ABSTRACTS

14th WORLD CONGRESS
OF THE RSAI

**Sustainable Regional Economic growth:
Global challenges and
new regional development trajectories**

14TH RSAI WORLD CONGRESS
8-11 APRIL
2024
KECSKEMÉT, HUNGARY

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Import Competition and Domestic Transport Costs

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Abstract

With China's 2001 WTO accession, trade costs between the US and China fell sharply, but the transport costs of Chinese imports within the US remained sizable. We argue that domestic transport costs shield local labour markets from globalization. Using a shift-share design for industry-level Chinese imports across 42 ports of entry, we show that US job losses from competing imports occurred near the ports where they arrived. Once accounting for domestic transport costs, import competition affects coastal areas more than inland areas; shows larger impacts in housing markets and indirectly affected jobs; and explains voting, mortality and family formation.

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Autonomous Vehicles in Future Cities

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Abstract

An increasing number of scientific and practical scenarios explore the potential impacts of the widespread adoption of autonomous vehicles on urban transportation and, consequently, on the individual lives of urban residents. Many now acknowledge the logic that shared autonomous fleets, as an alternative to individual car ownership, have the potential to significantly reduce the number of vehicles on the road, with important implications for land use and urban landscapes. While our knowledge about these possibilities has been growing, our understanding of how urban residents will react to these changes remains limited.

Furthermore, most studies examining urban residents' preferences tend to make generalized statements that apply to the entire population, rather than focusing on specific demographic segments. This lack of segment-specific research has resulted in a dearth of information regarding the urban preferences of young people who are expected to play a crucial role in shaping the future of mobility.

Our study aims to investigate how young urban residents in Hungary would react to potential urban landscape changes induced by the widespread adoption of autonomous vehicles. We employed real-time eye-tracking measurements on a considerably large sample of 102 participants under labouratory conditions. During the experiments, participants viewed pairs of "before" and "after" urban landscape images, illustrating potential urban changes due to the mass adoption of autonomous vehicles. Our analysis of fixation durations, average fixation lengths, and average fixation counts indicates a consistent preference for the "after" images across all metrics, with a particularly strong preference among male participants.

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Analysing the Nexus between Cluster Theory and Regional Development: A Case Study of the Bridal Industry in Izmir, Turkey

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Abstract

This research study harnesses the comprehensive clustering analysis and activities executed by the Izmir Development Agency, with a specific focus on the Izmir/Çankaya region, to investigate and evaluate the implications of the clustering phenomena within the bridal wear sector on the broader context of Izmir's regional development. The investigation aligns closely with the foundational principles of Porter's diamond model. Through an extensive and thorough exploration, the research delves into the rich theoretical contributions, delving deeply into the intricacies of both the prevailing cluster policies and the unique experiences and practices witnessed within the global, Turkish, and local Izmir frameworks. The primary thrust of this research is to unveil and dissect the underlying relationship between the fundamental tenets of cluster theory and the broader landscape of regional development, utilizing the vibrant and dynamic milieu of the bridal wear sector in Izmir as a quintessential case study. The study not only offers a nuanced and insightful analysis but also provides a compelling and nuanced perspective on the dynamic nature of clusters and their pivotal role in shaping and influencing the broader regional development policies and strategies. Moreover, the research highlights the critical significance of understanding the multifaceted interplay and interdependence of diverse factors that collectively contribute to the generation and sustenance of a distinctive and sustainable competitive advantage within a specific industry. By meticulously scrutinizing the intricate process of cluster formation and the underlying driving forces that propel and steer this phenomenon, this research effectively illuminates and sheds light on the underlying mechanisms and operational intricacies that are instrumental in defining and shaping successful clustering strategies. Furthermore, the study underscores the critical and indispensable role played by robust and resilient institutional support and the strategic formulation and implementation of well-structured and meticulously calibrated policy frameworks in fostering and nurturing sustainable clustering practices. This, in turn, facilitates and engenders a conducive environment for fostering and nurturing equitable and well-balanced regional development while simultaneously acting as a catalyst for fostering and fostering robust and sustainable economic growth at both the regional and national levels.

How are Europe's Cities and Regions Contributing to Europe's Green Transition by Boosting the Circular Economy?

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Abstract

Circular economy is an economic model that aims to be more sustainable than the traditional, so-called "linear" model (manufacture, use, dispose). This model is based on maximizing the use of resources and minimizing waste (Geisendorf & Pietrulla, 2018). There are several ways to describe the principles of the circular economy, one of which is the concept of "9R" (Kirchherr et al. 2023). These are often represented in a hierarchy, from the most desirable practices to the least desirable. (1. Rethink, 2. Refuse, 3. Reduce, 4. Reuse, 5. Repair, 6. Remanufacture, 7. Recycle, 8. Recover, 9. Recreate).

Bourdin et al. (2022) explain that definitions of the circular economy systematically forget the local, territorial, regional dimension. However, it is the local and regional level that is most appropriate for deploying innovative circular economy solutions. First, each territory has specific resources. Therefore, considering the territorial dimension of the circular economy means identifying resources (material and immaterial) available locally and thinking about using them optimally (Geissdoerfer et al., 2017). Second, circular economy initiatives require close cooperation between local actors such as businesses, local authorities, and citizens (Bourdin et al., 2022). By integrating the territorial dimension, it is possible to facilitate collabouration and active participation of local actors in the implementation of these initiatives. Moreover, Jambou et al. (2022) have shown that geographic proximity between the stakeholders of a circular economy project facilitated their coordination and flow exchanges. Third, the environmental impacts of economic activities are often local (Korhonen et al., 2018). By taking into account the territorial dimension, it is possible to better identify environmental impacts and implement appropriate solutions to reduce them.

While there are many articles analysing public policies implemented to promote the circular economy (Hartley et al., 2023) at the national level, there are few studies focusing on regional and urban policies (Arauzo-Carod et al., 2022). However, Niang et al. (2023) recently showed that the circular economy could have local impacts in terms of job creation. Torre & Bourdin (2020) also suggested that the circular economy could be a way to reindustrialize Europe while taking into account the objectives of the green transition.

In this context, the aim of our article is to analyse what types of circular initiatives cities and regions in Europe are developing and how they contribute to the green transition. To do this, our analysis is based on the study of Circular Systemic Solutions across 37 European cities and regions. We will conduct a thorough documentary analysis of the strategies and initiatives implemented in these cities and regions, as well as semi-structured interviews with local authorities. We will thus highlight the impact of these local initiatives in the implementation of the European Green Deal.

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The Rule of Law as the Barrier of Cohesion Resources

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Abstract

The measure of the European Union's cohesion policy is determined by the current multiannual financial framework (MFF), which finances the policy. In the 2021-2027 programming period, the European Union manages with 1,824.3 billion euros. This quantity is significant, because there was no precedent for such a large budget in previous periods.

However, last year a new phenomenon has emerged in parallel with the increase of the financial support, which can also represent a barrier to EU payments. This is none other than the policy of the rule of law.

Since 2021, the EU budget enjoys increased protection in the cases when the violation of the principles of the rule of law threatens the financial interests of the EU, due to a new legal framework. This new legal framework is the Regulation on the general conditions for the protection of the EU budget, (known as a "conditionality regulation"), which has been in force since January 2021.

This new set of conditions mentioned above enables the EU to take measures to protect the EU budget favourable for the member states, for example suspend payments or make financial corrections.

A fault line has been created between the member states along the condition of the rule of law. Nowadays it is highly debated whether a lack of the rule of law in a member state can result in the freezing of the disbursement of EU financial supports.

The presentation is based on the literature published on the subject, furthermore the previously processed relevant documents and legislation of the European Union.

The purpose of the presentation is to introduce the fault lines emerging alongside the suspension of EU financial supports and the conditions of the rule of law as well as to outline the possible future scenario. The presentation highlights that freezing the disbursement of EU subsidies appears as a genuine powerful weapon in the hands of the EU.

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Relations between the Central-European Trade Routes and Revenues of EU Members

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Abstract

This research highlights the shifting of the trade routes and economic geographic process. What kind of impacts are there in EU countries that a significant part of EU-Chine trade has been moving from vessels to freight trains or to combined, overland-maritime transportation. It has partly taken out the former China – Rotterdam/Hamburg maritime way.

This paper is analysing the role of Port of Piraeus in this process as the pretty new but very important port for the Chinese COSCO maritime transportation company and on other hand how does the new structure change the revenues for the members in this situation.

The so-called collection cost is an important revenue for the member states. It comes from the Traditional own resources, it is 20 percent of the tariffs. It remains in the budget of EU member states and only 80 percent goes to the Brussels budget. The old members especially Netherlands, Belgium and Germany want to protect their own current position and share in the integration trade with third/external partners. It means that these countries can handle the tariff administration and get the mentioned 20 percent amount.

In the meantime the new members with high potential in international trade would like to recut the "trade-cake" to receive higher benefits from it due to the mentioned collection cost or the value-added-tax related to logistics and manufacturing industries. All in all, every member state can increase the profit from the collection cost and value-added-tax and on other hand they can decrease the direct GNI-based contribution to EU's budget due to a better position in international trade. We can expect a more intensive competition to reach this amount in the future.

Strategic Dimensions of Domestic Wine Marketing

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Abstract

The increasing role of the wine market is an important economic and cultural goal for our country, but at the same time, in the midst of domestic and international market changes, increasing global competition and natural challenges, the development of a stable and flexible sector strategy is a big challenge. The basic objective of our study is to identify the determining factors along which the defining strategic pillars of domestic wine marketing can be further strengthened. We adapted our primary research to the systematically processed aspects of current international and domestic studies along the defining strategic dimensions, the prominent role of wine tourism, and changed consumer habits. The study summarizes the lessons and main conclusions of four semi-structured expert interviews with the involvement of domestic experts with significant experience in the field of wine. The interviews were conducted in person and over the phone, and after the content analysis, we synthesized the factors that surfaced in a comprehensive SWOT analysis. The results pointed to the need for regional cooperation that goes beyond individual producers and the implementation of a comprehensive, coordinated national wine marketing strategy that effectively builds on the social and cultural dimension of wine, while being able to sustainably respond to the constantly changing, slightly different consumer habits from generation to generation. Based on the possibilities outlined, the basic condition supporting the entry into the domestic, but even more so the international market, can be the maintenance of the research and breed breeding infrastructure, and the construction and communication of a strategy based on its results. The role of central coordination in line with the direction of ethical marketing is extremely important also because business and marketing activities serving the needs of each generation must be approached in a differentiated way, and all of this must be realized in cooperation with the integrated management of other strategically important sectors.

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Sustainability of Indonesia Transport Loan Financed Projects: Development Outcome Attributions (DOA) on Unemployment, Growth, and Poverty

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Abstract

We analysed Indonesia's transport loan projects' sustainability through their impacts and effectiveness. These projects are funded by the Asian Development Bank (ADB) and the World Bank. A combined total of 67 projects from 1972 to 2020 with a value of $8.85 billion. Anchoring on banking theories and practices, and applying attribution and triangulation techniques, our study revealed that while both banks' loans are effective in creating jobs, they reduced growth by 200% and increased poverty by 220%. For every $1 loan, capital flights of more than $42 are observed because of foreign currency borrowing and their disbursement delays of five to seven years. As evidenced by recent literature, we provide our finding that the investment-savings gap theory as the basis for foreign currency borrowings is faulty. Fixing this, in the short-term, required 100% disbursement in Rupiah currency in the same year the loan agreements are signed, and into Indonesia's banking systems. In the long term, reduce foreign currency borrowing to near zero. This is an unsustainable endeavour and cannot continue as it not only depletes Indonesia's capital resources but also gives negative yields in its economic development.

Keywords
Attribution, development loans, capital flights, unemployment, growth, poverty, foreign currency loans, banking.

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Perceptional Boundaries of Urban Areas and How to find them?

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Abstract

Cities, while as typically defined 'administrative divisions' in many countries worldwide, have an intrinsic dynamic nature that sets them apart from pure administrative division units. They often grow beyond their designated administrative boundaries, and conversely, a natural city may also be divided into multiple "administratively defined" cities. Therefore, when examining cities, it is imperative to expand our focus beyond the strict confines of administrative entities and consider the broader concept of urban areas or metropolitan regions--frequently colloquially also referred to as cities.

In contrast to cities, the term 'urban area' lacks a universally accepted definition. Scholars have proposed various interpretations, with many utilizing commute patterns or economic activities as criteria for internal coherence among spatial units. In our research, we introduce a 'perception-based' approach, with cognitive maps, to redefine the boundaries of urban areas within China. Using the case of Foshan as an example, we scrutinize the perceived urban boundaries and compare them to the official administrative borders of associated cities/towns. The objective of this study is to illuminate the nuanced distinctions between the two, thereby enhancing our comprehension of the intricate relationship between city administration and the 'perceived cities' shaped by cultural and historical linkages.

Empirical Study on the Current Situation of Japanese Agricultural Corporations: Perspectives from Creating Shared Value

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Abstract

Japanese agriculture, which traditional small-scale family farms dominate, faces sustainability issues such as a decrease in the number of farms, aging farmers, an increase in abandoned farmland, and stagnation in rural areas. Although agricultural corporations account for only a small percentage of the total number of farms, the ratio of employed farmers to new farmers is rising. Generally, agricultural corporations operate on a relatively large scale, have a wide range of business domains, and are highly motivated to realize efficient and stable agriculture. Furthermore, some agricultural corporations are actively working to solve problems in local communities, such as eliminating abandoned farmland, collabourating with welfare programs, and introducing environmentally friendly agriculture. Therefore, it is considered that agricultural corporations play a significant role in improving the sustainability of Japanese agriculture. CSV (Creating Shared Value) management, which realizes the economic and social value simultaneously, is being proposed as the sustainability of society is being called into question today. In agriculture as well, management that balances economic value and social value is considered to be able to contribute to the realization of a sustainable society. Therefore, this study aims to clarify the current situation of Japanese agricultural corporations on realizing CSV management and draw policy implications based on empirical analysis. First, we conducted a questionnaire survey of agricultural corporations and received 972 responses. Next, the situation of the economic and social outcomes of agricultural corporations (four aspects: solving social problems, social reputation, multifunctional function, and efficient resource utilization) was clarified from the survey results. Finally, we applied SEM (Structural Equation Modeling) to the survey results of agricultural corporations to analyse the relationships between management philosophy, management strategy (economic and social strategies), management performance (economic and social outcomes), and entrepreneurship, as well as to clarify the determining mechanisms of economic and social outcomes. The following main conclusions are obtained. First, it is clear that the clarity and penetration of management philosophy improve entrepreneurship. Secondly, management philosophy and entrepreneurship facilitate the implementation of competitive and social strategies. Thirdly, the implementation of competitive strategies improves economic and social outcomes. Fourthly, the implementation of social strategies improves social outcomes as well as economic outcomes under the conditions of high entrepreneurship. Therefore, the policy implication derived from this research is to foster entrepreneurship to succeed in CSV management in agricultural corporations.

Keywords

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The Impact of COVID-19 on the German Real Estate Market: Evidence Based on Spatial Statistical Models

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Abstract

The COVID-19 pandemic had a significant impact on economic development, including the real estate market. Traditional stationary retail concepts in inner cities were disrupted by the pandemic shock, exacerbating an existing crisis. The impact on the residential real estate market is even more complex. As a result of the COVID-19 crisis, the attractiveness of the outer suburbs of large cities is increasing, due to factors such as remote working and behavioural adjustments that will be sustained in the future. In a spatial econometric model, it is shown for 401 German NUTS-3 regions using socio-economic data and a unique housing price dataset for the years 2012 to 2022 that districts in the immediate vicinity of independent cities have increased demand in the housing market. With regard to the post-pandemic, the spatial model results show that a high incidence of COVID-19 tends to have a negative impact on property prices. In addition, variables directly related to housing demand, such as interest rates and socio-economic factors such as childcare, have significantly positive impacts on property prices. However, it is important to note that the findings are not evenly distributed across Germany, highlighting regional inequalities. The changing landscape of the real estate market requires policy makers to recognize and address the growing interdependence between cities and their surrounding areas. This includes considering strategies to strengthen links and cooperation between urban and neighbouring regions.

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QDC: Quick Density Clustering - New Algorithm for Spatial Point Data

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Abstract

This paper develops the Quick Density Clustering (QDC) method which fills the gap in the toolbox of density clustering of spatially geo-located points. It uses a K-means algorithm which is run on two normalized spatial variables: fixed-radius nearest neighbours (NN) and a sum of distances to k nearest neighbours (NN) to find diverse densities of points in 2D. Clusters detected by QDC classify all (x, y) geo-points to high/mid/low-density clusters. QDC uses a standard clustering method on transformed data, unlike many other sophisticated methods that are run on 2D geo-coordinates. It is a quick, efficient, semi-autonomous and big-data tool applicable to static and streaming data. A major parameter in QDC, the number of K clusters to detect, is interpretation-driven, while the other two: the radius for counting NN and the number of NN to sum the distances are of secondary importance and in a minor way impact the outcome. Classification for new points (prediction) is quicker than a typical kNN algorithm by using thresholds of spatial variables. The approach is suitable for tracking human activity as traffic or crowd detection from spatially geo-located mobile data – it finds the high-density points independently of phenomenon intensity and works well with streaming data. QDC is also an important tool for analysing socio-economic spatial point data. The paper shows the example of clustering business locations as well as population from census. Point data, which are unevenly located over space, are analysed to detect high and low-density areas.

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Revitalizing Post-Earthquake Urban Landscapes: A Creative Economy Approach to Sustainable Regional Economic Growth in Eleven Turkish Provinces

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Abstract

The earthquake that occurred in Türkiye on February 6th, 2023, resulted in extensive destruction and loss of life, especially in eleven provinces: Kahramanmaraş, Gaziantep, Şanlıurfa, Diyarbakır, Adana, Adıyaman, Osmaniye, Hatay, Kilis, Malatya, and Elazığ. The earthquake had a substantial influence on the economy of the area, including its creative industry. This research focuses on the urgent need for sustainable regional economic development after the 6th February 2023 Earthquake, which substantially affected eleven provinces in Turkey. This research examines the potential for post-earthquake regeneration by harnessing the creative sectors of advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, research and development, software, toys and games, television and radio, and video games, recognizing their crucial role in the economy. The research focuses on the spatial distribution of creative enterprises and their accompanying labour force in these provinces, using data from the Social Security Institutions covering the period from 2009 to 2022. The objective is to identify prospective patterns without seismic occurrences by extrapolating the trajectory before the earthquake. This empirical study enables a thorough assessment of the creative economy's impact on regional resilience and sustainable development. The study consists of three primary phases: firstly, the identification and examination of the spatial dispersion of creative companies and employees across the eleven provinces; secondly, the evaluation of this data over the specified period; and thirdly, the prediction of potential future paths in the event of no significant disruptions. This study utilizes quantitative approaches to comprehensively examine the dynamic correlation between indices of the creative economy and regional growth.

Initial results highlight the robustness of the creative economy sectors, demonstrating development patterns that indicate a possible offset to the disruptive impacts of the earthquake. The temporal study offers valuable insights into the adaptive capacity of creative industries, emphasizing their capability to recover and contribute to the process of regeneration. Examining the situations before and after an earthquake allows for a detailed comprehension of how the creative economy might promote resilience and sustainable economic development in an area.

Ultimately, it is evident that the creative economy may have a crucial impact on the revitalization of the eleven provinces after the earthquake. It has the potential to provide employment opportunities, entice capital investment, and foster social unity. The industry has a high degree of resilience to unexpected events and has the potential to contribute to the development of a more environmentally friendly and economically stable regional economy. This report proposes the implementation of policies and methods to facilitate the rehabilitation and expansion of the creative industry in the eleven provinces.

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Connection between Agriculture, Landscape Carrying Capacity and Climate Change in the Danube-Tisza Interfluve, Hungary

Edit Hoyk

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Abstract

The aim of our presentation is to analyse how landscape carrying capacity of the Danube-Tisza Interfluve is changing due to climate change. The focus of our study is on the type of agricultural activities and the extent to which their use corresponds to landscape carrying capacity in a landscape that is highly exposed to the negative impacts of the climate change.

To assess the carrying capacity and landscape suitability, data on landscape characteristics (topography, soil characteristics, water management) and current agricultural practices (crop production and livestock practices) will be analysed and compared. The databases used are: CORINE Land Cover; National Ecosystem Service Mapping and Assessment (NÖSZTÉP); Digital Topography Model (DTM); General Agricultural Summary (ÁMÖ); Central Statistical Office (KSH); and Eurostat database.

Although we determine the carrying capacity of a landscape through its properties, we can refine the results by taking into account the impacts and expected trends of the climate change. The core elements of the analyses are the assessment of the spatial structure of land use, the combined assessment of soils and land use on them, and the evaluation of topography characteristics in terms of water retention and water governance. In addition, we evaluate individual agricultural datasets on settlement basis in order to explore the landscape use of agriculture not only through spatial data but also through descriptive data. The evaluation of the descriptive quantitative and qualitative data series provides a more accurate picture of, for example, the amount of water used, the livestock to be supplied, crop averages or labour requirements.

Our results show which areas in the Danube-Tisza Interfluve are not suitable for the present agricultural practices (e.g. arable farming) that can be interpreted as increased pressure to the landscape. Suggestions are made as to the extent and direction of changes that should be made in these areas to match the carrying capacity of the landscape and to ensure its long-term sustainability. Our analysis focuses on water, which is considered the most critical environmental element. Extreme rainfall losses (annual and inter-annual) severely limit traditional crop production practices. Therefore, the main focus should be on water conservation, which includes the designation of low-lying areas that provide space for water in the landscape. In these areas, it is recommended to abandon traditional large-scale crop production in order to maintain the soil moisture of the adjacent higher areas. However, wetlands may also be suitable for agricultural activities, such as the cultivation of water-tolerant fruit species.

Our results show that the traditional, industry-like agriculture in some areas of the Danube-Tisza Interfluve has to be abandoned or modified. Appropriate direction and extent of crop rotation and land cover change will facilitate adaptation to climate change and population retention linked to landscape carrying capacity.

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Spatial Differentiation of Effects on Housing Price: Estimation with New Media Data

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Abstract

Traditional methods of housing price studies are both time-consuming and limited today. An entire sample of housing price studies allows for more detailed and basic inferences for planning and housing policies. New technologies, like social media, websites, mobile apps, and transit cards, can offer more precise data that can accurately represent the actual population. In addition, linear estimation models in housing price research are limited to considering the spatial difference of the house since they only consider the internal characteristics of the house. In this study, real estate website data, which provides a larger sample, and geographically weighted regression (GWR) were used to understand the effect of spatial differentiation on housing prices. Although the study consists of two stages, in the first stage, the districts with the highest price differences were identified with descriptive statistics on the scale of all districts in Istanbul. As a result of descriptive statistics across the thirty-nine districts, it is seen that the differences within the region can be read from the graphs and statistical results. This analysis, which also gives clues about the income levels of the districts, helps to understand whether there is spatial differentiation in the regions. In the second stage, the Beşiktaş district was selected, where differentiation and proximity to the city centre are high. Finally, the effect of environmental and spatial characteristics on housing price differentiation at the neighbourhood scale was examined with GWR. As a result of the selection made among the determined spatial variables, the number of plazas, the number of universities, the height of the top floor, the net population density, the distance to the main arteries, and the distance to public transportation explain the spatial housing price change in Beşiktaş district by 83%. When the GWR model was established with these variables, localR2 values reached up to 87%, especially in the centre of Beşiktaş. Neighbourhoods in the north are the group with the lowest lodge, R2. It can be said that the factors that affect the price of a house change spatially. Therefore, the generally accepted value is insufficient for every neighbourhood or region.

Keywords
Social Media Data, GWR, Spatial Differentiation, Housing Price, Istanbul.

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The Effect of Location Package of Historic Cities' Survival

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Abstract

Many cities of antiquity, such as Rome, Alexandria, Athens, and Jerusalem, survived over the course of history and have become today's major urban areas. Yet other historic cities, such as Antioch, Ctesiphon, Seleucia, Capua and Babylon, disappeared from the map of living urban areas long ago. After wars or natural disasters, people did not return to these cities and they remain in ruins today. The distinction should thus be made between the causes of a city's destruction and the reasons for abandonment, which may not be identical. Although causes of a city's destruction might be multiple, the cause for abandonment is often singular, meaning that the place, in which the city had been built, had effectively lost its appeal, so people do not to come back to the site to rebuild it. This assumption offers a way of verifying the "location package" concept, according to which a place's survival as an urban entity and its growth potential are due to the package of location attributes the place has. In this presentation, an attempt is made to verify this hypothesis is by combining available data on location and population size of major cities of antiquity (CoAs) with several location attributes obtained from different sources – solar irradiation in the area, annual precipitation, proximity to the coast, quality of soil, and others. As the analysis shows, the proportional share of CoAs in the surviving group (i.e., CoAs located in today's urban areas) increases steadily in the line with the number of location advantages the city has, rising from 24% in places without counted advantages to 100% in the areas with the highest number of location advantages, that is, more than fourfold.

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Housing Challenges for Ukrainian Refugees: A Comparative Analysis of Vienna and Lviv

Solomiia Tkach

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Abstract

Russia's armed aggression against Ukraine has launched a new series of global crises, including forced migration. More than fourteen million people in Ukraine have fled their homes to find refuge in other regions within the country or abroad. Every twelfth resident is an internally displaced person in Ukraine. At the same time, EU countries are witnessing the largest wave of mass influx since WWII. In 2022, more immigrants arrived in Austria than at the height of the European migrant crisis in 2015.

The purpose of the study is to conduct a comparative analysis of the housing challenges faced by Ukrainian refugees in two contrasting cities, Vienna (Austria) and Lviv (Ukraine). Today, more than 25 000 Ukrainian refugees are living in Austria's capital, Vienna. Lviv has to integrate more than 150 000 internally displaced persons. Research on refugees' housing access and long-term/mid-term housing integration paths is of particular relevance in both cities, which are characterized by a high inflow of Ukrainian refugees on the one hand and a significant shortage of affordable housing on the other. Housing provision for Ukrainian refugees in Vienna and Lviv differs significantly due to variations in their respective national and urban policies, the dissimilar legal status of the refugees in the two cities, and varying approaches to refugee integration.

Thus, this research answers the following questions: (1) How the integration or the pathways of housing integration in Vienna function, compared to the situation during the so-called "refugee crisis" in 2015, and (2) what the differences are between Lviv and Vienna, as the two cities have different housing-market systems. In Lviv, city authorities are faced with the task of integrating internal refugees, whereas Vienna must deal with international refugee integration. What effect does this have on housing integration paths and provision?

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When Sustainable Development Means Unsustainable Development Financing: The Case of Multilateral Development Partner Loans to Indonesia

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Abstract

Our paper analyses public sector investment through foreign currency borrowings from multilateral development partners known as international development partners (IDPs). In the literature review, we demonstrate the three prevalent banking theories and practices. We view this as an introduction to the current banking practices which have been fine-tuned in the last 5000 years. We argue that these are the basis for reviewing the sustainability of the banking and financial sectors. From this angle, we contend that overseas borrowing by the Indonesian government, including those from the IDPs, despite their intended promises to support and promote a sustainable development agenda or goal (SDG) such as sustainable growth, poverty alleviation, and job creation, is unsustainable. Our results, from analysing over $33 billion (or 9.11% of Indonesia's total borrowings) of sovereign borrowing from the IDPs from 2007 to 2022 support our finding. We discovered the true IDPs' disbursement ratio of 1.3% per annum of Indonesia's total debt. Compared with borrowing from commercial banks, this should be at least 90% upon loan agreement signing. This signifies about 98% of capital flights from the IDP loans on an annual basis. The impacts of which on Indonesia's overall development are retarded growth, loss of job creation potential of 92% or new job creation of over 300,000, and capital flights of over $30 per $1 loan are identified. Additionally, instead of eradicating poverty which is SDG#1, it stimulates more poverty. We argue that Indonesia's cooperation and borrowing from the IDP in foreign currencies are unsustainable as it not only exhausts future generations' resources in paying the loan principal despite only less than 2% entering Indonesia's economy and their interests from the full (100%) loan amounts. It also undermines Indonesia's development agenda because of capital flights and negative impacts. This is an unsustainable practice that needs urgent resolution. Remedying this is not difficult but requires a fundamental shift in the cooperation and implementation arrangements of foreign currency loans from the IDPs.

Keywords
Development bank; foreign currency; poverty; unemployment; capital flights.

Difference-in-Differences with Endogenous Network Externalities

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Abstract

The Difference-in-Difference (DID) framework stands as a widely accepted method in quasi-experimental research, particularly in addressing economic problems characterized by interdependent relationships across various levels. Traditionally, these relationships are often modeled using complex general equilibrium models that derive from either individual choice models or aggregated relationships. In the pursuit of inferring causality, researchers have developed structural models grounded in sets of behavioural hypotheses about the agents involved.

Microeconometrists have critically examined structural models, pointing out challenges arising from a focus on a large set of parameters. While structural parameters are inherently linked to economic theory, the intricacies of these models can sometimes overshadow the pursuit of understanding average causal effects. Despite this, the overarching goal of theory-motivated structural estimation closely aligns with the broader causal agenda. Some experts advocate for the use of causal inference models, such as the conventional DID approach.

However, the classical DID framework has limitations, particularly in its failure to consider treatment-induced changes in the network linking treated and control units. To address this gap, we propose a novel approach employing a spatial DID model integrated with an instrumental variable. This innovative methodology aims to account for the endogeneity present in both the network and outcome variables. The instrumental variable network DID method takes a dual approach: firstly, it controls for the endogeneity of the network to the treatment, and secondly, it addresses the direct and indirect impact of the treatment on any network member.

To demonstrate the efficacy of our proposed model, we conducted Monte Carlo simulations and applied the methodology to estimate the impact of drought on global wheat trade and production. The results underscore the significance of considering the network and its changes in causal inference models. Notably, traditional DID models that overlook the network and its dynamics lead to substantial underestimates of overall treatment effects.

In conclusion, our research introduces an innovative spatial DID model with an instrumental variable, offering a nuanced approach to tackle endogeneity in both network structures and outcome variables. Through empirical applications, we showcase the model's superior performance, emphasizing the necessity of accounting for network dynamics in estimating treatment effects. This contribution not only advances the methodological landscape but also enhances the reliability of causal inference models in the realm of quasi-experimental research.

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Occupation Portability and Regional Allocative Flexibility: Evidence from Brazil

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Abstract

The study assesses the allocative flexibility in the labour market of Brazilian regions based on the mix of turbulence and mismatch. We study the periods 2014-2017 (domestic crisis) and 2018-2021 (Covid-19) to illustrate the regions' ability to adjust to shocks. We define occupation portability as the probability that a particular occupation is demanded by different sectors and check how the adjustment to shocks varies across different portability levels. We observe a higher sensitivity to the economic crisis of 2015-2016 (turbulence) and a greater inability to adjust to the pandemic (mismatch). Poor regions showed higher flexibility indices, which can be explained by the lower density of firms in the same sector, a smaller number of complex occupations, a higher number of sectors capable of absorbing less specialized labour, and a higher concentration of portable occupations.

A Study on the Development of a Dynamic Spatial IO Model and its Application to Japan's Regional Economy

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Abstract

Input-output analysis is an important method for policy evaluation, and many studies have been applied at various regional levels. This dynamic model has been understood as an effective analysis method for evaluating the effects of future policies.

There are two types of input-output tables with spatial dimensions. One is the inter-regional input-output (IRIO) table, which contains detailed transaction information between regions and is suitable for empirical analysis. The other is the multi-regional input-output (MRIO) table, which is suitable for analysing changes in regional production technology and changes in transportation conditions between regions. Input-output approach also includes backward linkage models that measure impacts on upstream industries and forward linkage models that measure impacts on downstream industries. In this study, we try to develop a dynamic spatial IO model that integrates these features.

In Japan, national and regional input-output tables have been created and published by the central and local governments. Many researchers have also attempted to estimate input-output tables at the municipal level. In this study, we attempt to estimate an inter-regional input-output table and a multi-regional input-output table for municipalities across Japan. The base data is the 2015 national input-output table. Estimating regional input-output tables for over 1800 regions in Japan poses several computational challenges. This depends on the number of production sectors in each region. In this study, we explore this estimation issue.

Furthermore, we will consider how to incorporate IRIO and MRIO tables at the municipal level into dynamic spatial input-output models. We design simulation models that enable the measurement of the effects of various policies and events. This includes the development of computational procedure to solve the simulation model.

In this study, we will consider application examples using this model and data. We measure spatial ripple effects and spillover effects at the municipal level across the country, targeting impacts such as natural disasters and tourism. Methods for visualizing simulation results are also explored to support intuitive understanding.

Japan is a country that experiences many natural disasters, and how to evaluate disaster resilience, including economic damage and recovery, is an important policy issue. In the post-corona era, the revitalization of tourism and sustainable tourism have become important issues. We will examine the possibility of applying the dynamic spatial model developed in this research to these problems. Through these experimental analyses, we will consider the effective use of models and data, as well as future issues.

Keywords
Dynamic Spatial Model, Inter-regional Input-Output Table, Multi-regional Input-Output Table, Spatial Spillovers, Simulation, Evaluation.

The role of the Financial Intermediary System in Development Policy, Highlighting Regional Development in the 2007-2013 EU Development Period in Hungary

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Abstract

The presentation aims to give a brief overview about the financial instruments' role in development policy in the EU and, as a Central- European emerging country, to highlight the special features of the Hungarian delivery system. The examined period is the 2007-2013 EU development cycle, because the diversity of the institutional system mediating (repayable) subsidies was the greatest in the country during this period. Beside this, the presentation also gives a brief outlook on the recently completed development period (2014-2020) to identify the risks and challenges on local economic development.

The background research was based on the analyses of the Hungarian strategic development policy documents (Partnership Agreement, Operational Programmes) and the activity data of the institutional system, which handled the repayable funds between 2007-2013 and which was reported by the Hungarian Development Bank. The literature review was focused on three key issues: the financial intermediary system's pro-cyclical impact on the economic processes and its growth generating effects; the territorial differences which can be directly caused by the uneven regional distribution of financial flows; and the policy goals of the European Commission and their delivery by the Hungarian development policy. Since, similarly to the international conditions (ESPON 2019), regional data below the regional level are not available in Hungary for the period 2007-2013 in connection with the use of financial instruments of the cohesion and structural funds, I also made a qualitative research to evaluate the territorial impacts of the EU's financial instruments in Hungary between the 2007-2013 periods. As part of this, I searched for consensual expert opinions and conducted a total of 20 expert interviews. In all cases, the interviewees were anonymous and the respondents covered the civil sector, the financial sector, other private sectors and the public and municipal sectors (including experts from the European Commission) too.

On this basis, 10 consensus statements have emerged, highlighting, for example, the fact that the geographical proximity of financial intermediaries, while facilitating, is not the most important factor in the successful disbursement of repayable funds. The ability of the target groups to access resources is much more important. The research also revealed that in the period 2007-2013, financial instruments in Hungary mainly resulted in the development of the financial intermediation system and a greater diversity of financial intermediation institutions and financial intermediation opportunities. At the same time, it was a wrong assumption that the level of territorial development should be the focus when creating the integrated character of a financial instrument.

The last section of the presentation offers some policy recommendations for a better institutional system delivering cohesion policy and for better financial instruments serving more cohesion effects.

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A Mixed Methods Research on CSV Management in the Japanese Rice Flour-Related Business

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Abstract

Generally, it is thought to be important to increase the demand for rice in new applications such as rice export, rice for feed and rice for flour, etc. while the demand for table rice is declining year by year in Japan. Paddy rice agriculture can be expected to contribute to the conservation of ecological systems, landscape formation, disaster prevention and food security. On the other hand, there is a high potential demand for rice flour products (e.g., gluten-free products) to meet consumers' nutritional and health-conscious needs, and the market is expanding both domestically and internationally rice flour products. However, there are two problems with the domestic rice flour: the cost at the stage of producing rice and the cost at the stage of rice milling and commercialization. To overcome these problems related to the spread of domestic rice flour products, rice policies to promote the businesses conducted in partnership with consumers and local residents for "creating-shared value" (CSV) are thought to be effective.

Therefore, the purpose of this study was to clarify the mechanism of CSV management in the domestic rice flour related businesses applying mixed methods research (MMR) by combining latent class analysis (LCA) and qualitative comparative analysis (QCA). Specifically, we conducted a questionnaire survey targeting companies engaged in the rice flour business and analysed the conditions for their CSV managements. First, for classifying the management characteristics of rice flour related businesses, latent class analysis (LCA) was introduced to the survey results. Secondly, a qualitative comparative analysis (QCA) was conducted on the CSV management entities extracted from the LCA, and the necessary and sufficient conditions for realizing CSV management were clarified. Finally, we draw policy implication for the regional development through a sustainable rice flour market in Japan based on the results of empirical analyses in this study.

Keywords
Rice flour-related business, Creating shared value (CSV), Latent class analysis (LCA), Qualitative comparative analysis (QCA), mixed method research (MMR).

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Regions in Development Trap and the Exploitation of Endogenous Resources

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Abstract

The issue of regions being in development trap is a concern for both academics and development policy-makers at EU and Member State level. Although this phenomenon was already addressed in the literature more than a decade ago (Eichengreen et al. 2012, Kharas and Kohli 2011), it was the 7th and 8th Cohesion Reports that drew particular attention to this issue in development policy. Various reports and policy documents (e.g. Falling into the Middle-Income Trap? A Study on the Risks for EU Regions to be Caught in a Middle-Income Trap", EU lagging regions: state of play and future challenges, The geography of EU discontent and the regional development trap, Place, Productivity, and Prosperity, Revisiting Spatially Targeted Policies for Regional Development, etc.) are characterised by the fact that they are based on macro-level indicators and draw conclusions mostly at regional level. However, these analyses and findings fail to identify the causes, which are typically local, originating from the most elementary actors of development policy, thus lacking a place-based approach and proposals that could contribute to solving the trap in a comprehensive and sustainable way.

The presentation will explore the development policy methods, institutional conditions, measurement basics and measurement options that - at least partially - fill these gaps. It will also present concrete interventions that have been put into practice and offer well-working solutions at local and regional level, especially for social groups living in peripheral areas studied by the 'geography of dissatisfaction'.

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European Union Strategies and their Effects on the Adriatic-Ionian Region Ports

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Abstract

European Union macro-regional strategies bring together territories and stakeholders that are geographically close, but more importantly have common interests and goals to be addressed. In addition to serving as a guide for the territories involved, they are also a stimulus for growth and cooperation. Looking at the strategy of the Adriatic-Ionian region, it is possible to observe the involvement of non-EU countries, which share common goals and challenges. This area is focused on the Adriatic-Ionian basin, so ports and maritime transport play an important role in this region. The present work stems from the need to investigate the Adriatic-Ionian region in a relevant area such as the cooperation and cohesion of the maritime ports, reviewing what their main activities are and how they are influenced by macro-regional strategies in their management and participation in initiatives and projects. Starting with an overview of European macro-regional strategies, and the Adriatic-Ionian context in particular, the review was then conducted on the activities, governance, cooperation and participation in projects with other stakeholders in the macro-region. The research was conducted by consulting planning documents and information on port authorities, in order to assess the state of the art in the Adriatic-Ionian region on the topic of the ports. The conclusions of the research emphasize the importance of the European Union Strategy for the Adriatic-Ionian Region's role in the competitiveness and cohesion of Adriatic-Ionian region ports through the cooperation between them as they are complementary and therefore it could be a mean to improve performance in this regard. This paper aims to open up further perspectives in this field, laying a foundation for more research in this domain.

Navigating Change: Shaping the Future of EUSAIR - Trends, Priorities, and Policy Implications

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Abstract

This study focuses on the European Union Strategy for the Adriatic and Ionian Region (EUSAIR) as a pivotal framework. EUSAIR's four key pillars—Blue Growth, Connecting the Region, Environmental Quality, and Sustainable Tourism—form the bedrock for comprehensive regional development. Through synergistic efforts, EUSAIR aims to cultivate collabouration, innovation, and sustainable growth, thereby contributing to the broader goals of social, economic, and territorial cohesion in the European macro-regions. This paper investigates the shifting needs and trends within the European Union Strategy for the Adriatic and Ionian Region (EUSAIR) from 2014 to the present, aiming to formulate strategic policy recommendations for the upcoming programming period. In addition, this article endeavours to identify emerging priorities intricately linked to the concepts of neighbourhood and enlargement, emphasizing the integration of the region, bolstering the single market, and positioning it as a vibrant research and academic hub. Anchored in the identified potential new priorities, including research emphasis, stakeholder engagement, youth involvement, infrastructure connectivity, and data standardization, the study proposes leveraging the need of establishing a dedicated space for research, study, and the exchange of data and information. A well-structured space for data and information sharing, along with the definition of specific transversal priorities represent a cornerstone for addressing evolving regional priorities for fostering comprehensive development in the macro-region.

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Application of Hybrid Gibbs Processes to Firm Location Forecasting

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Abstract

Importance of geo-location is obvious for businesses, since it is a key for success (Bhat, Paleti, and Singh 2014, p.462). Forecast of location for a new business plant is difficult, since a lot of things have to be taken into account. As a base of such forecast, one should estimate a model explaining firm locations. Already existing models use aggregated data, which do not seem to be appropriate for such problem, since they do not reflect spatial nature and distribution of data, do not account for spatial factors (such as localization patterns (Pablo-Martí, Muñoz-Yebra, and Santos 2014), issue of economic clusters and agglomeration economies (Buenstorf and Guenther 2007; Lasch, Robert, and Le Roy 2013; Walz and Wellisch 1996; Delgado, Porter, and Stern 2010; Jo and Lee 2014; Basile, Castellani, and Zanfei 2008; J.-M. Arauzo-Carod and Manjón-Antolín 2012; Rosenthal and Strange 2003; Jofre-Monseny, Marín-López, and Viladecans-Marsal 2014)) or existence of spatial dependence and heterogeneity. Aim of this paper is a development of method, which allows to predict location of a new point and takes into account individual characteristics of point, its neighbours and spatial covariates. Paper can be considered as a contribution to development of spatial micro-econometrics. Preliminary results show that consideration of spatial factors (such as distance to center or line pattern of roads) and interactions (captured with hybrid Gibbs process) allows to produce a model which passes goodness-of-fit tests and can be used in prediction of new locations.

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Regional Differences in the 9th and 12th Grades of Hungarian Public Education. Equality of Opportunity, Output and Competences

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Abstract

Hungarian secondary school education has faced many new challenges since 1990. The number of children is constantly decreasing nationally. At the same time, the number of schools increased due to the appearance of church and private schools. The competition for students transformed institutions. The four-class gymnasiums became 6th and 8th classes. The former vocational training schools and vocational secondary schools have become institutional types providing higher education. Among school administrators, there were also significant reorganizations between local and county governments and current school districts. At the same time, the Hungarian school system must manage the 21st century. Challenges of the 20th century: the expansion of modern media and information technology, the development of foreign language competences, the explosive development of the natural sciences. On the other hand, the Hungarian school system should deal with the growing social and territorial inequalities, and the catching up of the children of the falling social strata. Meanwhile, the Hungarian labour market was transformed. The old big employers have disappeared. The demands placed on employees by newly emerging large foreign companies and domestic SMEs are already significantly different from the old situation. Social and spatial mobility creates new structural inequalities in the Hungarian labour market. The cooperation of the education system - the teaching materials, the school network and all stakeholders - is necessary.

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Examining the Competitiveness and Sustainability of the Southern Great Plain Region

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Abstract

What is the Southern Great Plain? The land of the Hungaricums? The valley and countryside of the great rivers that cross Hungary - the Danube and the Tisza? The region of the strong market towns - Kecskemét, Szeged, Hódmezővásáhely, Békéscsaba, Baja? In addition to cities with a very strong Hungarian national consciousness, it is home to German, Serbian, Slovak and Jewish settlers and their descendants. Man and nature are constantly at war here. During the second conquest of the country in the 18th century, the aim was to bring the desertified, wild landscape into cultivation. In the 19th century, the regulation of rivers shaped the landscape, the current framework of water management, the transport infrastructure and the spaces of cities. In the 20th century, social transformations, the spread and fall of Soviet-style large-scale agriculture transformed the Great Plain. Economic transformations and large infrastructural constructions almost always led to a partial migration of the population of the Southern Great Plain. The sustainable development of the Southern Great Plain is only possible with a very significant increase in competitiveness. The aim of the research is to identify the competitiveness factors on which the long-term development of the region can be based. The task is how to move from the current FDI-driven development path to a knowledge-based, innovation-oriented and sustainable development path?

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Diversity Management in Japanese Agriculture for Creating Shared Value

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Abstract

Diversity Management (DM) is a management initiative that generates innovation and leads to value creation by utilizing diverse human resources and providing opportunities to maximize their abilities. When the workers' psychological safety, creative thinking, social capital, and well-being are improved in workplace through the introduction of DM by firms, it is thought to contribute to the creation of both social and economic value and to realize shared value creation.

The purpose of this study was to clarify the awareness of workers toward DM in Japanese agriculture based on a large-scale web questionnaire survey. Specifically, it clarified the effects of introducing DM on workers' psychological safety, creative thinking, social capital, and well-being. First, we applied multivariate analysis to the survey results and clarified the characteristics of workers' awareness toward DM in agricultural sector. Secondly, we applied structural equation modeling (SEM) to the results for analysing the impact of DM initiatives in the workplace on the well-being of workers. The results clarified that the introduction of DM in the workplace has a positive impact on the psychological safety, creativity, and social capital (SC) of working people, and their satisfactions with work and life are increasing. Furthermore, the results revealed that creative thinking and the exhibiting ability in agricultural sector improve the well-being of workers which means that the increasing in the task type diversity is also important. Therefore, creating shared value (CSV) in agricultural firms for realizing a sustainable agricultural and rural development needs to improve psychological safety in the workplace and life satisfaction of workers through effective DM efforts.

Keywords
Diversity Management (DM), Creating Shared Value, Multivariate Analysis, Structural equation modeling (SEM), Japanese agriculture.

High-Speed Railway station Impact on Regional Economic Development in China: An Empirical Analysis Using the SDID Model

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Abstract

This research delves into the profound implications of high-speed railway station construction on regional economic development in China. Employing the SDID model, the study meticulously analyses the opening of high-speed railway stations and its subsequent impact on county-level economies. The findings, drawing from empirical data, underscore the following pivotal conclusions: Firstly, the study establishes a positive correlation between the introduction of high-speed railway stations and economic growth at the county level. Beyond the direct impact, the research illuminates the existence of spatial spillover effects, affirming the transformative influence of high-speed railway station construction on county economies. Secondly, the investigation reveals that high-speed railway station openings play a crucial role in the upgrading of industrial structures within counties. This effect is particularly pronounced in central and western regions, emphasizing the broader implications for economic activity concentration and growth in both primary and tertiary industries. Thirdly, the study highlights the nuanced nature of the impact of high-speed rail construction, contingent on regional characteristics such as existing infrastructure, population density, and industry structure. Policymakers are urged to consider these local nuances for effective planning and implementation.

In light of these conclusions, the research posits several key policy recommendations. Firstly, a thorough evaluation of the economic impact on neighboring counties is recommended before planning and constructing high-speed rail networks to mitigate potential negative spatial spillover effects. Secondly, policymakers are encouraged to adopt spatially differentiated policies, considering both direct and spatial spillover effects. Tailored approaches, accounting for regional disparities in economic development, can maximize the positive impacts of high-speed rail infrastructure. Thirdly, recognizing the spatial agglomeration effects of high-speed rail stations, the study recommends strategic placement in central locations to enhance economic networks, fostering inter-regional trade and facilitating the flow of people, goods, and capital. Lastly, the study underscores the importance of prioritizing accessibility and connectivity. High-speed rail, by reducing commuting costs, attracts residents to areas with lower living costs and high environmental quality. Policymakers should ensure selected station sites are easily accessible and connected to local transportation modes, with a focus on counties with significant economic development potential.

In conclusion, this research contributes valuable insights into the multifaceted impact of high-speed railway infrastructure on China's economic development. By considering regional nuances and implementing targeted policies, the high-speed railway has the potential to serve as a catalyst for sustainable economic growth, industrial advancement, and spatial integration across the nation. Future research could delve into heterogeneous effects on economic growth and explore broader impacts on the environment, society, and culture.

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Problems Arising along the Urban Rural Fringe - A Case Study of Hungarian Cities

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Abstract

Urban sprawl has a wide-ranging impact on the urban-rural fringe of the post-socialist cities, which are the most dynamically changing areas of the countryside in the Central and Eastern European countries. Intensive construction activity and population growth can be seen in the outskirts. Due to the lack of local spatial planning and land-use management in these areas, the environment was severely damaged during sprawl. Housing conditions are quite different in the suburbs, so that we can find great variety and inequalities. There are considerable differences in the buildings and character of the residential environments, as well as in the social status. To better understand the phenomenon, we investigated two Hungarian cities: Győr and Kecskemét. Both regional centers have large outskirts, and Kecskemét's catchment area has many scattered farms, even in international comparison. During our research, we conducted systematic fieldwork and in-depth interviews (n=30) and implemented quantitative (GIS) and statistical analysis to gather critical features of the transformation of the urban-rural fringes. According to our results, a highly fragmented spatial structure has emerged due to the lack of local government resources and will. Urban sprawl causes complex environmental problems, such as landscape degradation and social segregation, and raises the question of the unsustainability of buildings and construction along the urban-rural fringe.

Luminosity and Local Economic Growth

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Abstract

The seminal study by Henderson etal. (AER, 2012) introducing night-time lights (NTL) data to a new audience greatly expanded the range of what can be feasibly evaluated in data-poor environments. Whenever and wherever traditional economic activity data, such as GDP, are either absent or not trusted, NTL data might be used instead as a local economic growth proxy when estimating treatment impacts from natural disasters, economic shocks, regional policies and so on. To provide a more familiar metric, some authors estimate effects of these treatments on local luminosity growth and then transfer GDP-luminosity elasticities from elsewhere to show economic growth effects. Dozens of studies in the literature that have used this elasticity-transfer approach.

The range of treatments studied in the literature has no restriction; some use very finely-grained spatial data, like individual beaches whose average area is just 0.02 km2 or micro grids. In contrast, studies providing the GDP-luminosity elasticities are necessarily from more spatially aggregated units given the need for GDP data. So a general direction of elasticity transfers is from aggregated sources to less aggregated destinations. Also, studies providing GDP-luminosity elasticities are often for earlier periods because GDP data are only available with a lag, especially for developing countries. The insight that we present in this paper is that these GDP-luminosity elasticities vary by time period, are sensitive to the level of spatial aggregation, and to the remote sensing source of NTL data. The elasticities also differ between metropolitan and non-metropolitan settings and by country. Our findings differ from influential prior studies which suggest that aggregation levels have little effect on GDP-luminosity elasticities. This variability means that the reported effects on local economic growth of various treatments may be quite inaccurate.

We use data from the two most populous developing countries that report official sub-national GDP data at county and district level (China and Indonesia), and we supplement these findings with US county level data. We construct panels of annual sub-national GDP for the period from 2000 to 2019 for each country and relate these to three types of NTL data: the widely-used DMSP data, the next most popular VIIRS Night Lights (VNL) data, and the relatively unused NASA Black Marble data. We use the "within" panel data estimator, with fixed effects for each year and for each county or district to provide a measure of the GDP-luminosity elasticity based on changes, rather than on cross-sectional levels.

Results

We examine what happens when data are aggregated from county/district level to the state/province level, finding that elasticities become much larger when aggregated. Consequently, transferring GDP-luminosity elasticities from more aggregated settings to less aggregated study areas that lack GDP data will tend to exaggerate the effect of the studied treatment on local economic activity. We also examine sensitivity of this aggregation bias to variation across sub-periods and we also account for possible biases due to measurement errors.

Overall, our study suggests a need for more caution when interpreting studies based on NTL data.

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Rural Development Challenges and Resilient Countermeasures in Northern and Central Europe: A Comparison of Sweden and Slovakia

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Abstract

In line with the emergence of the post-urban world, a general development trend is that rural areas are being divided in two opposite parts: the city-close countryside, that are being integrated in the growing city-regions, and a peripheral countryside outside the growth influences of the city-regions. (Between these areas, there might be intermediate zones, interacting with the city-regions, but not enough to turn over to integration). This means that "rural areas" cannot be treated as one unit, but as two units with very different development tendencies.

This chapter discusses the situation and tendencies for these two types of rural areas in Sweden and Slovakia, respectively. Both are members of the European Union and their rural policies are determined by the Union's Common Agricultural Policy. However, the countries' history and institutional legacy are very different. Postwar Sweden has been a welfare market economy, while Slovakia after World War II became a part of the socialist Czechoslovakia, and did not become an independent state until 1993. Furthermore, rural and agricultural policies were characterized by collectivization and a centrally planned economy with a strong emphasis on heavy industry in Slovakia. This significantly distorted the market and hindered the ability of rural communities to adapt to changes.

Against this background, this chapter presents and discusses current challenges for rural development in the two countries. Examples of reactions to these challenges and possible measures for building rural resilience are also provided.

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Dynamic Evolution of Urban Space and its Sustainable Path under Climate Change - A Case Study of the Guangdong-Hong Kong-Macao Greater Bay Area

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Abstract

Climate change is a major challenge for sustainable development facing humankind today. China put forward the goal of achieving carbon peaking around 2030 in 2015, and has actively taken policies and actions to address climate change. Based on the dynamic trajectory of urban ecology, this study constructs an ecological-human-Neo-ecological integration framework, evaluates the ecological spatial patterns of land use and transport factors under climate change from 2000 to 2020, and further analyses the impact of ecological self-regulation effects on the sustainable development of the Bay Area. This study concludes that: (1) urban expansion and convergence are closely related to land use, and the urban and rural construction land in the Greater Bay Area expands year by year, and the overall development is mainly clustered at the Pearl River Crossing, reflecting the significant radiation-driven effect of the watershed on the coastal cities along the river; (2) urban expansion has led to large changes in the land use rate of watersheds and forested land in some cities (e.g., Shenzhen city and Zhongshan city), and the construction of the northern ecological bay area has enhanced the climate resilience; (3) transport accessibility and the spatial development of the Greater Bay Area are positively connected, and urban accessibility can mitigate climate change-induced risks and promote the integration of the Greater Bay Area from the core to the periphery. This study aims to investigate thoroughly the impacts of ecological-human equilibrium and intrinsic mechanisms of climate change on the urban development of the ecological bay area, and to provide reference suggestions for promoting the transition of the bay area cities to clean and sustainable development.

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Arguments for the Circular Economy Coming Along with Requirements of Bold Geopolitical Remodeling at the Global Scale

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Abstract

The pattern on a global scale, at the country level, is that "high quality" democracies use more natural resources due to their higher incomes, with a relatively stable level of domestic extraction and a descending share of domestic resources at the same time.

Meanwhile, poorer and often less democratic countries sell a higher share of natural resources as raw materials. As finished products, many of these countries already find themselves in the role of importers of these resources. Presumably, lower-quality democracy is essential to explain that country's global position at home and maintain it – while it benefits the few. There are historical reasons for much of this division, but not exclusively. For example, some countries with high fossil fuel reserves can achieve high incomes with a diverse historical record and democratic characteristics.

Closing the loops of materials and energy is what a circularity agenda calls for. The reason for the ecological crisis that has developed is precisely the abundance of natural resources at low cost - relative to the market pricing of value added. Therefore, global trade in natural resources is environmentally destructive and has impoverished and oppressed donor countries by skimming off much of the value added by developed countries and corrupting local regimes. A proper development path has to enable the developing economies to build their own organic economic structure, thus integrating total added value and reducing the globally increasing social inequalities that are one of the main drivers of environmental pressures in today's system. In a sense, this is the circular economy's global ecological and social meaning.

In our study, we take stock of evidence from the literature and present our original analyses that underpin the dual pressure put on societies and ecosystems by the current global resource allocation settings. We deliver the historical evolution of economic (value added, national income), social (democracy index, expected lifetime), and ecological characteristics (resource extraction, waste management) of distinct world regions, indicating that the vast majority of socio-economic benefits still support the core economic actors worldwide, resulting in overconsumption of natural resources and conserved historical roles of the periphery. Finally, we introduce a novel formulation of the circularity requirements at global and regional scales.

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Assessing Tourism Competitiveness across Hungarian Destinations: Recent Discoveries and Implications

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Abstract

This research evaluates the regionalization of tourism in Hungary, exploring the breakdown of the national tourism gross domestic product (GDP). Additionally, the study delves into the concentration, spatial variations, and characteristics of these two indicators. A multi-modal approach is employed to analyse the competitiveness of Hungarian counties, and the penetration of these tourism regions is discussed through the application of the Tourism Penetration Index. Furthermore, we compute the regional GDP across Hungary.

How Economic Rent-Seeking Constraints the Sustainability Transition Through Spatial Processes

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Abstract

Economists are impressed by the existence of economic rents for centuries, as it describes a suboptimal functioning of the markets. Despite the long tradition of the discussion on this topic, there is yet to be a generally accepted definition of the economic rent. Theoreticians do agree, though, that rents occur in case of natural or artificial barriers to entering the market on the one hand and that they deliver proceeds for the resource owner even without any additional modification or processing of the good on the other hand.

Economic rent manifests in operation surplus exceeding the normal profit, steaming from various forms of resources and markets from natural resources to platform economics towards some individuals. It is assumed that economic rents were present throughout the whole history of settled Humanity; however, its emergence required core legislative and organizational shells invented in the capitalist economy context, like private property rights, copyrights, and representative democracy.

