

# Questionnaire

## Summary of the main activities of the Institute of Economic Research of the Slovak Academy of Sciences

Period: January 1, 2016 - December 31, 2021

### 1. Basic information on the institute:

#### 1.1. Legal name and address

**INSTITUTE OF ECONOMIC RESEARCH OF THE SLOVAK ACADEMY OF SCIENCES**

Šancová 56, 811 05, Bratislava, Slovakia

**Ekonomický ústav Slovenskej akadémie vied, v.v.i.**

Šancová 56, 811 05 Bratislava, Slovensko

#### 1.2. URL of the institute web site

<https://ekonom.sav.sk/en>

<https://ekonom.sav.sk>

#### 1.3. Executive body of the institute and its composition

Directoriat	Name	Year of birth	Years in the position, from - to
Director	prof. Ing. Juraj Sipko, PhD. MBA.	1952	6years, 2016-2021
Deputy director	Ing. Veronika Hvozdíková, PhD.	1978	2years, 2016-2017
Deputy director	Ing. Jaroslav Vokoun	1962	3years, 2019-2021
Scientific secretary	Mgr. Ľubomír Laudár, CSc.	1949	6years, 2016-2021

*Add more rows for any changes during the evaluation period*

#### 1.4. Head of the Scientific Board

prof., Ing. Obadi Mothana Saleh, PhD. - 2years, 2016-2017

Ing. Frank Karol, PhD. - 4years, 2018-2021

#### 1.4 Composition of the International Advisory Board: -

## 1.5. Basic information on the research personnel

### 1.5.1. Fulltime equivalent work capacity of all employees (FTE all), FTE of employees with university degrees engaged in research projects (FTE researchers)

2016		2017		2018		2019		2020		2021		2016-2021	
FTE all	FTE researchers	average FTE all per year	average FTE researchers per year										
44,56	28,38	44,10	29,18	43,23	27,88	40,85	26,73	44,74	28,39	46,40	29,75	43,98	28,39

1.5.2. If applicable, add also a short information on the merger of the institute in the evaluation period. You can also add rows in the above table corresponding to the founding institutes: -

## 1.6. Basic information on the funding of the institute

### 1.6.1. Institutional salary budget, other salary budget<sup>1</sup>, non-salary budget<sup>2</sup>

Salary budget	2016	2017	2018	2019	2020	2021	average
<b>Institutional salary budget</b> <i>[millions of EUR]</i>	0,673	0,710	0,756	0,889	0,940	0,927	<b>0,816</b>
<b>Other salary budget</b> <i>[millions of EUR]</i>	0,125	0,170	0,166	0,758	0,168	0,203	<b>0,265</b>
<b>Total salary budget</b> <i>[millions of EUR]</i>	0,798	0,880	0,922	1,647	1,108	1,130	<b>1,081</b>
<b>Non-salary budget</b> <i>[millions of EUR]</i>	0,134	0,108	0,093	0,099	0,114	0,122	<b>0,112</b>

## 1.7. Mission Statement of the Institute as presented in the Foundation Charter indicating the years when it was adopted and revised

### Primary objective and subject matter of the activities

- The Institute is a scientific organisation of the basic research in the field of economic theory. Its scientific and research activities are focusing on:
  - research of globalization, integration and adaptation processes in the world and especially in the European economics;
  - research of processes and policies influencing the social and economic development of Slovakia and of its regions;
  - research of macroeconomic policy in relationship to the stability and economic growth in the national and European context;
  - research of processes and policies supporting orientation to knowledge-based economy;
  - research of relations between the economic policy of the government and the development of the company sector;
  - research of economic processes on the basis of mathematical economics and econometrics. The Institute applies the know-how from the basic economic research for the analysis and conceptual solution of the actual economic problems of Slovakia and formulation of the assumptions for strategies of Slovakia's social and economic development.
- The knowledge acquired by the Institute is presented in the form of monographs, studies and reviews that are accessible to experts, general public and decision-making bodies on various levels.

<sup>1</sup> Salary budget originating outside the regular budgetary resources of the organization, e.g. from the project funding.

<sup>2</sup> Includes Goods and Services and PhD fellowships.

3. The Institute is also involved in the expert and advisory activities for various decision-making bodies on the level of the government and self-government and may, upon request, participate in the preparation of conceptual economic and political documents.
4. The Institute organises doctoral studies under current legal regulations and participates in the pedagogic activities at universities and institutions of higher education.
5. The Institute provides for publication of the results of scientific and research activities in periodicals and non-periodicals. Publication of periodicals and non-periodicals is subject to resolutions of the Board of the Slovak Academy of Sciences.

**1.8. Summary of R&D activity pursued by the institute during the evaluation period in both national and international contexts. Describe the scientific importance and societal impact of each important result/discovery. Explain on general level – the information should be understandable for a non-specialist (recommended 5 pages, max. 10 pages for larger institutes with more than 50 FTE researchers as per Table 1.5.1.)**

The Institute of Economic Research of the Slovak Academy of Sciences (IER SAS) is a scientific organisation of basic and applied research in economics. The Institute's mission is based on economically oriented research, addressing pressing issues of the Slovak economic policy as well as seeking international recognition through excellence. More specifically, we describe the Slovak economy, search for ways and means of reducing risks and threats and identify opportunities for its development in the conditions of globalisation and European integration.

At the same time, IER SAS presents a platform for exchanging knowledge. Our researchers perform research stays abroad, while IER SAS facilitates research stays of foreign researchers, shelters project-based research cooperations, and organises international conferences. In what follows, we are summarising the most distinguished research activities performed at IER SAS during the evaluation period.

**Monitoring and anticipating the development of the Slovak economy**

Every year (for 29 years now), the IER SAS publishes the monograph **Economic Development of Slovakia**, which focuses on the assessment of the development of selected segments of the Slovak economy. IER SAS prepares this annual analytical and evaluative view of the economic development of Slovakia since the establishment of the independent Slovak Republic. Although the title of the publication includes a specific year, this does not imply attention to developments in an isolated one-year period. The phenomena assessed are also set in the context of trends over a longer period. The focus of the publication progresses from an initial summary view through a series of more detailed analyses of selected sectors of the Slovak economy (competitiveness, macro-stability, market functioning and economic policies). Every year, the publication has a central theme, a cross-cutting issue that it focuses on. The publication also discusses the expected changes in the near future. It is distributed to all relevant government and public institutions and is also a basis for teaching at universities. Each year, the book is published in both Slovak and English, so it serves as a regular analytical basis capturing a comprehensive set of macroeconomic aspects of the Slovak economy development also for foreign audiences.

The results of the research are regularly presented at scientific conferences.

Annual monitoring of the Slovak economic development is complemented by ad-hoc studies and monographs covering issues of specific urgency in a more detailed format. Among the topics covered during the evaluation period were, e.g.:

- Links Between Labour Productivity and the Minimum Wage
- Territorial Attractiveness and Talent Mobility – The role of cities
- Creating and Capitalising on the Potential of the Knowledge Society
- Long-term development of the Slovak Economy after a Quarter of a Century of Independent State

**Research on the development of the world economy relevant to the Slovak audience**

For Slovakia, as an export-oriented economy, it is essential to know the main trends and current developments in the world economy. The global economy presents an interconnected system of contexts,

impacts and limits, as well as the time frames of economic and social processes with particular importance for the small open economy of Slovakia. The publication "Development and Perspectives of the World Economy" annually deals with current trends and factors influencing the development of the world economy.

Related to this regular monitoring activity, more in-depth research activities identify and analyse the risk and challenges behind world development. For example, the publication by Brzica et al. (2020) was devoted to the coronavirus pandemic and identified a number of new questions to be addressed by policymakers and economists. Brocková et al. (2018) deal with the development of the global economy characterised by a dampening of potential economic growth, stronger anti-globalisation rhetoric and increased protectionist measures. The VEGA project "Energy Security and Sustainable Competitiveness: Implications for the European Union" is currently part of research activities identifying factors affecting the energy security of selected countries. The project's output is, for example, Obadi & Korček (2020). Another VEGA project, "Real convergence in the European union: empirical evidence and implications" with output by Dováľová et al. (2019) concerning the impact of Brexit on the economies of the Visegrad Group. The changes in environmental conditions, the fourth industrial revolution (Industry 4.0), the introduction of artificial intelligence, the sustainability of the social model and the deepening polarisation of income and opportunities are addressed in publication by Staněk et al. (2021).

### **Macroeconomic predictions of the Slovak Economy**

IER SAS develops and administrates multiple macroeconomic models. An econometric model based on the error-correction methodology (ECM) is regularly updated to produce annual forecasts of the Slovak gross domestic product and main macroeconomic indicators (labour productivity, employment, etc.). Results of the prediction are published (Radvanský and Lichner 2021b, 2019, 2018, 2017, Radvanský et al. 2016) and presented at the annual meeting of econometric modellers in Slovakia (Perspectives of the Slovak Economy, since 2001), and also disseminated internationally, e.g. through the SkillsNet expert network administrated by the European Centre for the Development of Vocational Training - CEDEFOP (Web 1), or the forecasting network annually updated the Eastern European Consensus Forecast (Web 2) collected by Consensus Economics based in the UK.

Another macroeconomic model rooted in the HERMIN methodology was developed under IER SAS. Originally the methodology was developed to assess the impact of the EU cohesion funds. For this purpose, it was applied by researchers of IER SAS in Slovakia and the Czech Republic. Outputs were delivered upon request of the Governmental office of the Slovak Republic and the Governmental office of the Czech Republic. The methodology was further developed under a crossborder cooperation project financed by the Slovak research and development agency (APVV) titled: Cooperation and development of regional HERMIN model for Cohesion policy evaluation in Slovakia and Poland (Web 3) with the University of Wroclaw - WARR in Poland. The cooperation resulted in publishing a comparative article in an international high-impact Q1 journal *Regional Studies* (Mogila et al., 2022).

A third model developed and administrated by IER SAS is based on interacting sectoral-level information from input-output tables with a set of equations predicting the macroeconomic development at the national level. The Integrated Input-Output model was developed during a series of projects on forecasting skill needs in Malta (for the Maltese public employment service – JOBSPLUS, Web 4) in the Czech Republic in cooperation with the Czech National Training Fund (Web 5) and Slovakia (APVV project). The model was elaborated into a series of regional models in the Czech Republic, demanding re-calculation of regional input-output tables. A novel methodology was applied to deliver this task, published in an Austrian impacted economic journal *Empirica* (Radvanský & Lichner, 2021a).

The integrated input-output model of the Slovak labour market (SLAMM\_IO) is complemented by a dynamic microsimulation model (SLAMM\_microsim) projecting the development of the Slovak labour force. The combination of these two models can be used to predict the Slovak labour market's skill needs, specifically the expansion and replacement demand for labour. Predictions of the model were published in Štefánik et al. (2018), Lichner et al. (2018) or Radvanský et al. (2021).

The development of the microsimulation model (SLAMM\_microsim) was in cooperation with the International Microsimulation Association (Web 6), the Luxembourg Institute of Social and Economic Research, under a Special Interest Group of microsimulation model developers financed by an EU-wide project InGRID (Web 7). Model methodology was described in the journal of the International Microsimulation Association (Štefánik & Miklošovič, 2020). Model was applied to produce projections labour demand in selected sectors for analytical departments at the Ministry of Finance (Value for Money) and the Institute of Educational Policy of the Ministry of Education, Science, Research and Sport of the Slovak Republic.

Supporting activity in the development of models consisted in the creation of specific micro analyses (Gerbery and Miklošovič, 2018; Gerbery and Miklošovič, 2020).

To assess the macroeconomic impact of policy reforms in a static environment, IER SAS maintains a static CGE model of the Slovak economy. This was applied on tasks such as an ex-ante assessment of the impact of introducing environmental taxation on the Slovak economy (Páleník & Miklošovič, 2016).

The long-term macroeconomic model was developed at the IER SAS almost one decade ago and since then the model was several times updated. It is based on the neoclassical theory of economic growth and the population is disaggregated into several smaller groups by age. The model is suitable for projecting economic development in the long run. It was mostly used to analyze the effects of aging on the economic development and the public finances (Lichner, 2017).

Among the research issues approached by econometric modelling techniques are also the estimation the impact of population ageing on the sustainability of public finances and economic growth.

The Generational accounts developed at the IER SAS are a partial equilibrium modelling approach useful for analyzing the effects of ageing, migration or fiscal policy measures on the revenues and the expenditures of the public finances. Domonkos and Janosova (2018) estimated the effects of aging and various setting of the Slovak pension system on the sustainability of the public purse in Slovakia. Domonkos (2021) used Generational accounts for estimating the fiscal effects of migration in Slovakia from a static as well as a dynamic perspective. He showed that migration seems to have positive effect on the public purse however the volume of this effect is rather small.

### **Impact evaluation of Slovak active labour market policy programmes**

Since 2014 IER SAS has received individual-level data on registered unemployed jobseekers in Slovakia annually. A long-term cooperation agreement with the Central Office of Labour, Social Affairs and Family (COLSAF) shelters the data exchange. The first export in 2014 was the first export made of a modernised information system of COLSAF after a decade. Since then, IER SAS pioneered counterfactual impact evaluation of Slovak active labour market policy programmes (ALMPs). During the last years, data cleaning and preparation processes related to annual exports were automatised and descriptive automatic evaluation reports are being published on a project web (Web 8). Under this activity, IER SAS researchers collaborated with analytical units at the Ministry of Labour, Social Affairs and Family (MoL) and the Ministry of Finance of the Slovak Republic on multiple analytical reports. This collaboration included training, reviewing as well as co-producing evaluation reports. Besides cooperation with analytical units, results of particular impact evaluations are being regularly presented to COLSAF or the MoL responsible for designing and implementing ALMPs in Slovakia.

The activity was sheltered by a chain of three applied research projects supported by the Slovak Research and Development Agency (APVV-14-0324, APVV-17-0329 and APVV-21-0360) and a cooperation agreement with COLSAF and the Institute of Fiscal Policy at the Ministry of Finance (starting in July 2022).

Research results were published in international journals (e.g. Štefánik et al. 2020; Štefánik, 2021) and presented at international conferences (e.g. European Association of Labour Economics Conference or the COunterfactual Methods for Policy Impact Evaluation - COMPIE conference on counterfactual impact evaluation organised by the Joint Research Centre of the European Commission).

### **Illicit financial flows and capital flight**

The topic of illicit financial flows and associated capital flight phenomenon are among the relatively new but rapidly developing themes at the Institute (IER SAS). The primary objective of the research team was to investigate the impact of this phenomenon in conditions of Slovakia (APVV-15-0666), to create a conceptual framework for integrating the shadow banking system activities (APVV-20-0499), and to analyse its effect on external debt sustainability (VEGA). As the repeated external recognition of domestic grant agencies demonstrates, issues of capital flight, illicit financial flows, and shadow banking are of high scientific importance, namely due to generally high pressure on the public budget, which was exacerbated by the financial and economic crisis of 2008 as well as by recent recession resulting from Covid-19 pandemic.

Scientific outputs included several highly regarded journal publications (Siranova and Workie Tiruneh, 2018; Siranova et al., 2021; Ostrihon et al., 2021), were presented at an international workshop (APVV Workshop in 2019), and disseminated to key policymakers (National Bank of Slovakia, Ministry of Finance, World Bank). Maria Siranova was awarded the Slovak Academy of Sciences Prize for Young Researcher

based on the assessment of scientific contribution to this topic. Among the key research outputs, the research team developed a database on measures of illicit financial flows via trade misreporting (Dujava and Siranova, 2017) which is now in use in follow-up projects (APVV-20-0499, VEGA) and is available on demand to international research community.

Given the relevance for Slovak economic conditions, some of the key findings from the research outputs confirmed negative effect of capital flight on domestic investments (Ostrihon et al., 2021), showed the proclivity of Slovak FDI positions abroad to misreporting possibly related to tax optimisation purposes (Siranova and Workie Tiruneh, 2018), as well as involvement of Slovak trade into international trade misreporting practices (Dujava and Siranova, 2017) or illicit international capital flows (Siranova et al., 2021).

### **Research on macroeconomic imbalances**

Various aspects of macroeconomic imbalances represented the other key focus of research activities of Department members. The primary objective of the research team was to investigate the predictive power of the newly established Macroeconomic Imbalance Procedure at the EU-wide level (FIRSTRUN Horizon 2020, APVV-17-0551, APVV-19-0352, VEGA 2/0158/18), to link the creation of macroeconomic imbalances to occurrence of financial crisis events (APVV-19-0352) or discuss the economic convergence through the debt-finance nexus (Workie Tiruneh, 2020) and associated macro-economic policy responses (APVV-19-0352). In this case, the external validity of the high scientific profile of these topics by domestic and international grant agencies demonstrates that recent experience of a series of world-shattering events (Great Recession, Euro Area sovereign debt crisis, COVID-19 pandemic) puts the external debt sustainability issues directly into the centre of scientific inquiries.

Scientific outputs included several highly regarded journal publications (Domonkos et al. 2017; Siranova and Radvansky, 2018), one internationally published monograph (Workie Tiruneh, 2018), were presented at international workshop (FIRSTRUN Conference in Brussels, 2018), and disseminated to key national (National Bank of Slovakia, Ministry of Finance) and international (European Commission) policy makers. Among the key research outputs, the research team developed comprehensive Integrated Financial Crisis Database gathering information on identification of financial crisis events across notable scientific publications. The database is freely available to international scientific community and is updated regularly by the Department staff (also funded by the follow-up project APVV-20-0499).

Given the relevance for economic conditions of European Union, some of the key research findings questioned the efficiency of Macroeconomic Imbalance Procedure in CESEE conditions in case of external sector indicators (Siranova and Radvansky, 2018), identified domestic labour market-activity related indicators and current account balance as well as private sector debt as the best-performing crisis predictors (Domonkos et al., 2017), or discussed in a thorough way the risks related to debt sustainability in EA countries, especially with respect to (uncertain) causality of debt-growth nexus (Workie Tiruneh, 2018).

### **Applied research and advisory to the public sector**

IER SAS researchers support the Slovak and European decision-making sphere with various applied research and policy advisory activities. On top of the above-mentioned activities, IER SAS cooperated in the participatory process of implementing the national priorities of the UN strategy - Agenda 2030. The project coordinator was the Office of the Deputy Prime Minister for Investment and Informatization of the Slovak Republic. The Voluntary National Review of the Slovak Republic on the Implementation of the 2030 Agenda for Sustainable Development was presented at the UN (2018).

High societal impact is also visible in the support provided to the Slovak Office of the Deputy Prime Minister for Investment and Informatization focused on improving processes related to the implementation of European Structural and Investment Funds (ESIF). Please, visit point 2.6.1 for more information.

IER SAS representatives also participated in a working group for urban development set up by the Ministry of Transport and Construction of the Slovak Republic. The focus on cities is a part of the global and European initiatives in the field of sustainable urban development. The result is the Concept of Urban Development of the Slovak Republic until 2030 (2018). Metropolitan areas in Slovakia will be managed to ensure a healthy living environment for a high quality of life through providing a diverse range of job opportunities, adequate housing and services, environmental protection high quality urban and architectural solutions.

IER SAS representatives also participated in the Sector-Driven Innovation project, which aims to create a National System of Occupations (2019 - 2022). The result is an information system describing the standard

demands of the labour market for individual jobs. Furthermore, they supported the social dialogue by analytical papers covering topics of the minimum wage or employment or social policies. They also actively developed strategic documents and action plans in various policy areas.

At the European level, we can mention activities related to IER SAS representation in the European Social and Economic Committee (advisory institution to the European Parliament). For five years, IER SAS cooperated and published several reports related to the Research and Innovation policies in Slovakia for the Joint Research Centre of the European Commission.

Researchers regularly deliver country studies commissioned by the European Commission on topics including innovation policies, labour market or educational policies.

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ŠTEFÁNIK, Miroslav - KARASOVÁ, Katarína - STUDENÁ, Ivana. Can supporting workplace insertions of unemployed recent graduates improve their long-term employability? : Evidence on the treatment effects of the Contribution for the graduate practice in Slovakia. In *Empirica*, 2020, vol. 47, iss. 2, pp. 245-265. <https://doi.org/10.1007/s10663-018-9413-y>

ŠTEFÁNIK, Miroslav. Shifting the Training Choice Decision to the Jobseeker - The Slovak Experience. In *Labour : Review of Labour Economics and Industrial Relations*, 2021, vol. 35, iss. 2, pp. 192-213. ISSN 1467-9914. <https://doi.org/10.1111/labr.12189>

Online references:

Web 1: <https://www.cedefop.europa.eu/en/networks/skillsnet>

Web 2: <https://www.consensuseconomics.com/publications/eastern-europe-consensus-forecasts/>

Web 3: <https://ekonom.sav.sk/en/projects/cooperation-and-development-of-regional-hermin-model-for-cohesion-policy-interventions-evaluation-in-slovakia-and-poland-p162>

Web 4: <https://ekonom.sav.sk/en/projects/malta-mid-term-skills-&-occupational-forecasting-for-malta-p171>

Web 5: <http://en.nvf.cz/>

Web 6: <https://www.microsimulation.org/>

Web 7: <https://www.liser.lu/?type=news&id=1612>

Web 8: [http://www.lmevidence.sav.sk/?page\\_id=270](http://www.lmevidence.sav.sk/?page_id=270)

## 2. Partial indicators of main activities:

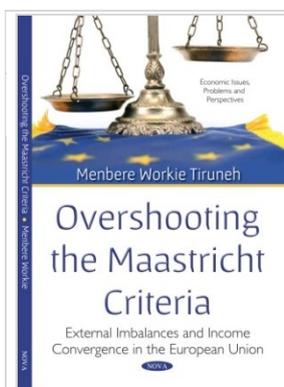
### 2.1. Research output

#### 2.1.1. Principal types of research output of the institute: basic research/applied research, international/regional (in percentage)

basic research	applied research	international	regional
60%	40 %	30%	70 %

#### 2.1.2 List of selected publications documenting the most important results of basic research. The total number of publications listed for the assessment period should not exceed the average number of employees with university degrees engaged in research projects. The principal research outputs (max. 5, including Digital Object Identifier – DOI if available) should be underlined. Authors from the evaluated organizations should be underlined.

### Scientific monographs published abroad



WORKIE TIRUNEH, Menbere. Overshooting the Maastricht Criteria: External Imbalances and Income Convergence in the European Union.

Reviewed: Daniel Dujava, Martin Labaj. New York: Nova Science Publishers, 2018. 221 p. ISBN 978-1-53613-585-5.

The book discusses theoretical controversies and state-of-the-art empirical studies on the link between external imbalances and real income convergence in the European Union. It shows successful real income convergence across the European Union on the country level and pinpoints persistent regional disparities within countries in most of the member states of the European Union. The book addresses broader aspects of external imbalances and their key determinants and provides fresh empirical and exploratory evidence on paradigm shifts in the past several decades. It also empirically estimates both the causality between public debt and economic growth as well as the optimum level of public debt for EU member states. The book examines the link between illicit capital flows and external imbalances in the European Union. Overall, it critically investigates both theoretical frameworks of global imbalances and systematically evaluates milestones and shifts in global imbalances, as well as offering new empirical results based on the panel data of both "old" and "new" EU member states in the past several decades. Finally, the book addresses a number of the policy challenges, disputes and controversies in the European Union in terms of solving the ongoing external imbalances and harmonizing policies to prevent future challenges.

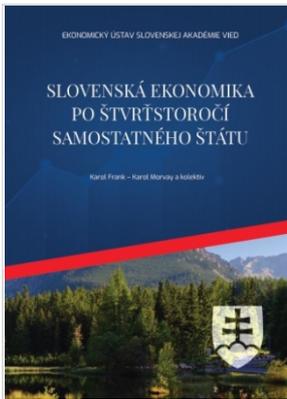
### Scientific monographs published in Slovak publishing houses



BROCKOVÁ, Ingrid - BRZICA, Daneš - DOVÁĽOVÁ, Gabriela - DZIURA, Boris - HOŠOFF, Boris - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - ŠIPKO, Juraj - SIVÁK, Rudolf - STANĚK, Peter - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav. Vývoj a perspektívy svetovej ekonomiky [13]: spomalenie rastu vplyvom obchodnej vojny = The Development and Perspectives of the World Economy: Growth Slowdown Due to Trade Tensions.

Reviewed: Vladimír Gonda, Ľudmila Lipková. Bratislava: The Institute of Economic Research of Slovak Academy of Sciences, 2019. 346 s. Available at internet: <[http://www.ekonom.sav.sk/uploads/journals/396\\_obadi\\_a\\_kol\\_vapse\\_print\\_uvod\\_a\\_zaver\\_2019.pdf](http://www.ekonom.sav.sk/uploads/journals/396_obadi_a_kol_vapse_print_uvod_a_zaver_2019.pdf)>. ISBN 978-80-7144-305-6

The global economy is more or less, always influenced by geopolitical factors, and its development and direction are in the hands of political representatives, especially key countries, which are often the source of decisions that have a positive or negative global impact. The contribution of the geopolitical factor to the development of the global economy is evident in the form of a significant increase in protectionist and retaliatory measures, which have grown into so-called "protectionist" measures trade war, especially between the US and China. The introduction of import duties by the USA and countermeasures by China have had a negative impact on global trade and investment and, ultimately, on global output.



BRZICA, Daneš - DUJAVA, Daniel - FRANK, Karol - HOŠOFF, Boris - HUDCOVSKÝ, Martin - JECK, Tomáš - KAČÍRKOVÁ, Mária - KOSTA, Ján - MORVAY, Karol - ŠIRAŇOVÁ, Mária - VOKOUN, Jaroslav. Slovenská ekonomika po štvrtstoročí samostatného štátu = **Slovak Economy after 25 Years of Independent State.**

Reviewed: Edita Nemcová, Elena Fifeková. Bratislava: The Institute of Economic Research of Slovak Academy of Sciences, 2019. 271 s. Available at internet: <[http://ekonom.sav.sk/uploads/journals/397\\_slovenska\\_ekonomika\\_po.pdf](http://ekonom.sav.sk/uploads/journals/397_slovenska_ekonomika_po.pdf)>. ISBN 978-80-7144-309-4

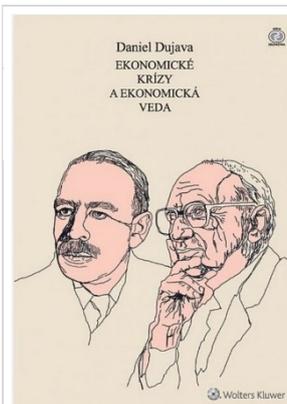
The publication provides an analysis of the first 25 years of the economy of an independent state. It is intended for economists and a wider range of readers interested in the development of society. It provides evaluations of remarkable moments in economic development, which also help to properly understand many current issues. The publication is divided into three parts: The first part deals with the problems of the economic level, economic performance, and the development of its socio - economic parameters; the second part assesses the changes in the structure of the economy and the third part deals with changes in economic policy and the financial framework. The analyzes showed that an important turning point was coming after the first quarter century: the possibility of further fast catching-up of the top performance based on previous driving forces was limited. The publication demonstrates how the Slovak economy has managed to approach the level of the most advanced economies, change its structure to a more promising orientation and has proved its ability to function in a common European market. But even showed the fact that the economy stood on the threshold of development and began to stagnate in real convergence. At the same time, the creation of the necessary new competitive advantages failed. The publication identified several limiting factors and challenges. These are, for example, in large sectors with unresolved sustainable financing (health care, pension system, education system), in the business environment (law enforcement, corruption, inefficient bureaucracy, inadequate infrastructure) or in the cultivation of human capital.



BRZICA, Daneš - HOŠOFF, Boris - HVOZDIKOVÁ, Veronika - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - ŠIPKO, Juraj - STANĚK, Peter - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav. Vývoj a perspektívy svetovej ekonomiky [14]: transformácia počas pandémie koronavírusu SARS-CoV-2 = **The Development and Perspective of the World Economy: Transformation during the Pandemic of Coronavirus SARS-CoV-2.**

Reviewed: Vladimír Gonda, Vladimír Mařík. Bratislava: The Institute of Economic Research of Slovak Academy of Sciences, 2020. 254 s. Available at internet: <<http://www.ekonom.sav.sk/sk/publikacie/-p404>>. ISBN 978-80-7144-314-8

The pandemic showed the strengths and weaknesses of today's super-complex world. The information society, big data, artificial intelligence and the complexity of today's science make it possible to apply a multidimensional view on the diversity and interconnectedness of current developments. From this point of view it is possible to define a complex of causes (Covid-19 is only one of them) and to determine the hierarchization of current and future processes (causes – consequences – solutions). At present, therefore, the key question is, whether it is possible to return to the status before the pandemic. The answer is no, as crucial determinants of transformation already existed before the pandemic. Is the constant growth of consumption sustainable? Can the consequences of the Fourth industrial revolution and introduction of artificial intelligence radically change the architecture of society as we know it? Can today's society remain unchanged (in terms of its goals, etc.) in relation to changes in the natural environment? These are the questions we need to answer for better understanding of future developments.



