

Meeting of the Institute of Economic Research (MIER 2026)

April 22 – 24, 2026

Congress Center of the Slovak Academy of Sciences in Smolenice

CONFERENCE PROGRAMME AND BOOK OF ABSTRACT



Organized by: Institute of Economic Research SAS

Institute of Economic Research, Slovak Academy of Sciences, Bratislava, Slovakia

Edited by: Miroslava Jánošová

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Foreword

Dear colleagues and participants,

It is our pleasure to introduce the Book of Abstracts for MIER 2026. This volume brings together the research presented at this year's conference and offers a snapshot of current debates in economics, public policy and social sciences.

The contributions included in the programme address a broad range of themes. Several papers focus on Slovakia's current macroeconomic situation, fiscal consolidation, foreign trade and public finance sustainability. Others examine financial stability, monetary policy, credit risk, capital flows and the role of geopolitical uncertainty. The programme also includes research on labour market policies, vocational education, migration, inequality, housing, regional development, energy transformation, climate-related risks, pension systems and long-term demographic challenges.

A common feature of this year's contributions is their strong empirical orientation and their relevance for policy discussion. Many papers use administrative data, survey data, regional statistics, financial market data, or international panel datasets. Together, they show how economic research can contribute to a better understanding of structural changes, institutional constraints and emerging risks in Slovakia and beyond.

MIER 2026 provides a platform for presenting new findings, discussing methodological approaches and strengthening cooperation among researchers, policymakers and practitioners. The abstracts collected in this volume document the diversity and quality of the research presented at the conference and may serve as a useful reference for further academic and policy-oriented work.

We want to thank all authors, speakers and participants for their contributions to MIER 2026. We hope that this Book of Abstracts will be a valuable companion to the conference and a useful record of the ideas and discussions developed this year.

Bratislava, April 2026

MIER 2026 Organising Committee

Conference Programme



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General Conference Information

Conference Venue

The conference will take place at the Smolenice Castle, less than 100 kilometers from Bratislava.
Address: Congress Centre of SAS Smolenice, Zamocka 18, 919 04 Smolenice

Information about the Parallel Sessions

All presentations are in English. The main lecture room (Congress Hall – Big Room) is on the first floor, near the dining hall. The small lecture room (Lecture Hall – Small Room) is also on the first floor, near the Congress Hall.

Each session talk is 25 minutes, including 10 minutes for discussion. We kindly ask presenters to upload their presentations (either an Adobe Acrobat PDF file or a Microsoft PowerPoint file) at least 15 minutes before the session begins. You may use your own computer for the presentation if necessary (please contact the conference organizers for assistance).

Food and Drink

Breakfast, lunch, and dinner will be served in the dining hall on the first floor, near the main castle staircase. Serving times are listed in the conference program.

Refreshments during coffee breaks will be served in the lobby at the main lecture room on the first floor. Individual refreshments can be purchased in the bar in front of the main dining room (open each day till 21:30).

Internet Access and Facilities

There is free Wi-Fi at Smolenice Castle. A printing service will be available to participants.

Organizer

Institute of Economic Research, Slovak Academy of Sciences, Bratislava, Slovakia

Programme Chair

Miroslav Štefánik

Zuzana Fungáčová

Northern Insights: Geopolitical Risk from Finnish News Media

23 April, 2026 | 9:05 – 10:05 | Big Room



Geopolitical risk has become a persistent feature of the global economic environment. Wars, rising military tensions, and acts of terrorism increasingly shape expectations in financial markets and influence the behaviour of firms and households. Yet despite this growing importance, much of what we know about geopolitical risk is filtered through a narrow informational lens. Widely used measures rely on English-language media with global reach, potentially failing to sufficiently capture how risks are perceived everywhere. For small, open economies with distinctive histories and languages, this limitation may be particularly acute. We construct a geopolitical risk indicator for Finland using local, Finnish language news media – FinnGPR. We compare FinnGPR to global and country-specific measures of geopolitical risk derived from Anglo-Saxon media. We show that in the case of Finland, local geopolitical risk perceptions based on local news media differ from global attention on geopolitical risk in Finland as reflected in the global media. We study the effects of FinnGPR on the Finnish economy and find that the Finnish economy tends to be resilient to geopolitical risk shocks. Nevertheless, we find that geopolitical risks can represent a threat to Finnish financial market stability.

Zuzana Fungáčová is Senior Adviser at the Bank of Finland Institute for Emerging Economies (BOFIT), where she leads research activities and serves as Editor-in-Chief of the BOFIT Discussion Paper Series. Her work focuses on empirical banking, emerging markets and their financial sectors as well as political economy of banking. She has published extensively in leading international journals, including the Journal of Comparative Economics, International Journal of Central Banking, Journal of Financial Stability, Journal of Banking and Finance, Journal of Financial Services Research, Journal of Economic Behavior & Organization, World Development, Economics of Transition, China Economic Review and contributed chapters to the Oxford Handbook of Banking. Dr. Fungáčová earned her Ph.D. in Economics from CERGE-EI in Prague and has held visiting positions at the European Central Bank, Austrian National Bank, and University of Pennsylvania. She is currently President of the Slovak Economic Association and actively participates in international research networks and policy discussions. Her recent projects explore topics related to geopolitical risk, monetary policy transmission, and the interplay between politics and banking.

Tomáš Jagelka

Understanding People's Preferences (Valuations) for Essential Life Attributes

23 April, 2026 | 11:40 – 12:50 | Big Room



Preferences, skills, and other latent personal attributes (PSAs) are key drivers of a myriad of decisions which combine to create an individual's life story. However, unobserved PSAs are only noisily revealed by observed behavior. I demonstrate that an innovative discrete choice framework, in which respondents choose between pairs of realistic life stories, can be used to provide causal estimates of distributions in preferences (valuations) for policy-relevant life outcomes (longevity, health, family structure) in the United States and in Europe. I link the estimated heterogeneity to culture, demographics, and other PSAs. In addition, LLMs may be prompted to provide complementary signals on people's preferences for essential life attributes even if data for human respondents is available.

Tomáš Jagelka is an Associate Professor at the University of Bonn and a recurrent visitor to the economics department at Dartmouth College. His current research, supported by the ERC Starting Grant FELICITAS, focuses on advancing our understanding of preferences, skills, and other personal attributes, which are fundamental drivers of success in various life domains. His research has been published in outlets such as the *Journal of Political Economy* and recognized by the French Economic Association (Best PhD in economics in France, 2019), International Association for Applied Econometrics (Best paper presented by a PhD student, 2019), and the Slovak Economic Association (Best paper authored by economist up to 35 years of age, 2020) and most recently by the 14th annual Exeter Prize awarded to the most outstanding article published in a refereed journal in the previous calendar year from the following fields: experimental economics, decision theory and behavioral economics.

