing technologies, the widespread and continuous improvement of which should become one of the priorities of the innovation policy of states and companies in Europe.

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### ***Effects of Economic Globalization: A Study on Employment and Unemployment in Post Socialist EU Member States***

*JEL Classification:* E24; F60; F66

*Keywords:* economic globalization; employment; unemployment; effects; challenges

#### ABSTRACT

**Research background:** Globalization is the process that has most influenced the living standard in the world in recent decades, and therefore continues to be subject of research and analysis. It is indisputably accepted that the effects of globalization are generally difficult to be determined in the uttermost conditions of positivism or negativism, because they have different dimensions for the different actors. For example, since the collapse of the Council for Mutual Economic Assistance, most of the countries that have participated in it turned to the European Union (EU) and opened their economies. This, in turn, had serious effects and became a central problem. Given its importance, the present study focuses on Bulgaria, the Czech Republic, Hungary, Poland, Romania and Slovakia as post socialist EU member states to investigate some of the specific manifestations.

**Purpose of the article:** The focus is on the effects of economic globalization on unemployment and employment and on the structure of employment and unemployment in the former socialist countries. It targets 6 of them, that are currently members of the EU, and which definitely suffer similar influences, but also differ in their economic development.

**Methods:** The research is realized on the basis of econometric methods, with focus on the adjustment of cross section data by the least squares method, which is traditionally used in the analysis of linear connections. Contributing, in this case, to a clear economic interpretation of the parameters of unemployment and employment for the selected countries in the period 2007–2019.

**Findings & value added:** In conclusion, summaries are given about the positives and negatives in the development of the selected countries within the economic globalization. Illations are made in the specifics of the unemployment and employment, so the results can be useful for planning the balance between globalization and sustainability.

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*The role of universities in urban development on the example of Polish cities*

*JEL Classification: O12; O18; O32; R11; R58*

*Keywords: university; school of higher education; urban development; university town*

ABSTRACT

**Research background:** Schools of higher education, including universities, can become important landmarks of cities and contribute to sustainable urban development.

**Purpose of the article:** This study attempts to determine the ways in which universities benefit cities, evaluate the scope of cooperation between territorial governments and universities, identify the main obstacles to cooperation and the preferred objectives of collaborative projects.

**Methods:** A survey conducted in Polish university towns revealed that the opportunities stemming from collaboration with universities are not fully harnessed by territorial governments.

**Findings & value added:** A survey conducted in Polish university towns revealed that the opportunities stemming from collaboration with universities are not fully harnessed by territorial governments. Cities should undertake active measures to work in concert with universities, promote cooperation between research units and businesses, participate in research projects and co-organize internships for students. Efforts should also be made to overcome the barriers to partnership between local authorities and universities, mainly the lack of cohesive state policies targeting urban development and limited funding.

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### *Fiscal and Monetary Interactions in the European Countries: Panel Data Analysis*

*JEL Classification:* E02; E58; E62

*Keywords:* European Economies; interest rates; inflation rates; public deficits; public debt

#### ABSTRACT

**Research background:** The importance of the decisions of central banks and governments that conduct their policies has been increasing recently, especially in the European Union countries. The relationships between short-term interest rates, inflation rates, public deficits and public debts have not been exhausted in the literature about recent European cases. It is worth observing how the relationships between the key variables in the field of monetary and fiscal policy behave in various groups of countries, e.g. in countries with low / high inflation, in countries with low / high General Government deficits or in countries with low / high debt.

**Purpose of the article:** The aim of the article is an empirical analysis of the relationship between the variables in the area of monetary policy and fiscal policy in European countries in the years 2000–2019.

**Methods:** We deepened these relationships between variables in the field of monetary and fiscal policy and considering dynamic panel data methods (two-step system GMM) we found challenging European Economies; interest rates; inflation rates; public deficits; public debt outcomes.

**Findings & value added:** First, interest rates and inflation rates have been related following Taylor-rules across European economies. Second, we also found a positive relationship between inflation rates and public deficits, but reverting the postulated Sargent and Wallace (1981) hypothesis of seigniorage. Third, deficit and interest rates have positive relations across European observations but only in the cases of low inflation rates or with highly indebted economies. Additional robustness checks have been run and they confirm these challenging insights.

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*Evaluation of the impacts of the COVID-19 pandemic on the development of the unemployment rate in Slovakia: counterfactual before-after comparison*

*JEL Classification: C5; E24; J08; J64*

*Keywords: unemployment; labour market; COVID-19; counterfactual evaluation*

ABSTRACT

**Research background:** The COVID-19 pandemic, which hit the world in the first quarter of 2020, has had an impact on almost every area of people's lives. Many states have introduced varying degrees of measures to prevent its spread. Most of these measures were, or still are, aimed at reducing or completely stopping the operation of shops and services, or in some cases, also the large manufacturing companies. As many companies have failed to cope with these restrictions, unemployment has risen in almost all EU countries. This was also the case in Slovakia, where the mentioned measures also had a major impact on unemployment.

**Purpose of the article:** In this study, we deal with the quantification of the impact of a pandemic, or more precisely, anti-pandemic measures, on the development of the registered unemployment rate in Slovakia.

**Methods:** This quantification is based on the counterfactual method of before-after comparison, which is one of the most widely used methods in the field of impact assessments and brings very accurate results, which are based on real data. In the analysis, we use officially published data on the unemployment rate in Slovakia during the years 2013–2020 on a monthly basis. Such a long time series, using statistical methods of its decomposition and modelling of its trend, will allow predicting the development of the unemployment rate in Slovakia, assuming a counterfactual situation of no pandemic, and compare this development with the real situation that occurred during 2020.

**Findings & value added:** The results of the study indicate an increase in the unemployment rate in Slovakia during 2020 by 2–3% compared to the trend of its development, which would have occurred without a pandemic. Given the counterfactual method used, this difference can be described as the impact of the COVID-19 pandemic.