DUJAVA, Daniel. Ekonomické krízy a ekonomická veda = **Economic crises and economic science.**

Reviewed: Branislav Žúdek, Dalibor Roháč. 1st ed. Bratislava: Wolters Kluwer, 2016. 186 s. Ekonómia, 600. The monograph is part of the project VEGA 2/0070/15. ISBN 978-80-8168-442-5

The publication tries to bridge the gap between the often naive conversation about economic policy in Slovakia on the one hand and mainstream economics research on the other. The book is dedicated to readers who come into contact with economics on a daily basis but whose main area of expertise is not the field of economic crises, and also to the wider public, who will get a sense of how modern economics explains the economic cycle, what solutions it recommends, to what extent it has or has not learned from its past mistakes, and to what extent current developments are really a calling card for its failures. The financial and economic crisis of 2008 drew attention to crisis development being symptomatic of a failure of the economics per se. Many economists took defensive stance on this issue and accepted the narrative that economic science has failed, as it was not able to predict the financial crisis and that the anaemic growth in recent years was a result of the economics not being able to provide solutions for current problems. The publication

explains why government interventions in the form of monetary and fiscal policy are required and provides in-depth overview of associated underlying processes. Substantial part of the publication is dedicated to the shortcomings of fiscal policy and the author presents how the economics nowadays reached a consensus that instruments of monetary policy are more suitable for tackling economic fluctuations. The most extensive chapter is covering the practice of monetary policy and appropriate setting of its target. The author explains how the efficacy of stabilization policy instruments changes in the conditions of zero interest rates, elucidates the mechanism behind unconventional monetary policy instruments, and does not neglect any existing issues of the monetary union.



FRANK, Karol - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - MORVAY, Karol - ŠIKULOVÁ, Ivana - ŠIRANOVÁ, Mária. Hospodársky vývoj Slovenska v roku 2020: zaostrené na: ako koronavírusová kríza mení ekonomiku = **Economic Development of Slovakia in 2020: Focus on: How Corona Crisis Has Changed Economy.**

Reviewed: Edita Nemcová, Eva Pongrácz. Institute of Economic Research of Slovak Academy of Sciences; Bratislava, 2021. 137 s. Available at internet: <[http://ekonom.sav.sk/uploads/journals/411\\_hv\\_2020\\_anglicka\\_verzia\\_sr-final.pdf](http://ekonom.sav.sk/uploads/journals/411_hv_2020_anglicka_verzia_sr-final.pdf)>. ISBN 978-80-7144-326-1.

It is a continuation of a series of analytical and evaluation views on the economic development of Slovakia, which the IER SAS has been preparing every year since the establishment of the Slovak Republic. It reveals changes in trends or characteristic problems for the current period. Although the title of the publication always contains a specific year to which the evaluation relates, the authors try to place development tendencies in the context of a longer period. The sequence line in the analysis proceeds from the initial summary view through a number of more detailed views on partial issues (selected areas of competitiveness, macro-stability, market functioning and economic policies), to the indication of changes in the future trajectory of development. Every year, the publication has a central theme, a cross-cutting issue that it focuses on. In assessing economic developments in 2020, such a cross-cutting issue is the set of changes caused by the pandemic crisis. The authors do not perceive this crisis only as a phenomenon that shook the economy in a given year. Rather they see it as a phenomenon that shook the economy, but at the same time changes it more permanently.



KOŠTA, Ján - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HUDCOVSKÝ, Martin - MORVAY, Karol - VOKOUN, Jaroslav. Súvislosti produktivity práce a minimálnej mzdy = **The relationship between labour productivity and minimum wage.**

Reviewed: Rastislav Bednárik, Pavol Kárász. Bratislava: VEDA, vydavateľstvo Slovenskej akadémie vied, 2021. 199 s. Available at internet: <[http://www.ekonom.sav.sk/uploads/journals/412\\_kosta\\_a\\_kol-produktivita\\_a\\_mzdy\\_2021.pdf](http://www.ekonom.sav.sk/uploads/journals/412_kosta_a_kol-produktivita_a_mzdy_2021.pdf)>. ISBN 978-80-224-1934-5.

The publication is devoted to the problem of the relationship between labor productivity and the wage level. Partial analyzes are focused on the development of the average wage as well as the minimum wage in a broader context. Special attention is paid to the international comparison of the development of the analyzed economic categories. In the Slovak economy, it is not easy to set a minimum wage due to large differences in labor productivity and wages between sectors. Globalization, technological and demographic change must be accompanied within the European Union by innovative economic policies, including labor market policies. Of these, the minimum wage policy also plays an important role. However, the level of the minimum wage should take into account not only economic but also social criteria. It is no coincidence that the policies of the European Union's institutions have also moved towards a European minimum wage that fully respects the European Pillar of Social Rights. The social partners have an important role to play in this context. The publication was created with the aim of cultivating social dialogue in Slovakia, based on knowledge of the development of labor productivity, wages, but also other related factors.



PÁLENÍK, Michal - KOHNOVÁ, Lucia - PÁLENÍK, Viliam - POLLÁK, Miroslav - RADVANSKÝ, Marek. Vplyv starnutia na zdravotnícky systém Slovenska: prognóza dopytu a ponuky do roku 2030 = **The impact of aging on the health care sector in Slovakia – forecast of demand and supply until 2030.**

Reviewed: Tomáš Želinský, Ján Košta. Bratislava: Univerzita Komenského v Bratislave, 2021. 247 s. Available at internet: <<https://www.iz.sk/download-files/sk/strieborna/vplyv-starnutia-na-zdravotnictvo>>. ISBN 978-80-223-5149-2.

Population aging in Slovakia is one of the most important factors affecting the health care system. In comparison to other sectors, aging affects health care in two ways: the employees in the sector are aging and the general population is aging as well and the older patients increase demand for sector's services. We quantify expansion demand for health care around 0.7 % annually and average annual replacement demand is 3.5 %. Over the next 10 years, there will be a need to find almost 50 % additional doctors and nurses to fill the vacancies. The number of general medicine students having Slovak citizenship is stable over last decade at

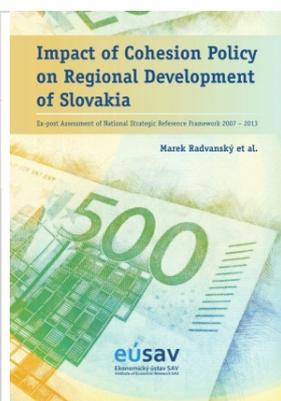
around 4 thousand and the whole increase of universities' capacities was absorbed by foreign students studying in English, so 40 % of capacities of Slovak medicine faculties is dedicated to students, who will not stay in the health sector in Slovakia. The nursing profession has an alarming development ahead, the study system for the nursing profession is not stable. To avoid total collapse of the health care sector due to lack of nurses, it is necessary to implement fundamental changes. Long-term care in Slovakia is not available to all eligible recipients. The main feature of proposed reform would include a reduction in personal income taxes (and corresponding reduction in the responsibilities of villages and cities), a reduction in health insurance contributions (and corresponding reduction of insurers' obligations in long-term care) and the introduction of a long-term care fund contribution at 1.5 % of gross wages (not changing total taxes and contributions paid by working individuals).



PAUHOFOVÁ, Iveta - STEHLÍKOVÁ, Beáta - STANĚK, Peter - PÁLENÍK, Michal. **Súvislosti príjmovej polarizácie na Slovensku III. = The Context of Income Polarization in Slovakia III.**

Reviewed: Eva Rievajová, Peter Sakál. Bratislava: The Institute of Economic Research of Slovak Academy of Sciences, 2018. 158 s. Available at internet: <[http://ekonom.sav.sk/uploads/journals/387\\_suvislosti\\_prijmovej\\_polarizacie\\_na\\_slovensku\\_iii\\_-\\_od\\_doc\\_pauhofovej.pdf](http://ekonom.sav.sk/uploads/journals/387_suvislosti_prijmovej_polarizacie_na_slovensku_iii_-_od_doc_pauhofovej.pdf)>. ISBN 978-80-7144-290-5

Slovak society is less polarized in income, but there are significant differences between the west and east parts of the country. We calculated the Foster-Wolfson indices for wage polarization and income polarization. In the research of wage and income polarization we focussed on the global risks and trends of an economic, social, technological and environmental nature. Part of Slovakia's regions is in the poverty trap, which can represent a significant barrier in terms of consumption. Poor old-age pensioners will be generated from the current working poverty. The low level of domestic consumption leads the Slovak economy to a high dependence on exports. Automotive sector is the "conductor" of the economy in connection with issues of lower labour cost, cooperation of Slovak subcontractors and foreign investors and the importance of dual education. Changes in the need for work in society, related to the Fourth Industrial Revolution and the expansion of the shared economy, will have a significant impact on the development of income polarization. The change in the natural environment will gradually create differentiated conditions for the regional economic structure and the use of human potential. If the quality of education will not change, we cannot expect adequate adaptation to changing conditions in society's system. There will be low-skilled people remain in part of regions. It will be continued to weaken of these regions. If part of the population is not prepared for digitalisation and low-skilled jobs with low wages will participate in economy, the differences between Bratislava and other regions will increase.



RADVANSKÝ, Marek - FRANK, Karol - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš. **Impact of cohesion policy on regional development of Slovakia: ex-post assessment of national strategic reference framework 2007-2013.**

Reviewed: Ján Haluška, Iveta Stankovičová. Bratislava: Institute of Economic Research SAS, 2016. 111 p. Available at internet: <<http://ekonom.sav.sk/sk/publikacie/-p334>>. ISBN 978-80-7144-257-8.

The main objective of the research presented in the publication was to quantify the impact of the European Cohesion Policy implementation in the programming period 2007-2013 on the Slovak economy through the application of an econometric model. The monograph reflects the needs of the Government Office to assess the expected impact and effectiveness of the ESIF funds not just from a national, but regional perspective. The monograph represents the first printed publication focused on regional ex-post evaluation of the impact of Structural Funds and Cohesion Fund on the Slovak economy. The regional breakdown to NUTS 3 level used in the publication is unique not only in the Slovak Republic but also in the European context and provides a detailed assessment of the growth and cohesion effects of the implementation of European funds across Slovak regions.



STANĚK, Peter - HOŠOFF, Boris - SIPKO, Juraj - MAŘÍK, Vladimír - VRBA, Zdeněk. **Spoločnosť budúcnosti I.: možnosti konvergencie a integrácie v budúcnosti = The Society of the Future I.**

Reviewed: Otakar Němec, Jan Barták. Bratislava: Wolters Kluwer SR s. r. o, 2021. 267 s. ISBN 978-80-571-0445-2.

The monograph addresses the main risks of the coming years, such as coronavirus mutations, geopolitical instability, or the escalating energy crisis, rising prices and inflation. In this context, it deals with the competitiveness of economic subjects in terms of small and medium-sized enterprises, digitization, the quality of education and the skills of the workforce, as well as in terms of the Recovery plan for Europe. It points to the problem with the huge expenditures of states that will pay off for at least the next two generations. It gives special attention to the dynamic balance and architecture of complex systems, including the energy transformation of society, Green Deal and energy reduction concepts (scenarios).



ŠIKULA, Milan. Minimalizácia alebo modernizácia štátu: historická retrospektíva a aktuálne výzvy ľudskej civilizácie = [Minimalization or modernization of state. Historical retrospective and actual challenges for human civilization](#)

Reviewed: Vladimír Gonda, Peter Staněk. Bratislava: Wolters Kluwer, 2017. 151 s. Ekonómia. ISBN 978-80-8168-694-8

The adaptation of the state and its functions to the new conditions is related to the onset of the fourth industrial revolution. Its fast movement brings new opportunities and threats associated with revolutionary changes in technology. In this context, the author examines the contradiction with the institutional structure of human society, especially in the socio-economic, environmental and financial fields caused by globalization. The concept of developmental conditionality (path dependency) and the concept of development shaping (path shaping) are applied. The analysis of crisis and post-crisis adaptation processes is connected with changes in the theoretical perception and real functioning of the state in these processes. Invisible redistributive processes are a threat to the welfare state. Liberalization and deregulation have meant that the territorially integrated space of the state has been directly embedded in global economic coordinates, thus reducing the role and influence of the state in external economic relations.



ŠTEFÁNIK, Miroslav. Trh práce na Slovensku 2019+ = [Labour market in Slovakia 2019+](#)

Editors: Katarína Karasová, Miroslav Štefánik; reviewers: Daniel Škobla, Mária Vojtková. Bratislava: Centre of Social and Psychological Sciences, Slovak Academy of Sciences: Institute of Economic Research, Slovak Academy of Sciences: Faculty of Arts, Comenius University in Bratislava, 2018. 169 p. Available at internet: <[https://www.ekonom.sav.sk/uploads/journals/390\\_labour\\_market\\_in\\_slovakia\\_201.pdf](https://www.ekonom.sav.sk/uploads/journals/390_labour_market_in_slovakia_201.pdf)>. ISBN 978-80-7144-296-7.

This book represents another volume from a series of reports on the situation in the Slovak labour market, resulting from a research project funded by the Slovak Research and Development Agency. The main goals of this report are as follows: (i) to review the recent labour market developments, (ii) to provide short-term and mid-term forecasts of the labour market developments, and (iii) to examine the causes of selected structural problems of the Slovak labour market. We are targeting the key stakeholders in the field of labour market policymaking, the research community, as well as the general public.

The first chapter provides an overview of the recent labour market developments in Slovakia, as well as stylised facts that attempt to place the existing trends in a broader macroeconomic picture and policymaking context.

In the second chapter, we present the results of a revised mid-term forecast of employment by economic sector based on a combination of macro-economic and microsimulation models. Here we report the expected developments in terms of expansion and replacement demand for labour, pointing at the segments with the highest expected skills shortage.

The third chapter provides an overview of available evidence on the impact of Slovak active labour market policy measures. The main findings of available studies are placed in a broader labour market context and supplemented with information on the main historical developments of Slovak public employment services.

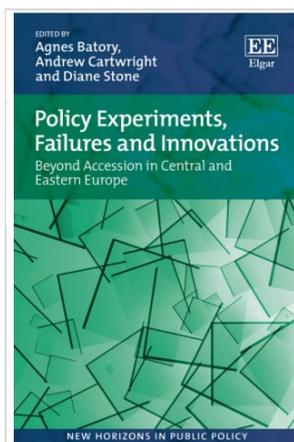
The fourth chapter provides evidence on the impact of one, recently introduced, publicly funded training measure available to registered jobseekers under the so-called REPAS programme.

In the fifth chapter, Slovak policies of labour market integration of persons with health disabilities are described and examined.

In the sixth chapter, labour market inequalities in Slovakia are analysed, applying the concept of social class. The class structure and its changes are examined on the basis of EGP and ESeC class schemes. Social mobility is analysed through various log-linear models.

The final, seventh chapter, evaluates the accuracy of short-term predictions in respect of the unemployment rate produced during the concluding project funded by the Slovak Research and Development Agency (APVV-14-0324: Addressing social challenges related to the design of evidence based labour market policies).

## Chapters in scientific monographs published abroad

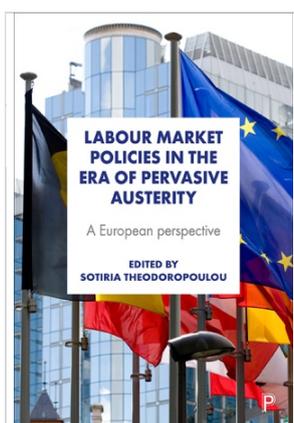


ADASCALITEI, Dragos - DOMONKOS, Štefan. **Learn from thy Neighbor: Emulation and Learning in Eastern European Mandatory Private Pensions Reforms.**

In Policy Experiments, Failures and Innovations: Beyond Accession in Central and Eastern Europe. - Cheltenham: Edward Elgar Publishing, 2018, p. 45-65. ISBN 978-1-78536-748-9.

Available at internet: <https://doi.org/10.4337/9781785367496.00010>.

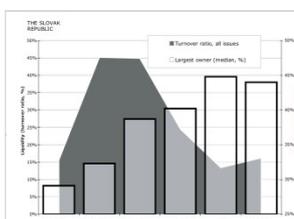
This chapter examines the political and economic circumstances of the introduction of the second pillar of old-age pension provision in the Czech Republic and Romania. These countries implemented the reform of the pension system introducing the second pillar several years after other countries in Central and Eastern Europe. Policy-makers in Czechia and Romania had examples from nearby countries they could potentially learn from. The chapter investigates to what extent there was a transfer of experience between the earlier 'reformers' and the two late reformers. The examples of Czechia and Romania demonstrate that policy-makers learned mainly from the examples of states that were geographically, economically and culturally close to them. The domestic policy debate on the second pillar in Czechia has mainly concentrated on Slovakia and Hungary. In Romania, it was mainly Bulgaria and, to a lesser extent, Poland. Despite the transfer of experience and specific measures to pre-empt the complications of earlier reformers, the second pillar has acquired a volatile position in both countries. In Czechia, following the rise of the central-left CSSD-led coalition government, the decision to abolish the second pillar was taken in 2016. This example highlights the need to design reforms based on a broader societal consensus.



DOMONKOS, Štefan. **Slovakia: perpetual austerity and growing emphasis on activation. In Labour market policies in the era of pervasive austerity: A European perspective.**

Bristol: Bristol University Press, 2018, p. 277-307. ISBN 978-1-4473-3586-3. Available at internet: <https://doi.org/10.2307/j.ctt21216s2.17>

This chapter provides an overview of labour market policies in Slovakia from the beginning of the post-socialist transition to the recent period, characterised by growing pressure for fiscal stringency from the European Union (EU). It investigates the differences between the trends in labour market policies before and after 2010. The European Commission (EC) initiated an excessive deficit procedure (EDP) against Slovakia between 2010 and 2014. However, for a variety of reasons, the emphasis on fiscal discipline has been nothing new in the Slovak case. Consistent with this, the analysis finds little difference between labour market policies before and after 2010. Although the 2011 Reform Programme of the Slovak government (MFSR, 2011), drawn up by a centre-right coalition, includes plans for labour market flexibilisation, these have not been implemented by subsequent governments. In the meantime, needs-based support was reformed, mainly by the political Left, with the intention of motivating labour market participation, also using punitive measures. While EU-led 'austerity' may have played a role by reinforcing existing tendencies to contain spending on labour market policies, the role of domestic politics appears much more important.



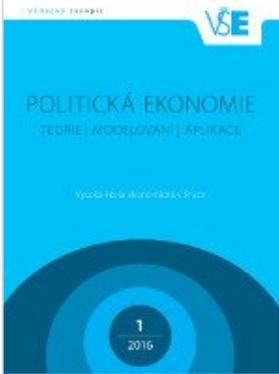
OLSSON, Mikael - RAFFERTY, Michael - HAM, Roger - BRZICA, Daneš. **Ownership concentration, equity market liquidity and (the) corporate governance (fallacy): the post-communist experience(s) of the Czech Republic, Slovakia, Estonia, Latvia and Lithuania.**

In OLSSON, Mikael - LÖNNBORG, Mikael - RAFFERTY, Michael. Unplanned: The Transformation of States and Financial Markets in 'Transition' Countries. Stockholm: Dialogos Förlag, 2019, p. 103-152. ISBN 978-91-7504-342-5.

The paper hypothesized that there is an inverse relationship between market liquidity and the concentration of voting rights. The econometric analysis focused on the relationship between the concentration of voting rights (as a substitute for control) and liquidity, based on the work of Becht (1999). The hypothesis was tested by regressing the logarithm of market liquidity (where market liquidity is the ratio of turnover value to market capitalization) against variables, including concentration measurement in the general model. The concentration indicator used is the aggregate voting power of all 5% or more of the percentage voting blocks in the listed company. We also used other independent variables. The general model was tested and the result was a specific model containing only those variables that are significantly related to market liquidity. In particular, the results provided new evidence of the relationship between the concentration of voting rights and liquidity in the market for companies listed on the Prague Stock Exchange after 1989 and before accession to the EU. The case of the Czech Republic was chosen on the basis of the availability of suitable data for analysis. Using linear regression for modeling, we found support for a clear inverse relationship between voting

block concentration and liquidity for listed companies. In addition, we showed that the situation at PSE was not a specific element for the Czech Republic; rather, it looked like most of the then stock markets of Central Europe and the Baltic States in a period of struggle with the consequences of high concentration of ownership and low liquidity.

## Scientific papers in foreign journals registered in Current Contents Connect with IF (impacted)

	<p>DEEV, Oleg - LYÓCSA, Štefan. <b>Connectedness of financial institutions in Europe: a network approach across quantiles.</b></p> <p>In Physica A - Statistical Mechanics and its Applications, 2020, vol. 550, art. no. 124035. (2019: 2.924 - IF, Q2 - JCR, 0.712 - SJR, Q2 - SJR, Current Contents - CCC). (2020 - Current Contents, WOS, SCOPUS). ISSN 0378-4371. Available at internet: <a href="https://doi.org/10.1016/j.physa.2019.124035">https://doi.org/10.1016/j.physa.2019.124035</a></p> <p>Increased interconnectedness of financial institutions decreases cost of capital, improves risk sharing and allows citizens to utilize more efficient financial services. On the other hand, increased interconnectedness of financial institutions might result to a financial systems more susceptible to spillover, contagion and increased systemic risk. In this study we study the extent and determinants of interconnectedness of financial institutions. More specifically, we create cross-quantilogram networks capturing the dependence between stock market returns of 205 financial institutions in Europe and across a large range of quantiles. Based on network density, centrality and centralization, we find that financial institutions in Europe are strongly interconnected across all quantiles, particularly during tranquil periods. These results suggest that financial institutions in Europe are susceptible to spillover, contagion and increased systemic risk. We also find an asymmetric effect: connectedness during crisis periods is higher than that during bullish periods. The most interconnected financial institutions are found to be insurance companies in Switzerland. Relying on an exponential random graph modeling (ERGM) approach, we find that across all quantiles, the connectedness is larger between (i) financial institutions in the same country, (ii) insurance companies, and (iii) financial institutions that operate in countries that adopted the common currency.</p>
	<p>DOMONKOS, Tomáš. <b>Nerovnosti a ekonomický rast v krajinách Európskej únie = Inequalities and Economic Growth in EU Countries.</b></p> <p>In Politická ekonomie: teorie, modelování, aplikace, 2020, roč. 68, č. 4, s. 405-422. (2019: 0.351 - IF, Q4 - JCR, 0.161 - SJR, Q3 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 0032-3233. Available at internet: <a href="https://doi.org/10.18267/j.polek.1284">https://doi.org/10.18267/j.polek.1284</a></p> <p>This reserach investigates the effects of economic growth on income inequality in EU countries by employing econometric analysis. We estimated the effect of growth on the share of income for all particular deciles of the population and on the Gini. Other control variables were included in the models as well. The results showed a negative effect of economic growth on inequality, while this impact is the largest for the deciles ranging from the third to the seventh. This can be perceived as an indication of a shrinking middle class. Inequality-increasing effects were found for long-term unemployment, openness and partly for indicators of importance of the financial sector. Factors reducing inequality were rule of law and population with tertiary education. The size of government turned out to be a rather insignificant variable.</p>
	<p>DOMONKOS, Tomáš - OSTRIHOŇ, Filip - KÖNIG, Brian. <b>Hurdling through the great recession: winners and losers among post-communist EU countries in pro-poor growth.</b></p> <p>In Empirical Economics, 2021, vol. 60, iss. 2, pp. 893–918. (2020: 1.713 - IF, Q3 - JCR, 0.605 - SJR, Q1 - SJR). (2021 - WOS, SCOPUS). ISSN 0377-7332. Available at internet: <a href="https://doi.org/10.1007/s00181-019-01773-7">https://doi.org/10.1007/s00181-019-01773-7</a>.</p> <p>The paper aims to evaluate the distribution of economic growth between poor and non-poor in the eight post-communist countries which joined the European Union in 2004. As if the integration process did not pose its own challenges, the overall situation was complicated by the outbreak of the financial and economic crisis in 2009. To address these factors, three periods are examined: the pre-crisis period of 2005–2009, the crisis period of 2010–2013, and the entire period spanning 2005–2013. The methodology applied in analysing the pattern of pro-poor growth is based on the “poverty equivalent growth rate” approach. Additional insight was obtained from ranking the countries examined based on this growth rate as well as related measures. Interestingly, Hungary and Slovenia appear to be more prone to propagation of growth changes to the incomes of the poor relative to the other countries examined. This had</p>

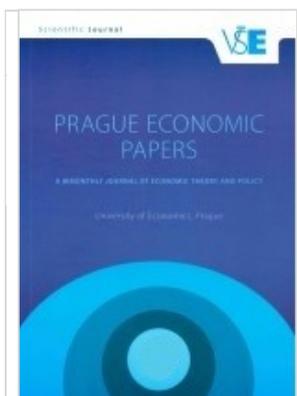
negative repercussions for the poor as negative growth was a hallmark of the crisis period. Our results also show that the substantial growth during the post-accession period up until the crisis was not pro-poor in an absolute sense in any of the countries under examination.



**DOMONKOS, Tomáš - OSTRIHONĚ, Filip - ŠIKULOVÁ, Ivana - ŠIRAŇOVÁ, Mária. [Analysing the Relevance of the MIP Scoreboard's Indicators.](#)**

In National Institute Economic Review: Journal of the National Institute of Economic and Social Research, 2017, no. 239, p. R32-R52. (2016: 0.316 - SJR, Q2 - SJR). (2017 - WOS, SCOPUS). ISSN 0027-9501. Available at internet: <https://doi.org/10.1177/002795011723900112>.

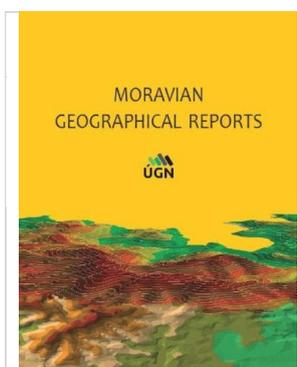
The EU established an early warning system by introducing the Macroeconomic Imbalance Procedure (MIP) in the wake of the global economic recession in 2009. Nevertheless, this system has been found by some authors to be rather vague when launching the Excessive Imbalances Procedure which is part of the MIP. Basically, it is not clear how many signals are required for launching the Excessive Imbalances Procedure. Our analysis reflects on such views and treats the MIP indicators as a system while assessing the significance of all these variables separately. This assessment was accomplished by applying a multivariate unbalanced logit model, utilising all 14 MIP headline indicators, using time horizons ranging from one to three years before crisis, which was represented by periods with output gap less than negative 2 per cent. The approach was confronted with the estimates of a linear probability model to provide an idea about the robustness of the results. Our results showed that, in the short term, activity rates, youth unemployment rates and private sector debt are the best performing indicators, complemented by current account balances in the long term.



**HUDCOVSKÝ, Martin - LÁBAJ, Martin - MORVAY, Karol. [Employment Growth and Labour Elasticity in V4 Countries: Structural Decomposition Analysis.](#)**

In Prague economic papers: A bimonthly journal of economic theory and policy, 2017, vol. 26, no. 4, s. 422-437. (2016: 0.710 - IF, Q3 - JCR, 0.296 - SJR, Q3 - SJR, Current Contents - CCC). (2017 - Current Contents, SCOPUS, WOS). ISSN 1210-0455. Available at internet: <https://doi.org/10.18267/j.pep.623>.

The article presents an analysis of the employment growth determinants in the V4 countries. While a standard approach relies on the parametric estimation of labour elasticity coefficients, the article employs a novel approach based on structural decomposition analysis. This allows to identify several determinants which mitigate the effects of economic growth on employment. The analysis decomposes the overall change in employment into the contribution of six factors: changes in labour productivity, changes in the import of intermediate products, changes in the structure of production, changes in the final demand structure by industries and by sectors, and a change in final demand volume. Such a decomposition shows that besides the generally accepted influence of labour productivity growth on employment, other factors such as structural changes and changes in final demand played an important role in employment changes. These results shed some light on low labour elasticity in V4 countries and go beyond the simple labour productivity growth argument.

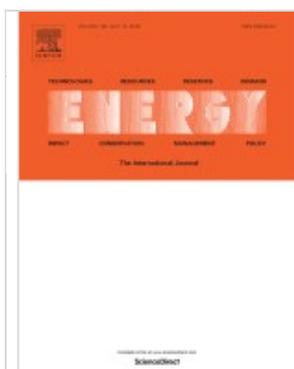


**JECK, Tomáš - BALÁŽ, Vladimír. [Geographies of tacit knowledge transfer: Evidence from the European co-authorship network.](#)**

In Moravian Geographical Reports, 2020, vol. 28, no. 2, p. 98-111. (2019: 2.479 - IF, Q2 - JCR, 0.693 - SJR, Q1 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 1210-8812.

Available at internet: <https://doi.org/10.2478/mgr-2020-0008>.

The patterns of scientific cooperation among 28 European Union (EU) member countries, Switzerland and Norway, from 1993 and 2017, are evaluated in this article. We consider co-authorship patterns to be proxies for international transfers of tacit knowledge. The theoretical part of the paper contains propositions by researchers in evolutionary economic geography on path-dependence, selection and variation, and the role of networks in knowledge transfer. The principal argument is that the geographical configurations of knowledge transfers over distance are shaped via a set of connectivities – specific communication channels for the exchange of people, goods and knowledge between two or more countries. Some connectivities are more conducive for the transfer of explicit knowledge (e.g. merchandise trade, trade in patents), while human exchange flows (students, migrants, travellers) favour the transfer of tacit knowledge. The research project found that a considerable increase in human exchanges has helped to increase the total number of co-authored papers, but did not amend the geography of the European co-authorship network over last two decades. Rather, the layout of the network stems from a relatively stable set of historical, cultural and political legacies in Europe.