Some evidence implies that the share of the economic rents in national income has emerged in the last decades (Kaplinsky, 1998; Stemerding, 2023; Mazzucato et al., 2023). The share of rents has even surpassed ten percent of the GDP in the second decade of the 21st century in the US, albeit it is extremely challenging to estimate the amount of economic rents at a macro scale (Eggertsson et al., 2021).

The existence of economic rents at unprecedented levels explains a wide variety of the causes of the current ecological crisis. Artificially continued reliance on fossil fuels, urban sprawl as a megatrend, and housing market bubbles are severely driven by the economic and political power of few, transmitted by those decisions on infrastructures of roads and communication, land use, and spatial planning.

In this study, I will explore and present the critical linkages between the unsustainable development path after WWII and rent-seeking behaviour through the literature, case studies, and original research. I will also be advocating that there are ready-to-use policy solutions by hand, like cash-flow taxation, land use taxation, spatial planning reforms, and promotion of public transport.

Land and Deforestation Embodied in Trade: An Analysis for Brazilian Biomes

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Abstract

Given the social and ecological importance of Brazilian biomes, which, in addition to providing important environmental services on a global scale, also contribute to the country's income generation in activities linked to agribusiness trade, the objective of this paper is to evaluate agricultural land and agriculture-caused (AC) deforestation embodied in Brazilian trade, both at the intranational and international levels. To this end, we constructed an inter-regional input output matrix, named MIP-Biomas, which contains 47 regions, correspondent to the divisions of biomes within their respective federative units, cross-referenced to 36 activities. The MIP-Biomas was built based on the 2015 matrix of the Instituto Brasileiro de Geografia e Estatística (IBGE), considering product-based technology and the Interregional Input-Output Adjustment System (IIOAS) method. This matrix also has the opening of the vector of exports to some of the main Brazilian trading partners, namely, the European Union (EU), the United States (US), and China, as well as the rest of the world. Combining the monetary data from MIP-Biomas and physical data on direct agricultural land use and AC deforestation taken from satellite images of Mapbiomas, we constructed separate indicators to measure agricultural land content and AC deforestation content embodied in both intranational and international trade. Our results revealed the significant contributions of the Cerrado and Mata Atlântica biomes to agricultural land incorporated in trade at the intranational and international levels. Furthermore, the Caatinga biome has emerged as a prominent deforestation hotspot, second only to the Amazon in intranational trade and being the first in terms of international trade destined for the EU, US and China. Intraregionally, it was also possible to observe the pressure exerted by rich regions from the Mata Atlântica biome on land use and deforestation throughout Brazil. In sectorial terms, both at the intranational and international levels, it is observed that a large part of the content of agricultural land and of AC deforestation comes from the food sectors, especially bovines and their meats, as well as other proteins such as milk and dairy products, poultry and pork. It is emphasized that there are regional and sectorial variations in these results, as detailed in the paper. The results contribute to an evaluation of the sources and destinations of agricultural land use and AC deforestation in Brazilian trade and can serve as a basis for the formulation of national and international policies to fight against deforestation.

Sustainable Model of Corporate Embeddedness: Good Practices of Small and Medium-Sized Family Companies

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Abstract

The concept of embeddedness, originating in sociology and later evolving within economic geography and regional science with an explicit spatial dimension, has undergone a significant conceptual transformation in recent decades. Explored through various lenses in the academic discourse, this research introduces a novel perspective by integrating sustainability into the conceptualization of the phenomenon. While corporate embeddedness traditionally focuses on economic dimensions, this study contends that sustainability, limited to strategic integration in existing literature, must be an inherent part of the embedding process. As companies become locally embedded, their interaction with the environment extends beyond economic aspects, encompassing politics, science, society, and the environment. This commitment to the local space involves a consideration of social, cultural, and environmental impacts, necessitating the inclusion of corporate social responsibility and sustainability in the embedding concept. The research argues that the literature of embeddedness and sustainability shows similarities in many points, and their joint interpretation contributes to a deeper understanding of companies' local commitment. In the international literature, the connection between corporate embedding and sustainability as well as responsibility is a completely new recognition, thus creating the concept of sustainable embedding, the range of meanings of which goes beyond the traditional interpretation of sustainability and corporate responsibility, and the interpretation of sustainable embedding has not yet appeared in the domestic literature. The research explores the relationship between corporate embeddedness and corporate sustainability and responsibility. The aim of the research is to identify sustainable good practices of corporate embedding along the quintuple helix model of embedding with the purpose of pointing out how sustainability practices strengthen mutually beneficial relationships between businesses and actors in the local space. In order to collect sustainability practices related to corporate embedding extensively, family small and medium-sized enterprises are surveyed by in-depth interviews, as these types of enterprises show strong local commitment, thus assuming clearly identifiable good practices. The analysis of small and medium-sized enterprises is also relevant because their proportion influences the embedded sustainable values of a given local space. The interview guide contains targeted questions for each dimension of the quintuple helix model that is the economy, politics, academia, society and environment. The study argues that sustainable practices promoting embeddedness can be identified in all dimensions, despite the fact that small and medium-sized enterprises have limited opportunities compared to large enterprises. There is no doubt about the practical use formulated and disseminated along the theoretical model of the study: it serves as an incentive for small and medium-sized businesses, which helps to deepen the degree of their embeddedness, thereby generating additional local benefits for the local space and themselves. The significant weight and numerical ratio of small and medium-sized enterprises makes it important that, despite the disadvantages arising from lack of resources and size, the process of embedding helps their sustainable role in the local space.

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Centralized Governance and Fuzzy Spaces - The Case of Hungary

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Abstract

In parallel with the comprehensive political and governance reforms, Hungarian regional development policy has also undergone crucial changes. The paper addresses the issue of the relationship of governance and the territorial units of regional development, based on policy and legal documents and on empirical research conducted in 2019-2023.

Since 2010 the Hungarian government has implemented several constitutional, administrative and public policy reforms, reshaping the territorial structure of power. Local self-governments have lost their former comprehensive empowerment and have gradually been excluded from many public services as well as the decision-making mechanism of regional development. The strong centralization redrew the administrative map, shifting the balance among levels and creating new spaces for developmental interventions. Our research conducted in a peripheric, declining county of Hungary, provided evidence of the disappearance of „official" public spaces and the emergence of alternative spaces following the new vital channels of territorial interest representation (to be visualized on a map).

The older territorial units and the new, mostly informal „functional" spaces have produced a jungle of institutions, actors and plans whose logic is diametrically opposed to the European cohesion policy principles. Political and public policy centralization has reinforced vertical ties at the expense of horizontal (social and territorial) cooperations. An interesting aspect of this paradigm shift is the activation of districts of individual parliamentary members emerging informally as the most important transmitting channels between the top and the bottom bypassing the counties, and other planning units of regional development. There are also several specially managed territories delineated by the government, leading to the hollowing-out of the „ordinary" development and planning mechanism. The network of larger cities is another special issue, since the legal, and planning frames hinder their necessary cooperation with each other and their surroundings. Cooperation is also limited by the political conflicts. It appears as if the central elite had occupied the territory, producing fuzzy spaces overwriting bottom-up processes and initiatives.

The new law on regional development is under preparation, at the time of RSAI conference we will know more about the new legal frames which legitimize the geographically and politically reshaped regional policy.

The Hungarian „story" is not unique, since many territorial reforms have been introduced in Europe and beyond with the same political ambition. The paper concludes by highlighting the difficult dilemma of harmonizing the predominantly economic and social logic of regional development with centralized governance models.

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Creating Shared Value in Urban Agriculture: Focusing on Shanghai, China

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Abstract

A rapid urbanization promotes urban development but also brings about the problems such as food security, environmental pollution, social disparity and urban residents' alienation, etc. Especially for the mega city of Shanghai with its urbanization rate close to 90%, these problems might be challenges to the sustainable development and innovative solutions need to be find out urgently. On the other hand, urban agriculture, as the practice that combines urban life with agricultural production, has great potentials to solve urban problems based on its economic, social and environmental functions. A study conducted by Ge et al. (2022) on the community gardens (CGs) in Shanghai revealed that CGs not only beautify the environment but also play an important role in promoting neighborhood relationships and building a harmonious society. However, the mechanism by which social entrepreneurs solve social issues and create economic value through urban agriculture in Shanghai has not been elucidated until now.

Therefore, this study aims to explore how social entrepreneurs implement the strategy of creating shared value (CSV) in urban agriculture through an in-depth analysis on their entrepreneurial process and entrepreneurship development, and how trigger changes in the socio-cultural environment in Shanghai, China. We introduced trajectory equifinality model (TEM) to six selected cases of entrepreneurs including both male and female. The results clarified that urban agriculture can create both economic and social values through meeting diverse needs of urban residents to contribute to quality of urban life through solving social problems. In addition, social capital played an important role of in the success of entrepreneurs in starting and managing urban agriculture programs. Moreover, some female entrepreneurs have built high capabilities in urban agri-business and created social innovation in gender equality.

Keywords
Creating shared value (CSV), Urban agriculture, Trajectory equifinality model (TEM), Social capital, Gender equality.

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Smile-and-go. Regional performance through Global Value Chains in Europe

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Abstract

In the aftermath of the 2008 global financial crisis, questions have emerged regarding the actual benefits derived by territories from their active involvement in Global Value Chains (GVCs). Despite years of expansion and support for GVCs, both at the national and regional levels, there is a growing scepticism about the tangible positive impacts on local development and the mechanisms through which the produced value translates into regional prosperity. This paper seeks to shed light on this issue by introducing the concept of a dynamic regional smile curve, a framework designed to identify the predominant roles played by regions within GVCs and unravel the dynamics of value distribution across these regional roles and ascertain how it contributes to regional development.

The smile curve concept involves distinguishing between different types of regions within GVCs, specifically headquarters, factories, and primary resource regions by taking an aggregate macroeconomic perspective. The underlying hypothesis is that the advantages of increased participation in GVCs are not uniform across regions and depend significantly on the nature of their role within the chains.

The econometric analysis conducted in this study reveals that the benefits derived from GVCs participation are closely tied to the predominant role a region plays in the value chain. Regions acting as headquarters, with a strategic focus on scarce skills related to management, innovation, and decision-making, tend to enjoy large advantages. Similarly, primary resource regions, which supply scarce and pivotal natural materials, benefit from the participation in GVCs.

Therefore, a crucial determinant of a region's success in GVCs is its ability to leverage scarce resources effectively. This includes both natural resources and skilled human capital allowing regions to establish favourable terms of trade.

The findings emphasize the importance of regional strategies in maximizing the benefits of GVC participation, highlighting that the mere inclusion in global production networks does not guarantee equitable regional development.

Moreover, the study recognizes the dynamic nature of these results, emphasizing that the impacts of GVC participation vary across different economic scenarios. The regional smile curve is not static; its shape and the advantages associated with each role may change during periods of economic expansion or crisis. This underscores the need for adaptive regional policies that consider the broader economic context.

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The Geography and Path-Dependency of Social Innovations across EU Regions

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Abstract

Regional economics and related fields often focused the investigation on the (territorial) determinants and the consequences of the technological transformations triggered by 4.0 innovations. In fact, they influence the ways firms produce, consumers perceive and buy goods, and they affect dynamics of local labour markets and skills required to work in this new economic paradigm. Although often underrated, the culturalization of the economic sphere is also having important socio-economic impacts, even related to innovation. The rise of the cultural (and creative) economy is strongly related with large transformations in the consumer's preferences and behaviours, more and more oriented towards experiences and semiotic goods capable to feed their statuses, also by the means of intangibles. This, in turn, can directly affect demand driven entrepreneurship and can also indirectly influence decisions of the supply driven one. At the crossroad of technological and cultural processes behind current transformations of societies, social innovation represents a key aspect to consider. It refers to the creation and implementation of new solutions to address social issues, improve human well-being, bring about positive social changes, and stimulate socio-economic regeneration of group of citizens. Importantly, social innovative initiatives aim at responding to social needs which are often place-specific. Drivers of social innovations are diverse and emerge from various sectors and actors. Pressing global issues, such as climate change, ageing society, and inequality, act as catalysts, prompting the search for impactful solutions. Successful social innovations often involve collabouration, creativity, and adaptability in addressing complex social problems. Despite their relevance for modern societies, some relevant sources behind the emergence of social innovation remains obscure. Especially, it is not clear whether it relates to extant technological domains. This work focuses on this linkage, addressing two main research goals. First, it aims at identifying the concept of social innovation explicitly adopting a place-based perspective, mapping the extent of this phenomenon across regions of selected EU countries. Second, it aims at discussing the prospective path-dependency of the emergence of social innovations in areas already rich of traditional – mainly technological - innovations. To address these goals, we build an original database merging two main sources:

1. the European Social Innovation Database (ESID) containing a large sample of social innovation projects developed across European regions,
2. the OECD REGPAT database with information on patenting in the long run.

Exploiting such information and integrating with other sources of data proxying for hypothesized regional confounding features, we collected data on NUTS3 regions of Austria, Belgium, France, Germany, Italy, Netherlands, Portugal, and Spain, and we elabourate an econometric design to test the linkage between traditional and social innovations.

Preliminary findings indicate that social innovation projects thrive where traditional innovation activities have gathered over time given other conducive-to-innovation features. Nevertheless, subsequent examinations in this study will expound upon the specific circumstances in which social innovations arise in non-innovative contexts and delineate the conditions under which innovative environments fail to catalyse the emergence of social innovations.

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Platform-Attracted Urban Places - A Hungarian Case Study about the Spatial Dimensions

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Abstract

Peer-to-peer, internet-enabled platforms, such as Airbnb or OSZKÁR.com, can be seen as part of a phenomenon in which information and communication technologies and the sharing turn have transformed interactions between strangers and thus the space they experience (Lefebvre 2012, Soja 1998). In geography, studies related to platform- or the sharing economy mainly focus on local spaces, especially within cities, as critical mass plays an important role in interactions. Thus, so-called geographically-tethered platforms are connected to these spatial scales. In this context, I present a case study about the spatial patterns of a ridesharing company in five examined Hungarian cities. Based on the study, I introduce the concept of platform-attracted urban places. The definition of the concept and the characteristics of these urban places answer the following questions: Is the platform creating new places in the aspect of conceived space (Lefebvre 2012)? What pull factors make a local space a platform concentration? The study uses the database of the platform company to visualise the spatiality of the meeting points using QGIS software.

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The Impact of the COVID-19 Pandemic on Global Production Networks Driven by EU MNEs

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Abstract

The COVID-19 pandemic has represented an unexpected shock that has deeply affected all countries, both from a health and economic point of view. It has raised uncertainty, in an already complex situation, bringing out doubts and new concerns on the international organization of the production process. COVID-19 has forced governments to lockdown, with interruption of production, closure of national borders, social distancing restrictions, and, consequently, profound implications on business decisions. Did production networks driven by MNEs shorten or enlarge because of the pandemic shock? Did they become more or less global? Was this reorganization homogenous across economic sectors?

This paper provided an answer to these questions by focusing on EU MNEs' behaviour. The assessment of the COVID-19 impact on firms' international exposure suffers from the fact the pandemic was a global shock and, therefore, there is no counterfactual, and consequently, it may be difficult to identify a reliable control group, i.e. a group of firms not affected by the shock with which to compare affected firms. However, the impact of the Covid-19 pandemic was geographically uneven, both in terms of health impact and in terms of restrictions imposed. We exploited this geographical heterogeneity to establish our identification strategy, and to construct a control group, thus estimating the impact of the pandemic with a difference-in-difference approach.

We found that COVID-19 induced MNEs to reorganize their networks of foreign subsidiaries. Besides these general effects, the study uncovered the presence of a great amount of heterogeneity among firms.

The "Dark Green" side of Economic Complexity: evidence from Italian NUTS-3 Regions

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Abstract

This paper investigates a possible dark side of economic complexity related to CO_2 emissions and energy consumption and fits an emerging literature stressing the costs and negative aspects of innovation. Merging different data sources on Italian NUTS-3 regions between 2015 and 2019, we investigate whether, and to what extent, the level of economic complexity of a region affects its energy efficiency and its overall CO_2 emissions. We analyse whether increases in the level of economic complexity are related to higher or lower CO_2 emissions produced in the same region, in other neighbouring regions, or imported from other countries. We distinguish countries into green and non-green, using alternative indicators such as the environmental performance index, the ecological footprint, and the environmental stringency index.

To compute the regional CO_2 emissions embedded in imports we use import weights for each NUTS-3 region using data on two-digit industries, while for the emissions produced within regions we combine gridmpas from the EDGAR database (v7.0) with the GISCO dataset provided by EUROSTAT. The economic complexity is computed using ISTAT data on exports, at the NUTS 3 region level. The level of economic complexity of each Italian NUTS-3 region, used as a proxy for the level of product sophistication, is computed using regional export data provided by ISTAT through the Coeweb database and following the methodology developed by Hidalgo and Hausmann (2009).

Our empirical analysis is based on a series of pooled and panel fixed effects estimates where the regional CO_2 emissions are regressed against the level of economic complexity of the same region and a series of regional characteristics including population, population density, human capital, weight of manufacturing industry, trade openness, and the average quality of institutions. To check for possible spillover effects across regions, we also use spatial econometric models such as the spatial lag, the spatial error, and the spatial Durbin model. We also analyse the possible causal effects of economic complexity on regional environmental performance using an instrumental variable approach. As an instrument, we use the regional endowment and distribution of skills and tasks before 2015, which should constitute the local set of capabilities through the combination of which the regional economic agents can generate a variety of new, and unique, products and services.

The effect of higher economic complexity on CO_2 emissions is difficult to predict. To the extent that higher product sophistication is combined with higher production efficiency and better input quality, we should expect regional CO_2 emissions to decrease as the level of economic complexity increases. However, this higher degree of sophistication could be achieved through higher energy consumption, both locally and by neighbouring regions. In addition, if more complex products require material and energy inputs produced and exported from countries with low environmental performance, then any domestic energy efficiency gain could be offset by a higher environmental cost for trading partner countries. These results can have relevant policy implications at the regional, national, and international level.

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Using Crowdsourced Data to Estimate the Carbon Footprints of Global Cities

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Abstract

Cities are the core of global climate change mitigation. To facilitate progress on climate change mitigation in global cities, effective methods to measure the carbon footprints of cities are necessary. For global city carbon footprints, there have been a few attempts to establish a worldwide city carbon footprint database. However, due to the complexity and data intensity of the calculation procedures, these databases have a five to 13 years' time-lag and are difficult to update. A cost- and time-effective method to measure the carbon footprints of global cities has yet to be developed.

In this study, we propose a new hybrid method that integrates top-down EEIO analysis and bottom-up crowdsourced data to assess global city carbon footprints. Using the crowdsourcing platform, the Numbeo, to obtain income data at the city level, we estimate the carbon footprints of 465 global cities in 2020 by allocating national consumption-based carbon emissions to cities according to the cities' share of purchasing power. Basically, the estimation is conducted in three steps. Firstly, top-down accounting using MRIO tables is employed to calculate national carbon footprints. Secondly, by referring to the specific expenditure patterns and purchasing power of urban and rural residents, national carbon footprints are disaggregated into urban carbon footprints and rural carbon footprints. Thirdly, the urban carbon footprints at national level are further disaggregated into city carbon footprints by the bottom-up crowdsourced data to obtain city-specific income data.

Those cities comprise 10% of the global population but account for 18% of the global carbon emissions showing a significant concentration of carbon emissions. The Gini coefficients are applied to show that global carbon inequality is less than income inequality. In addition, the increased carbon emissions that come from high consumption lifestyles offset the carbon reduction by efficiency gains that could result from compact city design and large city scale. These results provide policy implications for city development planning and low-carbon consumption transitions. In addition, the method proposed in this study can calculate the most recent carbon footprints of global cities at a low cost. It thus has great potential to calculate the year-by-year carbon footprints of more cities and thus facilitate time-effective studies in this field. In our discussion section, we are able to report that our method produces results that are consistent with current research on city-level carbon footprints and that it provides support for the causal mechanisms elabourated in the literature. Therefore, the reliance and robustness of the method in this study is validated.

Explaining Economic Performances in the French Employment Zones: Industrial Relatedness and Spatial Externalities

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Abstract

Understanding the interactions between firms that constitute a local productive system and economic performance is particularly useful to elabourate appropriate policies. This understanding becomes especially relevant in the context of both national and supranational efforts aiming to reindustrialize and transition the productive system to meet ecological needs. The literature has established the importance of innovation diffusion as a driver of local economic performance, through its effect on employment dynamics. Jacob's externalities underline the positive effect of diversification. However, under the assumption that geographical proximity goes hand in hand with better cooperation between economic players, a distinction between two types of diversity has been made according to the level of cognitive proximity between sectors. Indeed, Frenken (2007) show that knowledge spillovers are more widespread between sectors sharing common characteristics such as know-how. However, no particular attention has been paid to related and unrelated varieties in the industrial sector in France. This paper makes two main contributions. First falling into the literature, we test the relationship between employment growth and related variety in France over the recent period distinguishing between a measure of the relatedness considering all the sector and an only relative measure of the industrial relatedness. Second, we investigate the specific features underlying this relationship, after highlighting the possible territorial heterogeneity of the results in the stylized fats. To do so, an ascendant hierarchical classification is conducted and we estimate spatial models. Including the weight of spatiality leads to the questioning of the independence between individuals. The existence of spillover effects, or decisions regarding territorial divisions may motive the consideration of spatial dependence in observations (Floch, 2018). Furthermore, control variables reflecting urbanisation economies and local specialisation, are included in the model. We test the empirical evidence of this ideas on the French employment zones (EZ) using firm's data and the employment growth rate over a six-year period (2016-2021). We find no evidence of a positive effect of the total related variety on local economic performances of the french employment zones. Indeed, between 2015 and 2021 employment appears to be more sensitive to changes in unrelated variety, in other words a strategy of portfolio diversification in the productive structure. Nonetheless, restricting our measure to the industrial sector shows different results. In this case, an increase in diversity in industrial-related sector leads to a higher employment growth rate. One possible analysis of these result would be that the expected positive relationship between related variety and employment are limited whenever we include the rest of economic sectors. In other terms, industrial relatedness' effect on economic performances is diluted when a larger number of sectors are included but become relevant again when isolated. Therefore, knowledge spillovers exert a more significant influence on employment within the industrial sector. Specificities in production might clarify why firms involved in industrial production processes share knowledge more easily among themselves compared to other parts of the sector. This could be attributed to innovations in industrial machinery and managerial practices that are more seamlessly implemented in industrial firms.

Navigating the Pinnacle: Exploring the Paramount Challenges of Urban Big Data in Tehran

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Abstract

Iran is actively addressing challenges and opportunities in regional and urban development through various policy initiatives. Key points include significant urbanization trends, national and local development plans to address regional disparities, the establishment of economic development zones, and a focus on rural development. Infrastructure development, transportation improvements, and environmental considerations are integral aspects of these policies. The Iranian government plays a central role, working through ministries and agencies, to shape and implement these policies, with local governments sharing responsibilities. In terms of smart city initiatives, Iran is leveraging Information and Communication Technology (ICT) for urban living enhancement, exploring smart transportation solutions, incorporating smart technologies into infrastructure projects, focusing on digital governance, and emphasizing environmental sustainability. Efforts are also being made to implement smart grids and energy management systems. Government initiatives specifically in urban development include urban planning and zoning regulations, the establishment of economic development zones with incentives for businesses, provision of social services, infrastructure development, commitment to sustainable development, periodic national development plans, technology and innovation policies, and the utilization of Public-Private Partnerships (PPPs) for funding and implementing major infrastructure projects. In this study, we aim to pinpoint challenges related to Urban Big Data in developing nations, with a specific focus on Iran. My objective is to understand and address the unique issues surrounding Urban Big Data in the context of a developing country. Through this research, we strive to contribute insights that can enhance the effective utilization of Big Data in urban settings within the Iranian context. This study involves two main stages. The first phase entails determining the key priorities for Urban Big Data utilization in Iran through in-depth interviews and expert-assessed questionnaires utilizing the Analytic Hierarchy Process (AHP). The second phase involves employing ArcGIS software for data analysis. Additionally, challenges related to big data application will be explored through a review of relevant literature.

Keywords
Urban big data, Urban planning, Challenges, AHP, Tehran.

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U.S. Rural Farmers Market Vendor Persistence and Sales during 2019-2021

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Abstract

Farmers markets offer access to consumers for thousands of farmers across the U.S., but we have little data on sales and how differences among vendors, regions, and their selected farmers market affects sales or persistence at a market. In rural areas, these markets provide one of the only low-cost opportunities for weekly face-to-face interaction with customers. Little previous work examines farm entrepreneurship, customer discovery and interaction mechanisms quantitatively due to a lack of vendor level sales data.

This paper uses U.S. vendor-level sales data to understand (1) how different rural entrepreneurs are using farmers markets, (2) how sales varied between established and beginning vendors in a rural market, and (3) how market level COVID-19 restrictions impacted rural vendors. We intentionally identified beginning vendors separately from established vendors to understand if a vendor was demonstrating the ability to learn and grow their business through a farmers market. The findings are based on 8,892 sales observations from vendor businesses at five different rural Oregon farmers markets from 2019-2021.

We find high churn rates (business entry + business exit rates), of 70 percent or higher, among our sample of rural entrepreneurs that suggest farmers markets can be a low-cost business incubator in rural areas as business owners use face-to-face interactions for customer discovery and product refinement. We calculate a 3-year vendor retention rate of 38% across our sample discussing differences by market and vendor type. Farms and established vendors have lower churn rates and higher retention rates.

To understand how sales differ by vendor-level characteristics we used a panel fixed effect model and estimate that new and beginning vendors have on average 9% lower weekly sales than established vendors holding other factors constant. Vendors' weekly sales increase with market attendance, especially among beginning vendors with 4 years or less of prior farmer's market experience. Beginning vendors who attended at least 75 percent of available market days could earn at least 36 percent higher weekly sales than established vendors.

Our data confirmed previous work which found farm vendors have higher sales than value-added food and crafts and arts vendors, larger customer crowds encourage higher sales and rainfall decrease sales, all else held equal. Within our sample, we find no evidence that COVID-19 restrictions adversely affect the sales of vendors after accounting for other factors. While we note that the markets shrunk considerably; indeed, average sales for the vendors that persisted at the market were higher during weeks with a COVID restriction. These findings supported farmer's market managers' observations that vendor attendance is critical to building a customer following and during the pandemic their markets were stripped down to established farm businesses selling food to dedicated local food shoppers.

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Social Innovation in the Development of Rural Areas

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Abstract

Innovation is a driver of economic growth. It has a positive impact on the competitiveness and output growth of companies, sectors and nations. This is why, since the 1980s, economic policies in developed countries have given priority to investment in innovation, particularly in high value-added activities, which has led to increased investment in knowledge-intensive industries and the creation of highly skilled, well-paid jobs.

Several empirical analyses show that in some cases innovation and moving up the value chain are not sufficient to ensure sustainable growth. Higher rates of technological innovation do not lead to higher welfare.

Researchers also point to the potential destructive effects of innovation in terms of job destruction and unequal distribution of wealth. There is a growing belief that other types of innovation are needed alongside new technologies, because of the diversity/complexity of problems in society, demographic trends, inequality, structural unemployment, knowledge intensification and globalisation.

The international literature is paying increasing attention to the study of social sustainability and social innovation, with the fundamental aim of achieving social justice, combating poverty, exclusion and discrimination. The focus of social innovation is on meeting community needs, emphasising the social benefits of innovative ideas in problem-solving that can be understood at the local community level. Social innovation can be used in synergy with technical and technological innovation to respond to challenges at the local community level and to find solutions to everyday problems. Social innovation can be of particular importance in areas where jobs and income are scarce.

Relevant economic and social problems such as unemployment, deprived areas and sustainability require long-term solutions that call for innovative cooperation between social actors.

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Mitigate or Transfer? Impact of Inter-Regional Power Grid Infrastructure on Carbon Emissions in China

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Abstract

Background, Aims and Scope. As one of the biggest energy consumers in the world, China's carbon emission reduction capacity has greatly impacted the world's emission reduction process. China's power generation is shifting from energy-intensive eastern provinces to central and western regions. The development of inter-regional power grid infrastructure (IPGI) is an important factor influencing regional carbon emissions, which is of great significance for China to realize carbon neutrality by 2060. This paper investigates the effect of China's IPGI expansion on carbon emissions, aiming to understand its direct and indirect impact mechanisms on China's carbon emissions and the potential for carbon emission reduction.

Methods. Based on penal data from 30 provinces in mainland China from 1998 to 2018, this study integrates a two-way fixed effects model, a mediation effects model and a Spatial Durbin Model (SDM) to investigate the impact of IPGI on the regional carbon emission and its influence mechanisms and spillover effects.

Results and Discussion. The results implying that the IPGI significantly increase the carbon emission, but the impact varies across emission levels, suggesting an inverted U-shaped curve effect. The IPGI affects the regional carbon emission through energy security effect, technology effect and energy structure effect. For the energy security effect, the construction of IPGI can significantly increase energy consumption and improve the level of electrification, which would increase carbon emission. As for the technology effect, the IPGI can improve regional TFP and reduce the carbon emissions of per unit of GDP by improving energy efficiency. Although the IPGIsignificantly increase the amount of power generation, it improves energy structure by decreasing the proportion of coal power generation. The results of SDM model show that the region with high energy consumption has a significant positive impact on the carbon emissions of the regions closely related to it by power transmission through the IPGI, and thus IPGI promotes the spatial transfer of carbon emission.

Conclusion. The paper finds that while the expansion of IPGI in China would increase regional carbon emissions, it also offers opportunities for improving energy efficiency and energy structure. The government should balance the environmental impacts with the benefits of the construction of IPGI, and it is necessary to form cross-regional carbon emission compensation mechanisms.

Strategic Coupling to Global Production Networks in the Regional Development Agenda: Toward Conceptual Integration

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Abstract

In today's world characterized by relationality and connectivity, Global Production Networks (GPN) approach has gained importance. In particular, "strategic coupling" has recently attracted attention in regional planning and economic geography, and the number of studies is increasing rapidly. Central to the GPN perspective, strategic coupling represents the fundamental mechanism that links GPNs and economic development. Therefore, the GPN approach tries to understand and explain the process of regional and uneven development through the strategic coupling of regions to GPNs. Although 'strategic coupling' basically explains the economic development process of regions by focusing on trans-regional external connections and dynamics, this concept also provides a very useful approach to understanding the path creation/development and regional diversification, which are at the core of the EEG approach. This is also the reason for the recent effort to establish the link between EEG and GPN approaches through "strategic coupling" (MacKinnon, 2019; Yeung, 2021; Boschma, 2022). Despite this intense interest and theoretical attempts in the literature, the concept of strategic coupling has not been critically evaluated yet. In this respect, this research aims to explore the themes of 'strategic coupling', determine its limitations and gaps, and guide future research. Conducting the systematic literature review method, seventy-nine articles accessed with the keyword 'strategic coupling' from the Web of Science database were examined in terms of study years, research questions, conceptual frameworks, methodologies, and contexts. The results were evaluated under four sub-headings: an overview of empirical studies, the meaning of region-locality, actors and their roles during the process, and the regional development outcomes within the concept of 'value.' As a result of this research, it is seen that strategic coupling takes place through a different mechanism in different countries' contexts, and therefore, the concepts of 'actor' and 'value' in the framework need to be elabourated more comprehensively.

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Internal State Borders in the Western Balkans Face New Opportunities and Challenges

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Abstract

After the historical lows of the 20th and early 21st centuries, these countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, Serbia) have found themselves in a new position in the European process. They must simultaneously resolve their open and hidden territorial and border disputes with each other and meet the expectations of the EU (which all countries wish to join) and, in some cases, the direct demands of NATO. The Slovenian non-paper on the internal settlement of the 'encircled Western Balkans' raised fundamental questions, but the Russia-Ukraine war has presumably rendered it moot for a long time.

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Local Development Prospects in CEECs after 2020: The Case for a Foundational Approach

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Abstract

The decade after the pandemic crisis has brought new economic development challenges for Central and Eastern European (CEE) countries and their sub-national territorial units. Against the backdrop of adverse demographic trends, including a shrinking and ageing population and the ensuing labour market tightness, CEE countries can no longer rely on extensive employment growth as a prerequisite for long-term economic growth, instead, productivity improvement should be a priority. Despite the fundamental role of foreign investments in the market and global value chain integration of the CEE macro-region and the associated economic growth and productivity gains, FDI by itself is insufficient to ensure sustained catching up. The CEE region is not homogeneous in this respect, since the Baltic States, Slovenia and Czechia have shown a solid convergence performance in terms of per capita GDP relative to the EU average and the Human Development Index. This heterogeneity is partly explained by the different institutional environment and the divergent growth models followed by the countries of the macro-region. As a result, the countries are not at the same stage of progress towards the 'high road' of competitiveness, while some of them may overcome the so-called middle-income trap.

Economic development in CEE countries is dominated by the performance of capital cities, although second-tier cities are also important drivers of development. However, peripheral regions struggle with problems of adaptation and response, often leading to brain drain and economic decline. Industrial strategies highlight those tradable sectors of the economy that favour leading edge KIBS firms and advanced manufacturing, while neglecting the residentiary economy that is more sheltered from competition and provides jobs in local production and services sectors. Our research is inspired by the burgeoning literature of the 'foundational economy' approach to economic development, focusing on mundane economic activities providing essential goods and services, and we investigate the differences of economic performance across the NUTS3 regions in selected CEE countries. We study regionally aggregated, firm-level financial and employment data including sectoral classification of the companies with 10+ employees. Our position is that a well-functioning foundational economy is necessary for the whole local economy to work efficiently in the long run. Sustainable economic growth relies on stronger internal markets, better quality of jobs and increasing human capital endowment, to which the local foundational sectors can make a key contribution. Moreover, increasing productivity in the foundational economy should lead to a regionally more balanced growth than an exclusive focus on the 'frontier firms' that are highly concentrated spatially. Therefore, our research contrasts the performance of different foundational and non-foundational sectors across the urban and rural areas in CEECs, and the results indicate that there are large inequalities across both the sectors and different types of urban and rural areas.

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Spatio-Temporal Diffusion of COVID-19 Vaccines in Europe and their Role in Control of the Pandemic

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Abstract

Within a few months of its outbreak in Wuhan, China, the Coronavirus pandemic had appeared in almost every part of the world, highlighting one of the negative effects of globalisation: the rapid diffusion of harmful phenomena. However, within a year of the outbreak, the first vaccines against the Coronavirus were produced and vaccination campaigns were launched in the developed centres of the world. These processes have once again drawn attention to the centre-periphery inequalities in territorial resilience. In contrast, within the European Union, because of the EU's common vaccine procurement, countries followed broadly similar vaccination policies and had access to vaccines more or less uniformly and at the same time, regardless of their socio-economic status. However, the social acceptance of vaccines varied from country to country.

In my presentation I will show how the access and the acceptance of the vaccines evolved in different European countries and how this may have affected mortality in the waves of the pandemic during the winter of 2021-2022. To do this I gathered country-level and regional-level datasets related to the Covid-19 pandemic (mortality data) and vaccination process as well as socio-economic indicators from the European Centre for Disease Prevention and Control (ECDC), Eurostat and some selected national pandemic databases. After the data harmonisation process, I subjected these datasets to statistical data analysis: in addition to descriptive statistics, I used multivariate regression models. In the first model I used the vaccination rate as dependent variable and the socio-economic indicators as explanatory variables, while in the second model the excess mortality rate was used as dependent variable and the socio-economic indicators and vaccination rates were used as explanatory variables. In addition, I created static and interactive maps and graphs to visualise the spatial diffusion of the vaccines and the spatial inequalities of the vaccination and the excess mortality related to Covid-19 pandemic.

As a result, I got that on the one hand the acceptance of the vaccines mainly followed the European centre-periphery inequalities: while the societies of most European countries were almost fully vaccinated by November 2021, in some East-Central European countries less than half of the adult population was vaccinated. On the other hand, vaccination is thought to have had a significant impact on the mortality trends caused by the fourth wave of the pandemic but this effect is thought to have diminished later on. This highlights that not only the access but also the acceptance of new innovations could deepen existing centre-periphery inequalities in relation to social (and territorial) resilience and development.

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The Dimension of Vulnerability in Hungarian Small Towns

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Abstract

Nowadays we are living in an age of recessions, and the Covid-19 period has given new meaning to many social and welfare issues. Rural areas and small towns, which were the centres of these areas, have been revalued, in many ways as an alternative to metropolitan life. The changed interpretative framework has refocused attention on small town society, on the inequalities that are usually hidden in comparison with big cities. In addition to the benefits that appear, the vulnerabilities of small town areas must also be taken into account; such as the availability or lack of access to health services and basic infrastructure, the lower number and quality of commercial and catering outlets, and the congestion that appears. The presentation examines two approaches: the concept of poverty in a functional sense in small towns and seeks to answer the question: what dynamics have been observed in recent years with regard to the quality of life in small towns. Second, the contributes to the field of analysis of rural development programmes by studying intervention characteristics and available financial resources in Hungary. The study compares the resource absorption data of two programmes (LEADER and the Hungarian Village Programme) by territorial unit. The Hungarian Village Programme is a national resource for settlements with fewer than 5.000 inhabitants (with 92 small towns), focusing on four main areas: economic development, social cohesion, settlement planning and cultural heritage, and the implementation of smart technologies. The research shows that all bottom-up programmes can be successful in deprived areas if the leaders of the municipalities are people with local embeddedness, who are known and trusted by the target group. Therefore, the results of the projects implemented have had a positive impact on the municipalities, significantly improving the quality of life of the inhabitants and making continuous work a part of their lives. The success of the programmes required local knowledge, personal contacts, flexibility, responsiveness, and the right competencies on the intervention side. A value-conscious and engaged local society is a cornerstone of bottom-up projects because a strong community means a robust settlement image. The key to the success of a bottom-up approach is the ability to engage, even down to the individual level, and to ensure participation in shaping the vision. The intensity of involvement is important both during the programming period and the development process. Our observations indicate that it is generally very strong during the planning period, while it is indirect (often representative) during the decision-making, implementation and monitoring phases, or in programme elements that are explicitly based on involvement (training, events, environmental programmes, etc.).

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Regional Differences in Mental Health Promotion in Municipalities

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Abstract

We are witnesses to a tendency in the last decades that encourages states, companies, local communities, employers and employees to put more weight on the promotion of mental health, and the prevention of mental illnesses in workplaces. The World Health Organisation and the European Agency for Safety and Work released several directives and guidelines about the topic to support these groups in the efforts to create healthy workplaces. If employers and employees are able to recognize and handle these factors in the long run, they may cause less harm. Workplace health prevention programs can have positive effects not only in the workplace but in private and family life too. Studies have shown positive impacts economically too e.g. less absences, increased productivity. In one of my research connected to my PhD program, I set an aim to learn more about the existence of workplace health prevention programs in the Hungarian public administration, especially in the offices of local municipalities. As huge regional differences can be experienced in Hungary economically, we suppose that the accessibility to these programs shows a similar picture in the public sphere too. The leaders of the local municipalities were asked to answer some questions about the demand for programs (trainings and lectures about mental health), and whether they intend to organize or have already organized those. They were asked to forward the questionnaires to the employees of the offices. The employee questionnaire includes questions also about the demands and experiences of workplace health promotion programs.

Psychosocial risks can appear in any organization, but literature in this field shows that working in public administration means meeting special working conditions and burdens. Despite the large number of employees in this field, researches pay little attention to examine especially the efforts of the organisations to provide the employees with mental health support. Special working conditions, which have spread in the private sector e.g. home office and hybrid work, can not be implemented in most fields of public service, consequently, organizations in the public sphere have to provide appropriate conditions and support to counterbalance the work-related psychosocial harms.

The ongoing research will highlight the accessibility and the need for programs that support mental health in the public sector. The accessibility can depend on financial and personnel factors too. Less frequented settlements far away from bigger cities, or settlements in underdeveloped rural areas can have less opportunity to invite experts in this field. The results of the survey can emphasize the demands linked to mental health prevention and regional differences to help stakeholders provide employers in public administration with more support.

Examining the Results of the Developments of Hungarian National Palace and Castle Program in the Light of Sustainability

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Abstract

Heritage is connected to the community in many ways. A built heritage in dilapidated condition that cannot be visited can also be a subject of local pride and identity, but by making it accessible and interpretable, we create an opportunity to strengthen the ties between local community and cultural heritage. Hungary launched a major heritage tourism development programme during the 2014-2020 programming period, using mainly EU funds, with the aim of creating economic opportunities and social benefits for lagging regions, while seeking for sustainable operation of its built heritage on the long run. Both the developer and the funder had many expectations, from the amelioration of regional employment rate to the improvement of the quality of life and well-being of local residents, to the increase of the social acceptance of cultural heritage. Among the anticipated benefits of a similar development scheme, the engagement of young citizens has the most extended impact, therefore the establishment of the infrastructure, toolkit and human resources of heritage education was regarded as cornerstones of the project.

Between 2021-2023 all the projects were executed and closed, and the developed sites are now open to the visitors. The first years of operation can provide important lessons as to the achievement of goals, the causes of eventual failure and make place for improvement proposals. The quantity criterion of the present evaluation examines the countable results achieved, among them the number of cultural events, meeting places, selling points of local products created, but also strives at looking into the accessibility of these services to locals in terms of quality, affordability, availability and convenience. Regarding the fulfilment of educational goals, the analysis digs into the quantity and geographical distribution of the sites where families with children and student groups can obtain heritage educational programmes, the diversity of these, as well as the proportion of school subjects they cover.

In order to be able to evaluate the results as authentically as possible, the study compares them not exclusively to the planned outcomes of the development, but also to international and domestic benchmarks and best practices. The quality criterion of the investigation is provided by the in-depth interviews conducted with the on-site specialists, which investigate the causes of falling short from the expected results. According to the reason for the failure to meet the standards, the study provides development proposals in the areas of operation, communication and product development.

Cross-Border Activity along the EU External Borders of Hungary

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Abstract

The success and future of the European integration requires a multilevel approach where cross-border cooperation has an indisputably important role. The intensive spread of joint cross-border activities officially dates back to the introduction of the Interreg A programme focusing on the promotion of cross-border cooperation along not only the internal but also the external borders of the European Union. Ever since the mid-nineties Hungary has been in a special geostrategic situation providing cases for all types of EU borders (internal, external and temporary external). The aim of the paper is to explore the impacts of border location on the intensity of cross-border cooperation activities along the external borders of the European Union through the example of Hungary. The external borders of the European Union between Hungary and Serbia and Hungary and Ukraine are studied focusing on three areas: twin town relationships, EGTC memberships and Interreg partnerships. The participation in these three types of cross-border co-operations reveals the cooperation willingness specifically at the local level. Based on these components a formula called Cross-Border Activity Index (CBAI) is created to measure co-operation activity. The settlements were analysed along the three components, then comparisons were performed to find links between the different co-operation forms (proximity matrix, correlations). The highest the value, the stronger the co-operation activity. The CBAI was also tested for the Herfindahl-Hirschman index (HHI) to measure the concentration ratio. The CBAI was found to offer an endogenous dimension to cross-border activities, and thus adding a local/regional character to the existing cross-border co-operation models focusing on the proactive voluntary bottom-up processes in these types of activities. All three components were analysed and mapped individually to see their relevance for the differentiation between the border regions along the EU internal and EU external borders, and then their synthesis and depiction are used to reveal the multidimensional relationship pattern of border regions. The CBA Index as an indicator of the intensity of cross-border activity performed by the settlements, and thus can be used for measuring/weighing co-operation along the different border sections to show the intensity of cooperation between neighboring countries. It provides relevant information for the regional policy of the European Union in many respects: (a) helps to find the most active partners in the Interreg/Interreg NEXT/IPA programming, EGTCs and twinnings, (b) justifies the eligibility or non-eligibility of settlements/counties in the Interreg/Interreg NEXT/IPA programming; (c) highlights differences between border regions located along different border types (EU internal borders and EU (temporarily) external borders); and (d) indicates the concentration of cross-border issues. Calculating the values for several years or periods shows how the activity participation of certain settlements (and relevant border region types) changed – for example, the existence of Interreg projects by programming periods is a mirror of the effectiveness of the Interreg programme in general. Besides, understanding which geographical areas or border regions are the most active, contributes to a more precise and efficient allocation of EU cross-border funds.

A Spatial Justice-Based Perspective on Territorial Inequalities. Scenarios for the Future of the EU's Cohesion Policy

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Abstract

Economic growth, energy-related issues, digital transformations, connectivity, urbanisation, climate change are considered emerging mega trends that shape the context for policy responses to social, economic and spatial inequalities within the European Union (ESSPIN, 2022). In accordance with the corresponding challenges, territorial cohesion aims to enable equal opportunities for citizens and enterprises, so as to make the most of their territorial potentials, and brings into the spotlight the territories and their people, offering a solid background for the idea of 'spatial justice'. It creates a fertile seedbed for those territorial policies and plans open to holistic constructions, which combine place-based with people-based prosperity. Based on this vision, the IMAJINE project funded under the EU's Horizon 2020 programme has sought to examine the patterns and dynamics of territorial inequalities in Europe in order to formulate new mechanisms for addressing more effectively these inequalities and for promoting cohesion and spatial justice at European, national and regional scale. One of the most challenging messages resulted from this project's findings is that "the continuation of the European Social Model and current territorial cohesion principles is only one possibility, with alternatives including greater national and regional autonomy and policy divergence, an increased emphasis on broader social and environmental wellbeing beyond economic growth, or fragmentation under pressure from cultural and political polarization" (IMAJINE, 2022, p. 14). This paper explores the key features of the four envisaged scenarios, with a spotlight on transport and mobility sector and proposes as case study one of the EU member states from Eastern Europe, Romania. It is based on an in-depth analysis combined with the synthesis and interpretation of the findings of the workshop organised by the Bucharest University of Economic Studies team of this project (coordinated by the paper's author), which examined the developments of the four scenarios in the specific case of transport and mobility with experts from governmental agencies and local authorities, city managers, researchers. They were invited to express their views with regards to the specific aspects gravitating around three main questions: 1. Can scenarios help envisage challenges for future planning? 2. How can spatial justice and the discussed scenarios be incorporated into work on local transport plans? 3. What model of spatial justice would be the most beneficial to your local area? The results indicate a convergence towards the scenario which places the emphasis on economic growth and solidarity, spatial justice being viewed as the equitable distribution of wealth between regions, including transport and mobility purposes. However, some divergent views have been expressed as well, pointing to, for example, another scenario, which emphasizes the economic growth and territorial autonomy, with spatial justice being interpreted as regions being able to hold on the wealth they have created. From local transport viewpoint, this opinion is associated with an increasing power expected to be gained by the growth poles in Romania that will imply more resources invested in improving transport infrastructure, with real concerns for the green component as well, but at local scale, which might increase territorial inequalities.

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Unveiling Region-Specific Effects of EU Cohesion Policy

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Abstract

This paper delves into the effectiveness of the EU Cohesion policy and its role in reducing regional disparities across EU Member States at the NUTS 2 level. The Cohesion policy, a pivotal investment policy in the EU, seeks to foster convergence through economic growth, sustainable development, and the alleviation of inequalities. Convergence, in this context, refers to the tendency of diverse economies or regions to gravitate towards a shared level of economic development over time. The study employs an augmented Solow model proposed by Mankiw, Romer, and Weil in 1992. It applies panel data analysis with fixed and random effects to assess whether less developed NUTS 2 regions catch up with their more developed counterparts and whether Cohesion funding is a significant variable for regional development. The analysis covers two sets of regions: one covering all regions from EU 27 and another covering only those from New Member States. Data sourced from Eurostat and ARDECO, Cambridge Econometrics' European regional database, along with Cohesion funding from the Cohesion Open Data Platform, spans the period from 2000 to 2019. A total of 207 NUTS 2 EU regions are included in the analysis, excluding certain regions due to data limitations and geographical considerations. The results highlight the significant, but negative, impact of Cohesion funding on the convergence process, with confirmed convergence observed in both EU 27 and NMS. The comprehensive panel data analysis provides valuable insights into the complex dynamics of regional convergence.

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Measuring creativity: Lessons of the Cultural and Creative Cities Monitor

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Abstract

Nowadays creative cities and regions are often in the focus of research programmes concerning regional science. In the last two decades cities are often using culture and creativity as a tool of urban development. In a vivid city cultural institutions, organisations, creative centres are flourishing, there are many tourists and visitors because of international cultural festivals and expos, and cities benefit from the positive effects of culture-based urban development. It is always an interesting question, how to measure creativity within urban places? Is there any method, which is able to show the performance of the cities regarding cultural and creative activity?

The target of the presentation is to show the positions of big cities in Central and Eastern Europe at European level, based on the results of the Cultural and Creative Cities Monitor. The Cultural and Creative Cities Monitor is an important tool of the European Commission, which is using both quantitative and qualitative data and shows local strengths and opportunities of European cities monitoring their cultural and creative activity.

Beyond the Numbers: Analysing the Complexities of the Western Transdanubian Region's Labour Market

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Abstract

The study of regional labour market structures is of vital importance in today's constantly and rapidly changing economic and social environment, as while the labour force is one of the key actors in these spheres, it also appears to play an important role in the dynamic relationship between them. There is interdependency between the local social and economic space and the local human resources: the labour force is fundamentally economic and socially dependent, while the labour dependency of these two areas also occurs. The labour market does not exist in isolation, but functions as a complex, multidimensional phenomenon embedded in the functioning of local economic and social systems and not independent of them.

Based on these, the aim of this research is to examine the local labour market structure, highlighting its strengths, weaknesses and potential opportunities for improvement. Labour market processes are determined by both external and internal factors, but this presentation will focus only on the external dimensions: the economic and social determinants. Analysing labour market data is key to achieving a sustainable economy and society, and in this research the focus will be on the main factors of this relationship, such as the social embeddedness of the labour market, which provides insights into the current and future labour market, and the relevant economic indicators that provides a situation report on the labour market environment in the region examined. In this research, aggregated relative indicators and specific data of the area will be used to perform a macroeconomic analysis of the labour market. The methodology is based on the Key Indicators of Labour-Market of the ILO Department of Statistics and the labour force survey methodology of the Hungarian Central Statistical Office.

The research area of the study is the Western Transdanubian region, which is one of the most dynamically developing regions of Hungary, bordering four countries. The provisional results and conclusions of the analyzation of the regional labour market can be seen in several dimensions. It is presupposed that the local labour market and the local economic and social environment form a mutual and complex system of interdependencies, and making it tangible is one of the objectives of the research. It is also assumed that the dynamism of this relationship can be quantified using various economic and social indicators. The economic and social aspects of sustainability have been in the focus of literature in the past decades, but less attention has been paid to the sustainability of the labour market, therefore my research aims to identify indicators that can be used in sustainable labour market studies. Another aim of this presentation is to contribute to understanding and promoting of labour market sustainability in the Western Transdanubian region through an interdisciplinary approach. In addition, the presentation of the research results will provide a situational report of the local labour market, that will have practical relevance for the design and implementation of regional policies, economic development plans and employment strategies.

Location Signalling: Unravelling Causal CBD Impact on Technological Startup Survival

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Abstract

This study investigates the causal relationship between Central Business District (CBD) location and the survival and growth of technological startups. It inspects whether situating an innovative business in a highly competitive, densely populated area affects its survival – in a positive or a negative way. The research examines if CBD location itself influences startup survival due to intangible factors like prestige or signalling effects connected to that area within the city, or whether the CBD effect is solely due to spatial neighbourhood-specific factors like improved public transport accessibility and increased population density.

Various model structures will be employed to investigate if the CBD effect diminishes after controlling for space-specific or centre-specific factors, as well as interactions between companies – a proxy for agglomeration externalities. Model specifications will include variables indicating interaction dynamics among companies and neighbourhood specific controls, shedding light on how much these factors contribute to the overall CBD effect.

Examining prestige CBD location as a potential signal for startup growth potential, the study assesses whether this signal impacts startup survival and growth. By disentangling spatial factors linked to CBD effects, the aim is to isolate the genuine signalling effect of CBD.

This research adopts novel causal machine learning methods, including causal forest and spatial t-learner, which are still relatively new to regional science literature. The goal is to popularize these techniques and showcase their usefulness in unravelling the complex dynamics between CBD effects and startup survival. Non-parametric machine learning techniques, particularly models based on random forest, are chosen for their ability to capture the expected intricate non-linear influences in these effects.

The dataset contains point locations of technological startups founded in Warsaw, Poland, in 2016, tracked over a five-year period - the critical phase in the startup lifecycle. Accompanying variables are be calculated at fine spatial scales (e.g., 500m or 1km radius) to unveil local characteristics of each business location. Additionally, investor data for each company, tracking firm's connections within a broader investor network, will be used to control for potential agglomeration externalities. The results aim to contribute to the literature on business location within the urban context. Insights will assess how CBD influences the survival and growth of technological startups, revealing the extent to which this effect is driven by spatial-specific factors or company interactions. These findings offer practical insights into navigating the effects and complexities of CBD locations for young technological companies.

The Impact of Sustainable Investments on the Effectiveness of Companies

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Abstract

The climate protection and sustainability issues cover all companies on a global level. Companies must also bear in mind the sustainability issues formulated by the European Union, not only in Hungary, but also in other countries. In EU countries, it is necessary to adopt to environmental changes and shape the operation and attitude of companies, to operate as efficiently and environmentally friendly as possible in the long term. Therefore, the issue of energy investments is significantly important, but in addition, companies have other additional environmental investment opportunities. Such investments can be, among others, software, which facilitates automation, for example, less scrap during production or even the development of the digitalization level at a given company. Digitalization also affects all companies today, regional, national and global levels.

My basic assumption was that extremely many companies use outdated machines during production. If these machines were to be modernized or replaced with more energetically more efficient means of production, companies would be able to achieve significant savings, both would also reduce harmful emissions from companies. If I consider only production machines, electricity saving would mean a significant cost reduction for all companies, that is, the investment would show a clear return in the long term.

During my research I would like to examine that different companies form size and activity, also depending on the company's geological location, what kind of investments do you want to make in the near future or whether there is any company, who has already made investments, and how much these investments cost the companies, how they effected the financial situation of the given company. One of the dowries of COVID 19 was the possibility of the home office and its further development. The fact that different companies provide a home office option can also save costs. For example, a company that is engaged in the provision of services, and the work does not particularly require anything other that an electronic device, a computer, a laptop, in this case, the employee can work from home, so the company does not need to rent an office or not so large that it will appear as a reduction in office rent in the company's bookkeeping. Also, there are settlements in Hungary with less job opportunities, small cities, villages, from which workers are forced to cross another city to work. very interesting research on how affect workers work morale of the company's digital maturity, after all, the home office option can also be interpreted as an addition to a salary, since in such a settlement they even go to work for less wages, if it means a return for them in time travel. Whit this option, the company can save not only on labour costs, but also on the return of going to work. No need to maintain a corporate bus/car with high maintenance and fuel costs and emissions of harmful material.

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Entropic Generalized Q Analysis

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Abstract

Q analysis a multivariate exploratory technique in the social sciences which seeks to identify and analyse commonalities and differences in the respondents' rankings of a set of relevant individual qualitative statements. Generalized Q analysis, is able to handle an enlargement of the number of ranked combined statements based on a structured and additive re-combination of the rankings of simple statements. The Entropic Generalized Q analysis combine the entropy of the rankings providing an implicit value function with complement and substitute factors. We find that the latter technique is able on the one hand and like the Generalized Q Analysis, to take account many simple questionnaires with trustful responses, allowing the expansion of the number of respondent, facilitating the naming and interpretation of the extracted multivariate components, and, on the other hand, to test the consistency of the responses and to perceive their value function and their relation with people and places

"Fighting Fires with H2O": Understanding Feature Contribution to Forest Fires in the Carpathians

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Abstract

Climate change poses a significant threat to forests, including the ones in the Carpathians by increasing the risk of fires. This study employs supervised machine learning algorithms, namely Multiple Logistic Regression (MLR), Distributed Random Forest (DRF), Gradient Boosting Machine (GBM), and XGBoost (XGB) in the H2O.ai framework to provide a nuanced understanding of the strengths and weaknesses of each model. To enhance interpretability, various feature selection methods are used in conjunction with these algorithms to better understand the underlying factors and to further improve the accuracy of forest fire predictions. Recognizing the inherent opacity of these popular algorithms, this study employs a multi-faceted approach to increase interpretability by discarding the least important features during model building with the use of explicit feature selection methods, and by carrying out a comparative analysis of feature importance across the different models. Moreover, the utilization of SHapley Additive exPlanations (SHAP) summary plots elucidates negative or positive predictor associations with fires. The used supervised machine learning models are aimed at predicting forest fires in 39 administrative regions that span across the seven countries of the Carpathians, i.e., Czech Republic, Slovakia, Poland, Hungary, Ukraine, Romania, and Serbia. The binary dependent variable, the occurrence of forest fires was derived from NASA's Moderate Resolution Imaging Spectroradiometer (MODIS) dataset, while the negative control points, i.e., areas with no forest fires were selected by using a stratified random sampling method. 26 input features – climatic, vegetation, topographic, and socio-economic factors - were chosen based on their potential relevance to forest fire occurrence, supported by literature review. The result of the study is in alignment with international research, it confirms that tree-based algorithms outperform MLR. The best model's (GBM) performance was 0.946 AUC, indicating superior performance. This was achieved with feature selection using LASSO regression. Other noteworthy insights of the research are that the DRF model exhibits higher accuracy in correctly identifying actual fires, albeit it comes with an increased number of false alarms; secondly, the feature importance results from the GBM model are more balanced than the one from DRF. The research results, derived from the feature importance analysis suggest that the overall vegetation health and forest cover are crucial factors to forest fire occurrence. Additionally, socio-economic factors, such as cropland and pasture densities, along with climatic stressors like mean annual temperature contribute significantly to the susceptibility to forest fires in the Carpathian region. The use of SHAP plots helps with the interpretation of features, adding a visual dimension to it, shedding light on the intricate associations between predictors and fire occurrence. To conclude, this study aims to advance the understanding of climate change's impact on our forests and to offer a methodological blueprint for enhancing the interpretability of machine learning models in similar contexts. The nuanced insights from feature importance and the identification of key features could provide valuable guidance for policymakers and forest management practitioners, aiding the development of effective strategies to mitigate climate-induced fires.