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### *Do Words Transform into Actions? Central Bank Communication and Decisions Consistency*

*JEL Classification:* E52; E58; D78; D83; C63

*Keywords:* monetary policy; communication tone; dictionary methods; computational linguistics

#### ABSTRACT

**Research background:** This paper investigates central bank (CB) communication, namely CB's intention reflected in their minutes and their relationship with actual policy decisions. CB transparency and communication have been immanent parts of inflation targeting (IT) strategy. However, CBs do not always speak in a clear manner. Their communication does not necessarily transform into actions.

**Purpose of the article:** The goal of our study is to extract policy intentions from central banks minutes and juxtapose it with actual policy decisions. The focus of this paper is about communication consistency: Are CB words followed by its actions? Consequently, we investigate words and deeds consistency in a comparative context.

**Methods:** We apply computational linguistics which creates measures of communication from large dataset of texts. A transformation of words into numerically expressed data that could undergo further processing is the main empirical challenge of this study. We do it by applying general economic dictionary and two monetary policy-adjusted dictionaries. Such an automatic approach avoids subjectivity involved into narrative analysis. The last step of our procedure covers the examination of directional movements and correlations between message tone and actual CB's decisions for different horizons. The research covers 16 European countries, divided into three subgroups regarding CB experience in inflation targeting. The sample starting points differs as it relates to the IT implementation year at each country. The analysis ends in 2018.

**Findings & value added:** Monetary policy-adjusted dictionaries allow for more accurate assessment of the monetary policy tone. Our results suggest the existence of relationship between communication and actions. They are stronger for experienced IT CBs. The main value added of this paper is methodological — we tests three dictionaries to open a room for creating our own dictionary. Moreover, the study covers large sample and provides broader picture that the majority of previous examinations.

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*The drivers of regulatory performance: the case of telecom industry*

*JEL Classification:* L51; L96; D02

*Keywords:* regulatory governance; outcomes of regulation; determinants of regulation

ABSTRACT

**Research background:** Regulation as a key determinant of an overwhelming number of economic and social issues, emerges in different circumstances equally as stimulator and destimulator of the social and economic processes, and is perceived both in terms of structure and processes as well as outcomes. The evolution of the perception of determinants of regulation is highlighted in the paper with the special focus on the determinants of regulation derived by the Chicago School, incentive regulation approach and regulatory governance as the perception of new institutional economics. Special attention is devoted to the assessment of the regulatory activities understood as the stimulation or the destimulation of social or economic performance.

**Purpose of the article:** The paper aims to unfold the specificity of the determinants of economic regulation in terms of its evolution and an impact on strategic areas of an economy, with the particular emphasis on regulatory governance (institutional environment)

**Methods:** critical analysis of literature and case study method, supplemented by quantitative approach to support the impact of the range of selected determinants.

**Findings & value added:** The verification of the hypothesis that regulation as an institutional phenomena is critical to such areas of economic performance as telecom industry was positive, and brought the analysis to the conclusion of the main grounds mostly adaptive to regulatory influence.

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***Endogenous money supply, global liquidity and asset prices: panel evidence from OECD countries 1991–2018***

*JEL Classification:* E12; E41; E44; E51; F65

*Keywords:* endogenous money supply; international cash flows; panel regressions; Granger causality

ABSTRACT

**Research background:** The debate on exogenous or endogenous character of money supply accelerated in the 70s and 80s of last century. The old attitude towards money which was treated as exogenous product of central bank's monetary policy was confronted with the behavior of commercial banks providing credit on demand. To resolve the problem of money supply exogeneity or endogeneity, post-Keynesians pointed to so called reverse causation.

**Purpose of the article:** The aim of this paper is to join the debate on endogenous character of money supply. Money is used in general to pay for transactions. The basis for further analysis is their disaggregation into GDP based and non-GDP-based transactions in the spirit of Werner (2005).

**Methods:** OECD countries were chosen for statistical research due to data availability. The period under investigation runs from 1991 (after the post-communist countries entered free market-oriented capitalist economies) to 2018. The econometric methods used included: panel unit roots tests, panel co-integration, panel Granger causality test, panel estimations (OLS, EGLS, GMM).

**Findings & value added:** The originality of this paper lies in empirical verification of the hypotheses which are built as a result of the disaggregation of exchange equation. The first hypothesis assumes the endogeneity of money supply. The bidirectional causality between money supply and GDP and asset prices growths is statistically tested. The second hypothesis is that the domestic money supply is positively determined not only by growth in GDP-based and non-GDP-based transactions but in the age of globalization it can be also positively influenced by an external factor, namely by the global liquidity.

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*The assessment of Market Abuse Regulations by SMEs traded on alternative markets in Poland (NewConnect) and Germany (m:access)*

*JEL Classification: G15; G18*

*Keywords: ATS; SME; NewConnect; m:access*

ABSTRACT

**Research background:** Limitations in access to finance are an important barrier to the development of SMEs. One of the methods of bridging the capital gap is SME access to the stock markets, in particular to an alternative market (MTF). Compared to regulated markets, MTFs offer more liberal entry conditions and in many cases prior to MAR implementation they proposed more liberal disclosure requirements.

**Purpose of the article:** The aim of the article is an analysis of disclosure requirements resulting from MAR directive and to test their perception by issuers listed on the alternative markets in Poland (NewConnect) and Germany (m:access).

**Methods:** A study based on CAWI was carried out involving two research samples — 74 issuers of the NewConnect market and 23 issuers of the m:access market. The study was conducted from September 6, 2017 to March 2, 2018.

**Findings & value added:** Since the analyzed markets are subject to MAR, as a rule, there are no differences in the reporting requirements. There is, however, a difference in perceiving them in both countries. The analysis of German issuers shows that, unlike Polish companies, most of them defined their disclosure obligations as simple. This may result from better knowledge of the regulations and more their implementation among issuers in Germany than in Poland.