**LYÓCSA, Štefan - MOLNÁR, Peter. Exploiting dependence: Day-ahead volatility forecasting for crude oil and natural gas exchange-traded funds.**

In Energy, 2018, vol. 155, p. 462-473. (2017: 4.968 - IF, Q1 - JCR, 1.990 - SJR, Q1 - SJR, Current Contents - CCC). (2018 - Current Contents). ISSN 0360-5442. Available at internet: <https://doi.org/10.1016/j.energy.2018.04.194>

Excessive price fluctuations of key commodities, oil and gas, manifest into exogenous economic shocks to oil importing (price increase) and oil exporting (price decrease) countries. The understanding of what drives commodity price fluctuations is therefore imperative for policy makers and investors alike. In this study, we propose several volatility (heterogenous autoregressive) models that utilize the common factors driving price fluctuations of the two commodities. We find that on average, information from related commodity does not improve volatility forecasts, whether we consider a multivariate model, or various univariate models that include this information. However, superior volatility forecasts are produced by combining forecasts from various models. As a result, information from the related commodity can be still useful, because it allows us to construct wider range of possible models, and averaging across various models improves forecasts. Therefore, for somebody interested in precise volatility forecasts of crude oil or natural gas, we recommend to focus on model averaging instead of just including information from related commodity in a single forecast model.



**LYÓCSA, Štefan - HORVÁTH, Roman. Stock Market Contagion: a New Approach.**

In Open Economies Review, 2018, vol. 29, no. 3, p. 547-577. (2017: 1.368 - IF, Q2 - JCR, 0.878 - SJR, Q2 - SJR, Current Contents - CCC). (2018 - Current Contents). ISSN 0923-7992.

Available at internet: <https://doi.org/10.1007/s11079-018-9481-4>.

The process of financial contagion starts with negative market returns in one market (country) that spreads (manifests into negative returns) to other markets around the world, but not the other way around. Investors and financial market regulators are interested in how to identify such potentially contagious events. In this study, we propose a new approach that is based on examining whether higher unexpected volatility (unexpected price fluctuation) during extreme market downturns of the originating market is associated with increased return co-exceedance with the recipient market. Using daily data from 1999 to 2014 and quantile regressions with a wide set of control variables, we find evidence of contagion from the U.S. stock market to the six largest developed stock markets (Japan, United Kingdom, France, Germany, Hong Kong, and Canada). In addition, our results show that contagion is not solely a crisis-specific event, because we find contagion present over the whole sample period. Interestingly, the return co-exceedances during extreme market downturns are not driven by fundamentals, further supporting our results regarding contagion.



**LYÓCSA, Štefan - BAUMÖHL, Eduard - VÝROST, Tomáš - MOLNÁR, Peter. Fear of the coronavirus and the stock markets.**

In Finance Research Letters, 2020, vol. 36, art. no. 101735. (2019: 3.527 - IF, Q1 - JCR, 0.999 - SJR, Q1 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 1544-6123.

Available at internet: <https://doi.org/10.1016/j.frl.2020.101735>.

Since the outbreak of the COVID-19 pandemic, stock markets around the world have experienced unprecedented declines amid high uncertainty. Such unexpected market declines lead to an evaporation of large amount of wealth leading to changes in economic wellbeing. But was this almost unprecedented market uncertainty driven by fear or economic rationale? A definite answer is not easy to find, but this was one of the first studies around the world, that attempted to shed light on the drivers of market uncertainty during the outbreak of the COVID-19 pandemic. We use Google search volume activity as a gauge of panic and fear in the general population. The chosen search terms are specific to the coronavirus crisis and correspond to phrases related to nonpharmaceutical intervention policies to fight physical contagion. We show that during this period, fear of the coronavirus – manifested as excess search volume – represents a timely and valuable data source for forecasting stock price variation around the world.



**LYÓCSA, Štefan - MOLNÁR, Peter. [Stock market oscillations during the corona crash: the role of fear and uncertainty.](#)**

In Finance Research Letters, 2020, vol. 36, art. no. 101707. (2019: 3.527 - IF, Q1 - JCR, 0.999 - SJR, Q1 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 1544-6123.

Available at internet: <https://doi.org/10.1016/j.frl.2020.101707>.

Stock market returns are difficult, by most researcher considered impossible, to predict, but crisis periods tend to be an empirically observed exception to this rule. We document that, during the event period from November 2019 to May 2020 with the S&P 500 market index, the corona crash was not an exception to this exception. We use a nonlinear Smooth Threshold Autoregressive (STAR) model, where the autoregressive coefficient is governed by i) abnormal Google searches related to COVID-19 and ii) realized volatility. We find that the autoregressive coefficient was negative over the whole event period, but as market uncertainty and attention to virus increased, the magnitude of the autoregressive coefficient increased as well. This result is new, but is also in-line with our knowledge about asset price behaviour during crisis periods.

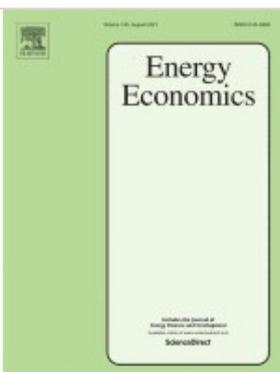


**LYÓCSA, Štefan - MOLNÁR, Peter - PLÍHAL, Tomáš - ŠIRAŇOVÁ, Mária. [Impact of macroeconomic news, regulation and hacking exchange markets on the volatility of bitcoin.](#)**

In Journal of Economic Dynamics and Control, 2020, vol. 119, art. no. 103980. (2019: 1.204 - IF, Q3 - JCR, 1.169 - SJR, Q1 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 0165-1889.

Available at internet: <https://doi.org/10.1016/j.jedc.2020.103980>

We study whether news and sentiment about bitcoin regulation, the hacking of bitcoin exchanges and scheduled macroeconomic news announcements affect the volatility of bitcoin, measured as realized variance and its jump component. Our results show that realized variance and its jump component exhibit similar dynamics and react similarly to various types of news. Volatility of bitcoin reacts most strongly to news on bitcoin regulation, positive investor sentiment regarding bitcoin regulation extracted using Google searches, and most notably, hacking attacks on cryptocurrency exchanges. Quantile regression reveals that hacking attacks have particularly strong impact on the upper conditional distribution of bitcoin volatility. We also find that the volatility of bitcoin is not influenced by most scheduled US macroeconomic news announcements, such as government budget deficits, inflation, or even monetary policy announcements. On the other hand, bitcoin responds with increased volatility to announcements of forward-looking indicators, such as the consumer confidence index.



**LYÓCSA, Štefan - TODOROVA, Neda. [What drives volatility of the U.S. oil and gas firms?](#)**

In Energy Economics, 2021, vol. 100, art. no. 105367. (2020: 7.042 - IF, Q1 - JCR, 2.500 - SJR, Q1 - SJR, Current Contents - CCC). (2021 - Current Contents). ISSN 0140-9883.

Available at internet: <https://doi.org/10.1016/j.eneco.2021.105367>.

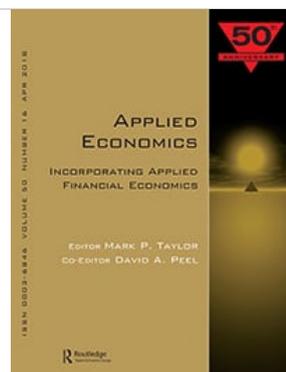
We study drivers and predictability of price fluctuations of 15 firms that are S&P 500 constituents and belong to the Oil & Gas Exploration & Production industry. We estimate six volatility factors represented by realized volatilities, namely, (i) firms' own volatility, (ii) industry market volatility, (iii) local (U.S.) market volatility, (iv) world equity market volatility, (v) oil price volatility, and (vi) natural gas price volatility. Existing studies have reported results based on analysis of one or few volatility components, but given the high dependence among volatility factors, this might bias (overestimate) the true importance of each of the volatility factors on the price fluctuation of stocks. Using augmented heterogeneous autoregressive (HAR) models and dynamic model averaging, our analysis shows that market volatility is most influential, followed by a stock's own volatility and industry level volatility. The role of the volatility of the oil market is of lesser importance, while the volatility of the world equity market does not appear to contain incremental information useful for predicting the volatility of firms. These findings have implications for financial risk management, as we show that in an out-of-sample framework, HAR models augmented with volatility factors outperform the plain HAR model.



**RADVANSKÝ, Marek - LICHNER, Ivan. An alternative approach to the construction of multi-regional input–output tables of the Czech Republic: application of the CHARM method.**

In *Empirica*, 2021, vol. 48, no. 4, pp. 1083-1111. (2020: 1.582 - IF, Q3 - JCR, 0.352 - SJR, Q2 - SJR, Current Contents - CCC). (2021 - Current Contents). ISSN 0340-8744. Available at internet: <https://doi.org/10.1007/s10663-020-09490-6>

The main scope of the paper is to review the construction method of (multi-)regional input–output tables (RIOTs) in the Czech Republic at the NUTS 3 regional level. We compare the estimation of regional IO tables based on a modified cross-hauling adjusted regionalisation method (CHARM) applied by the authors with application of the hybrid approach of (Sixta and Vltavská in *Stat Stat Econ J* 97:4–14, 2017) from the Department of Statistics at the University of Economics in Prague. The aim of the presented paper is to contribute to the discussion about the suitability of alternative methodological approaches from the perspective of quality and time-consumption. We assume that despite the lack of official, published RIOTs by state statistical offices, the existing methodology of the relatively simpler non-survey CHARM method represents an adequate option for the generation of regional input–output tables suitable for further analytical research.



**ŠIRAŇOVÁ, Mária - WORKIE TIRUNEH, Menbere. Exploding net errors and omissions as a capital flight phenomenon: the case of Slovakia.**

In *Applied Economics*, 2018, vol. 50, no. 16, p. 1866-1884. (2017: 0.750 - IF, Q3 - JCR, 0.445 - SJR, Q2 - SJR, Current Contents - CCC). (2018 - Current Contents). ISSN 0003-6846.

Available at internet: <https://doi.org/10.1080/00036846.2017.1380288>.

This study empirically explores determinants of net errors and omissions (NEO) of Slovakia during the 1997–2014 period, with emphasis on the 2008–2014 sub-period when a distinct downturn in the NEO time series is observed. Based on quarterly data, the results show there is statistically significant link between the evolution of foreign direct investments and NEO during the period under investigation. This seem to suggest the prevalence of tax optimization as a part of capital flight phenomenon in developed countries. Based on the Autoregressive Distributed Lag Bounds test, our findings also suggest that the service sector plays a pivotal role in determining the adverse NEO development in the post-2008 period. However, given the absence of detailed bidirectional data for trade with services, role of misinvoicing practices in the Slovak balance of payments statistics will remain under investigated. Our results further strengthen the call for a deeper understanding of forces driving the NEO evolution in other developed and developing economies experiencing capital flight phenomenon. This is important given the scale of NEO and its volatility overtime and across countries, which previous studies associated high NEO to the “hot money” approach and linked it to illicit financial flow phenomena (Cuddinton, 1996).



**ŠIRAŇOVÁ, Mária - RADVANSKÝ, Marek. Performance of the Macroeconomic Imbalance Procedure in light of historical experience in the CEE region.**

In *Journal of Economic Policy Reform*, 2018, vol. 21, no. 4, p. 335-352. (2017: 1.513 - IF, Q2 - JCR, 0.260 - SJR, Q2 - SJR, Current Contents - CCC). (2018 - Current Contents). ISSN 1748-7870.

Available at internet: <https://doi.org/10.1080/17487870.2017.1364642>.

This article supplements the broad literature on early warning systems by evaluating the overall performance of individual early warning indicators included in the Macroeconomic Imbalance Procedure framework; the unique system officially adopted for a set of economically divergent EU countries. In this paper, we use a set of 24 core and auxiliary indicators included in the Macroeconomic Imbalances Procedure framework to assess their predictive power with respect to pre-specified and optimal thresholds for the period 1991-2014 and the CEE countries. The results of the analysis suggest that the official thresholds may be either too relaxed relative to their official values (public and private debt, total and external debt ratios), too conservative (current account balance, share in world exports, nominal unit labour costs) or of less informative value (labour market indicators), in the context of transition economies. Indicators with higher predictive power belong mainly to the group of external imbalance indicators. From the perspective of Slovakia, as a country highly sensitive to changes in the external economic environment, the Macroeconomic Imbalances Procedure, focusing on external imbalances indicators, may represent an interesting economic policy tool potentially useful for predicting the occurrence of undesirable crisis events.



ŠIRAŇOVÁ, Mária - WORKIE TIRUNEH, Menbere - FIŠERA, Boris. **Creating the illicit capital flows network in Europe – Do the net errors and omissions follow an economic pattern?**

In International Review of Economics and Finance, 2021, vol. 71, pp. 955-973. (2020: 2.522 - IF, Q2 - JCR, 0.781 - SJR, Q2 - SJR, Current Contents - CCC). (2021 - Current Contents). ISSN 1059-0560.

Available at internet: <https://doi.org/10.1016/j.iref.2020.10.020>.

The current empirical literature on illegitimate capital flows often considers the problem of illicit financial flows as a negative 'prerogative' of emerging countries. However, a series of scandals related to leaked documents concerning activities in offshore centres (Panama Papers, Paradise Papers) have shown that this assumption may not always be justified. The aim of this paper is to model the network of illegitimate capital flows in European countries and to analyse the potential fundamental factors influencing the structure of such a financial network. This paper uses the Net errors and omissions, a standard measure of illicit capital flows, to create a Europe-wide network of illicit capital flows by the rolling window Granger causality method. In the second stage, we investigate the factors that determine the creation of links among country pairs in the illicit capital flow network by Cragg's two-stage Tobit model. Our results suggest that the process of link creation is conducive to the long-term interest rate differential, while the frequency of link occurrence is determined by the strength of trade linkages, exposure to FDI flows and differences in economic development associated with overall institutional quality and corporate tax rates.

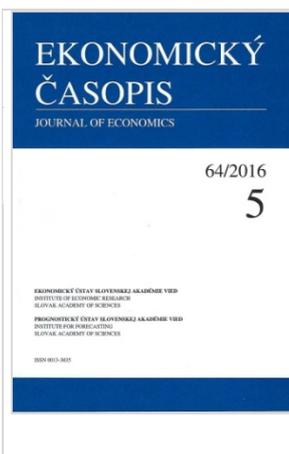


ŠTEFÁNIK, Miroslav - KARASOVÁ, Katarína - STUDENÁ, Ivana. **Can supporting workplace insertions of unemployed recent graduates improve their long-term employability?: Evidence on the treatment effects of the Contribution for the graduate practice in Slovakia.**

In Empirica, 2020, vol. 47, iss. 2, pp. 245-265. (2019: 0.890 - IF, Q3 - JCR, 0.357 - SJR, Q2 - SJR, Current Contents - CCC). (2020 - Current Contents). ISSN 0340-8744. Available at internet: <https://doi.org/10.1007/s10663-018-9413-y>.

This paper contributes to the literature with evidence on the effectiveness of a particular active labour market policy programme, whose traditional design allows international comparisons within the family of programmes facilitating workplace insertions of the unemployed youth. Available evidence on the effectiveness of comparable programmes throughout the world is not consensual. We argue and show that it is crucial to inspect the long-term effects of participation in the funded trainee schemes. We demonstrate this by exploring the treatment effects in the case of the most popular active labour market policy programme targeting the unemployed youth in Slovakia. The empirical analysis is based on a detailed administrative dataset applying three alternative methodological approaches: propensity score matching, inverse probability weighting, and two-stage least squares estimations using an instrumental variable. The results of the empirical analysis show that participation in the programme increases the employment chances of participants during the post-participation period. Yielded estimations are consistent across all three applied methodological approaches. Estimated positive, and statistically significant, employment effects increase 30 months following participation. The positive employment effect is in contrast to a negative income effect on employed participants. The potential association between the increase in the measured effects and the hit of the economic crisis is further explored.

**Scientific papers in domestic journals registered in Current Contents Connect with IF (impacted)**



OBADI, Saleh Mothana - KORČEK, Matej. **The "Revealed" Comparative Advantage and Competitiveness of the EU's International Trade vis à vis the USA.**

In Ekonomický časopis, 2016, roč. 64, č. 5, s. 397-422. (2015: 0.606 - IF, Q3 - JCR, 0.450 - SJR, Q2 - SJR, Current Contents - CCC). (2016 - Current Contents, WOS, SCOPUS, EconLit). ISSN 0013-3035. VEGA No. 2/0005/16.

This paper examines "revealed" comparative advantage (RCA) and international trade specialisation in the EU and USA as comparative analysis between the mentioned trade partners. In the midst of preparations for the potential Transatlantic Trade and Investment Partnership (TTIP) it is necessary to examine the sectoral competitiveness of EU in relation with its trade partner – the USA. For this aim, in our analysis we have used Balassa's index of RCA and other alternative measures of comparative advantage as well as empirical analysis for identifying the comparative advantage trend. According to our empirical analyses we found that, while, based on Balassa's RCA index, the EU-28 has reached a comparative

advantage in smaller group of 2-digits SITC commodities (32 out of 66) than the USA (40 out of 66), based on the other alternative measures and econometric analyses, the EU has not only reached a comparative advantage in more industries, but also a more stable trend of international specialisation than the USA during the examined period.



**DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - KALIŠ, Richard - LÁBAJ, Martin - STRACOVÁ, Erika. Analysis of the Impact of the CETA Trade Agreement between the EU and Canada on the Slovak Economy.**

In Ekonomický časopis, 2018, roč. 66, č. 8, s. 771-797. (2017: 0.327 - IF, Q4 - JCR, 0.246 - SJR, Q3 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0013-3035.

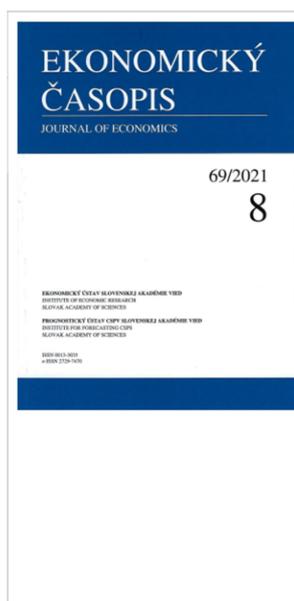
Paper focuses on the impact of the Comprehensive Economic and Trade Agreement (CETA) between the European Union and Canada on the Slovak economy, with an emphasis on the automotive, engineering and electronics industries. We used a multiregional input-output model and estimated the direct and indirect effects of changes in international trade on value added, exports and employment in Slovakia. Based on different variants of development, we expect that the average impact of CETA on the Slovak economy due to the removal of tariff barriers will reach 0.013% of GDP and the impact on job creation is estimated at 0.012% of total employment. The removal of tariff barriers should lead to an increase in exports to Canada by an average of 8% in the event of a strong response to a fall in prices of up to 18%.



**DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - MAJZLÍKOVÁ, Erika. Brexit – the Visegrad Countries' Perspective.**

In Ekonomický časopis, 2019, roč. 67, č. 10, s. 1013-1034. (2018: 0.843 - IF, Q3 - JCR, 0.332 - SJR, Q3 - SJR, karentované - CCC). (2019 - Current Contents). ISSN 0013-3035.

The paper deals with the possible implications of Brexit for the V4 countries from the point of view of foreign trade and the labor market. Brexit's analysis from the perspective of the V4 countries is very important given the role of the United Kingdom as a trading partner of the V4 countries. By analyzing the direct and indirect effects on value added and employment created by exports to the UK, using a multiregional input-output model, we were able to identify the impact of Brexit on the V4 countries in terms of foreign trade, value added and employment. The results suggest that the V4 countries belong to the group of medium-risk countries associated with Brexit, with the engineering, automotive, and electrical engineering industries being most at risk. The importance of the United Kingdom as a trading partner for the V4 countries has been growing steadily over the years, and it is therefore important that these economic relations are kept as close as possible.



**BRZICA, Daneš. Global Research Talents: Analysis of Their Behavior and Publication/Citation Patterns.**

In Ekonomický časopis, 2021, roč. 69, č. 8, s. 851-881. (2020: 0.690 - IF, Q4 - JCR, 0.260 - SJR, Q3 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0013-3035. Available at internet: <https://doi.org/10.31577/ekoncas.2021.08.05>.

The paper examines the publication/citation (P/C) patterns of 88,653 global most productive researchers (MPRs). We analyze the link between publication and citation activity and provide evidence regarding the extent to which top researchers scientific results are better than scientific results of others. Our second aim is to analyze the kinds of patterns that are occurring in P/C activities of top researchers. Major findings are that both quality and quantity parameters represent important feature of MPRs. Those best among top researchers have substantially better parameters than those at the bottom level of ranking. We also find that many MPRs publish excellent publications and receive high number of citations. The best-cited publications have researchers exhibiting low number of total publications. Among factors contributing to success of MPRs are team, cooperation, specialization, Ph.D. supervising, international project participation, multiple-use products and some other factors. Finally, looking at the patterns characterizing 22 research fields reveals differences. The clinical medicine field, e.g., is the area of research with the largest number of published WoS documents and citations. Multidisciplinary sciences show significantly lower values. The only similarity is an average number of citations per paper.

## Scientific papers in foreign impacted journals registered in Web of Sciences or Scopus

	<p>OBADI, Saleh Mothana - KORČEK, Matej. <b>Quantifying the Energy Security of Selected EU Countries.</b></p> <p>In International journal of energy economics and policy, 2020, vol. 10, no. 2, p. 276-284. (2019: 0.371 - SJR, Q2 - SJR). (2020 - SCOPUS). ISSN 2146-4553.</p> <p>This paper examines the energy security of a selected group of EU countries. The study covers period 2006-2017 and is done for selected group of countries – Germany, France, Italy, Poland, Netherlands, United Kingdom and Slovakia. The primary used methodology is the z-score standardization. In order to obtain an index of greater complexity, we extended this methodology by incorporating Herfindahl-Hirschmann index (HHI) values for natural gas imports. Our findings suggest, that, among the largest energy consuming countries in the EU, Italy came as the country with the highest level of energy security index (ESI) as it benefited from improved security of Supply. France ESI slightly decreased due to worsening indicator of economic availability. Poland and Slovakia both suffered from low advancements in the are of environmental acceptability. The complexity of the solved problem causes undesired consequences, as development of ESI index deteriorated after German nuclear phase-out. The paper clearly documents there there is not a single way how to approach enhancing a country's energy security.</p>
	<p>FIŠERA, Boris - WORKIE TIRUNEH, Menbere - HOJDAN, Dávid. <b>Currency Depreciations in Emerging Economies: A Blessing or a Curse for External Debt Management?</b></p> <p>In International Economics [serial], 2021, vol. 168, pp. 132-165. (2020: 0.840 - SJR, Q1 - SJR). (2021 - SCOPUS). ISSN 2110-7017. IES Working Papers [elektronický zdroj], 2021, no. 6, p. 1-47. (2020: 0.840 - SJR, Q1 - SJR). Available at internet: <a href="https://doi.org/10.1016/j.inteco.2021.09.003">https://doi.org/10.1016/j.inteco.2021.09.003</a>.</p> <p>This study investigates the long-term effect of domestic currency depreciation on external debt for a panel of 41 emerging economies over the years 1999–2019 based on quarterly data. Using heterogeneous panel cointegration methods, we find that domestic currency depreciation leads to an increase in the external debt to GDP ratio over the long-term and it might, therefore, reduce the sustainability of external debt. This is particularly the case for larger depreciations, while smaller depreciations might even reduce the external debt burden over the long-term for more developed emerging economies. Poorer emerging economies face a greater increase in external debt burden following domestic currency depreciation. We also find that higher exchange rate volatility and the use of floating exchange rates contribute to a greater increase in external debt burden over the long-term following currency depreciation. Furthermore, we find asymmetric effects of exchange rate depreciation on external debt: greater central bank independence alleviates the effect of currency depreciation on external debt, while higher financial development and illicit financial flows augment the effect of depreciation on external debt. The results could spark further discussion in the direction of reassessing the role of exchange policy in less developed emerging economies.</p>

### 2.1.3 List of monographs/books published abroad

#### AAA Scientific monographs published abroad

- AAA01 PAUHOFOVÁ, Iveta - STANĚK, Peter - STEHLÍKOVÁ, Beáta. SMART regióny v Slovenskej republike - možnosti a realita = **SMART regions in the Slovak Republic - possibilities and reality.** Reviewed by: Vladimír Mařík, Eva Rievajová, Peter Sakál. Praha : Wolters Kluwer, 2019. 120 s. ISBN 978-80-7598-418-0.
- AAA02 WORKIE TIRUNEH, Menbere. **Overshooting the Maastricht Criteria : External Imbalances and Income Convergence in the European Union.** Reviewed by: Daniel Dujava, Martin Labaj. New York : Nova Science Publishers, 2018. 221 p. ISBN 978-1-53613-585-5
- AAA03 PAUHOFOVÁ, Iveta - STEHLÍKOVÁ, Beáta. Kvalitatívna zmena v zamestnanosti Slovenskej republiky = **Qualitative change in employment of the Slovak Republic.** Reviewed by: Peter Staněk, Eva Rievajová. Praha : Wolters Kluwer, 2017. 136 s. ISBN 978-80-7552-917-6.

## 2.1.4. List of monographs/books published in Slovakia

### AAB Scientific monographs published in Slovak publishing houses

- AAB01 STANĚK, Peter - HOŠOFF, Boris - VRBA, Zdeněk - PAUHOFOVÁ, Iveta. Príroda – spoločnosť – technológie : Možné scenáre budúcnosti = **Nature – society – technology: possible future scenarios**. Reviewed by: Vladimír Mařík, Juraj Sipko. Bratislava : Wolters Kluwer SR, 2021. 212 s. ISBN 978-80-571-0372-1.
- AAB02 FRANK, Karol - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - MORVAY, Karol - ŠIKULOVÁ, Ivana - ŠIRANOVÁ, Mária. **Economic Development of Slovakia in 2020 : Focus on: How Corona Crisis Has Changed Economy** = Hospodársky vývoj Slovenska v roku 2020: zaostrené na: ako koronavírusová kríza mení ekonomiku. Reviewed by: Edita Nemcová, Eva Pongrácz. Bratislava: IRE SAS, 2021. 137 s. Available at: <[http://ekonom.sav.sk/uploads/journals/411\\_hv\\_2020\\_anglicka\\_verzia\\_sr-final.pdf](http://ekonom.sav.sk/uploads/journals/411_hv_2020_anglicka_verzia_sr-final.pdf)>. ISBN 978–80–7144–326–1.
- AAB03 BRZICA, Daneš - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - PAUHOFOVÁ, Iveta - SIPKO, Juraj - STANĚK, Peter - ŠIKULOVÁ, Ivana - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav. Vývoj a perspektívy svetovej ekonomiky [15] : environmentálne a sociálne východiská konjunktúry = **The Development and Perspectives of the World Economy: Environmental and Social Background of the Economy**. Reviewed by: Vladimír Gonda, Vladimír Mařík. Bratislava : IRE SAS, 2021. 308 s. Available at: <<http://ekonom.sav.sk/en/publications/-p410>>. ISBN 978-80-7144-324-7.
- AAB04 PÁLENÍK, Michal - KOHNOVÁ, Lucia - PÁLENÍK, Viliam - POLLÁK, Miroslav - RADVANSKÝ, Marek. Vplyv starnutia na zdravotnícky systém Slovenska : prognóza dopytu a ponuky do roku 2030 = **The impact of aging on the health care sector in Slovakia – forecast of demand and supply until 2030**. Reviewed by: Tomáš Želinský, Ján Košta. Bratislava : Comenius University Bratislava, 2021. 247 s. Available at: <<https://www.iz.sk/download-files/sk/strieborna/vplyv-starnutia-na-zdravotnictvo>>. ISBN 978-80-223-5149-2.
- AAB05 STANĚK, Peter - HOŠOFF, Boris - SIPKO, Juraj - MAŘÍK, Vladimír - VRBA, Zdeněk. Spoločnosť budúcnosti I. : možnosti konvergencie a integrácie v budúcnosti = **The Society of the Future I**. Reviewed by: Otakar Němec, Jan Barták. Bratislava : Wolters Kluwer SR s. r. o, 2021. 267 s. ISBN 978-80-571-0445-2.
- AAB06 KOŠTA, Ján - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HUDCOVSKÝ, Martin - MORVAY, Karol - VOKOUN, Jaroslav. Súvislosti produktivity práce a minimálnej mzdy = **The relationship between labour productivity and minimum wage**. Reviewed by: Rastislav Bednárík, Pavol Kárász. Bratislava: VEDA, 2021. 199 s. Available at: <[http://www.ekonom.sav.sk/uploads/journals/412\\_kosta\\_a\\_kol-produktivita\\_a\\_mzdy\\_2021.pdf](http://www.ekonom.sav.sk/uploads/journals/412_kosta_a_kol-produktivita_a_mzdy_2021.pdf)>. ISBN 978-80-224-1934-5.
- AAB07 FILČÁK, Richard - JECK, Tomáš. **The Potential and Challenges of Socially Sensitive, Low-Carbon Regional Transition: the Case of Small and Medium Enterprises in Upper Nitra**. Reviewed by: Ľubica Kotorová Slušná, Daniel Škobla. Bratislava : Centre of Social and Psychological Sciences, 2020. 110 p. Available at: <[http://www.prog.sav.sk/sites/default/files/2020-05/Filcak%20and%20Jeck%20-%20Coal%20and%20SME%20FEB2020\\_en.pdf](http://www.prog.sav.sk/sites/default/files/2020-05/Filcak%20and%20Jeck%20-%20Coal%20and%20SME%20FEB2020_en.pdf)>. ISBN 978-80-89524-44-0.
- AAB08 FRANK, Karol - HUDCOVSKÝ, Martin - JECK, Tomáš - LÁBAJ, Martin - MORVAY, Karol - ŠIRANOVÁ, Mária. Hospodársky vývoj Slovenska v roku 2019: Zaostrené na: Spomalená produktivita, ktorá nestíha za nákladmi práce = **Economic Development of Slovakia in 2019: Focus on: Slower Productivity Growth Lagging behind Labour Costs**. Reviewed by: Edita Nemcová, Eva Pongrácz. Bratislava: IRE SAS, 2020. 125 s. Available at: <[http://ekonom.sav.sk/uploads/journals/400\\_hv-2020-final\\_sr-20820.pdf](http://ekonom.sav.sk/uploads/journals/400_hv-2020-final_sr-20820.pdf)>. ISBN 978–80–7144–311–7.
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- AAB10 HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - KOŠTA, Ján - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš - MORVAY, Karol - ONDROVIČ, Adrián. Kontradikcie vo vývoji zamestnanosti v SR na pozadí demografických a štruktúrnych zmien II. = **Contradictions in Employment Development**