Wednesday 22.4.2026

18:30 - 19:00 **Early Registration**

19:00 - 21:00 **Dinner**

Thursday 23.4.2026

8:30 - 9:00 **Registration**

9:00 - 9:50 **BIG ROOM**

9:00 - 9:05 Conference opening: **Štefánik Miroslav**

9:10 - 10:05 **Keynote speech - Fungáčová Zuzana**
Northern Insights: Geopolitical Risk from Finnish News Media

10:05 - 10:15 **Coffee Break**

Parallel Sessions

BIG ROOM

SMALL ROOM

10:15 - 11:35 **Geopolitical Risks and Economic Uncertainty**

Chair: Fungáčová Zuzana

Monetary Policy and Financial Stability: Resilience under Uncertainty

Chair: Fišera Boris

10:15 - 10:40 **Hodula Martin** - Flight from the Front Line: Geopolitical Risk, Distance, and Capital Flow Dynamics

Kupkovič Patrick - Long-Run Transition vs. Short-Run Adjustment: Modeling Slovakia's Macroprudential Policy Path

10:40 - 11:05 **Zavacký Ondřej** - Geopolitical Risks and Capital Flows: Intensive and Extensive Margin

Elatraby Karim - The Paradox of Business Cycle Synchronization: A Local-Projections Study of Global Uncertainty Shocks

11:05- 11:30 **Fidrmuc Jarko** - Is There a Resource Curse in the US and Canada? Evidence from the Shale Revolution

Fišera Boris - How Do Interest Rate Levels Affect Credit Loss Rates? A Rule-of Thumb Approach

11:30 - 11:45 **Coffee Break**

11:45 - 12:50 **Keynote speech – Jagelka Tomáš**
Understanding People's Preferences (Valuations) for Essential Life Attributes

12:50 – 14:00 **Lunch**

Parallel Sessions

BIG ROOM

SMALL ROOM

14:00 - 15:40	Regional Economic Analysis and Policy Issues <i>Chair: Jagelka Tomáš</i>	Dynamics of Inequality and Climate Change <i>Chair: Moravcová Michala</i>
14:00- 14:25	Výboštok Ján - When Amenities Don't Pay Off: Kindergarten Accessibility and Housing Prices in Post-Socialist Suburbia	Kiss Gábor Dávid - Foreign Exchange Stability and Network Effects in Advanced and Emerging Currencies
14:25 - 14:50	Gertler Pavel - Buying or renting? Understanding housing tenure preferences in Slovakia through a choice experiment	Vyletelka Michal - Carbon Neutrality Commitment Announcements and Subsequent Stock Returns
14:50 - 15:15	Trommlerová Sofia - Can Social Media Campaigns Help Female Politicians in Gender-Unequal Countries of the EU? Evidence from Czech Republic	Kharin Sergei - Income Inequality in EU and Asia: Regional Asymmetries from an Atkinson Index Panel Study
15:15 - 15:40	Lichner Ivan - Regional Price Levels Estimates for the Slovak Republic	Moravcová Michala - US Sectoral Dependencies and Climate Risk
15:40 - 15:50	Coffee Break	
Parallel Sessions	BIG ROOM	SMALL ROOM
15:50 - 16:30	Corporate Finance <i>Chair: Lyócsa Štefan</i>	Intergenerational Fairness in Slovakia (APVV-23-0125 & VEGA 1-0182-24) <i>Chair: Domonkos Tomáš</i>
15:50 - 16:15	Výrost Tomáš - Explaining Slovak Project Failure in EU Cohesion Policy: Administrative Complexity and Beneficiary Constraints	Melicherčík Igor - Model of pension investment with SeLFIES
16:15 - 16:40	Klasco Ján - Orienteering with flood maps: the potential impact of riverine flood on corporate credit risk	Valachyová Jana - Distributional Effects of Fiscal Consolidation: Evidence from Two Consolidation Packages in Slovakia
16:40 - 17:05	Baumöhl Eduard - Zombie Firms in Motion: Persistence, Exit, and the Role of Tax Avoidance and Subsidies	Domonkos Tomáš - OLG Model of Slovakia
17:15 - 19:00	Social event	
19:00 - 22:00	Conference Dinner	

Friday 24.4.2026

Parallel Sessions	BIG ROOM	SMALL ROOM
9:00- 10:40	Econometric Modelling of Socio-Economic Phenomena (APVV-21-0360) <i>Chair: Štefánik Miroslav</i>	Doctoral Research <i>Chair: Fidrmuc Jarko</i>
9:00 - 9:25	Martinák Dávid - Dual Reform of Vocational Education and Early Labour Market Outcomes	Wakjira Namo Gabisa - Determinants of Foreign Exchange Reserve and Exchange Market Pressure in Ethiopia
9:25 - 9:50	Malnati Flavio - Fast car to boom and bust: Transportation technology and its causal effects on rural economic development	Zhu Yingke - Relative Valuation in Precious Metals Markets
9:50 - 10:15	Kališ Richard - Helicopter EMS and Patient Mortality: Evidence from Daylight Flight Restrictions	Verdiyev Ramal - Fiscal Effects of Migration in Slovakia
10:15 - 10:40	Liška Igor - ALMP - Evaluation of self-employment in Slovakia	Zajac Jakub - Family Socioeconomic Background and Early School Leaving in Slovakia: Evidence from EU-SILC
10:40 - 10:50	Coffee Break	

Parallel Sessions	BIG ROOM	SMALL ROOM
10:50 - 12:05	<i>Multidimensional Data Analysis and Tobacco Taxation</i> <i>Chair: Hudcovský Martin</i>	Innovation, Transition, and Migration in Slovakia <i>Chair: Domonkos Tomáš</i>
10:50 - 11:15	Rácz Tamás Attila - The effectiveness of outlier detection methods in panel models	Brzica Daneš - 3D business - Low-altitude economy as an emerging business area
11:15 - 11:40	Ostrihoň Filip - Limits of Cigarette Excise Duty Contributions to Fiscal Consolidation	Vakulenko Ihor - Spatial Dimensions of Energy Transformation and Regional Economic Performance in Slovakia
11:40 - 12:05	Hudcovský Martin - Estimation of Tax Pass-Through in the Nicotine Market in Slovakia	Domonkos Tomáš - Fiscal Effects of Migration in Slovakia: A Comparison of Survey and Administrative Data
12:30 - 13:30	Lunch	

Book of Abstracts



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3D business - Low-altitude economy as an emerging business area

Daneš Brzica¹

¹ Institute of Economic Research, Slovak Academy of Sciences

Our contribution analyzes the existing opportunities to leverage the low-altitude economy (L-AE) in middle-sized economies by adopting the “follow-the-leader” strategy to imitate the current steps of China and the US in this area. As a new emerging technology, the business 3D operational space, the L-AE, provides broad possibilities to contribute to further economic progress by increasing productivity, economic growth, and corporate-level competitiveness. We demonstrate here how new L-AE entities, integrating unmanned aerial vehicles and drone delivery systems, can in the coming future enhance supply chain efficiency, reduce transportation costs, and expand market access. In our contribution, we also briefly address existing regulatory challenges, including airspace integration, safety standards, and data privacy concerns. These are important factors for the smooth operation of this economic segment. We also study, in a broadly conceived fashion, the role of the L-AE in fostering innovation and improving labour market dynamics. Our contribution suggests that the L-AE may have the potential to contribute to economic development in Slovakia. It may improve productivity, enhance competitiveness, and create new business opportunities. The successful implementation of this emerging sector requires a balanced regulatory framework that ensures safety, security, and responsible operations. We see the importance of strategic investment in low-altitude technologies to maximize economic benefits while mitigating a broad range of associated risks that are not fully explored today.