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### *Can 2030 European Union climate & energy efficiency targets lead to deepening disproportion in impact of economies on climate change*

*JEL Classification:* E11; E20; E32; E60; F00; F64;K32; N74; O13

*Keywords:* European Union; Energy transition; Renewables; Deindustrialization

#### ABSTRACT

**Research background:** Since 1997 European Union has been introducing new policies which assumption is to decrease impact of member states economies on climate change through shift in energy mix towards renewables and increasing energy efficiency. Increasing energy efficiency may be perceived as a controversial idea. Warr et al. (2010) provides empirical evidence suggesting that economic development is directly proportional to the energy used in the process. Yet, given the increasing awareness concerning climate change, some countries decided on decoupling their economic performance from energy consumption. By 2005 21 out of 28 member states of the European Union were able to achieve this state (EEA 2016). Main argument against is question whether deindustrialization by transferring most energy consuming processes abroad may be called decoupling, and as a result energy used in foreign country for the same process should not be assigned to the deindustrializing country (Moreau and Vuille 2018). In 2018 European Union member states agreed on new targets concerning climate and energy which includes 32.5% improvement of energy efficiency.

**Purpose of the article:** Purpose of this paper is to analyse the possibility of achieving 2030 energy efficiency target by all member states in similar pace without negative effects of deindustrialization. This research aims to assess the macroeconomic structure of EU member states and to provide an argument whether endeavour to reach 2030 efficiency target would not increase disproportion of impact of economies on climate between member states.

**Methods:** Methodology combines descriptive analysis of macroeconomic statistics and time trends analysis. All data used in this research are extracted from open sources such as World Development Indicators or Eurostat.

**Findings & value added:** Findings presented in this paper provide an evidence that with current dynamics, 2030 efficiency target will not be achieved. What is more, this research proves that deindustrialization process solely is not a main reason of the disproportion in the dynamics of change of energy efficiency among the EU member states.

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*Development of science and technology parks in Poland, with particular emphasis on the Podkarpackie Voivodeship*

*JEL Classification: A13; D02*

*Keywords: science and technology parks; labor market; Podkarpackie Voivodeship*

ABSTRACT

**Research background:** Science and technology parks are on one side more and more popular and on the other side – invisible for most of societies. The authors had a try of making such parks' significance and importance evident. The research constitute a trial of parks' essentializing in the voivodeship that is marked by infrastructure neglections in comparison to other Polish regions.

**Purpose of the article:** The aim of the article is to present significance and impact of science and technology parks (STPs) in Poland with taking into account the park located in Podkarpackie Voivodeship and its impact on local environment (both social and natural), labor market as well as life standard of societies.

**Methods:** In order to conduct research, survey method was used which was based on auctorial questionnaire.

**Findings & value added:** On the base of research, the authors verified impact of science and technology parks' development on separate elements connected with functioning of local societies. The authors focused on park's impact on employment and labor market in general, local economy, life standard of local communities and natural environment. Additionally, the value added of the research are opinions of employees of the science and technology park located in Podkarpackie Voivodeship as well as local communities.

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***The National Innovation System in a catching-up country: the empirical evidence of a triple helix in Poland***

*JEL Classification:* O31; O33; O38; L14; C35

*Keywords:* national innovation system; triple helix; industry; catching-up country; Poland

**ABSTRACT**

**Research background:** There are two main directions for the research of national innovation system (NIS): the international comparison of macro data from national statistic offices or specific micro researches restricted mostly to solve partially and selected issues. There is a lack of empirical studies of national innovation system as a whole based on a micro raw data and using statistic models.

**Purpose of the article:** The identification and evaluation the impact of the triple helix (an input and output approach) on the NIS in Poland, including inside interactions between institutions – industry, science and government.

**Methods:** Questionnaire survey was made by Authors twice in the last twelve years with 11.493 manufacturing enterprises. We were using the multifactor stepwise logit regression forward to evaluate what, where and how are working or maybe not, institutions of NIS in catching-up and medium-sized country like Poland is.

**Findings & value added:** The NIS of Poland works its own life as every complicated system could. Some parts of the network are working fine and the others are not. The impact of domestic institutions is fragmented, non-continuum and short time oriented, although very stron from time to time. What is strange that „low knowledge“ organizations support in a more organized and efficient way the industry innovation activity, than science units excluding foreign ones. Belongs here R&D and regional knowledge supporting units. The quality both of them could be the main cause. The Vertical supply chain is the main key for a better NSI performance in Poland. Presented in the paper the theoretical concept and empirical model can be used in other countries to evaluate input-output NIS efficiency.

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*Investigating overall level, obstacles, coupling coordination degree, and convergence of local development: A spatiotemporal analysis of all Polish municipalities over the period 2003–2019*

*JEL Classification:* H70; Q01; R58

*Keywords:* coupling coordination degree; local development; club convergence; polish municipalities; sustainable development

## ABSTRACT

**Research background:** In order to achieve sustainable development, it must be coordinated in advance, i.e. its individual subsystems (e.g. economy, environment, etc.) must develop in harmony. Since achieving coordinated development is a prerequisite for sustainability, research in this area is becoming increasingly popular.

**Purpose of the article:** This study is aimed at: (1) Examining the overall level of local development, as well as its degree of coordination for all municipalities in Poland over the period 2003–2019, taking into account six subsystems, i.e., economy, environment, demography, society, housing, and infrastructure; (2) Studying the convergence of the overall level of local development and the degree of its coordination between the surveyed municipalities; (3) Exploring factors influencing a municipality's membership to a given convergence club.

**Methods:** In order to examine the overall level of local development and the degree of its coordination, an index system was established. Furthermore, convergence processes was evaluated using the log t regression test. In turn, the ordered logit model was used to explore factors influencing the cluster formation.