- [in Light of Anticipated Demographic and Structural Changes in Slovakia II](#). Reviewed by: Daniela Pobudová, Iveta Stankovičová. Bratislava : IRE SAS 2020. 139 s. Available at: <[http://ekonom.sav.sk/uploads/journals/405\\_sav\\_kniha\\_interaktivne.pdf](http://ekonom.sav.sk/uploads/journals/405_sav_kniha_interaktivne.pdf)>. ISBN 978-80-7144-316-2.
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- AAB14 [DUJAVA, Daniel - FRANK, Karol - HUDCOVSKÝ, Martin - JECK, Tomáš - LÁBAJ, Martin - MORVAY, Karol](#). [Economic Development of Slovakia in 2018 and Outlook up to 2020 : Focused on: Interrupted Convergence](#). Reviewed by: Eva Pongrácz, Milan Žák. Bratislava : IRE SAS, 2019. 117 p. ISBN 978-80-7144-300-1. Available at: <<http://www.ekonom.sav.sk/sk/publikacie/-p394>>. ISBN 978-80-7144-304-9.
- AAB15 [BROCKOVÁ, Ingrid - BRZICA, Daneš - DOVÁĽOVÁ, Gabriela - DZIURA, Boris - HOŠOFF, Boris - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - SIPKO, Juraj - SIVÁK, Rudolf - STANĚK, Peter - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav](#). Vývoj a perspektívy svetovej ekonomiky [13] : spomalenie rastu vplyvom obchodnej vojny = [The Development and Perspectives of the World Economy: Growth Slowdown Due to Trade Tensions](#). Reviewed by: Vladimír Gonda, Ľudmila Lipková. Bratislava : IRE SAS 2019. 346 s. Available at: <[http://www.ekonom.sav.sk/uploads/journals/396\\_obadi\\_a\\_kol\\_vapse\\_print\\_uvod\\_a\\_zaver\\_2019.pdf](http://www.ekonom.sav.sk/uploads/journals/396_obadi_a_kol_vapse_print_uvod_a_zaver_2019.pdf)>. ISBN 978-80-7144-305-6.
- AAB16 [BRZICA, Daneš - DUJAVA, Daniel - FRANK, Karol - HOŠOFF, Boris - HUDCOVSKÝ, Martin - JECK, Tomáš - KAČÍRKOVÁ, Mária - KOŠTA, Ján - MORVAY, Karol - ŠIRANOVÁ, Mária - VOKOUN, Jaroslav](#). Slovenská ekonomika po štvrtstoročí samostatného štátu = [Slovak Economy after 25 Years of Independent State](#). Reviewed by: Edita Nemcová, Elena Fifeková. Bratislava : IRE SAS, 2019. 271 s. Available at: <[http://ekonom.sav.sk/uploads/journals/397\\_slovenska\\_ekonomika\\_po.pdf](http://ekonom.sav.sk/uploads/journals/397_slovenska_ekonomika_po.pdf)>. ISBN 978-80-7144-309-4.
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- AAB20 [STANĚK, Peter - IVANOVÁ, Pavlína - PAUHOFOVÁ, Iveta - VAŠKOVÁ, Vanda - VILHELM, Daniel](#). Hľadanie novej reality : nové dimenzie ekonómie a spoločnosti = [Looking for new reality: new dimensions of economics and society](#). Reviewed by: Eva Rievajová, Milan Šikula. Bratislava : Wolters Kluwer, 2018. 244 s. ISBN 978-80-8168-943-7.
- AAB21 [BROCKOVÁ, Ingrid - BRZICA, Daneš - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - PUŠKÁROVÁ, Paula - SIVÁK, Rudolf - STANĚK, Peter - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav](#). Vývoj a perspektívy svetovej ekonomiky [12] : pozitívny výhľad a hroziaca obchodná vojna = [The Development and](#)

**Perspectives of the World Economy: Positive Economic Outlook and Impending Trade War.**  
Reviewed by: Vladimír Gonda, Ľudmila Lipková. Bratislava : IRE SAS, VEDA, 2018. 324 s.  
Available at: <[http://ekonom.sav.sk/uploads/journals/386\\_obadi\\_a\\_kol\\_vapse\\_2018.pdf](http://ekonom.sav.sk/uploads/journals/386_obadi_a_kol_vapse_2018.pdf)>. ISBN 978-80-7144-294-3.

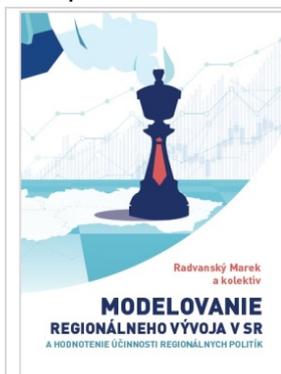
- AAB22 PAUHOFOVÁ, Iveta - STEHLÍKOVÁ, Beáta - STANĚK, Peter - PÁLENÍK, Michal. Súvislosti príjmovej polarizácie na Slovensku III. = **The Context of Income Polarization in Slovakia III.** Reviewed by: Eva Rievajová, Peter Sakál. Bratislava : IRE SAS, 2018. 158 s. Available at: <[http://ekonom.sav.sk/uploads/journals/387\\_suvislosti\\_prijmovej\\_polarizacie\\_na\\_slovensku\\_iii\\_-\\_od\\_doc\\_pauhofovej.pdf](http://ekonom.sav.sk/uploads/journals/387_suvislosti_prijmovej_polarizacie_na_slovensku_iii_-_od_doc_pauhofovej.pdf)>. ISBN 978-80-7144-290-5.
- AAB23 HOŠOFF, Boris - BLAŽO, Ondrej - HVOZDÍKOVÁ, Veronika - KAČALJAK, Matej - KOVÁČIKOVÁ, Hana - POLÁKOVÁ, Zdenka - ONDROVIČ, Adrián - SIPKO, Juraj - STANĚK, Peter - ŠIKULA, Milan - VAŠKOVÁ, Vanda. Inštitucionálna pripravenosť na digitalizáciu a zmeny vonkajšieho prostredia = **Institutional Preparedness for Digitalization and Changes in the External Environment.** Bratislava : IRE SAS, 2018. 238 s. ISBN 978-80-7144-292-9 .
- AAB24 STANĚK, Peter - ČIDEROVÁ, Denisa - IVANOVÁ, Pavlína - VAŠKOVÁ, Vanda - KOVAČEVIČ, Dubravka. Kľúčové zmeny ekonomického a spoločenského vývoja : súčasnosť a budúcnosť = **Key changes in economic and social development : Present and future.** Reviewed by: Saleh Mothana Obadi, Boris Hošoff. Bratislava : Publishing House EKONOM, 2018. 129 s. ISBN 978-80-225-4577-8.
- AAB25 DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - KOŠTA, Ján - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš - MORVAY, Karol - ONDROVIČ, Adrián. Kontradikcie vo vývoji zamestnanosti v SR na pozadí demografických a štruktúrnych zmien = **Contradictions in Employment Development in Light of Anticipated Demographic and Structural Changes in Slovakia.** Reviewed by: Daniela Pobudová, Iveta Stankovičová. Bratislava: IRE SAS, 2018. 136 s. Available at: <[http://www.ekonom.sav.sk/uploads/journals/395\\_hvozdi%CC%81kova%CC%81\\_lichner\\_monografia\\_kontradikcie.pdf](http://www.ekonom.sav.sk/uploads/journals/395_hvozdi%CC%81kova%CC%81_lichner_monografia_kontradikcie.pdf)>. ISBN 978-80-7144-298-1.
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- AAB28 MORVAY, Karol - FRANK, Karol - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - LÁBAJ, Martin - ŠIKULOVÁ, Ivana. **Economic development of Slovakia in 2016 and outlook up to 2018.** Reviewed by: Vladimír Gonda, Štefan Zajac. Bratislava : IRE SAS, 2017. 160 p. Available at: <[http://www.ekonom.sav.sk/uploads/journals/367\\_economic\\_development\\_of\\_slovakia\\_in\\_2016\\_and\\_outlook\\_up\\_to\\_2018.pdf](http://www.ekonom.sav.sk/uploads/journals/367_economic_development_of_slovakia_in_2016_and_outlook_up_to_2018.pdf)>. ISBN 978-80-7144-278-3.
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- AAB30 BRZICA, Daneš - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - PUŠKÁROVÁ, Paula - SIPKO, Juraj - SIVÁK, Rudolf - STANĚK, Peter - ŠIKULA, Milan - ŠIKULOVÁ, Ivana - VAŠKOVÁ, Vanda - VOKOUN, Jaroslav. Vývoj a perspektívy svetovej ekonomiky [11] : krehký posun z oblasti rizika do rastovej trajektórie = **The development and perspectives of the world economy : fragile shift from areas of risk to growth trajectory.** Reviewed by: Vladimír Gonda, Ľudmila Lipková. Bratislava : IRE SAS, 2017. 382 s. ISBN 978-80-7144-279-0.
- AAB31 ONDROVIČ, Adrián. Inštitucionálne príčiny globálnej ekonomickej krízy = **Institutional Causes of the Global Economic Crisis.** Reviewed by: Vladimír Gonda, Jiří Malý. Bratislava : IRE SAS, 2017. 112 s. ISBN 978-80-7144-286-8.
- AAB32 BRZICA, Daneš - KAČÍRKOVÁ, Mária - VOKOUN, Jaroslav. Vytváranie a zhodnocovanie potenciálu znalostnej spoločnosti = **Creation and Exaluation of Potential of Knowledge**

**Society**. Reviewed by: Edita Nemcová, Vladimír Gonda. Bratislava : IRE SAS, 2017. 135 s. ISBN 978-80-7144-283-7.

- AAB33 PAUHOFOVÁ, Iveta - KOŠTA, Ján - MARTINÁK, Dávid - ONDROVIČ, Adrián - PÁLENÍK, Michal - STANĚK, Peter - STEHLÍKOVÁ, Beáta - ŽELINSKÝ, Tomáš. Súvislosti príjmovej polarizácie na Slovensku [I.] = **The context of income polarization in Slovakia I**. Reviewed by: Peter Plavčan, Eva Rievajová, Menbere Workie Tiruneh. 1. ed. Bratislava : IRE SAS, 2016. 229 s. Available at: <<http://ekonom.sav.sk/sk/publikacie/-p364>>. ISBN 978-80-7144-259-2.
- AAB34 RADVANSKÝ, Marek - FRANK, Karol - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš. **Impact of cohesion policy on regional development of Slovakia : ex-post assessment of national strategic reference framework 2007-2013**. Reviewed by: Ján Haluška, Iveta Stankovičová. Bratislava : IRE SAS, 2016. 111 p. Available at: <<http://ekonom.sav.sk/sk/publikacie/-p334>>. ISBN 978-80-7144-257-8.
- AAB35 PAUHOFOVÁ, Iveta - STANĚK, Peter. Adaptačné procesy a pulzujúca ekonomika : v cykle Paradigmy zmien v 21. storočí = **Adaptation processes and pulsating economy (Paradigms in the cycle of changes in the 21st century)**. Reviewed by: František Ochrana, Milan Šikula, Štefan Volner. 1. ed. Bratislava : IRE SAS, 2016. 160 s. ISBN 978-80-7144-267-7.
- AAB36 MORVAY, Karol - FRANK, Karol - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - ŠIKULOVÁ, Ivana. **Economic Development of Slovakia in 2015 and Outlook up to 2017**. 1 ed. Bratislava : Institute of economic research SAS, 2016. 134 p. Available at: <<http://ekonom.sav.sk/sk/publikacie/-p348>>. ISBN 978-80-7144-269-1.
- AAB37 STANĚK, Peter - IVANOVÁ, Paulína. Európska únia na križovatke : postrehy a inšpirujúce riešenia = **The European Union at a crossroads: insights and inspiring solutions**. Reviewed by: Milan Šikula, Juraj Sipko. 1. ed. Bratislava : Wolters Kluwer, 2016. 181 s. Ekonomía, 625. ISBN 978-80-8168-482-1.
- AAB38 DUJAVA, Daniel. Ekonomické krízy a ekonomická veda = **Economic crises and economic science**. Reviewed by: Branislav Žúdek, Dalibor Roháč. 1. ed. Bratislava : Wolters Kluwer, 2016. 186 s. Ekonomía, 600. ISBN 978-80-8168-442-5.
- AAB39 BRZICA, Daneš - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - KORČEK, Matej - OBADI, Saleh Mothana - ONDROVIČ, Adrián - PUŠKÁROVÁ, Paula - ŠIKULOVÁ, Ivana - STANĚK, Peter - ŠIKULA, Milan - ŠIKULOVÁ, Ivana - VOKOUN, Jaroslav. Vývoj a perspektívy svetovej ekonomiky [10] : vysoké riziká a väčšie neistoty = **The development and perspectives of the world economy : high risks and larger uncertainties**. Reviewed by: Vladimír Gonda, Igor Kosír. 1. ed. Bratislava : IRE SAS, VEDA, 2016. 344 s. Available at: <[http://ekonom.sav.sk/uploads/journals/355\\_obadi\\_a\\_kol\\_monografia\\_print\\_2016.pdf](http://ekonom.sav.sk/uploads/journals/355_obadi_a_kol_monografia_print_2016.pdf)>. ISBN 978-80-7144-271-4.

## 2.1.5. List of other scientific outputs specifically important for the institute, max. 10 items for institute with less than 50 FTE researchers, 20 for institutes with 50 – 100 FTE researchers and so on

### Output 1: The Structural Integrated Econometric Input-Output model



Slovakia ranks among the European countries with the highest rate of regional disparities, and their mitigation has been among the priorities of all Slovak governments. Nevertheless, economic policy in the Slovak Republic tends to underestimate the specific impact of measures at the regional level. Relatively little attention is also paid to analytical support for decision-making and development forecasts at the regional level. The publication deals with the issue of the actual development of regional policy and quantitative approaches for analysing and forecasting regional development.

A detailed presentation of the methodology of the structural integrated econometric input-output (EC-IO) model based on the need to extend the long-developed HERMIN regional model to a more detailed number of sectors at both national and regional levels is provided. The Structural EC-IO model at the national level is described together with the main methodological elements and approaches. The construction of a regional model, with the identification of interregional flows of goods and services in the economy through the

construction of multi-regional input-output tables as a key element of this model, is also documented. Also, areas related to the features of IER SAS's other modelling approaches are covered. The structure of the publication clearly determines its use, especially in terms of methodological development of regional models suitable for modelling regional and cohesion policies (not only in Slovakia) and points to the methodological shift in this issue during the last decade. The EC-IO model methodology was applied in the Slovak Republic, the Czech Republic and Malta. The output and methodologies developed at the Institute helped to intensify the cooperation with the Ministry of Investments, Regional Development and Informatization and Institute of Social Policy at the Ministry of Labour, Social Affairs and Family.

**More information:**

FRANK, Karol - JÁNOŠOVÁ, Miroslava - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš - OSTRIHOŇ, Filip - RADVANSKÝ, Marek - ŠTEFÁNIK, Miroslav - ZACHAR, Jakub. Modelovanie regionálneho vývoja v SR a hodnotenie účinnosti regionálnych politík = [Modelling of regional development in SR and evaluation of the effectiveness of regional policies](#).

**Output 2: A dynamic microsimulation model of the Slovak labour supply (SLAMM\_microsim)**



The microsimulation model was built under the project APVV-17-0329 (<http://www.lmevidence.sav.sk/>), which included, inter alia, the creation of a microsimulation model for the Slovak Republic ([http://www.lmevidence.sav.sk/?page\\_id=273](http://www.lmevidence.sav.sk/?page_id=273)). The basic microsimulation model (SLAMM microsim) was already applied in various contexts, contributing to multiple publications. The outcomes of microsimulation models are widely used for ex-ante estimation of public policy effects.

SLAMM\_microsim was originally developed by the research team at the IER with the aim to model labour supply developments in Slovakia. All applications so far focused on the quantification of the labour market needs in terms of skills and education as well as quantification of demands induced by the replacement of the retiring labour force. When combined with a macroeconomic model, it allows detailed simulation of wage developments or simulation of structural changes in demands for labour force. Thus, various applications of the microsimulation model interconnects sophisticated methods and the needs of public policies.

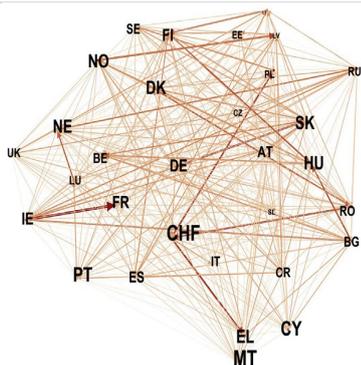
SLAMM\_microsim simulates the Slovak population in a dynamic environment, modelling basic demographic processes, education achievements, as well as decisions related to economic activity and employment. The recent version of the model relies on the Labour Force Survey (LFS) data or data from the Census. Up to now, two main microsimulation tools have been developed by the research team at the IER. First, a microsimulation model for the Institute of Educational Policy (IEP) at The Ministry of Education, Science, Research and Sport of the Slovak Republic was developed. On the one hand, it predicts the number of students in the regional educational system at the district level and the number of tertiary education students in the mid-term horizon. On the other hand, it predicts the number of teachers who are to retire at various levels of the educational system. This modelling tool is actively used in preparing educational policies at the IEP. Further, the model is used for projecting education-related expenditures from the Recovery Plan. The second output, developed by the research team, was created in cooperation with the Value for Money Unit at the Ministry of Finance. It focused on the revision of public expenditures related to employment and wages in the public administration (ÚHP, 2020). Microsimulation was used to predict the effects of retirement of public employees, including identification of occupations that were most affected.

The main output of the microsimulation model consists of the production of regular predictions of the labour market according to selected criteria. The model was developed under collaborations with the International Microsimulation Association (IMA) and the Luxembourg Institute of Socio-Economic Research. A description of the model was published in the journal of IMA (Štefánik & Miklošovič, 2020).

**More information:**

ŠTEFÁNIK, Miroslav - MIKLOŠOVIČ, Tomáš. [Modelling foreign labour inflows using a dynamic microsimulation model of an ageing country - Slovakia](#). In International Journal of Microsimulation, 2020, vol. 13, no. 2, pp. 102-113. (2019: 0.213 - SJR, Q4 - SJR). (2020 - SCOPUS). ISSN 1747-5864. <https://doi.org/10.34196/ijm.00220>.

### Output 3: The Integrated Financial Crisis Database



In the last ten years, more than 32,000 research papers in the REPEC database mentioned the term 'financial crisis' at some point. The overreaching and ever-growing literature on causes and consequences of financial crises therefore makes the navigation among different aspects of this phenomena a tremendous task. As a result, the need to create a comprehensive database of financial crisis events was driven by the necessity to offer a tool that will allow to investigate heterogeneous aspects of financial crises in a more insightful way.

This database was compiled by project team from IER SAS (Maria Siranova, Boris Fisera, David Hojdan) and a collaborator from the National Bank of Slovakia (Karol Zelenak) in order to serve as the source of data for research activities related to the project APVV-17-0551. It

integrates the most prominent and widely-used individual databases as produced by various economists and institutions.

The old version (January 2020) included papers that predominantly focused on databases dealing with fiscal and banking crises as two of the most recently live-through events. The new update (November 2020) incorporated a wider list of publications identifying external (balance of payments) and currency crises. In the future, it is envisioned to also include events characterised by significant financial markets pressures. Nevertheless, the database might also serve as the limited source of external and currency crisis events due to the fact, that some of the databases already account for these types of events.

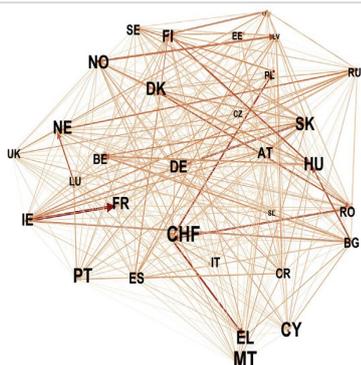
Using the data from the database, the follow-up research (Siranova and Zelenak, under review) examined the consistency in the timing of crisis events of the most prominent databases of banking and fiscal crises. The results confirmed that the degree of commonality across databases is indeed relatively high, especially if introducing a one-year lag. However, there is still a significant role played by a few influential observations, especially in the banking crisis literature.

The database is freely available to the international scientific community and updated regularly by the IER SAS staff (also funded by the follow-up project APVV-19-0499).

#### Database access:

<https://ekonom.sav.sk/sk/projekty/vyrovnovanie-nerovnovah-prehodnotenie-pohladu-na-makroekonomicke-nerovnovahy-v-europskom-ramci-riadenia-p174>.

### Output 4: The Database of Illicit Financial Flows Estimates



The volume of illicit capital flows has been steadily increasing over the last decade, bringing about severe socio-economic consequences for the countries affected. For developing countries, the cumulative flows of illicit capital were estimated to 1750 US bil. over the 2005–2014 period. Recent experiences that highlighted the role of wealthy individuals and multinational companies residing in developed countries showed that this group of countries is not likely to be an exception to this phenomenon. Yet, since the estimates for the most developed countries were absent in the literature, research conducted by team of the IER SAS aimed to close this gap.

The volume of illicit financial flows calculated in 2017 was quantified as the decomposition of export and import misinvoicing (Dujava and Siranova, 2017), one of the most important measures of illicit financial flows. These estimates were subsequently used in an analysis of the effects of capital flight on the level of domestic investment in European countries (Workie et al., 2021). Described analysis of the effects of capital flight was among the key deliverables of the associated APVV project under the grant APVV-15-0666. Eventually, the original estimates of trade misinvoicing were updated and used in the follow-up publication (Dujava and Siranova, 2022).

In comparison to the only one freely and internationally available database of estimates of misreporting internationally at that time (Global Financial Integrity Database), the new database included both developed and developing countries, as well as providing more nuanced estimates net of international transaction costs. According to the research findings, both the low- and high-income countries, high-tax exporter and low-tax importers, as well as receivers of capital on exporter's side and financially repressed economies on importer's side, are strongly conducive to the issue of trade misreporting. As a negative consequence, domestic investment is likely to be negatively affected if capital is prone to disappear abroad.

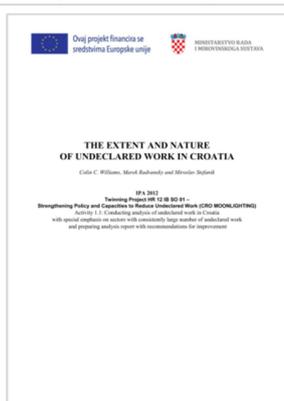
The follow-up project APVV-19-0499 builds upon the methodology introduced in the original paper by Dujava and Siranova (2017) and aims to extend the database by the inclusion of misreporting estimates in the trade of services; a novelty in this type of literature.

#### More information:

DUJAVA, Daniel - ŠIRAŇOVÁ, Mária. [Getting the Measures of Trade Misinvoicing Right : Bilateral Panel Data Approach](#).

Recenzenti Saleh Mothana Obadi, Menbere Workie Tiruneh. In Working papers, 2017, č. 98, s. 1-50. Available at internet: [http://ekonom.sav.sk/uploads/journals/374\\_wp\\_98\\_dujava\\_siranova\\_2017.pdf](http://ekonom.sav.sk/uploads/journals/374_wp_98_dujava_siranova_2017.pdf).

### Output 5: Analysis of Undeclared Work in Croatia



The paper was part of the EU IPA project aimed at Strengthening Policy and Capacities to Reduce Undeclared Work. Co-authors from IER SAS were collaborating with Colin Williams from the University of Sheffield and Lead expert of European Commission's European Platform Tackling Undeclared Work and one of the most cited researchers in this area.

Paper provides a detailed review of the extent and nature of undeclared work in Croatia. Reporting on a range of datasets, including the 2007 and 2013 Eurobarometer surveys on undeclared work, as well as the 2015 GREY household and business surveys on undeclared work, the report outlines the varieties of undeclared work. The Report describes the demand for undeclared goods and services and the motives underpinning such demand. Also, the supply of undeclared work (including who supplies such work and their motives for doing so) and for the first time, the perceptions of business about the extent and nature

of undeclared work in their sectors. The resultant outcome is an overview of not only the magnitude of undeclared work in Croatia, along with the varieties of undeclared work, but also the distribution of such work across the population and economy, along with the motives underpinning engagement in the undeclared economy.

#### More information:

WILLIAMS, Colin C. - RADVANSKÝ, Marek - ŠTEFÁNIK, Miroslav. [The Extent and Nature of Undeclared Work in Croatia](#). Zagreb: Ministarstvo rada i mirovinskoga sustava, 2017. 32 p.

Available at: [https://www.researchgate.net/publication/318982090\\_The\\_Extent\\_and\\_Nature\\_of\\_Undeclared\\_Work\\_in\\_Croatia](https://www.researchgate.net/publication/318982090_The_Extent_and_Nature_of_Undeclared_Work_in_Croatia).

### Output 6: The National Implementation of Coordinating Mechanisms Rules



This research aims to provide an overview of the state of the national implementation of coordinating mechanisms and rules in Slovakia. Additionally, future perspectives of European integration and likely national stances on the Five Presidents' Report are discussed. The paper draws on literature and a survey of ten policy practitioners. EU membership is, in general, perceived positively by the Slovak society. Along with the many advantages (structural funds, common market, free movement of labour, Schengen etc.) it brought several commitments. The European semester and the enhanced EU economic surveillance are among the obligations the Eurozone member states are expected to respect. Thus, several rules and principles had to be implemented and followed. This research aimed to depict the current state and perspectives of the national implementation of coordinating mechanisms rules in Slovakia. The EU agenda initiated the employment of officials able to tackle the new tasks. This certainly increases the effectiveness and professionalism of the

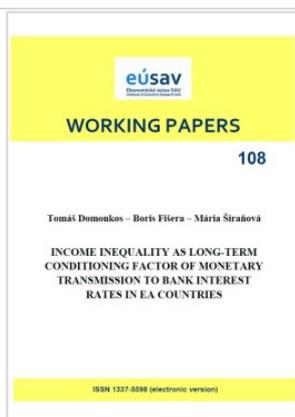
state's public administration. A good example of putting pressure for the fulfilment of the fiscal rules and behaving responsibly in terms of the state budget is the existence and activities of the Slovak Council for Budget Responsibility and the Constitutional debt brake law, which is perceived very positively at home as well as abroad. When comparing the national and the EU rules and priorities, currently, it seems that national governmental priorities are considered to have more influence on national policymaking than recommendations resulting from the European Semester. The national priorities overlap in many regards with the Country-Specific Recommendations priorities, thus, some of the EU recommendations would probably be addressed regardless the existence of EU rules. From another perspective, it appears that EU rules and priorities work best when they coincide with the national interest. This makes it hard to reach an unambiguous conclusion on the effects of EU rules on national policy-making.

**More information:**

DOMONKOS, Tomáš - ŠIKULOVÁ, Ivana - PÁLENÍK, Viliam. **The National Implementation of Coordinating Mechanisms Rules: in-depth Case Study for Slovakia**. In Fiscal rules and other rule-based mechanisms in practice: introduction to case studies of four Member States [online]. - 2017, 76 p. Chapter 4 of the report.

Available at internet: [http://www.firstrun.eu/files/2017/04/D6.5\\_case\\_studies.pdf](http://www.firstrun.eu/files/2017/04/D6.5_case_studies.pdf)

<http://www.firstrun.eu/research/deliverables/>

**Output 7: Income Inequality as Long-term Conditioning Factor of Monetary Transmission to Bank Interest**

During the prolonged period of zero-lower bound constraint in the Euro Area, the possible distributional effects of unconventional monetary policy have raised serious concerns among many policymakers. Given the preliminary findings from the empirical literature, it has been acknowledged that the overall redistributive effects of monetary policy were likely to be modest. On the other hand, only very few papers published so far have argued that rather than concerning themselves with the (relatively small) impact of monetary policy on inequality, the policymakers should be more concerned about how the persistent heterogeneity in income or wealth distribution may hinder the transmission of monetary policy impulses into the economy and, as a result, limit its conduct, especially during those times when it is most needed.