This work was supported by VEGA 2/0060/23

A weak EU economy? U.S. tariffs? No, mainly domestic weaknesses... A glance at the causes of the current slowdown in Slovakia's economy

Karol Morvay¹

¹ Institute of Economic Research, Slovak Academy of Sciences

The Slovak economy's relatively weak growth dynamics, which had persisted for some time, edged closer to stagnation last year: very modest economic growth was accompanied by a slight decline in employment. Weakened long-term growth and weakened real convergence were thus compounded by an additional short-term slowdown. As an “exculpatory” factor, particularly from policymakers, arguments were frequently raised that this was a consequence of the EU economy's weak performance or a result of U.S. protectionist measures. Interim forecasts and estimates also attributed a significant role to such external negative influences. Domestic factors, linked for example to the impact of public budget consolidation but not limited to them, seemed to play a secondary role in the additional slowdown of the economy. This presentation aims to clarify the role of such factors. It demonstrates that it was precisely these domestic factors that played a significantly more prominent role in the economic slowdown. External influences tended to counterbalance the dampening forces, which was

markedly at odds with expectations. The presentation uses national accounts analysis to illustrate the nature of changes in economic performance aggregates.

ALMP - Evaluation of self-employment in Slovakia

Igor Liška^{1,2}

¹ *Institute of Economic Research, Slovak Academy of Sciences*

² *Social Policy Institute, Ministry of Labour, Social Affairs and Family of the Slovak Republic*

My PhD. research aims to evaluate the effectiveness of the Slovak Self-Employment Allowance, an active labour market policy aimed at supporting unemployed individuals who intend to start their own business. The programme provides a two-stage financial contribution conditional on operating the new business for at least two years, with subsidy amounts varying according to regional unemployment conditions. Despite its long-standing role in the Slovak ALMP portfolio, rigorous causal evidence on its impact remains limited. To address this gap, a comprehensive administrative dataset is constructed by linking the Job Seeker Registry, the Social Insurance Registry, and the Register of Legal Entities. These data sources allow unemployment histories, programme participation, employment transitions, and the persistence of self-employment to be tracked over time. After restricting the sample to approved participants and comparable job seekers without exposure to other ALMPs, a comprehensive set of covariates describing demographic characteristics and labour market trajectories is created. The evaluation combines Propensity Score Matching with modern Double Machine Learning methods. While PSM provides a baseline through matched comparisons, DML leverages random forests and cross-fitting to flexibly model high-dimensional relationships and produce robust, orthogonalized estimates of the average treatment effect. Preliminary results indicate that participation in the allowance programme increases the probability of subsequent employment, suggesting that self-employment support can serve as an effective pathway out of unemployment. Further work is needed to refine the institutional context, expand pre-trend information, and explore alternative machine learning estimators.

Buying or renting? Understanding housing tenure preferences in Slovakia through a choice experiment

Andrej Cupák^{1,2}, Pavel Gertler¹, Judita Jurasekova Kucserova¹, Jan Klacso¹

¹ *National Bank of Slovakia*

² *University of Economics and Business*

With a homeownership rate approaching 90%, Slovakia is one of the most ownership-intensive housing markets in the world. Whether this reflects genuine preferences or constrained choice remains an open question. We address this question using a discrete choice experiment embedded in a representative survey of 1220 Slovak households conducted in November 2025. Respondents are

asked to advise a hypothetical young person deciding between buying and renting. We systematically vary three key attributes: i) the required down payment (one or two years of annual income), ii) monthly cost burdens (debt-service-to-income of 40% or 60% for buyers, rent-to-income of 30% or 40% for renters), and iii) the degree of residential mobility. This design allows us to identify how financial and non-financial factors shape tenure preferences independently of observed market behavior. Our preliminary findings point to a significant gap between market outcomes and underlying preferences. Only around 60% of respondents prefer buying when trade-offs are made explicit, well below the observed ownership rate. Financial conditions matter greatly: higher down payment requirements and heavier monthly installment burdens significantly reduce the appeal of ownership, which confirms that LTV and DSTI constraints are central to tenure decisions. Younger respondents lean more toward renting, either reflecting a stronger demand for flexibility or lower degree of housing affordability. Overall, the preliminary results suggest that high homeownership in Slovakia is partly a product of constrained choice, with latent demand for rental housing likely larger than market outcomes suggest.

Can Social Media Campaigns Help Female Politicians in Gender-Unequal Countries of the EU? Evidence from Czech Republic

Sofia Trommlerová¹

¹ Comenius University Bratislava

Women remain persistently underrepresented in political decision-making across the European Union, particularly in gender-unequal countries such as Czechia. This paper examines whether a targeted digital mobilization campaign can help to reduce this gap. I study “Vote for a Woman”, a bottom-up, non-partisan social media campaign encouraging voters to cast preferential votes for women candidates in the 2021 Czech parliamentary elections. I employ two difference-in-differences strategies and a triple-difference design to estimate the causal impact of this campaign on voter behavior; the counterfactuals are men candidates and/or candidates in the neighboring country Slovakia. The results show that the campaign increased the share of preferential votes cast for women by approximately 20 percent, under the most conservative specification. These findings provide the first causal evidence that a citizen-driven social media initiative can meaningfully strengthen electoral support for women, even in contexts with long-standing gender inequalities

This work was supported by Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project 09I03-03-V04-00317.

Carbon Neutrality Commitment Announcements and Subsequent Stock Returns

Michal Vyletelka¹

¹ Faculty of Finance and Accounting, University of Economics, Prague

This paper investigates the reaction of the stock market to corporate carbon neutrality (CN) announcements using a global dataset of 887 earnings call disclosures between 2019 and 2024. Employing event-study style comparisons, industry-adjusted returns, and Fama–French factor models, the analysis reveals that CN commitments have limited short-term effects, but are associated with statistically significant negative abnormal returns over a 12-month horizon. The results suggest that investors perceive carbon neutrality pledges as credible signals of future cost burdens rather than value-enhancing strategies. The findings also highlight sectoral and temporal heterogeneity: technology, energy and materials firms exhibit positive return premia, while utilities and real estate underperform; longer-dated CN commitments (post-2040) are priced more favorably than near-term commitments. Regional effects largely disappear once the sector composition is controlled, underscoring the primacy of industry dynamics in shaping market responses.