**Findings & value added:** The research indicates that Polish local governments exhibit significant disparities in terms of overall development described by six subsystems, i.e., economy, demography, housing, society, infrastructure, and environment, the latter two being the main obstacles to growth for the surveyed municipalities. Moreover, the analysis of the coupling coordination degree model reveals that the vast majority of Polish municipalities are characterised by seriously or slightly unbalanced development. Furthermore, on the basis of club convergence procedure estimates, it can be concluded that there are seven clubs in Poland in terms of the overall development level and six clubs in terms of the degree of its coordination.



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*Analysis of factors influencing the choice of the invoicing currency in international trade*

*JEL Classification: F14; F31; F44; F65*

*Keywords: invoicing currency of trade; dominant currency paradigm; dollar; euro*

ABSTRACT

**Research background:** Most transactions in world trade are invoiced in several international currencies. The changes in the distribution of the great economic powers and the strengthening of the position of developing countries make it necessary to consider the factors determining the choice of trade invoicing currency and to assess the prospects of the dollar as an invoicing currency and the possibility of strengthening the position of developing countries' currencies in this function.

**Purpose of the article:** The aim of the paper is to assess the factors influencing the choice of invoicing currency for international trade in 1990–2019.

**Methods:** The analysis of factors influencing the choice of international trade invoicing currency is based on panel data modelling. It is assumed that the following variables may influence the currency position in the trade invoicing function: the share of the issuer's country in the global export and import, the share of the issuer's country in the bilateral trade, public debt and foreign debt of the issuer's country, the level of currency reserves, inflation.

**Findings & value added:** The analysis showed that despite the decreasing share of the United States and Western Europe in world trade, the share of transactions invoiced in USD and EUR is increasing.

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### *Factors affecting business growth: the case of Polish property valuers*

*JEL Classification:* L21; L25; L26; L85

*Keywords:* property valuation; business growth factors; success measures; business development; business performance

#### ABSTRACT

**Research background:** Based on literature, a number of ways of assessing the conduct of business and a number of factors influencing the growth and development of the companies can be identified. However the diversity of business entities and their business environment raises the importance of considering the unique nature of the industry in the selection of performance measures. Property valuation can be considered as a still young and definitely developing business activity. It is also perceived as an attractive and prestigious one. In Poland nearly 300 new valuers enter the profession every year, joining to existing companies or starting their own business performance in the area of property valuation.

**Purpose of the article:** As professional practice shows there are different business models for property valuation. These businesses differ in their organisational and legal form, but also in the type of valuations performed, the type of client served, or the scope of services provided. The main purpose of the research is to identify factors that significantly affect the development odds of valuation companies in Poland, especially the growth of income.

**Methods:** In order to analyze the results of surveys conducted on a sample of 409 valuers, we use logistic regression.

**Findings & value added:** The research confirms the relationship between the way of conducting real estate valuation activities and its development chances. The most important factors here are: territorial range of valuation, type of diversification of services and specific directions of specialization. The added value of the study is to expand knowledge in the area of key success factors in valuation and their applicability in business practice.

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### *Migrant Remittances and The Choice of Healthcare Services*

*JEL Classification: I11; I12; I15; F24; O10; I18*

*Keywords: Private Healthcare; Remittances; Size effect; Public moral hazard; Pakistan*

#### ABSTRACT

**Research background:** Healthcare decision making is affected by several factors. Any factor that can ease the financial constraint of the household is going to influence the choice of healthcare services. Migrant remittances act as an additional source of income for many households in the developing countries. Migrant remittances can play a vital role in shaping household preferences for healthcare services.

**Purpose of the article:** This research intends to find out the effect of remittance inflow on the healthcare preferences of households. The main objective is to find out the role of migrant remittances as a decision factor for to utilize the private healthcare services, instead of a free public healthcare system. The role of type of remittances is also reviewed alongwith, the magnitude or size of remittances shaping up this choice.

**Methods:** A theoretical model and an empirical analysis was conducted on the Pakistani households using PSLM Data 2018–2019. The empirical model was selected after checking for endogeneity in Remittances. The models used in this research are linear probability model and probit model.

**Findings & value added:** Our results suggest that the probability of selecting private healthcare services is 4.3% higher for remittance recipient households. The preference for private healthcare in foreign remittances recipient households is higher as compared with domestic receipt households. Our analysis also indicates the existence of size effect of remittances, as the top 20% remittance recipient households have 16% higher probability of selecting private healthcare services. The model for robustness check also validate our findings. This research sheds gives intuitions regarding public moral hazard and private healthcare development inequalities.

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### ***Business Angels: The Current State of Research in the Czech Republic and Poland***

*JEL Classification: E44; G23; G32*

*Keywords: business angels; informal venture capital; structured literature review; policy implications*

#### ABSTRACT

**Research background:** Research on business angels has attracted the attention of a growing number of researchers in recent years. This might be evidenced by an increasing number of scientific articles when searching for relevant keywords in Web of Science and Google Scholar. The vast majority of research papers on informal venture capital document the situation in well-developed markets including the USA, Great Britain, and, increasingly, in emerging markets. The Chinese market (mainland) has been focused in particular. To our knowledge, just a little attention is, however, paid to the local angel markets in Central and Eastern Europe.

**Purpose of the article:** In this paper, we provide a structured literature review of research papers on business angels in the Czech Republic and Poland published between 2010 and 2021. We intend to contribute the academic literature regarding the issue which generations of research has been covered and where notable knowledge gaps exist.

**Methods:** The main methodological tool used in this paper consists in creating a comprehensive data set based on searching for relevant terms in Web of Science and Google Scholar. The citation analysis was used to find the most cited papers. Based on the content analysis, the papers were subsequently classified into research generations identified in previous studies.