Research conducted by the team from the Institute (Domonkos, Fišera and Širáňová) decided to step into this debate and contribute to the limited extent of current knowledge by empirically analysing the link between the effects of

persistent long-term income inequalities and the conduct of EA monetary policy. In order to be able to capture properly the underlying hypothesis, authors decided to replace the traditional measure of income inequality, the Gini index, with individual indicators measuring the share of the total population earning a certain proportion of income. As they argue this measure represents a more suitable tool to capture heterogeneity in income distribution across countries as it is more in line with the most recent advances in DSGE modelling incorporating heterogeneous households into the standard modelling framework. Thanks to the expertise of one member of the team (Domonkos) who has been working with micro income data for a substantial part of his research career, authors were able to propose the construction of a new income inequality measure based on data from highly granular EU-SILC database. Empirical results suggest that income inequality plays a significant role in explaining cross-country heterogeneity in standard monetary transmission to consumer bank loans rates, as well as to housing loans rates in the case of unconventional monetary tools. Additionally, small firm loans rates tend to respond more sensitively to increasing income inequality irrespective of monetary policy. These findings should issue a warning among policy makers due to the fact that, as authors argue, even in the presence of initially highly synchronised business cycles, monetary policy in responding to common adverse exogenous shocks, if transmitted unequally to individual member states, may ultimately result in asynchronous future growth trajectories. An over-sensitive response in one member state may substantially shorten the length of economic recovery, while a less than optimal extent of monetary easing may be conducive to prolonged periods of economic slack. Potential structural differences that weaken monetary policy thus make its conduct also less effective, predictable, and credible.

**More information:**

DOMONKOS, Tomáš - FIŠERA, Boris - ŠIRÁŇOVÁ, Mária. **Income Inequality as Long-term Conditioning Factor of Monetary Transmission to Bank Interest** = Príjmová nerovnosť ako dlhodobý faktor podmieňujúci transmisiu menovej politiky do bankových úrokových sadzieb v krajinách EA.

Rec. Ivan Lichner, Jarko Fidrmuc. In Working papers, 2020, č. 108, s. 1-43. ISSN 1337-5598. Available at internet: [https://ekonom.sav.sk/uploads/journals/406\\_wp\\_108\\_domonkos\\_fisera\\_siranova\\_2020.pdf](https://ekonom.sav.sk/uploads/journals/406_wp_108_domonkos_fisera_siranova_2020.pdf)

**2.1.6. List of patents, patent applications, and other intellectual property rights registered abroad, incl. revenues: -**

**2.1.7. List of patents, patent applications, and other intellectual property rights registered in Slovakia, incl. revenues: -**

## 2.1.8. Table of research outputs

Papers from international collaborations in large-scale scientific projects (Dwarf team, ALICE Collaboration, ATLAS collaboration, CD Collaboration, H1 Collaboration, HADES Collaboration, and STAR Collaboration) have to be listed separately

Scientific publications	2016			2017			2018			2019			2020			2021			total			
	number	No. / FTE researches	No. / one million total salary budget	number	No. / FTE researches	No. / one million total salary budget	number	No. / FTE researches	No. / one million total salary budget	number	No. / FTE researches	No. / one million total salary budget	number	No. / FTE researches	No. / one million total salary budget	number	No. / FTE researches	No. / one million total salary budget	number	averaged number per year	av. No. / FTE researches	av. No. / one million total salary budget
Scientific monographs and monographic studies in journals and proceedings published abroad (AAA, ABA)	0	0,000	0,000	1	0,034	1,136	1	0,036	1,085	1	0,037	0,607	0	0,000	0,000	0	0,000	0,000	3	0,500	0,018	0,463
Scientific monographs and monographic studies in journals and proceedings published in Slovakia (AAB, ABB)	7	0,247	8,767	7	0,240	7,954	8	0,287	8,679	5	0,187	3,036	6	0,211	5,417	6	0,202	5,309	39	6,500	0,229	6,014
Chapters in scientific monographs published abroad (ABC)	0	0,000	0,000	0	0,000	0,000	2	0,072	2,170	2	0,075	1,215	0	0,000	0,000	0	0,000	0,000	4	0,667	0,023	0,617
Chapters in scientific monographs published in Slovakia (ABD)	8	0,282	10,019	1	0,034	1,136	2	0,072	2,170	0	0,000	0,000	0	0,000	0,000	0	0,000	0,000	11	1,833	0,065	1,696
Scientific papers published in journals registered in Current Contents Connect (ADCA, ADCB, ADDA, ADEB)	7	0,247	8,767	2	0,069	2,273	11	0,395	11,933	1	0,037	0,607	14	0,493	12,640	9	0,303	7,964	44	7,333	0,258	6,785
Scientific papers published in journals registered in Web of Science Core Collection and SCOPUS not listed above (ADMA, ADMB, ADNA, ADNB)	9	0,317	11,272	15	0,514	17,045	4	0,143	4,339	5	0,187	3,036	4	0,141	3,611	7	0,235	6,194	44	7,333	0,258	6,785
Scientific papers published in other foreign journals (not listed above) (ADEA, ADEB)	4	0,141	5,010	4	0,137	4,545	2	0,072	2,170	0	0,000	0,000	2	0,070	1,806	0	0,000	0,000	12	2,000	0,070	1,851
Scientific papers published in other domestic journals (not listed above) (ADFA, ADFB)	19	0,669	23,796	18	0,617	20,454	13	0,466	14,103	6	0,224	3,644	6	0,211	5,417	1	0,034	0,885	63	10,500	0,370	9,715
Scientific papers published in foreign peer-reviewed proceedings (AECA)	2	0,070	2,505	1	0,034	1,136	1	0,036	1,085	0	0,000	0,000	1	0,035	0,903	0	0,000	0,000	5	0,833	0,029	0,771
Scientific papers published in domestic peer-reviewed proceedings (AEDA)	3	0,106	3,757	5	0,171	5,682	1	0,036	1,085	2	0,075	1,215	0	0,000	0,000	2	0,067	1,770	13	2,167	0,076	2,005
Published papers (full text) from foreign scientific conferences (AFA, AFC)	11	0,388	13,776	4	0,137	4,545	9	0,323	9,764	3	0,112	1,822	3	0,106	2,709	4	0,134	3,539	34	5,667	0,200	5,243
Published papers (full text) from domestic scientific conferences (AFB, AFD)	24	0,846	30,058	21	0,720	23,863	21	0,753	22,782	10	0,374	6,073	15	0,528	13,543	6	0	5	97	16	1	15

### **2.1.9. Narrative on the most important research outputs of the institute – especially focused on their importance for society (3-5 pages)**

The Scientific Board selected 39 outputs from the extensive list of Institute's publications, which are considered the most significant in terms of scientific contribution, contribution to society, the development of internal research within the Institute and the expansion of its scientific focus. The average number of researchers in full-time equivalent was 31.5, but because of part-time contracts the real number of researchers was apx. 42. The selection of publications was based on the individual categories of publications, their citations, and where relevant position of the respective journal, while not disregarding other accolades the publications might have received. Additionally, the attention was also given to the representation of the thematic orientation of the Institute, taking into account the suggestions on this matter from the heads of individual departments. Out of the considered selection criteria, acceptance by a doubly blind peer-review process was considered of paramount relevance. Being aware of the high-standards applied in the most impacted international research journals, papers published in international peer reviewed journals are slightly overrepresented among those listed in section 2.1.2. Criteria of topical relevance and societal impact were regarded with a higher importance in the case of other outputs selected in section 2.1.5. Publications selected in section 2.1.2 also include publication-specific narratives on their content.

Summarising the topics covered in the publications selected in section 2.1.2, the first area of the research captured within these publications is the investigation of the economic development in Slovakia. The publications that were selected as the most important on this topic (see Balaž et al., 2020; Brzica et al., 2019; Domonkos, 2018; Frank et al., 2020; Olsson et al., 2019; Páleník et al., 2021; Pauhofová et al., 2018; Radvanský et al., 2016; Širaňová and Workie Tiruneh, 2018; Štefánik, 2019; Štefánik et al., 2020) analyse the development of Slovak economy from various aspects, such as general outlook either on the changes in the most recent years or summarising overview of the past development through the entirety of the existence of the independent Slovak Republic. Other more topical pieces investigate particular aspects of the Slovak economy, including the labour market, social conditions, energy, regional development, cohesion, and financial flows. The listed outputs are highly relevant and important in the national context. Given the small scale of the country, the expectations that there will be research from abroad applying the latest advancements in economics to the conditions of Slovakia as well as documenting the past economic development of the country are low. The Institute holds a key position from this perspective as it dedicates its capacity to aforementioned tasks.

A substantial part of the research selected for the accreditation questionnaire deals with the topics of the labour market as well as other social issues (see Adascalitei and Domonkos, 2018; Domonkos, 2018; Domonkos, 2020; Domonkos et al., 2021; Hudcovský et al., 2017; Košta et al., 2021; Páleník et al., 2021; Pauhofová et al., 2018; Štefánik, 2019; Štefánik et al., 2020). The other topics examined cover, e.g., productivity, minimal wage, austerity, income polarisation, inequality, pro-poor growth, ageing, healthcare system, and pension system. All of these areas are of day-to-day concern to most members of society and definitely of the society as a whole. Further understanding, more targeted and relevant policies, as well as improvements to individual lives in the aforementioned areas, may potentially emerge from investigation in this field, which is why it is of a high priority to the Institute.

Another well represented topic across the selected publications is that of financial markets (see Deev and Lyócsa, 2020; Lyócsa and Horváth, 2018; Lyócsa and Molnár, 2018; Lyócsa and Molnár, 2020; Lyócsa, Baumöhl, Výrost, and Molnár, 2020; Lyócsa, Molnár, Plíhal, and Širaňová, 2020; Lyócsa and Todorova, 2021). These encompass areas such as connections among financial institutions, volatility of natural resource prices and the bitcoin, and the effects of contagion, panic, fear, and uncertainty on the stock markets. As the Global Financial and Economic Crisis of 2008 has shown, the financial world can have, at times, a severe impact on the real economy. Therefore, the deepening of the general understanding of phenomena occurring across financial markets is of great significance. Furthermore, the issues examined cover events and developments experienced very recently (e.g., the bitcoin and the COVID-19 pandemic), which are of high relevance to the entire society.

Among the selected publications, a number of them can be connected to issues of external imbalances and related topics (see Domonkos et al., 2017; Fišera et al., 2021; Obadi and Korček, 2016; Širaňová and Radvanský, 2018; Workie Tiruneh, 2018). The research in this broad category includes analysis of public and external debt, competitiveness, and the Macroeconomic Imbalance Procedure. Such topics rose to prominence due to (not that distant) experience of the Global Financial and Economic Crisis of 2008 and the subsequent Debt crisis. It is, therefore, crucial to come to terms with such experiences and learn from them

to foster macroeconomic stability, conditions for sustainable prosperity in regard to the external environment, prevention of crisis events and swift recovery for the cases when they eventually do occur.

Some of the selected publications also address phenomena with a rather forward-looking perspective by identifying the macro trends relevant in the future as well as the current features of the global development (see Brockova et al., 2019; Brzica et al., 2020; Staněk et al., 2021; Šikula, 2017). The issues examined within these publications are the development and perspectives of the world economy, reflecting both the new wave of protectionism and the COVID-19 pandemic, as well as the current challenges of human society and the potential risks and scenarios in the future. The value of described research stems from the identification and documentation of the present global phenomena and introduction of them to the Slovak audience, as well as in the anticipatory nature of the produced inquiries, which can be the experts also attractive to the general public.

Another noticeable area among the selected publications is that of regional economics (see Baláž et al., 2020; Radvanský et al., 2016; Radvanský and Lichner, 2021). The studies that can be considered associated with this field investigate the changing patterns of energy efficiency and tangible effects of the structural funds of the EU on the cohesion of Slovak regions, as well as the suitability of construction of regional input-output tables. Given the long-term policy focus of the EU on regional cohesion and consequent evaluation of taken policy measures, the research of the Institute on this topic may have a far-reaching impact.

Other areas covered in the selected publications include the knowledge economy (see Brzica, 2021; Jeck and Baláž, 2020), capital flight and illicit financial flows (see Širaňová and Workie Tiruneh, 2018; Širaňová et al., 2021) and popularisation activities aimed primarily on the general public (see Dujava, 2016). The knowledge economy in this respect presents a highly relevant field given the persisting endeavour of most of the world's countries to either transit to the stage of the knowledge-based economy or internationally thrive at this stage. On the other hand, the importance of examining capital flight was highlighted by relatively recent reveals within the Panama Papers and the Paradise Papers, which indicate that illegitimate capital flows may also be a concern for the most developed economies in the world. Additionally, the domestic popularisation activity is of utmost vital for fostering the public's sentiment towards the Institute of Economic Research, especially in an age abundant with potential misinformation, and for fostering the trust of the public vested in domestic research and institutions.

Furthermore, the Scientific Council of the Institute selected other scientific outputs specifically important for the Institute, which are described in more detail in section 2.1.5 of the accreditation questionnaire. These are quite diverse outputs with different themes, but they have brought about a fundamental shift in knowledge in the individual areas under study. The Institute plans to expand its research objectives in these topics further and apply the results in specific areas of the Slovak economy. The Slovak economy is and will be the focus of much of the research, which is only natural since the Institute is partly financed by the Slovak state budget. Of course, the Institute not only focuses on domestic problems but also provides experience from the domestic environment in the form of technical assistance to other countries interested in such services.

The narrative on other most important research outputs of the Institute is described in more detail in previous sections of the questionnaire.

## 2.2. Measures of research outputs (citations, etc.)

### 2.2.1. Table with citations per annum (without self-citations)

*Citations of papers from international collaborations in large-scale scientific projects (Dwarf team, ALICE Collaboration, ATLAS collaboration, CD Collaboration, H1 Collaboration, HADES Collaboration, and STAR Collaboration) are listed separately*

Citations, reviews	2015		2016		2017		2018		2019		2020		total		
	number	Nb. / FTE researchers	number	averaged number per year	av. Nb. / FTE researchers										
Citations in Web of Science Core Collection (1.1, 2.1)	138	4,86	166	5,69	104	3,73	96	3,59	118	4,16	81	2,72	<b>703</b>	<b>117,17</b>	<b>4,13</b>
Citations in SCOPUS (1.2, 2.2) if not listed above	17	0,60	32	1,10	40	1,43	31	1,16	44	1,55	28	0,94	<b>192</b>	<b>32,00</b>	<b>1,13</b>
Citations in other citation indexes and databases (not listed above) (3.2,4.2)	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	1	0,03	<b>1</b>	<b>0,17</b>	<b>0,01</b>
Other citations (not listed above) (3.1, 4.1)	201	7,08	260	8,91	140	5,02	99	3,70	99	3,49	84	2,82	<b>883</b>	<b>147,17</b>	<b>5,18</b>
Reviews (5,6)	31	1,09	4	0,14	1	0,04	1	0,04	0	0,00	1	0,03	<b>38</b>	<b>6,33</b>	<b>0,22</b>

## 2.2.2. List of 10 most-cited publications published any time with the address of the institute, with number of citations in the assessment period (2015 – 2020)

### 1. 50 citations in the period 2015-2020

AAA01 ASHEIM, Bjorn - COOKE, Phil - BLAŽEK, Jiří - ANNERSTEDT, Jan - BOSCHMA, Ron - BRZICA, Daneš - DAHLSTRAND LINDHOLM, Asa - DEL CASTILLO HERMOSA, Jamie - LAREDO, Philippe - MOULA, Marina - PICCALUGA, Andrea. **Constructing regional advantage: principles - perspectives - policies** [online]. Brussels: European commission, 2006. 95 p. Available on the Internet: [https://www.researchgate.net/publication/332028907\\_CONSTRUCTING\\_REGIONAL\\_ADVANTAGE\\_principles\\_-perspectives\\_-policies\\_REPORT](https://www.researchgate.net/publication/332028907_CONSTRUCTING_REGIONAL_ADVANTAGE_principles_-perspectives_-policies_REPORT).

### 2. 27 citations in the period 2015-2020

AAB01 WORKIE TIRUNEH, Menbere - ŠTEFÁNIK, Miroslav - BUJŇÁKOVÁ, Tatiana - DOMONKOS, Tomáš - HORVÁT, Peter - KÖNIG, Brian - LICHNER, Ivan - RADVANSKÝ, Marek. Trh práce na Slovensku: analýzy a prognózy = **Slovak labour market: analyses and prognoses**. Bratislava: Institute of Economic Research SAS, 2014. 222 p. ISBN 978-80-7144-232-5.

### 3. 26 citations in the period 2015-2020

ADMB01 CRESPO CUARESMA, Jesus - LÁBAJ, Martin - PRUŽINSKÝ, Patrik. **Prospective ageing and economic growth in Europe**. In **Journal of the economics of ageing**, 2014, vol. 3, p. 50-57. (2014 - Scopus, WOS). ISSN 2212-828X. Available on the Internet: <https://doi.org/10.1016/j.jeoa.2014.05.003>.

### 4. 24 citations in the period 2015-2020

FAI01 LUBYOVÁ, Martina - ŠTEFÁNIK, Miroslav. Trh práce na Slovensku 2016+ = **Labour market in Slovakia 2016+**; 1st ed. Bratislava: The Institute of Economic Research, SAS: The Institute of Economic Research, SAS: Faculty of Arts, Comenius University in Bratislava, 2015. 240 p. ISBN 978-80-7144-255-4.

### 5. 23 citations in the period 2015-2020

ADMB01 SZALAY, Tomáš - PAŽITNÝ, Peter - SZALAYOVÁ, Angelika - FRISOVÁ, Simona - MORVAY, Karol - PETROVIČ, Marek - GINNEKEN, Ewout van. **Slovakia health system review** [2011]. Editor Elias Mossialos. In *Health systems in transition*, 2011, vol. 13, no. 2, p. 1-174, xxiii. (2011 - Scopus, Medline). ISSN 1817-6119 (print version). Available on the Internet: <https://apps.who.int/iris/handle/10665/108584>.

### 6. 23 citations in the period 2015-2020

AAB01 BALOG, Miroslav - BALÁŽ, Vladimír - BRIGHTON, Denisa - BRZICA, Daneš - HLINKA, Martin - JECK, Tomáš - GAVOROVÁ, Svetlana - LÁBAJ, Martin - [A ĎALŠÍ ...]. **Inovatívne Slovensko - východiská a výzvy = The innovative Slovakia: Recourses and challenges**. Rec. Vladimír Švač. Bratislava: Slovak Innovation and Energy Agency, 2013. 157 p. Available on the Internet: [https://www.siea.sk/materials/files/inovacie/publikacie/publikacia\\_Inovativne\\_Slovensko\\_vychodiska\\_a\\_vyzvy\\_SIEA.pdf](https://www.siea.sk/materials/files/inovacie/publikacie/publikacia_Inovativne_Slovensko_vychodiska_a_vyzvy_SIEA.pdf). ISBN 978-80-88823-55-1.

### 7. 21 citations in the period 2015-2020

ADMB01 SOBEKOVÁ MAJKOVÁ, Monika - SOLÍK, Ján - SIPKO, Juraj. **The Analysis of Chosen Business Obstacles and Problems with the Financing of Young Entrepreneurs in Slovakia**. In *Economics and Sociology: journal of scientific papers*, 2014, vol. 7, no. 3, p. 90-103. (2013: 0.245 - SJR, Q2 - SJR). ISSN 2306-3459. Available on the Internet: <https://doi.org/10.14254/2071-789X.2014/7-3/7>.

### 8. 21 citations in the period 2015-2020

AAB01 MORVAY, Karol - FRANK, Karol - GABRIELOVÁ, Herta - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - ŠIKULOVÁ, Ivana. **Hospodársky vývoj Slovenska v roku 2013 a výhľad do roku 2015 = Economic development of Slovakia in 2013 and outlook up to 2015**. Bratislava: The Institute of Economic Research, SAS with publishing house VEDA, 2014. 128 p. English version available on the Internet: MORVAY, Karol et al. *Economic development of Slovakia in 2013 and outlook up to 2015*. Bratislava: Institute of economic research SAS, 2014. 128 p. ISSN 978-80-7144-227-1. [http://ekonom.sav.sk/uploads/journals/248\\_anglicky\\_preklad\\_hv\\_2013.pdf](http://ekonom.sav.sk/uploads/journals/248_anglicky_preklad_hv_2013.pdf); [http://ekonom.sav.sk/uploads/journals/245\\_hospodarsky\\_vyvoj\\_sr\\_v\\_roku\\_2013.pdf](http://ekonom.sav.sk/uploads/journals/245_hospodarsky_vyvoj_sr_v_roku_2013.pdf). ISBN 978-80-7144-224-0.

## 9. 20 citations in the period 2015-2020

ADCA01 LÁBAJ, Martin - CREPSO CUAREMA, Jesus - HAVETTOVÁ, Miroslava. **Income convergence prospects in Europe: assessing the role of human capital dynamics**. In Economic systems, 2013, vol. 37, no. 4, p. 493-507. (2012: 0.696 - SJR, karentované - CCC). (2013 - Current Contents, WOS, SCOPUS). ISSN 0939-3625. Available on the Internet: <https://doi.org/10.1016/j.ecosys.2013.02.004>.

## 10. 18 citations in the period 2015-2020

ADMA01 PAUHOFOVÁ, Iveta - STEHLÍKOVÁ, Beáta - KLJUČNIKOV, Aleksandr - ANDRONICEANU, Armenia. **Spatial and Sectoral Conditionality of the Average Monthly Nominal Wage in the Slovak Republic**. In Transformations in Business and Economics, 2018, vol. 17, no. 3, p. 42-59. (2017: 1.112 - IF, Q3 - JCR, 0.312 - SJR, Q2 - SJR). (2018 - WOS, SCOPUS). ISSN 1648-4460.

## 2.2.3. List of 10 most-cited publications published any time with the address of the institute, with number of citations obtained until 2020

### 1. 128 citations in the period 2020

AAA01 ASHEIM, Bjorn - COOKE, Phil - BLAŽEK, Jiří - ANNERSTEDT, Jan - BOSCHMA, Ron - BRZICA, Daneš - DAHLSTRAND LINDHOLM, Asa - DEL CASTILLO HERMOSA, Jamie - LAREDO, Philippe - MOULA, Marina - PICCALUGA, Andrea. **Constructing regional advantage: principles - perspectives - policies** [online]. Brussels: European commission, 2006. 95 p. Available on the Internet: <[http://www.dime-eu.org/files/active/0/regional\\_advantage\\_FINAL.pdf](http://www.dime-eu.org/files/active/0/regional_advantage_FINAL.pdf)>.

### 2. 94 citations in the period 2020

AAB01 ŠIKULA, Milan. Globalizácia - rázcestie civilizácie = **Globalization - the crossroads of civilization**. Bratislava: Sprint, 1999. 124 p. ISBN 80-88848-6.

### 3. 85 citations in the period 2020

AAB02 ŠIKULA, Milan - BUNČÁK, Ján - PEKNÍK, Miroslav - OKÁLI, Ivan - KLAS, Antonín - SPÁČILOVÁ, Ružena - BUČEK, Milan - STANĚK, Peter - BRZICA, Daneš - GABRIELOVÁ, Herta - IŠA, Jan - LÁBAJ, Martin - MORVAY, Karol - WORKIE TIRUNEH, Menbere. Dlhodobá vízia rozvoja slovenskej spoločnosti = **Long-term vision of the Slovak society development** 1st edition Bratislava: The Institute of Economic Research, SAS: Veda, 2008. 274 p. 2nd edition ŠIKULA, Milan. **Long-term vision of the Slovak society development**. Bratislava: The Institute of Economic Research, SAS, 2009. 274 p. ISBN 978-80-7144-171-7, (2nd edition) ISBN 978-80-7144-168-7.

### 4. 85 citations in the period 2020

AAB03 WORKIE TIRUNEH, Menbere - BRZICA, Daneš - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - IŠA, Jan - OBADI, Saleh Mothana - PAUHOFOVÁ, Iveta - STANĚK, Peter - ŠESTÁKOVÁ, Monika - ŠIKULA, Milan - ŠIKULOVÁ, Ivana. Vývoj a perspektívy svetovej ekonomiky [4]. Globálna finančná a hospodárska kríza: príčiny - náklady - východiská. = **The global financial and economic crisis: causes - costs - starting points**. Bratislava: The Institute of Economic Research, SAS, 2009. 280 p. ISBN 978-80-7144-175-5.

### 5. 70 citations in the period 2020

AAB04 STANĚK, Peter. Globálna kríza - hrozba alebo výzva? **Global crisis - threat or challenge?** Bratislava: Sprint dva, 2010. 219 p. ISBN 978-80-89393-24-4.

### 6. 62 citations in the period 2020

AAB05 OKÁLI, Ivan - ĎURAŠ, Ján - FRANK, Karol - GABRIELOVÁ, Herta - HLAVATÝ, Egon - IŠA, Jan - JURÍČKOVÁ, Vilma - KLAS, Antonín - KOTOV, Miroslav - MORVAY, Karol - STANĚK, Peter. Hospodárska politika Európskej únie a Slovenska v EÚ = **Economic policy of the European Union and Slovakia in the EU**. Bratislava: Institute of Slovak and World Economy, SAS, 2004. 352 p. ISBN 80-7144-140-6.

### 7. 55 citations in the period 2020

BAB01 BÁNESZ, Ladislav - BÁRTA, Juraj - BENŽA, Mojmír - BÓNA, Martin - BREZOVÁKOVÁ, Blanka - BUJNA, Jozef - ČIČAJ, Viliam - ČINČURA, Juraj - DANGL, Vojtech - DVOŘÁKOVÁ, Daniela - FRANCOVÁ, Zuzana - FRIMMOVÁ, Eva - FURMÁNEK, Václav - HOLEC, Roman - HROMADA, Jozef - CHEBEN, Ivan - KAMENICKÝ, Miroslav - KOHÚTOVÁ, Mária - KOLNÍK, Titus - KOMOROVSKÝ, Ján - KOPČAN, Vojtech - KOWALSKÁ, Eva - KRIŽANOVÁ, Eva - KURINCOVÁ,

Elena - LENGYELOVÁ, Tünde - LUKAČKA, Ján - MACHO, Peter - MRVA, Ivan - NEVIZÁNSKY, Gabriel - PAVÚK, Juraj - PETRÍK, Borislav - PIETA, Karol - PODRIMAVSKÝ, Milan - RAJTÁR, Ján - ROMSAUER, Peter - SEDLIAKOVÁ, Alžbeta - SEGEŠ, Vladimír - SOPKO, Július - STEINHÜBEL, Ján - ŠIŠKA, Stanislav - ŠKVARNA, Dušan - TKÁČIKOVÁ, Eva - TURČAN, Vladimír - VÁŠÁRYOVÁ, Zuzana - VELIAČIK, Ladislav - VLADÁR, Jozef - VOZÁR, Jozef - ZAJONC, Juraj - ZUBERCOVÁ, Magdaléna M. - ŽUDEL, Juraj. Kronika Slovenska. 1. Od najstarších čias do konca 19. storočia. = **Chronicle of Slovakia. 1. From the earliest times to the end of the 19th century.** Dušan Kováč a kol. Bratislava: Fortuna Print and Adox, 1998. 616 p.

#### 8. 53 citations in the period 2020

AAB01 ŠIKULA, Milan - STANĚK, Peter - KREJČÍ, Oskar - BERČÍK, Peter - BÁRÁNY, Eduard - NIKODÝM, Dušan - PEKNÍK, Miroslav - BAXA, Josef - BENŽA, Mojmír - BLAHA, Ľuboš - GAJDOŠÍKOVÁ, Ľudmila - HRONSKÝ, Marián - JASŠOVÁ, Eva - KMEŤ, Norbert - LAPŠANSKÝ, Lukáš - MAGUROVÁ, Zuzana - MARUŠIAK, Juraj - POLÁČKOVÁ, Zuzana - ŠMIHULA, Daniel - VOZÁR, Jozef - OKÁLI, Ivan - DOMONKOS, Tomáš - FRANK, Karol - GABRIELOVÁ, Herta - IŠA, Jan - LÁBAJ, Martin - MORVAY, Karol - PÁLENÍK, Viliam - PÁNIKOVÁ, Lucia - RENČKO, Juraj - ŠIKULOVÁ, Ivana - VOKOUN, Jaroslav - KLAS, Antonín - BALÁŽ, Vladimír - MAJKOVÁ, Eva - JURÍČKOVÁ, Vilma - KOŠTA, Ján - TIRPÁK, Ivan - URBÁNEK, Ján - BUČEK, Milan ... [et al.]. Stratégia rozvoja slovenskej spoločnosti **The Strategy of Development of Slovak Society.** Bratislava: The Institute of Economic Research, SAS with publishing house VEDA, 2010. 695 p. ISBN 978-80-7144-179-3.

#### 9. 52 citations in the period 2020

AAB02 WORKIE TIRUNEH, Menbere - BRZICA, Daneš - ĎURAS, Ján - OBADI, Saleh Mothana - VOKOUN, Jaroslav. Vplyv informačných technológií na ekonomický rast a zamestnanosť: teoretické a empirické pohľady: s aplikáciou na efekty komerčného modelu Microsoft Slovakia na slovenskú ekonomiku. = **The impact of information technology on economic growth and employment: theoretical and empirical views: with application to the effects of the Microsoft Slovakia business model on the Slovak economy.** Bratislava: Institute of Slovak and World Economy, SAS, 2004. 92 p. ISBN 80-7144-141-4.

#### 10. 52 citations in the period 2020

AAB03 WORKIE TIRUNEH, Menbere - BLAŠČÁK, Mário - BRZICA, Daneš - HOŠOFF, Boris - HVOZDÍKOVÁ, Veronika - IŠA, Jan - OBADI, Saleh Mothana - STANĚK, Peter - ŠESTÁKOVÁ, Monika - ŠIKULA, Milan - ŠIKULOVÁ, Ivana - VOKOUN, Jaroslav. Vývoj a perspektivy svetovej ekonomiky [1]. Globálna konkurencieschopnosť a energetická a demografická kríza. = **The Development and Perspective of the World Economy [1]. Global competitiveness and the energy and demographic crisis.** Bratislava: The Institute of Economic Research, SAS 2006. 302 p. ISBN 80-7144-152-X.