Keywords
Carpathians, forest fires, geospatial analysis, machine learning, interpretability, feature selection, SHAP.

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Control on Nonpoint Source Pollution under Uncertain Welfare

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Abstract

The optimal environmental policy is determined for Cournot duopolies with product differentiation. In the case of non-point source pollutants, the standard policies cannot be applied since the regulator is unable to observe individual emission levels of the firms, however, obtains only the total size of the pollution. The firms' decisions are concerned with their outputs and abatement technology, while the regulator chooses the uniform pollution tax rate. The optimal decisions are determined in a two-stage process. In the second stage, the firms determine their outputs and the technologies, taking the tax rate as given. In the first stage, the regulator selects the optimal tax rate with the given choices of the firms. Under asymmetric information, the regulator constructs the welfare function with uncertainty on the firms' outputs and determines the optimal tax rate by maximizing the welfare expectation and minimizing the welfare variance. Since the best reply of the government has a complicated form, the Nash equilibrium is numerically and graphically solved. It is shown that the optimal ambient charge tax effectively controls the total concentration of NPS pollution.

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Do Capital Flows Ride the High-speed Railway? Evidence from China's Mergers and Acquisitions

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Abstract

While the impact of High-Speed Rail (HSR) on human mobility has been considered, its secondary effect on firms' corporate strategies such as Mergers and Acquisitions has been overlooked. This article addresses this gap by designing a quasi-natural experiment to reveal the treatment effects of HSR construction on variegated M&As for 264 Chinese cities. We discover that HSR attracts horizontal M&As that consolidate homogeneous assets, while it encourages local firms to acquire related or diversified assets through vertical and conglomerate M&As. The findings deepen understanding of the relationship between untraded infrastructure endowments and traded capital flows, with implications for regional disparity.

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The Effect of High-Speed Railway Connection on Economic Development in China's Peripheral Cities: A Perspective of Innovation Capacity

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Abstract

A growing body of literature has explored the impact of high-speed rail (HSR) connection on urban economic development, while previous research has tended to focus on metropolitan areas. With unique datasets, this paper investigates the heterogeneous impact of high-speed rail on peripheral cities and its causes from the perspective of innovation by using China's HSR construction dataset from 2003 to 2019. Applying the DID method, we find that HSR construction does not have a significant average treatment effect on the economic development of peripheral cities. Existing studies suggest that the reason for the mixed findings on the impact of HSR is the heterogeneity of HSR on peripheral cities, and that this heterogeneity is mainly due to the characteristics of the peripheral cities themselves. Based on the idea of endogenous dynamics of regional development arising from innovation in the sense of Evolutionary Economic Geography theory, we adopt an innovation capacity perspective. And after taking into account the differences in innovation capacity of cities, peripheral cities with higher innovation capacity are able to enjoy more of the positive effects of HSR connections. Based on the city-pair level data, we find two channels through which innovation capacity influences the HSR effect. The innovation capacity of peripheral cities promotes the spillover effect of HSR connection on economic development by improving investment inflow and inhibits the siphoning effect by reducing labour outflow. Overall, these findings indicate that HSR connection has a two-way effect on peripheral cities, and only cities with higher innovation capacity can withstand negative shocks. The contribution of this paper lies in several aspects. First, we contribute to the literature on the economic impacts of HSR on peripheral cities, and shed light on the underlying reason for the heterogeneity of the economic impacts in the perspective of innovation capacity. Second, we quantify the spillover and siphoning effects between core and peripheral cities using investment flows and labour flows, respectively, using a city-pair level panel data. Third, we construct a time-varying instrumental variable using the least cost method, which avoids the problem of using historical transportation infrastructure data as instrumental variables that cannot be matched with panel data. Our findings add to the literature on the impact of HSR connections on the economic development of peripheral cities, and are useful in helping local governments rationally consider HSR construction and to focus on cultivating local innovation capacity.

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Regional Income Distributional Effects of GVC Participation

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Abstract

While the literature on the distributional effects of GVC participation is quite abundant, the nexus between the regional income distributional effects generated by GVC participation remains instead largely unexplored, despite its paramount importance in Europe, where much of the GVC trade occurs among European countries, all affected by profound and increasing intra-country disparities. With an approach at the cross-yard of international and regional economics, the paper aims to fill such a gap, by presenting a theoretical model able to apportion the effects predicted by the Grossman and Rossi-Hansberg model at the regional level, and by proving the obtained expectations for intra-country regional income inequalities in Europe. Results show that a heterogeneous functional specialization of regions within a country amplifies the effect of GVCs on inequalities.

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Technological Transformations, Market Power and Regional Inequalities in Europe

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Abstract

This paper studies the effects of automation technologies adoption on income inequalities in European regions by highlighting its dual impact on the distribution of wealth between profits and wages.

On the one hand, the rapid automation of tasks does raise concerns about the displacement effect and the compression of the labour wage share, particularly damaging the welfare of workers at bottom of the wage distribution.

On the other, automation-led improvements in productivity can create new jobs and increase average wages, and thus the labour share.

This desirable productivity effect, however, can be partially mitigated in those regions strongly specialised in sectors characterized by high market power, and in which income distribution favours the profit rather than the labour share.

Importantly, while in non-metropolitan areas the increase of the labour share is conducive to a rebalancing of the profit vs labour income distribution favouring especially low- and mid-skilled workers and, thus, contributing to a reduction of inequalities across workers groups, the same mechanism does not hold in metropolitan areas where the rebalancing of the profit vs labour income distribution favours especially high-skilled workers, thus amplifying inequalities across workers groups.

The paper proves these statements in an analysis of the manufacturing sector in European NUTS2 regions for the period 2008-2017.

Development Opportunities for Danube Freight Transport and the Evaluation of the Results of the Strategy for the Danube Region

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Abstract

The utilisation of the Danube as a waterway has always fallen short of its potential. This is mainly attributable to the geographical characteristics of the river. The Danube's water flow is uneven, with frequent low water levels in late summer and autumn. Another disadvantage is that it has few navigable tributaries, of which the Rivers Drava, Sava and the Tisza are of such size and flow that navigation is theoretically possible. The development of navigation on the Danube has always been hampered by the fact that it reaches the sea via a delta estuary, and the navigability of the individual branches could only be ensured by regular maintenance. And finally, it is a disadvantage that the river enters the Black Sea, which is a landlocked inland sea far from the main maritime transport routes. The presentation would answer the following questions: 1.) What is the situation of freight transport on the Danube, what are the opportunities and constraints of its development? 2.) In the context of the EUSDR, what investments are the countries undertaking to improve Danube navigation? 3.) To what extent are Danube organisations active in international projects and what are the impacts of cooperation? 4.) Whether it is possible to draw conclusions from the analysis of national and international projects on the commitment of the Danube countries to inland navigation?

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Planning and Accompanying Industry in its Transformation: Towards a Renewal of Regional Industrial Policies?

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Abstract

Since the beginning of the decentralization policies initiated in 1980, French regions have endorsed increasing responsibility for economic policy (Le Lidec, 2020). Most recently, the 2015 NOTRe law strengthens their competencies, by granting them a legal leading role in economic development, and a responsibility for economic strategy and aid management. This transfer opens a field of possibilities for policies (Desjardins, Béhar, 2017). Industrial policies have been the subject of many scientific developments in Europe, fueled by the development of smart specialization strategies (S3). Launched in 2007, the S3 invites regions to adopt a program for transforming and diversifying their economies through an "entrepreneurial discovery process" (Haussmann, Rodrik, 2006) consisting in the identification, selection, and prioritization of a limited number of industrial domains (Foray, 2009). This policy has given rise to a vast literature review pointing to differentiated implementation trajectories (Kroll et al, 2014 ; Trippl et al, 2020), themselves dependent on economic and technological backgrounds (Camagni, Capello, 2013), administrative performance and capacities of governance (Sotarauta, 2018 ; Estensorro, Larrea, 2019; Gianelle et al, 2023). The literature points the difficulty of operationalizing both entrepreneurial discovery process (Grillitsch, 2016; Hassink, Gong, 2019) and strategic prioritization (Iacobucci, 2014). These issues are an interesting framework for analysing the rise of French regional industrial policies. How is this movement to consolidate regional industrial policies being built? On which actors, instruments and practices is it based? Our research is based on a comparative study of the regional plans for economic development, innovation, and internationalization (SRDEII) of the 17 French regions, drawn up in 2017 and 2023. This material is used to objectivize the issues, priorities and methods of regional intervention and their evolution. The research is also based on 20 interviews of regional or local industrial policy managers. This material is used to understand the specific functioning of the regions, their governance mode, their visions and tools of development. The analysis of strategies highlights a renewal of regional industrial policies, which are aimed less at specializing regional economy than supporting them in their transformations in an integrated manner. The aim is to provide integrated support to as many companies as possible to face some major challenges: digitalization, decarbonization, skills management...Our interviews show that the implementation of regional industrial strategies, as for smart specialization strategies, requires the creation of services and governance structures that enable economic contact to be made, needs to be understood... The cluster paradigm is an extension of ambitions to support business transformation with more technical support. These paradigms are implemented through various documents which show a tension between a strategic industrial policy that anticipates the technological, economic, social changes, and the desire to operationalize these documents. These tensions call into question the role of regional economic strategy, between adapting to reality and framing it. Despite these advances, obstacles remain: regional financial and technical resources are limited, the construction of economic governance and leadership covering the entire territory remains complex. In this sense, a multilevel governance system including municipalities, regions and the State is essential.

A Successor Model to FDI-driven Regional Development in Central and Eastern Europe? Challenges, Concepts, and Exploratory Scenarios

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Abstract

The present paper is concerned with outlining a potential future alternative to the dominant FDI-driven regional development model in Central and Eastern Europe (CEE), and extending the argument to three exploratory scenarios for regional development policy. The research is based on a review of academic literature, employing the framework of regional development policy and industrial policy, as well as the Dependent Market Economy variety of capitalism.

Foreign Direct Investment has played a dominant role in the transformation of CEE regions, whereby they were swiftly integrated into Global Production Networks, leading to considerable productivity increases. However, there is increasing evidence to suggest that this development model has reached its limits, and its original focus on low-cost productivity has become a development trap. Deep and persistent centre–periphery relationships, constrained spillover effects from FDI units, weak territorial networks, and insufficient capital accumulation for high-road development show the hidden costs and trade-offs of FDI dependency, while recent exogenous shocks have not so much caused, but highlighted the systemic vulnerabilities of the dependent economies. These weaknesses ultimately impact the resilience and upgrading potential of these regions, particularly in light of the turbulence characterising regional development in the 2020s. An exploration of alternative sources of growth in the form of future-oriented, challenge-driven industrial policies is thus warranted.

The paper thus outlines a potential successor model to mitigate the weaknesses of the FDI-driven growth model, while acknowledging FDI's continued significance in the macro-region. Three exploratory scenarios are discussed to reduce external dependency and promote place-based regional development: a deeper embedding of FDI units in domestic production networks; increasing the role of national capital in industrial policies to foster the rise of domestic multinationals; and an increased emphasis on domestic SMEs and their networks. These scenarios rely on opportunities which already exist in a formative stage within CEE economies, and offer an opportunity to exploit virtuous path-dependencies.

The main goals of this policy mix point at high-road growth by increasing the prominence of high value-added, knowledge-intensive activities; the diversification of territorial networks through deeper FDI embeddedness and stronger horizontal linkages; improved resilience with an element of improved strategic autonomy; and a greater number of growth centres capable of reintegrating peripheral regions. It is suggested that for these goals, industrial policies should put increased emphasis on fostering endogenous capital accumulation, embeddedness, a more sectorally and geographically selective approach to investment policies, and an emphasis on encouraging regional re-specialisation to generate and exploit competitive advantages.

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Museums in Times of Crisis: Analysis of the Impact of Covid-19 on the Italian Museum Sector

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Abstract

The Covid-19 pandemic significantly impacted museums in Italy, prompting a notable display of resilience as these institutions adapted to new circumstances and engaged the public innovatively during the health crisis.

This research focuses on the effects of the pandemic on Italian museums, utilizing data from annual surveys conducted by the Italian National Institute of Statistics on museums and similar institutions spanning from 2018 to 2021. Distinctions are drawn between private and public museums, as well as between museums and other cultural institutions, such as archaeological sites. Furthermore, the study examines institutions that received public support in 2021 and those that did not. Our dataset also includes the geolocalization of all the considered museums, enabling us to explore the role played by spatial variables in shaping the responsiveness of these institutions to unexpected shocks, such as the Covid-19 one.

To assess the pre- and post-Covid-19 gap in visitors' numbers, an interrupted panel data model is employed. This model allows for the quantification and comprehension of challenges and opportunities that the museum system should consider in the post-pandemic era. By incorporating a spatial effect, the model takes into account the proximity of other museums, capturing potential agglomeration and spatial competition effects.

Findings from the study reveal differential responses between public and private institutions to the pandemic shock. Private museums displayed more pronounced reactions and exhibited quicker recovery, indicative of distinct economic sustainability. Additionally, the research identifies post-Covid advantages associated with open-air settings, particularly benefiting archaeological sites and cultural institutions beyond traditional museums. The spatial dimension emerges as statistically relevant across various specifications, suggesting that the impacts are contingent on the type of grouping under consideration. This implies that possible positive effects of agglomeration, such as a higher supply of cultural heritage in a defined area, may sometimes be offset by negative effects, such as increased competition due to time constraints of tourists and visitors.

The results deepen the analysis of disparities between private and public institutions, reflecting distinctions often mirrored in the policies governing them. It is noteworthy that these interventions frequently overlook agglomeration effects, primarily due to their predominantly national scope. The study suggests that differentiating policies for dispersed and agglomerated institutions could be worthwhile, considering that more concentrated museums are more profoundly affected—either positively or negatively—by spatial effects. Such considerations have the potential to enhance the efficacy of policy design in the evolving post-pandemic museum landscape.

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High Tides, High Stakes: the Dual Role of MoSe Barriers in Safeguarding Venice

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Abstract

Climate change and the increased frequency of extreme weather events pose significant challenges for economies reliant on tourism. Among various natural disasters, our focus is on Acqua Alta, the high tide phenomenon that characterizes Venice and its lagoon. The primary goal of our study is to assess the protective role of the MoSE system—an arrangement of mobile barriers designed to shield the city from rising tides exceeding 110cm. Implemented in October 2020, this system acts as a crucial defence, preventing city flooding and mitigating the adverse effects on the local population, and on tourists as well.

Recent studies indicate that Acqua Alta adversely affects tourism prices. During weather alerts (issued 48 hours before expected events), all else being equal, the hotels tend to reduce room prices. Leveraging the introduction of the protection policy in a quasi-experimental setting, our study aims to evaluate its effectiveness in safeguarding the tourism sector of the city economy. We work on a comprehensive dataset of daily room prices of Venetian hotels listed on Booking.com platform, covering the period between 2019 and 2023. Our focus is on the supply side of the tourism sector, where hotels may adjust their prices based on expectations of potential damages in the absence of protection, or they may maintain current prices knowing that protection exists. By analysing both pre-MoSe and post-MoSe periods, we employ causal inference methods to evaluate the effect of MoSE protection in ensuring price stability. Furthermore, our empirical setting takes into account different degree of exposures to high tide occurrences. Differentiating between low-lying and high-lying hotels using a continuous exposure metric, we uncover heterogeneity in price fluctuations, which reflect different risk exposure and, hence, different importance of the protection.

The findings of this study carry substantial implications for local governance by showing the dual functionality of MoSE barriers. These structures not only act as shields for physical protection but also play a relevant role in safeguarding the local economy. Our evaluation of the policy's effectiveness in averting price drops contributes significantly to conducting essential cost-benefit analyses for climate change adaptation measures. While the Venice case is unique, similar barriers exist in other countries where flooding and submersion pose actual risks, such as the Thames Barriers in London and the Maeslantkering in the Rotterdam harbor. Additionally, discussions about constructing similar barriers, along with other preventive measures, are ongoing in places like Mauritius. Our approach and results can provide insights for these situations, but further analyses, considering the specificities of each case, are needed.

How does Green Innovation Network Affect the Green Total Factor Productivity? New Evidence from China's Yangtze River Delta Region

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Abstract

Improving green total factor productivity (GTFP) is an important way to balance environmental protection and economic development in China's Yangtze River Delta region. In recent years, as the integration process of the Yangtze River Delta region continues to advance, the number of patents of green cooperation between cities has gradually increased and the green innovation network has become more and more abundant,but the effect of the green innovation network on GTFP has yet to be further studied. Therefore, we construct an analytical framework for the impact of green innovation network on GTFP in the Yangtze River Delta region, taking 41 cities in the Yangtze River Delta region from 2011 to 2020 as the study area.Through collating the data of green cooperative patent inventions in the Yangtze River Delta region, we has constructed the green innovation network by utilizing the social network analysis method.In this study, we use panel econometric models to empirically study the impact of green innovation networks on GTFP in 41 cities of China's Yangtze River Delta region from 2011 to 2020.We construct intermediary effect models from the intermediary paths of green technological innovation and industrial structural upgrading.In addition,considering the constraint mechanism of green finance to start with, we use a panel threshold model to explore the threshold effect of green finance.Furthermore,we use spatial econometric model to analyse the local-neighborhood impacts of green innovation networks on GTFP in China's Yangtze River Delta region, taking into account the spatial spillover effects of GTFP.The results of the study show that：(1) the green innovation network in the Yangtze River Delta region has a significant promotion effect on GTFP. The effect of green innovation network on GTFP promotion is more significant in cities with high level of economic development, cities with high emphasis on science and education, non-resource cities and large cities. (2) Green innovation network can enhance urban GTFP through two paths: promoting green technological innovation and promoting industrial structure upgrading.(3) The results of the threshold model show that with the improvement of green finance levels, the promotion effect of green innovation network on green total factor productivity will be increasingly enhanced. (4) Local integration into the green innovation network will be able to influence the GTFP of local cities, and at the same time, local GTFP enhancement will also promote the GTFP of neighboring cities.This study has important theoretical and practical significance for further scientific promotion of China's Yangtze River Delta integration, optimization of China's Yangtze River Delta 's green innovation network, and realization of China's Yangtze River Delta 's green and sustainable development.

Keywords
Green innovation network, Green total factor productivity, Green finance, Threshold model, SAR model.

China's Foregone Urbanization Dividend: Declining Agglomeration Elasticities and Misplaced Construction

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Abstract

China's rapid economic growth over the last four decades has been underpinned by several 'dividends'. A reform dividend started in 1979 as agriculture began to de-collectivize; the rise in rural productivity saw per capita calorie availability grow by one-sixth even as population increased rapidly, and also saw poorer rural provinces partially close income gaps with more urbanized areas (Gibson, 2020). A subsequent demographic dividend, from a growing share of the population in working age groups, provided a tailwind to growth through until 2010 (Cai, 2020). An urbanization dividend was expected to provide at least two types of benefits – transferring workers out of low productivity rural activities into higher productivity urban activities and agglomeration effects from producers, consumers, firms and workers locating closer to each other in highly productive big cities. In forecasts made 15 years ago, a concentrated form of urbanization where the biggest cities had the fastest population growth rates, was expected to increase per capita GDP by up to 20% over what was expected from more dispersed urban growth strategies (MGI, 2009).

Contrary to those forecasts, and contrary to the previous pattern of urban population growth, the most recent decade between the 2010 and 2020 Population Censuses saw China's pattern of urban growth shift sharply. The population growth rate for the biggest cities, which are those having more than six million urban residents, halved from what it had been the decade before. It was only the smallest cities, with less than one million urban residents, who kept the same pace of population growth from the decade before. This shift reflects recent policy changes to favor the growth of smaller cities, which include size-differentiated rules for *hukou* conversions and for land conversion that affects housing prices.

In this study we examine the changing nature and location of agglomeration economies in China, using resident-based measures of urban scale from China's 2000, 2010 and 2020 censuses. We find agglomeration economies occur only for the urban cores of large cities, not for the smaller and less dense county-level cities and smaller towns. The agglomeration elasticities, based on the relationship between log GDP per capita and log urban scale, are falling over time, from 0.24 in 2000 to 0.08 in 2020. For the non-core urban areas we can never rule out that elasticities equal zero. One explanation for these patterns is that the gains from greater urban density are being foregone due to China's urbanization strategy favoring growth of smaller cities. One novel indicator of bias against bigger cities comes from long-form census data on occupations: in the 2000 census most construction workers lived in the urban core cities, which is where most building activity was occurring yet by 2020 most construction workers lived in counties, reflecting a dispersal of building activity. The rapid fall in China's working age population raises the question of who in future will be living in these buildings in counties and whether these additions to the built environment are in the most productive places.

Policy and Governance of Functional Urban Areas - The Case of Poland

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Abstract

The need to delimitation, and develop mechanisms for strategic planning and partnership in functional urban areas (FUAs) for the implementation of new EU cohesion policy territorial tools in 2014-20 posed a major challenge for countries and regions. This was particularly relevant to the development of new policies and institutional frameworks for the introduction of the Integrated Territorial Investments (ITAs) in countries that had never implemented such solutions. Poland was one of them. The aim of this article is to present the challenges faced by regions and communes in Poland in the context of building partnerships, developing strategies for Sustainable Urban Development (SUD) and implementing territorial governance in practice. The experience of 2014-20 will be the background for demonstrating the changes that occurred in 2021-27 as a result of a significant increase in the use of ITIs by extending coverage to smaller cities and marginalized areas. In particular, the analysis deals with the implementation of new and modification of old approaches and solutions to delimitation, strategic planning and building governance structures in FUAs. The contribution of the study is twofold - on the one hand, it shows the transformation of FUAs policies under the influence of changes in the rules for the ITIs implementation and, on the other hand, it presents the evolution of the mechanism for building inter-municipal partnerships.

Regional Innovation Ecosystem, Urban Development, Industry 5.0 –Learning Factory as an Enabler

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Abstract

The starting point of the presentation is the recognition of the transforming relationship of industry and city, re-discovering the value of industrial value chains, advanced manufacturing and services, as provider of high-quality services and opportunities for individuals and communities, with impact on regional competitiveness and social cohesion on the one hand and on structure and usage of urban spaces on the other. The main drivers of this transformation are: customization and personalisation, convergence between production and services; iterative, "simultaneous" engineering and innovation; emerging of value (incl. circular) networks; increasingly shorter technology, product and factory life cycles; and the proximity of talent as major factor to choose locations for key operations and strategic collabourations. To understand the changing landscape of regional "mission-driven" interventions and development tools, the presentation introduces the main features of the Industry 4.0 and 5.0 concepts, including the modules and layers of the technologies, also impacts on business models and partnerships. Since the Industry 5.0, according to the EU definition (and even more to the Japanese model of Society 5.0) are essentially social concepts, the three main areas of I5.0 – sustainability, human-centricity and resilience – will be discussed, highlighting that I5.0 goes beyond technological modernisation. It promotes fair and diverse employment opportunities; circular integrations along the material streams; co-design with customers and final users; hyper-flexible engineering and operational capabilities and short supply networks; cross-sectoral collabourations and community embeddedness. The aggregated transformation impacts local business models and regional value networks as well. It changes how manufacturing innovation, engineering, and design of implementation and widespread adoption of deep-tech based solutions is managed and supported by businesses, and by ecosystem providers and support organisations. E.g. the new E-DIH concept of the EU highlights the role of orchestrators, the provision of test-before-invest services, the coordination between training, testing and incubation, across organisational boundaries and sectoral silos. In addition to that open technology platforms and open urban spaces with customizable services are gaining momentum. "Learning Factory" is one of the archetype of the next-generation instruments in regional and local development. Learning Factories ensure open urban spaces and affordable testing and learning environment in these facilities, in particular for SMEs; but they may also offer complex support – training, consulting, assessment, R&D, engineering, matchmaking – for digital transformation as well. And beyond individual support, Learning Factories organise regional entrepreneurial communities; it is also capable to coordinate collabourations along value chains and circular material streams. Learning Factory is a technology-driven integrative development model to create the confidence needed for comprehensive change among a wide range of (industrial) enterprises, and to offer a transparent customer journey for them.

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An Analysis of China's Aluminium Ores and Concentrates Import Dependence Risk and Optimization of Layout

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Abstract

Aluminum, as an important strategic metal mineral resource, plays a significant role in both the development of the national economy and national defense security. China is one of the few countries that possess a complete aluminum industry chain. Aluminum, with its properties of being lightweight, corrosion-resistant, and recyclable, is widely used in various industries, including construction, transportation, electronics, etc. With the development of the new energy market, the demand for aluminum continues to increase. However, the grade of aluminum in China is relatively low, and domestically produced aluminum continuously falls short of demand, leading to a yearly increase in China's dependence on foreign aluminum. This paper starts from the perspective of mutual dependence of market supply and demand subjects, considering both China's dependence (R_{ij}) on the countries from which it imports aluminum and the dependence (O_{ij}) of these exporting countries on the Chinese aluminum import demand market, and incorporates them into the calculation system to examine China's risk level of dependence on aluminum resource imports (R_{ij}/O_{ij}). Based on this, the paper adopts a dynamic ECM-AIDS model that differentiates import sources to study the market relationships between countries from which aluminum is imported, and uses the endowment of aluminum resources in various countries as an indicator to evaluate the attainability of imports, to determine the geographical areas for diversified layout. Finally, using nonlinear programming methods, it minimizes the risk of aluminum import by considering factors such as import dependence risk, supply risk, political risk, etc., and calculates the optimal import volume from exporting countries, aiming to explore specific implementation plans for diversified layout. Through the analysis of aluminium ores and concentrates (AOC)(HS code: 2606) import and export trade data from 2012 to 2021, it is concluded that there are significant differences in the dependence risk index values of China on the main countries from which it imports AOC. The risk of dependence on AOC imports mainly comes from Guinea and Australia, whose import dependence risk values are far greater than 1, and the share of exports from Guinea and Australia to China has always been high, reaching a total market share of 83.01% in 2021. In contrast, there is no import dependence risk for China's AOC imports from India and Indonesia. Moreover, there is a clear substitution relationship between different import source countries. To safeguard the security of AOC imports and effectively prevent import dependence risks, taking into account the results of the diversified layout calculation, international situation, transportation channels, and geopolitical factors, the following suggestions are made: China should control the quantity of AOC imported from Guinea and Indonesia, and consider countries like India and Jamaica as potential areas for China's diversified layout, while also paying attention to the development of AOC resources in Asian countries that have transportation distance advantages, to disperse the current risk of dependence on AOC imports.

Keywords
AOC Import; Dependence Risk; Market Layout.

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Beyond GDP: Wealth and Sustainability of Developing and Developed Economies

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Abstract

The capital approach, or the wealth economy framework of sustainability broadens the conventional measure of economic performance "beyond GDP", with a long-term view. The totality of capital assets, or wealth, is composed of produced, human, natural and social capital, and is seen as the source of income, benefits, and wellbeing of present and future generations. Shrinkage in this production base signals unsustainable development. While the weak criterion of sustainability allows substitution between all capital elements, the strong criteria does not allow reductions in the renewable component of natural capital. Using World Bank data, we found that during the 1995-2018 period 14% and 58% of the countries globally did not meet the weak and the strong criteria of sustainability, respectively. A comparative analysis of wealth and its components is provided for four World Bank classified country income groups: High income, Upper-middle income, Lower-middle income and Low income countries, as well as for selected OECD countries. It is found that human capital is proportionally the most significant among the capital elements, followed by produced capital. Natural capital, both renewable and non-renewable lags far behind. Our findings raise questions regarding the rational of economic convergence by developing countries to the level of developed economies. Also the limitations of the research highlight the necessity of further methodological improvements regarding data generation and statistics, including the valuation of assets.

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Central Hungary's Integration into the Knowledge Society

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Abstract

The aim of the presentation is to show the integration of Central Hungary into the knowledge-based society and to review its regional characteristics. It will explore the relationship between the differences in educational and knowledge characteristics of the regional centre and the surrounding agglomeration based on data analysis.

The presentation will build on the following hypotheses:

1) The capital city has a special function in East-Central Europe, because it should be more involved in mediating global aspects towards the country as a whole and should integrate the country better in political, economic, and cultural terms compared to the more urbanized countries. This is particularly true for Hungary, but also for other countries in the region. Overcoming the dichotomy between capital and countryside is therefore essential for finding a new development path.

2) The integration into the knowledge economy relies heavily on historical traditions including the technical and economic heritage. The new skills, technologies and infrastructure helping to adapt cultural traditions to the demands of globalization. Contrary to the view of the last thirty years, the guiding principle is therefore not to follow the models of other capital cities (London, Vienna) but to support the adaptation of our own industrial-food traditions in the case of Budapest.

3) In a knowledge-based society, these traditions can be linked to the functioning of university knowledge centers, which can be used as a yardstick for development. However, university performance can be characterized not only by narrowly defined educational-research indicators, but also by the development of the economic ecosystem.

To provide an empirical background the presentation analyses the differences in knowledge characteristics between the central regions of European member states and other regions. Presenting the role of the central region as a knowledge hub through indicators, it delves into the competitiveness characteristics of the workforce and how it differs from other regions variations in higher education across scientific fields. Also, based on available statistics and research conducted on graduate students the analysis aims to demonstrate Central Hungary's role in talent attraction, talent retention and knowledge transfer.

Keywords
Ecosystem, knowledge-based society, tertiary education.

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Changes in Ethnic Structure and Political Representation in Upper Silesia

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Abstract

Upper Silesia is one of the few regions in Poland where communities with national, ethnic and/or regional identities other than Polish live in a relatively compact way and where ethnoregional organisations were established after the transition. Upper Silesia is administratively divided into two regions (voivodships). In the western part (Opole Voivodeship) there is a German community, recognised as a national minority but with a steadily declining population, which, in addition to local and regional bodies, also had permanent parliamentary representation. The eastern part (Silesian Voivodeship) is home to a newly awakening community with a distinct Silesian identity, which by the 2011 census had swelled to over 800 000 people, and which has a distinct identity from both Poles and Germans but is not officially recognised by the respective governments.

The paper uses the results of Polish censuses to describe the current structure of Upper Silesia and the changes that have taken place over the last two decades (nationality was asked first in 2002 census after the transition), including the 2021 census. Using relevant demographic data from previous censuses, the presentation will attempt to answer the question of the different dynamics of the development of German and Silesian identity, and to explain why the German minority has lost its stable parliamentary representation in the 2023 elections.

Keywords
Ethnic structure, representation, Germans, Silesians, Upper Silesia.

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Characteristics of Ethnoregional Communities in Central and Eastern Europe

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Abstract

In the 20th century, the break-up of the great empires and peace treaties led to many ethnic groups becoming minorities in the newly created small states. After forty years of state socialism, the last years of the era saw the emergence of political and social movements that opened a new era of self-organisation in Central and Eastern Europe. Political movements based on national identities emerged, seeking independence and redrawing borders within the region (some succeeded in creating new nation states and an increasing number of communities became minorities), while others sought personal and/or territorial autonomy in the countries where they lived. Some of these minority groups are spatially concentrated in a particular region or along a border. Although these so-called ethnoregional communities may differ significantly in terms of their population and regional proportions, they constitute a distinct group of ethnic minorities.

Related to the above, the presentation will attempt to characterize the ethnoregional communities in Central and Eastern Europe based on available census data. The presentation will cover the following issues and topics: (1) the distinction between ethnic and ethnoregional communities (2) the evolution of the population of ethnoregional communities (3) the types of ethnoregional communities (size, spatial location, status) (4) the political organisation and representation of ethnoregional communities.

Keywords
Ethnoregional communities, Central and Eastern Europe, characteristics, types, political representation.

Relationship between Periphery and Core Countries/Path-Dependence in Regional and Local Development in Eastern and Central Europe/Spatial Economic Geographic Projection of Economic Policy of the Transitional Economies

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Abstract

1989 and 1990 were years of rapid change in Central and Eastern Europe. The intensity of the change varied in each country; they ranged from elite bargaining (in Hungary), through strikes and states of emergency (in Poland), civil war (in Yugoslavia) to armed revolution (in Romania). In the countries of the Eastern Bloc, the former socialist political, economic and social systems were replaced by plural political systems. From the worlds dominated by monolithic state parties, parliamentary democracies emerged with their multi-party systems. Local governments were created in the spatial structure of power and NGOs also appeared in the societies. This rapid change of the political course took actually place only within a few months; in Hungary the public law framework was rapidly established by the Parliament in the very last months of the State Party (including Constitution, Electoral Act and others).

Economic transitioning took significantly longer; such could only be deemed complete at the end of the nineties. Changes to the economic systems in the Central and Eastern European states took place according to the spirit of the Washington Consensus that is along the principles of deregulation, liberalisation, and privatisation. The section seeks answers to the following questions:

To what extent has the economic transformation been locally influenced by historical heritage and impacts of policies which shaped the spatial structure before 1990 (latter including development of industry, linear infrastructure, human sector and urban and regional planning efforts etc)?

Was the previously developed spatial structure (zone-based development ranking) a result of a process of global influence, or was their new internal spatial structure more determined by earlier decisions?

Was it determined by path-dependence and global (new or rather local, old) forces? Did the internal structure hinder or, instead, prepare the 'development' thus the movement between the centre and the periphery? Are there any models in this area?

How were economic and social processes formed in space and how were the spatial structures of the countries transformed? What were the chances of economic transformation? Can the differences between countries be emanated in this transformation, or did everyone choose the "the only model for capitalism" because there was no other?

What are the knock-on impacts and present after-effects of the drastic decline in economical performance, high unemployment, masses dependent of social care (impoverishment)? Have the spatial differences been rearranged, deepened or eased?

Ultimately, what was the price of the political system change and the economic transitioning? Was a new society born? Can its traces be detected in geographical space?

Suburbanization within the City: An Apparent Paradox and its Environmental Consequences in the Case of Hungarian Rural Centers

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Abstract

The transition to market economies in post-socialist Central and Eastern European countries (CEE) has led to a surge in urban sprawl. Rapid urban changes pose challenges to spatial planning and urban development in these regions, exacerbated by resource constraints and frequent changes in the legal framework. The lack of consolidated municipal planning methodologies and management routines intensifies the impacts of sprawl in CEE countries. Most research in the CEE region has primarily focused on the suburban zones of capital cities, with slightly less attention given to the processes in rural centers and their suburbs. The sprawl is further complicated by the fact that numerous villages and rural scattered habitats with a farm or allotment-like character have been annexed to rural centers during planned urbanization. These areas function as rural enclaves within the administrative boundaries of cities and currently serve as action zones for sprawl. However, statistical data on them is only limitedly available in most CEE countries. Often characterized by small buildings and a significant permanent population, these areas possess unique features compared to traditional suburbs. This study aims to examine the impact of urban sprawl on the rural-urban periphery of rural centers in Hungary, specifically in the cities of Győr, Kecskemét, and Szeged. The analysis employs both qualitative and quantitative methods, including a stratified systematic survey of households, interviews with local government representatives and officials, and GIS data analysis based on the Corine Land Cover database and the aggregation of grid population density data. Results indicate significant land use conversions in the selected cities between 1990 and 2018, with notable increases in built-up areas. Greenfield commercial, industrial, and residential projects have transformed spaces, leading to spatial differentiation and environmental impacts. The study also reveals complex spatial structures in peripheral areas, characterized by chaotic and fragmented land use patterns, degradation of habitats and plant communities, and the appearance of alien taxa. Issues such as waste incineration, air pollution, urban heat islands, and conflicts in water management are prominent concerns for residents. The study emphasizes the long-term destructive impact of ad-hoc and semi-legal investment development techniques on the urban environment and local social development, exacerbating territorial injustices and chaos. Overall, the micro-scale problems associated with urban sprawl make it challenging for local communities to function, perpetuating conflicts in already segregated and socially unequal areas. One of the key findings of the research is that, due to the nature of the 'complex cultivation patterns' CLC category, a significant portion of the changes is completely masked in the case of these mid-sized cities. Furthermore, the afforestation of abandoned plots appears to increase the forest area, although they can be better interpreted as brownfields. Finally, the "turning a blind eye" practice of local governments further aggravates the presented issues.

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Development of Electric Vehicle Battery Industry and Sustainable Economic Growth of Hungary

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Abstract

The increasing awareness of energy security and environmental protection has promoted the continuous development of the electric vehicle (EV) industry. As one of its core components, the battery industry is considered a key driver of sustainable economic development. Hungary, which has a relatively small population and economic scale in the world, has attracted a batch of greenfield investments in the EV battery industry in recent years. The purpose of this study is to explore whether the development of the EV battery industry has an impact on promoting the sustainable growth of the Hungarian economy, and to employ path analysis methods to conduct an in-depth study of its potential role in fields such as economic benefits, environmental protection, and social sustainability.

Path Analysis is a statistical method used to explore the direct and indirect influence relationships between multiple variables, as well as the paths and mechanisms between them. When studying the impact of the EV battery industry on the sustainable growth of the Hungarian economy, impact path analysis can help reveal the correlation and impact paths between different factors. Key variables involved in the study, such as battery industry investment, economic growth rate, technological innovation indicators, employment data, etc., will be obtained from the Hungarian National Bureau of Statistics, the Hungarian Investment Promotion Agency, the European Automobile Manufacturers' Association, and the EUSTAT database.

Preliminary research results show that the development of the EV battery industry has a significant impact on the sustainable growth of the Hungarian economy. Direct path analysis suggests that investment and technological innovation in the EV battery industry have a positive direct effect on economic growth. Increased investment and technological innovation have brought more employment opportunities and industrial development, directly promoting economic growth. In addition, indirect path analysis shows that the development of the EV battery industry has a positive impact on environmentally friendly production and socioeconomic benefits through intervening variables such as technological innovation and environmental protection. These indirect effects play a supporting and strengthening role in sustainable economic growth. However, preliminary research results also revealed some challenges. Although the development of the EV battery industry has brought many benefits to economic growth and sustainable development, its development may also be restricted by resource utilization, environmental protection, and sustainability issues. Therefore, it is necessary to further explore and balance the impact of the development of the EV battery industry on resource consumption and environmental pressure to achieve a balance between economic growth and sustainability.

Exploring the Association between the Marketing of Properties and Neighborhood Change

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Abstract

In this article, we study how the marketing of single-family homes are associated with changes in the racial and income makeup of mortgage applicants in a neighborhood. Real estate listings are curated by agents to attract a target market as realtors arguably have intimate knowledge of the local housing market and of the current tastes and preferences of different groups of homebuyers (Nowak & Smith, 2017). The language of advertisements is therefore chosen with intentionality (Goodwin et al., 2014), and perceptions of this language have been shown to vary by the race, education, and income of the individual reading it (Goodwin et al., 2018). Consequently, advertisements have a distinct vernacular that varies depending on the racial makeup of the neighborhood (Besbris et al., 2021; Delmelle & Nilsson, 2021).

Following this logic, we propose that listings can serve as an early indicator of change if properties are advertised to homebuyers in a manner that targets buyers who differ in race and income from the existing neighborhood composition. Our analysis therefore centers on the association between the marketing of properties and the characteristics of those responding to the advertisements, measured by home mortgage applicants. Given that investing in housing involves some amount of financial risk, in addition to satisfying the tastes and preferences of home seekers, we expect the overall composition of how homes are being marketed in a neighborhood to serve as a signal of risk, and therefore a potential trigger of threshold indicator.

We use a case study of the housing market of Charlotte, North Carolina, and annual, longitudinal real estate listing advertisements alongside mortgage application data, to demonstrate how the share of properties advertised a certain way in a neighborhood in one time period is associated with shares of mortgage applicants by race and income the following year. We do this by classifying property advertisement text using a semi-supervised learning algorithm into five categories following a housing investment, disinvestment to renewal continuum. We find that neighborhoods at the 50-70th percentile of properties advertised as 'opportunities' for reinvestment see a significant share of White mortgage applicants, but this significantly drops if the share rises above the 90th percentile, suggesting that there must be a critical mass, but not too many advertised opportunities for significant changes to appear. Black mortgage applicants significantly increase with rising shares of property advertisements indicating disinvestment. Our results show that the language alone used in real estate advertisements significantly explains the racial and income makeup of neighborhood mortgage applicants and reveals strong income and racial segregating forces.

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Investigating Overtourism and its Economic Effects: Evidence from Italy

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Abstract

The last decades have seen a constant increase in tourism demand. The literature about the economics of tourism traditionally puts forward the link between tourism and growth. Scholars almost find a confirmation of this mechanism, but there are also mixed results (Comerio and Strozzi, 2019). This heterogeneity, however, has not been much explored by the economic literature, especially in an empirical way. Recently, the term "Overtourism" has emerged in this context. Many scholars, however, have stressed that the term overtourism is not well defined, lacks clarity and is very difficult to make operational (Capocchi et al, 2019; Walmsley et al, 2022; Koens et al, 2018). What the term seems to suggest, however, relates to the fact that cities' carrying capacity can be (and is) overshot, causing different negative outcomes. The aim of this paper is twofold: first, it will help to contextualize the overtourism phenomenon in economic terms. Secondly, it will fill the gap in the literature by evaluating the negative tourism impact on different economic outputs. Indeed, we suggest that market inefficiency could arise when the public administrations do not internalize the tourism social cost. To understand the complex relationship between excessive touristic flows and sustainable development in cultural cities and other attractive areas, we develop an indicator of overtourism following the method proposed by Buitrago and Yñiguez (2019), based on the combination of traditional tourist indicators (such as the number of beds and accommodation available) and data extracted from social media and other platforms (such as TripAdvisor and Airbnb data). The aim of this indicator will be to cover all the relevant aspects of the tourism phenomenon, such as the absolute and relative touristic pressure, the tourism growth rate, the spatial and temporal distribution of tourism, the quality of life of residents and the tourist satisfaction. This index will be used to understand the relationship between tourism and local development on a panel dataset of all the Italian municipalities for 10 years, from 2009 to 2019. The econometric model would take into account possible spatial spillovers between municipalities. Studying the Italian context is extremely relevant to this research question, given the large availability of cultural sites, where tourism facilities are provided at the expense of the local population.

The Relationship between Győr and the Benedictine Community in the Light of Creativity. Exploring New Regional Relationships Using the Theory of Territorial Capital.

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Abstract

Closely related to the research topic of the thesis, it is important to state that the economic growth of a given settlement or area is determined not only by economic factors, but also by sociological, anthropological, sociocultural, and religious factors. Of course, this system of relations is also true in reverse, so the religious, cultural and social structure is determined by the economic processes, which therefore also affect each other in this way, while shaping each other and themselves. Nowadays, it is becoming more and more obvious that the structure and processes of the regional economy can be measured more accurately and more substantively, if non-economic variables (intangible capital elements) are also included in our analysis. In recent times, a number of elements have been included in the territorial capital models, which can give a more complex picture of the economy of an area or settlement, since intangible assets are also taken into account when describing the values of an area, so the concept of territorial capital is suitable for combining all these factors (cultural, social, religious, sociological) comprehensively conceptualizes and operationalizes. Individual areas develop when they are able to utilize their own potential or capital more and more effectively, however, the most commonly used indicator, GDP, cannot exclusively show this current economic and social situation. Territorial capital is therefore "the intersection of the available and accumulated economic, social and cultural capitals in the territorial system, the common surface, the sum of the values that are characteristic of a given place and can only be interpreted there". Territorial capital - theory describes a situation, a state, it examines what kind of relationships characterize the elements of the territorial system, how we can characterize the functioning of their factors (also immaterial!) at a given time.

The Benedictines – like the city of Győr – serve as a model of successful development and a high degree of innovativeness, which in their case manifests itself in the field of regional embeddedness and social services. Their regional embeddedness resulting from their long history enables them to influence the social and economic life of their settlement and region in a complex way.

Thus, the presentation examines the relationship between Győr as a successful city and the Benedictine Order as a successful community and institution, and the embeddedness of the latter with the help of territorial capital theory as a possible regional analysis method. We are trying to explore the functions of the Benedictines in the spatial network of Győr, which networks are based on regional (city) collabourations, their shaping, and the recognition of relationships with other regional partners (social and economic institutions). The territorial capital theory proves to be suitable for exploring the relations between Győr and the Benedictine order, with the help of capital goods originating from the past and still active in the present, to examine the processes, which thus dissolves the limitations of temporality and makes it, as it were, continuous.

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SNAI and Polish FUA: In Search of a Tailored Geographical Scale of Functional Areas

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Abstract

The study fills a research gap for multidimensional analysis on the context of the geographical scale conducted in various spatial layouts, for different institutional structures and implemented policies. The purpose of the article is to understand the administrative point of view in terms of creation and management of functional areas and theirs subsequent policies. We consider the functional area as a geographical tailor-made scale with a subsequent policy under an administrative perspective. The novelty is to compare the determinants of transformation of the geographic scale representing both the policy and territory and the social approaches. At the policy and territory level, the purpose is to identify territorial aspect, and solutions and instruments proposed by legislation and implemented strategies and policies, as well as the capacity of the functional areas to trigger place-based approaches and collabourative mechanisms, following the most recent recommendations in terms of policy planning. At the social level, the aim is to identify the determinants of partner involvement and answer the question of how functional areas are perceived by the institutions and partnerships that are pursuing the policy related to this new scale. To achieve our goal, we analysed two case studies (Lublin Functional Area, Poland and SNAI Alto Lario, Italy) that do not based on pre-existing divisions and institutions (such as regions or provinces), and the extent of the territory (the inclusion or not of the municipality in the policy) is a key topic for the management of these areas, using desk research (territory and policy context) and a in-depth interviews with decision-makers (social approach). It has been proven that despite different origins, spatial layouts, institutional structures and implemented policies, it is the experience and years earned by the involved institution, that play a dominant role in determining the tailor-made geographical scale of functional areas. In cognitive terms, combining these two perspectives allows for a comprehensive analysis of the determinants of geographic scale at the supra-local level and motivates further research.

Methodological Problems of Measuring Territorial Happiness

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Abstract

The happiness and well-being of urban inhabitants have played a central role in urban thinking and politics since ancient times. Initially happiness was research subject of philosophy, then the subject of psychology, sociology and political science (Diener et al 1999, Lane 2000), in economics happiness research started at the end of the 20th century, connected to Easterlin's research (1974). Although the empirical literature examining the most important economic elements of well-being and happiness is based on observations in spatial locations, the determination of spatial aspects and dimensions of happiness is rarely researched only with some exceptions (Clark et al. 2005, Aslam, Corrado 2007, Brereton et al. 2008, Ballas 2007). Recent years many happiness surveys and indexes had been elabourated. The United Nation World Happiness Report examines the happiness of nations, attempting to quantify happiness globally using the "gross national happiness" index (Sachs et al 2012). The OECD also elabourated its own recommendation on subjective well-being assessment. (OECD 2013). Parallel with national happiness indexes the first attempts to evaluate the happiness of settlements have also appeared. In the United States, Gallup-Healthways prepares a report on the well-being of US cities, states, and electoral districts every year, based on ongoing questionnaire surveys (Gallup-Healthways 2012). The European Union has also produced a quality of life survey covering 79 cities (Európai Bizottság 2013). In the course of research so far, no scientific consensus has emerged in defining the concepts of welfare, well-being, life-satisfaction, quality of life and happiness. So the first problem we face is the problem connected to the conceptualization of happiness, well-being. The next problem is whether it is possible to measure happiness. If we agree that happiness is possible to measure still remain some methodological problems:

The weighing and aggregation of indicators; The used indicators and the results are very similar to that measuring „development"; The approach basically follows and is based on Western European values. There are issues with the extreme ends of the scale, both of which are difficult to interpret in a way that would allow the results to be normalized, combined, and averaged.

With territorial dimension new methodological problems are coming:

The problems of data collection; We use the same indicators and weighing for all regions or settlements. But is it true that all indicators have same importance in all regions? Is the source of happiness or unhappiness purely personal or do spatial/contextual factors matter? (and if they do, to what extent?) How to differentiate personal and spatial elements? If social comparisons are important, what is the spatial scale at which people make their social comparisons?Do levels of happiness among individuals reflect different characteristics of residents in different districts and regions and areas (compositional effects) or whether there are environmental, geographical or other factors?

And finally, policy based on happiness raises a number of ethical and political conundrums…

In my presentation I would like to discuss these widespread methodological problems connected to measurement of spatial happiness.

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Environmental, Social and Economic Dimensions of Community Supported Agriculture

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Abstract

Community Supported Agriculture (CSA) has emerged as an alternative agricultural model, fostering direct connections between farmers and consumers. This study aims to qualitatively explore the environmental, social, and economic dimensions of CSA, relying on verbal reports from farmers and community members, as well as a thorough literature review. In the face of increasing scrutiny of global food systems, understanding the holistic impact of CSA is crucial. The relevance lies in its potential to address environmental concerns, enhance social cohesion, and contribute to economic sustainability. As conventional agriculture faces challenges, exploring alternative models like CSA becomes imperative for building resilient and sustainable food systems. The primary objective is to provide a nuanced understanding of CSA's impacts, utilizing qualitative insights. By delving into farmers' verbal reports and existing literature, the study seeks to uncover the environmental practices, social dynamics, and economic implications associated with CSA. The research adopts a qualitative approach, relying on the narratives shared by CSA participants through in-depth interviews. Farmers, consumers, and community organizers contribute their experiences and perspectives, forming the basis of the qualitative data. Complementing these first-hand accounts, an extensive review of the literature on CSA practices provides additional context and depth to the analysis. The qualitative findings illuminate the multifaceted impacts of CSA. Participants' verbal reports underscore a notable reduction in the carbon footprint associated with food production attributed to localized distribution networks within CSA. Additionally, the study highlights adopting organic farming practices and decreasing pesticide and synthetic fertilizer use, aligning with sustainability goals. Regarding social dynamics, CSA emerges as a catalyst for community engagement, as verbal reports emphasize its role in fostering connections, educational initiatives, and shared values within communities. On the economic front, challenges such as initial investments and labour-intensive practices are acknowledged. However, participants report fairer compensation for producers within the direct-to-consumer model, suggesting economic viability. The conclusion is that the qualitative exploration provides valuable insights into the promise of CSA as a sustainable agricultural model. As global food systems evolve, CSA stands out as a viable alternative, offering a potential pathway to address environmental, social, and economic challenges. The study concludes by underscoring the need for continued community involvement and policy support to overcome hurdles and unlock the full potential of CSA in reshaping local food systems.

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Fair Transition and Environmental Tax Avoidance. The Issue of Carbon Leakage and Regional Competitiveness

Saverio Di Giorno, Gianluigi Cisco, Francesco Busato

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Abstract

This study undertakes a comprehensive exploration of the far-reaching consequences of uneven environmental regulations across global regions. With the escalating significance of environmental policies, concerns have emerged regarding their potential influence on global competitiveness, particularly as stringent regulations may compel businesses to seek "refuge" in regions with less rigorous environmental standards. In a bid to unravel the intricate dynamics of these regulatory landscapes, we employ a sophisticated Dynamic Stochastic General Equilibrium (DSGE) model to scrutinize various environmental policy scenarios.

Motivated by empirical evidence spotlighting the unintended consequences of pollution taxes in the European Union (UE) 2017, this research aspires to extrapolate insights that transcend regional boundaries and resonate across diverse global contexts. Our investigation reveals that the asymmetric application of environmental policies can lead to counterintuitive effects, where the drawbacks may, at times, outweigh the intended benefits.

Through meticulous scenario analysis, we endeavor to shed light on the nuanced interactions within and between economies subject to varying degrees of environmental regulation. The findings of this study serve to challenge preconceived notions, suggesting that the uneven implementation of regulations may not always yield positive outcomes. Instead, our results underscore the need for a more holistic and coordinated approach to environmental policymaking on a global scale.

One key revelation from our analysis is the potential for competitiveness issues arising from disparities in environmental regulations. The fear of economic repercussions may prompt businesses to engage in evasive actions, relocating to regions with laxer environmental standards. This phenomenon could result in a race to the bottom, where countries strive to attract businesses by lowering their environmental standards, ultimately exacerbating global environmental challenges.

In conclusion, this research contributes to the ongoing discourse on the global governance of environmental issues. It also offers insights to the debate about a fair and equal ecological transition to avoid a inequality distribution of the costs.It underscores the importance of adopting a comprehensive and harmonized approach to environmental policymaking, acknowledging the interconnectedness of economies and the potential for regulatory asymmetry to yield counterproductive outcomes. By doing so, this study aims to inform policymakers and stakeholders about the intricate challenges posed by environmental regulations in a globalized world and advocates for a collabourative and coordinated effort to address these challenges effectively.

Driving Eastward: An Analysis of Chinese Automotive Foreign Direct Investment in Central Asian and South-East Asian Economies

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Abstract

This article delves into the dynamic landscape of the Chinese automotive industry's foreign direct investment (FDI) in Central Asian and South-East Asian countries, offering a comprehensive examination of the economic implications and strategic motivations behind these ventures. As China continues to solidify its position as a global economic powerhouse, its automotive sector has emerged as a key player in international investment. Focusing on the amount of invested capital, the nuances of Chinese automotive companies' foray into select nations within Central Asia and South-East Asia will be explored through their market presence. The study scrutinizes the strategic considerations guiding investment decisions including geopolitical factors.

In Central Asia, where infrastructural development and economic integration are on the rise, Chinese automotive companies have strategically allocated substantial capital to capitalize on emerging markets. Simultaneously, in South-East Asia, characterized by diverse consumer preferences and competitive markets, Chinese firms have navigated complex landscapes to establish a significant presence. Chinese automotive companies have notably directed their foreign direct investment (FDI) towards key countries in both Central Asia and South-East Asia. In Central Asia, countries such as Kazakhstan and Uzbekistan have attracted substantial investments. The strategic location of these nations, coupled with their growing economies and infrastructure development initiatives, makes them attractive hubs for Chinese automotive expansion.

In South-East Asia, Chinese automotive FDI has been prominent in countries such as Indonesia, Thailand, and Malaysia. These nations, with their burgeoning automotive markets and strategic positions within regional trade networks, have become focal points for Chinese companies seeking to tap into the dynamic consumer base and establish manufacturing and distribution networks.

Through an interdisciplinary approach, encompassing economic and regional policy dimensions, this research contributes to the broader discourse on China's global economic outreach. The findings presented herein offer insights for policymakers and industry stakeholders, shedding light on the multifaceted nature of China's economic engagement in the automotive sector across these strategically important regions.

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Establishing Start-Up Companies in Central and Eastern Europe: The Role of Institutions

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Abstract

This article examines how institutions can encourage start-up companies in Central and Eastern Europe. The assumption is that start-ups are more likely to be successful in countries with higher quality institutional systems.

The statistical data of EU member states are compared using comparative analytical methods, followed by tests using econometric models for evaluation.

Furthermore, the article aims to illustrate the similarities and differences between Western and Central and Eastern European countries from the perspective of start-up establishment.

On the one hand, the World Governance Indicator, Human Development Index and International Property Rights Index of the examined European countries, and on the other hand the eu-startups.com online industry database are used to answer the puzzle.

The hypothesis is that institutions and the quality of governance play an important role in the success of start-up companies in Central and Eastern Europe.

Mines, Fields, or Classrooms: Effects of Primary Activities Agglomeration on Local Human Capital Accumulation

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Abstract

This study analyses the impact of spatial concentration of mining and non-mining primary activities on human capital accumulation at the municipality level. The expected channels involved in this interplay are related to the attraction of low-education labour and the 'brain drain' phenomenon, which displaces highly educated workers away. We focus in the case of Chile, where mining sector plays a key role in sub-national economic growth of mineral-rich municipalities. In addition, the Chilean mining sector is also characterized by its high wages, associated to copper price booms. This makes the opportunity cost of getting higher education against entering the labour market to increase during price rising periods. In this line, our scope is to assess whether the impact of mining concentration differs from that stemming from other primary sector activities. Non-mining primary activities are represented by diffuse resource sectors, such as agriculture, fishing, and forestry.

We assess the relationship between primary sector concentration and the stock of human capital accumulation from two approaches. First, we estimate the impact of the agglomeration of these types of activities at the municipality level on the individual likelihood of holding tertiary education. Second, we explore for spatial spillovers between municipalities, assessing the impact of agglomeration of mining and non-mining activities on the share of highly educated working-age population.

Preliminary results from individual-level estimations suggest that higher mining activity concentration leads to lower probabilities of working-age population to hold college degree in periods in which the copper price records the highest quotes. Conversely, diffuse resources would exert persistent negative effects on educational outcomes. This difference between estimations hold after focusing on different segments of the population. Results from exploratory spatial autoregressive combined (SAC) models estimations account for negative spillover effects from the concentration of non-mining primary activities in neighboring municipalities. Nevertheless, no conclusive results for the case of mining activities are found. These results suggest that the effects stemming from mining and non-mining primary activities on the distribution of human capital differ both in time and space. While mining resource-based activities are associated to one-shot negative effects on the local stock of human capital during price shocks, diffuse resource-based activities are associated to negative, permanent, and relatively more extensive effects on human capital. These results shed some light on the intra-national divergence in long-run regional development factors, derived from natural resource-based productive structures. At the same time, results contribute to the ongoing discussion on the different effects of point- and diffuse-resource based activities, focusing on mining. Based on these outcomes, policymakers should implement placed-based, tailored regional development strategies, aiming to productive diversification. Also, the development of knowledge-intensive activities linked to mining processes might allow to leverage price booms and attract highly educated workforce into mining zones.