**Findings & value added:** Our contribution identifies topics which have been tackled in prior studies on one side and topics which deserve attention or researchers and policy makers on the other side when studying the local angel markets in the Czech Republic and Poland.

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### *Sustainable economic growth and innovation*

*JEL Classification:* O11; O14; O15; O24; O25; O31; O38; O41; O47

*Keywords:* prevailing factors; innovation; sustainable economic growth; changes in the structure of the economy

#### ABSTRACT

**Research background:** Sustainable growth is defined as sustainable economic growth with full employment, resilient to shocks and economic crises and the shocks in demand they bring about. Sustainable economic growth requires the emergence of new industries which, by achieving high growth rates, will 'compensate' for the inevitable slowdown in the spread of inventions and innovations in old industries. Therefore, the high rate of growth of the entire economy must be accompanied by significant shifts in relative importance between industries as the old ones collapse and the new ones emerge. The issue of structural changes from the point of view of shaping and, at the same time, achieving sustainable economic growth through effective management of production factors (efficient allocation) is a key area of research into changes in the structure of the economy as such.

**Purpose of the article:** The aim of this article is to examine whether and to what extent the level of innovation in the industrial sector determined the processes of changes in the structure of the Polish economy between 1995 and 2019. How and whether the lack of innovation in the processing industry sector was the main determinant of the trap of average growth in the Polish economy in the analysed period. It is also hypothesized that the level of innovation may be an appropriate criterion for achieving long-term sustainable economic growth.

**Methods:** In order to achieve the objective and verify the hypothesis, a statistical analysis of the prevailing factors, key determinants of changes in the structure of the economy in terms of production and employment, was used. A regression analysis of models of changes in the share of employment and total production in manufacturing and the developed mesoeconomic and macro-economic indicators were also used.

**Findings & value added:** The analysis of the Polish economy showed that the steadily growing demand/demand, and above all GDP per capita, determined the volume of production of manufacturing, causing the largest increase in its share in total production for the whole analysed period, and thus was the strongest / main determinant of industry's share in total employment. However, as a result, the relatively low level of innovation in the manufacturing sector resulted in a decrease in its share in total employment, being the main cause of jobless economic growth, which would suggest the phenomenon of the average growth trap. This was the greatest barrier to achieving sustainable economic growth.

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### *Comparative analysis of selected countries in terms of households financial behaviour after the COVID-19 pandemic*

*JEL Classification:* C13; C22; C53; F31; D10

*Keywords:* personal finance management; COVID-19 pandemic; consumer financial behavior

#### ABSTRACT

**Research background:** The outbreak of the COVID-19 pandemic, the reduction in income or the total loss of jobs have affected the financial behaviour of consumers worldwide. Managing the budget in times of turbulence and crisis is becoming a challenge for households. Consumers are paying more attention and controlling their finances than before. Uncertainty in the market, employment and fear for one's own health have led to changes in consumer behaviour in the financial market.

**Purpose of the article:** The aim of the article is to determine to what extent the COVID-19 pandemic affected the financial behaviour of the inhabitants of various countries and how Poland stood out from the rest.

**Methods:** Conclusion are drawn based on statistical methods. Due to the orderly nature of the questions analysed, non-parametric tests were used in the analysis. The distribution of current expenditure in comparison with the period before the pandemic was analysed, as well as the results of comparative analyses with Mann–Whitney's U tests for comparison of Poland with other countries. A study was carried out on the relationship between planning for the future, having debts and savings and financial behaviour after the Covid-19 pandemic. In addition, a study was carried out on the relationship between planning for the future, having debts and savings and financial behaviour after the Covid-19 pandemic and the metric variables in the group of Poles using Ch-quadrat, a series of Kendall tests.

**Empirical material:** The article uses the international, representative ING survey conducted by Ipsos on 13,364 respondents in the following countries: Poland (994), Austria (963), Belgium (970), Czech Republic (999), France (974), Germany (962), Italy (1049), Luxembourg (512), Netherlands (983), Romania (991), Spain (984), Turkey (984), United Kingdom (999), USA (1000). Representative sample in terms of age, sex and region of residence. Realization time: December 2019 and the turn of May and June 2020. Research method: computer assisted web interviews (CAWI).

**Findings & value added:** There has been a fall in expenditure compared to the period before the pandemic, which may be the reason for the lack of opportunities to spend money, the fall in revenue and the freezing of expenditure for fear of an uncertain future. There is also a change in the way payments are made. Payment cards and purchases made over the Internet are being used more often. In the face of the COVID-19 pandemic, consumers are trying to save more, but not everyone can afford it. Opinions on the amount of savings after the pandemic were divided and it is not clear whether other countries have changed their financial behaviour regarding savings. Analysing the distribution of the responses of the people surveyed, it can be concluded that the people surveyed made plans for the future to a moderate extent.

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### *Similarities and differences in the production of renewable energy in Central and Eastern Europe countries*

*JEL Classification:* Q42; Q43; P28

*Keywords:* renewable energy sources; Central and Eastern Europe; energy policy

#### ABSTRACT

**Research background:** In the era of climate change, environmental degradation, but also growing public awareness, there is a need to look for new ecological energy sources. This condition can be met by renewable energy sources (RES). The EU seeks to have a 32% share of its gross final energy consumption from renewable sources by 2030. While the EU as a whole is on course to meet its targets, the question is if production of renewable energy at a given level is not a challenge for selected Central and Eastern Europe countries (CEEC) traditionally dependent on fossil fuels. In order to take steps to develop RES in the studied countries, there is a need to analyze their diversity in terms of the potential. The results of such analyses should support the implementation of adopted strategies.

**Purpose of the article:** The article divides the CEEC into similar groups by the structure and volume of energy production from RES. This production was compared with the value of Gross Domestic Product (GDP) of each studied country, the number of inhabitants and its area.