Determinants of Foreign Exchange Reserve and Exchange Market Pressure in Ethiopia

Namo Gabisa Wakjira¹

¹ University of Szeged, Hungary

Ethiopia is among developing economies in Sub Saharan Africa experiencing foreign exchange shortages and exchange market pressure. Between 2000 and 2024, foreign exchange reserve of Ethiopia averaged only 2.3 months of import coverage, well below the conventional adequacy threshold and the country's currency has gradually lost its value during the period. This study aims at analyzing the determinants of foreign exchange reserve and exchange market pressure in Ethiopia emphasizing the effect of foreign price, domestic policy and international capital inflows in the form of remittance and foreign direct investment which are not considered in the earlier works in case of Ethiopia. Theories on motives for foreign exchange reserve holding and monetary approach to balance of payment are used as a theoretical basis. Seemingly unrelated regression model, justified by cross equation residual correlation, is applied to annual data from 2000 to 2024. The estimated result indicates that foreign reserve is positively associated with Exchange rate, remittance, real interest rate, trade openness and terms of trade but negatively related to its own one year lagged value, foreign direct investment and foreign price. On the other hand, exchange market pressure is found related positively with foreign price, domestic credit, fiscal deficit and net export but negatively with gross domestic product and its own one year lagged value. This study implies that policy measures related to reserve and exchange rate should take into account economic conditions in the rest of the world. Promoting remittance, reducing fiscal deficit, managing domestic credit, improving quality and quantity of export is also crucial.

Distributional Effects of Fiscal Consolidation: Evidence from Two Consolidation Packages in Slovakia

Zuzana Siebertová¹, Norbert Švarda¹, Jana Valachyová¹

¹ Council for Budget Responsibility

Fiscal consolidation is often assessed in aggregate terms, yet its distributional implications depend critically on policy composition. This contribution analyses two recent consolidation packages in Slovakia using an administrative-data microsimulation model (TATRASK). The evaluation follows a counterfactual approach comparing a no-policy-change baseline with simulated policy scenarios, focusing on changes in family disposable income across the income distribution and family types. The results show that packages with similar fiscal objectives can generate markedly different incidence patterns, reflecting differences in policy composition. In particular, the mix of labour taxation, measures targeting families and pensioners, as well as indirect effects of measures maps into different parts of the income distribution. The analysis highlights substantial heterogeneity within groups and underscores the importance of integrating distributional considerations into the design and evaluation of fiscal consolidation policies.

Dual Reform of Vocational Education and Early Labour Market Outcomes

Dávid Martinák¹, Vladimír Novák^{1,2}, Katarína Zigová³

¹ Strategic Initiatives Department, National Bank of Slovakia, Bratislava, Slovakia

² Faculty of Business Administration, Prague University of Economics and Business, Prague, Czechia

³ Department of Business Administration, University of Zurich, Switzerland

In this lecture we discuss from a historical point of view the development of economy and economic thought in Central Europe.

We divide the historical periods in the beginning till approximately the XIX century, then we follow with the period before World War One, continue with the interwar period, discuss the economic thought during World War Two, the short period before the socialist revolution, and the last period under consideration will be the socialist period.

This lecture addresses the comparative history of economic thought in Central European countries where there is a notable common historic heritage and political traits. The author explores issues of Central European identity, Habsburg and Soviet influence, and nationalistic traditions, and reveals commonalities between Czech, Hungarian, Polish and Slovak economic thought: such similarities proceed to explain aspects of contemporary economic and social policies in these countries.

We highlight connections among Central European economists in different historical period.

Estimation of Tax Pass-Through in the Nicotine Market in Slovakia

Martin Hudcovský¹

¹ Institute of Economic Research, Slovak Academy of Sciences

This study examines how excise duties and VAT are passed through to retail prices across the nicotine product market in Slovakia, using monthly brand-level scanner data for 2022–2025. The analysis covers cigarettes (by price segment), heated tobacco products, e-cigarettes, e-liquids, and nicotine pouches, treating the market as an integrated system. The paper focuses on developing and discussing a methodological framework for estimating tax pass-through. It proposes a two-way fixed effects panel approach combined with a constructed benchmark of expected prices under full tax transmission. The Slovak setting, with multiple overlapping tax changes (including excise increases, a uniform VAT increase in 2025, and the introduction of excise taxation for alternative products) provides a suitable context for methodological evaluation. The aim is to assess the suitability, identification strategy, and potential limitations of this approach for capturing pass-through dynamics across product categories and segments.

Explaining Slovak Project Failure in EU Cohesion Policy: Administrative Complexity and Beneficiary Constraints

Tomáš Výrost^{1,2,3}, Eva Výrostová²

¹ Institute of Economic Research, Slovak Academy of Sciences

² Masaryk University

³ Bratislava University of Economics and Business

This paper examines the determinants of financial irregularities in Slovak projects financed under EU Cohesion Policy. We distinguish between two related outcomes: the incidence of an irregularity and its severity, measured as the share of the contracted amount affected conditional on an irregularity occurring. To address this structure, we employ a two-part modelling strategy based on XGBoost, combining a classifier for incidence with a regression model for positive severity outcomes. The analysis uses project-level data with high-dimensional categorical information on operational programmes, funds, regions, beneficiary types, project orientation, and timing. Out-of-sample evaluation based on repeated beneficiary-level splits indicates that irregularities are meaningfully but only imperfectly predictable. Project amount and year emerge as the strongest predictors of incidence, suggesting that scale and cohort effects are central for audit targeting. By contrast, severity is more strongly associated with policy context, especially operational programme and fund, as well as project duration. Regional effects are comparatively weak in this specification. The results should be interpreted as predictive rather than causal, but they imply that monitoring strategies should differentiate between factors linked to irregularity occurrence and those associated with larger financial corrections.

Funded by the EU NextGenerationEU through the Recovery and Resilience Plan for Slovakia under the project No. 09I03-03-V04-00429.

Family Socioeconomic Background and Early School Leaving in Slovakia: Evidence from EU-SILC

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Early school leaving (ESL) remains an important policy concern in Slovakia, where marked regional inequalities and concentrated disadvantage among specific population groups continue to shape educational risk. At the same time, it poses a data and modelling challenge. Administrative education data are well suited to tracking school pathways, exits, and possible re-entry, but are much more limited in their coverage of parental education, household resources, material deprivation, and employment attachment. Household survey data present a complementary perspective: they capture rich family background and living conditions, but identify ESL only cross-sectionally. This paper addresses that gap using Slovak EU-SILC microdata from 2019 to 2022. Its primary contribution is to identify robust household-level socioeconomic patterns in ESL among young adults aged 18–24 with identifiable co-resident parent information. The paper also contributes to a broader microsimulation agenda by showing which dimensions of disadvantage may matter most for future calibration, validation, and integration with administrative education records. The analysis uses four repeated cross-sections of Slovak EU-SILC and a sequence of survey-weighted nested logistic models. The results show that parental education is the single most informative family background dimension, with AUC rising from roughly 0.56–0.59 in baseline models to about 0.78–0.84 once parental education is added. Parental employment adds further information, especially in 2020–2022. Predicted ESL risk exceeds 30% in low-education families with no employed parent, but falls to around 1–3% in higher-education families with both parents employed. These findings suggest that ESL risk is concentrated in households where low parental education coincides with weak labour-market attachment. While the results are associational and not intended for direct operational use, they provide an empirical basis for linking survey and administrative perspectives in future education-oriented microsimulation.