### 2.2.4. List of 10 most-cited publications published during the evaluation period (2016-2021) with the address of the Institute, with number of citations obtained until 2021

#### 1. 43 citations in the period 2016-2021

ADCA01 LYÓCSA, Štefan - BAUMÖHL, Eduard - VÝROST, Tomáš - MOLNÁR, Peter. **Fear of the coronavirus and the stock markets.** In Finance Research Letters, 2020, vol. 36, art. no. 101735. (2019: 3.527 - IF, Q1 - JCR, 0.999 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1544-6123. Available on the Internet: <https://doi.org/10.1016/j.frl.2020.101735>.

#### 2. 18 citations in the period 2016-2021

ADMA01 PAUHOFVÁ, Iveta - STEHLÍKOVÁ, Beáta - KLJUČNIKOV, Aleksandr - ANDRONICEANU, Armenia. **Spatial and Sectoral Conditionality of the Average Monthly Nominal Wage in the Slovak Republic.** In Transformations in Business and Economics, 2018, vol. 17, no. 3, p. 42-59. (2017: 1.112 - IF, Q3 - JCR, 0.312 - SJR, Q2 - SJR). (2018 - WOS, SCOPUS). ISSN 1648-4460.

#### 3. 17 citations in the period 2016-2021

ADDA01 OBADI, Saleh Mothana - KORČEK, Matej. **The "Revealed" Comparative Advantage and Competitiveness of the EU's International Trade vis à vis the USA.** In Ekonomický časopis, 2016, vol. 64, no. 5, p. 397-422. (2015: 0.606 - IF, Q3 - JCR, 0.450 - SJR, Q2 - SJR, karentované - CCC). (2016 - Current Contents, WOS, SCOPUS, EconLit). ISSN 0013-3035. VEGA No. 2/0005/16.

#### 4. 17 citations in the period 2016-2021

ADMA01 HUDCOVSKÝ, Martin - LÁBAJ, Martin - MORVAY, Karol. **Employment Growth and Labour Elasticity in V4 Countries: Structural Decomposition Analysis**. In Prague economic papers : A bimonthly journal of economic theory and policy, 2017, vol. 26, no. 4, p. 422-437. (2016: 0.710 - IF, Q3 - JCR, 0.296 - SJR, Q3 - SJR, karentované - CCC). (2017 - Current Contents, SCOPUS, WOS). ISSN 1210-0455. Available on the Internet: <https://doi.org/10.18267/j.pep.623>.

#### 5. 17 citations in the period 2016-2021

ADCA01 LYÓCSA, Štefan - MOLNÁR, Peter. **Stock market oscillations during the corona crash: the role of fear and uncertainty**. In Finance Research Letters, 2020, vol. 36, art. no. 101707. (2019: 3.527 - IF, Q1 - JCR, 0.999 - SJR, Q1 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 1544-6123. Available on the Internet: <https://doi.org/10.1016/j.frl.2020.101707>.

#### 6. 16 citations in the period 2016-2021

ADMB01 DOMONKOS, Tomáš - OSTRIHOŇ, Filip - ŠIKULOVÁ, Ivana - ŠIRAŇOVÁ, Mária. **Analysing the Relevance of the MIP Scoreboard's Indicators**. In National Institute Economic Review: Journal of the National Institute of Economic and Social Research, 2017, no. 239, p. R32-R52. (2016: 0.316 - SJR, Q2 - SJR). (2017 - WOS, SCOPUS). ISSN 0027-9501. Available on the Internet: <https://doi.org/10.1177/002795011723900112>.

#### 7. 15 citations in the period 2016-2021

FAI01 Martina Lubyová & Miroslav Štefánik et al. ; reviewers Lucia Fašungová, Mária Vojtková. **Labour market in Slovakia 2017+ = Trh práce na Slovensku 2017+**. 1. ed. Bratislava : Center of Social and Psychological Sciences of the Slovak Academy of Sciences : Institute of Economic Research of the Slovak Academy of Sciences: Faculty of Arts Comenius University in Bratislava, 2016. 226 p. ISBN 978-80-970850-4-9.

#### 8. 13 citations in the period 2016-2021

ADCA01 LYÓCSA, Štefan - MOLNÁR, Peter. Exploiting dependence: **Day-ahead volatility forecasting for crude oil and natural gas exchange-traded funds**. In Energy, 2018, vol. 155, p. 462-473. (2017: 4.968 - IF, Q1 - JCR, 1.990 - SJR, Q1 - SJR, karentované - CCC). (2018 - Current Contents). ISSN 0360-5442. Available on the Internet: <https://doi.org/10.1016/j.energy.2018.04.194>.

#### 9. 12 citations in the period 2016-2021

AAB01 MORVAY, Karol - FRANK, Karol - HUDCOVSKÝ, Martin - HVOZDÍKOVÁ, Veronika - JECK, Tomáš - ŠIKULOVÁ, Ivana. **Economic Development of Slovakia in 2015 and Outlook up to 2017**. 1 ed. Bratislava: Institute of economic research SAS, 2016. 134 p. Available on the Internet: <<http://ekonom.sav.sk/sk/publikacie/-p348>>. ISBN 978-80-7144-270-7.

#### 10. 12 citations in the period 2016-2021

ADFB01 JECK, Tomáš. Slovenská ekonomika a štvrtá priemyselná revolúcia: faktory a predpoklady = **Slovak Economy and the Fourth Industrial Revolution: Drivers and Determinants**. In Working papers, 2017, no. 99, p. 1-26. ISSN 1337-5598. Available on the Internet: <[http://www.ekonom.sav.sk/uploads/journals/373\\_wp\\_4\\_priemyselna\\_a\\_sk\\_final.pdf](http://www.ekonom.sav.sk/uploads/journals/373_wp_4_priemyselna_a_sk_final.pdf)>.

**2.2.5. List of most-cited authors from the Institute (at most 10 % of the research employees with university degree engaged in research projects) and their number of citations in the assessment period (2015–2020). The cited papers must bear the address of the institute**

Order	Author	Number of citations
Nr.	surname, first name	Total count
1	Morvay, Karol	227
2	Hvozdíková, Veronika	217
3	Brzica, Daneš	213
4	Štaněk, Peter	207
5	Šikulová, Ivana	206

- 2.2.6. List of most-cited authors from the Institute (at most 10 % of the research employees with university degree engaged in research projects) and their number of citations obtained until 2020. The cited papers must bear the address of the Institute**

Order	Author	Number of citations
Nr.	surname, first name	Total count
1	Staněk, Peter	1189
2	Brzica, Daneš	1002
3	Šikula, Milan	931
4	Morvay, Karol	832
5	Gabrielová, Herta	723

- 2.2.7. List of most-cited authors from the Institute (at most 10 % of the research employees with university degree engaged in research projects) and their number of citations obtained until 2021 of their papers published during the evaluation period (2016–2021). The cited papers must bear the address of the Institute**

Order	Author	Number of citations
Nr.	surname, first name	Total count
1	Morvay, Karol	193
2	Lábaj, Martin	181
3	Štefánik, Miroslav	181
4	Hvozdková, Veronika	174
5	Brzica, Daneš	166

### **2.3. Research status of the institute in international and national context**

- **International/European position of the institute**

- 2.3.1. List of the most important research activities demonstrating the international relevance of the research performed by the institute, incl. major projects (details of projects should be supplied under Indicator 2.4). Max. 10 items for institute with less than 50 average FTE researchers per year, max. 20 for institutes with 50 – 100 average FTE researchers per year and so on**

The international importance of IER SAS research can be documented by its participation in multiple international collaborative projects and activities funded by various financial schemes. We selected ten of them, demonstrating the variety of financial schemes, activities and topics sheltered by IER SAS:

#### **Activity 1: Activities under the H2020 Project FIRSTRUN - Fiscal Rules and Strategies under Externalities and Uncertainties**

The FIRSTRUN project was a Horizon 2020-funded multinational research project aimed to: i. investigate the need for fiscal policy coordination in the EU; ii. assess the coherence of the recent reforms in the economic governance framework; iii. identify reforms to fill possible gaps in the current EU governance framework.

The duration of the Project was 36 months, starting on March 1, 2015 and ending on February 28, 2018. Project id: 649261. The team of the IER SAS in this Project worked on the evaluation of the Macroeconomic Imbalance Procedure of the EU and on the national implementation of fiscal rules. The final outcomes of the project were presented in Brussels at the conference organized at the CEPS premises in February 2018 by IER SAS team members in the presence of relevant stakeholders (European Commission). Some of the most prominent scientific personalities in the field of international macroeconomics and macroeconomic policy were also invited to give key note speech, such as Paul de Grauwe (London School of Economics), Iain Begg (London School of Economics) or Daniel Gros (CEPS).

On top of the key research outputs presented in the form of working paper (Deliverable D2.5 - Analysing the Relevance and Predictive Power of the MIP Scoreboard's Indicators), the team published few research papers in international, highly visible journals, e.g.:

DOMONKOS, Tomáš - OSTRIHOŇ, Filip - ŠIKULOVÁ, Ivana - ŠIRAŇOVÁ, Mária. Analysing the Relevance of the MIP Scoreboard's Indicators. In National Institute Economic Review: Journal of the National Institute of Economic and Social Research, 2017, no. 239, p. R32-R52. (2016: 0.316 - SJR, Q2 - SJR). (2017 - WOS, SCOPUS). ISSN 0027-9501.

ŠIRAŇOVÁ, Mária - RADVANSKÝ, Marek. Performance of the Macroeconomic Imbalance Procedure in light of historical experience in the CEE region. In Journal of Economic Policy Reform, 2018, vol. 21, no. 4, p. 335-352.

For more information visit: [www.firstrun.eu](http://www.firstrun.eu).



## Activity 2: Activities under the ERASMUS+ project DISKOW - Discovering Job Knowledge through Web Analytics towards Facilitate Mobility of European Professionals and Refugees Career Integration

In the last few years, substantial efforts have been invested by governments, international organisations and other institutes to improve our understanding of the dynamics of the labour market to improve the setup of educational systems. Traditionally, to get more insight into labour demands or supply, researchers and policymakers have relied on interviews, trade publications, surveys, and vacancies. While these traditional data sources have some clear advantages, they are also characterised by limitations that can be addressed by using web-based data instead. The web is a gold mine for job knowledge discovery.

Under the DISKOW project a multidisciplinary team of IT, data and social scientists have explored the option of aggregating information from online job search data and processing it into a user interface tailored for low-skilled immigrants arriving in Italy. IER SAS researchers helped in designing the user-case scenario as well as the evaluation of the final IT tool with its user interface. The project was supported by the ERASMUS+ programme of the European Commission, facilitating the cooperation of researchers from Germany, Italy and Slovakia. Under the project, multiple dissemination activities were delivered, targeting the policymaking community as well as practitioners in employment services. DISKOW project was implemented for 36 months, between 2018-2021. Project publications are accepted or reviewed in international, high-impact, peer-reviewed journals, e.g.:

ŠTEFÁNIK, M. - LYÓCSA, Š. - BILKA, M. Using online job postings to predict key labour market indicators. Social Science Computer Review. May 2022. doi:10.1177/08944393221085705

KOŠŤÁLOVÁ, Z. - LYÓCSA, Š. - ŠTEFÁNIK, M.: Online job vacancy attractiveness: A tool to improve views, reactions and conversions. Electronic Commerce Research and Applications (in 2nd round of revision)

For more information visit: [www.diskow.eu](http://www.diskow.eu).



### Activity 3: **Activities under the INTERCEPT project (Norwegian Grants)**

Investments in the green economy are going to be the key drive of post-pandemic recovery and are set to radically change our economy and society. In order to ensure that such transformation is inclusive and sustainable, policymakers shall be able to deploy new solutions to increase participation at all levels, particularly of the most vulnerable. INTERCEPT delivers an innovative scheme in three countries (Malta, Lithuania, Italy), equipping 300 inactive NEETs aged between 25 and 29 to seize their training and employment opportunities linked to the Green Economy. Under the Project, an innovative activation programme will be developed featuring an outreach strategy, career counselling, tailored activation, training, and workplace exposure in the segment of green jobs. The programme will be designed building on the research about the specifics of the target group, and a meta-analysis of previously implemented active labour market policy (ALMP) practices. At the end of the intervention, participants are expected to access the labour market. Four out of the project partners are public employment services (MT, LT, IT and LU). The Project will allow them to explore the potential extension of their services, build new connections to employers in the dynamic segment of the green economy and enhance their competencies through international experience sharing and piloting. INTERCEPT will also engage employers to ensure consistency between labour force competencies and demand in the green economy. Employees of PES will be trained and, thus, better prepared to address the labour needs related to the green economy. The Project aims to mainstream the new approach into a structural measure to integrate NEETs in the green economy, also relying on the evaluation of piloted schemes. Finally, the Project activities are also going to be carried out in line with the highest standards of evidence-based policymaking applied by the European Commission, including evaluation of its outcomes. The Project has started in September 2021 and will be implemented for 30 months.

Participation in the INTERCEPT project is a result of long-lasting and well-established activities of the institute in the area of labour market developments and skills anticipation. INTERCEPT project delivers an innovative scheme in three countries (Malta, Lithuania, Italy) equipping 300 inactive NEETs aged between 25 and 29 to seize their training and employment opportunities linked to the Green Economy.

Activities that are covered by the IER SAS are related to providing expertise mainly in the analytical duties, delivering empirical and comparative research in describing the target group as well as successful policies targeting it. Institute also provide research related to the Slovak experience with target group and conduct the survey among employers about their attitudes towards Green Economy transition. Moreover, the role of IER SAS is in supporting and delivering the impact evaluation of the programme implemented under the project. As such, IER SAS will contribute in assessing the efficiency, effectiveness, (expected) impact, and sustainability of initiatives piloted as well as the innovativeness, and potential to the transferability and scalability of the piloted schemes.

Additionally, IER SAS will contribute by organizing a series of local initiatives which will target policy makers to facilitate the transferability and replication of the solution.

For more information visit: <https://interceptproject.eu/>.



#### **Activity 4: Activities under the CIRCMIGR - Improving circular migration between Belarus and Poland, Slovakia and Czechia**

The main aim of this Project is to examine the social and economic effects of circular migration between Belarus and Poland, Slovakia and Czechia. The Project's core question is how managing circular migration could, in the long-term, help to optimise labour resources in both countries of origin and destination countries while protecting migrants' rights. Migration flows between Belarus and Poland, Slovakia and Czechia include significant circular movement that is characterised by a repetitive legal back and forth mobility.

Data for the mentioned V4 states indicate that the number of Belarusian citizens granted various types of work permits has constantly been rising. Circular migration should be managed to optimise labour markets at both ends. It has been identified that circular migration from Belarus contributes to easing current labour shortages in selected V4 states, especially in the services sector and industry. To this end, concerns are raised around such issues as respect for migrants' social and labour rights and efficient labour matching. On the opposite end, little is known about the impact of circular migration to Poland, Slovakia and Czechia on the Belarusian labour market and economy (e.g. investments from remittances and savings). Globally, studies on the issue are fragmentary and inconsistent.

The cooperation in the project was a continuation of the cooperation that started in 2017 in the ENCON consortium (project ENCON - Enhancing Civil Society Organisations' Contribution to Evidence-Based Policy Making for Vulnerable Groups, described in point 2.9 of the questionnaire). Activities under those projects were conducted in close cooperation with CASE – Center for Social and Economic Research and focused on the Belarusian society and issues related to the migration from Belarus and easing the social state of vulnerable groups in Belarus. Both projects were targeting the current issues of the Belarusian society and helping to provide positive change related to them.

Activities conducted by the IER SAS in the CIRCMIGR project concentrated on providing relevant desk research with emphasis on circular immigration. Specifically, focus on Belarusian nationals and their general characteristics, including sectors/occupations in which they work, duration of stay was highlighted. Important part of research was related to macroeconomic situation, state of play regarding labour market and demographic situation & forecasts in hosting country. It was inevitable to also provide description of relevant labour market and migration policies, assessment of political recognition of the relevance of circular migration in existing migration strategies. Use of policy instruments such as BLAs and Circular Migration Schemes vs. facilitation of spontaneous migration was critically assessed. In the final stages of the project description of state of play regarding cooperation on labour/circular migration with Belarus, SWOT analysis and country recommendations were produced. To reach the relevant stakeholders in hosting countries, series of webinars were held.

The project was implemented between March 2020 and February 2021. For more information visit: <https://www.case-research.eu/en/circmigr-improving-circular-migration-between-belarus-and-poland-slovakia-and-czechia-101248>

#### **Activity 5: Modelling labour market development in the Czech Republic, Malta and North Macedonia**

IER SAS researchers have produced modelling predictions of the Slovak labour market before 2010, accumulating substantial expertise in this field. They could export their expertise abroad through their connection to professional networks (e.g. SkillsNet). Their comparative advantage is in designing modelling tools in the context of small countries. Skill needs predictions in terms of expansion and replacement demand for labour were, except Slovakia, delivered for North Macedonia, Malta, and the Czech Republic. In all three countries, tailored models were developed by the IER SAS researchers and estimated with national data. Furthermore, training in handling the modelling tools was delivered by the IER SAS researchers to employees of the receiving institution (either the Ministry of Labour or its underlying institution).

The most research-interesting model development issues were published in international impacted journals. For example, the methodology of desegregating national input-output tables to the regional level, was published in *Empirica* (Radvanský and Lichner, 2021). Our predictions show that modelling the development of replacement demand for labour becomes increasingly relevant in the light of population ageing observable in all European countries.

For more information, please, visit: <https://ekonom.sav.sk/sk/projekty/malta-mid-term-skills-&-occupational-forecasting-for-malta-p171>.

RADVANSKÝ, Marek - LICHNER, Ivan. (2021). An alternative approach to the construction of multi-regional input-output tables of the Czech Republic: application of the CHARM method. In *Empirica*, 2021, vol. 48, no. 4, pp. 1083-1111. (2020: 1.582 - IF, Q3 - JCR, 0.352 - SJR, Q2 - SJR, karentované - CCC). (2021 - Current Contents). ISSN 0340-8744. Available on internet: <https://doi.org/10.1007/s10663-020-09490-6>.

## Activity 6: Regular contribution to the Eastern Europe Consensus Forecasts

The Eastern Europe Consensus Forecasts (EECF) provides a monthly overview of updated forecasts for the two upcoming years for all Central and Eastern European countries. EECF is part of the Consensus Forecast group of journals covering all world regions. The EECF for Slovakia involves forecasts of 10 prominent independent institutions, three of which are from Slovakia. For more than 15 years, IER SAS has provided monthly updated model forecasts of 11 main and four complementary macroeconomic indicators. The country forecast also presents 6 forecasts of governmental and international institutions. This format allows to create a continuously updated consensus forecast as well as to compare views on macroeconomic fundamentals of individual countries in the region. The result is a forecast with higher accuracy compared to, for example, OECD, EC, and IMF forecasts. The use of the monthly periodicity allows, for example, to react more quickly from the perspective of the financial sector or the adjustment of the economic policy of the state.

Comparable expertise is also annually delivered under the SkillsNet expert network on skill needs forecasting, administrated by the Vocational European Centre for the Development of Vocational – CEDEFOP (an agency of the European Commission).

For more information, please, visit: <https://www.consensuseconomics.com/publications/eastern-europe-consensus-forecasts/>.

For more information, please, visit: <https://www.cedefop.europa.eu/en/networks/skillsnet>.

## Activity 7: EU-InGRID-2 Special Interest Group in (Dynamic Microsimulation)

IER SAS actively participated in the EU-wide research infrastructure project InGRID-2 (funded by the H2020 - project 730998). More specifically, in the “Special Interest Group on Dynamic Microsimulation Models (SIG) to investigate the inclusion challenge (with reference to LIAM2)” coordinated by the Luxembourg Institute of Social and Economic Research – LISER (LU). The objective of the SIG is “to reinforce the synergy between developers of dynamic microsimulation models aiming at analysing e.g. the long-term distributional effects of population ageing. Models will be compared (structure, methods implemented for addressing key difficulties) and outcomes analysed on a common basis”. One of the ambitions retained by the members of the SIG was to clarify and elaborate guidelines for the validation procedure for dynamic microsimulation models.

Whereas the use and importance of dynamic microsimulation models have expanded in recent years, there is yet a little consensus as to what is the set of procedures that need to be adopted to make those models credible; that is in a position to be called upon by experts, direct clients and stakeholders at large for policy assessment or advice on policy implementation.

This cooperation in SIG aims precisely to participate in paving the way in the short term for the progressive adoption of a more systematic approach to the design and implementation of validation strategies in the development of (dynamic) microsimulation models. It is combining evidence from the existing literature and best practices from members of the SIG. It is conceived as a tentative toolbox that might be progressively enriched by other modellers, even in rough terms, building on their own experience and documentation. Besides regular meetings, modellers work on documentation, reports and manual easing the Access to the available modelling tools.

LIÉGEOIS, P., BENJELLOUL, M., BOSCOLO, S., CALCAGNO, L., CONTI, R., DEKKERS, G., KUMP, N., LI, J., MAJCEN, B., MIKLOŠOVIČ, T., MOREIRA, A., SCHOCKAERT, I., ŠTEFÁNIK, M., TÓTH, K., VERGNAT, V., & ZHAN, P. (2021). Spotlight report on dynamic microsimulation, Deliverable 6.9, Leuven, InGRID-2 project 730998 – H2020.

ŠTEFÁNIK, M. & MIKLOŠOVIČ, T. (2020) Modelling foreign labour inflows using a dynamic microsimulation model of an ageing country - Slovakia. In International Journal of Microsimulation, vol. 13, no. 2, pp. 102-113. (2019: 0.213 - SJR, Q4 - SJR). (2020 - SCOPUS). ISSN 1747-5864.

For more information, please, visit: <https://www.inclusivegrowth.eu/special-interest-groups/sig---liser---17-18-june-2019>



## Activity 8: Cooperation with the Czech Technical University in Prague

Cooperation with the Czech Technical University in Prague (Czech Institute of Informatics, Robotics and Cybernetics) and Charles University in Prague (First Faculty of Medicine) on the research of the dynamic balance of the transforming society, which is characterised by the simultaneous operation of ongoing

processes in nature, technology, information and economic structures, took place under the VEGA project "Systemic implications of the 4th industrial revolution and adaptation processes of the information society (economic, environmental and cultural aspects)" and the VEGA project "Real convergence in the European Union: empirical evidence and implications". Joint research has enabled us to link knowledge interdisciplinary and draw attention to key contexts in the development of society, thus contributing to increased resilience of economic subjects, regions and the state to the challenges that are coming. In this interdisciplinary cooperation, IER SAS brings new insight into the field of energy transformation and network organisation of the society, as well as in the field of balanced development of economies and possibilities of integration in the future.

The results of the collaboration are the publications:

STANĚK, Peter - MAŘÍK, Vladimír - DOLIAK, Dušan - ONDROVIČ, Adrián. Fakty a mýty o spoločnosti 5.0 : zamyslenie sa nad budúcnosťou = [Facts and myths about the society 5.0]. Wolters Kluwer, 2019. 237 p. ISBN 978-80-571-0057-7; and STANĚK, Peter - HOŠOFF, Boris - SIPKO, Juraj - MAŘÍK, Vladimír - VRBA, Zdeněk. Spoločnosť budúcnosti I. : možnosti konvergencie a integrácie v budúcnosti = [The Society of the Future I.]. Wolters Kluwer SR s. r. o, 2021. 267 p. ISBN 978-80-571-0445-2.

### Activity 9: **International workshop on capital flight with relevant stakeholders**

In the period 2016-2019, IER SAS was involved in a national project APVV-15-0666 "Capital Flight and its Impact on the Slovak Economy". On the occasion of the completion of the Project, an international scientific workshop was organised, which took place on 18-19 November 2019 at the Congress Centre Smolenice of the Slovak Academy of Sciences. The intention of the final workshop was to confront the results achieved within the framework of the solved project with the wider scientific and professional public at home and abroad, especially relevant stakeholders in the field of economic policy; as well as to create a platform for the presentation of broader contexts in the areas touching on the given issue.

This international workshop achieved a distinct international quality, both of the topical issues discussed during the workshop sessions, but above all by the exceptional mix of actors present, including relevant stakeholders not only from the academic sector (Jarko Fidrmuc from Zeppelin University, Germany; Mikulas Luptacik from Wirtschaftsuniversität Wien, Austria; Roman Horvath and Jan Mares from Institute of Economic Studies of Charles University in Prague, Czechia) but also from the sector of policymaking bodies (Biswajit Banerjee and Martin Suster from National Bank of Slovakia, Martin Hodula from Czech National Bank, Peter Haiss from Central Bank of Austria).

In the context of follow-up activities, it can be stated that the scientific cooperation with several participants of the workshop has been successfully initiated. To name some examples, close cooperation with Roman Horvath resulted in a joint publication with Boris Fisera that was published as the World Bank Working Paper and commented on the World Bank blog (Fisera et al., 2019). Jarko Fidrmuc and Martin Hodula became members of the follow-up project APVV-19-0499 led by the key principal investigator Maria Siranova.

For more information, please, visit:

<https://ekonom.sav.sk/en/news/international-workshop-capital-flight-and-its-impact-on-the-slovak-economy>  
<https://blogs.worldbank.org/allaboutfinance/basel-iii-implementation-and-sme-financing-evidence-emerging-markets-and-developing>.

### Activity 10: **Co organisation of the 21st MMEI Conference 2021**

The series of International Conferences on Mathematical Methods in Economy and Industry (MMEI) was founded in 1973. It is organised in a rotating way by research institutions from the Czech Republic, Germany and Slovakia. It offers a fruitful combination of experienced keynote speakers and young talents. The Conference in 2021 was co-organised in cooperation with the Faculty of Mathematics, Physics and Informatics of the Comenius University in Bratislava at the Smolenice Castel. The Conference covered research papers mainly from the following areas: mathematical programming, convex optimisation, optimisation methods, stochastic optimisation, data envelopment analysis, economic models, pension systems, mathematical finance, statistics and simulations.

For more information, please, visit: <http://www.iam.fmph.uniba.sk/mmei2021/index.html>

### 2.3.2. List of international conferences (co)organised by the institute

Models and Methods for Analysing Regional and National Economic Policies	Klagenfurt	31.03.-31.03.2017
Medzinárodná vedecká konferencia pri príležitosti 60-teho výročia podpísania Rímskych zmlúv: Budúcnosť Európskej únie (International scientific conference on the occasion of the 60th anniversary of the signing of the Treaties of Rome: the future of the European Union)	Primaciálny palác, Bratislava	18.04.-18.04.2017
Pljusy i minusy upravljenija socialno-ekonomičeskim razvitiem regionov Slovakii	Republika Baškortostán, RF	25.05.-26.05.2017
The relationship between long-term unemployment and development of wages (example of Slovak regions)	Republika Baškortostán, RF	26.05.-27.05.2017
Pension – Ageing – Public Finances: Future Challenges and Opportunities	Ekonomická univerzita v Bratislave	12.09.-13.09.2017
Cooperation and development of regional HERMIN model for Cohesion policy interventions evaluation in Slovakia and Poland / Kooperácia pri tvorbe regionálneho modelu HERMIN na hodnotenie vplyvu kohéznej politiky v SR a PL	Bratislava	12.11.-15.11.2017
Globálne hodnotové reťazce: Implikácie pre Slovenskú republiku (Global Value Chains: Implications for the Slovak Republic)	Bratislava	18.12.-18.12.2018
The Project of the Century: ONE BELT, ONE ROAD	Bratislava	03.04.-03.04.2019
Capital Flight and its Impact on the Slovak Economy / Únik kapitálu a jeho dôsledky pre slovenskú ekonomiku	Smolenice	17.11.-20.11.2019
MMEI 2021 - Mathematical Methods in Economy and Industry	Smolenice	15.09.-19.09.2021

### 2.3.3. List of edited proceedings from international scientific conferences

Globálne existenciálne riziká 2020 : zborník z X. medzinárodnej vedeckej konferencie - 10. september 2020, Bratislava = **Global existential risks '2020. Proceedings of the 10th International Scientific Conference**, September 10, 2020, Bratislava. Eds. Miroslav Rusko - Ivan Klinec - Karol Nemoga. Bratislava: Strix, 2020. 275 s. ESE, 53. Available at internet: <<https://www.sszp.eu/?p=3030#respond>>. ISBN 978-80-973460-4-1.

Globálne existenciálne riziká 2019 : zborník z IX. medzinárodnej vedeckej konferencie, 2. december 2019, Bratislava = **Global existential risks '2019. Proceedings of the 9th International Scientific Conference**, December 2, 2019, Bratislava, Slovakia. Eds. Miroslav Rusko - Ivan Klinec - Karol Nemoga. Žilina : Strix, 2019. 274 s. ESE, 51. Available at internet: <<https://www.sszp.eu/?p=2914#respond>>. ISBN 978-80-89753-35-2.

Globálne existenciálne riziká 2016 : recenzovaný zborník príspevkov zo VI. medzinárodnej vedeckej konferencie, Bratislava 15.11.2016 = **Global existential risks '2016 : international scientific conference**. Eds. Miroslav Rusko - Ivan Klinec - Karol Nemoga. Žilina : Strix, 2016. 222 s. ESE, 32. Available at internet: <<https://www.sszp.eu/?p=1923>>. ISBN 978-80-89753-10-9.