**Methods:** Cluster analysis. The research based on the data provided by Eurostat.

**Findings & value added:** The division of the studied region into subgroups depends on how the RES energy production is related to the GDP value, the number of inhabitants and the area of individual country. This reference allows to reflect the specificity of individual countries in more appropriate way than just an analysis of the absolute values of this production. The applied approach allows for a broader look at RES production for selected countries in the region. The obtained results can be used for the development of a common energy and climate policy to create and develop their own renewable energy markets.

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*The scope of public finance decentralization in the European Union countries in a changing economic conditions*

*JEL Classification: H72; H77; C38*

*Keywords: decentralization; local finance; local government; European Union; classification*

ABSTRACT

**Research background:** Discussions on the scope of decentralization are enlivened by economic crises because some of them first affect the decentralized levels of the state and then move to the central level. The level of decentralization is shaped by the legal system, but also by economic and political conditions. In the EU countries, despite a large number of common regulations, the scope of decentralization varies.

**Purpose of the article:** The aim of the research is to assess the degree of decentralization of public finances in the EU countries and to identify groups of countries with a similar scope of decentralization, as well as to assess the identified groups of countries in terms of economic conditions.

**Methods:** The degree of decentralization was assessed using the indices of the share of local expenditure and revenue in the GDP of these countries. The methods of agglomeration and k-means classification were used, in order to find similar countries in terms of decentralization. The groups of countries have been characterized by basic macroeconomic indicators.

**Findings & value added:** The research identified three groups of countries similar to each other in terms of the degree of decentralization. The countries with the highest degree of decentralization were: Denmark, Sweden and Finland, which were also characterized by the highest average inflation level and the lowest average unemployment rate compared to other groups. Among the countries with the lowest degree of decentralization, there were mainly those which joined the EU after 2004. These countries were characterized by relatively the lowest level of inflation and the lowest average wages. The research shows that the decentralization in the short run is shaped by equipping the economy with production factors, their prices (especially capital and labor) and the prices of consumer goods.



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### *Differentiation in levels of human capital among small cities in Warmińsko-Mazurskie Voivodship*

*JEL Classification: J24; I25; R11*

*Keywords: human capital; differentiation; small cities; development; synthetic indicator*

#### ABSTRACT

**Research background:** A very important factor in development, especially of small cities, is their endogenous capital, including human capital. Cities with a higher level and quality of human capital are able to gain advantage in productivity and competitiveness, and they can develop more rapidly owing to the “knowledge spillover”. Differences in the level of human capital between cities also affect the pace of development of an entire region and country. It is therefore important to analyze the scale of such differentiation, particularly among small cities, which are struggling with problems like urban shrinkage, talent drain or peripheralisation.

**Purpose of the article:** The aim of the research was to assess the differentiation in the level of human capital among small cities in the Warmińsko-Mazurskie Voivodship.

**Methods:** The study covered 39 small cities in the Warmińsko-Mazurskie Voivodship. The Perkal synthetic indicator was applied to assess the level of human capital. Based on the values of this indicator, the cities were ordered linearly and grouped, using the standard deviations method. The research included data from the year 2019.

**Findings & value added:** The level of human capital in the cities included in the study was significantly varied. The highest positions in the ranking were taken: Mikołajki, Lubawa, Biskupiec, Kisielice and Zalewo. These cities were classified into the group of cities with high level of human capital. The lowest values of the human capital synthetic indicator were achieved for the cities: Sępapol, Jeziorany, Korsze, Pieniężno and Reszel. These cities were classified as cities with a very low level of human capital. As many as in 18 analyzed cities, the synthetic indicator was negative and was lower than the average for all cities.

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### *Is redistributive policy of EU welfare state effective in tackling income inequality?*

*JEL Classification:* H23;H53;E62

*Keywords:* inequality; redistribution; taxes; social transfers

#### ABSTRACT

**Research background:** Income inequality has risen sharply since the 1990s, despite the increase in the average size of redistribution in countries representing different welfare state models. The problem of increasing income inequality is currently a challenge for the EU economies, not only with well-established liberal traditions, but also with conservative and social-democratic ones. Therefore, it is worth conducting a research on the redistributive effects of fiscal policy.

**Purpose of the article:** The article aims to show the redistributive effects of fiscal policy, paying particular attention to the most characteristic trends in redistribution, which are responsible for the growing income inequality. An overview of the fiscal instruments — mainly personal income tax and benefit systems — along with an empirical research on their potential impact on income inequality, allows for conclusions to be drawn about the effectiveness of redistributive policy in the EU countries.

**Methods:** Both descriptive analysis and panel data analysis is implemented to examine the effectiveness of redistributive policy in tackling income inequality in the EU-28 countries in years 2005–17.

**Findings & value added:** Based on the panel analysis, it was found that social transfers were much more effective than direct taxes in combating income inequality. In addition, the largest increase in income inequality — as previously assumed — was observed in the liberal welfare states, while the smallest in the social democratic welfare states. The empirical analysis extends the existing knowledge on main weaknesses of fiscal welfare state, indicating the required changes that may improve both its equity and efficiency.

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### *Unemployment and new firm formation: evidence from Polish industries*

*JEL Classification: R12; R30*

*Keywords: unemployment; entrepreneurship; Polish region*

#### ABSTRACT

**Research background:** Unemployment is considered as an important entrepreneurship determinant which is captured by the unemployment push/pull hypotheses. Those issues have attracted the interest of researchers relatively recently, with their analyses usually focused on developed countries. The obtained results, however, still have not provided conclusive results regarding the occurrence of unemployment push effect. Moreover, this relationship may differ between countries, depending on their legal and institutional framework and can unfold differently in the Central and Eastern European countries, where the culture of entrepreneurial activities has a relatively shorter background. Finally, this study takes a regional economics perspective to explaining new firm registrations, focusing on the role of labour market conditions, and more specifically unemployment.