Fast car to boom and bust: Transportation technology and its causal effects on rural economic development

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New technologies have long altered the spatial distribution of economic activity, but little is known about how sudden access to a breakthrough transportation technology affects regional development. We study the abolition of the automobile ban in 1925 in the Swiss canton of Grisons, where cars had previously been completely prohibited and the ban ended unexpectedly after a popular vote. Using the universe of commercial registers from 1890 to 1940, we analyze municipality-level firm

registrations in an event-study and difference-in-differences framework comparing the Grisons with neighboring cantons without a ban. Access to automobiles substantially affected regional economic trajectories across time and space. Firm registrations increased sharply, especially in remote municipalities, during the first two years after the ban, with the expansion concentrated in manufacturing and retail. However, about 60\% of new firms in peripheral areas closed within a few years. This boom-and-bust pattern is consistent with initially optimistic expectations about tourism demand, while municipalities with pre-existing infrastructure and population experienced more persistent gains. Our findings show that transportation technologies can generate short-run entrepreneurial booms but long-run spatial concentration of economic activity, contributing to the literature on the effects of transportation technology and regional development.

Fiscal Effects of Migration in Slovakia: A Comparison of Survey and Administrative Data

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The economic and fiscal consequences of migration have become important in contemporary research and policy debate. This growing attention has led to an expanding body of empirical work that draws either on administrative data or large scale survey datasets. The objective of this paper is to compare the fiscal effects of migration in Slovakia by applying generational accounting methods disaggregated by migrants' origin. Survey datasets such as EU SILC are widely used in academic research due to their accessibility, standardized methodology, and suitability for cross country comparative analysis. In contrast, administrative data are typically more difficult to obtain and are not harmonized across national statistical systems. Nevertheless, administrative sources offer a key methodological advantage: they enable calculations on the full population rather than a sample, thereby reducing sampling error and improving the precision of the estimates. Moreover, this allows for a more detailed data-based evaluation of the long-term fiscal consequences of migration.

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Flight from the Front Line: Geopolitical Risk, Distance, and Capital Flow Dynamics

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This paper studies how geopolitical shocks reallocate international capital through a spatial exposure channel. We combine narrative-validated geopolitical conflict episodes with a monthly panel of portfolio flows for 40 advanced and emerging economies over 1995–2024 and estimate dynamic responses using local projections. We document a clear distance gradient: following the onset of conflict, net equity flows fall sharply in economies close to the epicenter and rise in more distant

countries, consistent with a flight-to-safety reallocation. Net debt flows display the same spatial pattern but adjust more gradually, consistent with slower balance-sheet and rollover adjustment. Exchange rates move on impact: currencies of proximate economies depreciate, while those of distant economies appreciate, indicating that forward-looking markets price differential exposure before portfolio quantities fully adjust. Gross-flow decompositions further suggest that the rapid equity response is mainly foreign-investor driven, whereas the debt response reflects a combination of weaker foreign inflows and resident retrenchment.

Foreign Exchange Stability and Network Effects in Advanced and Emerging Currencies

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We assess Exchange Rate Stability (ERS) ratio on post 2000 daily data for 11 emerging and advanced floating currencies, by estimating panel VECM and rolling panel FE regressions. Uncovered interest parity (UIP) paradox occurs when the currency depreciates under an increasing interest rate premium. We show that such movements are not only driven by the UIP but also by the size of the central bank's international reserves, the closeness centrality of a conditional minimum spanning-tree graph and implied volatility on the EUROSTOXX market, later signs a strong exposure towards external funding conditions. The sample covers all emerging currencies, which remained classified a floating regime even at the end of the 2010s according to the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) database – as many of them turned towards stabilized arrangements. Thus, this paper makes a new contribution to the debate on currency valuation impact on emerging markets while highlighting the importance of the instantaneous nature of the UIP paradox.

Geopolitical Risks and Capital Flows: Intensive and Extensive Margin

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Geopolitical risk has become an increasingly important determinant of international capital allocation, yet the literature still focuses predominantly on changes in flow volumes rather than on how geopolitical shocks reshape cross-border financial linkages. This paper examines the effects of geopolitical risk on international portfolio equity flows from a network perspective. Using monthly data for 40 advanced and emerging economies over 1995–2024, we construct a directed, time-varying network of bilateral financial connections based on rolling-window Granger causality network approach. We then estimate a Cragg double-hurdle model that separates the extensive margin, captured by the probability that a financial linkage emerges, from the intensive margin, captured by

the strength of that linkage. The list of geopolitical risk events is compiled using the Caldara-Iacoviello Geopolitical Risk index, complemented by narrative validation, and extended through the identification of additional regionally important conflicts. The exposure to geopolitical risk is measured by the geographical distance to events. We identify 34 geopolitical risk episodes over the sample period. The results show that higher relative equity returns in the recipient economy increase the likelihood of link formation. In contrast, the intensity of financial linkages declines with higher geopolitical risk and inflation differentials, while it rises with stronger trade integration, higher short-term interest rate differentials, and greater financial openness of the source economy. Financial openness of the recipient economy is associated with weaker link intensity. Event-based evidence further suggests that both the extensive and intensive margins tend to weaken already before identified geopolitical events, indicating that markets respond not only to realized geopolitical shocks but also to rising threat perceptions. Overall, the findings suggest that geopolitical risk affects not only the scale of capital movements, but also the structure of the international financial network.

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Helicopter EMS and Patient Mortality: Evidence from Daylight Flight Restrictions

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We estimate the causal effect of helicopter emergency medical services (HEMS) on patient mortality using a regression discontinuity design that exploits the restriction of helicopter operations to daylight hours. In Slovakia, staff limitation prohibit helicopter dispatch after civil twilight — approximately 30 minutes past sunset — creating a sharp discontinuity in HEMS availability that is plausibly unrelated to the severity of simultaneously arriving emergency cases. Using administrative data on 3.5 million EMS dispatches from August 2018 to March 2025, we restrict attention to 250-metre grid cells with observed helicopter activity and time-critical diagnoses for which rapid advanced intervention is clinically meaningful: severe polytrauma, acute myocardial infarction, cardiac arrest, transport accident injuries, and coma. We find a significant first stage: HEMS dispatch rates drop sharply at civil twilight end and rise at civil dawn, with the morning discontinuity significant at conventional levels. In the evening window, mortality among sensitive cases rises immediately after the twilight cutoff, implying relative increase in the probability of death when helicopter access is lost. A pooled estimator stacking evening and morning transitions yields a comparable effect. The results suggest that HEMS availability generates large mortality reductions for critically ill patients in areas where helicopter dispatch is feasible, with implications for the deployment schedules and night-flying capacity of emergency air medical services.