Emerging Centres of Smart City Research. Lessons from Science Mapping and Spatial Collabouration Patterns

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Abstract

Cities have always been the centres of knowledge. More and more people live in urban areas and the creative class (e.g.: scientists, engineers, legal experts, designers) is concentrated in urban and metropolitan areas. The smart city concept is quite new as the first related publication in the Web of Science is only 30 years old and only after 2010 we see the rapid increase in the number of 'smart city' publications.

The content of smart city research is greatly varied. On the one hand a technological research focus is typical while on the other, the topic has penetrated to social science fields as demonstrated by policy, smart living, smart governance, smart businesses or sustainability related articles that rely on the smart city concept.

The strong technological focus of smart city research elevates cities where smart city research is concentrated also as places where knowledge and innovation is focused. By studying the thematic content, we can gain understanding on where cities are heading as they foster a smart city agenda.

In our research we reveal the thematic space of smart city research using science mapping tools and also identify the geographical hubs of smart city research and the inter-city collabouration networks. Two periods are distinguished: a take-off or emerging period (2010-2017) and a maturing or consolidated period (2018-2022). Comparison is focused on three main research questions:

What are the frequent research topics in the two periods and was there a shift during consolidation?
How do thematic clusters develop in the geographical space?
Are there differences in publication and collabouration patterns at the city level?

Our explorative research is based on the Web of Science metadata of on more than 20 thousand articles in academic journals and proceedings. To capture thematic clusters we use co-word analysis based on keywords. A co-occurence matrix is set up to detect common keywords between each pair of papers. Then we calculate cosine similarity and the resulting matrix is used to set up a weighted, non directed network of the articles. For the identification of thematic clusters the Louvain method is used.

To map city-level dynamics, we use the affiliation data of the articles. We aggregate author and co-authorship data to city level and set up a collabouration network, where relations are between cities based on articles jointly written by authors from different cities.

In the synthesis, the thematic and geographical results are analysed jointly. Besides uncovering the places where smart city research is conducted and the inter-city collabourations, we also structure thematic content of smart-city research.

Our work-in progress results demonstrate that smart city research is concentrated not only in traditional city centres but also in urban areas, where the population has been growing sharply for instance India and the Middle East region. For the whole period 6 thematic clusters were identified and the collabourations patterns were also mapped. Cities with diverse research profiles and more specialized cities have also been distinguished. Overall, results point to a changing landscape of focal urban areas at a global scale.

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Spatio-Temporal Evolution of Patent Clusters: A Comprehensive Analysis from 1980 to 2010 in the UK

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Abstract

This research investigates the spatio-temporal changes of patent data clustering, examining shifts in their spatial distributions over time. The study explores the dynamic nature of patent clusters and their changes across different periods. Furthermore, the research explores coexistence among different patent types, unveiling relationships within and between patent clusters. By employing unsupervised learning methods, this study contributes to a comprehensive understanding of the changing structure of patent clusters, offering insights into the changing dynamics and interconnections within patent clusters across different time periods. The study will verify that present-day clusters are displaying greater diversity compared to those in the past. This hypothesis will be verified on the basis of very uncommon data on exact locations of patents which will be a significant improvement compared to the previous studies which are using regional data instead of point data.

The research utilizes patent citation data from the UK spanning the years 1980 to 2010 including critical details like the locations of cited and citing patents, patent types, and associated dates. The analysis specifically focuses on cited patent information. The findings of this study aim to offer insights for policymakers and industry stakeholders, enabling informed decision-making, and fostering innovation within patent landscapes. The diversification or specialization of a region can be assessed by examining the distribution of patents in specific areas. This information can be connected to regional resilience. The primary motivation for considering patent citations as valuable indicators of the economy lies in the understanding that innovation is a collaborative and cumulative endeavor. Inventors engage in the exchange of knowledge with fellow scientists and technologists, including other inventors. This knowledge often involves aspects not documented in bibliographic sources or personal experiments because it eludes complete codification

This study, with its emphasis on exploring the spatio-temporal changes and coexistence patterns within patent clusters, may carry significant policy implications. Investigating whether a place focuses on different things or specializes in one area, seen through where patents are, is connected to how well a region can handle challenges. Understanding the delicate balance between economies of scale and expertise becomes crucial for regions aiming to avoid over-reliance on a particular industry. This helps regions not to depend too much on just one industry, making them more adaptable and resilient. The study's inquiry into regional resilience, not only in terms of the capacity of a region to withstand shocks but also in its adaptability to create new opportunities for growth, provides valuable perspectives for policymakers seeking sustainable economic development. Additionally, the exploration of similarities between technological and scientific regions, contingent upon the degree of overlap between these domains, opens avenues for nuanced policy interventions. Recognizing that innovation is a collaborative and cumulative endeavor, this study reinforces the importance of cross-disciplinary and cross-industry collaboration in regional economic planning and policy formulation. As such, the findings of this research offer a nuanced understanding of the intricate interconnections within patent clusters, contributing to the broader discourse on informed decision-making for regional development and innovation strategies.

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Problem or Potential? – Native Ethnic Minority Communities in Development and Spatial Policies

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Abstract

Identity plays a key role in regionalism, as a driver of the cohesion or the devotion of different territories. In the EU, and especially in In-Between-Europe there are many geographical areas that do not form a territorial administrative unit, yet have a strong character and identity. This is often due to the fact that these areas are inhabited by national or ethnic communities which are in a minority position in the encompassing region or the country. These native ethnic communities can also be a source of regional development, as they have their own special external and internal economic networks, traditional cultural values, and represent a social diversity that is a breeding ground for innovation. Our research examined regional development documents all across the EU at different levels (regional, member state level, EU level) in order to answer the question of whether native ethnic minority communities are reflected as development resources in development concepts. This extensive research revealed this approach in only a few exceptional cases, and even in the case of plans for ethnic minority-rich areas.

The Logic of Local and Global Identities – As Seen in the Comparative Science of Ideologies

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Abstract

In terms of their construction and growth, local and global identity groups can be approached from two directions. Organized from below and organized from above, i.e. in the latter case, from the point of view of an idea. First, they have a natural formation, an organic development from smaller groups to larger ones, for example, in the course of history, tribes have formed alliances and then state confederations, or historical churches have emerged from smaller religious communities through cultural expansion, peacefully and/or by conquest. However, it is also possible that an already given ideology, a philosophical book written as a response to a problem, finds global representatives, spreading locally and then forming a network in the name of an idea.

The latter ideologies are active, such as communism and neoliberalism, but the ones mentioned at the beginning nowadays react more locally to the challenges facing them, and their goal is pragmatic sustainability and world trade. In their old name, they are the conservatives, or to clarify the name, in the 21st Century, in the course of the description, we could classify them under the name of national identity, or in its represented form, national self-consciousness.

For a philosophical comparison of different ideologies, we will use a theory borrowed from Immanuel Kant (transcendental ideas: the Self, or "I", the World, and God), supplemented with the metaphysics of abilities (sense, perception, emotions). With the help of these, we will organize the examined ideologies into a logical table due to the phenomenology method. Among the ideologies examined in this way, there are three classics: conservatism, liberalism, and communism. We will discuss two of the new ones in a comparative way. The previously mentioned national identity, and neoliberal globalism. The latter recognized early the significance of network action, as well the narrative possibilities, inherent in the media.

We can precisely define the ideologies due to the transcendental ideas (the "Self", or "I"; the "World", that was further developed by me into four other aspects: 1.) Intersubjectivity, 2.) Nature, 3.) Things, and 4.) History; and the transcendental idea of God). After that, we can divide the ideologies further in three aspects of: sense, perception, and emotional register. Now, it is easier to see, what the ideologies prefer, and what is characteristic for each of them.

Diplomatic conflict management can be more effective, if we proceed from such aspects, there are local and/or global agreements. From this point, we can move systematically towards a solution. After an accurate identification, we can use the conflict management techniques, of which we will mention the compromise technique, which is the most suitable conflict management technique to create a consensus between the opposing parties preventing the conflict of interests and values from turning into a dangerous confrontation on a local and/or global level.

Assessing and Comparing the Circular Economy Performance of Small Island Developing States

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Abstract

The Small Island Developing States (SIDS) are engaged in the process of transitioning from the linear economy to the circular economy. These territories expressed their expectations linked to this new paradigm: making material use regenerative, reducing carbon footprint and the amount of waste sent to landfill, combine economic, social, cultural and environmental dimensions of sustainability. To reach these goals, some have implemented projects, initiatives and developed collabourations or dedicated funds. However, a common missing link remains the measurement of their progress, which, as expressed in the literature, is a critical aspect to reach one's goal.

Over the years, many indicators of the circular economy have been proposed. They vary according to the scale of analysis (micro, meso, macro), the actors concerned (company, associations, governments) the country of application and the priority set in terms of circular economy (plastic pollution, resources optimization,...). These indicators are often applied to European or Asian regions, but almost never to the SIDS. As territories characterised by great vulnerabilities - such as a vulnerability to external chocs, environmental hazards and limited land and resources – the SIDS need to know exactly the amount of resources they possess and their current use, their dependence to external economies and the pressure they put on their environment. This is possible through the analysis of their territorial metabolism. Most importantly, from this assessment, it is then possible to measure their performances in terms of circular economy.

In this contribution, we want to measure the current performance of the SIDS in terms of circular economy. To achieve this objective, we adopt a comparative research approach by applying two set of indicators, the National Circularity Index, developed by the Circle Institute, and the Circularity Material Use Rate, developed by Eurostat, to a sample of SIDS. These two indicators, grounded in the concept of the territorial metabolism, provide a deep understanding of the territory - an essential aspect for designing effective circular economy strategies.

This study addresses a gap in the literature as it looks at the intersection between circular economy and the SIDS, where an assessment of their performances in terms of circular economy has never been applied, nor a comparison of these performances. By comparing their results, we can determine a common frame of analysis while also understanding if a difference of variables impact or not the performance score. Finally, studying the SIDS at the macro level allows the implementation and monitoring of regulatory instruments which, while too often lacking, is one the key factor of success of circular economy. Through this work we thus hope to provide a baseline of analysis, from where the SIDS will be able to set quantitative goals and track the efficiency of their strategies for a circular economy.

Water for Peace: The Importance of Water and the Regional Dimension of Water-Related Conflicts

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Abstract

Adequate quality and quantity of water is essential for almost all aspects of life. Accordingly, water is a key issue in international development policy. At the international level, water was first identified as a basic need in the ILO's report in 1976, and later in the Millennium Development Goals and the Sustainable Development Goals. In 2013, the Director-General of the UN Food and Agriculture Organization stated that future wars will be fought over water resources, by the fact that during the history 1,634 conflicts have been water-related so far, 72% of which have occurred since 2010 (Pacific Institute, 2023).

The study uses the UN database to analyse how the proportion of people in different regions of the world - who have access to adequate quality and quantity of drinking water - has changed, identifying which regions have made the greatest improvements and which are lagging far behind. This paper then based on the database - provided by the Pacific Institute - examines the regional and temporal distribution of water-related conflicts, thereby answering the question of which countries and regions are most affected by this issue. In addition, this study summarizes the literature to identify those fields where water is relevant for sustainable development.

By analysing the available data, the research found that the Central and South Asia has made the most progress. Since 2000, 23% more of the population have had access to a safely managed drinking water source in this region. In addition, it also reveals that Sub-Saharan Africa is the most affected. Here, less than a third of the population have access to safely managed drinking water. The research has shown that water-related conflicts are intensifying, as more conflicts erupted between 2020 and 2023 than in the whole of the 20th century. It also reveals that these conflicts are mainly concentrated in the Sub-Saharan Africa, the Middle East, and South Asia. The summary of literature also shows that water and SDG 6 are important for the achievement of other SDG targets, and that adequate quality and quantity of drinking water has an impact on education, poverty, migration, and conflicts.

As a conclusion, the study recommends that UN member states should agree on a commitment to allocate a certain percentage of their annual budgets to the investments to achieve the Sustainable Development Goals, given that currently 500 billion USD in investments are needed to achieve SDG 6 alone. Furthermore, the study recommends that decision-makers at the international level should require that water-related infrastructure be declared as protected areas during conflicts.

Types of the Creative City

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Abstract

The creative city concept is based on two things: culture and creativity. On these two important social values, the creative city builds a strategy that can launch city and regional development processes. We know many examples around the world, where city decision-makers and urban planners relied on culture to try to implement structural changes in settlements that were facing economic difficulties. In these places, culture proved to be a resource on which they were able to improve the often seemingly hopeless situation of the region. At the same time, the creative and cultural economy has also started to grow in the last few decades. A new social class appeared, which Richard Florida calls the creative class. And Florida believes that the members of this social class, the creative professionals, as a highly qualified workforce have a huge impact on the growth of the urban economy. The possibilities inherent in culture and creativity were eventually recognized all over the world, and a series of initiatives and good examples enriched the toolbox with which we can activate the beneficial use of our most valuable resources for the development of our cities. There are many types of creative cities. This also means that each city can find its own special character in the perspective system of the creative city, which can be the starting point for creating a strategy. What are these types? During the research, we will provide the answer to this question.

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The Economic Situation of Regions in Europe After the Pandemic, with a Special Focus on Hungary

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Abstract

The outbreak of the coronavirus pandemic in 2020 has had an impact on many factors of the economy and thus on the economic situation of regions. In this presentation, we use European regional statistics to show how the pandemic has changed the economic disparities between regions, with a particular focus on the relative position of Hungarian regions. It can be seen that several trends were only temporarily altered, and that after the pandemic trends were reversed, while there are some characteristics where the pandemic had a substantial impact. Overall, however, the pandemic crisis has not redrawn the regional spatial structure of Europe.

The Role of Public-Private Partnerships for a Sustainable Development through EU Cohesion Policy after Post War Reconstruction

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Abstract

The role of public-private partnerships (PPP) in increasing sustainable development is becoming more important at the local, regional and international levels. The article considers public-private partnership (PPP) as an effective mechanism of socio-economic development of the Ukraine and cross-border region. The article is focused on the peculiarities of using the mechanisms of public-private partnership, between governments, the private sector, and civil society, in the creation of objects of regional infrastructure of post war reconstruction in cross-border area. The current body of research based on the ILCA project with an important objective related to sustainable development as regards systems thinking needed to accelerate innovation in climate change. This provides evidence for the significance of higher education institutions in the process of fostering sustainable development through the development of curricula, research, and interaction with the local community. Moreover, the analysis demonstrates that the effectiveness of public-private partnership (PPP) is based on the fair exchange of ideas between public and private stakeholders, the pooling of resources and the sharing of risks and financial expenses in order to achieve the proposed objectives. A deeper understanding of the interdependencies inherent in the regional business ecosystem is crucial for enabling systemic change and transformation. In this paper we will also analyse other aspects related to corporate responsibility, the taxonomy and investments of sustainable financing, behavioural changes and the taxonomy of sustainable financing. The regional business ecosystem allows for a series of changes and transformations, including systemic ones. Therefore, in this paper, we focus our analysis on the study of the interconnections centered on behavioural change, sustainable financial investment and corporate responsibility. The main result is to create and disseminate the importance of public and private partnership, with invaluable knowledge and innovation capacity to build the necessary infrastructure for post war reconstruction. The result of the paper demonstrates that the university's role to sustain, build and foster deep cooperation and close links with the public and private partners, local businesses and communities by focusing on mentoring and training programs for students, academic and non-academic staff. In addition, we consider that the results of this work can be used in real economic life by implementing public-private partnership projects in different fields in cross-border regions.

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European SMEs towards a Green Economy

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Abstract

Climate change, lack of resources and rising energy prices are leading economic agents to become increasingly concerned about economic efficiency and sustainability. In particular, the business world is trying in this direction, both to reduce its costs and as a matter of awareness of environmental sustainability. However, it is necessary to know in what situation companies are currently in, what obstacles they find when producing in a sustainable way or what kind of initiatives they are carrying out. In this study, we will focus on small and medium-sized companies in Europe (EU-27), with a special attention to Spain. Knowledge of business behaviour, in this sense, is fundamental when it comes to carrying out the appropriate policy measures, providing incentives to avoid these negative externalities. In this paper, we want to find out what factors drive European companies to develop a sustainable economy, what initiatives they carry out, and to make a classification, grouping these companies according to common characteristics. Finally, we analyse whether there is a positive relationship between more environmentally committed companies and business performance.

Using data from the Eurobarometer survey "SMEs, resource efficiency and green markets (2020)", we will construct a variable that indicates the level of environmental commitment of European companies, similar to the analysis carried out by Sáez-Martínez et al (2016). After making a comparison between the different countries, we will classify the companies depending on different characteristics, as Gkotsis et al (2018) do. In our case we will use a KModes clustering technique to carry out this clasification. Finally, Aragón-Correa et al (2008) show that more environmentally proactive firms have better financial performance. In this paper, we will study whether such a positive relationship exists.

We selected the 27 European countries at this moment for this Research. Firms number by country – after cleaning the database - shown in table 1. We have a total of 14,008 firms.

To identify possible groupings of companies according to the cited variables, we will use a clustering technique.

Clustering is an unsupervised learning method whose task is to divide the population or data points into a number of groups, such that data points in a group are more similar to other data points in the same group and dissimilar to the data points in other groups. It is basically a collection of objects based on similarity and dissimilarity between them (Harika Bonthu, 2022).

Since all the variables we know for each of the companies are categorical variables, we will use the k-modes method to perform our clustering analysis. We will implement the k-modes method in Python. (Naren Castellon, 2022).

In a preliminary version, we already detected differences between the behaviour of Nordic and Mediterranean countries, probably associated with cultural differences. Therefore, we expect to obtain clusters according to different entrepreneurial behaviours.

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A Quantitative Evaluation Framework of Community Thermal Resilience in Response to Power Outage Events in Heat Waves

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Abstract

As global warming intensifies, there is an increasing frequency of extreme heat events and power outages. This exposes the population to dangerous levels of heat, especially when air conditioning systems are not functioning properly. In such situations, the thermal comfort and health of residents heavily rely on the thermal resilience of the community, which derives from the concept of building thermal resilience, referring to the ability to maintain or recover a habitable level of temperature after a disruptive event, such as the failure of the heating, ventilation, and air conditioning (HVAC) system. As the indoor temperature increases to an inhabitable level, residents must evacuate their homes and seek refuge in cooling shelters for safety. Within the community, various facilities such as parks, libraries, swimming pools, cinemas, cafes, and more, collectively termed as social infrastructure facilities, serve this purpose.

In this study, a quantitative framework is proposed to evaluate community thermal resilience, considering both building thermal resilience and social infrastructure accessibility. Building thermal resilience is influenced not only by building attributes, such as roof types, wall materials, and construction years, but also by external environmental factors. However, limited efforts have been made to investigate the impact of microclimate conditions on the thermal insulation performance of buildings due to the lack of high-precision building information models and computational resources. To address this, the urban weather generator (UWG) model is used to simulate local microclimate conditions based on urban morphology, simplifying the calculation procedure. And this model is combined with a building energy model to simulate indoor thermal stress, with the primary indicator being the time it takes to reach a critical level. A longer time to critical level indicates higher thermal resilience. Regarding the accessibility of social infrastructures, we employ a navigation API to measure travel time from home to the destination, reflecting real-world resistances instead of using straight-line distances traditionally. A shorter travel time indicates higher thermal resilience.

The proposed framework is applied to several communities in Philadelphia, Pennsylvania, USA. The results reveal significant differences in thermal resilience among these communities. Older urban areas with high building density exhibit shorter thermal insulation time and travel time. Although these areas experience a rapid increase in indoor thermal stress after a power outage, residents can quickly transfer to social infrastructures within close proximity. In contrast, suburban areas face different challenges. These findings provide nuanced references for the interventions of urban heat adaptation and mitigation, such as enhancing the resilience of electric power system, establishing temporary emergency infrastructures, and establishing urban heat management programs.

Sustainable, Family-Friendly Organizations in Hungary

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Abstract

This study examine the family-friendly organization practices in Hungary from the perspective of sustainaibility. Balancing family life and professional responsibilities is a daily challenge for employees today. Work-life balance is becoming more important not only for employees, but also for organizations and society. There is increasing attention to creating family-friendly organizations, which help their employees reconcile their work commitments with their personal life. These organizations can offer a wide range of workplace practices, for example flexible working arrangements, childcare opportunities, and other benefits. The literature shows that introducing family-friendly practices can have many positive aspects, both for workers and their families, as well as for organizations and society. Family-friendly policies can contribute to improving the quality of life of employees, can increase employee satisfaction and commitment to the organization, and the reconciliation of work and family can lead to increased female employment and improved birth rates which is very important from a demographic point of view.

This research explores the workplace practices of family-friendly organizations in Hungary. It is based on an online questionnaire survey conducted among Hungarian employers with "Family-Friendly Workplace" trademark certificate in 2023. The questionnaire was sent to 702 workplaces and it was completed by the leaders of 116 organizations. Almost half of the participants came from forprofit sector, but state and municipal employers, and organizations from the civil/non-profit sectors are also represented in the research.

The research shows that atypical and flexible working arrangements are the most common practices among respondents. 99% of organizations offer various forms of atypical work, such as flexible working hours, part-time work and telecommuting. 98.3% offer family-friendly leave arrangements and 94.8% organize family and children's programs for their colleagues and their families. Most organizations support the reintegration of mothers with young children into work with various measures, such as reintegration programs, and organize prevention and health promotion programs, and trainings. In addition, more than 50% of the organizations implement other CSR-programs, such as local fundraisers, education and labour training programs, waste collection and other environmental protection programs, as well as various community, health and safety programs.

The main conclusion of the research is that family-friendly organizations in Hungary support their employees and the local communities with practices that are in line with the Sustainable Development Goals (SDGs), such as Good Health and Well-being (SDG 3) and Gender Equality (SDG 5).

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Comparison of European and Ukrainian Approaches to Rural Development

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Abstract

The purpose of the study is to compare approaches to rural development in European and Ukrainian science, and state and local policy, to determine their main differences and to assess their impact on the current vision of rural communities of their future. The primary research method was a comparative analysis of the evolution of scientific concepts in Ukraine and Europe and their reflection on modern rural development policy. It has been established that the starting point when European and Ukrainian approaches to development began to diverge in diametrically opposite directions was the occupation of Ukraine by the soviet regime in the early 1920s. These were ideological differences associated with the communist and capitalist visions of development. The most significant differences, which continue to influence and determine Ukraine's current and future rural development, are grouped into several groups. The first group concerns the attitude toward understanding man's role in rural development. The second group is about the place of the village in the regional settlement system and the relationship between the city and the village. The third group is related to methodological research approaches to rural development.

In Ukraine, rural development policy is not coherent and consistent. Today, due to the lack of concept as one document, it is directly or indirectly regulated by regional, sustainable development, agrarian, economic, environmental, and other sectoral policies. Our analysis of these policies confirms that they are inconsistent and contain various contradictory approaches, ideas, and concepts. As a result, the current Ukrainian rural development policy is a struggle of neoliberal ideas, remnants of marxist approaches to territorial development, market economy, state regulation, and decentralization. All this is complicated by the soviet totalitarian past and the russia-Ukrainian war, which requires the centralization of many processes and finding a new balance of interests of different actors in rural development.

Ukrainian rural development policy significantly differs from European policy in content, formation, and implementation. There are problems with public participation in adopting policies and their development based on the study of the real needs of the population. The discrepancy between what is declared and what is expected to be achieved attempts to ape the European experience without considering the specifics and trends of rural development in Ukraine.

To understand what kind of development model residents of rural communities of Ukraine are inclined to implement, we analysed 50 strategies of rural communities from all regions of Ukraine, which have been developed since the beginning of decentralization in 2015. Only strategies created with the public's participation were chosen for our research. As a result, we concluded that all community development strategies developed from 2015 to 2022 are very similar in structure and content and reflect current trends in the community. We concluded that residents of rural communities in Ukraine demand "urbanization of the rural areas" and a move away from the exclusive focus on agricultural production.

Keywords

Rural development, comparison, state policy, development concept, scientific and methodological approaches, territorial communities, Ukraine.

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Economic Complexity Index and Economic Development in Romania

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Abstract

In the last two decades, Romania has undergone a strong economic growth, catching up to advanced economies and producing one of the best economic performances in the world. Along with these positive changes, industrial product diversification has increased through expanded foreign economic relations, all these supporting the complexity of economic activities. Even though there is a world ranking of countries showing the highest level of economic complexity, there is no information about the regional contribution to the overall score in Romania. This paper fills this gap by measuring the economic complexity of Romania's subnational areas (counties) in the last ten years. To calculate the Economic Complexity Index (ECI) at regional level, a number of 615 economic activities (four-digit classes according to the NACE classification) were taken into consideration, grouped into 68 cluster categories. The results show that significant changes in economic complexity have mainly occurred in less developed areas, the upper and middle ranked counties' positions' being relatively stable. Further, we have examined the impact of complexity on growth and convergence, finding that the ECI index is a good predictor both for future economic growth as well as for the evolution of income inequalities.

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Effect of Information about Wild Boar on Consumers' Behaviours

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Abstract

Agricultural damage by wildlife is severe in Japan. The utilization of wild animals has been encouraged to prevent damage, but eating the meat of wild animals, like wild boar and deer is still not so common in Japan. The diffusion of consumption of game meat is possibly good for preventing wildlife damage and reducing environmental load. So, it is important to clarify the impact of information about wild animal's meat on consumers' behaviours.

In this paper, we evaluated the effect of information about game meat on consumers' behaviours by stated preference methods. We analysed bidding behaviours on wild boar meat. Contingent valuation method (CVM) or conjoint analysis has been commonly used to analyse bidding behaviours. However, there are several problems with them estimating bidding behaviours on a good that many consumers have not consumed. So, we decided to use a different method in this research. We conducted an online questionnaire survey with a payment card method to evaluate bidding by each consumer with different information. We informed three groups of 226 consumers, 678 consumers in total in Japan of different information which are the quality and process of wild boar meat, the impact of wild boar meat on the environment, and wildlife damage. We also informed another 226 consumers in Japan of nothing about wild boar meat. There is a choice that consumer does not buy wild boar meat in this payment card method so we can estimate the equations of consumers' behaviours in two steps. We supposed that consumer implicitly makes their decisions whether to buy or not wild boar meat in advance and then the consumer who decided to buy bids on it. In this model, we can estimate equations of consumers' behaviours using a binomial logit model and a grouped data regression analysis.

Our online questionnaire survey shows that any information which is quality, environment, and wildlife damage improves the possibility of decision making to buy wild boar meat. It also shows that information about the environment has a negative effect on consumers' bidding. It is concluded that 1. Informing consumers of wild boar meat is one of the key factors of a widespread, 2. There are two types of game meat consumption which are typical consumption and atypical/special occasion consumption, and 3. It is a better strategy to sell game meat at a high price by focusing on a niche market that has a demand related to atypical/special occasion consumption.

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Evaluating S3 Interventions: An Application of the GMR Model in Centro Region, Portugal

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Abstract

As the first planning period of Smart Specialization (2014-2020) ended, the monitoring and evaluation of the strategy became crucial. Analysing the successes and failures of S3 through a good monitoring and evaluation system contributes to the essential evidence base on which an efficient redesign and improvement of S3 can be performed. In this paper, we use an extended version of the GMR-Europe economic impact assessment model to contribute to evaluating Smart Specialization Strategy in Centro region based on actual data: Cohesion Policy funds between 2014 and 2023. Our simulation results indicate that different supported policy instruments and policy mixes of priorities tend to perform with different efficiency.

Wage Premium of Recent Movers – Better Matches or Compensating Differentials?

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Abstract

In this study we propose that beyond offering potential one-sided gains for firms and individuals, geographic mobility may play a vital role in facilitating better worker-firm matches and enhancing labour market productivity.

We utilize Swedish linked employer-employee data, following the labour market and residence history of individuals on a yearly basis. The empirical analysis focuses on newly hired workers and compares the wages of employees who have recently relocated with those hired from the local labour market. To account for the selectivity of movers (selection bias), the unobserved characteristics of individuals, hiring organizations and local labour markets, different sets of fixed effects are applied. Thus, when identifying the wage premia of movers, we are taking into consideration both the individuals' previous labour market history and the characteristics of their new firms after moving. Additionally, we control for the wage-setting power of firms through measures of local labour market concentration to account for a major alternative explanation that a worker-specific compensation may be paid for mobile individuals, offsetting the direct and indirect costs of mobility.

In line with our expectations, we find a positive – albeit weak – correlation between labour market concentration and the wage premium of mobile workers compared to local ones. That is, in more concentrated areas, differences are somewhat (although not significantly) higher. But most importantly, our findings reveal a noteworthy wage premium for mobile workers over local ones (of similar skills and within the same firms) even in competitive labour markets.

This contradicts with the predictions of basic microeconomic theory that implies no wage difference between workers of the same skill level. Differences in match quality could be an explanation for this, if movers have better-quality matches that are recognized and compensated by firms through higher salaries. Thus, we interpret the finding as an indirect evidence for the presence of better employer-employer matches being created through residential mobility.

The results are robust to the definition of local labour markets (geographic range defined as municipalities vs. functional labour markets and category boundaries defined by industries vs. occupations), the choice of controls, and the identification strategy used for measuring market concentration (HHI vs. HHI with instrumental variable approach vs. HHI with labour productivity control).

Regional Backshoring as a Source of Manufacturing Employment Growth

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Abstract

The theorised reorganisation of GVCs during crisis periods and the EU advocating for a relaunch of manufacturing activities in favour of jobs' creation bring about the crucial question whether a relaunch of manufacturing employment via a backshoring in Europe takes place with an intensity large enough to be captured by aggregate statistics or if this phenomenon is still to be treated in an anecdotal way, with macroeconomic effects on home countries still to come. Defining regional backshoring as a condition for an area of a concurrent decreased dependence on GVCs and a reindustrialisation process, the paper operationalizes the definition using suitable indicators at the NUTS2 level, and econometrically indicates the effects of a regional backshoring on manufacturing employment dynamics. Interesting results emerge. While backshoring in general does not lead to an increase in employment growth, it produces positive effects in regions historically specialised in manufacturing, suggesting that this process helps in relaunching traditional industrial know-how and vocations in manufacturing regions in Europe. Backshoring in emerging manufacturing regions, instead, is accompanied by a relaunch of an intensive production process. These different results suggest that strategies of modern reindustrialization and of relaunch of manufacturing employment have to be pursued in different regions.

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Poverty Measures at the Regional Level

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Abstract

There are many composite indicators regarding poverty measures for general use and national purposes. Some countries also have more detailed regional statistics on poverty and deprivation. Eurostat covers this topic at the NUTS 2 level of the European Union only through basic, traditional indicators like persons or rate of at-risk-of-poverty and severe material deprivation rate. However, there is a need to further understand the diversity of NUTS 2 regions from the point of view of inequalities and poverty properties. Thus, we aim to construct a composite indicator for the regional level. Extensive literature defines the potential variables, and several weighting techniques are experimented with to find the best solution. Robustness tests are conducted to justify the adequacy of our final indicator.

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A Double Bell Theory of Regional Income Inequalities: an Integrated Inter and Intra Regional Approach

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Abstract

Despite the large attention given to regional inequalities, an approach simultaneously explaining the inter and intra- regional development processes over time is still missing. A vast set of empirical analyses on inter-regional income inequalities exist. In most cases it witnesses the existence of the famous Williamson's inverted U-shaped curve between GDP per capita and interregional income inequalities. Even if much more limited, the same relationship has been studied at the intra-regional level. Our claim in this paper is that a double bell theory must be formulated in which the two processes are interlinked, and an integrated inter and intra-regional approach to income disparities is needed to better understand the evolution of regional income inequality. Empirical evidence is provided for such an approach for what concerns European regions.

Searching for the Impact of Network Connectivity on Borrowing Performance: The Case of Turkey

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Abstract

The decline of large cities and the rise of second-tier cities have been observed as a global trend, with significant implications for economic development and urban planning. In this context, the concepts of agglomeration shadow and borrowed size have gained importance as network externalities that affect the growth and development of surrounding areas. Istanbul, Izmir, and Ankara are Turkey's most significant metropolitan cities and play a significant role in the country's economy. The surrounding cities rely on these metropolitan cities for economic growth and development. However, the concentration of resources and investment in a single location can lead to agglomeration shadows in the surrounding areas. On the other hand, network connectivity between metropolitan and second-tier cities can result in borrowed function, and performance, enabling smaller cities to access resources, investment, and knowledge they would not otherwise have access.

The study hypothesizes that network connectivity between second-tier and metropolitan cities in Turkey enables second-tier cities to improve their urban performance by borrowing size through these networks. In order to discuss the concepts of "borrowing size" and "borrowing performance", it will be interpreted whether secondary cities exhibit a performance beyond their population size by being included in networks. The term "size" in the context of "borrowed size" is a bit ambiguous because it can relate to both the functions and economic activity found in larger cities as well as the performance level associated with larger cities. The urban performance index, which was selected as the dependent variable, includes parameters that measure not only economic activities and functions but also the livability of the city. Because of their large population, primary cities have a favorable position, as evidenced by studies in the literature, and secondary cities benefit from being close to these key cities. The effect of the independent variables of network connectivity, size, and proximity on the dependent variable of urban performance will be analysed in order to explore the extent to which network connectivity complements urbanization economies and whether a network-based performance can be borrowed beyond local factors such as size and proximity.

Multiple regression analysis will be used, and it will be interpreted which parameter affects the secondary city performance most among the variables of network connectivity, size, and proximity to primary cities. The population of the provinces will be used for size, and the distance of the provinces to the closest one from the Istanbul-Izmir-Ankara trio will be used for the proximity parameter. Network connectivity will be measured with provincial data on parameters such as cargo carried on domestic and international lines by air transportation, mobile signal data, and total exports. The urban performance will be measured by the ranking of the SEGE-2017 index (Socioeconomic Development Index of Provinces). The contribution of the study lies in its empirical investigation of how network connectivity can act as a catalyst for the development and prosperity of second-tier cities in Turkey, and whether there is an advantage of being involved in a network beyond the factors of size and proximity.

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Impact of FDI on Regional Economic Development (Growth and Productivity) in Central and Eastern Europe Revisited

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Abstract

This study examines the spatial relationships between foreign direct investment (FDI) and productivity, economic output, and wage levels in 60 regions throughout Eastern Europe, including Czechia, Hungary, Slovakia, Austria, Romania, and Poland. By using spatial econometric models, we analyse the impact of FDI on economic outcomes in each region, taking into account the spatial interdependence between neighbouring regions.

FDI significantly affects productivity, GDP, and salary levels, suggesting that FDI has a positive spillover effect on economic performance in the region, however the impact of the FDI-led development model on GDP growth is smaller than commonly expected. At the same time, despite its smaller development impact, it further increases regional disparities.

 Development impact of FDI is often short-term and geographically limited and negatively significant in certain regions. Furthermore, the results emphasize the importance of accounting for spatial dependence, as neglecting this interdependence can lead to biased estimates of FDI's effects.

In addition to contributing to the literature on foreign direct investment and economic development, the study provides new insights into the spatial relationships between foreign direct investment and economic outcomes in Eastern Europe. These findings have significant implications for policymakers and investors, as they suggest that FDI can be a single powerful tool for promoting economic growth and improving living standards. However, this conclusion is more controversial when applied to FDI dependent market economies.

Urban Heat Resilience Assessment Based on PSR Framework

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Abstract

As global climate change accelerates, extreme heat events are occurring frequently around the world, posing challenges for regional governance and urban resilience development. In previous academic research, most of the studies on extreme heat events are limited to risk identification and vulnerability assessment, but there are fewer studies on urban heat resilience management, lacking a comprehensive consideration of cities' proactive responses, disaster mitigation, and self-recovery capabilities. This study aims to enhance understanding of urban heat resilience assessment, present the perspective of "Pressure-State-Response" to the urban heat resilience process decomposition scientifically and objectively construct an evaluation system of urban heat resilience, and put forward recommendations for urban resilience enhancement strategies.

First of all, based on the framework of Pressure-State-Response (PSR) model, this paper deconstructs urban heat resilience into pressure resilience, state resilience, and response resilience, which characterize the danger of extreme heat events, the vulnerability of the urban disaster-bearing body, and the adaptive recovery of the city in response to extreme heat events, respectively. Urban resilience possesses a procedural attribute, whereby the city undergoes a dynamic process of a stable state—shock state—post-shock stable state after experiencing impacts and disturbances. However, in existing resilience assessments, there is a tendency to decompose urban systems into adaptive developments of subsystems such as economy, ecology, and society, with less emphasis on the front-end and the positive/negative feedback processes involving urban entities. The PSR model's logical framework of "cause-effect-response" precisely addresses the shortcomings in the current resilience assessment systems. It provides a more accurate depiction of the procedural attributes of system resilience by considering the feedback processes involving the causes, effects, and responses within urban contexts.

Additionally, the paper reviews existing indicators used to assess urban heat resilience. Through correlation analysis, preliminary screening of indicators is conducted, eliminating those with significantly high correlation coefficients. Subsequently, in conjunction with data from the "China Urban Statistical Yearbook" and the National Meteorological Information Center spanning from 2010 to 2022, the rough set attribute reduction algorithm will be employed to further refine indicators and ascertain indicator weights.The rough set attribute reduction algorithm can extract information from data, determining indicator weights based on the importance of attributes and knowledge granularity. It reflects the varying roles of different indicators in rough set classification, identifying the contribution levels of different indicators to the differentiation of evaluation objects. This objective weighting approach mitigates subjectivity in assessment results.

The anticipated conclusions of this study encompass an in-depth analysis of the resilience development process of cities, covering the phases of impact, disaster resistance, and recovery adaptation to extreme high-temperature events. The constructed indicator system weights are expected to objectively reflect the primary factors influencing the level of urban heat resilience. Moreover, the paper will present recommendations for urban regional advancement, emphasizing the necessity to establish resilient cities and enhance climate adaptability.

Creating Demographic Projections for Hungary using Agent-Based Modelling – First Results from the 2022 Population Census

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Abstract

The aim of this presentation is twofold: (I.) to introduce my earlier spatial forecast of the demographic processes of Hungary using agent-based modelling and data from the 2011 Census and (II) to present the first results of a spatial forecast with an updated methodology, utilizing statistical matching procedure and with recent data from the 2022 population census.

The fundamental building blocks of the agent-based methods are the autonomous agents, which each possess a unique set of attributes and rules of behaviour. In my earlier model, the agents represented the inhabitants of Hungary. Each agent possessed the following attributes: age group, sex, residence and a socioeconomic background index (based on the municipality). In each cycle, every agent faces two possible natural movement events (child bearing, passing away), and may participate in one of the four possible migration decisions (employment related migration, university related migration, suburbanisation, counterurbanisation).

I examined multiple scenarios, which differed in their fertility and mortality assumptions, their climatic predictions, and their anticipated socioeconomic paradigm. According to the low natural movement scenarios, the Hungarian population may shrink to 8 342 thousand inhabitants to 2051, while the high natural movement scenarios anticipate 9 138 thousand inhabitants. A drastic shift in the age structure can also be expected: the old-age-dependency ratio will increase from 25% (2011) to 61–65%. The projections reveal big spatial differences. Due to the continuing suburbanisation, the commuting settlements around Budapest and the regional centres preserve or may even increase their population, despite the general decrease. The territorial differences in ageing will also deepen. This methodology could not integrate every aspect and factor I intended to take into account. Thus, I decided the further refinement of the modelling methodology.

One key challenge is the creation of agents which possess a more detailed set of attributes. Since the record level data of the general population census cannot be used directly, a workaround is needed. Statistical matching provides the solution. The aim of the statistical matching is to integrate two or more data sources related to the same target population to derive a unique synthetic data set in which the variables from the different sources are jointly available. The elabouration of the iterative statistical matching procedure, which uses publicly available aggregated data tables of the population census to create a novel agent attribute value table, is presented through an example. The aim of the subtask is to create 9 603 634 agents with 6 unique attributes (municipality, sex, age group, marital status, education attainment, economic activity) which reflect the stratification of the country based on the recent population census. The presentation will also discuss first results of this updated modelling procedure

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Poverty and Suburbanization in Urban-Rural Fringe

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Abstract

The distinctiveness of the Hungarian settlement network lies in the presence of permanently inhabited outskirts and inner areas alongside the main built-up areas of settlements. Within the restructured fringe areas of urban centers, spatial processes exhibit differentiation below settlement level. This manifests in the simultaneous development of rapidly urbanizing spaces alongside rural enclaves.

To this end, we focus on less studied elements of urban development, concentrating on specific, relatively densely populated suburbs, typically adjacent to built-up areas. These include vineyards, former allotments and recreational areas.

In our presentation, we will use examples from Hungary to show how suburban areas have been transformed by the displacement of marginalised social groups from the city, and the social and land-use dimensions of this transformation due to legal and income bottlenecks.

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Revitalization of Urban Brownfield Sites in Hungary, 2014-2020

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Abstract

The research is based on the evaluation of winning projects of the Territorial and settlement development OP, code number TOP-2.1.1-15 and TOP-6.3.1-15, both entitled "Rehabilitation of brownfield sites" in Hungary between 2014 and 2020. The investment priorities set out in the relevant Regulation of the European Parliament and of the Council include, inter alia, the preservation and protection of the environment, the promotion of resource efficiency, and (among other measures) urban environmental development, urban renewal, brownfield redevelopment and decontamination.

Environmental remediation and revitalisation of brownfield sites, or even the demolition of former infrastructure to make the site suitable for new investments all contribute to the implementation of circular economy in land use, which is one of the most significant challenges of our time. The National Development 2030 – Concept of Regional Development in Hungary also emphasizes economical and thoughtful land use. In a country with a rapidly changing economy like Hungary, research showing the success and limitations of the functional change of brownfield sites is particularly important. At the same time, these are still strongly focused on capital and regional centres in Hungary.

Therefore, the analysis of 64 brownfield sites and investment projects in 18 counties of Hungary, which are very diverse in their original function and transformation, can greatly enrich the research related to brownfields redevelopment in Hungary. The analysis includes the territorial distribution of projects, comparing project support, interpreting original and new functions and clusters among investment projects based on different aspects (region, previous function, and degree of completion). Based on the analyses carried out, the new function is determined more by the social needs of the present than by the nature of the previous use. In the case of a significant part of the investments, attention was also paid to strengthening the income generation capacity of local governments.

Rethinking Social Resilience – New Approach and Measurement Concept

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Abstract

Over the past two decades, resilience has gained considerable popularity in both social and economic sciences, reinforced by the effects of various economic and social shocks and the pandemic that has spread worldwide. On the other hand, more and more detailed and extensive studies have been launched on the various types of resilience (social, economic, ecological, etc.), which, in addition to the undoubtedly useful scientific results, have highlighted the elusive nature of the phenomenon and the lack of a centripetal force to channel the various lines of research in a single direction and unify the various interpretative frameworks.

It is always a contribution to the discipline to rethink a phenomenon like resilience from time to time. This study will attempt to clarify the concept of social resilience on the basis of the available theoretical frameworks, and with the help of previous research results it will define a set of indicators for this concept in order to test and verify it in the context of an empirical research in a Hungarian rural area. The refinement of the indicator set and the definition also provides an opportunity to partially distinguish between different types of resilience, thus contributing to a more accurate scientific understanding.

Keywords
Resilience, social resilience, indicator set, social science, definition.

JEL Classification
A10, O35

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Informal Land Buyers' Perspectives in Dilla City, Southern Ethiopia

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Abstract

Dilla city an administrative seat of Gedeo zone, centre for newly established Southern Ethiopia Regional State, surrounded by recently UNESCO recognized indigenous Gedeo cultural world's heritages, the home of world's quality Coffee, and transport hub connecting East Africa. Dilla attracts attention of diverse segments of people ranging from student to businessmen who wants to work, do business, and learn and coupled with its high population growth is a home of a multitudes. This created enormous residential plot demand the city. Dilla is surrounded by permanent cash crops and trees from Gedeo agroforestry practices which makes difficult for land expropriation and preparations of serviced land because of inefficient land governance and lack of political commitment. Due to this fact the formal urban land market is unable to supply adequate residential plot that could shoulder the prevailing demand from low and middle income people and hence people shift to informal land market that despite being deprived of critical infrastructural services they choose to live in harsh neighbourhood even though this practice is cursed by local administration as illegal. Therefore, the aim of the proposed paper "Informal Land Buyers' Perspectives in Dilla City, Southern Ethiopia" was meant to explore the buyers' expectations of infrastructure and various related municipal services that they deprive of. As a methodology a mixed approach was deployed. As primary data sources, a survey was employed by Dilla University staff September on 2022 that covered 186 randomly selected respondents from the direction of major outward expanding directions where informal land market was rampant. In addition to observations, Focus Group Discussion was used with municipal experts. As secondary data sources six years (2017/18-2022/23) data of formal land market was considered from Dilla municipality. Analysis was made qualitatively by the help of descriptive statistics. The result of the study revealed that the pushing factors of informal land market proliferation in Dilla city is due to the lack of formal land supply from Dilla municipality which is only 6.6% so that the remaining great majority (97.3%) of the study area residents expect at least one service (road, water, electricity, drainage, monitoring services) from Dilla municipality to improve deprivation of basic infrastructural services, notwithstanding the need of land monitoring services such as surveying and title deeds. The situations call for design a pro-poor land and housing policy, adequate compensation during expropriation of farmers for adequate serviced supply of land, creating awareness about formal land markets, and working in collabouration with rural counterparts in basis of rural – urban collabouration frameworks.

Keywords
Critical physical infrastructures, informal land market, land governance, residential land.

Regional Development and the Migrants' Challenges: An Investigation on Bangladeshi Students in Hungary

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Abstract

The dynamics of sustainable regional economic growth are significantly shaped by migration, as people cross borders in search of better opportunities. Partly to ensure a better economy, European regions allow migrants from different regions. The changing pattern of migration policies also creates European countries as a hotspot for young and educated out-migrants from Bangladesh. From the academic discourses, it is obvious that regional and spatial disparities play a significant role in shaping the challenges faced by migrants. There are also few studies on Bangladeshi migration but not on the socio-cultural and geographical aspects especially not from the perspective of the geographical scales. This shortcoming would be partially filled by the author's Ph.D. research, which applies world systems, postcolonial, and feminist approaches. This study examines the impacts of regional economic differences and inequalities that exist on migrant students in Hungary. An aspect of the conceptual framework of the research, which describes Hungary as a semi-periphery of the world systems, can contribute to revealing the regional importance of economic inequalities for the Bangladeshi migrants who are coming from the periphery. The applied theories also help to understand the migrants' different experiences and attitudes depending partly on economic, cultural, and gender relations at different geographical scales to reveal the life, problems, and attitudes toward networking, integration, cross-cultural challenges, and adaptation of Bangladeshi migrants in Hungary. In this presentation, the author will concentrate on some data analysis of a questionnaire survey conducted on the subgroups of Bangladeshi student migrants temporarily living in different cities in Hungary highlighting spatial differences, the migrants' economic conditions, networking, integration, challenges, and adjustment with host societies and their background situation. The sample was collected from the final nomination lists of Stipendium Hungaricum Scholarship holders (2019, 2020, 2021 and 2022) uploaded by the Ministry of Education, Bangladesh. The preliminary results of the survey show that though student migrants think that due to spatial differences, there are inequalities and problems regarding othering, their integration, and cultural and religious issues in Hungary, there are also better opportunities for earning money, getting a better education, and moving to third countries. These experiences and opinions can inspire further research about how student migration can contribute to developing a sustainable economy in the European region.

Keywords
Hungary, Bangladesh, (semi)-periphery, migrants' problems.

Ethnoregionalism and Tertiary Education – The Educational Positions of Hungarian Ethnoregional Communities in Central and Eastern Europe

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Abstract

In the post-socialist countries of Central and Eastern Europe, the decades after the collapse of the socialist systems were accompanied not only by a general improvement in living conditions, but also by increasing social and territorial inequalities. Rising inequalities tend to affect such vulnerable social groups like autochtonous ethnic minorities even stronger.

One of the largest autochthonous national minority communities in Europe is minority Hungarians, numbering around 1.8-2.0 million. It can be even considered the largest one when comparing to the population of the kin-state, Hungary. There are significant number of ethnic Hungarians in all the countries neighbouring Hungary, and in three of them the Hungarian ethnoregional communities have more than 100,000 members. Although, there is much information on the political and minority rights status of these communities, their actual socio-economic positions comparing to the titular ethnic group or the kin-state are relatively less revealed.

According to many theoretical concepts and empirical studies, one of the basic indicators of socio-economic position is educational attainment. And, as a result of the expansion of higher education, the proportion of people with tertiary education can be a particularly good explanation of the socio-economic position of a community in Central and Eastern European countries as well. Therefore, the the socio-economic position of the Hungarian ethnoregional communities can be more or less presented by analysing the tertiary educational positions of these groups.

Despite its importance, there is limited information about the educational positions of Hungarian ethnoregional communities, especially comparing to the titular ethnic group or the kin-state. Even less is said about the geographical context and territorial aspects of the topic. This research therefore attempts a more comprehensive comparative analysis of the changes in the tertiary educational positions of the three biggest Hungarian ethnoregional communities in recent decades, from a territorial perspective. The analysis also includes available related results from the latest censuses.

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The Resilient Dimension of the "Smart Tourism"? A Case Study on Urban Areas

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Abstract

Cities around the world have been pressured to become smarter and implement smart initiatives to keep up with global trends, especially for the highly dynamic economic activities, such as tourism. The pace of progress varies between countries, and post-communist urban areas face obstacles related to financing, understanding, and stakeholder involvement. Our study focuses on the introduction, evolution, and implementation of the smart city concept in Romanian cities, as well as transparency in smart projects, in relation with tourism development. We found that authorities are increasingly open to integrating smart components into the city profile, particularly in the smart mobility domain, using apps and online platforms. However, there is little information available about smart projects, with discrepancies between statistics and available information. Clarification and harmonized statistics are needed for more effective, evidence-based policies.

Additionally, our study reveals discrepancies in the implementation of smart tourism initiatives. Despite their potential benefits, such as enhancing the visitor experience and increasing revenue, the integration of smart tourism solutions in Romanian cities is still in its early stages. This highlights the need for more concerted efforts to promote smart tourism initiatives and improve their implementation in Romanian cities.

It is important to note, however, that while smart tourism initiatives have been successful in some areas, their applicability is not universal, and careful consideration must be given to the unique characteristics and needs of each city when implementing smart tourism solutions.

Looking for Trust in All the Wrong Places: Territorial Predictors of Trust in Local Authorities during a Crisis

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Abstract

Trust can be a powerful predictor of human behaviour in modern societies, as represents the glue that maintains long-term and beneficial social relationships between both individuals and groups. Trust in national and local authorities can differ based on several factors, such as the level of proximity between citizens and authorities, the scope of responsibilities of the authorities, and the complexity of issues they deal with. Research suggests that people tend to have higher levels of trust in local institutions compared to national institutions. For example, a study conducted in the US (Pew Research Center, 2020) found that 68% of Americans had a favourable view of local government, while only 31% had a favourable view of the federal government.

While local and regional authorities in many European countries were given more responsibilities, our understanding of the factors that shape citizens' support for these levels of government remains limited. As such, we were interested in examining the level of trust in local institutions in a representative sample of Romanian citizens and its potential historical, social, political, and economic predictors. We also focused on the territorial characteristics (rural versus urban, economic prowess, responsibilities of various territorial policymakers) that may explain the variations in trust.

Our sample included 1205 Romanian respondents (45.4% rural, 51.7% women, M_{age} = 48.35, SD = 16.22). Participants filled in a Computer Assisted Telephone Interviewing (CATI) questionnaire. We measured overall trust in local institutions, perceived level of assistance during crises, satisfaction with local institutions, drivers of trust, and respect for rights and freedoms.

Our results indicated that trust in local institutions varied depending on factors, such as the geographical regions with trust being the lowest in the Bucharest-Ilfov region - the most developed economic region - compared to all other regions in Romania). Furthermore, the best predictors for trust are linked to satisfaction with local institutions' decisions and the assistance provided during crises, e.g. sanitary crises such as Covid-19.

Ecological Feminist Analysis of Sustainable Development in Rural Tourism Economy – A Pilot Study of Hot Spring Village in Shanxi, China

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Abstract

Rural tourism, situated in rural communities, utilizes natural ecological landscapes, settlement views, economic landscapes, and cultural landscapes as tourism resources. However, challenges such as inconsistent management and repetitive product development necessitate the establishment of standards and regulations. In this context, this paper aims to analyse ecological feminist perspectives within sustainable development through a pilot study in a hot spring village.

To conduct this study, a mixed-methods approach was employed, combining qualitative interviews and on-site observations. The qualitative aspect involved in-depth, semi-structured interviews with female practitioners from five hot spring inns in a selected village in Shanxi Province. These interviews aimed to capture insights into the challenges, opportunities, and perspectives of women in the rural tourism industry. Additionally, on-site observations were conducted to understand the daily operations, community dynamics, and the overall atmosphere of the hot spring village.

The primary data source for this research was the insights gathered from interviews with female practitioners. These interviews covered topics such as employment conditions, challenges faced, aspirations, and the impact of tourism development on the community. The on-site observations provided contextual information on the physical and social environment, helping to triangulate the qualitative findings.

Challenges and Regulation Needs: The study highlights challenges in rural tourism, emphasizing the necessity of standardized regulations to address issues such as inconsistent management and repetitive product development.

Female Economic Empowerment: Investing in female economic empowerment emerges as a crucial aspect for achieving gender equality and contributing to sustainable development goals, aligning with SDG 1 (No Poverty) and SDG 5 (Gender Equality).

Ecological Feminist Analysis: The paper reveals the common roots of the oppression of women and nature, underscoring the importance of understanding these interconnected issues for effective sustainable development in rural areas.

Role of Stakeholders: The collabourative efforts of government, private sectors, and grassroots communities are pivotal in achieving SDGs and promoting gender inclusivity, aligning with SDG 17 (Partnerships for the Goals). The study emphasizes the need for a comprehensive approach involving multiple stakeholders for sustainable rural tourism development.

In conclusion, this pilot study employing a mixed-methods approach provides valuable insights into the complexities of sustainable development in rural tourism economies. It underscores the significance of ecological feminist perspectives, the challenges faced by female practitioners, and the collabourative efforts required for achieving SDGs and fostering gender inclusivity in rural areas. The provisional main conclusions serve as a foundation for further research and policy considerations in the realm of rural sustainable development.

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Using Spatial Analysis to Assess Cohesion for Sustainable Development Goals

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Abstract

Our study explores the integration of spatial analysis methodologies within the context of the Sustainable Development Goals (SDGs) at the regional level in European Union countries. The application of spatial analysis allows for a nuanced understanding of SDGs progress and obstacles within specific territorial units.

Adopted by the United Nations, the Sustainable Development Goals (SDGs) provide an all-encompassing framework for tackling global issues in the social, economic, and environmental spheres. Through the examination of geographic data, spatial analysis techniques give a distinct perspective and can provide important insights into regional inequities and localised difficulties. Spatial analysis—which includes spatial autocorrelation tools—provides a visual narrative of regional cohesion and offers a deep understanding of the distribution and connectivity of SDGs accomplishments across various territorial units.

For planners, stakeholders, and politicians, this visual aid is invaluable as it facilitates informed decision-making that leads to more integrated policies.

Furthermore, the application of spatial analysis methods makes it easier to allocate resources efficiently and track progress towards the SDGs. It allows for authorities, decision-makers, and interested parties to plan resources effectively, rank interventions in order of importance, and monitor the effects of programmes locally.

Our study extensively employs available data at the NUTS 3 level, providing a comprehensive measurement of SDGs achievements. Through a close examination of data at the NUTS 3 level, our research offers a comprehensive evaluation of SDGs' accomplishments, facilitating an in-depth comprehension of advancements and discrepancies within certain territorial units. Additionally, this strategy is in line with the cohesion process strategically, making it possible to assess these goals' contributions to fair development and regional cohesion more thoroughly.

Our research emphasises the relationship between achieving Sustainable Development Goals and regional cohesion by focusing on the cohesion process. This emphasises how important it is to accomplish not just the individual goals but also to promote inclusivity, lessen inequality, and unite people in various geographical contexts.

Thus, our research contributes to a more inclusive and unified approach to sustainable development within the European Union by enhancing our understanding of SDGs progress at a granular level and highlighting the significance of these accomplishments in fostering cohesion. Furthermore, we stress the significance of utilising spatial analytic techniques to improve the execution, observation, and assessment of plans intended to accomplish the SDGs.

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Serbia on the Border between East and West - Urban and Geoeconomic Perspectives

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Abstract

The aim of the presentation is to review the development of the five largest cities of Serbia in the post-Yugoslav period. In the introduction, the general development of the urban network and spatial structure of the Balkans will be presented in a historical context, as well as the geographical location and geopolitical situation of Serbia.

The urban network bears the marks of the fundamental spatial implications of social, economic and political processes, but it is also the object of future aspirations. The urban network is characterised by a high degree of stability, exhibiting changes only in the long term. In order to unveil its deep-seated structures, it is worth providing a brief overview of the historical development of the urban system. The evolution of the settlement network in the Balkans was shaped to a large extent by three overlapping clusters of factors (Hajdú-Rácz 2011): 1) complex natural geographical features; 2) its perception as a space of changing empires due to the frequent modification of state borders and shifting centres of power, and the permanent reorganisation of its core; 3) ethno-cultural specificities.

Over the last three decades, the state structure of Serbia has undergone several fundamental transformations, which have had a significant impact on the development of these cities. This is analysed in terms of the transformation of administrative and spatial characteristics. Finally, the development, economic and demographic processes of Belgrade, Novi Sad, Nis, Kragujevac and Subotica are examined in detail.