**Purpose of the article:** The main goal of the study is to investigate the effect of regional unemployment (next to other regional characteristics) on subsequent new business formation in Polish regions for period 2003–2019. The research hypothesis assumes that unemployment has a positive effect on subsequent new business formation. The positive unemployment push effect on business entry is expected to be stronger in operational services.

**Methods:** In order to verify the links between unemployment rates and entrepreneurship panel data methods (fixed effect Driscoll–Kraay estimators, panel VAR estimators) were applied. The analysis were performed at the industry level (manufacturing, construction, trade, hotel and restaurants, transport, and financial and insurance activities) using regional annually data for period 2003–2019.

**Findings & value added:** This study provides further insight into the unemployment push hypothesis by distinguishing between industry sectors and by considering the regional specificities in post-communist economies (e.g. Poland). The findings provide value for policy makers responsible for entrepreneurship and regional policies.

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### *How will the introduction of the sugar tax affect the consumption habits of households in Poland?*

*JEL Classification:* D12; H31; I12; L66

*Keywords:* price elasticity; soft drinks; sugar sweetened beverages; sugar tax

#### ABSTRACT

**Research background:** Numerous scientific studies indicate a significant relationship between the quantity of sugar-sweetened beverages consumed and the problem of overweight and obesity. This, in turn, is a significant risk factor for many diseases, especially type 2 diabetes. Poland is a country where the consumption of sugar, especially in a processed form that is dangerous to health, is constantly growing. As a result, now two-thirds of the society are struggling with the problem of overweight, while obesity can be said that occurs in every fourth case, the forecasts are even more pessimistic. Recently, a fiscal policy with the use of the „sugar tax” is a popular tool to combat the growing consumption of sweetened beverages. The Polish government is also following this path, and the tax is scheduled to be in force at the beginning of 2021.

**Purpose of the article:** The aim of the study is to analyse the impact of the sugar tax on prices and, consequently, on the future consumption of sweetened beverages and other related goods.

**Methods:** Based on the data of the Central Statistical Office concerning household expenditure in 2018, the complete demand model was estimated, considering demographic variables. As a result, the price and profit elasticities of demand for sweetened drinks and related goods were estimated.

**Findings & value added:** The results obtained in the study indicate that the introduction of the sugar tax will reduce the consumption of SSB. Also, the size of the changes depends on the analysed demographic factors. The decrease in consumption of sweetened beverages will increase the interest in beverages with a lower sugar content.

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### *Current Account Deficit Sustainability, Capital Mobility and the Saving-Investment Relationship*

*JEL Classification:* C30; F21; F32; F34; F40

*Keywords:* Saving-Investment relationship; Capital mobility; Current account sustainability; Feldstein-Horioka puzzle; CCEMG

#### ABSTRACT

**Research background:** The extant literature analyses current account deficit (CAD) sustainability, using one of the two conventional methods: unit root testing of CAD and cointegration analysis of export-import relationship. None of the existing literature has analyzed this phenomenon using a saving-investment relationship which can also provide additional information on the degree of capital mobility.

**Purpose of the article:** This study examines the degree of (CAD) sustainability and capital mobility for a panel of 116 countries over the period 1980–2017.

**Methods:** The paper analyses a cointegrating relationship between saving and investment by means of an error-correction model. The model is estimated using a newly developed dynamic panel estimator — Common Correlated Effects Mean Group estimator (CCEMG), which has two advantages over other panel estimators. First, it allows for slope heterogeneity, and second, it produces consistent estimates in the presence of cross-sectional dependence.

**Findings & value added:** The study departs from the conventional estimation techniques used for assessing the degree of CAD sustainability by analysing a cointegrating relationship between saving and investment. The famous 'Feldstein-Horioka coefficient' is interpreted as an indicator of CAD sustainability whereas error-correction and short-run coefficients are interpreted as indicators of long-run and short-run capital mobility, respectively. The findings reveal that CAD is strongly sustainable in two region-wise and one income-wise groups of countries, namely, East Asia and Pacific, Europe and Central Asia, and upper-middle income economies. The other country groups are characterized by a "weakly" sustainable current account deficit. The estimates of the short-run coefficients imply that short-run capital mobility is high in all the country groups whereas long-run capital mobility is relatively moderate. The sub-period analysis reveals that short-run capital mobility has increased or remained high throughout the analyzed period in most of the country groups. Long-run capital mobility has remained low or moderate over time in most of the country groups.

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### *A Sectoral Analysis of Globalization and its Implication on the Nigerian Economy*

*JEL Classification: F62; F14; F43*

*Keywords: globalization processes; industrial sector; service sector; agricultural sector*

#### ABSTRACT

**Research background:** Nigeria has increasingly launched herself and still doing same into the globalization train, with expectation of addressing her current economic problems of unemployment, prices instability, balance of payments disequilibrium, poverty, income inequality, among others. And the important role of globalization processes in the growth and development of an economy cannot be over emphasized. This paper question the critical role of economic administrators in amaging these globalization processes in addressing the aforementioned economic problems, for the growth of the economy at large.

**Purpose of the article:** the study aims at investigating the impact of globalization on the real sectors performance of the Nigerian economy from 1981 to 2018 with reference to administrative regimes.

**Methods:** taking cognizance of the secondary time series data properties saourced from the CBN Statistical bulletin, stationarity test, and the Johansen cointegration test to complement the classical least square method.

**Findings & value added:** The selected variables turns stationary after their first difference and the Johansen cointegration test affirm the existence of long run relationship between the variables. The estimated regression result shows that the economic administrator discouraged industrial sector performances. While the democratic regime enhances the agricultural sector performance. It was further observed that global oil price happen to be the key determinant of the industrial and service sectors performance with foreign private investment and capital stock of the economy. Globalization is not a true determinants of agricultural sector performance rather the sector performance is a function of past performance. Trade openness as a process of globalization has a negatively significant effects on industrial sector performance in the short run and positively significance effects on the service sector in the long run, and insignificant effects on the agricultural sector.