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How Do Interest Rate Levels Affect Credit Loss Rates? A Rule-of Thumb Approach

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This paper investigates how changes in monetary policy interest rates affect credit loss rates in advanced and emerging market economies. We estimate the dynamic response of loan loss rates to policy rate movements using the local projection approach, leveraging annual data for over 100 countries spanning over the past three decades. We find that a hike of policy rates by 1-percentage point raises loan loss rates on average by 0.1-percentage points — an economically significant effect, more pronounced in relative terms for advanced economies compared to emerging market economies. These results are robust across different methodologies, including instrumental variable estimation, use of exogenous monetary policy shocks, and bank-level data. Crucially, the impact of rate hikes is highly state-dependent, intensifying under conditions of loose pre-tightening monetary policy stance, high private debt, contractionary fiscal policy stance, cyclical downturn, and simultaneous shrinkage in central bank balance sheets. Banks with riskier pre-tightening loan portfolios experience larger increases in credit losses. Our findings highlight the need for central banks and prudential authorities to account for side effects of monetary policy decisions and to incorporate credit risk dynamics into macroprudential and stress-testing frameworks to safeguard financial stability.

This work was supported by APVV VV-MVP-24-0427 Monetary Policy Transmission in the Euro Area: The Role of Financial Imbalances.

Income Inequality in EU and Asia: Regional Asymmetries from an Atkinson Index Panel Study

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The study examines regional heterogeneity in the determinants of income inequality across EU countries and selected Asian economies. Using a panel of 20 countries over 2000–2022, we estimate two-way fixed-effects models to assess whether macroeconomic determinants operate differently across regions. Unlike conventional studies relying on the Gini coefficient, we employ the Atkinson index at three levels of the inequality aversion parameter, enabling a welfare-sensitive analysis focused on the lower tail of the income distribution. The results reveal substantial regional asymmetries, particularly when greater normative weight is assigned to low-income groups. GDP per capita is associated with rising lower-tail inequality in Asian economies, whereas no significant effect is found in the EU. The human capital index significantly reduces inequality in Asia but not in the EU, whereas

trade openness has a weak inequality-reducing effect only in the EU. Unemployment consistently increases inequality in both regions, and higher government expenditure reduces it, with stronger effects at higher inequality aversion.

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IS THE ABSENCE OF “CREATIVE DESTRUCTION” THE CAUSE OF THE INSUFFICIENT DYNAMICS AND LOW INNOVATION OF THE SLOVAK ECONOMY?

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Taking into account 1989 - 2026 period of development of Slovakia, the insufficient dynamism and innovativeness of the Slovak economy in the longer term seems to be obvious. Looking at the list of the largest companies in Slovakia in 1989 and today, most of them are the same companies, although privatized and with changed names. Old assets (SPP, SE, Slovnaft, U. S. Steel) or foreign FDI (car companies) have long dominated the Slovak economy, new players have replaced the old ones only in a few sectors. Most of the dynamism came from outside (FDI) or through regulated sectors. Does this confirm the limited validity of Schumpeter's creative destruction in the conditions of the Slovak economy? If so, what are the main reasons why creative destruction has been applied in our country only to a limited extent or not at all? And if not, what are other factors behind low dynamism and innovativeness of the Slovak economy?

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Is There a Resource Curse in the US and Canada? Evidence from the Shale Revolution

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This paper uses the shale revolution as a natural experiment to test the resource curse in American states and Canadian provinces. We use a comprehensive set of unproved reserves of unconventional gas and oil plays for North America in 2010 to identify the impact of resource dependence on state-level economic growth. We estimate a growth regression with mining production (resource dependence), corruption and other long-run determinants. Using least squares, we find no significant link between resource dependence and state-level economic growth. However, by instrumenting resource dependence and corruption, we find evidence of a resource curse in that greater mining production (and employment) leads to lower state-level growth. Our resource curse finding is robust to alternative GDP measures, inclusion of fracking bans and moratoriums, and to the use of resource abundance (proved reserves). In tests for indirect transmission mechanisms, we find that greater

mining activity reduces educational attainment, non-resource tax revenue, and trade openness in North America and increases the price of non-tradables relative to tradables in the US.

Northern Insights: Geopolitical Risk from Finnish News Media

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Geopolitical risk has become a persistent feature of the global economic environment. Wars, rising military tensions, and acts of terrorism increasingly shape expectations in financial markets and influence the behaviour of firms and households. Yet despite this growing importance, much of what we know about geopolitical risk is filtered through a narrow informational lens. Widely used measures rely on English-language media with global reach, potentially failing to sufficiently capture how risks are perceived everywhere. For small, open economies with distinctive histories and languages, this limitation may be particularly acute. We construct a geopolitical risk indicator for Finland using local, Finnish language news media – FinnGPR using both a dictionary-based and a language model-based approach. We compare FinnGPR to global and country-specific measures of geopolitical risk derived from Anglo-Saxon media. We show that in the case of Finland, local geopolitical risk perceptions based on local news media differ from global attention on geopolitical risk in Finland as reflected in the global media. We study the effects of FinnGPR on the Finnish economy and find that the Finnish economy tends to be resilient to geopolitical risk shocks. Nevertheless, we find that geopolitical risks can represent a threat to Finnish financial market stability.

Limits of Cigarette Excise Duty Contributions to Fiscal Consolidation

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Behavioral responses of smokers to price changes in Slovakia have been underexplored in relevant research. The purpose of this study is, therefore, to provide up-to-date evidence about the elasticities of cigarette demand in Slovakia based on conventional approaches of the two-part model and the quadratic almost ideal demand system, by utilizing available data on cigarette consumption from the Household Budget Survey for the period 2019 – 2022. The total own-price elasticity of cigarette demand in Slovakia is inelastic, yet substantially higher than what is generally reported in the literature. Similarly, the income elasticity of cigarette demand in Slovakia is rather high. These estimates serve as inputs for stochastic simulations of impacts of tobacco tax increases on public budget revenues. The preliminary results suggest that the specific part of the tax rate on cigarettes can be increased in real terms by 10-20% without any substantial risk of decreasing the revenues from cigarettes.

Long-Run Transition vs. Short-Run Adjustment: Modeling Slovakia's Macroprudential Policy Path

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The global financial and sovereign debt crises prompted policymakers to place greater emphasis on systemic risk and financial stability. Since then, borrower-based measures have become a central part of macroprudential policy aimed at containing credit booms and housing market imbalances. Yet empirical evidence on the formal, rule-based implementation of such policy remains limited, especially in small open economies that are vulnerable to financial cycles and external shocks. Using a vector error correction model (VECM), this paper estimates Slovakia's long-run macroprudential rule and its short-run asymmetric adjustment. The results point to a transition from a passive, at times procyclical stance to an active, countercyclical framework between 2009 and 2014, in line with the post-crisis strengthening of the macroprudential architecture. In the long run, tighter credit standards are associated with rising household indebtedness and house prices, supporting a dual-risk view of policy. In the short run, most of the tightening occurs when financing conditions are excessively loose, consistent with a strong initial move towards a tighter borrower-based framework followed by a more cautious phase of adjustment. These findings add to the empirical evidence on both the long-run macroprudential rule and the asymmetric short-run responses that shape policy transmission.