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Spatial Variations of the Unemployment Rate's Determinants at Regional European Level

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Abstract

Unemployment is an essential indicator for the performance of an economy, having both social and economic dimensions. Higher levels of unemployment are usually associated with lower incomes, deteriorated living standards and a lower overall life satisfaction of individuals, with various negative social effects. At government level, increased unemployment levels put pressure on social benefits spending and decrease tax revenues. From an economic perspective, unemployment implies that the production will not meet its potential, consequently the gross domestic product will be lower. Thus, reducing the unemployment levels is a key aspect of any macroeconomic policy.

Being a multidimensional phenomenon, unemployment is determined by many variables, its influence factors being the subject of several empirical studies. Unemployment rates are usually strongly related to Gross Domestic product (theorized by Okun's law), but also with the level of wages. Based on the neoclassical theory, another important factor influencing unemployment rate would be migration. However, there are mixed results in the literature regarding the real impact of migrants on the labour market. Another important determinant of unemployment is the education level, with higher unemployment rates for individuals with lower educational levels. Other important variables that might have an impact on unemployment could be foreign and domestic investments, new businesses created, but also the social security policy and the unemployment benefits

Nonetheless, since most economic phenomena are influenced by spatial effects and exhibit regional heterogeneity, it is necessary to take the spatial factor into account explicitly in modeling the determinants of the unemployment rate. Usually, unemployment rate is characterized by a positive spatial autocorrelation, with a significant neighboring effect among regions. Moreover, the determinants of unemployment also exhibit spatial variation, with the influence of certain variables being stronger than in other areas and vice-versa

Considering all the above, the main objective of this paper is to identify the determinants of unemployment rate at European regional level, using a spatial approach. Namely, we employ spatial regression models, including a geographically weighted regression to study the dependence between unemployment rate and its main economic determinants. Variable selection is done based on the specialty literature, but also considering data availability at NUTS level

Results confirm the existence of a spatial dependence for the unemployment rate at regional European level. Additionally, the research shows there is spatial variation of the factors influencing unemployment rate. Thus, these factors do not have the same effect on unemployment across all regions, enabling identification of clusters of regions where the influence of certain variables is relatively similar. The results have important implications for labour market policies at regional level, especially considering the interest for diminishing the differences between regions in what concerns unemployment levels.

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The Impact of Country Risk on FDI in European Countries

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Abstract

Risks and uncertainty lead to bad decisions, thus low level of profit from investments. That is why it is important to know as much information as possible when it comes to investments, especially in an uncertain context, such as the coronavirus crisis. This crisis appeared in 2019 has affected the entire humanity in all domains. In addition to the number of illnesses and deaths, the measures taken in order to prevent the spread of the virus have affected our lives both socially and economically. Therefore, the purpose of this study is to analyse the effect of country risk on direct foreign investment (FDI). Thus, to reflect the country risk we used the Euromoney Country Risk score, and the sample is represented by the European countries. The results of the study indicated that country risk significantly influences FDI.

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Unraveling the Complexity of Globalization: A Multidimensional Analysis of Quality Parameters and Competitive Disadvantages

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Abstract

In an era marked by unprecedented globalization, understanding the intricate interconnections within our world has become imperative. As the global landscape continues to evolve, there is a growing recognition of the need to move beyond simplistic assessments of economic performance and embrace a more comprehensive understanding of complex, multidimensional phenomena. This study delves into the evolving landscape of composite indicators, such as the Regional Competitive Index, World Development Index, BES, and EQUI, which strive to capture the multifaceted nature of global dynamics.

Particularly in the developed world, there is a noticeable shift towards broadening the focus beyond traditional economic metrics. The emphasis now extends to encompass equity, social inequalities, and institutional factors. However, this expanding scope comes with its own set of challenges and risks, especially as developed regions may inadvertently transfer the costs of their quality standards to other regions through unethical practices.

This study addresses the imperative to scrutinize the downside of competition, introducing the concept of "quality penalties." It posits that, in the race for economic competitiveness, high-quality environments may overlap with markets characterized by poor quality due to unfair or illegal practices. To enrich the discussion, we propose innovative variables that account for negative externalities, including episodes of offshore leaks, the presence of societies securitizing debts, and the disparity between emissions consumed and emissions produced.

The empirical findings reveal significant variations in the classification of European countries when incorporating these "quality or reputation" indicators. This not only underscores the need for improved empirical research in this domain but also contributes theoretically by providing insights into the ongoing debate between cost-liberal and moderate democracies and their relationships with developing regions.

Furthermore, this study extends beyond the conventional measures of economic success to highlight the importance of incorporating ethical considerations in global assessments. By introducing the concept of "quality penalties," it opens avenues for policymakers, researchers, and stakeholders to engage in a more nuanced discourse on the implications of globalization, fostering a holistic understanding that goes beyond the pursuit of economic competitiveness.

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Using an Inverse Planning Approach in the Aspect of Green Transition: Index Theory Study Using the Konüs Index and the Neo-Walrasian Equilibrium for Biofuels and Green Energy in the Regional Space

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Abstract

In this study, we apply the inverse planning method for the technical implementation of the EU's greening ambitions and regulations. Kollár and his co-authors examined these methods primarily in relation to wind energy. The regional development innovation concept and hyper-localization definition are used based on Torre for strategic modeling purposes. In addition to presenting inverse design methods and examining their regional implementability, we also try to shed light of the green energy-based transition of EU countries in the automotive industry. Thus, the index-theoretical calculation of the transition from fuels to biofuels in accordance to used cars can also be established, taking into account innovating research and good practices. Building on Konüs's work, we examine the greening usefulness of the inverse design method in terms of demand, supply, regional origin and local circulation based on Dusek's territorial statistics and his interpretation of the Neo-Walrasian equilibrium and axiom system. The regional analysis of CO_2 emission statistics is presented on the basis of OECD statistics, while the distribution of used automotive statistics by fuel type is presented on the basis of EUROSTAT statistics.

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Measuring Sustainability Using the Konüs Index, and Fuzzy-Konüs Index in the Context of the Bible Based Ethical Legislation System

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Abstract

Sustainable development is an essential condition for the survival of our society. For this reason, the EU has launched a number of initiatives. In the study, sustainable development and changes in consumption composition are examined with the help of the Konüs index and fuzzy-Konüs index, then the connection of the problem with fuzzy-cognitive-map theories are presented. In this way, it is possible to achieve social welfare, environmental well-being (the price index is defined as a welfare indicator). The following phrase perfectly illustrates the fundamental role of Hungary and agriculture: "we are what we eat" - in a broader sense, what we consume. A perfect example of this is György Matolcsy's consumption-based price index theory, where we examine measurability from a mathematical point of view and build a measurement system on it. We want to see goodness from a legal point of view, from a biblical-ethical perspective, as well as an optimum — because laws are designed to sustain and preserve the Environment as the Lord created it.

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How Industry-University Research Collabouration Shape Innovative Performance? A Multilayer Network Approach on the European Scale.

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Abstract

The goal of our research is to explore the impact of intra- and inter-regional university-industry collabourations on knowledge production in the regions. In our analysis, we examined the Framework Programme's cooperative R&D network as a multilayer network. We formed layers based on the type of the participating organizations. This resulted in an industry-type layer and a university/research centre-type layer. Along these layers, we examined the impact of the resulting network structure of inter-layer and inter-regional cooperation on the knowledge production of the regions measured by patents. We investigate the extent to which interaction effects are observed for the network structure along layers and regions as well.

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Universities as Regional Leaders for Sustainable Energy and Climate EU-Harmonized Policies

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Abstract

European Green Deal envisage a wide range of goals and milestones in order to provide a policy framework aimed on integration of innovative, educational and institutional components of the input from higher educational institutions towards green transition of their regions and countries. Since at initial European Commission's level role of the university sector was not fully formulated there's a need to create a new roadmap for their contribution. We foresee the following areas of impact from the universities in green transition of national economies: research and innovation, education, staff and infrastructure management and public/social impact.

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Post-War Recovery Strategy in Ukraine: A Sustainable Development Prospect

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Abstract

The ongoing Russian invasion to Ukraine has unleashed devastating consequences, resulting in the widespread destruction of urban and rural landscapes across Ukraine. The relentless onslaught of shelling has left a stark trail of ruin, decimating not only infrastructure but also industrial facilities, rendering them non-operational. The aftermath reveals a desolate landscape marked by environmental degradation, contaminating arable lands, and a crippled energy system, exacerbating the challenges of recovery.

This paper proposes a comprehensive and phased strategy for the arduous task of post-war reconstruction in Ukraine, anchored firmly in the principles of sustainable development. It meticulously outlines a multi-dimensional approach that acknowledges the interconnectedness of rehabilitation, restoration, and revitalization efforts. The strategy emphasizes the imperative of adopting eco-centric methodologies for rebuilding infrastructure, rehabilitating communities, and reinvigorating economic activities.

The integration of sustainable practices throughout each facet of reconstruction stands as a testament to this paper's core mission: providing a holistic framework that transcends the immediate rehabilitation process. By embedding sustainability as a fundamental tenet, this approach aims not just to rebuild but to regenerate, cultivating resilience and propelling Ukraine toward a future characterized by sustainability and prosperity.

Alignment with the European Union's standards and prerequisites for membership serves as an integral facet of the proposed reconstruction and modernization endeavor. Ensuring that the revitalization efforts are not just confined to rehabilitation but also meet the stringent criteria set forth by the European Union becomes imperative. By meticulously incorporating European Union compliance benchmarks into the reconstruction framework, Ukraine not only aims at restoration but also strives for alignment with European norms. This alignment serves as a pivotal stepping stone, drawing Ukraine closer towards European Union accession aspirations. The meticulous attention to meeting and exceeding these standards is pivotal, positioning Ukraine favorably on the path towards European Union membership.

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Regional Sustainability Transition: Evidence on Challenges and Responses from 10 Disadvantaged Danube Regions

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Abstract

We live in a time of grand societal challenges (GSCs), marked by climate change, the fourth industrial revolution, and rising spatial inequalities. Even though these challenges and shocks will presumably leave no place untouched, both the ways in which global challenges translate into specific geographical contexts and the nature and scope of problems confined to specific regions differ widely. This leaves some regions in rather advantageous positions, whilst others are characterised by different degrees and dimensions of 'disadvantaged-ness' in the face of transformations ahead and the danger of being or becoming 'left behind'.

This paper's first goal is to offer a comprehensive perspective on what it means for a region to be 'structurally disadvantaged' in an era of GSCs. In doing so, we develop composite indicators and cast light on various dimensions of region-specific problem-asset endowments, including economic (e.g., industrial background, specialisation in 'brown' industries, regional economy's connectedness), ecological (e.g., manifestations of climate change, current energy sources and renewable energy potential) and social (e.g., interregional, and interpersonal inequalities, economy's inclusiveness) ones.

While the indicators above can help to identify challenges, their concrete regional manifestations and severity, they tell us little about what could be labelled regional 'responsiveness' in the sense of ongoing agentic processes 'on the ground' to combat, mitigate or adapt (to) these challenges ('challenge-oriented initiatives'). As such, the paper's second goal is to draw attention to regional responsiveness, thereby casting light on the role of local and relevant non-local agents and their strategies based on an agency perspective.

Thus, based on a combination of structural and agency perspectives and quantitative and qualitative methods, this paper will provide valuable insights into regional sustainability processes. On the one hand, it will help better understand structural conditions in challenged regions and seek to answer the question, 'What does it mean concretely to be challenged/left behind'? On the other hand, the article will cast light on the responsiveness of regional and relevant non-regional actors to place-specific (manifestations of) challenges.

Empirically, the paper draws on rich quantitative datasets, statistical data analyses, semi-structured expert interviews, and intensive document analyses in 10 disadvantaged regions in 10 different countries in the Danube macro area. While being highly heterogeneous areas, all these regions share a fate in the sense that they face profound sustainability transition processes from a relatively unfavourable position. Hence, this work rests on highly interesting and rich empirical data to study different factettes of regional disadvantagedness and responsiveness in a comprehensive and comparative way.

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Interfirm Networks behind Coagglomeration

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Abstract

The success of industry clusters is attributed to the advantages of co-locating companies that can exchange inputs, skilled labour or know-how. In this work, we examine how labour flows and input-output channels contribute to the co-location of industries in Hungary, and we do this through new, rarely available interfirm network data.

We build multiple measures of industrial coagglomeration from firm registers and test their relationship withinput-output connections constructed from value-added tax records of companies and labour flows derived from an employer-employee administrative dataset. In addition to these aggregate indicators of industrial co-location, we use the firm-to-firm connections to test the importance of geographic proximity for ties in the nation-wide interfirm networks of labour flows and supplier connections.

Our results suggest that, first, that coagglomeration in Hungary is connected to both input-output and labour market linkages. Adopting the previously established instrumental variable approach, we show that this relationship is causal. We find that similarity of labour requirements has a stronger influence on coagglomeration than supply chain linkages. Second, we show that input-output and labour market channels reinforce each other in a way that any level of input-output connections support the effect of labour market channels on coagglomeration, but only after certain level of labour flows input-output channels matter for co-location. This suggests that industries that are similar in terms of labour and have strong supply chain connections are most likely to co-locate in space and labour flows are the driving force of this mechanism. Third, we use firm-level networks of labour flow and buyer-supplier ties and illustrate that labour market connections and especially connections between firms that exchange labour and supply each other are very sensitive to spatial proximity.

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Ethnic Hungarians and Trans-Border Regions in the Social Media: Bipolar Communication on Nationhood and Belonging

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Abstract

The presentation will draw on the results of a netnographic analysis conducted as part of a research project on attitudes towards minority communities of Hungarians in different trans-border regions and the limits of extra-territorial nation-building in Hungary. The netnographic analysis conducted a trend and content analysis of edited content and related discourses on ethnic Hungarians published on social media between 2016 and 2022. Based on this empirical material, this presentation will seek to answer the question of the social perception of certain ethnic Hungarian communities and trans-border regions in Hungary. Are there any differences in the perception of each trans-border region and its Hungarians? What are the typical themes and contents associated with each area and community? By means of a quantitative and qualitative analysis of the topics related to the communities of ethnic Hungarians and trans-border regions, the analysis points out the characteristics of the discourses involved: the poverty of topics, the reduced discourse to a bipolar one, and the fact that the basic question of the discourses still revolves around the issue of nationhood and belonging.

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Hierarchical Cluster-Analysis of the European Regions

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Abstract

In this study we analyse the structure of economic activities at regional level in Europe based on gross value added (GVA) and other related indicators. The GVA, as it is tightly related to the gross domestic product (GDP) calculations, is a suitable measurement to study the structure of the regional economies. Firstly, we try to determine the economic specialization of each European region using the available data on economic section or section-group level, then identify and locate geographical areas (units) involved in similar economic activity or affined economic structure using hierarchic cluster method. An additional aspect is whether similarities can be observed between neighbouring regions from the examined economic aspects, respectively larger geographical areas, each of them include more regions in one block, classified into the same clusters can be detected on the continent. The detectable difference could be also interesting, whereas it allows identifying the regions, or blocks of regions having specialized role in division of the economic performance.

The analysis is based on the publicly accessible data in the EUROSTAT database. Whereas the most complete dataset is available for 2020, we used it for the detailed calculations. The method used was agglomerative clustering with chi-square distance calculation and complete linkage algorithm, that allowed the identification of the similarities and differences of the regions. During the hierarchic clustering of the European regions, we examined the results of the agglomerative clustering using the following measurements or aspects: GVA, strength of industrial base, development of service sector, importance of trading and financial centres, rapidness of industrial development, expansion of export-oriented economies, as well as growth of the service sector.

The regions of the European Union and certain additional countries (such as West-Balkan ones) settled into different clusters along the used criteria. Based on the results it is observable, that certain regions can be characterised with similar economic features, and the clusters are well-distinguishable according to the key factors, like strength of industry or development of service sector.

Examining the clusters in detail we stated that regions classified into the same cluster and having similar characteristics are located geographically to each other relatively close. These regions even can constitute over-border units, while the sporadic or island-like units are rarely appearing. As a conclusion it can be stated that the cluster-based regions in Europe can be separated well using their economic characteristics, as well as that the agglomerative clustering is an effective tool in such analysis.

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Opportunistic Investment: The Political Economy Impacts of FEMA Hurricane Declarations

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Abstract

Every hurricane season, Florida is at risk of experiencing an extreme weather event. As recently as the 2017 and 2018 hurricane seasons, Florida experienced back-to-back hurricanes that were among the costliest to the state and the country. Given the susceptibility of the Florida peninsula to Atlantic hurricanes, business establishments in the state are at risk of physical damage, damage arising from lifeline service disruptions, supply chain disruptions, population displacement leading to both employee and customer migration, and business failure due to the consequences of the severe weather events.

In order to properly prepare for a hurricane, FEMA allows governments to apply for Emergency Declarations prior to the hurricane making landfall. This anticipatory declaration is helpful to local governments as it allows funding to be allocated in preparation of the storm. However, areas that may be classified as FEMA disaster areas ultimately and do not experience severe winds or impacts from the storm are still will be eligible for the benefits of classification as a FEMA disaster area. We analyse the effect of FEMA emergency declarations on the small businesses outcomes in the state of Florida.

Garrett and Sobel show that disaster declarations and FEMA disaster expenditures are politically motivated. First, using data on Florida elections we will document how political economy considerations affect the likelihood that areas are declared FEMA disaster areas. Specifically, we are gathering data on the party of the state-level representatives, Congress member, Senator, and Governor. This will help determine if the Governor is more likely to declare marginal areas as disaster areas if the representative is a member of his political party. We are also gathering data on swing districts, as it is also plausible that these areas are more likely to receive disaster declarations given their political importance.

Preliminary results indicate that those areas that were classified as FEMA disaster areas but did not actually experience hurricane force winds were more likely to see positive impacts on businesses. In fact, about 36 percent of areas in Florida that receive disaster declarations do not experience category 3 winds or higher from the storm. Approximately 14 percent of areas that experienced hurricane force winds were not declared FEMA disaster areas. Therefore, it is plausible that there are political considerations affecting which areas are declared disaster areas and which are not, and likely the amount of dollar received for different spending categories.

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Contrast and Brightness in Urban Spaces: Unveiling Patterns of Public Space Perception in Beijing's Historic Districts

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Abstract

In the realm of urban space evaluation, visual elements play a crucial role in shaping public perception. Beyond mere aesthetics, these elements, particularly contrast and brightness, are instrumental in influencing the perception of spatial quality. This study delves into how attributes of contrast and brightness in urban public spaces impact user evaluations, a subject that has not been extensively explored in current research.

The research was conducted across 32 public spaces within the core districts of Beijing, engaging approximately 1000 respondents in an online assessment of these spaces through photographs. Participants were asked to evaluate various characteristics and elements within these spaces. The study harnessed computer vision technology to analyse key visual indices in the photographs, focusing on contrast and brightness levels. These visual parameters were then correlated with the respondents' evaluations, revealing notable patterns and preferences.

The findings of this study are particularly intriguing, indicating that high-contrast scenes in images are associated with more positive evaluations of architectural elements like pergolas, and a reduced likelihood of perceiving a lack of artificial facilities such as benches. Conversely, in high-brightness scenarios, this trend is almost reversed, with landscape elements receiving more positive assessments, and a greater inclination to perceive the absence of artificial facilities. These insights align with our qualitative observations and analysis of typical public space patterns in Beijing's historic districts, which tend to oscillate between architecturally defined, seating-providing spaces with higher contrast and lower brightness, and open spaces primarily oriented towards landscaping and parking, characterized by higher brightness and lower contrast.

Moreover, in the latter spatial pattern, respondents tended to give more positive evaluations on the orderliness and maintenance of the space. While acknowledging the potential biases inherent in image and public space selection, this research significantly contributes to our understanding of the factors that influence public space perception and evaluation, especially in relation to visual attributes like contrast and brightness. The findings have substantial implications for urban design in built environments and for advancing research in image-based spatial perception and evaluation.

Strengthening the Financial Capacity of Local Governments as Regards the Recovery of Sustainable Regional Development: An Empirical Case of Ukraine

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Abstract

The recent challenges posed by the pandemic and global conflict have significantly affected the path of local community development in Ukraine. Despite the progress of the decentralization reform, which since 2014 has made a tremendous step in strengthening the fiscal capacity of communities, encouraging communities to amalgamate and interregional cooperation, and attracting additional private investment, the negative trends have affected various communities to variable degrees. Even though municipalities have substantially improved their medium-term planning, budgeting, and investment management processes, problems of efficient allocation of financial resources to meet urgent needs and sustainable development conditions remain. The scale of this impact is difficult to assess today, but the timely application of the necessary stabilization tools of fiscal coordination that take into account geographically differentiated needs and assets is clearly relevant. These pre-existing challenges should shape national and subnational responses as they seek to address immediate reconstruction needs and promote long-term recovery and resilience (OECD, 2022). Strengthening financial mechanisms for regional development with higher economic returns is an important objective of recovery policy. Local governments in Ukraine currently face a number of institutional constraints that, while not homogeneous, have a cumulative effect. Therefore, this article discusses the conditions and institutional framework for using effective mechanisms to strengthen the fiscal capacity of local communities. First, we present a literature review on the assessment of the relationship between financial difficulties and specific aspects of economic sustainability, and emphasize the importance of high-quality local government performance in strengthening the fiscal capacity of regions. Thus, we will analyse empirical studies of budgetary regulation instruments for achieving technology-oriented sustainable growth. Comparing the benchmarks of the European community in this regard, the second session describes the institutional conditions and procedures for further reforming the system of fiscal equalization and budget regulation in Ukraine, and shows the methods, actors and institutional mechanisms in different multi-level systems of crisis management of local public finances. Therefore, this article discusses the conditions and institutional framework for using effective mechanisms to strengthen the fiscal capacity of local communities. Thus, we will analyse empirical studies of budgetary adjustment instruments for achieving technology-oriented sustainable development. Comparing the benchmarks of the European community in this regard, the second part of the paper describes the institutional conditions and procedures for further reform of the fiscal equalization and budgetary adjustment system in Ukraine, and shows the methods, institutions and institutional mechanisms in different multi-level systems of anti-crisis management of local public finances. The analysis focuses on the role of decentralization, fiscal equalization schemes, and debt instruments in strengthening the fiscal capacity of local governments. This paper outlines some of the determinants of gaps in the mechanism of budgetary support for local development and discusses the impact and implications for sustainable community development. Our findings point to the importance of strengthening the financial capacity of local governments and the role of fiscal transformation in the policy of economic recovery in Ukraine, through effective multi-level fiscal management to address budgetary challenges in decentralized systems in the context of European integration.

Let's Change the World Together! – Co-Operation Possibilities of Social and Profit Oriented Enterprises

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Abstract

The United Nations' 17 Sustainable Development Goals lay out a framework for global action to create a better, more equitable, more sustainable future. Success will demand innovative, cross-sector action at scale.

Due to the COVID-19 pandemic, climate change, social inequalities, as well as the crisis and instability of the global supply chain, there is increasing pressure on enterprises in the world to undertake obligations to develop a business model that respects human rights and helps protect the state of the environment, sustainable and has a social impact. Change requires new, innovative solutions never seen before and the formation of new partnerships. Cooperation with social enterprises can facilitate the development of the new model and contains hitherto unexploited possibilities. In recent decades, social enterprises have proven that they are able to facilitate and accelerate the necessary changes with new ideas and new business models, and their inescapably valuable role has become even more evident during the pandemic, because they quickly and efficiently appeared in critical areas which were neglected by overburdened formal services and had a critical role in terms of the functioning of society. In our presentation, we would like to present what factors prevent the "meeting" of social enterprises and profit-oriented companies, and how they can be facilitated and supported so that a well-functioning relationship can be established between them, based on our empirical research. The research was carried out in 2020 as an online questionnaire among social enterprises and profit oriented enterprise in Central Europe. The aim of the research was to obtain information about social entrepreneurs (SE) and profit oriented enterprises, which would allow conclusions to be drawn about differences and similarities regarding their ethical corporate values. We intended to find out more about the fundamental ways in which entrepreneurs run their companies and whether companies are already dealing with dimensions of social and/or ecological sustainability. This way, the basic characteristics of both social entrepreneurs and profit oriented enterprises were determined to subsequently find similarities in business models and market-relevant orientations of them. Based on Sieger et al. (2016), the following item batteries were used in order to find out if Social Entrepreneurs and profit oriented entrepreneurs lean towards the concept of darwinians (pursue private issues, self-interested), communitarians (support and be supported by personal and social communities), or missionaries (advance a cause), and also to gain insights about similarities and differences in their perceptions (Gruber and Fauchart, 2011). There are many reasons for profit oriented companies to partner: Social enterprises are inherently innovators and risk-takers, and—when done right—their models are built for sustainability and scale. They bring a unique understanding of emerging markets and traditionally underserved customers, and they can forge meaningful access to the otherwise hidden stakeholders—factory workers, farmers, miners, communities—who increasingly power global supply chains.

By investing in, supporting, and working with social enterprises, companies access new mechanisms, models, and innovations for meeting their corporate sustainability goals, mitigating supply chain risks, and benefiting the communities they serve.

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Natural Disasters, Emergency Declaration, and Corruption

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Abstract

Corruption is generally understood as taking advantage of public power for private benefit. It has been raised as one of the determinants of economic backwardness in developing countries. The main consequences include lower long-term growth, lower investment, higher inflation levels, and a consequent reduction in the provision of public goods and services. With information from Colombia between 2012 and 2022, this paper uses an instrumental variable approach to evaluate the relationship between emergency declarations and corruption. We take advantage of the exogeneity of the frequency of natural disasters to city level unobservable characteristics to construct our instrument. We consider natural disasters as exogenous shocks that increase the probability of declaring an emergency. Since emergency declarations increase the level of discretion of local officials, it is expected to see a rise in corruption. Our findings show a positive relationship between the frequency of natural disasters and the probability of emergency declaration, followed by an increase in observed corruption. An emergency declaration in the Colombian capital cities increases the total open cases with a possibility of corruption in 3.7 per every 100,000 people, and the amount of money involved per person increases in COP $5,218 per capita. In addition, an emergency declaration increases the number of cases of corruption with conviction in 1.24 per every 100,000 people, and the amount involved increases in COP $1,390 per capita. The higher level of discretion of public officials not only increases the number of open cases of corruption and the convictions, but also the amount of resources involved. We also find that the frequency of natural disasters is not associated with a higher level of expenditure in preemptive and relieve spending, nor is it generating unexpected spending, defined as the difference between the observed total expenditure and what was budgeted for preemptive and relieve spending. This suggests that what is behind the higher corruption after emergency declaration is a misappropriation of the budgeted resources in Colombian cities. This paper provides evidence on the impact of increasing public officials' discretion in a setting with weak institutions.

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Investigating the Effect of Location on Urban Growth Worldwide: Contemporary Trends

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Abstract

According to the proposed explanation, urban growth is successful, only if several favorable attributes of location are present, while each attribute might become meaningless, if other locational attributes are weak or missing. In the present study, this hypothesis is verified in several stages. First, urban areas of the world are identified using worldwide population density data. Next, population change in each urban area is estimated by comparing its year-2000 and year-2020 population, while referencing the observed change to the total urban population of each country. The observed change in each urban area is next coded as a dichotomous variable – either a positive share change in the national hierarchy between 2000 and 2020 (1) or a negative change (0) – and linked to several performance measures, considered to be potentially important locational attributes. Significant locational determinants are then identified by a stepwise regression analysis. Each factor identified as significant is next analysed, to identify its value bins with the highest shares of urban localities exhibiting a positive population share change (PSC). Location in such "optimal bins" is defined as a locational advantage. The overall number of LP advantages is then counted for each urban area and compared across urban areas with different numbers of locational advantages counted. The analysis is performed for the entire worldwide urban system and for Western Europe, separately. In both cases, the odds of an urban area to exhibit a positive PSC is found to increase in line with the significance-weighted number of location advantages it has.

Resilient Tourism Regions in Central Europe – a Classification Approach

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Abstract

Motivation of the research: In the decade before the COVID-19 pandemic, the global international tourist traffic experienced monotonous growth, but the events of 2020 revealed its extreme sensitivity and vulnerability, shaking the entire sector. We examined the pattern of the restart through resilience in four countries of Central Europe (Austria, Czechia, Hungary, and Slovakia). Scope of the study: The study covers past 5 years' regional data on tourism nights and capacities. The hypothesis of the research is that seasonally more sensitive tourism destinations and areas due to their specificity are much vulnerable, but tend to recover rapidly, determined by spatial localisation. Methodology and data: Data are retrieved from Eurostat thematic and regional data bases. Quantile and Equal Intervals maps are used to visualise the spatial imbalances of the following variables: nights of domestic and foreign residence spent at tourism accommodation establishments monthly (by economic activities - NACE) in number, percentage change to previous year, percentage change to year before and percentage change to 2019 (NUTS1), nights spent at tourism accommodation establishments (NUTS2, annual data) and number of beds, number of establishments (NUTS 2, annual data). Classification models (hierarchical and spectral) are used to define spatial dependence of observations (LISA maps and local Moran's I statistics is used for spatial autoregression measure). The resilience classes are described with the volatility (both annual and over-the-years) and the level of the variables (nights, beds, establishments). The maintained membership in classes over years explains the persistence (i.e. resilience) of regions, while yearly forward shifts point out to recovery. The persistence is measured by the percentage of the number of regions remained in the same class from year to next year and to further years. Based on several tourism indicators, the study area showed significant regional differences even before the pandemic, which was strongly influenced by how individual regions were able to adapt to changing travel habits. Further researches: Taking into account the effects and consequences of the COVID-19 pandemic, the research examines important issues of the tourism sector, such as spatial and temporal inequalities in capacity utilization. To further the analysis, we suggest models regressing both spatially and time-lagged variables, over-the-year consistence of tourism nights and dummy origin of tourists (domestic vs international).

Keywords
Crisis, recovery, regional inequalities, resilience, tourism.

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Glaeser Meets Ellison: Coagglomeration and Consumption Amenities

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Abstract

The nature of agglomeration economies has been mostly analysed in terms of the productive advantages accruing to firms deciding to locate in major urban areas. However, over the past couple of decades large cities, especially those located in developed countries, witnessed a substantial relocation pattern whereby productive plants fled urban areas, seeking to minimize high rent costs, and relocated productive activities to areas characterized by lower wage bills. Therefore, the usual empirical toolbox to explain the nature and rationale of large cities appears to a degree outdated, and, most importantly, incapable of capturing the determinants and effects of agglomerative patterns we still observe in cities. These, we believe, can be explained by two competing strands of the literature: one, revived after Glaeser et al. (2001) suggests an increasing relevance of consumption amenities; the other, spurred by Ellison et al. (2010), links Marshallian agglomerative forces with coagglomeration of industries.

This paper contributes to this literature with new evidence based on the universe of Dutch workers, and very large samples of Dutch firms with the aim to uncover the relationship between consumption amenities and firms coagglomerative behaviour. We employ a large data set covering the period 2005 through 2011, explaining the role of consumption amenities in driving coagglomeration of Dutch firms controlling for the classical Marshallian forces of agglomeration, i.e. labour market pooling, input sharing, and knowledge spillovers. Results show that indeed consumption amenities play a major role in driving the coagglomerative behaviour of firms, next to the classical marshallian forces. Moreover, we also find evidence of a decreasing role of input sharing as a driving force of coagglomerative mechanisms, while knowledge spillovers seem to increase in importance over the observed time period.

Knowledge Spillover Effects for Enhancing Authentic Tourism – the case of Interreg EUROPE Local Flavours Project

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Abstract

The overall objective of the Interreg EUROPE Local Flavours project is to improve policy instruments (PIs) supporting the sustainable exploitation of the cultural heritage of small and medium-sized towns with potentially attractive portfolios, that are unable to fully exploit their cultural legacies due to less-advantaged locations. In the project, partner regions aim to influence and develop authentic tourism products and services based on the interaction of locals and tourists, and to build new mechanisms for cooperation among host populations and private cultural and tourism actors, enhancing active relations between stakeholders. The three and a half year-long project, starting from 2019 August has two phases. Phase 1 is dedicated on one hand to Interregional Learning through the collection and discussion of Good Practices (PGs) aiming at enhancing the authentic tourism in partner regions, on the other hand Status Quo Assessment and Action Planning for helping the partner locations in their pursuit to become more integrated and integral players in local/regional tourism, based on their recognized and properly used authentic cultural assets. Phase 2 is dedicated to the implementation of the Action Plans aiming at enhancing authenticity-based tourism. The project has been implemented in a partnership with 9 institutions in 8 countries both from Western and Central and Eastern Europe.

Due to its outstanding cultural heritage both in terms of material and immaterial dimensions with a wide and diverse portfolio of museums, theatres, archaeological sites, historical cities, industrial sites as well as music and gastronomy, Europe has gained international attention of visitors. Challenging that, strategic management of cultural portfolios has become important either by public or private initiatives. Successful place-based regional tourism policy requires the integration of local and regional players for designing appropriate measures, actions which would target different challenges like sustainable development, adaptation to changes, integrity for long-term viability. Interreg projects funded by the EU has the potential to helping partner regions to either developing or fine-tuning their policies through interregional learning which may lead to knowledge spillover effects.

This current study aims at identifying knowledge spillover effects due to the interregional learning of Phase 1 by qualitative measures. During the first phase, 31 GPs has been identified and discussed by participants in the field of (1) New evaluation methods of local authentic tourism potentials, (2) Public-private cooperation in cultural product, service, and destination development, (3) Vertical and horizontal cooperation mechanisms and (4) COVID-19. The analysis will carry out the range of those GPs which have been incorporated to the significant share of Action Plans developed during the project and will evaluate how key ideas have been transformed into concrete interventions considering the wide range of local specific attributes.

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Relations of Prime and Fibonacci Numbers and Practical Implementations in Risk Management

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Abstract

Using Generalized Autoregressive Heteroscedasticity (GARCH) models, we assess the casual relation between prime and Fibonacci numbers on simulated time-variant volatility. Recent literature in technical analysis requires Fibonacci numbers to determine possible support and resistance levels, under market efficiency hypothesis. With a linear regression model, we can estimate the number of primes between two Fibonacci numbers, based on it, we evaluate how time-variant volatility can fluctuate among Fibonacci thresholds and Prime numbers. We also evaluate how this behaviour can affect Value at Risk and Expected shortfall models. Such risk management tools are widely used nowadays in risk management, therefore our results can have practical implementations. Thus, this paper makes a new contribution to the debate on the feasibility of technical analysis.

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Fostering Energy Transition: How Local Authorities Can Overcome Challenges in Biogas Projects

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Abstract

In a global context shifting towards energy transition, anaerobic digestion, despite its potential as a renewable energy source, faces significant challenges, especially in France. This research examines the critical role of local authorities in the development of biogas projects, which confront a 20 to 30% abandonment rate mainly due to local opposition, coordination problems among stakeholders, and issues of territorial governance.

We employed semi-structured interviews with stakeholders involved in anaerobic digestion to identify the key functions of territorial intermediation that local authorities could perform to encourage the deployment and success of these projects. Local authorities act as intermediaries by ensuring spatial and cognitive proximities between actors, mobilizing territorial resources, fostering local anchorage, establishing trust among local stakeholders, and actively participating in the supply chain and purchasing of the energy produced.

This research highlights the multifaceted role of local authorities in navigating the complexities of anaerobic digestion projects. By acting as territorial intermediaries, they can address challenges such as local resistance and governance issues, thereby facilitating successful project implementation and contributing to the broader objectives of sustainable energy development and environmental transition in France.

Ethnical Culture as a Basis of a Local Development: Gyimesbükk/Ghimeș-Făget (RO)

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Abstract

The purpose of the study is to present the case of the village Gyimesbükk (Ghimeș-Făget) in the Eastern Carpathians (Romania). The village is located at the former border between Hungary and Romania and thanks to this position there were still many, partly ruined objects (railway guardhouse, fortress, quarantine-house, church) at the former border. In 2008 local and non-local actors decided to use, to renew these objects and to create new symbols to gain tourism for the village. Year by year there were next buildings renewed and the cultural and symbolic heritage became a basis of an ethnical and cultural tourism in the region. Gyimesbükk became a part of the offer Hungarian travel agencies, in the village there were museums, historical trails, new pensions and restaurants opened. The village became able to sell his position, his culture for tourists which catalysed the local economics for one part of the population.

On the Gender Pay Gap in Germany

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Abstract

Although a broad public debate on equal treatment in Germany, the conditional Gender Pay Gap is still pronounced and accounts for about 10 to 15 percent to the disadvantage of females. In this study, we add to the existing literature in several aspects. First, we consider the Oaxaca Blinder Decomposition together with the data and the choices done in more detail. Second, we control not just for individual and firm characteristics, but also for unobserved heterogeneity of the individuals and the firms. Third, we focus on regional heterogeneity; an issue that has not been stressed together with unobserved heterogeneity before. For this purpose, we make use of vast information of German employees, who work subject to social security contributions. The data basis covers a 10% sample of all fulltime working employees in Germany, such that sufficient variation is given. Although we consider a cross-section in 2018, we can build individual performance measures based on the entire (observed) employment and unemployment biography of each individual. Additionally to these observed individual performance measures, we control for unobserved heterogeneity by the so-called Card-Heining-Kline-effects, who provide measures for unobserved heterogeneity for this kind of data for cross-sectional analysis. First evidence is in line with the often estimated pay gap in Germany. However, unobserved heterogeneity matters and changes the relative composition of the pay gap. I.e. the endowment effect becomes stronger and the coefficient effect becomes less pronounced, indicating, that a part of the observed pay gap can be explained by unobserved heterogeneity. However, it does not mean that it is not discrimination. This aspect we discuss in more detail.

Unveiling Automation Anxiety and Inequalities in Cities

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Abstract

Since the Luddite movement that railed against the ways that mechanized manufacturers and their unskilled labourers undermined the skilled craftsmen of the day, automation technologies are a source of displacement effects, largely conceptualised and empirically proved in a vast literature, at the point of leading to an automation anxiety. This paper claims that, despite their non-manufacturing nature, cities are not exempted by the negative effects of automation. The paper empirically proves such a statement by analysing the effects on jobs and wage differentials among groups of workers associated with the diffusion of robot technologies in Italian cities in the period 2012-2019. Results are clear. Automation technologies in the form of robotisation do displace jobs, harming particularly low-skilled workers in non-metropolitan manufacturing regions, where inter-group wage inequalities increase. Importantly, through the creation of high-skilled jobs generated by the automation process in neighbouring non-metropolitan manufacturing regions, also cities experience a rise of inter-group workers inequalities. These results call for appropriate policies to cope with the changing occupational skills requested by the labour market.

Mapping the Evolution of Regional Digital Divide in Hungary

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Abstract

The new dynamics of digital economy leads to inequalities and one form of such inequality is the so-called digital divide, which is still an investigated topic. The term emerged three decades ago and its origin is related to digital technological conditions. At the early 2000s, however, the interest of policy makers in the topic decreased, considering the extent of the population's access to digital technologies (computers, Internet). At the same time, it became increasingly clear to researchers that inequality could stem from the differences in ICT skills as well.

This dimension of inequality is still primarily derived from the lack of technological infrastructure required for supporting digital connectivity on the one hand, and the differences in the level of ICT skills on the other. The phenomenon can be interpreted at the level of individuals, households, businesses, and geographical areas. The latter can be defined as regional digital divide, whose growing scale poses a number of challenges, especially in less developed regions. Latest results of the Digital Economy any Society Index (DESI) reveals that Hungary has made a significant progress in integrating digital technologies, but there is still a significant gap in digital skills, and the level of skills varies significantly across the regions in the country.

Out of several arising questions related to digital divide, the present research seeks to address, related to the question: is there a digital divide in Hungary in terms of ICT skills, if so, how has it changed over the past decades? If so, what are the changes that have taken place and how has the divide evolved? The research aims at revealing the role of geographic location and ICT skills in changing digital divides through the example of Hungary. It also informs stakeholders to develop initiatives to promote digital literacy, to close the digital gap.

The study investigate the regional digital divide in Hungary based on the data of population census on NUTS3 county level. The identification of occupations according to ICT skills is based on the OECD ISCO code-based categorization. In the perspective of 15 years, results show that regional digital divide can be detected in Hungary on the NUTS 3 level of counties, and it is changing over time. It seems that regions with lower level of digitalization have difficulty changing their relative position. In contrast, based on the employees pursuing digital-intensive occupations, one third of the counties perform above average and can be considered digitalized in decades. Furthermore, industrialized regions in Western Hungary tend to have a relatively higher concentration of ICT specialist-intensive occupations, whereas rural regions with universities primarily have occupations requiring generic ICT-skills.

Evaluation of Implementation Timing of COVID-19-related Policies and Regional Tourist Fluctuations: A Panel Data Approach

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Abstract

COVID-19 has brought about major changes in travel and stay associated with tourism and business. The decrease in the consumption of tourists and business travellers in the areas had a major impact on the industries and local economies related to accommodation, food and beverage services, tourism, and transportation services. The purpose of this study is to analyse how COVID-19 changed the number of tourist and business overnight guests at prefecture level. In this paper, we try to evaluate the relationship between the implementation timing of related policies for COVID-19 such as emergency declarations, GoTo travel campaigns, vaccinations, and the Tokyo Olympics and the number of tourist and business overnight guests within and without the prefecture. We focus on the monthly changes in the number of overnight travellers in each prefecture before and after COVID-19, and estimate the relationship between the number of overnight guests, the number of new positive cases, and the implementation timing of COVID-19-related policies applying the panel data analysis. It is shown that during the implementation period of these policies, the number of tourist guests from outside prefecture have been significantly affected. This analysis contains useful information that contributes to the formulation of COVID-19-related policy.

Keywords
Regional Overnight Travel, COVID-19, Policy Timing Evaluation, Panel Data Analysis.

JEL Classifications
R15, Q54, Z30

The Transformation of a Rural Area into a Functional Urban Area through a Hungarian Example

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Abstract

By the middle of the 20th century, the Szigetköz, a small area in the north-western corner of Hungary with a specific ecology, had become one of the country's key agricultural areas (described by many sources as the country's breadbasket). However, the agriculture of this area with its significant agro-culture has been largely transformed. As a result of the intensive development of the region (most notably the expansion of the Győr agglomeration), the agricultural production function of the Szigetköz settlements, which supplied and served local markets and needs, has been replaced by a series of suburban areas with urban functions, which have been created by the Győr agglomeration. For the analysis of the transformation of the area I used the databases of TEIR, KSH, NéBIH, MÁK, Arcanum Mapire and FÖMI. Examining the land use of the settlements, based on contemporary descriptions and maps, it can be said that until the beginning of the 20th century agricultural production was structured in zones, with concentric circles, where a belt was formed according to the natural conditions. At present, however, larger territorial units (cities) are 'enclosing' smaller areas and exerting a centralised influence on the development of agricultural production, bypassing the potential of natural resources, i.e. the development of an agricultural economy based on local resources. This means the disappearance of agricultural production belts in villages, which had been concentric circles, replaced by zones around towns and cities. By the 21st century, the small kitchen gardens which used to occupy large areas and which were typical of the past, with a wide range of crops, are now scarce and are being replaced by the construction of family houses and estates. Small plots are not common, and there is a significant proportion of monoculture arable crops.

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Mapping Regional Knowledge Flows in the Software Industry

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Abstract

Software is a keystone industry in the modern digital economy. Yet we know surprisingly little about geographic distribution of software developers and capabilities. On the one hand, software is immaterial, has low capital and no marginal costs to produce, and its production seems amenable to remote collaboration; suggesting that successful software could come from many places. On the other hand, we observe famous clusters in Silicon Valley, London, and Berlin, but also in emerging places like Prague and Bengaluru. Together, these observations suggest that there is immense value in software clusters, but also that new clusters can emerge in relatively short time frames.

To go beyond observation and understand mechanisms behind these patterns, we need data. It is difficult to derive information about capabilities in software from sources like patents. In this work I present a dataset on nearly 35 million question and answer pairs sourced from Stack Overflow, the largest online platform for asking questions about computer programming. I geolocate posters at regular intervals to country and FUA urban regions. I use the resulting dataset to map knowledge flows between countries and regions, noting when one place answers a question of another.

Preliminary results indicate a growing diffusion of software capabilities over time: countries like India are answering relatively more questions that they used to. Indeed, a network-based ranking approach ranks Bengaluru as the leading city in terms of answering questions. On the other hand, knowledge flows about relatively new languages and technologies like Rust and Tensorflow continue to spread from core places like Silicon Valley to the rest of the world. I argue that this kind of fine-grained data has significant unrealized potential to quantify local, regional, and national capabilities and their evolution.

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Long-Run Dynamics of Carbon Dioxide Emissions, Economic Growth and Energy Efficiency at City Level in China

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Abstract

Headlines around the world have focused on the number of coal-fired power plants being built in China: "China is building six times more new coal plants than other countries". China's coal consumption continues to rise since 2017, especially after Russian-Ukraine crisis, and energy security became a priority. In 2022, China's coal use increases by as much as 4.3%, and likely to continue this trend at 2023. Whether China can peak its coal use before 2030 causes lots of attention around the world, and China faces a mounting pressure to realize its promise. In this paper, we hope to offer some insights by addressing China's carbon peaking concerns from the perspective of energy efficiency.

We estimates the linkages among total Carbon dioxide (CO_2) emissions, total GDP and energy efficiency using China's city panel data from 2001 to 2019. We first apply the extended stochastic frontier analysis (SFA) method that decomposes persistent and transient efficiency to estimate the city-level energy efficiency in China. SFA has the advantage of capturing the inefficiency error components and statistical noise in energy efficiency evaluation. Secondly, based on the calculated energy efficiency scores, the respective stage of economic development and energy mix of different provinces, we provide suggestions for realization of carbon peaking for different provinces. Thirdly, we then investigate the long-run dynamics among CO_2 emissions, economic growth, and energy efficiency by employing the panel-based error correction model. Our analysis shows that GDP has a positive impact on total CO_2 emissions in the short run and gains in energy efficiency have a significant negative effect on emissions in the long run. We provide similar insights after controlling the effects of the business cycle and cross-sectional difference. In addition, given the economic outlook of Chinese 14th five-year plan and different scenarios of energy efficiency improvement, we can roughly estimate the peaking level of CO_2 emissions for whole country and different provinces. Although China is leading the world renewable industry, we argue that by improving energy efficiency, China can achieve its carbon peaking target while balancing the economic growth and energy safety concern.

Theoretical and Empirical Considerations of the Creative Cities Sustainable Regions Programme in West Hungary

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Abstract

The global and regional socio-economic changes of recent years have necessitated a reassessment of traditional investment and rural development strategies, while valuing creativity, knowledge production, socio-economic cohesion and social innovation. It is therefore also worthwhile to focus on the so-called "soft factors" (creativity, innovation capacity, new knowledge creation, knowledge transfer, trust, cooperativeness) and their measurement. In response to the challenges mentioned above, the Institute of Advanced Studies in Kőszeg (IASK) has developed in recent years a concept aimed at providing sustainable solutions and attractive living conditions in response to new situations caused by global trends, taking into account local assets (e.g. local cultural heritage). The Creative City Sustainable Regions (Kraft) integrative urban and rural development strategy builds on a combination of three major potentials. The first is the potential for creativity and innovation, and the ability to generate new knowledge, going beyond conventional thinking, stepping out of the box, and developing new ideas and new solutions. The second is the constant development of social and relational capital and the opportunities offered by networks and interconnections, as well as the cooperative skills and abilities that form the basis for the cooperation needed for development. The third is the principle of sustainability, which guarantees the social, economic and ecological sustainability of development. The Kraft concept is based on a multidisciplinary (and multi-layered) spatial approach. It identifies quantifiable resources at the locations concerned and those that are difficult to measure - mainly internal ones - along several dimensions. This presentation will discuss how such elements are integrated and, in particular, how cultural heritage can be included in the model. As a practical implementation for the theoretical model, the presentation will introduce the development experiences of some model areas in West-Hungary. The Szigetköz region that lies near the Danube River appears to be a popular and prosperous area, but the local economy and society are clearly trying to thrive in an environment of unsustainable processes in the long term. The Szigetköz region has a particular importance for its water and landscape assets, which are under constant threat from climatic and human changes (from issues of water availability to the continuous change in agricultural land use and urbanisation trends). The challenges can be met by reassessing traditional cultural heritage or, for example, by sustainable 'new tourism'. Another example could be the functional revitalisation of the heritage elements of Kőszeg in West-Hungary. This small town of 12,000 inhabitants, rich in historical heritage elements, has seen local developments that are slowly boosting the development of local society. Specific development actions have enhanced the existing tourism and cultural offer (for example, through the revitalisation of the local synagogue), but they may also have triggered more complex socio-economic processes. This presentation will introduce the above mentioned theoretical concept, and will try to outline the development potential of West-Hungary with the help of some empirical findings.

Measuring and Analysing the Competitiveness of Hungarian Urban Regions

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Abstract

This presentation aims to present the Competence and Institutional Competitiveness Index (KIVI) and the results at the city-region level measured by the index. For decades, competitiveness has been a buzzword that has caught the attention of policymakers, economic development institutions, researchers, and international organisations. Regional competitiveness indices typically focus on the broad institutional environment. However, in addition to national-level approaches to competitiveness, since the 2010s there has been an increasing focus on measures and analyses focusing on smaller geographical units, as it has become increasingly clear that different territorial units are on different growth paths. The spatial concentration of the external factors that influence and shape firms' competitiveness varies. However, it is important to stress that the external environment is only one aspect of the factors that influence competitiveness and that the other aspect, the individual factors and competencies of firms, should not be overlooked. Even Porter and Krugman agree that competitiveness is not primarily a matter for countries, regions, or territorial units, but for the companies operating there. In our view, both institutional factors and individual competencies are important for territorial competitiveness. On the one hand, poor institutional conditions can significantly reduce the performance of otherwise competitive firms, and on the other hand, institutional development alone can only partially compensate for weak firm competencies (Szerb et al. 2023). Our Competence and Institutional Competitiveness Index (KIVI) is a new composite indicator for the analysis of small business competitiveness. The methodology incorporates individual firm competencies as well as institutional and industry factors, making it suitable for a complex measurement of the external-internal operating environment of small firms, and for the assessment of firms and territorial units. Competitiveness is measured at the urban agglomeration level, which is considered a real economic spot suitable for examining the differences arising from territorial disparities. Institutional and industry variables are constructed using indicators of external agglomeration factors affecting firms, many of which are developed in-house. Firm-level data were calculated using the methodology of the Hungarian Small Business Competitiveness Index. (Szerb et al. 2023). The final sample included 1283 Hungarian SMEs and 20 Hungarian urban agglomerations. If the institutional variables are well correlated with the level of development of the agglomeration, such a relationship with individual factors is not, which means that the environmental factors of competitiveness and the aggregate individual competencies of firms do not necessarily move in the same direction. To empirically demonstrate the application of the KIVI, three urban agglomerations (Budapest, Pécs, Nyíregyháza) were analysed in detail (Szerb et al. 2023), following the presentation of aggregate data.

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Safe Zones in Northern Syria: Displacement, Humanitarian, and Security Issues

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Abstract

The more than a decade-long war in Syria has created one of the most serious humanitarian crises of our time and one of the worst refugee crises since Word War 2. Since the start of the conflict, most of the forcibly displaced Syrians are living as refugees in states bordering Syria. Turkey, with 3.2 million Syrian refugees on its territory, is one of the world's largest refugee hosting states, and is also the country most affected by the humanitarian consequences of the conflict. On the other hand, the relationship between Turkey and the Syrian war involves geopolitical, foreign policy and security factors that go far beyond the refugee issue and the conflict's humanitarian impacts. In parallel with the surge in refugee population, Turkey has also attempted to address the refugee issue outside its borders, most notably by creating a buffer zone/safe zone between Turkey and Syria. Although the concept is closely linked to Turkey's military interventions in northern Syria and the foreign policy intentions behind them, Ankara has justified the existence of safe zones primarily on humanitarian grounds and the possible large-scale repatriation of refugees and IDPs. The conference presentation will approach and analyse the safe zones in northern Syria from the latter perspective. The aim is to examine the situation of forced migration, refugee return and the humanitarian situation in a de-facto entity caused by a protracted armed conflict and a geopolitical environment that, on the one hand, has no international legitimacy and, on the other, exceeds humanitarian concerns. After a brief theoretical framework and an overview of safe zones in past conflict areas, the paper is divided into three main sections. First, it discusses the evolution of Turkey's safe zone concept during the years of the Syrian conflict, focusing on the circumstances that shaped Turkey's position. Second, it examines how the numbers and situation of Syrian refugees and IDPs have changed with the establishment of the safe zones in northern Syria, and whether the hopes (and promises) of large-scale repatriation have been fulfilled. Third, the research will also cover the humanitarian situation inside the safe zones, with a particular focus on the humanitarian needs of the affected population, the implementation of humanitarian aid and the international and local actors involved. The results and findings of the research will be based mainly on qualitative analysis of reports from relevant international and local organisations, Turkish government documents available in English, articles from relevant press articles. In addition, in-depth interviews with experts will be conducted to explore perceptions of the effectiveness and challenges of the safe zones.

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Approaches to the Sustainability of the European Regions Based on the New Energy Sustainability Model for the Transition to Climate Neutrality

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Abstract

Europe's energy sector is important for economic growth and European security. This sector is a generator of prosperity for society and its sustainable development aims to modernize and improve energy services and boost economic competitiveness. At regional level, the use of renewable resources is proposed to guarantee energy security, balance European independence, and efficiently interconnect European regions in the Climate Neutrality Strategy. Accelerating the clean energy transition of the European regional economies means increasing renewable energy consumption, phasing out fossil fuel imports and electrifying hydrogen industries. We aim to analyse the sustainability of the European regional economies based on a new energy sustainability model for the transition to climate neutrality. The methods used consist of a literature review on the sustainability of the European regional economies in the context of the transition to climate neutrality, consolidation of a database and econometric modelling. The results of the study will be useful for economic and energy policy makers to identify regional vulnerabilities.

Social Network Analysis and Qualitative Insights to Understand Learning Processes Within Clusters. A Case in the Vegetable Seed Breeding Industry in China

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Abstract

Over the past decade, social network analysis (SNA) has gained extensive traction as a tool for relational exploration, notably in investigating the significance of cluster networks within learning and innovation processes (Broekel et al., 2014; Giuliani, 2007; Golra et al., 2023; Hjertvikrem and Fitjar, 2021; Maghssudipour et al., 2020; Torre et al., 2019). However, empirical studies have predominantly delved into the structural aspects, network evolution, and the influence of proximity factors, but they have somewhat overlooked the broader context shaping these networks' existence (Glückler and Panitz, 2021).

Merely focusing on structural analysis limits the comprehensive potential of relational analysis, which truly thrives when it encompasses both the topological network characteristics and their contextual significance (Pachucki and Breiger, 2010). As highlighted by Glückler and Panitz (2021), achieving this demands a symbiotic relationship between formal network analysis and broader relational approaches, necessitating deep immersion in the field. This immersion extends beyond processing secondary data; it requires a qualitative understanding fostered by mixed-method approaches. However, the integration of qualitative and quantitative network analysis in mixed-method designs remains an emerging area (Crossley, 2010; Crossley and Edwards, 2016; Glückler et al., 2020; González Canché, 2019; Nooraie et al., 2018). Glückler's 2021 meta-analysis revealed that only a small share of studies used multiple methods to analyse networks, indicating an underexplored avenue in current research.

In this paper, we propose to conduct a social network analysis and inductive qualitative study to delve into the mechanisms shaping cluster knowledge relations, focusing on local firms in China's Shouguang cluster within the vegetable seed breeding industry. This study hopes to contribute to understanding the local fabric of firm's learning process and mechanism, provide an analytical framework by integrating social network analysis with qualitative study, and offer some policy discussions about local learning and cluster development.

This research draws from primary data collected through face-to-face interviews and questionnaires supplemented by secondary sources like official statistics and media coverage. Social network analysis identifies knowledge networks' structures, while qualitative analysis of interviews uncovers the underlying mechanisms driving their formation.

Our preliminary findings reveal that the technical knowledge network in the Shouguang cluster comprises various connections, including local, non-local, temporary, and non-temporary networks. Inductive analysis highlights three interconnected themes — value, proximity, and trust — that categorize the process of establishing knowledge connections. These themes further branch into aspects like technical knowledge value, social capital value, geographical proximity, organized proximity, personal trust, organizational trust, and more. A "Value-Proximity-Trust" motivation model emerges, explaining how knowledge networks are constructed and impact the level and structure of knowledge flows.

Local Impact Factor (LIF) Analysis for Spatial Autocorrelation

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Abstract

Spatial autocorrelation measures have become vital tools in empirical research, particularly during the exploratory data analysis (EDA) phase. EDA is crucial for identifying spatial dependencies and patterns in various phenomena. Traditional measures of spatial autocorrelation often operate under the assumption that the variable being studied follows a normal distribution. This assumption, however, can be overly restrictive. In real-world scenarios, especially in published studies, the data frequently contain outliers that deviate significantly from a normal distribution. These outliers can skew the results of spatial autocorrelation analysis, leading to misleading conclusions about spatial relationships and dependencies. To address this issue, we introduce the Local Impact Factor (LIF), a measure inspired by the robust indicators found in the literature. The LIF is designed to account for the presence of extreme values in the data and their specific locations on the map. This approach is fundamentally different from traditional measures that might excessively focus on central tendencies or assume normality. By acknowledging the presence and impact of outliers, the LIF provides a more nuanced and accurate picture of spatial relationships. The LIF operates by assessing the potential impact of a perturbation in the reported value of a specific location. This assessment aims to identify the most influential areas on the map, considering not only the extreme values themselves but also their spatial context. This methodology is particularly relevant in fields like environmental studies, urban planning, and public health, where spatial outliers can significantly influence the overall analysis. Our results reveal that the area's most influential in terms of spatial autocorrelation are not necessarily those with the most extreme values. Instead, they are areas that, due to their specific location and the values they hold, most significantly affect the overall measure of spatial autocorrelation. This finding challenges the traditional emphasis on extreme values alone and highlights the importance of considering the spatial context in which these values occur. In conclusion, the Local Impact Factor represents a significant advancement in the field of spatial analysis. By incorporating the influence of outliers and their spatial context, the LIF offers a more robust and comprehensive tool for exploratory data analysis. This measure is not only a valuable addition to the toolkit of researchers and practitioners but also a step towards a more nuanced understanding of spatial phenomena.