**Mathematical Methods in Economy and Industry : 21st International Conference, Book of Abstracts and Conference Programme, September 15-19, 2021, Smolenice Castle, Slovakia**. Eds. Tomáš Domonkos, Miroslava Jánošová, Soňa Kilianová, Igor Melicherčík. Bratislava : Slovak Academy of Sciences, 2021. Available at internet: <<http://www.iam.fmph.uniba.sk/institute/conferences/mmei2021/abstracts.php>>. ISBN 978-80-7144-323-0.

### 2.3.4. List of journals edited/published by the institute and information on their indexing in WOS, SCOPUS, other database or no database, incl. impact factor and other metrics of journals in each year of the assessment period

#### Ekonomický časopis/Journal of Economics

The institute is publisher of international scientific journal entitled Ekonomický časopis. Journal is indexed in Social Sciences Citation Index - WOS, Current Contents/Social and Behavioural Sciences, Journal Citation Reports, SCOPUS, EconLit, Nordic list (Norwegian Register for Scientific Journals, Series and Publishers).

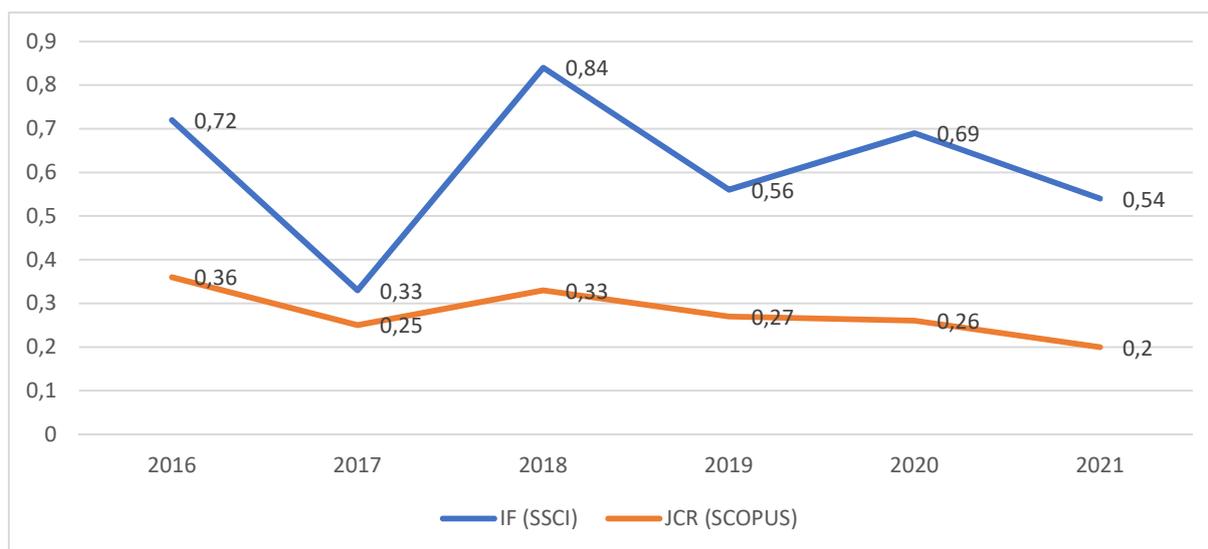
## Metrics of Ekonomicky casopis/Journal of Economics 2016 – 2021

Year	Clarivate: Journal Citation Report		SCOPUS	
	IF	Quartiles	SJR	Quartiles
2016	0,72	Q3	0,36	Q3
2017	0,33	Q4	0,25	Q3
2018	0,84	Q3	0,33	Q3
2019	0,56	Q4	0,27	Q3
2020	0,69	Q4	0,26	Q3
2021	0,544	Q4	0,20	Q4

Source: Scopus, Clarivate

Ekonomický časopis/Journal of Economics is a peer-refereed journal published since 1952. It brings out articles, discussions and analytical studies from the fields of macro and microeconomics theory, economic policies, quantitative analysis using econometric models, socio-economic forecasting, corporate management, analysis of the financial sector, cross-sectoral analysis, as well as of regional and social development. It deals with the issues of the process of globalisation, the European integration, including the emerging markets economies. Currently, preferred topics are: technological change (4th Industrial Revolution, digitization, robotics / automation and artificial intelligence), climate change and its impact on socio-economic development, long-term sustainability of socio-economic development in context of Agenda 2030, the process of globalization/deglobalization, global financial stability, macroeconomic development, monetary and fiscal policy, regional development, structural reforms, economic impacts caused by the COVID-19 pandemic as well as new methodological approaches in economic theory and their applications in economic policy.

### Metrics of Ekonomicky casopis/Journal of Economics



Source: Scopus, Clarivate

- **National position of the institute**

#### 2.3.5. List of selected activities of national importance

The Institute's research teams are particularly successful in obtaining **funding from national grant schemes** for the **research topics of national importance** (even if compared to other social sciences and humanities in the SAS). In the evaluated period, they have received several national grants (**12 research grants awarded by the grant agency APVV** and **20 research grants awarded by VEGA grant agency**) for the researches performed under the projects and follow-up projects, of which we select five (research topics), which we believe to be among **the most important in terms of national interests of the Slovak economy** and at the same time among the **topical issues that are being addressed not only by other (domestic and foreign) research organisations but also by policy makers** and other stakeholders. This list is supplemented by five additional activities of a non-project nature that illustrate the Institute's position as a **provider of platforms for knowledge exchange at the national level**, and its **involvement in networks of decision-making bodies and governmental and other organisations**.

## Activity 1: Research activity **Slovak regions and cohesion policy**

One of the nationally significant areas of research is focused on development of econometric model methodology for **regional evaluation of Cohesion policy impacts in Slovakia**. The aim of the first project was **to develop a model applicable to the Slovak conditions to assess the Cohesion policy effects** (within the methodology approved by the European Commission as appropriate for evaluation of Cohesion policy impacts in Members states). Apart from Slovakia there was only one country where regional version of HERMIN model was applied, Poland, and institution that applied this methodology was a partner organisation of the project (funded by APVV; 2016-17). The aim of the follow-up project (APVV; 2017-20) was to develop and apply state of the art quantitative tools to enhance decision making, analysing and forecasting of policy measures impact. The team also analysed measures to increase efficiency of regional and cohesion policy with respect to sustainable and inclusive growth. The HERMIN methodology approved by EC for CP evaluation and forecasting has never been applied in this form. Its application resulted in significant methodological shift on an international scale. The key innovation was, in addition to its regionalisation (NUTS 3), a more detailed view of sectoral development of labor market (NACE) with regard to education (ISCED) and occupation (ISCO). Additional benefit of the project (not yet applied in SR) was the estimation of regional prices development based on HBS panel data. The latest project (APVV; 2021-24) in this series is focused on the transformation of existing models to a more complex framework (new hybrid modular modelling system). A significant contribution of this project concerns forecasting a more detailed labour market development at occupation level and identifying labour market mismatch. At the same time, the modular framework will enable to flexibly adjust the model for practical application by combining and complementing individual modules. The practical part of the project will focus on defining appropriate scenarios and providing support with **real impacts on regional, labour market and educational policy preparation and implementation**. This project activity continues on the long-lasting IER SAS team cooperation with the analytical units of responsible ministries (Ministry of Education, Ministry of Labour and Ministry of Investments, Regional Development and Informatization). The proposed modelling system will represent **one of the most advanced impact-evaluation and forecasting instruments for regional and labour market policies in Central Europe**. The crucial advantage of this approach is its ability to provide, besides forecast of short-term investment effects, also structural forecast of regional labour market development that is necessary for **formulation of educational policies** – that makes the model **a unique and universal instrument**. A complementary strand of this research was also supported by a VEGA grant (2017-19; Modeling and analysis of options for reducing regional disparities in Slovakia through public policies).

## Activity 2: Research activity **Ageing consequences: pensions, labour force, labour migration**

A debate on the consequences of an ageing population has become another important European research area in recent years. There are several interlinked research strands in the Institute that address key areas of the consequences of ageing and may be grouped in two fields:

**1. Pensions** – The first project of this context was focused on **designing a sustainable and growth friendly pension system for an ageing Slovak economy** (funded by APVV; 2015-19). The main objective was to analyze the macroeconomic development in Slovakia under different settings of the Slovak pension system. The methodological innovation was the linking of macroeconomic and microsimulation models and generational accounting into one integrated framework. The project output may have both, national but also international relevance, especially for small open economies. The results laid the foundations for the next project called Transition from high to low dependence on public transfers in old age: can the multi-pillar pension system handle the negative consequences of population ageing? (APVV; 2020-24), which **empirically analyzes the Slovak case as it is in a high stage of transformation from a single pillar PAYG scheme to a multi-pillar system that combines a PAYG and several capitalized schemes**. The results will demonstrate what the role of public and private transfers is in financing future consumption throughout the lifecycle. Related research was funded by VEGA (2015-17), the project analysed the impact of European legislation in the field of taxes and pensions on Slovak economy with the emphasis on the sustainability of public finance.

**2. Labour market and migration** – The first (in the assessment period) project of this content addressed wider complex of issues related to employment development at the background of anticipated demographic and structural changes in Slovakia (funded by VEGA; 2017-20). Traditional problems of the Slovak labour market were confronted with population ageing and effects of this process on future changes in **labour supply and demand structure** (e.g. forecasts of graduates structure and employment by occupation). The follow-up project (VEGA; 2021-23) focuses on the impact of population aging on: **migration** (from and to Slovakia), **interregional migration within Slovakia, income and consumption inequalities and sources of international differences in structure of ageing household's consumption**. The methodological tool of national transfer accounts (NTAs) is being used to analyze possible measures to mitigate the effects of aging by defining alternative scenarios.

### Activity 3: Research activity **Socially relevant topics: labour market policies and income inequality**

Socially relevant research is another research focus important for national economic policy making.

1. Research team oriented specifically on **labour market policy** has been awarded 2 APVV grants during the evaluation period. The first project addressed social challenges related to the design of evidence-based labour market policies (APVV; 2015-18), the main goal was **to provide scientific evidence for labour market policy making in three areas: social assistance** (optimal setting of the minimum income guarantee programmes using a micro – simulation approach); **active labour market policy** (counterfactual impact evaluation of particular active labour market measures); **forecasting of development and structure of the Slovak labour market**. The project has been coordinated by the Centre of Social and Psychological Sciences, SAS. The follow-up project was aimed to support the creation of labour market policies and the adjustments of the tax-benefit system through the creation of relevant, scientific information (funded by APVV; 2018-21) and it combined three activities: the **processing of administrative data to produce ex-post evaluations of active labour market policy measures; modifications of the VZAM model**, developed at the Institute within previous APVV projects; **communication of specific requirements of the decision-making sphere**, along with possible development of methodological innovations.

2. The second research focus was related to the income aspects. The project **Social trap - costs and the way out** (APVV; 2016-20) analysed the consequences of a preference of short term individual benefits over long term or societal, threatening social peace. The main focus of this interdisciplinary and interdepartmental project was marginalized Roma communities. It was performed in cooperation with the Comenius University. **Income stratification and a perspective of polarization in Slovakia until 2030** was another nationally funded research (VEGA; 2015-18). Crisis after 2008 caused an increase in income inequalities also among regions of Slovakia. Long-term unemployment and high unemployment (that were factors for growth of poverty in an increasing number of districts and revealed the structural problems of the Slovak economy) invoked this research. **Increasing inequalities in income between rural areas and cities** accentuates the problem of national economic growth in rural areas. Analyses within the project were based on **a unique database of individual incomes of the Social Insurance Agency in Slovakia**.

### Activity 4: Research activity **Research and development, talents mobility**

Slovakia's prosperity will depend on the development and recovery of domestic knowledge potential. The project analyzing the **effectiveness of relations between NIS/RIS actors and internal adjustment of actors of the knowledge society** (VEGA; 2015-17) worked with the idea of the constructed regional advantage. The project team examined the processes related to changes in structure (different knowledge bases) and nature of actors, while it has focused on areas that, if not addressed, could limit the improvement of education, R&D and innovation. The following project (VEGA; 2018-20) has a narrower focus: **attractiveness of a country and large-scale cities in terms of mobility of talents**. Many ambitious and educated young people go abroad to gain further education, new knowledge, gain interesting jobs, and become acquainted with the world - attractive or better paid jobs are a component in a set of attractions for big agglomerations. From a national point of view, it is desirable that some people return to their homeland in the short or medium term. The **backward mobility term, introduced by the project team**, is an expression of this challenge. The project explained both theoretically and empirically the processes of mobility and backward mobility of talents in the context of big cities, with the case studies for two Slovak cities: Bratislava and Žilina.

### Activity 5: Research activity **External environment: recent changes that affect the Slovak economy**

Several researches were conducted in reaction to the recent developments in the external environment and their direct or indirect impact on the Slovak economy. They may be grouped in three research areas:

1. **Slovakia as a EU Member State and object of the Global trends**: These covered topics such as **Institutional competitiveness in the light of changing external environment** (VEGA; 2016-18; focused on external changes that fundamentally affects institutional competitiveness of the Slovak economy, as a combination of parallel processes of integration – e.g. Transatlantic trade and investment partnership and long-term "mega" trends – e.g. aging population, income polarization and debt, energy crisis); **Real convergence in the European union: empirical evidence and implications** (VEGA; 2019-22; the project is a continuation of the cooperation between the Institute and the Faculty of Law of the Comenius University in an effort to provide a systemic view of the issue of economic and social convergence using an interdisciplinary approach by analysing the institutional framework and empirical data) and **Assessment and prediction of changes in the Slovak economy in the context of (dis)integration tendencies in the EU** (VEGA; 2019-22; the project reflects a debate on the future shape of the EU as a factor that will influence the

direction of Slovakia's economic policy in the years to come, the aim is to assess and forecast changes in the Slovak economy and to formulate recommendations for economic policy). Another example of highly topical focus is project VEGA (2019-22) dealing with **Systemic implications of the fourth industrial revolution and adaptation processes of the information society** (economic, technological and cultural aspects of the implementation of **artificial intelligence and smart technologies** are being addressed; as well as necessary changes in society and the economy, such as digitisation, sharing, shrinking economy; the aim is to find out what is the level of plasticity of society, as a basic prerequisite for defining flexibility and adaptive processes so that society is able to use technology to its reasonable advantage).

**2. Energy policy and security:** The issue of energy policy, or more precisely, energy security, has increasingly gained ground whether it has been for the influence of **several oil shocks, Global Financial and Economic crisis, conflict between Russia and Ukraine**, or for the influence of heterogeneity and incoherence of the EU economic policies. Two projects dealing with the topic has been funded by VEGA agency: **Economic and geopolitical causalities of the changing global energy scene and their implications for the EU's position in the global economy** (2016-18; the project has focused mainly on the analysis of current trends in energy policies of the world's leading players on the energy scene as well as on prediction of their possible future developments and on attempt to quantify the evolution of energy security) and **Energy security and sustainable competitiveness: Implications for the European Union** (2019-22); the project deals not only with energy security but also creation of **Energy union**, which is getting to forefront of EU policies interests due to the influence of heterogeneity and asynchronicity of other EU economic policies).

**3. Financial and capital issues:** The first project in this area was funded by APVV and focused on **Capital flight and its impact on the Slovak economy** (2016-19; the project team **introduced new models that have not been used so far to estimate the size of capital flight** - input-output model, flow of funds analysis, and network analysis; as there was almost none such work applied to the advanced countries, and identified/quantified the macroeconomic factors that provoke capital flight, and estimated the macroeconomic consequences of capital flight for the Slovak economy). The topic brought to the Institute by this breakthrough project is further developed under the project (APVV; 2021-25) **Follow the money - Deciphering the link between shadow banking sector and the illicit financial flows**. The issue of a **systemic risk in financial sector** is addressed in another APVV funded project (2019-22) which uses new methods that integrate global and systematic approaches towards systemic risk and allows a comparison across countries, which allows testing how different policies and regulations influence the systemic risk. The objective is **to design an application** that allows to create and model a **complex network of linkages between financial institutions** in the world that will be used **to monitor systemic risk and fragility of the financial system**. Other research in similar context was funded by VEGA (2018-20) and focused on **prediction of economic and financial crisis in the wake of recession in the European Union**. The Macroeconomic Imbalance Procedure of the European Commission included under the umbrella of the European Semester is one of among the state-of-the art crisis signalling approaches in the World, however, it is kept very simple and allows large space for further development in crisis prediction in the EU, so that the project focused on delivering a procedure to provide further information for preventing occurrence of crises in the EU. The project on **redefining the view on macroeconomic imbalances under the European governance framework** (APVV; 2018-22) is conducted in cooperation with Comenius University in Bratislava and aims to expand the current state-of-the-art theoretical knowledge in crisis prediction under the scope of the Macroeconomic Imbalance Procedure (MIP).

#### Activity 6: Annual book series on **Global Economy** and prestigious events on the topic for **political audiences**

**A.** A series of an annual publication „**Development and Perspectives of the World Economy**“ is dedicated to the important economic and social trends in the world economy. Since 2016, publications have been devoted to various topics, as for example “**The fragile shift from risk to growth trajectory**” (2017), “**The slowdown due to the trade war**” (2019), “**Transformation during the SARS-CoV-2 coronavirus pandemic**” (2020) and “**Environmental and social conditions of the economy**” (2021). Dissemination of research output is carried out through scientific conferences organized with the collaboration of **the University of Economics in Bratislava**, attended by students and professors of the university, as well as invited guests from the circles of the professional public and state administration. This creates opportunities for direct acquaintance with current developments in the world economy as well as opportunities for live discussions with speakers. Among the co-authors of publications and speakers at the conferences, in addition to the research team of the Institute of Economic Research of the Slovak Academy of Sciences, were for example, the Rector of the University of Economics, prof. Rudolf Sivák, Vice-Rector for Science and Doctoral Studies Doc. Paula Puškárová, or State Secretary of the Ministry of Foreign Affairs and European Affairs of the Slovak Republic Ing. Ingrid Brock. To reach the largest possible audience, publications are distributed to libraries, faculties of economics and other relevant public

institutions in Slovakia. The annual book series serves as a promotional tool for the Institute and is also offered at other Institute's scientific events.

**B.** Research outputs in the field of global economy were presented to and discussed with a wider audience, including at prestigious events attended by the highest political representatives of the Slovak Republic and foreign countries. The events were organised by the Director of the Institute Juraj Sipko and were under the auspices of, or with the assistance of, Slovak governmental authorities or foreign representations. Examples of research topics presented to political leaders in this way include (both took place in the Hall of Mirrors in the Primate's Palace of Bratislava):

April 2017 - [The Future of the European Union](#) (International scientific conference on the occasion of the **60th anniversary of the signing of the Treaties of Rome**)

Invited to the conference were distinguished guests Luca JAVIER, President of Group III of the European Economic and Social Committee (a consultative body of the European Union); Ján FIGEL', EU Special Envoy for the Promotion of Freedom of Religion or Belief in the World; Vladimír ŠUCHA, Director General of the Joint Research Centre - JRC, European Commission; Ivan ŠRAMKO, President of the Council for Budgetary Responsibility of the SR. The conference was attended by **9 ambassadors, including 26 representatives of the diplomatic corps accredited in Slovakia**. In their speeches, the conference participants highlighted a number of problems faced by some European Union and euro area countries (the global financial crisis, the deep recession and deepening of the debt crisis, the divergence process, the growth of income inequality and the relatively high unemployment rate, especially among the young generation, macroeconomic external and internal imbalances, the relatively low level of investment, low labour productivity and the relative instability in the financial sector).

April 2019 - [The Project of the Century: ONE BELT, ONE ROAD](#) (OBOR; international conference organized in cooperation with the Embassy of the People's Republic of China)

A plenary speech was delivered by **H.E. Mr. LIN Lin, Ambassador of the People's Republic of China**, in which he stressed that OBOR, as an open platform for international cooperation aimed at common development and prosperity, is China's response to anti-globalisation sentiments, unilateralism and protectionism. **Mrs. Dana Meager, State Secretary of the Ministry of Finance**, presented the project and the process of negotiations on cooperation between the two economies, while Slovakia's location at the intersection of alliances is directly related to the issue of regaining the geopolitical position of Slovakia. Subsequent contributions covered the development of OBOR cooperation in the CEE region (Junchi Ma), Chinese and European rail freight (Jet Young), OBOR's critical points for the EU (Stefano Palmieri), the challenges of economic integration (Peter Havlik) as well as relevant issues of trade, financing and the role of the renminbi (Juraj Sipko).

#### Activity 7: **Creating a platform for the exchange of knowledge in the field of [statistics and methodology development](#)**

The Institute regularly organises two annual series of research events, the organisation of which it has taken over from the SŠDS Society:

**A.** The conference series [Views on the Slovak Economy](#) was initiated by the **Slovak Statistical and Demographic Society (SŠDS)** in cooperation with the **Statistical Office of the Slovak Republic** in 2001 as a discussion meeting of experts on economic analysis and forecasting. It is usually held at the end of April when due to the availability of macroeconomic data, macroeconomic forecasts are updated by all relevant institutions - the National Bank, the Ministry of Finance, INFOSTAT, the Institute of Economic Research of the Slovak Academy of Sciences and other. The first part of the discussion is devoted to the presentation of **the technical aspects of the applied models and the outcome of the forecasts** of the participating institutions. The second discussion topic is usually **a fundamental analytical issue related to the economic policy (impact) in Slovak conditions** (taxes, ageing, ESIF, etc.). The Institute of Economic Research of the Slovak Academy of Sciences has participated in the preparation of the conference since its inception and after 2017 has taken over its annual organisation. In 2021 was held its twentieth edition; while in 2020, due to the pandemic situation, the conference could not be organized. The papers discussed, including forecasts, are published in the form of peer-reviewed proceedings.

**B.** Second, based on the traditional cooperation with the Slovak Statistical and Demographic Society (SŠDS) and mutually well established and trustful relations, the SŠDS has transferred the responsibility of organizing the scientific conference series [EKOMSTAT](#) on the Institute. Since 2016, the organising committee of the conference is composed of the Institute's employees and the conference is held annually (with exception of first COVID-19 pandemic year). The conference series represents a platform for presenting and discussing the current developments in the fields of the **statistics and decision-making methods in research and development, results of mathematical and economic statistics, macroeconomic forecasts and data processing**.

## Activity 8: A forum on the home ground of the Institute: organising of a series of **Empirical Seminars** with domestic and international speakers

In order to spur the exchange of scientific ideas not only among the Institute's researchers but also with wider scientific community, the Institute organizes the series of Empirical Seminars. Per its objective, the Empirical Seminar should serve *as a bridge between IER SAS and other Slovak and international research institutions in terms of creating networks*. Secondly, it should serve as a *forum to disseminate both theoretical models and empirical strategies* so that IER SAS employees can learn from a wide-range of research and policy-related issues.

A new concept of Empirical Seminars initiated during COVID year 2021 has not already translated into substantially increased frequency of seminars but also delivered a wider variety in terms of covered topics as well as invited speakers. Given their affiliation, the list of invited speakers includes **CESEE countries (Hungary, Czechia, Serbia)** on top of other **institutions from Slovakia (Ministry of Finance of Slovakia; Matej Bel University in Banská Bystrica; University of Economics in Bratislava)**.

Many of the preliminary scientific ideas and concepts presented and discussed during seminars have been already published in form of scientific article or has led to a sustained cooperation between invited speaker and IER SAS employees (e.g. established cooperation within the APVV projects activities). List of participants is not limited to internal IER SAS staff, but thanks to the (current) hybrid form of the seminars the participation of external researchers or policy makers has been welcomed. This step has significantly increased the overall visibility of the IER SAS among the relevant stakeholders (e.g. Ministry of Finance, National Bank of Slovakia).

## Activity 9: **Regular Consultancy services to other relevant stakeholders**

All 4 departments of the Institute provide consultancy services according to the type of their expertise and research orientation. Examples include:

The Head of the 1<sup>st</sup> Department (prof. Staněk) provided his expert advices and consultations over the evaluation period to a number of state and public authorities, abroad: 1) as a member of the **Board of the Czech Minister for Regional Development for the Smart Cities concept**, he provided expertise on the digitization of the Czech public sector; 2) he provided consultancy within the European artificial intelligence project for **ČVUT Prague**; and domestically: 1) he served as **adviser to the Prime Minister of the Slovak Republic** on external economic relations; 2) provided expertise on digitization of public administration in the regional cross-section for **the Regional Commission at the Ministry of Economy of the Slovak Republic**; 3) provided expert papers on various aspects of globalization of the world economy for **the Embassy of the People's Republic of China in the SR**; 4) submitted expert studies for **the European Parliament** on topic strategic directions of the EU development and geopolitical direction and economic perspectives of the EU development.

The Head of the 2<sup>nd</sup> Department (Dr. Frank) is 1) a member of the **Working Group Partnership for Cohesion Policy**, which provides a platform for the exchange of practical experience and views of a wide range of experts in the field of the European Union's cohesion policy. Its main task is to draw on this experience in the preparation of the documents necessary for the use of European Union funds after 2020. At the same time, this platform provides a platform for discussion among its members on topical issues in the field of EU cohesion policy in the 2014-2020 programming period. 2) He is also an expert for **European Commission – Evaluation Helpdesk**. The aim of the activity is to provide the European Commission (DG Regional Policy and DG Employment) with an "Evaluation Helpdesk" that identifies and reviews the evaluations completed in Member States over the 2014-2020 period, the ex-post evaluations of the 2007-2013 programmes and the ex-ante evaluations relating to the 2021-2027 period; and provides support to Managing Authorities in designing and managing evaluations of Operational Programmes co-financed by the ERDF, Cohesion Fund and ESF.

The Head of the 3<sup>rd</sup> Department (Dr. Miklošovič) cooperates with **Educational Policy Institute (EPI) at The Ministry of Education, Science, Research and Sport of the Slovak Republic** in developing of microsimulation model. The model predicts number of students in regional educational system at district level and number of tertiary education students in the mid-term horizon. On the other hand, it predicts number of teachers who are to retire at various level of educational system. This modelling tool is **actively used in preparing educational policies at the EPI**. Further, the model is used for projecting education-related expenditures from the Recovery Plan. The second output of microsimulation model was created in cooperation with **the "Value for Money Unit" at the Ministry of Finance**. It focused on revision of public expenditures related to employment and wages in the public administration (ÚHP, 2020). Microsimulation was used to predict the effects of retirement of public employees, including identification of occupations that were most affected. Members of the team also contributed to the Revision of public expenditures on employment and social policy, also prepared by the "Value for Money Unit".

His team also serve as members of the working group at **the Institute of Environmental Policy at the Ministry of the Environment** in cooperation with **the World Bank**. The task of the working group consisted of the development and implementation of modelling environmental tools for Slovakia. Furthermore, team members provide advise on employment policy design, implementation and evaluation to the Ministry of Labour, Social Affairs and Family and the Central Office of Labour, Social Affairs and Family of the Slovak Republic.

The Head of the 4<sup>th</sup> Department (Dr. Širaňová) together with her team is engaged in several types of consultancy and expert activities. Due to the topics covered, staff of the 4<sup>th</sup> Department keeps a close professional ties to the **National Bank of Slovakia**, especially the **Research Department**. The close cooperation is either in form of visiting research positions, participation at research seminars or in form of invited talks. In addition, prof. Lyocsa was invited to become a visiting researcher at the Research Department where he worked on the development of a model predicting the Financial Cycle in the Slovakia. The resulting model had a decent predictive accuracy and it also identified several non-standard drivers of the financial cycle.

Department members also provide on-demand **training activities to domestic universities** (series of workshops on introduction to panel regressions and their use in research in international finance for the staff of **the Department of International Trade of the University of Economics** in Bratislava) or are involved in professional consultancy activities to **national professional association** (consultancy in the field of subsistence minimum for **Confederation of Trade Unions in Slovakia**). Among ministerial bodies, consultancy for **Ministry of Economy** was related to the policy evaluation analysis, where the goal was to assess how participation of enterprises in activities organized within the national project "Support of SME's internationalization" in year 2018 have potentially influenced financial indicators of participating enterprises in year 2019. The policy evaluation analysis was data driven, based on financial statements from supported enterprises as well as using over 700 thousand financial statements from non-supported enterprises.

On-demand expertise activities often results in cooperation between **private sector** and IER SAS researchers with a subsequent reflection of expertise gained through this 'field work' in scientific publication. Thanks to collaboration between the **e-recruitment company Profesia** and IER SAS the initial analysis of data provided by Profesia has been further developed into a scientific paper that looks at predictors of online job posting attractiveness with help of machine learning methods. On the basis of the assignment of **the Association of Supplementary Pension Companies (ADDS)** the analytical report prepared by the team of the IER SAS described the results of the analysis of the cost-effectiveness of the Slovak system of supplementary pension savings (Pillar III).

### Example of interdisciplinarity of the IER SAS research

Several quantitative methods employed with the aim to address various problems in basic research conducted at the Institute can also be successfully applied to issues tackled **by other scientific fields**. Consultancy services offered by researchers from the Institute due to their proficiency in application of econometrics for researchers active in **Medicine field** resulted in two scientific publications published in years 2020 and 2021. Both of the publications contributed to literature investigating possible indicators of **lung diseases by identifying specific markers that could potentially improve future diagnostics**. This spin-off research is all the more important as it shows that researchers from (at the first sight) distinct disciplines, such as Economics and Medicine, can successfully cooperate.