Model of pension investment with SeLFIES

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Recently, a shift from defined-benefit to defined-contribution pension systems has been observed. This involves a transfer of risk from the provider to the saver. Moreover, the defined-benefit systems are less transparent for pension savers. The future retiree is more interested in pension income than in the amount saved. We formulate an income-oriented retirement investment model where the expected utility of retirement income is maximized. The investment strategy is the optimal feedback of a stochastic dynamic problem. SeLFIES (Standard-of-Living Forward-starting Income-only Securities), which are a special case of deferred annuities with payments indexed by per capita consumption or inflation, are used as risk-free assets. The amount saved is converted into future income during the savings period. We show that our approach leads to a change in the risk ranking of assets. Short-term bonds, which are almost risk-free in a value-oriented approach, are too risky from a future income perspective. When using the income-oriented approach, long-term bonds are less risky because they

have a higher correlation with future income. Optimal dynamic strategies therefore use stocks, long-term bonds and SELFIES.

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OLG Model of Slovakia

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The aim of this theoretical research paper is to model the Slovak economy using a Dynamic Overlapping Generations (OLG) Model of a small open economy with four generations, endogenous fertility, and human capital accumulation. Agents live in the model for four generations, with each period lasting 16 years, starting at age 20 and exiting the model at age 80. In the first period, agents decide whether to work, enjoy leisure, pursue education, or have children. In the second period, they choose among work, leisure, and having children. In the third period, they decide between work, leisure, and early retirement. The fourth period represents retirement, during which agents consume their savings and leave no bequest. Firm behavior is characterized by a profit maximization problem, and under the small open economy assumption, the interest rate is exogenous. Firms are owned by households. Compared with similar research, the model is enriched by a detailed three pillar pension system that incorporates early retirement and parental pensions.

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Orienteering with flood maps: the potential impact of riverine flood on corporate credit risk

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Climate change is expected to lead to more frequent and intense extreme weather events, such as floods and droughts, which in turn increase physical risks. In this paper, we assess the direct exposure of Slovak banks' corporate loan portfolios to riverine flood risk. We propose several monitoring metrics and estimate exposures at risk from river flooding. Our analysis leverages a comprehensive dataset that integrates flood risk maps from the European Commission's Joint Research Centre, cadastral data on firm properties, credit register data, and firms' financial statements. Although a significant share of firms are located in flood-prone areas, only a subset is likely to face flood levels that exceed critical thresholds. Consequently, the direct impact of riverine flooding on corporate credit risk appears to be relatively moderate — with the estimated increase of exposure at default ranging from 2 to 10 basis

points of the corporate loan portfolio under standard scenarios, and up to 50–60 basis points in conservative stress cases accounting for asset value declines. Under counterfactual scenarios assuming a fivefold increase in the frequency of floods, the estimated increase exceeds 1 percentage point of the loan portfolio.

Regional Price Levels Estimates for the Slovak Republic

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This study presents experimental estimates of regional price levels for the Slovak Republic, applying the methodology developed as part of the framework of the OECD-coordinated methodology for regional price comparisons. The analysis draws on Consumer Price Index (CPI) microdata provided by the Statistical Office of the Slovak Republic, covering the period 2012–2023 and spanning pre- and post-COVID-19 developments. Estimates are produced at the TL2 (NUTS2) regional level, based on a harmonized workflow aligned with International Comparison Program guidelines. The underlying dataset consists of price observations collected across 43 local administrative units, with coverage varying by COICOP classification. While goods are generally well represented, important limitations arise due to the absence of detailed product-level information and the presence of nationally uniform prices for selected services and regulated sectors (e.g. utilities, transport, and financial services). Data preprocessing involved extensive cleaning, harmonization, and outlier removal, resulting in a substantial reduction of the initial sample. Preliminary results indicate systematically higher price levels in economically more developed western regions of Slovakia. Regional price dispersion is relatively low for goods, particularly food and tobacco, but significantly higher for services, especially in housing and health. Intertemporal comparisons between 2018 and 2023 reveal modest changes in food prices, contrasted with substantial and heterogeneous developments in health and transport services. To assess the impact of missing product-level information, a Monte Carlo simulation was conducted. Results suggest that the sensitivity of regional price estimates to product heterogeneity varies across COICOP divisions, with the highest uncertainty observed in health-related categories and the lowest in food and tobacco. The findings highlight both the feasibility and limitations of constructing regional prices from CPI microdata in the absence of detailed product information. Ongoing work focuses on improving data coverage, particularly for imputed rents and service sectors, and on aligning national classifications with international Purchasing Power Parities frameworks.

Relative Valuation in Precious Metals Markets

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Price ratios convey information about the relative valuation of traded assets. We formalize three channels through which changes in the gold-silver ratio affect asset price volatility and test them using intraday futures data for gold and silver from 2009 to 2025. First, valuation pressure, which captures the degree of misalignment between gold and silver, has both short- and long-run effects on future volatility in both markets. Second, re-balancing pressure, reflecting valuation-induced portfolio adjustments, reduces subsequent volatility. Third, attention pressure, linking relative valuation changes to heightened investor attention, leads to modest volatility increases. These effects are stronger for silver, are driven in the short term primarily by gold appreciating relative to silver, and are most pronounced when gold is relatively expensive. Incorporating valuation pressure extracted from the gold-silver ratio improves out-of-sample volatility forecasts. The gold-silver ratio thus captures pricing dynamics relevant for risk management and portfolio allocation.

This work was supported by APVV-22-0472 Financial cycle: design, modelling and forecasting within machine learning framework.

Spatial Dimensions of Energy Transformation and Regional Economic Performance in Slovakia

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Slovakia completed its coal power phase-out in 2023–2024, becoming one of the first Central European countries to eliminate coal-based electricity generation. While substantial resources have been allocated through the Just Transition Fund, the spatial distribution of economic effects across regions with different industrial profiles remains an open question. The regional dimension is particularly relevant given the significant heterogeneity of Slovak regions in terms of their economic structure and historical dependence on coal-related industries. This study examines the relationship between energy transformation and regional economic performance in Slovakia from a spatial perspective. Drawing on regional statistics, we employ spatial analytical tools to examine how energy transition processes and regional economic outcomes are spatially related. The analysis considers both direct regional effects and potential inter-regional linkages that may shape how transformation impacts propagate across space. The study offers insights into the spatial structure of regional economic disparities in the context of energy transition in a small Central European economy. The findings may be relevant for the design of regionally differentiated transformation policies.

The Dynamics of Zombie Firms: Recovery, Persistence, and Market Exit

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This paper examines the dynamics of zombie firms, focusing on their recovery and market exit, and the role of subsidies in shaping these outcomes. Using firm-level data and alternative definitions of zombie status, we construct a novel measure of tax inefficiency based on stochastic frontier analysis to capture opportunistic behavior. We estimate discrete-time hazard models to analyze the probability of recovery and exit, accounting for firm characteristics, governance, and financial conditions. The results show that zombie firms exhibit significantly lower recovery rates and higher exit risk, with strong duration dependence: the likelihood of recovery declines and the probability of exit increases with time spent in the zombie state. We further document that subsidies are associated with delayed exit but do not significantly improve recovery prospects, suggesting that policy support may sustain non-viable firms rather than restore their performance. These findings highlight the importance of distinguishing between short-term distress and persistent zombification, with implications for the design of effective support policies.