Institutional Relaxation, University Knowledge Spillover, and Start-up Formation: Evidence from Amendments to the Law of Promoting the Transformation of Scientific and Technological Achievements

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Abstract

Institutional restrictions on the transformation of scientific achievements significantly affect university–industry collaborations. Exploiting the amendments to the Law of the People's Republic of China on Promoting the Transformation of Scientific and Technological Achievements, this study examines the effects of relaxing these constraints on the formation of start-ups near universities. The results suggest that the amendment significantly influences the formation of start-ups, which decreases significantly with distance over a range of approximately 9 km. The mechanism is the amendment increasing the transfer of patents invented by universities to new start-ups, promoting collaborative inventions of patents between universities and new start-ups, and enhancing the innovation capacity of start-ups around universities. This study identifies a substitutional relationship between the external institutional relaxation by the government and the internal capacity strengthening by the university. Moreover, it offers evidence on the spatial effects of innovation policies targeting universities on the formation of start-ups and insights into improving the coordination of innovation policies within and outside the organization.

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Urban Waste Management Reinforcement for Combined Environmental and Socioeconomic Benefits Globally

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Abstract

Global urbanization requires a proactive approach to municipal solid waste (MSW) management, combining forecasting, evaluation, and optimization of systems. Increasingly, researchers are emphasizing predictive analytics, technological advancements, policy reforms, and management-focused solutions to address the future challenges of global MSW management. Given this, our study aims to use cutting-edge methods to investigate the current situation of global MSW and to forecast the future developments. A reinforced MSW management system is designed integrating localized development realities with trade-offs between different technical parameters and potential of future MSW for the evaluation of combined environmental and socioeconomic benefits under different management scenarios. This will provide decision support for achieving the global sustainable development goals.

To address the data gaps on MSW across different countries or regions, we integrate Shared Socio-economic Pathways (SSPs) and Machine Learning to estimate the MSW generation and composition from 2030 to 2100, based on the available historical data, which results in a forecast database of MSW. Next, we apply Material Flow Analysis from a life cycle perspective to evaluate the resource, energy and socioeconomic implications of various MSW components under different disposal technologies, as well as the associated environmental impacts, which yields a functional unit parameter database of MSW. Using the above two databases, we construct different scenarios of MSW management with varying levels of intensity. By optimizing the shares of different technologies, we assessed the future potential of MSW in terms of resource and energy recovery, environmental impact mitigations, and socioeconomic contributions.

Our research aims to explore the following aspects: (1) The generation and composition of MSW, and how they are influenced by various socioeconomic factors (such as aging, education, poverty level, etc.), as well as their projected trend from 2030 to 2100; (2) The resource, energy and socioeconomic implications of different urban MSW treatment technologies, and the associated environmental impacts throughout the life cycle; (3) The potential combined socioeconomic and environmental benefits from different MSW management scenarios with varying levels of intensity in the future. (4) The necessity and feasibility of developing advanced integrated MSW management systems that can account for the regional differences and future development conditions, and tackling climate and environmental risks posed by the current waste management practices. Our research provides a comprehensive strategy that integrates predictive analytics, technological advancements, policy reforms, and management-focused solutions to effectively tackle the future challenges of global urban waste management.

Spatial Analysis of Crime in Ecuador

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Abstract

According to the United Nations (2021), the Latin American and the Caribbean region has become the most violent region in the world. Within this context, Ecuador has experienced an increase in violence due to the presence of street gangs, added to the presence of criminal groups from Colombia, Mexico and Europe for being a strategic point for cocaine trafficking. By 2022 the rate of violent deaths was 25.32 violent deaths per 100 thousand inhabitants, making it one of the most dangerous countries in Latin America. Within the country, the cantons that register the highest violent death rate are: Pueblo Viejo, La Troncal, Naranjal, Nangaritza, Esmeraldas, Quevedo, El Empalme, Huaquillas, Guayaquil and Pedernales with 41.85, 40.45, 37.88, 36.10, 34.47, 33.61, 31.09, 30.91, 30.20 and 29.71 violent deaths per 100 thousand inhabitants, respectively. These cantons are located in the coastal area, specifically in the provinces of Los Ríos, Guayas, Esmeraldas, El Oro and Manabí, one in the Sierra region, in the province of Cañar, suggesting that there is a spatial pattern of crime. This may be due to the struggle for territories by more important criminal gangs (OECO, 2023).

Based on this, the objective of this study is to determine the level of spatial dependence of crime, measured through violent murders, in Ecuador and its determining factors, emphasizing on the effect of the judicial system. To carry out the study, different data sources are used: the Ministry of the Interior, the Ministry of Education, the National Employment and Unemployment Survey (ENEMDU), the State Attorney General's Office, the Ombudsman's Office, the National Service for Attention to Adults Deprived of Liberty and Adolescent Offenders (SNAI) and the Ecuadorian Observatory of Organized Crime (OECE). Our database accounts for information of 218 cantons from 2011 to 2021. An Exploratory Spatial Data Analysis and a spatial econometric models are used.

Based on the LISA indicator, different types of clusters were identified: clusters of crime, clusters of non-crime, crime islands, non-crime islands and changing cantons. Crime clusters prevail over time, showing greater presence in the areas of the Coast region, while the non-crime cluster locates in the highland region. Regarding the spatial econometric results, the spatial correlation parameter is positive and significant, which indicates that the murder rate in neighbouring cantons influence on the murder rate of a given canton.

Our variables of interest related to the judicial system are significant. The judicial congestion rate and the unsentenced prison index are associated with higher violent murder rates. This evidences the inefficiency of the judicial system, which constitutes a driver of crime. Other factors such as basic needs poverty rate and the level of drug seizures are associated with high crime levels. The employment rate and the level of serious complaints decrease the level of murders. Other variables such as the police efficiency, the school dropout, the population density were not significant to explain the crime rate.

Probability of Migrating and Universities in Peru

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Abstract

During the period between 2016 and 2018, a licensing process of universities took place in Peru by the National Superintendency of Higher Education (SUNEDU, acronym in Spanish), created in 2016. As a result of this process aiming to ensure the quality of higher education, many universities had to close. In Lima, which has concentrated 42.6% of the total number of universities in the country since 2009 to 2019, around 50 universities closed. Motivated by this, this study aims to determine the impact of universities on the probability of migrating within Peru.

To do so, data at the department level from 2009 to 2022 regarding universities from SUNEDU Register is combined with the National Household Survey (ENAHO, acronym in Spanish). Our database contains 17385 observations. Using these data, two models are estimated. The first model uses as dependent variable, a dichotomous variable that takes the value of 1 if a person has moved. The second model uses as dependent variable, a dichotomous variable that takes the value of 1 if a young person lives in a different place than the place where she/he studies. For both cases, Logit models with clustered standard errors are estimated. In this manner, we study migration of people and mobility of students.

The descriptive statistics show that the number of non-migrants has increased during the licensing process of universities and the number of migrant's intra-department increases. Our preliminary results of the econometric model shows that individual characteristics of household heads explain the probability of migrating. As the age of the household head increases, the probability of migrating reduces. The income increases the probability of migrating. More interestingly, the contextual characteristics of the destination place influence on the probability of migrating. For instance, when the percentage of people in the destination place with access to tapping water and internet increases the probability of migrating to that place also increases. The number of universities in the destination place, which is our variable of interest, is significant and positive, which indicates that universities are an important driver of internal migration in Peru. To further explore the effect of the licensing process of universities in Peru, we will consider the growth rate of universities. Unfortunately, we do not account for results for the second model yet.

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The Urban Industrial Landscape: How Digital Advancements Reshape Location Choices

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Abstract

This research provides a fresh look at how the growth of digital technologies is affecting where industries choose to locate within cities. By analysing data from over 1,600 South Korean firms using a generalized structural equation model, the findings go beyond theory to show actual patterns. A key finding is that digital advances lead to better productivity and use of space, which makes urban areas more attractive to industries. However, the expected link between digitalization and environmentally friendly production isn't as straightforward as previously thought. This study sheds light on the complex ways technology is redefining urban industrial zones, focusing on the indirect effects of digitalization on where industries settle, thereby advancing the scholarly conversation about the evolution of urban industrial spaces.

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Are Linguistic Policies a Barrier to Interregional Migrations? A Case of Study in Catalonia

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Abstract

This study explores the impact of linguistic policies on interregional migration, focusing on the Linguistic Normalization Act (LNA) implemented in Catalonia in 1983. Utilizing a synthetic control method with lasso (SCUL) for causal analysis, the research assesses migration flows from various Spanish autonomous communities to Catalonia. The paper contributes to migration literature by employing a quasi-experimental design to investigate language barriers. Initial findings indicate that linguistic policies, particularly those promoting local languages, can act as significant determinants in migration decisions. By analysing migration patterns before and after the implementation of the LNA, this study sheds light on the often-overlooked cultural and linguistic factors influencing migration, providing a nuanced understanding of migration dynamics within Spain.

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Urbanization and Slums: Evidence from Ecuador

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Abstract

Slums represent one of the challenges of urbanization in developing economies. This paper analyses the relationship between slums, urban population, and city expansion in Ecuadorian cities between 1990 and 2010. In particular, we define a slum severity index based on a set of household characteristics such as housing material, basic services, and overcrowding rate and we focus on the growth of territorial extension of cities occurred between the 1990-2001-2010 censuses using historical maps to define the territorial extension of urban areas across periods. We use a two step-methodology to analyse this relationship and perform IV estimates to handle the endogeneity of the relationship. Our results point out that, while in general terms larger cities present a lower level of deprivation with respect to smaller cities, in newly created areas it happens the opposite, i.e. newly created areas present higher slum characteristics in larger cities. The analysis of the drivers suggests urban poverty as the main determinant behind the detected results, while both rural-urban migration and faster urban population growth seems to play a minor role.

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Development of Southeast Asia in the Eurasian Era – The Challenges of Sustainability and Multipolarity

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Abstract

The previous 500-year Atlantic era is now being replaced by a Eurasian era in which the unity of Europe and Asia is taking on a new significance and a new multipolar world order is emerging with the rise of Asian states. At the same time, it must be recognised that the successful realisation of long-term sustainable development requires coordinated international cooperation, which must be viewed not only from an economic, financial, and social science perspective, but also from a geopolitical one. In this context, Southeast Asia, with its 690 million inhabitants, deserves special attention as one of the most important regions of the 21st Century New Maritime Silk Road, which is part of the BRI. It is home to the 10-nation Association of Southeast Asian Nations (ASEAN), which is becoming increasingly important politically and economically. ASEAN is not only the fifth largest economy in the world, but also forms the basis for regional integration initiatives in the Asia-Pacific region. Geopolitically, each country balances between the United States and China, avoiding unilateral engagement and attempting to play a bridging role. The region is of particular geostrategic importance to the two powers, which also strengthens their role in the future of Eurasia. It should also not be forgotten that the Southeast Asian region is particularly vulnerable to the negative consequences of climate change. It is therefore not surprising that ASEAN is committed to sustainability, even if economic development and environmental protection are difficult to reconcile in many of its member states, which poses significant challenges for the future of the region. In addition, the industrialised countries of the West and the developing countries of the Global South have different ideas about sustainability, leading to further tensions on the international stage.

The aim of this presentation is to use a multidisciplinary approach to summarise the most important information about the region and the geopolitical orientation of the individual states and to show how, in the context of the rivalry between China and the United States, the states of Southeast Asia can successfully balance the conflicting interests of the major powers through political, economic and security ties. As not only geopolitical but also geo-economic interests are of great importance in the 21st century, the presentation will also briefly describe the economic situation of each country in order to shed light on their foreign policy. It will also examine progress in the area of sustainable development, concluding that national economic interests should not take precedence over regional and global interests, which of course will require increased efforts by countries in the global South, including Southeast Asia, in the future.

A province Level Input-Output Approach to Assess the Economic Impacts of Morocco's 2023 Earthquake

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Abstract

Economic growth theory gives no consensus about the exact impact natural disasters such as an earthquake, can have on economic growth. Categorizing this impact as positive or negative largely depends on the magnitude of the earthquake, the considered time horizon, and most of all, whether there is a reconstruction impulse package or not. Falling under this topic, our paper aims to quantify the economic loss of the Earthquake that hit Morocco on the 8th of September 2023, as well as to evaluate the impact of the 5-year reconstruction plan, that will account for roughly 9% of GDP. Given the geographically concentrated location of the earthquake, that hit some provinces in the central part of Morocco, our methodology relies on an inter-province inter-industry Input-Output (IIO) table for Morocco.

Assuming that the resources to be spent on infrastructure reconstruction efforts represent the actual loss of capital stock suffered in the provinces, and by allocating the estimated regional capital stock losses on provinces according to each province's share of its regional output, we use an already estimated capital factor demand to output elasticity (Haddad et al., 2022) to compute the intraregional elasticity of sectoral output to regional capital stocks. Then, using these elasticities coupled with the estimated capital stock losses we calculate the regional output loss caused by the earthquake. This information is used to obtain the sector-level F factors representing the unaffected local output. With these factors, we operate a partial hypothetical extraction on the Moroccan IIO system to simulate the damages suffered by each sector.

To estimate the impact of the reconstruction plan, we use the official information on households' transfers and residential reconstruction aids, in addition to the investment efforts to rehabilitate damaged infrastructure to calculate the final demand shocks linked to these efforts. Thus, we build an alternative scenario based on computed numbers for 2023 using the previously estimated capital stock losses, and then the following years with the cumulative demand shocks caused by the relief efforts. For a comparison purpose, we build a counterfactual baseline scenario (i.e the earthquake did not happen) using the IMF 2022-2028 macroeconomic scenario as a reference to construct time series for GDP and final demand components, that will be used with the IIO model to downscale estimates and obtain counterfactual province-level GRP trajectories.

Our findings suggest that the earthquake will lead to a growth loss of 0.23% of Morocco's GDP in 2023. Regarding the reconstruction plan, its impact on Morocco's overall economic growth is expected to be mild. However, it is likely to significantly affect the GRP of the affected provinces, the magnitude of which will heavily depend on whether the allocated funds represent new injections into the economy or merely reallocations of investments across regions.

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A Novel Study on "SOULFUL" in "Information and Business Driven": List of 2020's Pandemic Data for Class; "General and Unification Phenomenon", Japan

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Japan

Abstract

This paper is the study of "SOULFURIAN" who survived the predicament in crisis on digital era in "SOULFUL study" which means phenomenon who survived the predicament in crisis on the digital era. In this paper, the 2020's pandemic crisis is the COVID-19 crisis. Previous theories of novel COVID-19 appear to have a serious deficiency: Because we have been the current crisis of COVID-19 is unprecedented things, In the world, most people do not know about real COVID-19, and all over the world that is not well, completely, understood even among experts yet. Because COVID-19 is happening in reality now. In this paper, following Hayama's study in 2020, 2021, 2022 and 2023 all data over the three years from February 2020 to August 2023. And this paper was analysed from February 2020 to May 2023, and, this paper compares the data on the number of infected and deaths with each data investigated on "traffic modes" and the number of people "not wearing masks" in the shopping street area that new variable that has investigated a variable that has not been studied by other researchers, and analysed discussed the risk factors of COVID-19 which variables are valid and whether there are any other factors by simple regression analyses($p<0.05$). In this paper, simple regression analyses of one hundred fifteen items of data in total were significant, and although the analysis seemed to show a lot of resilience in the use of different "traffic modes" or "not wearing masks" Broadly speaking, there was shown different messages that five items about traffic modes and six items about not wearing masks. In the future, it needs to analyse SOULFUL study in the world including KARAHORIAN as SOULFULIAN, behaviour characteristics of Micro wave era (from the first wave and first silent wave to final wave and silent wave). It is important to study and analyse before, after, and after the N wave with the X crisis, and "Silent Wave" and so on by "The General and Unification Study" that the study proves that all events are closely related perspective in the future. Organizing through this research will become "the assets" to be studied in the next future.

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What Drives the Individual's Perception of the Ecological Transition? Evidence from Spain

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Abstract

This paper is about individual perception about ecological transition in Spain. To do that, a national survey of 7,029 individuals has been implemented in order to obtain a complete overview of several dimensions of ecological transition, both in terms of social preferences related to acceptance of energy infrastructures (e.g., nuclear plants, wind farms, etc.) and actions carried out by citizens (e.g., waste sorting, use of electric cars, etc.). By this way, we can provide an overview of internal (e.g., age, education, etc.) and external (e.g., region, municipality size, etc.) factors that drive peoples' beliefs and actions related with ecological transition. Concretely, we assume that these perceptions are shaped by the urban and regional characteristics, as there are important spatial inequalities (e.g., agglomeration, implementation of green energies, etc.) that interact with individual characteristics generating heterogeneous responses to climate and environmental challenges. Overall, identifying these heterogeneities is of crucial importance in view that ecological transition relies on social support and commitment that may differ across cities and regions according to previously discussed dimensions. In this sense, to ensure this social commitment it is needed to understand the way in which urban and regional specificities shape social acceptance of ecological transition. Our econometric results provide numerous policy implications in terms of understanding mechanisms driving towards ecological transition and designing policy actions to boost this process.

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Spatial Dimension of Ecological Transition and the Social Acceptance of Energy Communities

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Abstract

This paper analyses whether spatial dimension matters in terms of knowledge and social acceptance of Energy Communities (EC), which are conceived as an organizational structure allowing the involvement of citizens in the energy system within a democratic, flexible and innovative framework which ensures the empowerment of population in energy issues as well as stimulates the use of renewable sources of energy in a decentralized network. To do that, a survey of 1,840 individuals has been implemented in several municipalities in Catalonia (Spain) according to a double dimension: urban and rural municipalities with or without EC. Our results provide an overview of internal (e.g., age, education, etc.) and external (e.g., region, municipality size, EC implementation, etc.) factors that drive peoples' perceptions related with EC. Accordingly, the aim of this paper is to contribute to the empirical literature on the social acceptance of ECs by focusing on the spatial dimension to understand how space shape individuals' perceptions related to the organisational solutions to be implemented to boost ecological and energy transition. Accordingly, our econometric results provide numerous policy implications in terms of understanding the way in which spatial dimension shape knowledge and acceptance of EC, as well as the catalysers' role of them once settle down.

Telework in Portugal – Regional Trends and Perspectives in Post-COVID Times

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Abstract

Work habits and organization have changed in recent years, especially regarding the workplace. Although changes were already happening before the pandemic context, it was with COVID-19 that the need to adopt different work regimes accelerated, especially to control crowds and maintain economic production, which became evident with the growth of teleworking. There was a significant increase in the number of employees working remotely across the EU, a trend that appears to continue in post-COVID times. This work addresses the evolution of remote work in Portugal, comparing the pandemic and post-pandemic periods. For the comparative analysis, we collected data on the Portuguese workforce from the Labour Force Survey ad hoc module of the National Institute of Statistics (INE), reported for 2019, 2020, 2021, 2022, and 2023 (data per quarter from the second quarter of 2020). These data were subsequently stratified by NUTS 2 region and economic activity classification. The statistical analysis performed was complemented by interviews with companies, where entrepreneurial choices are analysed. The results point out the reinforcement of teleworking as a response to the reality brought by the COVID-19 pandemic, with almost a quarter of the workforce working entirely remotely at the peak of the pandemic. In the post-pandemic context, fully remote work decreased, but the hybrid regime gained a lot of preponderance, with values varying from 12% to 19% per quarter. Additionally, regional realities proved to be heterogeneous, with the strongest economic regions (with economies based on specialized services in which employees have a higher degree of training, as are the Information and Communication Activities, the Financial and Insurance Activities, or the Consulting, Scientific, Technical and Similar Activities), with emphasis on the Lisbon Metropolitan Area (LMA), showing the highest proportion of employees working remotely. Conclusions point to a regional difference, in which Lisbon Metropolis (LMA) leads the regions mainly due to the type of economic activities that characterize it. Focusing on LMA, it was also possible to stipulate future strategies concerning the use of the teleworking regime by companies. This work is framed on the REMOBIL project and its approach to teleworking, including the characterization and analysis of the Portuguese context.

Keywords
Telework; Hybrid regime; Remote regime; Regional patterns; Portugal.

The Four Waves of Regional Policy: Towards an Era of Trade-Offs?

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Abstract

While regional policy is not a unitary concept and comprehends many different types of intervention, it has also evolved in time, most notably in terms of justification and objectives. The conceptual bases and political motivations on which it is implemented nowadays are very different from those of the 1950s and 1960s, and the objectives have also evolved, although with a certain degree continuity which will be clear later in the paper.

Understanding the conceptual evolution of regional policy is helpful to understand the reasons why, nowadays, it is applied, and what might be its next evolution. For this reason, this paper reviews the conceptual developments of regional policy from the Second World War until present times. It will show that three waves have followed to each other, each with different theoretical underpinnings and practical deployment, namely a "disparities", a "competitiveness" and a "potentials" one. The evolution is shown to depend on the theories developed at that time, on the results of previous policy attempts and on the political objectives of policies. The three phases, as always happens with complex concepts, are not fully consecutive and elements of the one are present in the other, so that there is no precise date for the passage from one to another, although, conceptually, there is a clear distinctiveness of each one.

The paper also shows that a fourth phase, one of "trade-offs" might be starting, based on the recent evolution of empirical and conceptual evidence. This stems from the practical and conceptual difficulties in reconciling conflicting objectives, so that choices on which objective to favour will be needed, even if some room for two-way policies still exists.

The aim of the paper is not to provide a history of regional policy, illustrating what has been done and where, nor it is to refer to a history of the political thought on regional policy. Instead, the aim is to provide a stylized historical description of the conceptual advancements and of the justifications and objectives which were developed in time.

While there is a sequential logic of the four phases, these are not disjoint from each other. The ideas developed during a wave often get lower importance in the next one, but are rarely fully forgotten. Moreover, there were several ideas in a wave which anticipated those of the next ones. This also depends on the fact that different scholars are supportive of different theories and, while the pre-eminence of one against another can change in time, the concepts developed by the papers by one are seldom forgotten once other scholars put forward new theories.

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The Territorial Distribution of Amputations and Peripheral Artery Disease Endovascular Treatment Options in Healthcare and Social Context in Hungary

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Abstract

Peripheral Artery Disease (PAD) and Lower Extremity Artery Disease (LEAD) occur in approximately 6% of the Hungarian population. Moreover, lower limb vascular amputations represent serious problem in the vascular care, a lifetime risk, therefore not only the effective revascularization is to be achieved but the importance of the early recognition of peripheral arterial disease, no delay in referral to special vascular care, effective vascular risk prevention and collabouration in multidisciplinary teams should be also emphasized.

During the last few years several studies were conducting to measure these associations between the dependent and independent factors. (Kolossváry et. al., 2017, 2021, 2022, Dózsa et. al., 2020). Additionally, in Hungary a special project was carried out to set up a webpage on vascular epidemiology and treatment data (open, endovascular interventions, amputations including territorial aspects *(hunvascdata.hu).*

The aim of this presentation is to summary the territorial differences within Hungary with regard to the care pathways, treatment options of these diseases and the unwarranted clinical variations. In our presentation we outline the territorial (small districts and county) differences in the incidence, prevalence and treatment data of LEAD and PAD.

We summary the main results and consequences of the last few year studies on the demographic and territorial differences on these diseases and treatment options. In these studies spatial variation at local administrative unit level was evaluated and logistic regression model was run through a retrospective analysis using national healthcare administrative data of all beneficiaries in Hungary.

The small district level analysis (n=175) revealed 4 times differences across the country proving that high domestic amputation rates are partially due to the extreme amputation rates in 30 percent of the small districts. In a further study other researchers showed that patients living in different locations of Hungary face very different odds of having lower extremity revascularisation procedures (open or endovascular). This spatial variation is thought to be related mainly to the failure in vascular service organisation. The incidence and effective treatment of these diseases highly depend on the demographic characteristics and territorial differences in the access to appropriate care incl. vascular centres.

In Hungary, in former study (2016-2017) the number of major amputations is 6798 was in the observed period. With timely and appropriate treatment leg amputation, (30-day mortality 20 %, 2-year mortality 40-60%) can be effectively reduced.

Regional and social disparities in incidence, prevalence and mortality rates significantly vary greatly across Hungary, but also provider vascular treatment capacities (with relevant competencies) and advanced endovascular treatment solutions strongly influence the development and progression of the disease.

Long-Term Assessment of the Readiness of EU Countries to Achieve the Goals of the 2030 Agenda through the Digital Transformation of the Local Government Economy

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Abstract

The transition to the digital era has become imperative in the last decades, especially after the COVID pandemic, which accelerated the need for digital transformation and growth of the digital economy. Digital transformation is a conceptual framework that is viable in an evolving society and is achieved through the adaptation of applications and services provided by the new industry 4.0. This new approach not only leads to technological achievements, but also enhances economic and social relations, as well as the bond of local governments and their citizens.

The Europe 2030 Agenda for Sustainable Development gives emphasis to people and to sustainable way of life. Sustainable development was identified as important aspect for European Strategy 2020, which is based on three pillars of growth: 1. Smart growth, 2. Sustainable growth, 3. Inclusive growth. It implicates the introduction of new technologies, smart management, and integrated innovations together with the participatory process of the citizens.

Given the fact that the services provided to citizens by local governments and that their general administrative structure and culture differ between member states due to political traditions and historical, geopolitical as well as socio-economic conditions, five main types of organization can be distinguished: the Napoleonic, the Anglo-Saxon, the Scandinavian, the Federal and the East European. The scope of this study is to assess the long-term assessment (before and after the Covid period) of the different types of local authorities of the EU Member States regarding the implementation of the digital transformation of their services by comparing the extent to which the pandemic has pushed each Member State to adopt measures to achieve the transition to the digital era. To achieve this scope, the goals of the study are:

    1. the discussion of the concept of digital transformation

    2. the description of the Sustainable Development Goals (SDGs) of the Agenda 2030

    3. the recording of the administration typology of local governments of the member states and finally

    4. the assessment of the readiness of EU countries to proceed with the digital transformation and their comparison at the level of adoption of measures to achieve this transformation, in correlation to their typology.

Keywords
Digital Transformation, Local Government, SDGs.

Exploring Narratives of Social Integration: Civic Roles in Alleviating Poverty

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Abstract

This paper seeks to add to the literature interrogating dominant accounts of social integration by examining the role of civic organisations in local developments projects. Civic action often addresses various forms of crisis and is also a key element in achieving social change. The expansion of neoliberal policies at the global level, shrinking spaces for democracy, growing distrust in public institutions and social polarisation are all deepening the crises we are experiencing, which are particularly threatening to marginalised sections of society. While numerous civic organizations are actively engaged in mitigating these threats, the crucial question lies in how they strategically position themselves amidst diverse political and economic obstacles.

Local development has predominantly relied on concepts and organisational models generated by neoliberal approaches, conducted in a project-based context, resulting in lacking development potentials. Many have argued that local development activity has lost its radical edge, or has become a victim of the politics of neoliberal experimentation, which relies on the voluntarism of the third sector. Civil action in local development, when viewed in a structural framework, can be seen as part of the problem, ultimately perpetuating and reproducing power imbalances, but this does not mean that projects are doomed to failure. Time and again, research has shown that sensitive, emancipatory approaches to local development are better able to address the problems of smaller communities and rural peripheries.

The paper examines these strategies in Hungary through a historical perspective, tracing the evolution of civil society's involvement in poverty alleviation and local development efforts since the 1990s. From grassroots movements to EU and international funds, examining key historical events provides insights into a critical analysis of the transformative power of civil society in addressing poverty.

The aim of the research is to analyse social integration practices carried out by different NGOs. How are the challenges of social integration in Hungary affected by the transformation of the welfare state system? What strategies are used by different NGOs in response to these changes? What are the different ideological and operational differences and how do they affect the way marginalised situations are addressed? What narratives are used to mitigate the negative effects of marginalisation? Anchoring the methodology in a cultural political economic approach, the research seeks to analyse the narrative dimensions and practices of social integration.

Overall, this paper advocates for a reconsideration of civic strategies in social integration, positing the need for a more encompassing perspective on the ways in which civil society can actively contribute to poverty alleviation within the confines of a neoliberal environment. Macro-level data on these processes are available, but only to a limited extent. Little is known so far about the understanding and strategies of different NGOs.

Changes in the World of Work since the COVID-19 Epidemic in Rural Areas in Hungary

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Abstract

The epidemic spread of the COVID-19 coronavirus in Hungary in the spring of 2020 has significantly changed the way people used to work in a mostly traditional, personal way. The changes have created the possibility of separating the workplace from the task at hand, and of creating a more optimal working environment for the employee in the form of a home office. The process of change, which has been a major challenge for some business organisations, varies from country to country and from job to job, as not all jobs are suitable for working from home. The use of the home office in Hungary has so far been significantly underdeveloped compared with other European countries, but the coronavirus has forced many companies to adopt this solution. Teleworking has many advantages and disadvantages. Its advantages are primarily felt by employees. This form of work offers a greater degree of freedom, allowing workers to work from the comfort of their own home, and would be a good way of increasing the population in rural areas, given the declining population of rural areas.

Using a questionnaire survey, the author analyses the opinions of 341 Hungarian workers on the home office according to the type of municipality where they live. The aim of the study is to explore the relationship (considering the limitations due to the small number of items) and the perception of home office work by the type of municipality of residence of Hungarian workers. It is hypothesized that there is a difference between the opinions of teleworkers living in the capital city, county seat or village. The calculations show that there is no significant relationship between the perception of home office and the type of municipality where the respondent lives. Among the employee opinions on the home office, the most important factors were the absence of stricter rules on dress and the reduction of travel time.

This paper was supported by the János Bolyai Research Scholarship of the Hungarian Academy of Sciences.

Urban Scaling, Innovation Growth and Urban Recapitulation between Different Administration in China

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Abstract

Urban scaling laws have been instrumental in depicting the relationship between urban population and innovation efficiency, yet research validating these laws within the framework of urban power systems is scarce. Given the unique administrative management system in China, its urban system can be broadly classified into provincial-level cities, prefecture-level cities, and county-level cities. These cities exert varying degrees of attractiveness for resources and possess different capacities in urban management and talent attraction, leading to varying levels of innovation efficiency. Moreover, due to the constraints of regional development policies and urban cluster development policies, apart from geographical proximity, there exists a phenomenon of administrative hierarchy transmission in urban development.

Utilizing data from 594 Chinese cities and patent invention numbers across 35 industries from 2006 to 2019, we investigate the comparative advantages of cities at different administrative levels in China and measure their innovation efficiency. Our analysis reveals that provincial-level cities tend to concentrate more on industries with higher knowledge content, while county-level cities tend to exploratory development across various industries. This indicates that the distribution of innovative activities across administrative levels is not uniform and is influenced by factors such as resource availability, policy orientation, and economic structure.

Further examination of urban development degrees shows that provincial-level cities generally exhibit higher urban development degrees, with scaling indices closer to theoretical simulation values, while county-level cities are more inclined towards unregulated growth. This suggests that the level of urban development and the adherence to urban scaling laws vary across administrative levels, which in turn affects the innovation efficiency of these cities.

By analysing the development trajectories of cities at different administrative levels in China using the reenactment coefficient, we find that policy-bound urban clusters demonstrate higher similarity in innovation development trajectories, with a higher degree of similarity in clusters with higher central city levels. This indicates that policy interventions and regional development strategies play a significant role in shaping the innovation paths of urban clusters. Additionally, we observe that urban clusters with lower similarity in development trajectories exhibit more technological relevance between cities within the cluster and external cities, highlighting the role of external knowledge flows and collaboration in driving innovation in these clusters.

In conclusion, our study provides insights into the role of administrative hierarchy in shaping urban innovation efficiency in China. The findings suggest that administrative hierarchy influences not only the distribution of innovative activities across cities but also the development trajectories and innovation networks within urban clusters. Understanding these dynamics is crucial for policymakers and urban planners seeking to foster innovation and sustainable urban development in China and other countries with similar administrative structures.

Wartime Migration of the Hungarian Minority from Ukraine

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Abstract

The only census in independent Ukraine in 2001 registered 152,000 ethnic Hungarians in Transcarpathia, the country's westernmost oblast. In the recent decades, due to the permanent political turmoil, and the subsequent economic downturns various forms of temporal and permanent migration emerged in Transcarpathia. Hungary's kin-state politics facilitated these processes, primarily through implementing preferential, non-residential citizenship in 2011. Following the Revolution of Dignity and the eruption of the armed conflict in Eastern Ukraine, migration has gained new impetus in the region.

Demographic surveys suggest that before the outbreak of the Russo-Ukrainian war in 2022, approximately 130,000 ethnic Hungarians lived in Transcarpathia, in a relatively compact area along the Hungarian-Ukrainian border. The Russian invasion and its socio-economic consequences induced dramatic changes in the region, including population movements. Since 2022, tens of thousands of Hungarians are estimated to have left Transcarpathia, primarily the men obliged for military service, but entire families have also emigrated. Most of those leaving resettled in Hungary or moved to western EU countries as Hungarian citizens. In parallel, tens of thousands of IDPs arrived in Transcarpathia from the war-affected oblasts, a significant number of whom remained permanently in the region, mostly in urban areas.

This paper aims to shed light on how the migration trends of ethnic Hungarians have changed in recent decades and how geopolitical events have influenced these processes in Ukraine. The study also intends to explore how war-induced cross-border practices have been transformed in the Ukrainian–Hungarian border region.

Based on some relevant and available statistics and the qualitative field research carried out in Transcarpathia since 2016 and in the Hungarian side of the border since 2022, we argue that current patterns of migration are part of a longer process, essentially from 2014 onwards. Coping strategies developed after 2014 are based on (temporary, permanent, circular, etc.) migration. Accordingly, the outbreak of full-scale war did not fundamentally transform coping strategies, but only changed some of their characteristics. Ethnic Hungarians in Transcarpathia have shifted from sustaining dual residency to living in Hungary; temporary places of residence became permanent.

After two mass waves of selective emigration of ethnic Hungarians induced by the geopolitical events, Hungarian villages in Ukraine have been largely depopulated. At the same time, mass emigration also affected urban areas, however this was counterbalanced by the settlement of IDPs from Eastern parts of Ukraine, resulting in population change and shifting ethnic proportions. The unfavourable demographic trends for Hungarians seriously threatens the maintenance of the Hungarian educational and cultural institutional network and undermine bargaining power in the struggle for language and minority rights, further exacerbating the chances of sustaining Hungarian communities in Ukraine.

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Regional Convergence of Skills and Schooling in Brazilian Manufacturing

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Abstract

This study deals with regional skill convergence in private manufacturing in Brazil. We use a quintile analysis to identify spatial heterogeneities; in addition, we use sectoral groupings for analyses of sectoral heterogeneity in manufacturing. The baseline and the heterogeneities were estimated using spatial econometrics. We use microdata of official statistics of formal employment. We show that social skills converge faster than motor and cognitive skills in manufacturing in the Brazilian regions. When analysing the top 25% of skills, we found that cognitive skills converge faster than social and motor skills. The evidence shows that cognitive and motor skills converge faster for capital-intensive and non-agribusiness than labour-intensive; the other sectors converge faster in social skills. Less industrialized regions converge within their clusters, but more industrialized regions are not. Moving from skills to formal education, we found convergence of schooling levels for all clusters, meaning that regions converge on schooling within their clubs. There is a mismatch between the required skills (labour demand) and formal education (labour supply): firms in the regions are demanding the same skills, although workers are becoming more educated. We show evidence that the dynamics of convergence of skills in manufacturing depend on spatial and non-spatial variables and the type of industry.

The Economic Effect of Child Benefit on Fertility in a Two-Sector OLG Model

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Abstract

As a country becomes more developed and urbanized, it tends to experience a decline in the fertility rate. For example, according to the World Development Indicators database for 2020, the total fertility rate between 1968 and 2017 fell from 4.79 to 0.95 in Hong Kong, 2.0 to 1.29 in Japan, 2.45 to 1.37 in Germany, 2.48 to 2.0 in the United States, 2.49 to 1.64 in the United Kingdom, and 2.55 to 1.87 in France. The decline in fertility rates raises significant social concerns, including the sustainability of PAYG (Pay-As-You-Go) pension and health insurance systems, a shortage of skilled labour, and decreased productivity. Many governments implement various family policies to address the decline in fertility rates, including legislation for childcare leave and the provision of nurseries and child benefits. In this paper, we examine the efficacy of the child benefit policy among these measures in a two-sector model.

In a one-sector model, Fanti and Gori (2009) pointed out that a child "tax" may actually increase the fertility rate, contrary to intuition. The mechanism behind their argument is as follows: the direct effect of the child tax initially reduces the fertility rate due to increased child-rearing costs. However, this also leads to a shift in household expenditure towards savings and capital accumulation. This indirect effect can outweigh the direct effect.

In a two-sector model, we find that the same conclusion holds, but the mechanism differs. In fact, the impact of the child subsidy policy depends on the labour intensity ranking in the two sectors. If the consumption goods sector is labour-intensive, an increase in capital stock induced by an increase in the child tax always results in increased wages, as predicted by the Rybczynski and Stolper-Samuelson effects. This is essentially the same indirect effect as in Fanti and Gori (2009). However, in a two-sector model, there is an additional indirect effect through price changes: the child tax shifts household expenditure towards savings, creating excess demand in the investment goods market. This leads to an increase in the price of investment goods and a decrease in the wage rate. This second indirect effect is not observed in a one-sector model because there is a separate market for physical capital (investment goods) distinct from the market for financial capital in a two-sector model. In this market, savings constitute the demand for investment goods, and there is a clearly defined supply of investment goods.

Despite the second indirect effect supporting the direct effect, the overall impact of the child tax is ambiguous. Our analysis suggests that the counterintuitive result also applies to a two-sector model, so the government should carefully rely on the child subsidy policy.

Digital Entrepreneurship Ecosystem in the Central Eastern European countries in the 2017-2019 Time Period

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Abstract

While economic transition from planned economy to market economy seems to be over for most of the countries after 25 years, socialist heritage could have long lasting effects. In this paper, we focus on a specific group of nations, the former European socialist countries that transitioned from the planned to the market economy system. While the transition research was a popular topic in the 1990s and 2000s, the interest has declined by the 2010s. Now these countries are viewed as variants of the capitalist system. However, current research shows that the socialist past has not passed without a trace (Havrylyshyn 2009). Szerb and Trumbull (2016) found that Central and Eastern European (CEE) countries' cultural support to business creation lags behind Western European nations. In addition, CEE countries' performance is not uniform – there are considerable differences (Chepurenko 2017). While the EU member CEE country handicaps are diminishing, Balkan countries are falling behind Western Europe significantly. The development of digital technologies provides an alternative way for these countries to close the development lag. So, it worth investigating how the CEE countries perform in the digital technology fueled digital entrepreneurship. In this paper we aim to answer to the following two research questions: (1) How deeply have Central and Eastern European (CEE) countries proceeded in digital entrepreneurship? (2) Are there some specific digital entrepreneurship characteristics of the CEE countries that can be explained by the socialist heritage? We applied the Digital Entrepreneurship Ecosystem (DEE) Index methodology, developed by Szerb et al. (2022) to evaluate the former socialist CEE country performances in their digital entrepreneurship ecosystem development. While the US is on the top of the rank of the full dataset including 115 countries, European nations perform well. The non-EU member Western countries are the best performers in Europe, but EU-member Western countries are close to them. The Southern European country group performance is close to the EU-member CEE country cluster, implying that these countries have caught up with most Southern European countries in their DEE development. The former SU country group and the non-EU Balkan country cluster are very similar to each other. We also examined the four sub-indices and the twelve pillars and concluded that DEE score varies significantly over the European countries, but these differences can be explained by economic development and not the long-lasting effects of the socialist system. We also provide the detailed DEE profile of Hungary including the four-sub-indices, twelve pillars and 24 variables that explain Hungary's performance in the digital entrepreneurship ecosystem development.

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Vojvodina as a Borderland

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Abstract

Vojvodina is a region in Central Europe of great diversity, very much as a consequence of frequent territorial changes, its frontier character and close proximity of various boundaries of different scales and characters. All these features are represented somehow in the (political) geographical landscape and in the multiple differences within the society. The region has been a constant frontier zone for centuries, with hybrid spaces and overlapping territories of neighbouring regions, a contested landscape by all the neighbouring nations but especially by Serbs and Hungarians. By the once again changing geopolitical situation from the early 90ies new ways of influencing and asserting interests as well as new actors appeared. The dissolution of Yugoslavia and the expansion of Western integrations into the region further increased the borderland nature of Vojvodina by establishing new boundaries (EU non-EU, NATO non-NATO) and thus cross border movements. The growing geopolitical tensions of the recent years (from migration crisis to the war in Ukraine) added new factors to the region's borderland nature.

In the last decade Serbo-Hungarian relations have been surprisingly cordial (from a historical perspective) in which the North Serbian region and Hungary's activity in it plays a crucial role. Soaring Hungarian economic investments and trade, major cross-border developments as well as unprecedented political relations also characterize Hungary's growing involvement in the region, despite the erection of the infamous border fence. In the meantime, the share of ethnic Hungarian population, upon which Hungary's policy relies on in the region, is decreasing steadily, as well as the whole population is experiencing a significant decline in numbers.

We analyse the changing geopolitical position of the region, we argue that it is strongly linked to its borderland nature, and focusing especially on the growing Hungarian involvement in the region, which has been an important agent in utilizing Vojvodina's borderland character.

On the Areas Being Left-Behind

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Abstract

Territorial inequalities are barely studied at a <u>local</u> level in Europe in a comprehensive way mainly due to the lack of comparative data or proxies of economic activity. Without local data it is impossible to proof the agglomeration of economic activity (in the cities) and therefore the growing gap between rural and urban areas, between the centre and the periphery of the country or between the core and the fringe of the large metropolitan areas. This is one of the reason why, when studying the areas that have been left-behind, instead of focusing on areas researchers have to either focus on regions (if trying to cover a country or the whole EU) or focusing on case study (and therefore just having a partial image of the issue).

In the European Project EXIT we try to combine both qualitative and quantitative research on areas (as opposed to regions) that indeed have been left-behind the paths of economic growth of prosperity. The aim would be answering some of the following questions: What is the meaning of the left-behindness concept? How can we identify the left-behind areas? Where are those areas? What are their characteristics? What quantitative data are available to study left-behindness? Are there any common past characteristics that might explain their present situation? What can be done at the different levels of governance (European, national and local) to improve their situation? What has been done in different areas of Europe? And what about regional or local stakeholders? Are citizens mobilizing somehow to either protest or react in order to reverse their localities´ situation?

In order to answer all those questions, data at local level is needed, and the first essential variable is some proxy of well-being or income. However, in the European databases and due to confidentiality reasons, in the best of the cases only information on the NUTS2 region of residence is provided. Thus, information on household income is provided at *regional* level but is not available at *local* level. Combining the EU-SILC - which contain detailed information on the economic characteristics of the households that reside in a specific region-, with Population microcensus databases -that offers information at a very small scale but does not provide information on household *income*- the methodology suggested in Fernandez et al (2022) to disaggregate regional data gets consistent estimations of income and poverty at local level.

These estimates, combined with data collected at local level on several socioeconomic indicators such us employed population, aged population, population structure, accessibility to public services etc., will offer a multidimensional approach of the areas being left behind in some European countries where local information is available.

Effects of Commuting Subsidies on Commuting Distance and Mode Choice: The Role of Urban Structure

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Abstract

This paper studies the effect of commuting subsidies on the commuting distance and commute mode choice of employees. It shows that the lack of access to a public transportation voucher can make workers travel shorter distances and use more active modes of transportation. However, the urban structure changes the way individuals respond to the transport subsidy: individuals are indifferent to the subsidy in areas with high accessibility to jobs.

In Brazil, since 1985 formal workers are entitled to a public transport commuting voucher: employers pay for the full cost of public transportation in a voucher and discount 6% of employees' gross wage. In this context, the voucher works as an implicit subsidy. Thereby, I exploit the existence of two kinds of workers facing different effective transit costs to examine the commuting patterns of each group.

I use data from São Paulo. The city runs a travel survey every 10 years since 1967. I use the 2017 edition that surveyed 22 thousand households, or 57 thousand individuals. I restricted the data for workers with a non-fixed contract with a private company, regardless of their type of contract (formal or informal). My final data has 12,573 individuals: 11,252 are and 1,321 are not entitled to the voucher (informal workers). Since workers entitled and not entitled to the benefit were not comparable in observable characteristics, I rely on a matching strategy for estimating causal effects. The variables used were: type of occupation, level of education, position in the household, age, household income and size, accessibility to jobs by transit from place of residence, housing status (owner, renter), and dummies for working in downtown area, female, and living in the downtown area.

I find that not being entitled to the benefit makes commuting distances 820 meters shorter and increase 9% the likelihood of walking to work. If compared to the median commute distance in the sample (7.5 km for those entitled to the voucher and 5.6 km for those not entitled to it), not being able to access the voucher explains 42% of the difference in commuting distance among the two groups. This result is driven by individuals living outside the downtown area of the city. The central area concentrates amenities, services, and jobs, therefore people who live in this area have higher accessibility to jobs by all transport modes and are indifferent to receiving the subsidy. However, in the periphery, individuals not entitled to the subsidy travel 1.3 km shorter distances and are 11% more likely to use active modes of transportation if compared to those entitled to the subsidy.

By generating empirical evidence about the effects of transit subsidy, this paper is relevant in a policy perspective, and contributes to the literature of determinants of commuting pattern and behaviour. It shows that commuting pattern and behaviour can be influenced by the urban structure.

Escaping from the Middle-Income Trap: An Historical Perspective over the European Regions 1900-2015

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Abstract

In the last decades an increasing number of well-off regions or old industrial centers in Western Europe are entrapped or in risk of being trapped in what has been called a "regional development trap" (Diemer et al., 2022). This concept entails difficulties to recover past dynamism or to improve the income levels of the residents in the entrapped regions. This fact coexists with another one that persists over time. It is possible to observe that a handful of regions usually manage to escape from this trap and use to figure at the forefront positions. For instance, there is a clear group of leading regions: London, Paris - Île-de-France- and Zurich, that remain in the top ten for the 115 years period and, other regions figure in the top ten three or four times: Luxembourg, Hamburg, Stockholm and Helsinki. In this paper we move the spotlight to this fact. Our purpose is to uncover the economic forces and the characteristics shared by these regions. We adopt a long run perspective and, extend our period of analysis for more than a century, from 1900 to 2015.

For this aim we take the Roses and Wolf dataset (2021, version 6). It gathers data for 173 European regions belonging to 15 nation states at level NUTS-2 for 1900-2015. This dataset reconstructs historical data since for 1900-1950 and, takes official data on regional incomes from the national statistical offices for 1960-1990. Since 1990 onward the regional data are taken from Eurostat. In order to guarantee data consistency, the authors have taken the decision to preserve the regional borders across the entire period. The 15 countries recorded are Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and Ireland. Historical data are collected for different benchmark years that usually correspond with census years (1900, 1910, 1925, 1938, 1950, 1960, 1970, 1980, 1990, 2000 and 2010). The variables reported at level NUTS-2 are regional GDP, population size and, the shares of agriculture, industry and mining and, services in total employment. Our aim is to gather up also human capital variables and geographical indicators.

Our analysis is based in a Principal Component Analysis (PCA) and, more specifically, in the Uniform Manyfold Approximation and Projection (UMAP) methodology. This methodology let to cluster the regions according to a big set of dimensions with higher accuracy than other PCA techniques. The preliminary results show that the clusters of regions obtained according to the 4 dimensions processed match very well with the history of the European regions across the 20th century. Additionally, the richest regions used to cluster in the same group across time and share a characteristic that differentiate them from the others, a persistently higher population density.

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Transit-Oriented Development, Land Use and Travel Behaviour: The Case of Curitiba, Brazil

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Abstract

Transit-oriented development (TOD) has gained prominence worldwide as one of the most effective policies to promote urban and transport sustainability due to its influence on land use patterns and travel behaviour. However, doubts remain about the ability of this policy to enhance less car-dependent mobility in the context of growing private motorizing and suburbanization of cities or metropolitan areas. This paper aims to investigate how TOD and land use patterns affect transport mode choices for trips in the city of Curitiba, Brazil. Analysing the case of Curitiba is of great interest for urban planning because this city is credited as pioneering in adopting TOD policy based on the integration of transport planning with land use regulation and bus rapid transit system. Using a data set of the household travel survey conducted in 2017 for the Curitiba Metropolitan Area and multinomial logistic regression, we estimate the effect of socioeconomic factors and TOD/land use patterns on travel behaviour in Curitiba. Our findings show the likelihood of travel by bus is 1.35 higher in the structural zoning areas, which correspond to the BRT system and the linear axis of high residential density. However, the probability of using the car as a travel mode remains higher than the bus in all zoning areas controlled in the logistic multinomial regression. This evidence suggests that Curitiba's TOD policy has been not successful in reducing car dependence on travel mobility.

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Analysing the Multifaceted Impact of E-Commerce: A Conceptual Framework across Different Urban Planning Scales

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Abstract

E-commerce has grown significantly in recent years, owing to the rise of global internet movements. The e-commerce economy model, where production and consumption evolved without geographical location and time constraints, has gone beyond being a virtual concept and has become an important phenomenon for the future development of cities with a variety of potential impacts. Research has shown that these effects can have different positive and negative effects at international, regional, urban, and local levels. It is debated whether e-commerce can create export mobility by facilitating the global flow of goods and services, boosting local consumption, creating new job opportunities, supporting regional economic development, and reducing territorial inequality. On the other hand, many studies have shown that increased physical mobility of goods causes environmental pollution. The ordering and delivery intensity of e-commerce models is directly related to urban transportation and logistics planning (Morganti et al., 2014). The dimensions of the spatial impact are also often highlighted because logistics activities result in functional and spatially evolving transformations that inevitably transform the areas allocated for logistics. In the cyber city of tomorrow, e-commerce and truck delivery travel will replace personal shopping trips and lead to the emergence of goods distribution centers in some parts of the city, but they will also create a strong land-use impact, such as past transportation innovations, and will be an aspect of ongoing structural change (Cervero, 2000). Urban planners and politicians see this as an important issue that could have short- and long-term effects on cities and regions. E-commerce has the power to restructure demand for commercial real estate in the city center by switching from traditional store formats to online sales (Muhanna and Wolf, 2002; Moss, 2015; Spencer, 2015). Instead of setting up high-cost stores in central business areas, companies can allow them to build warehouses or retail sales facilities in suburbs without any sales losses (Nahiduzzaman et al., 2019). Online shopping is accompanied by traditional retailers making it possible to shop over the Internet, as well as by virtual stores making use of physical pick-up points, click-and-collect stores, and warehouses within the city. This is an indication that there will be a long-term change and transformation process in the city's commercial areas (Rai, 2021). While it is widely accepted that the growth trend in e-commerce may have significant short- and long-term effects on transport, mobility, and land use structures, there is limited knowledge about how the increasing impact of e-business is addressed in planning practices (Petterson et al., 2020). Thus, in order to manage the advantages of the e-commerce economy model in a way that tries to avoid its disadvantages, its potential impacts need to be presented on a multi-scale and multidimensional basis from the perspective of urban planning.

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Unintended Consequence of Historic Preservation on Firms' Output: Evidence from the Awarding of the Historic City Title in China

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Abstract

Historic preservation policies have garnered increasing attention and recognition from countries worldwide. However, most studies have focused on local livelihoods and housing, with few examining the effects on firms' production activities. Exploiting the awarding of the *Historic City* title in China, this paper provides the first empirical evidence of historic preservation's impact on industrial firms' output.

1) Identification Strategy. This paper uses a difference-in-differences approach to identify the impact. The dependent variable, measuring the gross output or sales of industrial firms. The regressor of interest reflects whether the city (where the firm is located) is a *Historic City*. We add control variables at the firm-level and city-level. We also control for year fixed effects, city fixed effects, and firm fixed effects. The standard errors are clustered at city level.

We use an event-study approach to test whether the treatment and control groups are comparable. Since cities receive the *Historic City* title in different years, it is a staggered-DID setting. We also re-estimate it using the staggered-DID methods.

2) Data. We collect data at the firm and city levels. Firm-level data are from the China Industrial Enterprise Database, and the sample interval is 1998–2013. City-level data include the time when the Historic City was selected, as well as data on urban economic characteristics.

3) Conclusion. Receiving the *Historic City* title reduces local industrial firms' output by 6.9%. The main mechanisms are restrictions on land use and industrial development. First, land use in historic cities is strictly restricted to protect the traditional landscape from being changed. We find that the *Historic City* title leads to a 32.4% and 46.7% decrease in urban land supply and land support, respectively. It indicates that these cities face stronger land use restrictions. Second, historic cities have restrictions on industry development for firms in addition to land supply restrictions. The regulations for historic cities place higher requirements on ecological protection, which restricts the development of polluting industries. The gross output of firms in the heavily polluting industries, which is subject to explicit industry development restrictions, fell by 8.4%; whereas those engaged in other industries fell by only 3.7%. The coefficients between industries are significantly different at the 1% level.

Furthermore, the historic preservation policy has a negative macro effect at the city level, causing an average decline of 16.5% in secondary industry output and 9.3% in GDP. These findings contribute to a more comprehensive understanding of the effects of historic preservation policies.

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Industrial Digitalization, Government Digital Attention and Low-Carbon Transformation of Energy Structures

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Abstract

The double fixed-effect model investigates the influence and mechanism of industrial digitization on the low-carbon transformation of regional energy structures based on the 2011–2019 China provincial panel data. It also looks at the government's focus on digital energy in the process of digital empowerment of the carbon-neutral and low-carbon transformation effects. The study reveals that: (1) the overall trend of digitization is rising, with significant regional increases in 2017; (2) the development of an industrial digital scale can support the low-carbon transition of the regional energy structure; the conclusion is subject to normalcy, sample period changes, and explanations of the stability test's core variability as well as the Union Cause's inherent solution, the survival of the remaining variability in leakage, and the defeat of the government's misguided internal life treatment; and(3) The role of digitalization of industry in the low-carbon transformation of regional energy structures is facilitated by financial capital consolidation and green technology innovation; (4) The impact of industry digitalization on the reduction of carbon transformation in the energy structure of the region varies depending on various geographical locations, phenomena, and levels of industrialization; (5) It has also been found that government attention to digital transformation can amplify its energy transformation effect. In addition to giving experience evidence that China should take advantage of digital technology opportunities in a new wave of information and technology revolution and promote industrial digitization, the conclusion explains the energy effect brought about by the development of industrial digital scale.

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Exploring the Optimal Policy Pathway for Maximizing the Economic, Environmental and Energy Value of Biomass Resources with a Dynamic Simulation Model

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Abstract

Generally, biomass resource primarily originates from agricultural and husbandry residues, which could create economic, environmental and energy value if it were properly used, or, it would lead to tremendous environmental and economic damage, especially for the agricultural country such as China. This paper aims to seek the optimal policy combination and corresponding pathways to facilitate the effective utilization of regional biomass resource and, so as to maximize the value of biomass resources. For this purpose, this paper first outlines a complete biomass flow incorporating bioresource procurement, feedstock supply, product conversion and consumption to industrialize the development and utilization of biomass. Furtherly, a dynamic simulation model based on input–output is developed to assess the energy, economic and environmental performances of biomass resources under various scenarios within a 19-year time horizon by introducing biomass related industries into the regional socioeconomic, energy production and consumption system and fertilizer production and consumption system. The 19-term simulation from 2017 to 2035 is performed in scenarios present based on various technical, price subsidy, tax preference policies and distinct levels of environmental pollutants including greenhouse gas, water pollutants chemical oxygen demand (COD), air pollutants sulphur dioxide (SO_2) emission constraints, as well as the constraints on the reduction of chemical fertilizer consumption. An empirical study based on prefecture-level city level data is conducted and to validate and apply the model.

In the optimal scenario, both biomass industrial development and energy supply and demand are optimized; the reduction on chemical fertilizer consumption was realized, which contributing to a 5.41% average gross regional product growth rate and 19.9%,30%.18% reduction in accumulative greenhouse gas, COD and SO2 emissions, and 20% reduction on chemical fertilizer consumption compared with the base scenario. By 2035, the supply of bioenergy and biofertilizer could be increased from and 0.5million tons of standard coal (TCE) and 2 two million tons. The consumption ratio bioenergy in total primary energy and biofertilizer in total fertilizer could be increased from 0.5% to 4.2% and 1% to10%, respectively. The economic, environmental value of local biomass resources could increase from 50500 to 490000 CNY. The optimal policy combination and corresponding pathways to promote the development of biomass industries and the maximum of biomass resource value could be promoted are also elaborated. The methodology presented is capable of estimating and assessing the resource value and detecting the optimal policy combination for the utilization of natural resources.