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### *BS index: incorporating R&D subsidies into B index*

*JEL Classification: H25; O38*

*Keywords: B index; R&D tax incentives; R&D subsidies; R&D policy*

#### ABSTRACT

**Research background:** The B index is a measure of the generosity of R&D tax incentives proposed by Warda in 2001 and is now widely used by the OECD. The author of this index already in 2001 indicated that developing it with measures of the availability of direct subsidies would improve the B index as a comprehensive measure of the attractiveness of R&D policies.

**Purpose of the article:** Extension of the B index, used by the OECD to measure the impact of tax incentives on the conditions of investing in R&D, to include direct funding, i.e. subsidies and grants.

**Methods:** The study proposes several methods of including direct funding in the B index calculation. They depend on specific rules on which it is possible to combine the benefits of using tax incentives and direct subsidies in different countries: mutually exclusive in their use, grant funding reduces base of R&D tax credit/allowance, grant funding is part of taxable income, ceiling on total support (direct and tax), complementary in their use. The share of subsidies and direct grants in BERD in each country, broken down into SMEs and large enterprises, was adopted as the measure representing direct funding.

**Findings & value added:** The results show an increase in the expected subsidy rate in most of the surveyed countries in 2017. Increase is on average higher in the case of SMEs than in the case of large enterprises. The developed methods can be used for comprehensive in-depth analyzes and comparisons of R&D support policies applied in different countries. And after extending the calculations to historical data, they can be used as an important source material in modeling the impact of R&D support policies on R&D inputs and outputs.

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### *The Co-operative Enterprise Business Model on the Polish Market*

*JEL Classification: D21; M21*

*Keywords: business model; cooperatives; value added; humanistic management*

#### ABSTRACT

**Research background:** The history of cooperative enterprises in Poland dates back to the middle of XIX century. Despite the long history after the transformation of the central economy into a free market economy the cooperative branch in Poland is drastically diminishing.

**Purpose of the article:** The aim of the article is to identify elements of the business model of cooperative enterprises, to indicate its specificity related to the use of the humanistic paradigm in management and to show various ways of implementing this model in Polish cooperatives.

**Methods:** The article is of theoretical and empirical nature. A review of the literature shows the abundance of studies regarding the model of commercial enterprises and the scarcity of publications dealing with the cooperative business model (CBM). However, it allows to indicate specific features and elements of CBM. They have been verified in empirical studies showing the implementation of economic and social goals of cooperatives

**Findings & value added:** The main elements of CBM appear to be opposed to the business model of commercial enterprises, e.g. maximizing members' benefits versus maximizing profit. Empirical studies have shown that the criterion for assessing results in CBM is a measure of value added broader than profit by components that are of interest to members and employees. The structure of value added precisely shows the division of newly created value in the company. Therefore, cooperatives should report on the added value and thus show the advantages of CBM in modern economy and society realizing the importance of sustainable development.



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*The potential of remote work in the management of enterprises from the SME sector in the light of the experience of the pandemic period*

*JEL Classification: D01;M12;M54*

*Keywords: personnel management; remote work; competency management*

ABSTRACT

**Research background:** Remote employment, often referred to as teleworking, has been used in enterprises for at least a quarter of a century. However, until the sanitary restrictions related to the COVID 19 pandemic threat occurred, this form of work was used much less frequently, and its implementation was associated with overcoming numerous resistance and limitations. Enterprises faced the need to quickly switch to remote work for their employees.

**Purpose of the article:** The aim of the article is to identify hard and soft elements of human potential that are useful in the implementation of tasks in remote work conditions. Working hypothesis: Employees of enterprises from the SME sector have appropriate qualifications and competences to perform remote tasks resulting from employment, and the pandemic conditions contributed to the activation of this potential.

**Methods:** Surveys, in-depth interview, statistical analysis of collected data

**Findings & value added:** The article will present a discussion in the area of strengths and weaknesses as well as opportunities and threats related to the use of remote work (teleworking) of employees in enterprises from the SME sector and the results of the study on how the views of managers and executive workers on this form of employment changed under the influence of pandemic restrictions.

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***The role of safe haven currencies in time of global financial crisis 2008–2010 and pandemic crisis***

*JEL Classification: E44; F31; G01*

*Keywords: safe haven currencies; exchange rate policy; global crisis; pandemic crisis*

ABSTRACT

**Research background:** In the conditions of instability of the macroeconomic environment, especially in times of crises, an important role is played by the assets and safe-haven currency. The perception by investors of the currency as a safe haven international binds to both the benefits for the country of the issuer, as well as some of the risks arising from the increase in the use of the currency in international trade.

**Purpose of the article:** The aim of the article is to analyze the theoretical aspects of the functioning of safe haven currencies in the international monetary system, to identify key safe haven currencies during the global crisis in 2008–2010 and during the pandemic crisis, and to empirical analysis of the nominal and real exchange rates of these currencies.

**Methods:** The research horizon is based on the years of the last two global crises — the financial crisis 2008–2010 and the pandemic crisis. The starting point for the analysis is the presentation of the theoretical aspects of safe haven currencies and the identification of the benefits and costs of perceiving a given currency by investors as safe haven. The key safe haven currencies were described in the empirical analysis. In addition, an analysis of the nominal and real exchange rates of these currencies, as well as changes in their share in official currency reserves was carried out.

**Findings & value added:** The conducted analysis showed an increase in the importance of safe haven currencies in the period of turbulence on global markets. The real appreciation of safe haven currencies may, however, result in the monetary authorities of the countries issuing these currencies using the protectionist exchange rate policy in order to protect the competitiveness of the economy.

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