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The effectiveness of outlier detection methods in panel models

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The detection and treatment of outliers is one of the most challenging problems in econometrics. There are numerous established methods available for identifying and handling outliers in cross-sectional regression models. But in panel datasets the effectiveness of standard methods are much more limited. The aim of the study is to examine how efficient are these methods when applied in panel regressions. The study first reviews the effect of outliers on regression parameters and model goodness-of-fit indicators in standard linear models. The following section is an overview of panel regression techniques. This section demonstrates that outliers can distort panel models in several ways. The effectiveness of traditional and well-known outlier detection tools was tested on simulated datasets, including studentized residuals, DfBetas and DfFits measures, Cook's distance, COVRATIO, and the Mahalanobis distance. During the simulations, the performance of the methods was examined under various parameter configurations; number of groups (N), length of the time dimension (T), ratio of within-group to between-group variance (quasi-demeaning ratio). Based on the results, traditional outlier detection techniques, which generally work well in standard cross-sectional regressions, are less reliable in panel regression procedures. Observations classified as outliers in their own group are often hide in a panel regression, while there are observations that are not classified as outliers at the level of their own group but suddenly become outliers in a panel regression. These errors increase significantly in data sets with a relatively large number of groups and short time series. Overall, the results highlight the need for panel-specific outlier diagnostics and caution against the uncritical use of traditional regression-based methods in the analysis of panel data.

The Paradox of Business Cycle Synchronization: A Local-Projections Study of Global Uncertainty Shocks

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Global economic integration through trade, cross-border finance, and global value chains has increased international business cycle synchronization, especially during periods of global turbulence. While a large literature studies the determinants of synchronization, its consequences for post-shock recovery remain less explored. We hypothesize that greater synchronization during global shocks weakens external demand support, slowing recovery and increasing the risk of persistent output losses. This paper examines whether business cycle synchronization conditions the speed of recovery following global uncertainty shocks and whether these dynamics vary across policy regimes. We estimate post-shock recovery paths separately for low- and high-synchronization observations and compare them across exchange rate regimes (floating versus pegged) and monetary policy independence regimes. The analysis uses an unbalanced quarterly panel of 63 advanced and emerging economies over 1979Q1 to 2019Q4, excluding the United States to reduce endogeneity in global shock identification. Real activity is measured by seasonally adjusted real GDP at constant prices in domestic currency units. Controls include investment, inflation, nominal effective exchange rates, and short-term interest rates. Most macroeconomic series are drawn from IMF sources, with selected interest rate data supplemented by LSEG. To measure synchronization, we apply a two-way fixed effects decomposition to quarterly real GDP growth, removing country and common time effects. The residual component captures idiosyncratic fluctuations net of global movements. Synchronization with the US cycle is defined as the negative absolute deviation between each country's residual and the US residual, so values closer to zero indicate tighter co-movement. For state-dependent analysis, this continuous proxy is converted into a binary regime indicator using a quarter-specific upper-quantile cutoff and lagged by one quarter to reduce contemporaneous feedback. Global uncertainty shocks are measured using the high-frequency event-based series of Piffer and Podstawski (2018), updated by Piffer (2021). Aggregated to quarterly frequency, the series is sparse by construction, with roughly 75% of quarters containing no validated events, which helps local projections separate recovery windows more clearly. Recovery dynamics are estimated using local projections for horizons 0 to 11. The dependent variable is cumulative log real GDP growth from the quarter before the shock through each horizon. Regressions include the contemporaneous uncertainty shock, lags of differenced controls, lags of GDP growth, and horizon-specific country fixed effects, with standard errors clustered at the country level. State dependence is introduced by interacting the shock with the lagged synchronization regime. The model is then extended with three-way interactions involving synchronization status and either exchange rate regime indicators or monetary policy independence indicators. The results reveal a clear synchronization penalty. Global uncertainty shocks are followed by contraction and slow, incomplete recovery, with substantially deeper and more persistent losses in high-synchronization states. Low-synchronization economies recover faster and more fully within the three-year horizon. Floating exchange rate regimes and greater monetary policy independence are associated with stronger recovery, but high synchronization weakens these benefits, particularly under floating regimes.

Robustness checks using alternative synchronization measures, regime cutoffs, lag structures, and control sets yield similar conclusions. Overall, the findings suggest that while integration increases synchronization, it can also amplify vulnerability to global uncertainty shocks unless supported by sufficient macroeconomic flexibility.

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Understanding People's Preferences (Valuations) for Essential Life Attributes

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Preferences, skills, and other latent personal attributes (PSAs) are key drivers of a myriad of decisions which combine to create an individual's life story. However, unobserved PSAs are only noisily revealed by observed behavior. I demonstrate that an innovative discrete choice framework, in which respondents choose between pairs of realistic life stories, can be used to provide causal estimates of distributions in preferences (valuations) for policy-relevant life outcomes (longevity, health, family structure) in the United States and in Europe. I link the estimated heterogeneity to culture, demographics, and other PSAs. In addition, LLMs may be prompted to provide complementary signals on people's preferences for essential life attributes even if data for human respondents is available.

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US Sectoral Dependencies and Climate Risk

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We study the role of climate risks in shaping sectoral connectedness in U.S. equity markets and related systemic risk. Using a frequency–domain connectedness approach with time-varying parameters (TVP–VAR), we show that spillovers are dominated by short-term dynamics: cyclical sectors (Industrials, Financials, Consumer Discretionary) act as main transmitters, while defensive sectors (Utilities, Real Estate) absorb shocks. Quantile VAR (QVAR) networks reveal strong state-dependence, with spillovers intensifying in both lower and upper tails and with Energy and Materials becoming more exposed after the Paris Agreement. To identify drivers of connectedness, we estimate Seemingly Unrelated Regressions (SUR) linking quantile-based indices to macro–financial factors and climate indicators. Volatility (VIX) and financial stress (FSI) consistently increase spillovers, while the effect of inflation expectations is asymmetric—positive at the median but negative in the tails. Comparing two climate measures (the Faccini index and the Media Climate Change Concerns index), we find that after the Paris Agreement, natural disasters amplify connectedness in extreme downside markets in the MCCC

model, while transition-related signals become regime-dependent, reflecting changing market perceptions of climate risk.

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When Amenities Don't Pay Off: Kindergarten Accessibility and Housing Prices in Post-Socialist Suburbia

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This paper examines the relationship between the spatial accessibility of kindergartens and housing prices in the suburban hinterland of Bratislava. Using property listing data, multiple log-linear regression models incorporating detailed housing characteristics, locational controls, and spatial and temporal fixed effects are analysed. Kindergarten accessibility is operationalised through multiple specifications, including continuous distance, threshold-based proximity, and capacity measures. Across all model variants (adjusted $R^2 > 0.80$), results consistently indicate a statistically significant but economically negligible, mostly negative, association between accessibility and housing prices. These findings challenge conventional assumptions about amenity capitalisation. From a regional perspective, they reflect key features of post-socialist suburbanisation, particularly the spatial and temporal mismatch between residential development and public service provision. High-priced housing is often located in peripheral areas with lower amenity accessibility. The study highlights the limits of standard hedonic models in capturing weak and spatially uneven amenity effects and underscores the need for context-sensitive, spatially informed econometric approaches.

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