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The Domestic and the International Value Chains of China's Manufacturing Industry and Their Interactive Relationships

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Abstract

This paper intends to analyse the domestic and the international value chains of the manufacturing industry in China and their interactive relationships by taking 34 provincial administrative units (31 provinces in main land, Hong Kong, Macao, and Taiwan) as examples. First, we construct world input-output tables for 2010-2019 which include China's 34 provincial administrative units based on Multi-regional Input-output Table for the Global Emerging Economies (EMERGING)v2 for 2010，2015-2019, and China Multi-Regional Input-Output Table 2012, 2015, 2017. Secondly, we extend the research on the method of decomposing a country's trade flows put forward by Wang et al. (2015) to the regional level within a country and decompose the interregional and international value-added trade flows into domestic value chain and international value chain for a region. Thirdly, the domestic and the international value chains of the manufacturing industry in China's 34 provincial administrative units are measured and analysed. Finally, a simultaneous equation model is established to test the interactive relationships between the domestic and the international value chains.

The results show that trades of manufacturing industry in provinces in China are primarily bilateral. Both the proportion of indirect value-added outflows and exports and the proportion of indirect value-added inflows and imports are very low. From the sector's perspective, most of the manufacturing industries are located in the upstream in the domestic value chain and downstream in the international value chain. From the provincial perspective, there are significant gaps among the provinces in the vertical specialization of the manufacturing industry. Within the domestic value chain, 15 provinces are located in the upstream, 19 provinces are located in the downstream. While in the international value chain, only 11 provinces are located in the upstream and the other 23 provinces are located in the downstream. A clear two-way interactive relationship has been formed between the domestic and the international value chains of the manufacturing industry in every province in China.

Research on the Impact of Urban Space Governance on Green Economic Efficiency from the Perspective of Ecological Civilization – A case study of Beijing-Tianjin-Hebei and Surrounding Areas as an Example

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Abstract

The disorderly development and utilization of urban space has led to increasingly serious ecological and environmental problems. To restore the ecological nature of land space by means of governance, it has become an important direction for regional development by forcing the green transformation of the economy. In China, the governance methods for green development are no longer environmental independent dimensions, but more inclined towards systematic governance of urban spaces. This paper establishes the "resource-ecology-environment" trinity of urban space system governance, and constructs an urban space governance system from the perspective of ecological civilization from three dimensions: resource utilization management and control, ecological function restoration, and environmental pollution regulation. This paper uses data from the European Aviation Administration and the National Statistical Yearbook of China to objectively and truthfully study the impact of urban spatial governance on regional green economic efficiency. At the same time, we establish the space dubin model and spatial mediation effect model to test the theoretical hypothesis which is urban spatial governance affects the efficiency of green economy from the perspective of direct effect and the mediating effect of advanced industrial structure. The study found that the urban spatial governance intensity of Beijing-Tianjin-Hebei and surrounding areas has a multi-layered "core-periphery" intensity structure pattern; the green economic efficiency presents a zonal difference of "taking Beijing as the core, high in the southeast and low in the northwest". The impact of urban space governance on the green economic efficiency of the region and surrounding areas shows a "U"-shaped relationship that first decreases and then increases, with an inflection point value of 0.4620, which means that the intensity of governance needs to surpass the inflection point value in order to achieve governance effectiveness. What's more, urban spatial governance can affect the green economic efficiency of each region by adjusting the industrial structure of the local and neighbouring regions, and the impact is in the form of a "U"-shaped relationship. By comparing the inflection point values, it is found that urban spatial governance is more likely to give priority to the effect of industrial structure upgrading. The policy inspiration drawn from this paper is that, on the one hand, it is necessary to establish a "resource-ecology-environment" urban space system governance concept, carry out comprehensive and systematic governance actions, and ensure the green background of urban space; Cross the inflection point as soon as possible, give full play to the positive externality of governance, and improve the efficiency of green economy through industrial upgrading.

Wind, Solar, and Beyond: Mapping the Progress of Sustainable Energy Transition in Jordan

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Abstract

The governments of the Middle East have long faced the challenge of achieving sustainable development. On one front, they must meet the rising energy demand driven by expanding economic activities. Simultaneously, the worsening environmental conditions pose a significant apprehension for political economists. Across the Middle East countries, the challenges encompass bridging the expanding disparity between energy supply and demand, dependency on fossil fuels, and the ascent of global prices. The Middle East can utilize its ample potential in renewable energy to address these challenges related to sustainable transition. Like many developing nations, Jordan grapples with challenges, constraints, and obstacles in augmenting the integration of renewable energy technologies. A compelling rationale for embracing these technologies in Jordan lies in the country's scarcity of traditional commercial energy sources juxtaposed with its rich solar and wind reserves. To be straightforward, Renewable energy technologies involve low operating and maintenance costs and inherently possess more excellent environmental friendliness than conventional energy sources, rendering those indispensable elements in the regional and national energy portfolio.

The future trajectory of renewable energy technology is shaped by three pivotal factors: economic considerations, scientific and technological aspects, and the commitment to environmental cleanliness. Despite favourable solar and wind conditions, the likelihood of greater integration of renewable energy technologies into the energy portfolios of developing nations, including Jordan, is limited compared to more developed counterparts. The economic challenges confronting developing countries, combined with a deficient foundation in science and technology, impede the advancement of renewable energy technology. Additionally, the insufficient environmental awareness in developing countries fails to generate sufficient momentum for adopting renewable energy technology. This study thoroughly investigates the complex interconnection among sustainable development, renewable energy, and the unique context of Jordan within the broader context of the Middle East. Utilizing a methodological approach that integrates qualitative data from various sources, including research studies, government statistics, and reports from international organizations, the study examines Jordan's landscape in renewable energy. It emphasizes explicitly policy frameworks, projects, and government initiatives.

Jordan is making significant strides in renewable energy, driven by the country's commitment to diversify its energy mix, reduce dependence on imported fossil fuels, and address environmental concerns. Despite facing challenges such as a growing population, economic uncertainties, and geopolitical complexities, Jordan has emerged as a regional leader in renewable energy capacity, particularly in wind and solar energy. The study affirms Jordan's significant strides in renewable energy, emphasizing the need for strategic attention to overcome challenges. By implementing the provided recommendations, Jordan has the potential to secure its energy future, foster regional economic development, and fortify environmental sustainability.

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Disentangling Urban Network Externalities: A Juxtaposition of Central Place Theory and Central Flow Theory

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Abstract

With the intense connections between cities and the rapid population agglomeration towards mega-regions, urban network externality has become increasingly important in promoting urban economic growth. This study integrates the theory of agglomeration externality and external economy, and proposes the two types of urban network externalities under two distinct external urban relations based on the central place theory (CPT) and the central flow theory (CFT). Accordingly, an urban growth model is estimated with spatial econometric model specifications based on 284 cities in China to examine the differences between the two types of urban network externalities. It is found that urban network externalities generated by CPT external urban relations (CPT-UNE) mainly take the form of sharing of the labour force, whereas urban network externalities generated by CFT external urban relations (CFT-UNE) mainly take the form of sharing of capital stock and technology. Moreover, the CPT-UNE are asymmetrical, which implies that there may exist agglomeration shadows. The findings have explicit theoretical and practical implications for fostering regional coordinated development.

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Latecomers' Catch-Up in the 4th Technological Revolution: Based on the Perspective of Knowledge Complexity

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Abstract

Knowledge is a fundamental driver of long-term economic growth (Romer, 1986; Solow, 1956). From an evolutionary perspective, two ways for latecomers to catch up are imitation and innovation (Kim, 1997). Earlier literature defines economic catch-up as a narrowing of the economic gap between latecomers and forerunners (Fagerberg et al., 2005). The latecomers try to assimilate and adapt frontier knowledge and technology from advanced countries and the narrowing process depends on such imitation of latecomers (Lee & Lim, 2001). However, in this way, the leaderfollower situation will not change. Knowledge spillovers are subject to geographic proximity, social proximity, cognitive proximity, organizational proximity, institutional proximity, and many other influencing factors (Agrawal et al., 2008; Boschma, 2005; Cao et al., 2019; Jaffe et al., 1993; Knoben & Oerlemans, 2006; Li et al., 2024; Mao & Mao, 2021; Marshall, 1920; Quatraro & Usai, 2017). Knowledge cannot completely transfer from forerunners to latecomers, and latecomers cannot exactly copy what the forerunners do. Only with the opening up of new trajectories of advancements can latecomers successfully catch up and even overtake the incumbent (Malerba & Lee, 2021).

Financing the Climate Transition of Cities – A Financing Model for Hungarian Cities

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Abstract

The European Union agreed on the Green Deal in 2019 and set ambitious targets in order to fight against global warming and consequences of climate change, and to turn it into an opportunity for economic growth and a new geopolitical centrality. The EU has set up an action plan focusing on energy transition, circular economy, and biodiversity and preventing pollution. Europe aims to be the first climate neutral continent by 2050.

A significant majority of the global population lives in urban areas. Cities are hubs of economic activity, and their population density makes them major contributors to carbon emissions. Addressing climate change requires a focus on the areas where people are concentrated, and cities play a central role in this regard. At the same time cities are often vulnerable to the impacts of climate change, including extreme weather events, heatwaves. Climate resilience planning in cities is essential to protect infrastructure, communities, and ecosystems from the adverse effects of a changing climate.

My study focuses on the financing of urban climate transition, which is a complex and multifaceted challenge that requires careful consideration of various factors. Local governments have the authority to implement policies related to land use, building codes, transportation, cities can enact regulations and policies that support climate goals, such as renewable energy mandates, green building standards, and emission reduction targets. The European Union selected 100 EU member states cities in the frame of the Horizon Europe programme in order to accelerate their transition. The study elaborates the climate financing issues generally within the frame of the EU Mission programme, and elaborates case study for the Hungarian participating cities: Pécs and Miskolc.

The study assesses current financing models adapted by cities, the most effective financing models for climate transition projects and assesses the existing investment gaps in financing for climate-related projects. Elaborates what types of financial incentives are most effective in encouraging sustainable practices at the city level, and what innovative financial instruments can be developed to support climate-resilient infrastructure and initiatives in cities.

The climate financing options are very different in the member states. Hungarian municipalities does not have room for manouvre for reallocating investment budget in favour of climate transition. Local authorities have extensive experience in applying for grants and managing EU project, however do not have experience with financing mechanisms and innovative financial solutions. The essay will examine these opportunities, barriers and adaptability, measures that are needed to enhance the financial capacity of local governments to plan and implement climate transition projects

As an outcome the study offers a policy framework as a tool that is conducive to attracting investment for climate transition in urban areas and aligns city policies to create an enabling environment for sustainable financing. The policy framework includes the measuring impact as well, metrics and indicators to be used to measure the effectiveness and impact of climate transition financing in urban areas, and reporting on the outcomes of their climate-related investments.

Economic and Demographic Challenges in Border Areas: The Case of Central Europe

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Abstract

The European Union's cohesion policy has been successful in reducing disparities between countries. However, it has not been able to contribute to the upgrading of peripheral and rural areas in the countries of Central Europe, contrary to its original ambivalent objective. The disparities between regions are widening, such as: economic, social, demographic, regarding spatial or economic access to public services; with peripheralization steadily increasing in many regions (mostly border regions). For this reason, it is particularly important in peripheral regions to operate horizontal and vertical networks, to dynamize low economic performance and development, and to make recommendations for improving infrastructure and demographic indicators.

The difficult situation of border regions (e.g. negative demographic characteristics, lower economic performance than the national average) has long been a concern for researchers. The different causes and consequences of this peripheral location could be highlighted (e.g. transport geography, settlement networks, fewer jobs, emigration, ageing), while improving the living standards of border region residents has been a priority area for EU funding. Migration is one of the most striking determinants of population change in these areas which also influences the overall economic performance of these regions.

Our analysis covers nine countries in Central Europe (with two countries not covering the entire territory): Austria, Czech Republic, Hungary, Croatia, North-Italy, East-Germany, Poland, Slovak Republic and Slovenia. This macro-region can be considered the heart of the European Union, as it forms a bridge between the north and the south, and between the east and the west. Like the European population as a whole, this region is facing a declining population, high migration rates, ageing, unemployment and a high proportion of nationalities and minorities. As a result, the number of people living below the poverty line is increasing year by year, and regional GDP in the region is increasingly linked to regional centres and capitals.

Our research has shown that the most deprived areas are mostly located in border areas. Although border regions have a very diverse demographic profile, the entire eastern part of the study area is also an external border with the Schengen area and part of the EU, where daily commuting is greatly restricted by border controls. Border demarcation seems to be associated with negative demographic trends mainly at the eastern and southern borders, i.e. Polish, Slovakian, Hungarian and Croatian borders, while the borders between the internal borders of the Schengen area (e.g. Czech-German, Austrian-Slovenian, Austrian-German) are experiencing population growth, partly due to international migration and partly due to suburbanisation processes.

The aim of this presentation is to distinguish between Central European regions based on economic and demographic performances. For this study, statistical analyses were carried out at NUTS 3 territorial level using the Eurostat database.

Impact of Social and Political Instabilities on the Economic Growth of Countries

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Abstract

Peace and economic growth are strongly correlated. The absence of conflict and threats from within and without leads countries to invest their resources in developing human conditions, which in turn leads to higher human development and economic growth. Countries facing internal and external threats often invest their resources in wars or preventing wars, keeping the general population in a state of relative underdevelopment. Besides the economic costs, the conflicts and instabilities also lead to human rights violations and tragic losses of human lives. Since World War II, several institutions have emerged that attempt to negotiate and bring peace between warring countries. They also watch the internal conflicts between the countries and attempt to negotiate for better human developmental outcomes.

However, despite all the institutional measures at global level, and constitutional democracy and governance in several countries, many countries and regions remain affected by conflicts, both internal and external, as a result diverting their precious resources on war-machines or building their military defence systems. It is equally true that some of the countries now specialise in selling the war-machines and geopolitically create regional wars for export and demands of their war machines and as such increasing their economic outcomes. However, far the affected and or poor countries, burden of import of war machines remains economically unproductive sucking their hard-earned and essential capital. The internal conflicts of the countries create adverse environment for the poorer sections while elites may benefit from the same, as such this may further the existing developmental inequalities between different classes of the people.

In this context, the present paper using panel data across the countries attempts to examine the impact of political stability, civil liberties (indicator of hidden social conflicts), security threat, group grievance, human right and rule of law, external intervention, and arm imports, and homicides on economic performance of countries, especially the economic growth and inequalities. The data for the study has been extracted from various publications of leading global intuitions like the World Bank, IMF, etc. The paper concludes that peace is not only morally preferable, but it has its outcome also in the form of better economic and human development.

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Diversity of Investments and International Migration in Central and Eastern Europe

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Abstract

Population decline is the source of many problems in the post-socialist countries occurred in the last two decades. Not only ageing problems, but permanent and massive out-migration hit hard these countries, more especially the border regions. While the most dynamic economic centres (e.g., the capital or regional centre and its agglomeration) were focal points of investments (e.g. FDI inflows) and enjoyed the increase of population, border regions suffered from the opposite outcomes. The loss of population, whether it happens due to natural change or out-migration, means a real threat for the region, both in an economic and in a demographic context. Though, the COVID-19 pandemic resulted a massive halt in the field of international migration, and the revaluation of rural places were visible in population dataset, the start of vaccination programmes allowed the relief of restrictions in (international) mobility. However, do we find the same trends in population change and migration, or there are new patterns at the regional level (NUTS 2 and NUTS 3 level)? What kind of linkage could be measured between FDI and migration in Central Europe? Furthermore, the impact of population loss or increase on FDI trends will be also examined at the regional level. Using statistical data analysis, the change and intensity of population change will be also presented, and different types of regions will be detected.

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Blue Sky or Bright Light? An Empirical Analysis for a Campaign-Style Environmental Enforcement in China

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Abstract

Both environmental challenges and achievements in China are well known. In this study, we use monthly PM2.5 and night-time light data for prefectural-level cities in China to empirically illustrate that Central Environmental Inspection, a national campaign-style enforcement which was institutionalized with cadre evaluation system and informal political networks, was effective to deliver quick but short-lived pollution reduction at significant economic cost. Our estimates show that the economic sacrifice was outweighed the benefits of cleaner environment through CEIs. City political leaders bearing network ties with the incumbent provincial leaders tend to respond with different degree of vigor to fulfil administrative tasks for environmental protection. By using patron-client network as a proxy to quantify *informal* institutional channel, we do find that city Secretaries with or without informal connections had *strategically* arranged their efforts to control environmental pollution, a pressing policy issue specifically designed for CEIs. The empirical results support that when city Secretary had informal ties to the incumbent provincial Party Secretary, she/he tend to deliver better environmental performance than those without such connections. This trend is especially evident in the ordinary prefectural-level cities or in more polluted cities. The effect of homophilous association with governors accumulated by the city Secretaries, however, was not responsive to explain air quality or night-time light intensity. The study adds to a growing body of literature to bring formal and informal institutional factors under an analytical lens to empirically investigate the proactive role of these factors in shaping trajectory of environmental and economic change in China.

How Cities are prepared for Accepting Autonomous Vehicles?

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Abstract

Cities face enormous problems and challenges regarded making urban mobility systems sustainable, while autonomous vehicles are expected to revolutionize transportation. The presentation aims to systematically review the international literature on the integration of autonomous vehicles in cities; as a result of structured international literature search, around 45 relevant studies were identified and analysed.

On the one hand, the presentation is going to address the urban visions concerning the deployment of autonomous vehicles; these represent the first step towards the integration of autonomous vehicles into cities. According to the state of the art literature, autonomous vehicles – as part of the public transportation system as well as in case of their shared usage – may change the whole system of urban mobility in favour of sustainability. At the same time, introducing autonomous vehicles into the urban transportation system is going to comprise considerable urban governance challenges, as distinct interests of different sectors and actors should be harmonised and also set into the interest of cities and towns.

On the other hand, the presentation examines the extent to which urban planners and policy makers are prepared to welcome autonomous vehicles in their cities. The mentioned harmonisation and adaptation process is going to require careful preparation and deployment from cities regarded urban transportation, infrastructure and land use planning, as well as restructuring the city budget and regulations. To help cities cope with the challenges they face, new urban planning principles have already been published (NACTO 2019), but urban planning methods should also be renewed. Furthermore, it is going to require flexibility and willingness to change from individuals as well as from economic and social groups and actors. Based on an in-depth analysis of the international literature, the presentation is going to paint a picture of where cities are in their preparations for autonomous vehicles; what factors are hindering the process, and what recommendations and solutions are emerging to move forward.

Third, the presentation is going to sum up the experiences of cities carrying out different types of autonomous vehicles' tests. Cities and towns being in the phase of urban road testing, represent the highest level of AV readiness at local level.

In addition to these main dimensions, geographical contexts of the examined studies, as well as their used methodology are also going to be considered. Furthermore, the state of the art literature regarded AV readiness of developing countries, as well as their motivations and obstacles of introducing autonomous vehicles are also going to be summarized.

Depopulation in the Borderland of Canton 10 in Bosnia and Herzegovina

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Abstract

In this paper, we consider the depopulation process in the borderland of Canton 10 in Bosnia and Herzegovina from 2013 to 2022. Canton 10 is an administrative area of Bosnia and Herzegovina on the west side of the country, bordering the Republic of Croatia. This borderland includes three municipalities: Bosansko Grahovo, Livno, and Tomislavgrad. The area of the borderland is about 2,741.4 km2. According to the estimate, 63,981 inhabitants lived in this area in the middle of 2022, while the population density was 23.3 inhabitants per km2. Compared to 2013, the number of inhabitants decreased by 6.2%. In the same period, the number of live births decreased by 18.4%, and the number of deaths increased by 6.1%. In the years 2020 and 2021, as a result of the Covid-19 pandemic, an average of 17.4% more people died than in 2019. The natural population change in 2022 is negative: -378, or -5.9‰. According to official data on migration in the period 2013–2022, the migration balance was negative and amounted to -1,141. The depopulation is evident in the accelerated reduction of the total number of inhabitants, but also in the decreasing number and share of young people (0–14 years) and the increasing number and share of elderly (65 and older) in the same period.

For the analysis of contemporary depopulation processes, the following methods were used: indices of population change; rate of total and average annual change in the number of inhabitants; absolute change and relative change in the number of inhabitants; the types of population movement by municipality were calculated; change in the number of live births and deaths, birth rate, mortality rate, natural change and natural change rate; the number of emigrants and the number of immigrants, migration balance, in total, but also by age group; total fertility rate; number of marriages and divorces, and their rates; contingents of the female population, working contingents, large age groups of the population, types of aging of the population, the proportion of the elderly and the young; unemployment rates.

A special survey on a sample of 300 respondents was conducted in the period September–December 2023 ("face-to-face survey") in order to show the perception of the most important causes of depopulation and their impact on the development of this area. The sample was spatially and demographically stratified in order to be as representative as possible. The results of the survey showed that 77% of respondents aged 20–39 want to leave the area permanently. The respondents see unemployment, emigration, low wages, futility, and hopelessness, a lack of entertainment activities, corruption, and local development policy as the main problems in the area.

Keywords

Emigration, fertility, perception, western Bosnia and Herzegovina, depopulation processes.

Cultural Tourism Development in the Komárom-Komarno Cross Border Area

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Abstract

The presentation is based on the results of a three-years Horizon 2020 international project titled SPOT, and implemented by a consortium of 14 European countries and Israel. The aim of the research project was to explore the possibilities of developing cultural tourism in touristically problematic (disadvantaged or suffering from over-tourism) areas in each partner country. The Hungarian research team studied the cultural tourism development characteristics of the Komarom-Komarno cross-border area. The town Komárom lies along the Hungarian-Slovakian border, located 100 kilometres away from the Hungarian capital city (Budapest); it has been divided by the Trianon Peace Treaty in 1920 and became "forgotten" during the decades of socialism, despite its significant cultural heritage going back to ancient times. The European Union membership of Hungary and Slovakia enhanced both territorial and cross border cooperation possibilities, which were used in favour of fostering connectivity and Europeanisation. Recently, considerable developments were achieved in the Komarom-Komarno area related to cultural tourism and transportation, e.g. considerable building reconstructions happened with touristic purposes, bicycle routes and cross-border public bicycle rental system were developed, as well as cultural playgrounds were constructed in cross-border context.

The Hungarian research team surveyed tourists, local residents as well as local entrepreneurs to investigate the cultural tourism development characteristics of the Komarom-Komarno case study area. Furthermore, interviews with local actors and organisations as well as on the spot field trips were carried out in order to gain a deeper understanding of the local cultural tourism development processes. Research results show that, despite a shared history, language and culture, the two towns have two different identities due to their different historical development paths and, despite efforts, the area cannot be considered as a single tourist destination. In the long term, there is little or no development cooperation, so it is important to put this area on the European map as a common destination and increase the number of foreign tourists. This will require tourism development and cooperation, which can be achieved with the help of an innovative GIS-based tool (SPOT-IT) developed as a result of the SPOT project for all case study areas (including Komárom-Komarno), in order to provide decision-making support related to the development of cultural heritage attractions. In addition to this, the main recent cultural tourism development projects were studied deeply by interviews and field trips; as a result, good practices were identified and described. Different forms of partnership and cooperation were identified and regarded as key success factors of cultural tourism development projects in the Komarom-Komarno cross-border area, and it is expected to be in the future as well.

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Kecskemét is the Economic Center of the Southern Great Plain

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Abstract

This presentation aims to delve into the economic significance of Kecskemét, positioning it as the key economic center in the Southern Great Plain. The rationale behind choosing this topic lies in Kecskemét's pivotal role in regional economic dynamics, prompting the need for a nuanced understanding of its contributions to the area's development.

The research question centers on how Kecskemét, as the economic nucleus of the Southern Great Plain, contributes to the region's growth and the factors influencing this position. The methodology involves a comprehensive analysis of the city's economic statistics and development plans, coupled with interviews among local businesses and decision-makers. Emphasizing international relevance, the research of medium-sized cities is important from the perspective of development policy.

Anticipated research results aim to provide deeper insights into Kecskemét's economic dynamics, contributing to the formulation of the Southern Great Plain's economic development strategy. The conclusion will summarize the city's strengths, weaknesses, and potential areas for further development, offering participants a comprehensive understanding of Kecskemét's role as the economic center in the Southern Great Plain region.

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European Capital of Culture 2010/2023 – Implementation, Comparative Analysis and Lessons Learned of Two Dance Projects/Festivals (2010 Pécs/2023 Veszprém)

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Abstract

The European Capital of Culture (ECC) project is a special, unique and successful cultural initiative of the European Union. The ECC-programme is well-known and has a substantial library of reports, books, and articles. It presents the diversity of European culture, focusing on the cultural values and dimensions of cities. In 2010 and 2023, two Hungarian cities won the title of European Capitals of Culture: Pécs and Veszprém.

The exciting questions are as follows. What impact did the programme series generate in these cities, what was the return on the projects implemented? How well the events mobilised the local population and how well motivated people interested in cultural programmes to visit the city?

In addition to presenting the theoretical framework and background, the study focuses on the dance projects implemented in these two cities. Its aim is to describe two case studies (dance festivals) and to compare one dance performance in Pécs and one in Veszprém in terms of vision, plan, infrastructure, institutional location, artistic concept, realisation, professional reflection and other objectively assessable factors. The study uses both secondary data and qualitative research methods to highlight processes, parallels, trends and conceptual design differences in the light of actual implementation.

As the result of the research can be said that both hypotheses were confirmed. H1. Both dance performances examined in the study were successful in terms of concept - planning - implementation, and H2. The cultural concept of dance in Veszprém offered a much wider and more comprehensive programme to the visitors, drawing on a wider range from the opportunities of the domestic and international dance palette than the previous dance-themed programme of the EKF in Pécs.

However, it can be established in relation to the evaluation of effectiveness, that a less successful implementation can never be said to be completely unsuccessful, because it contributes to the maintenance, transmission and transmission of culture, which is essential for the survival of humanity.

Keywords
Culture, European Capital of Culture, Hungarian cities: Pécs, Veszprém, dance arts.

Territorial Levels of SMEs' activities – Analyses of Firms in Győr, Hungary

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Abstract

Companies are very different from the point of view their activities' territorial levels. There are firms which are only local but also ones which operation reaches the global level. Activities from territorial approach can be analysed in different ways answering e.g. the following questions: Where companies purchase their inputs to produce or serve from? Where are the markets they can sell their products? Where they can have employees from?, etc. To answer these questions data have to be collected about their sell, investments, employees, social activities, etc. In my presentation I would like to present a different method about how to measure the territorial levels of different activities of firms.

I made an interview research about business society relations among 30 SMEs in Győr, Hungary between August 2021 and September 2022 with a special focus on CSR, sustainability and territorial levels of the firms. Based on this research the aim of my presentation is to provide information about the territorial levels of SMEs' activities. I asked owner-managers to indicate to what extent certain territorial unit (from local until global) is characterized in the case of its input, output, relations and impacts. Scales are between 0 and 9 where 0 is when the firm has no inputs, sells, relations etc. at the certain territorial unit and 9 is when the firm is totally characterized at the certain level. Based on evaluation and on owner-managers' thoughts every companies and their activities can be characterized with a territorial level, and also all of the firms involved in the research can be characterized with a territorial level.

It is widely believed that rather big companies are national or global while smaller ones are rather local or regional. My research proved that also SMEs can have such kind of activities which are characterized at national or even global level. There is a difference between their social and economic impact, their social impact is more likely local or regional than their economic impact. Several owner-managers were sceptic when they had to evaluate their impact because they felt that the SMEs are too small to have meaningful economic or social impact at any levels but during the interviews they realized that smaller firms can also have impact not just at local but even higher level. They understood that their impact is smaller than big companies' but its value and importance could be important among SMEs as well.

The method of my research was a first attempt in Győr to measure firms' territorial level, of course the method and also the size of the sample can be improving to have more complex data. However, I believe that my method could be useful for firms when they would like to have a quick view on their territorial role to be able to make more conscious decisions, and also researchers can use it to map the territorial level of companies in a certain area with the owner-managers' opinions.

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The Effect of Cultural Capital on Income Distribution

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Abstract

This paper aims to analyse the effect of cultural capital on income distribution. Recently, Tubadji et al. (2022) hypothesized that the accumulation of individual cultural capital has the potential to reduce income distribution within a country. Using Italian panel data, they find that cultural capital is the main engine and that two types of capital—social and human—have complementary effects on cultural capital, thereby reducing income inequality.

The concept of cultural capital was initially defined by Broudieu (1986) in sociology and later introduced to economics by Throsby (1999). In economics, cultural capital refers to both tangible and intangible goods that embody, accumulate, and generate both cultural and economic values. Tangible goods comprise works of art, cultural artefacts, heritage buildings, and ruins, whereas intangible goods comprise literature and music, as pure public goods and inherited traditions, as well as values and beliefs that embody a group's culture (Rizzo and Throsby, 2006). This cultural capital, with both its tangible and intangible forms, changes individual behaviour when individuals recognize the cultural value of cultural capital (Ateca-Amestoy, 2007; Champarnaud, Ginsburgh, and Michel, 2008). This, moreover, changes production behaviour, affecting the income level of the future generation. In other words, we expect the presence of cultural capital to affect income distribution.

In economics, since Kuznetz (1955), the effect of various types of capital, mainly physical and human, on income distribution has been studied (Acemoglu and Robinson, 2002; Aghion and Bolton, 2007). Among them, Galor and Zeira (1993) is a pioneering study that shows that income distribution due to differences between borrowing rates and lending rates arises from capital market imperfections. This is one of the main ideas explaining contemporary income distribution and has been accepted to be factual with various types of theoretical and empirical extensions.

This paper presents a new perspective on theoretical consideration vis-à-vis the effect of cultural capital on income distribution. In particular, we use Galor and Zeira (1993) as a base model to examine how the results of Tubadji et al. (2022), which empirically show that the amount of cultural capital can reduce income inequality, can be theoretically explained. Our analysis suggests that the presence of cultural capital changes the behaviour of educated individuals and raises the income level of educated borrowers, regardless of their initial borrower status, specifically through its effect of cultural capital on their consumption saving patterns. The reason behind this is that individuals always find value in cultural capital. This finding suggests that countries that accumulate cultural capital and provide cultural education are more desirable in terms of income distribution than those that cannot.

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How does the Creative Space Shape a Creative City? Evidence from China

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Abstract

New economic geography highlights that the benefits of urban clusters in large cities are often enhanced through the networks of urban areas. This network provides smaller and medium-sized cities the opportunity to leverage the advantages of larger cities, compensating for their own limitations in size. Our research employs the Fuzzy Regression Discontinuity Design (Fuzzy RDD) method, focusing on the externalities of creative space clusters in 286 prefecture-level cities in China between 2013 and 2021. We explore the effects of these clusters within a 1-hour commute radius of provincial capitals, aiming to understand the geographical and spatial dynamics of these agglomerations. The paper also delves into the roles of knowledge externalities and the centrality of venture capital financing networks in influencing these agglomeration effects, alongside examining variations across the Hu Huanyong Line.

Cafés serve as pivotal third spaces, distinct from the office and home, providing an environment conducive to communication and brainstorming. They act as social hubs where individuals meet, engage in conversations, form connections, and share ideas. These interactions often spark new opportunities and foster innovative thinking, which can lead to the establishment of new businesses. In our study, cafés symbolize creative spaces, and we utilize Point of Interest (POI) data from Baidu Map API to analyse their presence and impact. Additionally, we measure the vibrancy of a creative city by the frequency of venture capital investments, with data sourced from the Zero2IPO Group. This approach allows us to examine the correlation between the proliferation of cafés and the entrepreneurial activity within a city, highlighting the role of these spaces in the broader context of urban creativity and economic development.

Our findings indicate a higher concentration of creative spaces, such as cafes, near provincial capitals. These areas are also more successful in attracting venture capital, thereby fostering creative cities. This pattern is particularly evident to the right of the Hu Huanyong Line, underscoring the regional developmental disparities in China. Furthermore, we find that the concentration of cafes not only draws in more venture capital but does so by leveraging the centrality of the urban venture capital network and the knowledge externalities in these cities. These factors – network centrality and knowledge externalities – are key in the ability of creative space clusters to attract venture capital. The study's conclusions are supported by various robustness tests, affirming the significant impact of these factors in the creation and development of creative cities.

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Role of Interpersonal Support in Community Resilience

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Abstract

Natural disasters unequally affect poor and wealthy populations, which can be observed everywhere regardless of the economic performance of the respective country. Paradigms focusing on physical hazards and response cannot be considered, while social, political and cultural causes are rarely mentioned in the discussions around particular disaster events. Marginalized households and communities, and populations with less income are more affected by disasters. A significant proportion of Hungary's settlements are deprived or otherwise marginalized, which makes it necessary to raise social and economic questions related to disasters and investigate them from a spatial aspect.

This study is based on case studies of five disaster-affected settlements and encompasses a social vulnerability approach. The research is based on interviews with key informants involved in response to the respective disasters and broadened with an experiment to use the Interpersonal Support Evaluation List as an instrument to investigate community resilience. With the usage of ISEL, scholars are capable of observing the individuals' self-perception of themselves in their communities and how they can rely on others in their environment. The survey, with the participation of 103 people, discovered discrepancies in the level and structure of interpersonal support, which is tangible based on the interviews.

Concentration of Exports of the Main Agricultural Products of Mercosur. An Inter-Regional and International Analysis for the Period 2013-2022

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Abstract

The Southern Common Market (MERCOSUR) is a regional economic and political integration organization made up of several South American countries. Its full active members are Argentina, Brazil, Uruguay and Paraguay. Venezuela is currently a member in suspension and Bolivia is in the accession process. The territory occupied by MERCOSUR constitutes one of the main producing and exporting regions of agri-food in the world. Considering the dynamism of international markets influenced by changes in consumer behaviour, geopolitics and climate, the general objective of this work is to analyse the concentration of exports of the main agri-food products produced in MERCOSUR in a disaggregated manner, way to understand the importance of the sector in the regional and global economy. Available data were used, corresponding to the tariff items (harmonized system - HS) of export values (thousands of current USD) and volumes (tons), in digital format by TRADEMAP, for the period 2013 - 2022 (last 10 years). The Herfindahl and Hirschman Index (HHI) was used, which is a measure used in economics to report on the economic concentration of a market, or, conversely, the measure of lack of competition in an economic system. A high index expresses a very concentrated and uncompetitive market. Characterizing the main agri-food sectors exported by MERCOSUR, the following stand out: firstly, seeds and oilseed fruits (SA12), followed by meat and edible offal (SA02), in third place, cereals (SA10), with percentage averages for the study period of 10.29%, 6.11% and 4.68% respectively. The other sectors correspond to averages less than 3.00%. Analysing by product group, Brazil is the main exporter of SA02 and SA12; Argentina is the main exporter of SA10. The quantities produced and exported of SA02, SA10 and SA12 from Paraguay and Uruguay correspond to less than 5% of the Block's total. Concerning concentrations, SA02 presents an HHI value at the beginning of the period equal to 0.0531 (diversified exports) and 0.2059 (concentrated exports) at the end. The People's Republic of China is the main importer of this group of products. For SA10, it presents an average HHI for the study period of 0.0451 (diversified exports). It should be noted that in this market, the interregional dynamic is high between Argentina and Brazil. Finally, for SA12, it presents an average HHI for the study period of 0.4616 (concentrated exports), with the People's Republic of China being the main destination for exports in this sector. In conclusion, we can affirm that MERCOSUR is an important supplier of agri-food to the world, of which two of the main sectors have a concentration in the Asian market (SA02 and SA12), while SA10, intra-regionally, has a greater impact.

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Dependence on Fertilizers in Paraguay. Analysis of the Concentration of Imports for the Period 2003-2022

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Abstract

The use of fertilizers in Paraguay has been growing due to the need to increase the yield of agricultural production to meet global food needs. Paraguay does not have industries responsible for the production of chemical fertilizers, for this reason, it depends exclusively on imports of these products to cover national demand. The value in current US dollars of fertilizer imports ranks 4th in the total imports made by the country in 2022. These products are registered under the Harmonized System of Tariff Items (HS), these being SA3101: fertilizers organic, SA3102, nitrogen fertilizers, SA3103 phosphate fertilizers, SA3104 potassium fertilizers, and SA3105 fertilizers with two or more NPK in the formulation. Regarding SA3101, the import is concentrated, taking into account that the result of its Herfindanhl-Hirschmann Index (HHI) is higher than 0.18 in all years, the main supplier of the input is Brazil, covering up to 95% of the local market, the SA 3102,3103,3104,3105 imports are concentrated until 2014, with a result of its Herfindanhl-Hirschmann Index (HHI) greater than 0.18, thus Brazil was also considered as the largest supplier of inputs, then from 2015 to 2022, the market became moderately concentrated, resulting in HHI between 0.10 and 0.18, where the supplier countries, apart from Brazil, are Argentina, Canada, China, United States, Egypt, India, Russia.

The Contested Role of Vocational Training Institutions in Reducing Regional Disadvantage in Hungary

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Abstract

The role of vocational education and training (VET) in reducing social inequality and injustice is particularly important in areas where VET, especially secondary VET, is the type of school with the highest educational attainment. This situation is most prevalent in disadvantaged areas and leads to serious consequences if a VET institution ceases to exist. The operation of VET institutions in disadvantaged areas is influenced by several circumstances: ensuring adequate recruitment, related to both students and teachers, can be difficult. If there is no viable company in the area, providing practical training for students can also raise a problem. Numerous examples show that in case of lacking a local VET school, the family moves to a larger settlement. In this city, their child can get involved in vocational training, precisely to ensure learning conditions. The loss of the school and the consequent relocation of the families will inevitably lead to a further decline and depopulation of the disadvantaged area. The impact of economic considerations has a negative long-term impact on both local vocational training and the life of local society. In a disadvantaged area, sometimes the schools in smaller settlements are closed to make up for the shortage of students in cities due to declining interest in VET or a declining number of children. Potential students from the discontinued school will thus appear among the applicants in the city. The city school will have a sufficient number of students, but this will come at the cost of the lagging area losing possibly its last educational institution. The additional roles that VET institutions could play in the rise of local society, in stopping the backwardness of a disadvantaged area, are not taken into account behind the primacy of traditional economic considerations. Municipalities and their institutions have lost their former power because of the strong centralization process in recent years. One of the negative consequences of increasing centralization likely is that it will slow down and make impossible internal, bottom-up innovation efforts. I assume that local innovation can be successful when it is actively supported by local education and training institutions. In underdeveloped areas, this can be a task, especially for secondary vocational schools. Unfortunately, in Hungary, this question remains open in the highly centralized system. Answering the question „What room is left at regional, sectoral, and local levels for institutional diversification and innovation?", the answer is: not too much, nearly nothing. There is a room only for 'local heroes'. My paper presents that building partnerships among possible actors in underdeveloped areas is a challenge. However, my conclusion is that the low prestige of VET, especially at the secondary level, and the marginalization of the wider social context of VET, prevent VET institutions from being partners in regional development projects. This situation further hampers local development in underdeveloped areas. The method of my research is literature processing and document analysis.

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Life at the Edge of the City Size Distribution

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Abstract

We consider historic and contemporary deviations from Gibrat's law for the growth of settlements. In mature economies, both very large and very small cities tend to grow slower than averaged sized cities. We explain this through changes in determinants of congestion and commuting behaviour for large cities; and through the presence of a minimum scale below which a settlement becomes uninhabited in the long run. We estimate a minimum viable size of settlements of X for the case of Germany.

Just Transition, Smart Specialization and Re-industrialization: Perspectives for Bulgaria

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Abstract

The concepts of "Just Transition," "Smart Specialization," and "Re-industrialization" are all important policy frameworks and strategies that can have a significant impact on the economic development and sustainability of a country like Bulgaria.

Bulgaria, like many other European countries, has a legacy of coal and heavy industry. As the world transitions to cleaner and more sustainable energy sources, Bulgaria faces the challenge of phasing out coal and other high-polluting industries. The policy is addressing three identified regions – Stara Zagora, Pernik, and Kystendil. A Just Transition approach would involve providing support for affected workers, retraining programs, and investments in new green industries to create jobs and economic opportunities, which is a new location theory task at the local level.

Smart Specialization is an EU-driven approach that focuses on identifying and developing a region's unique strengths and competitive advantages. It involves concentrating resources and efforts on specific areas where a region has the potential to excel.

For Bulgaria, Smart Specialization would involve identifying key sectors or industries where the country has a comparative advantage. This could include areas such as information technology, agriculture, tourism, and renewable energy. By investing in these sectors and fostering innovation, Bulgaria can enhance its competitiveness and drive economic growth, which is a new location theory task at the regional and national levels.

Re-industrialization refers to the revival or growth of industrial sectors within a country. It often involves modernizing existing industries or fostering the development of new ones to stimulate economic growth.

Bulgaria has a history of industrial production, and re-industrialization efforts could focus on upgrading and modernizing traditional industries while also supporting the growth of high-tech and innovative sectors. This can lead to job creation, increased exports, and economic diversification, which is a new location theory task at an international and global level.

A just transition should be at the heart of any effort to re-industrialize and promote smart specialization in Bulgaria. The phasing out of polluting industries is accompanied by a plan to provide alternative employment opportunities and support for affected workers and communities, which are classical location theory factors and conditions and are the main subjects of the research.

Some Determinant Factors of Climate Adaptation Strategies – A Comparison of Two Hungarian and Cross-Border Representative Surveys

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Abstract

The negative impact of climate change is inevitable in the future. However, the impacts are different in different geographies. Hence, people living in different geographies might have different approaches towards climate change, and their adaptive strategies are also different.

Research into the effects of climate change and adaptation options is not new. Questionnaires related to climate change are becoming increasingly frequent and not only provide a European overview but also focus on the regional and local level, revealing the perceptions, attitudes and strategies of either decision-makers or the population. Regional climate-related research usually works with administrative boundaries and research conclusions are made for administrative regions. These administrative regions do not necessarily cover a homogenous landscape (like flat agricultural areas, hilly forest areas or built-in areas) where the impacts, hence strategies might be homogenous.

Generally, attitudes reflect not only one's geographical but also socio-cultural embeddedness. Hence attitudes relating to climate change can also differ from culture to culture, even though these cultures are physically close to each other.

This paper presents the results of two large sample representative surveys from Hungary, from 2015 and 2022 aimed at revealing any change in pro-climate attitudes and climate-related behaviour. In the second (2022) survey regions are represented not by administrative boundaries but by homogenous landscapes. Therefore, this paper aims to prove that – besides other factors – the landscape is a determinant factor in how one perceives the impact of climate change and how she/he builds her/his adaptation strategy as well. Additionally, another survey – conducted in 2018 in rural areas of Baranya County (Hungary) and Osijek-Baranja County (Croatia) – can show the cultural differences between the two joint areas in cross-border situations. The comparative results can contribute to Ajzen's Theory of Planned Behaviour in the field of pro-climate behaviour, pinpointing that landscape and cultural embeddedness can influence the role of determinant factors of pro-climate intention and behaviour.

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Roma Population on the Peripheries of Hungary – Spatial Pattern of Recent Ethnic Changes

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Abstract

The spatial distribution of the Roma population significantly overlaps the location of peripheral areas in Hungary. Current investigation focuses on the changes in the ratio of Roma population in the Eastern half of the country, including Northern Hungary and the Great Hungarian Plain. Most recent estimated datasets collected from the local governments are analysed with special attention to the spatial distribution and its changes. The investigation draws the attention to the ongoing process of spatial concentration of Roma population primarily in the case of the most backward of settlements. However, different groups of social and economic indicators reflect ambiguous trends during the last decades, the situation of the most peripheral settlements is regarded as expressively and steadily depressing. Additional objective of the current analysis is to discover the most characteristic and long-term trends in the situation of settlements with the largest ratio of Roma population.

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Beyond Economic Metrics: Assessing the Multi-Faceted Influences Shaping the Size of Urban Areas

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Abstract

Urbanization, as a global phenomenon, epitomizes a substantial augmentation in the concentration of population within urban centers, concomitant with the expansive proliferation of urban territories and infrastructural development, coupled with a simultaneous escalation in per capita income. The United Nations, in its demographic assessments, underscores the pervasive nature of this trend, revealing that the global urban population exceeded 55% in 2020, with projections indicating a further ascent to 70% by the year 2050. A noteworthy revelation emanating from these projections is the anticipation that an overwhelming 96% of forthcoming urban expansion will unfold within the confines of developing nations. This statistic, as indicated by UN-Habitat, underscores the pivotal role these regions play in fostering sustainable economic growth—an imperative for international initiatives aimed at "building back better" and transitioning towards comprehensive sustainable development. Therefore, unravelling the intricacies that propel urbanization assumes paramount significance for global urban management and the formulation of judicious policies that transcend geographical boundaries. To meet this exigency, an immediate and concerted effort is necessitated to delve into the core determinants that propel the inexorable tide of urbanization. The contemporary global landscape finds itself at the epicenter of a transformative shift towards urbanization, with over half of the global populace now ensconced in urban habitats. This ongoing metamorphosis represents a colossal alteration of unprecedented proportions, exemplifying the scale of change experienced in recent times. Notably, the existing urban population stands at a magnitude twice that of a mere three decades ago. The rapid migration away from traditional sectors and rural hinterlands has precipitated a reshaping of the global labour force, steering individuals toward opportunities in burgeoning urban centers. This demographic shift, in turn, contributes significantly to the burgeoning size of cities worldwide. In light of these dynamics, this paper articulates its primary objective as the identification of pivotal factors influencing the dimensions of cities, with a particular focus on urban areas in Serbia. Employing a panel regression analysis methodology, the research scrutinizes a comprehensive sample comprising 24 Serbian cities over the twelve-year period spanning from 2011 to 2022. This paper serves to illuminate the intricate nature of urban area dimensions, challenging the conventional wisdom that economic performance is the sole impetus behind urban expansion. The authors assert that variables such as infrastructure, cultural amenities, education, and healthcare are increasingly gaining ascendancy as influential determinants in shaping the spatial dimensions of urban areas. By emphasizing the relevance of these supplementary dimensions, the authors proffer a nuanced perspective on the evolving dynamics governing the size of cities. This sophisticated approach acknowledges the multifaceted interplay of diverse factors driving urbanization, transcending the traditional economic-centric paradigm and providing a more comprehensive understanding of the forces propelling the relentless urban march. In essence, this research contributes to the evolving discourse on urbanization by offering an enriched perspective that encompasses the holistic spectrum of determinants steering the global shift towards urban living.

Keywords
Urbanization, Demographic Shift, Sustainable Urban Development, Panel Regression Analysis, City Dynamics.

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Young People in the Post-Pandemic Labour Market: Response, Recovery and Resilience in European and Worldwide Regions

Simona Cafieri

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Abstract

Young people have been hit hard by the broad social and labour market impact of the COVID crisis 19. Youth unemployment has increased substantially, education and work-based learning have been severely disrupted, and many young people suffer from financial insecurity, housing instability and mental distress. Worldwide governments have replied to this situation by adopting comprehensive policy measures for young people, ranging from labour market and income support measures to housing responses and mental health support. This paper aims to investigate the situation of young people in the labour market in different European and worldwide regions after the pandemic. What should we expect? The work will begin with a comparative analysis of what has happened and is happening in different countries based on data provided by official statistics. Then it will focus on one hand on the situation of Neets and the differences found between rural and urban areas, and, on the other hand, on policy responses to support young people. With a statistical approach, an attempt will be made to identify causes and possible solutions based on territorial intelligence.

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Do Big Cities, Small Rural Areas or Suburbs Offer a Better Quality of Life? In Search of Well-Being with Territorial Intelligence

Simona Cafieri

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Abstract

For a long time, the wealth of cities drew the poor from the countryside, giving rise to a so-called rural exodus. Over the centuries, the division of space has become more complex, mainly due to urban expansion. The suburbs of cities expanded, in part due to the growth of suburban housing. The debate on the standard of living of the suburbs is not new. Disadvantaged suburbs are often presented as the areas where hardship accumulates: it is now far from the city, in suburban and rural areas, that poverty is to be found. However, according to official statistics, the peri-urban area, although far from reaching the living standards of affluent inner-city neighbourhoods, remains on average largely advantaged. This paper aims to examine the quality of life in cities, suburbs and rural areas.

This work presents long-term trends in socio-economic development in different regions in the world, focusing on the effects of the 2008 financial crisis and the consequences of the COVID-19 crisis and current wars.

The analysis is based on data from social surveys conducted by European and worldwide statistical institutes. It will examine the relationships between environment, life expectancy, education, employment and poverty in the urban and rural context. The paper concludes with a discussion of the role of skills and human capital, internet connectivity and innovation as enablers of regional development. With the help of ad-hoc statistical indicators, it will also reveal where people are more satisfied with their quality of life.

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Regional Perspectives of Limits of Public Debt. A Tentative Theoretical and Empirical Approach

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Abstract

Public debt has increased dramatically over the past 5 years at the national and sub-national level. Whereas the topic of national debt is currently the subject of much debate in the economy and in society as a whole, less attention is given to sub-national levels. The paper will concentrate on this perspective using the case of two Austrian regions and municipalities.

Due to the institutional framework in Austria, which is characterized by federal guidelines, the federal budget is closely linked to the budget of the provinces and municipalities. Therefore, politicians and economists not only have to ask themselves the question of the debt limit at the federal level, but also expand the discourse to the regional and municipal level.

The paper will give an overview of existing theoretical approaches to the limits of indebtedness and expand the applicability of these economic models to the sub-national level of regions and municipalities. It will present a model of these limits that can be applied to these levels. An empirical estimation for the cities of Graz/Styria and Klagenfurt/Carinthia will show the link between primary account and debt and give an estimation of the fiscal space for the future. In this context, the link is also drawn to the legal-institutional limits, which in Austria are particularly important at the regional level and should therefore not be missing in an analysis of the debt limit. Finally, an outlook on future developments is outlined, which is intended to show the challenges that not only the federal state but also its subordinate levels will be confronted with.

Territorial Cohesion in Less Developed Regions: Questioning the Effectiveness of Smart Specialisation Policies

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Abstract

Smart specialisation strategies are considered the cornerstones of the EU Cohesion Policy since 2014, representing a strategic shift in the European development intervention.

This presentation argues that the effectiveness of RIS3 is considerably undermined in Central and Eastern Europe by the action of a range of structural factors. This main line of argumentation will be addressed in a detailed empirical analysis of the following structural factors: innovation potential, R&D; education, poverty, international migration and governance.

One of the major conclusions of the presentation is that the structural differences among regional economies will prevent the EU Cohesion Policy from narrowing the development gap between regions.

Hoodome: The Hungarian Foodome

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Abstract

In Hungary – as in most regions of the world – the main public health problems are cardiovascular diseases, cancers, and obesity, which is becoming the number one public health problem due to its important role in the development of diabetes mellitus and cardiovascular diseases. These illnesses and their complications are responsible for the death of around 100,000 people every year in Hungary alone, placing a significant burden on society. The number of preventable deaths in Hungary is one of the highest in the EU: compared to the EU average, twice as many people die in Hungary as a result of preventable causes of mortality.

A significant part of these leading causes of death can be traced back to environmental and lifestyle factors. The pivotal health role of diet has been well supported for decades by nutrition-related research, which revealed the role of calories, sugar, fat, protein, vitamins and other biochemical factors in deficiency diseases, on basic metabolic pathways, and in many other chronic diseases. Our current understanding of the way biochemicals in food affect health is largely limited to a few hundred components that different food composition databases track in the food supply (EuroFIR: cca. 750 components listed, cca. 270 components tracked; USDA: cca. 200 components tracked). Yet, when it comes to the composition of food we consume, these food components represent only a tiny fraction of the ~70,000 distinct definable biochemicals reported by FooDB, which itself is expected to be only a fraction of the total composition of the food supply. This very incomplete knowledge of the complete biochemical composition of foods hinders the research community from discovering the mechanistic effects and ultimate roles of the thousands of untracked molecules in our health, whether through the microbiome, through their role in the body's metabolism, or through the various molecular regulatory mechanisms of human cells.

To solve this problem, joining the international project on food exposome (Foodome), a Hungarian pilot project (Hoodome) had been initiated, led by Maven Seven Network Research Inc., in collabouration with Syreon Research Institute, proposing a Big Data strategy for the creation and experimental validation of a high-resolution collection of the biochemical composition of foods. The aim of the Hoodome project is to create a unified database for Hungarian agricultural and food products. Once this has been built, the complete chemical composition of the most important food products in Hungary will be available, enabling the research and start-up communities to use the most modern database. This could change the direction of food and nutrition research as well as could set out the future development direction in the health and agricultural industry.

Sustainable Cultural Policy in Regional Government after the European Capital of Culture Project

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Abstract

European Capital of Culture projects are not only a title of international significance, but also a significant responsibility for the project promoters. In 2017, Kaunas City and Kaunas District, after winning the call for proposals, started preparing for the European Capital of Culture year - 2022.This is unique for two reasons: the project was carried out in cooperation between two municipalities; the municipality of Kaunas District is one of the largest ring municipalities in Lithuania. From today's point of view, Kaunas District Municipality can be considered as an active implementer of the regional cultural policy, which seeks to strengthen the municipality's identity through the synthesis of modern cultural solutions and traditions important for the local specificity, to position the municipality as an active player in Lithuanian and European cultural activities, and to activate cultural tourism through the instruments applied in the creative industries sector, whose systematic and productive activities can have a positive impact on various sectors of activity. Nevertheless, until the year of the European Capital of Culture title, the cultural policy environment of Kaunas District Municipality was not adapted to the sustainable development of the cultural sector (e.g. there was no approved cultural strategy). During the year of the European Capital of Culture title, a significant increase in cultural activity and diversity of cultural expressions was recorded in Kaunas district, and not only local and foreign artists, cultural operators, social partners, but also the local community were involved in the implementation of the project activities. Despite the aforementioned increase in cultural activity in 2022, the authors of the study believe that it is important to assess the impact of the project on local cultural policy in the long term, i.e. to identify how the project has influenced the development of the local cultural policy, and to point out what new instruments and concepts of cultural policy have been introduced after the European Capital of Culture project.

The aim of the study is to assess the impact of Kaunas - European Capital of Culture 2022 on regional cultural policy and its sustainability in Kaunas district;

The object of the study is the concepts and theoretical models of regional cultural policy implementation in Kaunas district, Lithuania;

Method: case study;

Methodological approaches: analysis of scientific literature and cultural discourse, qualitative and quantitative data.

The following strategic documents were analysed for the study: Kaunas District Municipality Strategy 2022-2027, Kaunas District Municipality Strategic Development Plan 2022-2027, Kaunas District Municipality Council decisions discussed in the Committee on Culture, Sports and Education 2022-2023, the Lithuanian Municipal Culture Index Survey, the strategic documents of the Public Institution "Kaunas 2022" and the results of sociological surveys, the draft Law on the Framework of Lithuanian Cultural Policy, the Law on Local Self-Government of the Republic of Lithuania, the New European Bauhaus.

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The Energy Transition and Economic Growth: An Empirical Analysis of the EKC in Tunisia

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Abstract

Environmental problems such as climate change, ozone depletion, air, water, and soil pollution, hazardous and plastic waste, marine pollution, and other environmental issues undermine sustainable development and pose threats to human health and safety. The Environmental Kuznet Curve emerged as an attempt to model the relationship between economic development and environmental impact.

The EKC is a hypothesis proposed by Simon Kuznets in 1955, who envisaged a correlation between the reduction in income inequality and the level of GDP per capita based on the same inverted U-shaped curve. According to this theory, rising incomes lead to a deterioration in environmental quality, but after a certain level of wealth, economic growth would also lead to an improvement in environmental quality. It should be noted that the validity of the Kuznets environmental curve has been debated and criticised (see, for example, Stern, 2004). Although some studies confirm this hypothesis, others show that it does not apply to all countries in the world. The lack of conclusive evidence for the EKC hypothesis and the existing mixed empirical evidence thus prompted us to re-examine the link between environmental degradation, approximated by CO_2 emissions, and economic growth.

The aim of this study is therefore to examine the link between environmental degradation and economic growth while considering the energy transition and institutional quality in the context of a developing country, Tunisia. Tunisia is one of the few countries in the MENA region to have shown significant interest since the mid-1980s in using renewable energy and reducing environmental degradation.

To this end, we used the staggered-lag autoregressive model to assess the long-term relationships and dynamics of key variables. Our data spans from 2000 to 2019. Our results suggest that there is a positive relationship between energy transition and economic growth in the long run, and therefore Kuznets' thesis remains valid for the case of Tunisia.

The Application Living Space Is the Future of the Economy and Society

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Abstract

Alipay is known as the dominant online payment platform in the People's Republic of China, but Alipay is much more than that, Alipay is China's second largest application living place. Alipay has undergone many changes since its creation and has become a dominant factor in the daily lives of most Chinese. The history of the app can provide many insights into the development and use of online payment platforms, which are becoming increasingly popular in Europe, and can be a great help in the future development of the application living places.

The success was coded into the environment, and the dynamic development can be traced back to four basic factors:

- China is home to the largest number of mobile phone users in the world (more than one billion mobile phone subscribers in 2021),
- As in developing countries, China lacks the classic basic financial infrastructure, as the country switched to mobile payments almost immediately after the cash economy, so that, for example, the use of debit and credit cards by the population and the industrial sector has leapfrogged the use of credit cards,
- the big online payment platforms - Alipay and WeChat - have encouraged consumers to switch to mobile payments with "no miss" discounts and promotions,
- programmes to migrate to FinTech financial technology, enabling a full mobile app-based financial system, have received huge public support.

Despite the rapid and unstoppable development of the online space, the rapid expansion of app-based services is predicted, but the survival of existing services is uncertain, even in the medium term. Changing needs, both on the service provider and user side, can render applications obsolete overnight, even in financial and service segments. At the same time, there is less and less doubt that the convenience, security and practicality of app-enabled services will make them an indispensable part of the global society of the future. The need to build application systems with complex financial functions is becoming more and more tangible from all sides, and the technical and technological requirements for their more complete operation are becoming more and more demanding.

Smart Ports as a Tool for Strengthening Cities' Resilience

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Abstract

For several decades, thinking has been moving towards questioning growth patterns and towards a concept of economic development that is less polluting and can generate more added value. The concept of sustainable development appeared with the publication of the report "Halte to growth?" in 1972 by the Club of Rome. Among the new forms of sustainable economic development appears the notion of the blue economy. A concept was initiated for the first time by the Belgian entrepreneur "Gunter Pauli" who included maritime-related activities in a circular economy in order to implement a new economic model that produces less waste and emissions and which generates more jobs and wealth, without costing more than traditional economic models. The Blue Economy refers to all sectors and industries linked to oceans, seas and coasts. It directly contributes to the achievement of most sustainable development goals such as: SDG11 "Sustainable cities and communities"; objective n°13 "Measures relating to the fight against climate change"; and essentially objective n°14 "Aquatic Life". It is an approach essentially aimed at optimizing the exploitation of marine and coastal resources in order to support economic growth, job creation and strengthening economic resilience. However, the concept of resilience originated outside of economics. Initially, the term appeared in ecological sciences and has since spread to other fields such as engineering, psychology and economics. Indeed, the definition of resilience has received considerable attention in the economic literature. It refers to the capacity of a region to prevent, resist and recover quickly from any major disruption to the economy caused by significant events.

In recent years, the notion of resilience has broadened to stimulate reflection with regard to commercial maritime ports and port cities in order to ensure their sustainability. Indeed, financial crises, pandemics, new risks linked to safety, security and climate change... highlight the role of technological developments at the level of commercial maritime ports in the development and strengthening of economic resilience. .

Historically, commercial maritime ports have played a crucial role in the process of developing international trade, opening up major regions of the world and coping with economic crises. They have been affected by political situations, economic development, climate change and especially technological changes. Indeed, the use of new information technologies in ports has enabled these structures to evolve towards a new concept: "Smart Port", which makes it possible to design space management models and rationalize the flow of goods. goods in order to receive a maximum number of ships while minimizing waiting times in the harbor, stays of ships and goods and subsequently reducing the cost of port passage and improving services.

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The Future of Electric Cars in Hungary and the Economic, Social and Spatial Aspects of the Transition

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Abstract

The spread of electric cars is taking place worldwide. The transition takes place in different directions and platforms. We can meet hydrogen-powered, hybrid-powered, purely electric-powered or even self-driving vehicles. At the John von Neumann University, they are already dreaming and realizing the future with solar cars.

The presentation focuses on electric cars. The presentation examines the electric car market as a cluster and as a value chain.

As a starting point, the presentation examines the current Hungarian passenger car stock and car market, new and used car sales, and changes in the stock. When selling passenger cars, we examine the income situation, saving and borrowing habits of the population. We propose three hypotheses.

1. The transition can be considered optimal if all actors in the cluster have the same expectations regarding the change.

2. A transition that is slower than the expectations of the economic actors causes social cost losses for the production and service companies of the value chain.

3. In the development of the infrastructure of electric cars, those participating in road transit traffic passing through Hungary will play the role of a catalyst.

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Budapest 150

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Abstract

Budapest, as an education and innovation center, is Hungary's leading city. At the same time, there are huge debates about the role of Budapest not only in Hungarian regional science, but also in political public life. Applying the Swedish Gunnar Myrdal's theory, we are looking for the answer to whether the absorption effects or the spreading effects are typical in the case of Budapest.

The question is, does Budapest drain talent from the rest of the country or does it contribute to the development of the countryside? The following hypotheses can be established based on the examination of various statistical data and individual life paths.

1. Until the end of the 1970s, in a closed country, under the conditions of a socialist planned economy, the courses of the universities in Budapest contributed positively to the development of the rest of Hungary.

2. In the 1980s and 1990s, school, place of residence and workplace preferences changed fundamentally.

3. Under the conditions of an open economy and a free choice of residence, Budapest tends to absorb resources and talented people from the rest of Hungary.

The research methodology is based on the processing of theoretical literature, international comparisons, and the analysis of statistical data and the examination of successful individual life paths.

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Characteristics and Mechanisms of Landscape Localization Evolution in South Jiangsu Small Towns from the Perspective of Rural-Urban-Wild Interaction – Taking Wujiang District, Suzhou as an Example

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Abstract

Landscape site-specific design is the external representation and internal attribute formed in the process of human activities adapting to the local natural environment. As a transitional zone linking urban and rural areas, small towns exhibit fragility, disorder, and passivity in the game process of urban-rural binary development. The unique ecological pattern and landscape features of local areas are impacted. Uncovering the local characteristics of landscape in small towns, analysing its evolution and driving mechanisms, serves as a crucial basis for optimizing landscape planning methods and promoting the integrated development of urban and rural areas. Taking, as an example, Wujiang District in Suzhou, which is representative of small town development, this study adopts the perspective of the coupling interaction among urban, rural, and wild areas. Using methods such as ArcGIS spatial analysis and historical map retrospection, the research analyses the changes in urban-rural-wild patterns and spatial evolution characteristics in different historical periods. It summarizes and refines the differences, evolution, and stability of the landscape locality in small towns. Furthermore, it explores the driving mechanisms of the evolution of landscape places from the aspects of wild area constraints, industrial transitions, and urban-rural linkages. The aim is to provide theoretical support and scientific pathways for the transformation, reparation, protection, legacy and suitable planning of landscape areas in small towns under the context of rapid urbanization and modern socio-economic development.

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Subsidiarity, Planning, Climate Change through the Example of the Danube-Tisza River

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Abstract

The Homokhátság (Sand Ridge) is located in the part of Hungary between the Danube and Tisza rivers. The water supply of the region has been a serious problem for the people living here for centuries. The surface of the ridge is on average 50-60 meters higher than the water surface of the two rivers. Due to the dry, continental climate, there is no significant amount of precipitation in the area. In the past three centuries, the struggle to stop the running sand has continued with the planting of forest strips and orchards. However, today's economic, social and environmental changes have challenged and eroded the balance of people, the economy and the environment established in the past centuries. Nowadays, the most important task is to create new frameworks for complex water and landscape management.

The complexity of the task can best be seen by various scientific researchers, public administration and political decision-makers.

The purpose of the research is to examine how environmental protection problems, connections, and political goals appear under the conditions of subsidiarity at the various administrative levels.

The research methodology is a comparative analysis of European, national, county and local environmental protection programs.

Development Visions for the Cultural and Creative Sector in Budapest in the Period 2008-2030

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Abstract

Creative spaces and cultural organisations, including public cultural institutions, are the key players and drivers of not only the social but the economic life in the Hungarian capital. The research seeks to answer the question of how the cultural and creative sector is reflected in the strategic plans of the Budapest Metropolitan Municipality and its 23 districts, and how it parallels national and EU guidelines. In addition to the realisation of the creative spaces in the capital, the plans of cultural institutions and organisations, their interfaces and financing schemes, the study aims to shed light on how the results of these plans are manifested in the operation of the specifically Hungarian public cultural spaces, institutions and "houses of culture". In addition to presenting the concept of creativity, its various levels and forms, the research also looks at the institutionalisation of creativity in Hungary, the cultural and public education structure and map of Budapest, and the position of the Hungarian capital in the European Union's definition of a cultural and creative city. The research presents the cultural and creative industries-related visions of the Hungarian capital and its twenty-three districts for the period 2008-2030. In addition to the obligatory spatial development strategies, it also examines individual long-term plans for the economic and cultural fields, comparing them with the EU guidelines and the national strategy. It shows how the capital and its districts are taking on board the spirit and findings of the plans and encouraging them to preserve and maintain the tangible and intangible cultural heritage and to implement cultural and creative projects. It demonstrates how the municipalities of Budapest and its twenty-three districts have different approaches to the cultural and creative sector. Cultural developments are mainly targeted at urban development, urban regeneration, heritage conservation, institutions and their infrastructure, as a soft element in Greenfield regeneration or as a beneficiary of brownfield investments. Cultural developments are mainly targeted at urban development, urban regeneration, heritage conservation, institutions and their infrastructure, as a soft element in Greenfield regeneration or as a beneficiary of brownfield investments. Furthermore, higher education, research, development and innovation, which are essential for economic recovery, the cultural and creative industries can also improve the living conditions of the population, increase employment and make the city more liveable.

Keywords
Cultural and creative sector, cultural and creative industries, urban development, territorial planning, territorial policy.

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The Role of Chance, Luck, Uncertainty, Risks, Asymmetric Information, Imperfect Information in Regional Development

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Abstract

Nowadays, theories of regional economic growth have described the role and contribution of many production factors - labour, capital, natural resources - and many economic processes - innovations, flows, economic policy - in the economic development of regions. The different theories describe very well the impact mechanisms of production factors, innovations, export expansion, demand creation and supply expansion in the development of regions.

The database of the lecture is provided by the case studies of several countries and their regions in Balázs Forman's book "Globalization and Modernization". The presentation is a regional economic synthesis of the book's case studies and empirical research.

When analysing the development of regions, we test sigma and beta convergence.

We assume that during the SWOT analyses prepared before the formulation of the development programs of the regions, it will be possible to identify and eliminate all the limitations that hinder the growth of the regions.

We also assume that the development of the regions is based on the positive expectations of those involved. Here we distinguish between the cases when all the stakeholders look forward to the developments with positive anticipation and when only a part of the stakeholders.

We are investigating where and when the point comes in the development of different regions and metropolitan agglomerations, when the optimistic vision and positive expectations will have the opposite effect. When does the inflection point of developments occur? Under what conditions does the development of the regions first lead to the formation of the bubble economy and then to the possible collapse?

But imperfect information also contributes to the fact that backward regions are permanently deprived of the chances of development and catching up. For example, there are no companies, people, or other organizations in that region that can track the changes in the world.

Can these very diverse topics be formulated in a unified theoretical framework and in a formalized mathematical language?

We will try.

The Role of Human Capital and Digitalization in Building Regional Economic Resilience

Cristian Incaltarau

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Abstract

There is a growing consensus that the EU is confronted with an ongoing series of major challenges, which include the Great Recession, followed by Brexit, the 'migration crisis,' the COVID-19 pandemic, and the war in Ukraine. In a highly interconnected world, where the impact of shocks can spill-over over great distances, the concern for strengthening resilience has come naturally, capturing more and more of the interest of policymakers. A particular attention has been dedicated to human capital, which is perceived as an important regional growth driver by endogenous growth models (Lucas, 1988; Romer, 1986). Previous studies have already shown that regions with a higher level of human capital have fared better in the event of shocks (Giannakis & Bruggeman, 2017; Kitsos & Bishop, 2018). Furthermore, there is evidence of labour market resilience when looking at the employment of workers with high levels of education (Simoes, Andrade, & Duarte, 2022).

Against this backdrop, the current study aims to assess the regional economic resilience of the EU regional economies in the aftermath of the Great Recession and the COVID-19 related downturn and test if human capital is among the transversal features that help regions perform better. Our approach extends the existing resilience literature in several ways. First, it accounts for the timing of regional business cycles, as referencing to the national/EU business cycles for all the regions when assessing economic resilience may significantly bias the results, as shown by (Duran & Fratesi, 2023). Second, the resilience metric we use is adapted from Sensier and Devine (2023) and evaluates the performance of both labour market and economic output, while including different resilience stages. Third, digitalization is assessed as a transmission mechanism for enhancing the human capital spillover effects at the regional level.

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Unraveling the Role of Universities in Shaping Regional Innovation: Insights from European Patent Data

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Abstract

Regional innovation production has long been a focal point for researchers, with a consensus that it underlies the long-term economic growth of regions. Innovation in regions stems from the activities of various institutions, primarily firms and universities. While the majority of innovations occur within firms, universities are increasingly active in commercializing their research outcomes and collabourating intensively on innovation activities with companies. This study explores the contribution of universities to regional innovation in Europe by utilizing a comprehensive database of university-owned and university-invented patents identified within the OECD RegPat database. The analysis focuses on the evolution of academic patenting in European regions and its geographic dimensions. In the second part, the article employs a knowledge production function to assess the significance of university research and development expenditures and knowledge stocks in regional patent production. The modeling is based on patent application data in European regions from 2008 to 2016. This research aims to provide insights into the role of universities in shaping regional innovation landscapes and addresses challenges in assessing their impact across European regions.

Application and promotion of new zero carbon smart buildings in Cold Regions —Taking the Work R-CELLS of the Third China International Solar Decathlon Competition as an Example

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Abstract

The construction of zero-carbon buildings in severe cold regions is an important part of the implementation of China's commitment at the United Nations General Assembly to achieve the goal of achieving carbon neutrality by 2060. The development of new zero-carbon smart buildings through interdisciplinary and integration is the development direction of buildings in severe cold areas. Taking the competition work R-CELLS of the Tianjin University Team of the third Solar Decathlon China as an example, the project covers an area of 400 m^2 (including outdoor platform and landscape), the building area of 146 m^2 (except heating equipment room), and the roof area of 260 m^2. It aims to achieve "A Lifetime Healthy and Sustainable Home" with "positive energy, full recycling and zero emissions". With the goal of "sustainable development, smart connection, and human healthy ", R-CELLS has achieved good economic, environmental and social benefits. The characteristics of the building are intelligent design and construction, comprehensive utilization of renewable energy, intelligent control system, and resilient energy management system, which realizes the good effect that the renewable energy output of the building base is greater than the energy consumption in the same period during more than 50% of the year, and is a prototype of the building with zero energy consumption and zero carbon emissions suitable for the severe cold regions of northern China. This paper introduces the scientific design of the building at different stages, the key technologies of energy and intelligent control, and the multi-angle publicity and promotion, so as to provide a reference for the scientific research and application promotion of new zero-carbon smart buildings in severe cold areas.

The Regional Inequalities between the Budapest Metropolitan Region and the Large Urban Regions in Hungary

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Abstract

The Budapest metropolitan area is the country's only large European and global city with a population of over a million people. The population and economic weight of the Budapest metropolitan area is significant. 27% of the Hungarian population lives here, and 43% of the national GDP produces here. The economic and social demographic predominance of Budapest metropolitan region is not a new phenomenon, it can be partly explained by historical reasons, but at the same time, in the recent decades, despite of the ambitious regional policy ideas, it was failed to strengthen our rural regional centres and big cities, which could have ensured a more balanced territorial development, outside of the metropolitan area of the capital city, Budapest. During the last decades the processes of regional concentration intensified. This process can be identified by the growing economic and population weight of the Budapest metropolitan area, while at the same time the largest urban regions (except for two large urban areas in the countryside) constantly losing their population due to the unfavourable socio-economic trends. The aim of the study is to reveal and to compare the main features in the regional disparities in the socio-economic development trends in the Budapest metropolitan region and the largest urban regions. The analysis tries to explain the reasons for the growing differences in development between the capital region and the countryside.

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Revolutionizing Hospitality Operations: Harnessing the Power of Artificial Intelligence

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Abstract

Addressing contemporary challenges within the hospitality sector, such as catering to the demands of Generation Z, coping with labour shortages, and navigating the ongoing pandemic crisis, underscores the imperative for the digital transformation of restaurants. The advent of artificial intelligence (AI) solutions has emerged as a pivotal factor in elevating the efficiency of restaurant management systems. These AI-based solutions play a crucial role in cost control, heightened productivity, and enhanced customer satisfaction. Through a systematic analysis of existing literature, our study presents a comprehensive overview of potential applications of AI in restaurant management. Utilizing specific keywords, initially, 1263 results were identified from the Web of Science and Scopus academic databases. Subsequently, 22 studies published between 2019 and 2023 were selected for an in-depth textual analysis. The identified focus areas in these studies encompass guest service, marketing, as well as food and beverage preparation. The research findings offer practical recommendations for restaurant operators, aiming to optimize resource management, elevate guest experiences, and curtail labour costs, all contributing to increased revenues.

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Presentation of Agricultural Knowledge and Innovation Systems - The Role of Knowledge Transfer in (Interactive) Innovation

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Abstract

The Agricultural Knowledge and Innovation System (AKIS) is a system that supports the spread of innovation and digitalisation among agricultural actors through the transfer of agricultural knowledge, and is a key element of agricultural modernisation.

In today's agriculture, we are observing a project culture paradigm shift in which innovation is based on bottom-up initiatives.

Particular emphasis is being placed on the need for consultants/advisors, who are the knowledge intermediaries in this system, to initiate and participate as well as active players in an increasing number of quality EIP-AGRI (i.e. the agricultural European Innovation Partnership) projects in the future.

The EIP-AGRI aims to make the agricultural and forestry sectors more productive, sustainable and well adapted to the challenges of competition, volatile market prices, climate change and stricter environmental rules.

This will be achieved through capacity building of consultants/advisors, training courses, study visits abroad, cross-visits, Living Labs, which will provide European good practices and showcase good examples to the national agricultural actors. At the same time, it fits within the EIP-AGRI networking and the creation of Innovation Operational Groups through the so-called "innovation brokers".

The aim is that the advisors involved in the specialised trainings, equipped with new types of innovation skills, will be able to identify farmers' needs for development furthermore connect them with other stakeholders in similar fields to find a common solution to a given problem. In this way, they can become key players in innovation processes and thereby increase the innovation potential and competitiveness of a given EU Member State, such as Hungary, in the agricultural sector and at the level of the aggregate economy.

In agriculture, interactive innovation has a huge potential to increase productivity, support sustainability and improve food security.

The aim of the study is to summarize the structure and the operation of the AKIS model, to introduce the actors and stakeholders of the Hungarian system. Based on the research findings, the definition, the characteristics of Interactive Innovation will be introduced, together with its practical implications, good practices and beneficiaries.

Transforming Ways of Life in the Changing Suburbs – Case of Budapest

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Abstract

In recent years, numerous new socioeconomic and political factors and momentous events have rearranged and bent the frameworks within which suburban societies live and act in Hungary. New economic activity and employment hubs emerged in the waves of polycentric development, whereas other communities experienced negative tendencies with disintegrating societies and a lack of functions. Subcenters in some select suburban areas have become regional economic powerhouses with an immense demand for the workforce, services, and amenities. The COVID pandemic between 2020 and 2022 caused a new wave of migration from dense urban areas that created social tension in many cities and towns, with infrastructure unable to keep up with increasing demand. Uncertainties related to the war in Ukraine and economic hardships have also contributed to the change in scenery. Overall, local societies have had to adapt to the new challenges by adjusting their lifestyle patterns. The presentation will give an account of changes on various sides of lifestyles, such as commuting patterns, employment status, shopping, and free-time activities, including the strength of personal ties and trust towards institutions and the community. The comparative analysis will be carried out using two large-scale representative quantitative surveys carried out in 2018 and 2023 with in-depth qualitative interviews supplementing in a town belonging to the most salient subcenters in the inner agglomeration belt in Hungary. The results will be contrasted with those of other studies dealing with socioeconomic spatial realignment in metropolitan areas of late. The results will also shed light on the main reasons for the new andsevere tensions in the inner-metropolitan areas recently experienced in Hungary, along with their policy implications and challenges for local municipalities.

Quality Management as the Engine of Competitiveness in the Hungarian SME Sector

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Abstract

The purpose of the article is to define competitiveness as a concept related to my research topic, and to assess the situation in Hungary with regard to digitalization as a competitive advantage based on the Digital Economy and Society Index (DESI) results.

Hungary needs to significantly increase its efforts in the field of digitalization. Additional investment incentives and framework conditions supporting measures for the digital transformation of small and medium-sized enterprises (SMEs), especially in the area of skills, are necessary to accelerate the digital transformation of businesses. This includes increasing the use of digital technology by SMEs and developing digital startups.

The world around us has undergone drastic changes, and a well-functioning management system is a crucial element for competitiveness, adapting to changes, data-driven decision-making, and promoting employee commitment. Nowadays, the efficiency of innovation is a central theme in each industry. At the same time, production needs to become more sustainable for the sake of people's health, the protection of our planet, and profitability. Digitalization strategy

Due to the continuously changing economic environment, there is an increasing demand for innovative solutions to renew products, services, and processes for reproduction. To increase efficiency, such solutions work best when the stakeholders involved collabourate to create results that can be widely disseminated at a European level.

This research represents the initial point of an ongoing project by providing a situation and gap analysis, defining the quality-based vision and strategy and the required human and technological resources for the implementation.

Academia–Industry Relationships in Hungary – Institutional Performance and the Role in Researcher Career Path

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Abstract

This study focuses on university–industry relationships maintained by Hungarian institutions and aims at revealing what role these collabourations play in individual research careers in different scientific fields. A quantitative countrywide analysis based on innovation and publication performance of the institutions is setting the frames for the qualitative analysis, through which we rely on semi-structured, professional career interviews conducted with 13 researchers of different gender and academic stage engaged in the fields of either engineering or medicine and life sciences. In the identification of collabouration forms, we applied Perkmann's (2007) typology of university–industry links, while the impact on individual career paths was examined along the external (organizational culture, organisational structure, supporting/mentoring programs) and personal dimensions (such as gender, biological and academic age, academic stage, competences, and motivation factors) aligned with recent international literature. As for the main results, the level of involvement with the industry may vary; engineering typically maintains a wider and more long-term network of connections with industrial partners. Regardless of research field, most of our interviewees speak favourably of collabouration projects, the main advantages include challenging, innovative tasks, a chance to adopt new perspectives, reliable supplementary income.

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The role of Rural Development in Development Policy

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Abstract

The importance of the Rural Development Policy has been increasing both in Hungary and in the European Union since the Millennium. In June 2021, the European Commission adopted the Rural Development Action Plan, which set out a vision for stronger, connected, resilient and prosperous rural areas and communities by 2040. By establishing the Rural Pact, the Commission intends to mobilize a wide range of EU, national, regional and local actors with rural development solutions that have not been applied so far. In Hungary, in the 2021-2027 Programming Period, Rural Development is the only area of development policy where the level of national co-financing for EU subsidies increases significantly compared to the previous one. In our presentation we review the changing role of Rural Development in time and space, the main changes in the objectives, instruments and financing background in order to ensure that the EU and national rural development funds that will become available in the next programming period can further promote the development of rural areas.

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Disruptive Impacts Of Artificial Intelligence (AI) on the Dynamics of Tourism Related Mobility

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Abstract

An increasing number of AI-driven solutions are emerging that are subverting society's access to information, influencing individuals' choices and thus certain patterns of spatial use. Although the role of AI-based solutions in everyday activities is a major research topic in informatics and an emerging field in marketing sciences, the anthropogeographic analysis of the potential and adverse impacts of the technology is still a relatively new approach, especially in the Central and Eastern European region. The research aims to explore the opportunities and threats of AI-based solutions that can greatly shape tourism-driven macro- and micro-mobility patterns, thereby triggering socio-geographical changes that can also impact the current sectoral problems (over-tourism, ecological footprint of consumption, labour supply). In this context, the presentation highlights the most important challenges related to AI disruptions in the context of tourism-related mobility. Our research shed light on the emergence of highly automated vehicles in tourism and AI-based applications for tourists that affect decision-making.

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Only the Staff know what the Guest Wants? Hotel Management Issues with Artificial Intelligence

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Abstract

Artificial intelligence has become a focus of research in the last year. Not only because of its novelty and potential, but also because of the challenges it poses in addressing its application. The tourism industry has previously been called a pioneering digital sector and it seems that the use of AI could rapidly spread among tourism service providers. The question is how to manage the relationship between technology and humans in tourism, which has one of the highest rates of human interaction-based services. There is also the question of how tourists' data will remain secure as the sector becomes more technology-dependent. This presentation will seek to answer these questions by presenting a number of national and international examples and summarising the literature on the subject.

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Multidimensional Evaluation of the Agricultural Knowledge and Innovation System (AKIS)

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Abstract

The Agricultural Knowledge and Innovation System (AKIS) ensures the strengthening of links and interactions between agricultural organizations and/or persons, and subsystems (research, extension, support system, education), to foster knowledge, information flows, and innovation. The concept has evolved in the literature and has also found its place in agricultural policy by becoming part of the Common Agricultural Policy. Within the CAP, support for the EIP operational groups, knowledge transfer, and advisory measures have ensured the contribution to the development of AKIS in the Member States. However, the AKIS goes beyond the support measures provided by the CAP, as several other government measures and incentives are also supporting its development.

Each EU Member State has developed its own AKIS, adapted to its circumstances, actors, and needs, and embedded in national legislation, institutions, and culture. Studies comparing AKIS across Member States have mostly attempted to collect and analyse the specificities of each Member State, mainly along with the results of indicators available through primary data collection. However, these studies are less suitable for comparing AKIS in the Member States.

There are a number of initiatives and indicator systems that have been developed to measure innovation performance. The OECD, the EU (known as the EU Scoreboard), and the World Intellectual Property Organisation (WIPO) have innovation performance measurement systems. These systems are less suitable for measuring innovation performance in the agricultural economy, as they focus on the innovation activity of the countries.

This study used the methodology of composite index construction to create the so-called AKIS index which combines a set of indicators along the dimensions specific to the AKIS, able to show the performance of the AKIS and the differences between the Member States. The AKIS index systematizes Eurostat data as well as CAP outcome, output, and impact indicators and allows the measurement and comparability of the AKIS performance of Member States.

The Good, the Bad and the Ugly - Didactics of Settlement Marketing

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Abstract

In the spirit of centralisation to ensure a strong and efficient state, the role of the local government has been reduced since 2013 in Hungary, and its most important task, apart from its social, cultural and local community-building functions, is to promote local capital attraction. Settlement marketing, which was born in 1996 in the Netherlands, is still in its infancy in Eastern Central Europe, and it might not be uninteresting to present a prototype of settlement marketing to be followed, the "good" one, and two prototypes that are unfortunately often found, the "bad" and the "ugly" one, in the context of a didactic lecture.

The lecture tries to distinguish three practices from the perspective of local government in a didactic, visual way: the good, the bad and the so-called ugly - referring to the title of Sergio Leone's 1966 blockbuster film. The presentation introduces the factors of municipal marketing, the municipality and the target groups of customers: the local population, the managers, the capital operators, the developers, who are the main target of municipal marketing, as they can create jobs and infrastructure that, generate additional target groups (migrant workers, university students, patients seeking medical treatment and, above all, tourists). The four types of municipal image (internal, external, partner and professional) and branding are presented before the good practice. According to good practice, selling to the first target customer cohort is the basis for reaching developers through managers. Without this, successful municipal marketing is not possible. Among the other target groups, tourists are of particular importance, as they strengthen the reach of the manager target group. Bad practice is when the self-government neglects or does not bother to sell to the local population - in this case the municipality is one of the losers in the competition among municipalities. Finally, the "ugly" practice is one that unfortunately also has many examples: the municipality confuses municipal marketing with tourism marketing, identifying tourists as the main and primary target group of customers. This practice may have limited results in the competition between the municipalities.

Green Dependence on the Brink? Critical Metals of the European Union's Clean Transition

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Abstract

The breakout of the Russian-Ukrainian war at 24 February 2022 brought the agenda of the energy security in the forefront once again. As an almost immediate response to the situation the European Union had come up first with the Versailles Declaration, then presented its grand idea called REPowerEU including the ambitious strategy aims to abandon the Russian gas import and accelerate the European green transition - a fundamental long objective already founded by the European Green Deal earlier.

Since then during the last two years we witnessed fundamental changes in the EU's energy mix representing this aforementioned strategy. As a general outcome of this ambitious undertaking the import of Russian natural gas had decreased significantly, while at the same time liquified natural gas import was peaking an unprecedented hight mostly arriving from the US.

Meanwhile, decoupling Russian fossil fuels is only a part of the grand plan, while the other side of the coin, the green transition does not directly linked to it. Renewable energy is an essential part of this transition relying on different green technologies. However, these technologies based on different elements as crucial part of their production. Some of them have marked as 'critical' and 'strategic' by the EU highlighting their economic importance just like possible supply risks. Considering from one hand the unique shape of the global market of these -mostly metals- elements; strong geographical concentration of raw materials, overpowered supply-chain actors like China, and from the other hand the EU's production of these critical materials which is except a few cases are one digit or barely existing in term of global scale, one can draw the potential geopolitical consequences.

Does the EU running from one arm of the dependency to the other exchanging its fossil fuels to a green one? How could the EU mitigate the potential geopolitical challenges and what are going to be the economic, political and environmental consequences of these steps?

In order to gain answers to these questions the EU's dependency rate going to be measured right after its overall supply-chain regarding these materials will have mapped. In case of being able to analyse potential steps and outcomes for the EU, official documents like EU's Study on Critical Raw Materials and Critical Raw Material Act are screened. Other policies and scenario related documents going to be processed too involving different disciplines. Main conclusion is underway, since the research has not finished yet.

Social Perception of the Process of Demographic Shrinkage in One of Hungary's Underdeveloped, Inner Peripheral Rural Regions – Case Study Greater Cumania

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Abstract

Forty years ago, in 1984 in Rotterdam, the world's leading urban planners realised that urbanists would have to face a new phenomenon: demographic shrinkage had begun in some (large) cities of the developed world. With the regime changes of 1989/90, these problems also surfaced on the (semi-)periphery of post-socialist Europe, and the development trajectories of these regions and their settlements were fundamentally changed. The clearly perceptible demographic changes (population decline, ageing society, ethnic restructuring) and their complex socio-economic-environmental effects on settlements and regions also pose significant development problems and challenges in large parts of Hungary. In our research, we examined six demographically declining and shrinking settlements of Greater Cumania, a traditional Hungarian cultural region, which is considered to be an inner peripheral rural area. The methodology used is very diverse: we applied loss mapping, a complex method of analysis for the multi-layered exploration of territorial characteristics, among the local prominent persons invited (mayors, deputy mayors, notaries, minority representatives, chief architects, heads of NGOs, school directors, cultural organisers, local clergy, GPs, entrepreneurs). The respondents assessed the cultural characteristics of their towns, local government management, production and service culture, in order to get a more comprehensive picture of the general situation and characteristics of the six shrinking small towns. Respondents rated the potential of their municipality on a five-point Likert scale (0, 2, 4, 6, 8) (increasing scores indicate increasing dissatisfaction). The results were coded and recorded in SPSS software and analysed using this software and MS Office Excel. The Kruskal-Wallis method was used to explore the functional range differences of the loss-of-function mapping. QGIS software was used for map representation. Relevant national and municipal statistics were used, municipal development documents were analysed, and the methodology of "lived geography" was applied to truly explore the deep layers. The analysis of the loss maps of the six municipalities shows that, on average, the prominent respondents of the municipalities surveyed rated their losses as slightly less severe than medium. The statistical test carried out showed that, although their natural and demographic conditions are similar, they have followed a markedly different development path, with different ways of emerging from their peripheral existence and their resilience to challenges, their flexibility. In the light of the analyses, it can be concluded that the source of the problem cluster is basically the quality of the local society: the average educational level of the population of Greater Hungary is lower than the national one, the level of education is lower than the national one, the level of cultural demands is very low, not to mention the willingness to entrepreneurship, innovation attitude, motivation to learn. Generally speaking, in the six settlements of Greater Cumania it can be concluded that the necessary infrastructure is available, local governments often outperform in development (in the past decades relying almost exclusively on EU and state co-financing and tenders), but local society does not have sufficient financial and moral capital to maintain the settlements.

Charging Forward: Unveiling Dynamics, Challenges, and Strategies in the Shift to Electric Vehicles

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Abstract

In contrast to conventional vehicles powered by internal combustion engines, electric vehicles (EVs) offer a cleaner and more sustainable option for reducing environmental emissions by reducing CO_2 emissions and supporting the integration of renewable energy sources. A study of OECD countries showed that decreasing the energy intensity of output and increasing the share of renewable energy can offset some of the increase in carbon emissions from energy consumption. Therefore, widespread adoption of EVs can significantly reduce CO_2 emissions from the transportation sector. For example, depending on the source of electricity used by the electric vehicle, at best, the EU's trams emit 80% (at worst, about 25%) less carbon than conventional gasoline and diesel vehicles).

Meanwhile, depending on the vehicle technology, EVs emit significantly lower amounts of greenhouse gases during operation than fossil fuel vehicles. For example, electric cars have zero tailpipe emissions, emitting no carbon dioxide or other pollutants during operation (Nissan's official website). Emissions associated with EV charging decrease further as the proportion of renewable energy in the grid increases. By transitioning the energy mix to renewable energy sources such as solar or wind, the environmental benefits of EVs will develop to the maximum. EVs are becoming increasingly important in mitigating climate change and reducing greenhouse gas emissions, but the benefits of their practical application bear additional testing.

The world faces an imperative shift towards sustainable transportation, therefore, one of the solutions to solve climate change underscores the multifaceted challenges associated with promoting EVs. These challenges encompass resource allocation disparities, the imperative need for infrastructure development, and the complexities arising from reduced gasoline taxes. Simultaneously, the "Value-action gap" in consumer behaviour towards eco-friendly choices emerges as a formidable obstacle, with consumers displaying hesitancy to pay premiums for environmentally conscious options.

This introduction sets the stage for a closer examination of resource allocation disparities hindering the equitable promotion of electric vehicles. Additionally, it lays the foundation for discussions around strategies aimed at surmounting infrastructure challenges and navigating the financial implications stemming from reduced gasoline taxes. Through this paper, we embark on an in-depth exploration that aims to contribute to our understanding of the nuanced dynamics between urban development, climate action, and the imperative transition to sustainable mobility.

To conduct this study, a mixed-methods approach was employed, combining qualitative interviews and questionnaires. The qualitative aspect involved in-depth, semi-structured interviews with suburban residents of Xinzhou City, China. The questionnaires would be online (narrowed down to suburban residents). These interviews aimed to capture insights into the challenges, opportunities, and perspectives of suburb residents' attitudes to EVs and their supporting infrastructures. Additionally, questionaries were conducted to focus on how the subsidy policy affects people's willingness to buy EVs.

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Operational Logics of Municipalities - The Case of Downtown Revitalisation in Hungary

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Abstract

The lively main streets of many Hungarian cities have become deserted in recent decades, while shopping centers on the outskirts of the cities have taken over the functions of these symbolic spaces. What can municipalities do to turn their main streets into lively, service-rich places again? The research is primarily based on 96 semi-structured interviews with experts in Hungarian and English, which was conducted between 2018 and 2023. The management of premises by Hungarian municipal governments is the most significant untapped potential and also the most neglected urban development tool as the majority of Hungarian municipal governments do not use municipal premises management as a means of urban development. Four operational logics of Hungarian municipalities can be distinguished: political, administrative, strategic and financial. On the basis of the representation of local government operational logics, the analysed Hungarian city governments can be classified into four clusters based on their operation in their local management: visionary strategists, managing entrepreneurs, managing operators and off-the-beaten-trackers. Main finding of the research is that the success of Hungarian local government property management is significantly limited by the dominance of the administrative operational logic, however the success of Hungarian local government property management is significantly supported by several legal and non-legal instruments independent from financial status.

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Unequal Power Relations within European Research Collabouration Networks - An Uneven Development Perspective

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Abstract

The Framework Programmes for Research and Technological Development of the European Union have stimulated the establishment of research collabourations for decades to enhance synergies of European academic knowledge production and to support its own policy goals. Although increasing resources and the thematic expanse of the past programme periods have indeed created fruitful cooperation between different partners across Europe, they also contributed to the reproduction of European inequalities in the field of knowledge.

Hence, the goal of this paper is to analyse inequalities in the European scientific field and knowledge production based on information on Horizon 2020 and Horizon Europe research and innovation collabourations. While this can be investigated from different viewpoints (forms of cooperation, productivity etc.), the main emphasis of this research is to analyse different participation attributes of institutions participating in H2020 and Horizon Europe initiatives and their spatial distribution patterns, with special regard to positions of Central and Eastern European countries. These geographies of research collabourations are investigated by an uneven development perspective with the assumption that inequalities of knowledge production in such initiatives are an immanent part of the system, formed by the unequal power relation between academic actors with different socio-economic and geopolitical positions in the European scientific arena.

Statistical and GIS-based analyses presented in the paper are based on geographical location data of institutions participating in H2020 and Horizon Europe research and innovation actions from 2014 to 2024 and information on attributes related to project and institutional characteristics, financial contributions and their roles in collabourations. These types of data on institutional location and project attributes can be retrieved from CORDIS database, which provides information on projects implemented within Framework Programmes of the EU.

The results of the paper contribute to the evidence-based knowledge of spatial characteristics of research collabourations within Europe. Detailed findings on the presumed concentration of analysed attributes within Western countries, the unequal positions within networks between older and new member states and measures on the level of integration of CEE countries into collabouration networks not only could arouse the interest of the scientific community but could also provide important feedback from a policy point of view.

The paper is supported by the János Bolyai Research Scholarship of the Hungarian Academy of Sciences, and it also presents the results of 'Marginalised Space Experience in the Context of Uneven Geographical Development' research project (project no. 138713) under implementation with the support provided by the Ministry of Innovation and Technology of Hungary from the National Research, Development and Innovation Fund, financed under the K_21 funding scheme.

Questions of Social Sustainability in an Inner Peripheral Rural Hungarian Region in the Light of Talent Geography Research

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Abstract

Talent geography research has a relatively long history in Hungary, but the number of studies on the subject is still relatively small in the post-change period (since 1990). Most of the research published so far includes national-level analyses, which also reflect differences at lower territorial levels, but few works have so far been published that have specifically analysed the talent geography of a Hungarian small area/region.

As a prelude to the present study (in 2021), written enquiries were made to the heads of departments and institutes of some thirty Hungarian-language higher education institutions (only universities, no colleges) in Hungary and four Hungarian-language institutions beyond the borders of Hungary (this amounted to a total of some 200 written enquiries), which resulted in the collection of data on their former and current staff (talent) with outstanding life achievements. In addition, a Hungarian sample of around 3,000 people from the Carpathian Basin was compiled from scientific and academic websites, textbooks and journals.

The special topicality of this article is that in 2023, two Hungarian scientists were awarded the Nobel Prize, the most famous scientific award: one of them, biochemist and research biologist Katalin Karikó grew up and completed her primary and secondary education in Kisújszállás, a small town in the Greater Cumania region (another town in Greater Cumania, Karcag, is the birthplace of biochemist Ferenc Herskó, who was awarded the Nobel Prize in 2004).

In the present research, the authors have examined the settlements and talents of Greater Cumania and their interrelationships: the study provides a talent geography analysis of the life paths of persons with outstanding life achievements associated with traditional Greater Cumania. In total, the authors have carried out geographic aspect studies on twenty-two individuals in terms of place of birth, primary, secondary (and tertiary) education, career stages and place of death.

In the case of the settlements of Greater Cumania, it is also observed – as in other small districts – that after leaving secondary school, people with outstanding abilities continue their lives in settlements with better learning conditions. Most of them do not return 'home' (in the case of Greater Cumania, none of the persons surveyed), because they cannot find a job that matches their skills and ambitions after graduation. It is reasonable to conclude that the efforts of the peripheral inner Greater Cumanian small towns to improve their situation may even be counterproductive, as it is probably difficult to resolve the contradiction that their efforts to uplift their own society in the medium and longer term actually make the successful metropolitan centres richer. The research has shown that the natives of Greater Cumania had to leave their homeland, and many of them the country, to become successful scientists, artists or sportsmen – and that this is not only a moral but also a socio-economic loss for the region and the individual settlements, which further weakens local societies and significantly reduces their chances of catching up and development.

The Impact of Széchenyi István University on the Economic and Social Development of the Transdanubian Region

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Abstract

In my writing and presentation related to the conference, I seek answers to fundamental questions regarding the responsibilities of a 21st-century university as expected by external regulators and voluntarily assumed by itself, as well as how the success and achievements of a university can, and should, be measured. I also explore how the outcomes of institutions can influence the social and economic development of the region where the higher education institution is incubated.

Despite significant changes in perceived and actual tasks expected from higher education institutions over the centuries, two fundamental conditions remain unchanged a university can only function as such if students choose its programmes when selecting institutions, making the attraction and retention of applicants an eternal task and objective for every university. It is not only a general truth for higher education institutions that financial-economic sustainability is primarily necessary for successful operation. Based on the above, the question narrows down to what is expected from universities, besides important educational activities for students and ensuring financial sustainability, how the impact of institutions on regional social and economic aspects can be measured, and whether it is expected that the impact of institutions should be measurable nationally and globally. It is important to note that adequate financial resources and assets are not a guarantee of success but rather a necessary, albeit not sufficient, precondition, requiring goal- oriented institutional strategy, disciplined execution, and committed employees.

In my presentation and writing, I elabourate on how Széchenyi István University in Győr interprets these questions and provides answers to them. I delve into the possibilities of measuring the effectiveness of educational, scientific, and third mission activities, how domestic and international students choose higher education institutions based on different criteria, what the commonalities and differences are, and how a globally competitive institution can meet the requirements of both sets of criteria. I outline the operational framework ensuring the financial-economic sustainability of Széchenyi István University, the content of our positions in global rankings, the main motivations for compliance with rankings, and why the relationship between a higher education institution and the city hosting it is exceptionally important in terms of the global visibility of higher education institutions, and I also discuss national standards used by evaluators to measure the relationship between higher education institutions and the cities hosting them, and whether this can be adapted to the Hungarian context.

Spiky Metropolitan Landscapes: An Urbanometric Analysis of Growing Agglomerations

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Abstract

The spatial configuration of urban systems has garnered significant interest from various disciplines, including urban planners, economists, and ecologists, due to its interconnectedness with various aspects of sustainable development. Research on urban form suggests a departure from the conventional model of a gradually declining density gradient from the city center, giving way to a "spiky" urban landscape characterized by a heterogeneous polycentric pattern. This study aims to examine the recently emerging spiky structure of an urban agglomeration, providing insights into the potential prospects of cities. We adopt a new quantitative modeling approach inspired by spatial econometrics and coined here 'urbanometrics'. By utilizing and testing spatial dependence urbanometric models, we seek to elucidate the factors driving these changes, with a specific focus on pluriform urban sprawl in the Mediterranean region, specifically the Izmir city-region. The findings indicate that since the early 2000s, the Izmir city-region has experienced simultaneous decentralization and the emergence of multiple centers, with sharp differences. Furthermore, the results demonstrate that the expansion of highway infrastructure, population growth, and available convertible land contribute to urban sprawl and the emergence of a "spiky" urban landscape.

An Update on the Economic Impact Analysis for the Development Projects of March Joint Powers Authority in Southern California

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Abstract

Economic impact analysis (EIA) is frequently conducted to assess the potential effects of policies, plans, and projects. Yet, the effects of many economic impact studies lack validation, posing challenges in accurately evaluating the true effects of these initiatives. In 2016, an EIA study was completed to estimate the regional economic impacts of airport development projects in the March Joint Powers Authority (March JPA) located in Riverside County of Southern California. The March JPA has been planning and implementing new uses for currently vacant lands, reuse of existing facilities, and joint use of the airfield facilities. The 2016 EIA study reported the impacts of development projects in 2016 and also projected the economic impacts of a full-build out scenario by 2030. It's intriguing to note that the March JPA development projects are still progressing according to the estimates from the 2016 EIA study, particularly considering the challenges posed by the COVID periods. This study updates the Southern California Planning Model (SCPM), building upon an earlier version utilized in the 2016 EIA study. The newly updated SCAPM is employed to trace the regional economic impacts of the present March JPA's development activities at a high level of sectoral and spatial disaggregation. Comparing the modeling results from 2016 to 2023 reveals a significant increase in the economic impacts of the March JPA, with employment multiplying sixfold and production multiplying eightfold. The updated long-term projections for employment and production growth also align with the previous forecasts made in 2016. These findings serve as a robust example of the efficacy of spatial planning models in Economic Impact Assessment (EIA). They also demonstrate how EIA can facilitate collabouration between the March JPA and local communities, enabling more efficient execution of development projects and equitable cost-sharing.

Towards a "Large Model" for Predicting Regional Industrial Growth from the Perspective of Industry Relatedness

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Abstract

Industrial relatedness (and related with it, economic complexity) has offered a compelling perspective for understanding the evolution of national and regional economy, which is proven to be predictive for economic growth, innovation, and industrial upgrading. However, existing research in this stream of literature mainly adopt a dimensionality reduction approach, which aims to summarize the relationship between industries and the sophistication of economies with a single number. Despite the sophistication in the construct of these metrics, this approach runs the risk of over-compressing a significant amount of information on the interaction between industries and the detailed structure of an economy. To compensate, this research aims to pursue a divergent approach in explaining and forecasting the growth of regional economy, by constructing a 'large model' that leverages the full information on the intricate structure and dynamics of the studied regions. The study employs a newly-available large data set comprising all Chinese enterprise registry information with 3-digit level industrial classification (420 classes) between 2010 and 2023, covering all 337 Chinese city-regions. This data set is processed with a summary data set of the Third National Economic Census to construct a machine learning model that predicts the size of an industry in a city-region based on the number and size of the registered enterprises. These procedures generate a further panel data set on the annual size of the 420 industries in each of the 337 Chinese city-regions over the study period. Besides, the study also collates the data on the natural and human resources of the city-regions from the China City Statistical Yearbook, as well as industrial policies from provincial governments' 12th, 13th and 14th Five Year Plans. Building upon these data sets, machine learning methods are employed to develop forecasting models for the growth of each industry in a city-region based on the conditions of other industries in the city-region, the natural and human resources, and the government's supportiveness in the previous year. Such models are possible thanks to the size of the samples (337 city-regions × 13 years). Dedicated forecasting models are created for each industry, collectively forming an extensive model set comprising hundreds of thousands of parameters. The study then calculates the importance of the input features and evaluates how the existence of an industry would contribute to the growth of another industry, which can be interpreted as a dynamic view of industrial relatedness.

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Examining the Impact of EU Funding in the Mezőkövesd District in 2014-2020, with a Special Focus on Job Creation and Economic Development

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Abstract

The county of Borsod-Abaúj-Zemplén has been characterised by lower economic development than the national average in the last development period for a number of reasons. The capacities previously producing for the Comecon market proved to be outdated and uncompetitive in the new market conditions after the regime change. Foreign working capital has been concentrated in western areas, which are geographically close to western markets and infrastructure networks, while investment has tended to avoid the peripheral eastern regions. Despite the economic growth in the 2010s, the region remains lagging behind and at a competitive disadvantage compared to more developed regions.

The emergence of EU funding is generally considered to generate a growth surplus where the funds are used. This is because EU regional policy aims to promote economic growth, job creation and an improved quality of life through investment, i.e. to reduce economic and territorial disparities, increase employment and reduce social disparities.

As the 2014-2020 EU cycle draws to a close, our study examines the extent to which the Community-Level Policy has been able to meet community expectations in terms of its objectives, the extent to which the related performance indicators have been met and the impact on Borsod-Abaúj-Zemplén county and the settlements of the county's territorial unit under study.

Keywords
Aid, public involvement, investment, enterprise, municipality, impact.

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Rethinking Tunisia's Transition to Sustainability in Connection with the New Territorial Division

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Abstract

Tunisia experienced relatively high economic growth rates (around 5%) before the January 11, 2011 revolution. Despite this performance, regional disparities persisted and were the cause of the popular uprising of 2011. The demand for wealth redistribution among regions was one of the main demands of the Tunisian revolution. In 2011, the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ) initiated the development of a Regional Development Synthetic Indicator (IDR) to address this need. The IDR was implemented in July 2012 and has been regularly used as a means of monitoring and evaluating the state of regional development in the country. Since then, despite multiple political and socio-economic changes in the country and worldwide, the calculation formula for this indicator has not been revised. In 2023, a new regional distribution was adopted by Tunisian public authorities. The question arises as to whether this indicator is still suitable for the new regional context and for a real transition of the country to sustainability.

The idea of this work is to review this indicator by relating it to the achievement of Sustainable Development Goals (SDGs) at the regional level and to monitor regional dynamics through the indicator found. Based on proxy variables of SDGs, a regionalized database was developed. After exploration, a synthetic index of regional development derived from data factorization and classification was constructed, normalized, and compared to the commonly used indicator. Our results show that despite the deployment of several differentiated strategies for regional development, classic poles of unemployment, poverty, and underdevelopment persist. The level of regional development has shown a slight smoothing of the peaks associated with it while remaining within the same "bandwidth." Mapping of the regions confirms the classic IDR and highlights the urgency of integrating the environmental component.

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The Impact of Socially Responsible Consumption on Nostalgic Perception: The Case of Local Food Products

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Abstract

Consumers' nostalgia plays a considerable role in their choice of local food products, which are perceived as socially responsible, committed, favouring local products and rejecting the industrialisation of the food market. The theoretical findings of our research can be summarised as follows:

- Consumer nostalgia has the ability to influence consumer behaviour on an emotional level (Davis, 1979) and on a cognitive level (Holbrook and Schindler, 1994).

- Nostalgic perception, which is a mental reading of the environment at a given moment and which may be real, physical, observable and captured by all our senses, has attracted the attention of marketing researchers (Havlena and Holak, 1991; Kessous, 2009). Research on nostalgic perception diverges on the characteristics of the emotion that is nostalgia aroused by this reading, which are just as multiple and depend on the approach of each author (Gharbi, 2011).

- The propensity for nostalgia as a personality trait could influence nostalgic responses (Holbrook and Schindler, 1991).

In terms of empirical findings, we note first of all that Fort and Fort (2006) argued that consumer nostalgia plays a considerable role in the choice of terroir products and that little research has explored the triggers of nostalgic perception (Bartier 2014/ Rana 2020). Our aim is to show that socially responsible consumption can play an activating role in the perception of nostalgia, given the moderating role of the propensity for nostalgia in the consumption of local food products. For the empirical study, we chose to work on local food products because of the values they represent for consumers. Indeed, terroir products convey a regional identity and, for consumers, are emblematic of a heritage, a past, and therefore an identity that they are proud to claim. This can be explained by a number of factors (Merle and Piotrowski, 2012), such as reducing health risks, rediscovering the real taste of food, consuming responsibly and developing social ties.

Methodology of empirical research:

Finding aids: Questionnaire

Sampling method: Convenience sampling

Sample size: 210 individuals

Data analysis methodology:

Positivist approach with a hypothetico-deductive approach

Purification of measurement scales: PCA on SPSS 23

Estimation of the conceptual model on AMOS 23

- Global model: Chi square, GFI, AGFI, RMR, RMSEA, TLI, CFI, normalised χ^2, BIC/saturated BIC

- Measurement model (AFC): Internal consistency reliability; Convergent validity; Discriminant validity

- Multi-group analysis

The results of the survey of 210 respondents showed that the volume of consumption, the purchase of shared products and small-scale retailing all play a role in activating nostalgic perceptions. The propensity for nostalgia as a personality trait influences nostalgic responses.

Keywords

Nostalgia; nostalgic perception; CSR; local food products; propensity for nostalgia.

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Sustainability and Environmental Aspects of the Increased Adhesive Joint Strength of a Surface Treated Metals and Polymers

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Abstract

This study focuses on the sustainability and environmental benefits achieved through the enhanced adhesive joint strength of surface-treated metals and polymers. By adopting specific surface treatment technologies, including laser and cold plasma treatments, we significantly increase the adhesive joint strength between metals and polymers. This improvement in adhesive efficiency enables a reduction in the quantity of adhesive material required, leading to both economic savings and a decrease in environmental impact. The research systematically examines the effects of microtopography modifications on the adhesive joint strength and explores the potential for adhesive material savings. Experimental results demonstrate that targeted surface treatments can lead to a notable increase in joint strength, thereby permitting the use of lesser adhesive quantities without compromising the joint's integrity. This approach not only contributes to material efficiency but also aligns with the principles of sustainable manufacturing and green chemistry by minimizing waste and reducing the environmental footprint of adhesion processes. The findings offer valuable insights for industries seeking to enhance the sustainability of their bonding applications, particularly in sectors such as automotive, aerospace, and electronics, where high-strength, durable adhesive joints are essential. The sustainability and environmental benefits of increasing the adhesive joint strength through surface treatment of metals and polymers can be achieved and understood through several key findings:

Reduced Adhesive Quantity: Specific surface treatments, particularly the turned, sandblasted, and plasma-treated surface, significantly increase the adhesive joint strength. This elevated strength implies that less adhesive material is required to achieve or maintain the desired bond strength, leading to material savings. Less adhesive use translates directly to reduced environmental impact, as it minimizes the production and disposal of adhesive materials.

Waste Reduction: The surface treatments enhance the wettability and adhesive properties of the materials, which not only improves bond strength but also potentially reduces waste during the manufacturing process. Better adhesive properties mean fewer errors and retries, resulting in less waste generated and a lower environmental footprint.

Longevity and Durability: Enhanced adhesive joint strength contributes to the longevity and durability of the bonded components. This means that products may have a longer lifespan and require less frequent replacement, reducing the demand for raw materials and energy for manufacturing new products, and decreasing the volume of waste sent to landfills.

Chemical Savings: The surface treatments modify the chemical composition and physical properties of the materials' surfaces, leading to improved adhesive properties without the need for additional chemical additives or bonding agents. This can lead to a reduction in the use of potentially harmful chemicals, aligning with the principles of green chemistry.

Keywords
Adhesives, metals, savings, surface treatment.

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IDM-Based Modelling and Validation of Roundabouts Based on Real Measurement Results

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Abstract

The primary goal of our research is city-level traffic optimization. As a first step, we aim to develop optimization algorithms for a specific roundabout. These algorithms will be developed in a simulation environment.

To facilitate this, we have created a model in the CARLA simulation environment that functions equivalently to the above-mentioned roundabout. In order to construct this model, we determined the real roundabout's parameters using manual traffic counting methods.

Examining the Long-Term Payback of Electric and Conventional Powertrains for Freight Vehicles

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Abstract

In 2017, road transport accounted for 93% of total energy use in EU transport, 94% of which was fossil fuel-based. Freight transport is growing slower than passenger transport in all scenarios currently under consideration but could still be up to three times higher by 2050 than in 2010. Under the European Green Deal, Europe would have to reach zero greenhouse gas emissions by 2050 to become the first climate-neutral continent. A radical overhaul of the transport sector is inevitable to achieve this ambition. This research examines scenarios for the widespread uptake of electric transport vehicles, comparing them with conventional propulsion. By analysing the scenarios, we aim to propose a system of incentives for infrastructure development and the purchase and use of alternative propulsion vehicles in support of national economic interests. For this purpose, a 10-year time horizon is taken as a starting point, starting from today's perspective, by examining parameters such as purchase cost, running and consumption costs, and the inclusion of carbon dioxide emissions as an external cost over the whole life cycle of the vehicles. The scenarios highlighted that the current situation does not provide more favourable conditions for using electric vehicles than traditional vehicles, so drastic intervention in this area will be inevitable in the short term to achieve climate-neutral transport.

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Estimation of the "Critical Time Gap" in a Roundabout Using Microsimulation and Video Based Traffic Measurement

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Abstract

In this study we determine the critical (time) gap on an entry lane of a roundabout subjected to traffic over its capacity limit. First, we identify the flow of traffic and the average speed of the roundabout based on video recordings. Then we reconstruct the traffic situation within the roundabout using our own microsimulator based on an Intelligent Driver Model. By gradually adjusting/altering the value of the critical gap in the simulation, we specify the threshold at which the actual output capacity of the overloaded lane is reproduced by the simulator. The presented method and the obtained results show that the crucial traffic parameters of roundabouts can be successfully determined via video-based traffic measurements and a traffic microsimulator.

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Improving Intrusion Detection: Picking the Best Features for Behaviour-Based Systems

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Abstract

In today's digital age, safeguarding business IT systems from cyber-attacks is considered essential. Intrusion Detection Systems (IDSs) play a crucial role in this regard. Among them, Behaviour-based IDSs (BIDSs) hold significance due to their ability to promptly detect anomalies in network traffic, a pivotal factor in thwarting attacks. BIDSs operate through two main stages: training and detection. To construct a robust detector, the system is exposed to both normal and attack data during the training phase. Feature selection and data simplification are integral components of this process, aimed at aiding the system in effectively distinguishing between benign and malicious activities.

In this study, various methods were employed to select features and simplify data using a well-known sample dataset containing traffic records for five attack types as well as benign traffic. The focus was on developing binary classifiers, which can distinguish between attack and normal traffic situations. Therefore, five different datasets were used, each of them containing data corresponding to only one threat and normal traffic. Feature scores were determined for each case separately with different methods, and for the case of each dataset, they were normalized and aggregated to determine the most effective approach to enhancing BIDS performance. Two different approaches were tried for determining the optimal feature score values that allow the definition of a feature score threshold above which the features can be labeled as relevant ones. This approach resulted in significant dimensionality reduction for each investigated attack type.

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Mechanical Properties of Recycled Polypropylene Nanocomposites in Function of Time and Temperature

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Abstract

In this study, the effects of multi-walled carbon nanotube (MWCNT) content and recyclation on the mechanical properties and time and temperature dependent mechanical properties of polypropylene homopolymer (PP) were investigated. The nanocomposites and their recycles were prepared using twin-screw extruders with 0.3, 0.5 and 1 m/m% MWCNT content and test specimens were injection molded.

The results of the mechanical test showed that the PPH/MWCNT reciklatelets exhibited an increase in elastic modulus of ~4% at 0.3 m/m%, ~9% at 0.5 m/m% and ~11% at 1 m/m% reinforcement, compared to the unfilled PPH base material. A negligible increase was observed in the stress values associated with the neck formation a significant decrease was observed in the tensile elongation values

Based on the dynamic mechanical results, it was found that the incorporation of MWCNTs improves the storage modulus values over the whole measurement range.

From the creep to failure results, it was found that due to the favorable mechanical properties of MWCNTs and their effect on stiffness, the creep tendency of composites and their reciklazation was significantly reduced.