1. URBAN, J. - SUCHANKOVA, M. - GANOVSKÁ, M. - LEKSA, Vladimír - SÁNDOR, F. - TEDLOVÁ, E. - KÖNIG, Brian - BUCOVA, E. The role of CX3CL1 and ADAM17 in pathogenesis of diffuse parenchymal lung diseases. In *Diagnostics*, 2021, vol. 11, no. 6, art. no. 1074. (2020: 3.706 - IF, Q2 - JCR, 0.622 - SJR, Q3 - SJR, CCC). (2021 - Current Contents). ISSN 2075-4418.
2. SUCHANKOVA, M. - URBAN, J. - GANOVSKA, M. - TIBENSKA, E. - SZABOOVA, K. - TEDLOVA, E. - SANDOR, F. - MAJER, I. - BOBOVCAK, M. - JONNER, I. - KÖNIG, Brian - BUCOVA, M. TREM-1 and TREM-2 Expression on CD14(+) Cells in Bronchoalveolar Lavage Fluid in Pulmonary Sarcoidosis and Hypersensitivity Pneumonitis in the Context of T Cell Immune Response. In *Mediators of inflammation*, 2020, art. no. 9501617, 9 p. (2019: 3.758 - IF, Q2 - JCR, 1.204 - SJR, Q2 - SJR, CCC)

### Activity 10: Pro-bono activities to a wider professional and scientific community

As part of their referee responsibilities, several members of the Institute are often invited to serve as **external reviewers for some of the most prominent scientific journals** in the field of Economics (Economic Modelling, Economic Systems, European Journal of Operational Research, Journal of Economic Behavior & Organization) or Finance (Journal of Forecasting, International Review of Financial Analysis). List of other field journals for which Department members offer their expertise as referees include, e.g. Empirical Economics, Applied Economics, Emerging Markets Finance & Trade, Eastern European Economics, International Economics, Quarterly Review of Economics & Finance, Finance Research Letters.

Employees of the Institute are also valued members of a wider international scientific community. High expertise in their field of research is often recognized at prominent international scientific conferences of where they are regularly invited **to serve as session chairs** (ICMAIF 2021, Greece; World Finance Conference 2021, Norway), **key note speakers** (Central Bank of Bosnia and Hercegovina Annual Conference 2019; FIRSTRUN Final Conference, Brussels, 2018) or are invited to give **lecture at international research seminars** (Scientific Seminar of Department of Economic Sciences of the Gdansk University of Technology).

As recognition of their expertise in Finance field, prof. Lyocsa and Dr. Širaňová were invited to serve as members of **Jury of Experts for the Zlata minca (Gold Coin) award** in year 2020. The Gold Coin is an independent and transparent competition of financial products that has been held in Slovakia since 2005. The ranking in each category is decided by an expert jury consisting of economic journalists, representatives of universities, financial servers, financial intermediaries, professional associations, authors of books, creators of financial literacy projects, attorneys and actuaries (actuarial mathematicians). Together they form a very valuable and comprehensive team of financial experts (<http://www.zlataminca.sk/osutazi/>).

### **On-demand university teaching activities abroad and domestically**

The scholars affiliated with the Institute have been in high demand to deliver topics-oriented university courses not only locally, but also internationally. The most prominent examples include invited courses on corporate finance (Webster Vienna University, Austria), economics (University of Applied Sciences, Vienna, Austria), managerial economics (IMC University of Applied Sciences Krems, Austria) and financial management (Masaryk University in Brno, Czechia). Domestically, the researchers have been regularly invited to deliver semester courses on topics from field of international finance, financial management, finance or public choice theory at University of Economics in Bratislava, Comenius University in Bratislava, City University of Seattle in Bratislava or University of Presov, etc.

### **2.3.6. List of journals (published only in the Slovak language) edited/published by the institute and information on their indexing in WOS, SCOPUS, other database or no database, incl. impact factor and other metrics of journals in each year of the assessment period**

#### **Not included in databases**

The Institute publishes two serials with ISSN, “Working papers”, where the papers are published either in the Slovak or in the English language, and “Expertízne štúdie EÚ SAV”, published only in the Slovak language. Serials are not indexed.

**A.** A series “Working papers” comprises of a large number of scientific papers of the authors from and outside the Institute, published under the standard review procedure (at least two reviewers) in a competence of the Editorial Board of the Institute, listed as Working Papers ISSN 1337-5598 (28 scientific papers were published under this series in the assessment period 2016 – 2021).

**B.** “Expertízne štúdie EÚ SAV”, is a platform for publishing research results that have been produced as expert studies commissioned for the contractor and are published with the explicit consent of the contractor. The acceptance of the results/or the study itself by the contractor may be used instead of standard review procedure for a paper to be submitted to the Editorial Board. Over the evaluation period 2016 – 2021, two expert papers were published under this series; the series is listed under ISSN 1337-0812.

- **Position of individual researchers in the international context**

### **2.3.7. List of invited/keynote presentations at international conferences, as documented by programme or invitation letter**

#### **2016**

1. **DOVÁĽOVÁ, G. – HVOZDÍKOVÁ, V.:** Seniority principle in the European labour market with emphasis on Slovakia. 6th Global Academic meeting, Global Societal Challenges, Dubai, UAE, 1. – 2. 11. 2016.
2. **HOŠOFF, B. – ŠIKULOVÁ, I.:** Insights into differences in response of the USA and the Euro Area to the recent crisis, 6th Global Academic Meeting, GAM 2016 „Global Societal Challenges“, European Scientific Institute, 1. – 2. 11. 2016, Dubai, UAE.
3. **PAUHOFOVÁ, I.:** Adaptation Processes and Pulsing Economy. International scientific conference Paradigms of Change in the 21<sup>st</sup> century: Adaptation Processes and Pulsing Economy. Institute of

Economic Research SAS in collaboration with the Faculty of Economics and Entrepreneurship of the Pan-European University in Bratislava, the Faculty of Economics of the Technical University in Košice, the Faculty of Materials Science and Technology in Trnava of the Slovak University of Technology in Bratislava, the Institutum socialno-ekonomičeskych isledovanij Ufimskogo naučnogo centra Ruskoj akademii nauk and the Institutom ekonomiki i upravlenija Ufimskogo gosudarstvennogo aviacionnogo tehničeskogo universiteta, Ruská federácia, Smolence, 27. – 29. 6. 2016.

4. **PAUHOFOVÁ, I.** – BUKHARBAEVA L. – ISMAGILOVA L. – SÁKAL, P.: Formirovanije innovacionnogo lifta modernizacii ekonomiki v uslovijach transformacii principov korporativnoj socialnoj otvetstvennosti. Meždunarodnaja naučnaja škola – seminar imeni akademika S.S. Šatalina: Systemnoje modelirovanije socialno-ekonomičeskych procesov. Voronežskij gosudarstvennyj universitet, Otdelenije obščestvennyh nauk RAN, Severo-zapadnyj institut upravlenija, Laboratorija issledovanija socialnyh otnošenij i mnogoobrazija obščestva LISOMO), Rosijskaja ekonomičeskaja Petrohrad, RF 30. 9. – 06. 10. 2016.
5. **PAUHOFOVÁ, I.:** Adaptacionnye procesy i pul'sirujuščaja ekonomika. Meždunarodnaja naučnaja škola – seminar imeni akademika S.S. Šatalina: Systemnoje modelirovanije socialno-ekonomičeskych procesov. Voronežskij gosudarstvennyj universitet, Otdelenije obščestvennyh nauk RAN, Severo-zapadnyj institut upravlenija, Laboratorija issledovanija socialnyh otnošenij i mnogoobrazija obščestva LISOMO), Rosijskaja ekonomičeskaja Petrohrad, RF 30. 9. – 6. 10. 2016.
6. **PAUHOFOVÁ, I.:** Novaja paradigma v ekonomičeskoj teorii i praktike. Meždunarodnaja naučno-praktičeskaja konferencija Aktualnye voprosy ekonomičeskich nauk, Ufimskij gosudarstvennyj aviacionnyj tehničeskij universitet in collaboration with the Institute of Economic Research SAS, Ufa, Republika Baškortostán, RF 27. – 28. 6. 2016.
7. **PAUHOFOVÁ, I.:** Uslovija razvitija innovacionnoj dejatel'nosti v Slovaki v kontexte jejo členstva v Evropejskom sojuze. VI Vserosijskaja naučno-praktičeskaja konferencija s meždunarodnym učastijem: Inovacionnye tehnologii upravlenija socialno-ekonomičeskym razvitijem regionov, Institut socialno-ekonomičeskych isledovanij Ufimskogo naučnogo centra Ruskoj akademii nauk in collaboration with the Slovak Academy of Sciences, Ufa, Republika Baškortostán, RF, 26. – 27. 6. 2016.
8. **PAUHOFOVÁ, I.** – LÁSKA, I.: Profession-wise and Qualification-wise Disparities and the Forecasting of the Development on the Labour Market in the Slovak Republic. International scientific conference: 25 Years of Transformation of Centrally-Planned Economies: Experiences and Perspectives, Department of Social Development and Labour of the Faculty of National Economy at the University of Economics in Bratislava and TREFIMA Bratislava, spol. s r. o., Bratislava, 1. – 2. 12. 2016.
9. **SIPKO, J.:** Euro and Governmental Interest Policy – Blessing or Curse? New Tool of Monetary Policy: Negative Interest Rate? International conference. Berlin, 17. – 19. 3. 2016.
10. **SIPKO, J.:** Extraordinary Workers' Group Meeting. Economic and Social Divergences and Convergences – How does the Slovak Republic Perform? Presidency of the SR in the EU. 12. – 13. 10. 2016, Bratislava.
11. **STANĚK, P.:** Civilizational Break and the 4<sup>th</sup> Industrial Revolution. International scientific conference: Paradigms of Future Changes in the 21<sup>st</sup> Century. Adaptation Processes and Pulsing Economy. Institute of Economic Research SAS, Smolence, 27. – 29. 6. 2016.
12. **ŠIKULA, M.:** Crisis Processes of the EU as Part of the Continuing Global Crisis. Science-popularization seminar Brexit, Imigration, Financial Crisis: Can the EU Handle its Crisis? NEWTON College a.s., Brno, Česká republika, 11. 11. 2016.
13. **ŠIKULA, M.:** Global Crisis – Urgent Challenge for Moral Rebirth of the Civilization. 9<sup>th</sup> multidisciplinary scientific conference: Message of John Paul II. 2016. Catholic University in Ružomberok, Poprad, 21. – 22. 4. 2016.
14. **WORKIE, M. T.:** Competitiveness of the EU in the Area of Information and Communication Technologies: Implication for Investment. Investing in Europe – Current State and Perspectives, Faculty of Economics, Matej Bel University, Banská Bystrica, 8. 11. 2016.

## 2017

1. **BRZICA, D.:** Parallel phasing, clusters and attractors in regional development: conceptual and empirical issues. 20th TCI Global Conference 2017, The future of clusters through cross-country and cross-region collaboration, TCI a Bogota Chamber of Commerce, Bogota, Kolumbia, 6. – 12. 11. 2017.
2. **HVOZDÍKOVÁ, V.:** The system of alternative childcare, main statistics and related social system benefits/ Alternativnaja opeka nad deťmi v Slovaki. Vital Problems of Vulnerable Groups: the Belarusian and European Experience, CASE Belarus, AKT, Minsk, 28. 9. 2017.

3. **PAUHOFOVÁ, I.:** Pljusy i minusy upravljenija social'no-ekonomičeskim razvitijem regionov Slovakii. IX Vserossijskoj naučno-praktičeskoj konferencii s meždunarodnym učastijem Innovacionnyje tehnologii upravlenija social'no-ekonomičeskim razvitijem regionov Rossii, ISEI UNC Rossijskoj akademii nauk in collaboration with the Slovak Academy of Sciences, Ufa, Republika Baškortostán, RF, 25. – 26. 5. 2017.
4. **PAUHOFOVÁ, I.:** The relationship between long-term unemployment and development of wages (example of Slovak regions). VI Meždunarodnaja naučno-praktičeskaja konferencija Aktualnyje voprosy ekonomičeskoj teorii: razvitije i primenenije v praktike rossijskich predobrazovanij, UGATU in collaboration with the Institute of Economic Research SAS, Ufa, Republika Baškortostán, RF, 26. – 27. 5. 2017.
5. **SIPKO, J.:** Challenges for European Economic and Monetary Union. Science-popularization conference European Union in New Conditions: What Direction its Development Points to? NEWTON College, a. s., Praha, ČR, 7. 4. 2017.
6. **STANĚK, P.:** Fourth Industrial Revolution and the Global Economy: Expert Conference Fourth Industrial Revolution and its Impact on Czech Agriculture, Regional Agricultural Chamber of South-Moravian region in collaboration with the Centre for Prosperity, s.r.o., Rostěnice, ČR, 22. 2. 2017.

## 2018

1. **SIPKO J.:** 30 Years of Economic Development of the Slovak and Czech Economies. Medzinárodná konferencia: The 5th International Conference on Finance and Economics. Vietnam, Saigon, 21. 9. 2018.
2. **SIPKO J.:** The Present and the Future of the European Monetary Union. International conference: Innovation, Standardization and European Policies in the Context of Sustainable Goals. Banská Bystrica, 6. 11. 2018.
3. TURA-GAWRON, T. – **ŠIRAŇOVÁ, M.** – FLISIKOWSKI, K.: What are the drivers of consumer inflation expectations in European Union? The results of spatial panel regressions models, GUT Research Seminar, 11. 1. 2018.
4. **WORKIE, M. T.:** Does ICT Investment Foster Labor Productivity: A Vector Autoregressive Model“. International scientific conference: Innovation, Standardization and European Policies in the Context of Sustainable Goals, Faculty of Economics, Matej Bel University, Banská Bystrica, 6. 11. 2018.
5. **ŠTEFÁNIK, M.:** Net Effects of Slovak Active Labour Market Policy Programs – an overview of available evidence, 2018 Meeting of the Community of Practice on Counterfactual Impact Evaluation of ESF interventions (CoP-CIE-ESF), Joint Research Centre European Commission, Atény, 13. – 14. 6. 2018.

## 2019

1. **STANĚK, P.:** Surveyed Society and Information Security, conference Digital Revolution CZ – Human Versus Technology? Cybernetic Security – Hanging Lock or Firewall? CzechInno, Brno, ČR, 9. 4. 2019.
2. **STANĚK, P.:** Water as a Factor of Survival. 9<sup>th</sup> Conference of BKI Water & Drought, Praha, ČR, 20. 5. 2019.
3. **STANĚK, P.:** Informed or Surveyed Society? 9<sup>th</sup> Conference of BKI Information and Communication Security CZE, Praha, ČR, 21. 5. 2019.
4. **STANĚK, P.:** Complementary Transportation and Society 4.0, 8<sup>th</sup> Conference Trends in European Transportation Will Prague and Czech Republic Remain a Crossroad of Europe? Praha, ČR, 18. 6. 2019.
5. **SIPKO, J.:** International Position of the Euro. Economic and Social Development of Slovakia, Bratislava University of Economics and Management, Bratislava, 14. – 15. 11. 2019.
6. **SIPKO, J.:** Re-Making the World Trade Order; 11th International Symposium „Czech Foreign Policy: Fostering Multilateralism“, Institute of International Relations Prague, Praha, Česká republika, 23. – 24. 9. 2019.
7. **SIPKO, J.:** The financial sector'role for growth and jobs, NFU Conference, Finance for All, Copenhagen, Dánsko, 27.–28. 5. 2019.
8. **ŠIRAŇOVÁ, M. – RADVANSKÝ, M.:** Performance of the Macroeconomic Imbalance Procedure in light of historical experience in the CEE region, Conference Macroeconomic Imbalances and EU Convergence, Central Bank of Bosna and Hercegovina, Sarajevo, Bosna and Hercegovina, 7. 11. 2019.

## 2020

1. **FIŠERA, B.:** Are Exchange Rates Less Important for Trade in a More Globalized World? Evidence for the New EU Members. Scientific Seminar of Department of Economic Sciences (seminar), Gdansk University of Technology, Gdansk, 14.5.2020.
2. **PÁLENÍK, V.:** Education Taking into Account Demands of the Slovak Labour Market – Myth or Reality? Lecture, II. Slovak Forum, Rzeszów, Polsko, 5. February 2020.
3. **PÁLENÍK, V.:** Economic Measures for Decreasing CO2 Emissions. Round table on coal regions in transition CCMI CESE, 4.3.2020, Congress Room – Hotel Pod zámkom, Bojnice, Slovakia.
4. **SIPKO, J.:** Main Challenges of Central Eastern European Countries after the Pandemic Crisis. Modern Problems of economic Growth in the Countries of Central-Easter and South-Eastern Europe. Moskva. 26th Nov. 2020 (virtual conference).

## 2021

1. **PÁLENÍK, V.:** Autonomous vehicles and silver economy. Autonomous Vehicles Summit 2021, Panel: Autonomous Vehicles Impact, AutonomousVehiclesSummit Slovakia, online 9-10.12.2021
2. **SIPKO, J.:** Central Bank Digital Currencies. SILKROAD 4.0, Vienna, Austria, 6. 5. 2021.

### 2.3.8. List of researchers who served as members of the organising and/or programme committees

**DOMONKOS, T., JÁNOŠOVÁ, M.:** MMEI 2021 - Mathematical Methods in Economy and Industry. Smolenice, Slovak Republic, 15. - 19. 9. 2021.

**FIŠERA, B.:** 10th International Conference On Currency, Banking And International Finance: Overcoming Economic Inequalities – Role of European Financial Systems. Starý Smokovec, Slovak Republic, 4.-5. 4. 2019.

**KLINEC, I.:** Global Existential Risks 2016. Bratislava, Slovak Republic, 15. 11. 2016.

**KLINEC, I.:** Global Existential Risks 2017. Bratislava , Slovak Republic, 27. 11. 2017.

**KLINEC, I.:** Global Existential Risks 2018. Bratislava , Slovak Republic, 5. 12. 2018.

**KLINEC, I.:** Global Existential Risks 2019. Bratislava , Slovak Republic, 2. 12. 2019.

**MIKLOŠOVIČ, T., RADVANSKÝ, M.:** Kooperácia pri tvorbe regionálneho modelu HERMIN na hodnotenie vplyvu kohéznej politiky v SR a PL. Cooperation in the creation of the regional model HERMIN for the evaluation of the impact of cohesion policy in the Slovak Republic and Poland. Workshop, Bratislava, Slovak Republic, 12. – 15. 11. 2017.

**MORVAY, K.:** Economic and Social Policy: Economic and Social Challenges for European Economy. Čeladná, Czech Republic, 3.-5. 9. 2019.

**MORVAY, K.:** Economic and Social Policy. Trojanovice, Czech Republic, 1.-3. 9. 2020.

**PAUHOFOVÁ, I.:** Paradigmy zmien v 21. storočí: Adaptačné procesy a pulzujúca ekonomika, Paradigms of changes in the 21st century: Adaptation processes and a pulsating economy, Smolenice, Slovak Republic, 27.-29. 6. 2016.

**PAUHOFOVÁ, I., STANĚK, P.:** Paradigmy budúcich zmien v 21. storočí: Externé a interné determinanty polarizácie spoločnosti. Paradigms of future changes in the 21st century: External and internal determinants of the society polarization. Bratislava, Slovak Republic, 27. 10. 2017.

**PAUHOFOVÁ, I.:** X All-Russian scientific-practical conference with international participation "Innovative technologies of management of socio-economic development of regions". Republika Baškortostán, Russian Federation, 24.-25. 5. 2018.

**PAUHOFOVÁ, I.:** Pljusy i minusy upravljenija social'no-ekonomičeskim razvitiem regionov Slovakii. Pros and cons of the socio-economic development of the regions of Slovakia. Republika Baškortostán, Russian Federation, 25.-26. 5. 2017.

**PAUHOFOVÁ, I.:** The relationship between long-term unemployment and development of wages (example of Slovak regions). Republika Baškortostán, Russian Federation, 26. - 27. 5. 2017.

**PÁLENÍK, V., WORKIE, M. T.:** Pension - Ageing - Public Finances: Future challenges and opportunities, Bratislava, Slovak Republic, 12.-13. 9. 2017.

**RADVANSKÝ, M.:** Ecomod 2018 - International Conference on Economic Modeling. Venice, Italy, 4.-6. 6. 2018.

**RADVANSKÝ, M.:** Ecomod 2019 – International Conference on Economic Modeling. Ponta Delgada, Portugal, 10.-12. 7. 2019.

**RADVANSKÝ, M.:** Ecomod 2021 – International Conference on Economic Modeling and Data Science, Milan, Italy, 7.-9.4.2021

**SIPKO, J.:** Sociálny pilier členských štátov EÚ. Zasadnutie Európskeho hospodárskeho a sociálneho – diskusia k budúcemu sociálnemu pilieru. The social pillar of the EU Member States. Meeting of the European Economic and Social Committee - Discussion on the future social pillar. Bratislava, Slovak Republic, 2016.

**SIPKO, J.:** Digitalization and Smart Green (R)evolution. Bratislava, Slovak Republic, 15.-16. 11. 2018.

**SIPKO, J.:** Global Value Chains: Implications for Slovak Republic. Bratislava, Slovak Republic, 18. 12. 2018.

**SIPKO, J., WORKIE, M. T.:** Innovation, standardization and European policies in the context of sustainable goals. Banská Bystrica, Slovak Republic, 6. 11. 2018.

**SIPKO, J.:** One Belt, One Road. Bratislava, Slovak Republic, 3. 4. 2019.

**ŠIRAŇOVÁ, M.:** Capital Flight and Its Impact on the Slovak Economy. International Workshop APVV-15-0666, Smolenice, Slovak Republic, 17.-19. 11. 2019.

**WORKIE, M. T.:** Management Challenges in the 21st Century: 2017. Innovation and innovative processes in business, public administration and educational organizations. Trenčín, Slovak Republic, 27. 4. 2017.

### **2.3.9. List of researchers who received an international scientific award**

#### **2018**

##### **MENBERE WORKIE TIRUNEH**

*“Active member of the European Academy of Sciences and Arts, in field Humanities”*

Description: Academy members are elected for their outstanding achievements in science, arts, and governance. The festive Plenary Session, in which the new members were inaugurated, took place in Salzburg on March 3, 2018.

Awarded by: The European Academy of Sciences and Arts, Salzburg

##### **SIPKO JURAJ**

Best published paper:

*“Income Inequality: Social and Real Convergence in EU Member Countries.”*

Description: 5<sup>th</sup> International Conference on Finance and Economy, Vietnam, 20.-22. 9. 2018

Awarded by: Ton Duc Thang University, Vietnam

#### **2021**

##### **LYÓCSA ŠTEFAN**

The Prize of the Dean of the Faculty of Economics and Administration of the Masaryk University for Best Expert Paper

Description: 2<sup>nd</sup> place

Awarded by: Faculty of Economics and Administration of the Masaryk University

## STANĚK PETER

Visionaries 2020

Description: For Lifetime Achievement in the Field of Innovative Analyses and Forecasts of Socioeconomic Development

Awarded by: Association CzechInno

- **Position of individual researchers in the national context**

### 2.3.10. List of invited/keynote presentations at national conferences, as documented by programme or invitation letter

#### 2016

1. **STANĚK, P.:** Healthcare and Technology of the Future. 17<sup>th</sup> Pharmaceutical Congress 2016. Insufficiency of Drugs – Causes, Consequences, Solutions. UNIPHARMA – 1<sup>st</sup> Pharmaceutical Incorporated Company and PLUS Pharmacy Association in collaboration with Slovak Pharmacist Chamber, Regional Pharmacist Chamber Trenčín, and Regional Pharmacist Chamber Žilina, Žilina, 22. 10. 2016.
2. **STANĚK, P.:** Technologies and New Perspectives on Healthcare in the Future. 70<sup>th</sup> Surgical day of Kostlivý. Main topic “Surgery of the Future, Future of Surgery”. Comenius University in Bratislava and the Slovak Medical Society, Bratislava, 2. 12. 2016.
3. **ŠIRAŇOVÁ, M. – WORKIE, M. T.:** Determinants of Net Errors and Omissions: The Case of Slovakia. Invited lecture at the research seminar of the National Bank of Slovakia, organized by the Research Department, 6. 10. 2016.

#### 2017

1. **DOMONKOS, T.** et al.: Analysing the Relevance of the MIP Scoreboard's Indicators. Seminar at the Section of International Relations of the Ministry of Finance of the Slovak Republic, MF SR, Bratislava, Slovakia, 18. 9. 2017.
2. **PÁLENÍK, V.:** Opportunities for and Threats to Development of Horná Nitra Region. Panel discussion Quo vadis horná Nitra, Karol Galek, member of the Parliament of the Slovak Republic, Prievidza, 19. 6. 2017. <<https://www.youtube.com/watch?v=T2AygJ8GAVE>>.
3. **PÁLENÍK, V.:** Current Macroeconomic Development and the Ageing of Population. Conference Brussels Info Used Day 2017, CRIF – Slovak Credit Bureau, Bratislava, 17. 10. 2017. <<https://www.empa.sk/download-files/sk/cribis-viliam-palenik-2017-10.pdf>>.
4. **PÁLENÍK, V.:** Current Macroeconomic Development and the Carbon Tax. Conference Business Info Used Day 2017, CRIF – Slovak Credit Bureau, Bratislava, 18. 10. 2017. <<https://www.empa.sk/download-files/sk/crif-palenik-karbonova-dan-2017-10.pdf>>.
5. **PÁLENÍK, V.:** Alternatives to the reform of EU own resources in the context of Brexit. 11<sup>th</sup> international scientific conference: Economic and Monetary Policy in the Context of Current Development of European Integration Processes. Matej Bel University in Banská Bystrica, Economic Faculty, Department of Finance and Accounting, and the Representation of the European Commission in Slovakia, Banská Bystrica, 7. 11. 2017.
6. **PÁLENÍK, V.:** Are we doing better? (Comparison of the Convergence to Selected Regions of EU-15). 7<sup>th</sup> annual Memories of November 17<sup>th</sup>, 1989. Association of Christian Seniors SR, dist. Old town, Club of Police History, Bratislava, 17. 11. 2017.
7. **STANĚK, P.:** Fourth Industrial Revolution and the Global Economy: Expert Conference Fourth Industrial Revolution and its Impact on Slovak Agriculture, Centre for Prosperity, s.r.o., Agroinštitút Nitra, Nitra, 29. 3. 2017.
8. **STANĚK, P.:** Changes in the Natural Environment and the Health – the Present and the Future. Expert Conference Preventive Medicine IV., Faculty of Medicine of the Slovak Medical University in Bratislava, Bratislava, 10. 5. 2017.
9. **STANĚK, P.:** Society 5.0 and the Phenomenon of Consumption Optimisation. Conference INTRACO Special 2017, 18<sup>th</sup> conference on trade and marketing, INTRACO Special, Bratislava, 17. 10. 2017.
10. **STANĚK, P.:** New Technologies and the Future of Surgery (Information Society). 71<sup>st</sup> Surgical day of Kostlivý and XXI. congress of the Slovak Medical Society Complications in Surgery, Comenius University in Bratislava and the Slovak Medical Society, Bratislava, 1. 12. 2017.

11. **WORKIE TIRUNEH, M.:** Estimating the Optimal Growth-Maximizing Public Debt Threshold with Interaction Terms. International Scientific Conference, ETAP 2017, Economic Theory and Practice, keynote speaker, Matej Bel University in Banská Bystrica, Banská Bystrica, 4. 10. 2017.

## 2018

1. **DUJAVA, D.:** The Causes behind the Lagging of the New EU Member States and Implications for the Convergence in Economic Performance. Ministry of Finance of the Slovak Republic, Section of International Relations, 27. 11. 2018.
2. **SIPKO J.:** The Development of Slovak Economy after the Year 1989. Path of Slovakia to Establishing an Independent State in Year 1993, Institute of Political Sciences SAS, 13. – 14. 11. 2018.
3. **SIPKO J.:** European Monetary Union and Reforms in the Making. Current Issues of the Development in European Union, Faculty of Economics and Management of the Slovak University of Agriculture in Nitra, Nitra, 22. 11. 2018.
4. **SIPKO J.:** Risks in Development of World Trade, Slovak Trade and Industrial Chamber, Bratislava, 29. 11. 2018.
5. **STANĚK, P.:** Architecture of Thought and the Future of Human Society. Expert conference Preventive Medicine VI. Slovak Medicine Chamber, Physician Ltd. and the Physician Foundation, Faculty of Medicine of the Slovak Medical University in Bratislava, Centre for Micro-invasive surgery, hepatology, and preventive medicine, Bratislava, 15. 2. 2018.
6. **STANĚK, P.:** The Position of the Human in Robotised Society and the Changes in Society's Infrastructure. Conference 12<sup>th</sup> Logistic Forum LOG-IN. Log-in SK, Bratislava, 19. 4. 2018.
7. **STANĚK, P.:** Society 5.0 and the Healthcare of the Future. 72<sup>nd</sup> Surgical day of Kostlivý Current Trends in the Surgery of Gastrointestinal Tract. Comenius University in Bratislava, Slovak Medical Chamber, and Slovak Surgical Society, Bratislava, 7. 12. 2018.
8. **PÁLENÍK, V.:** Mortgage Financing in the Context of the Current Macroeconomic Development. XI. Mortgage Seminar. Finportal Inc., Hotel Roca, Košice, 13. 3. 2018.
9. **PÁLENÍK, V.:** Banking and the Financial Market. Office of the SAS Super-School of Petržalka, 9<sup>th</sup> grade Elementary schools of the dist. BA- Petržalka, 22. 5. 2018.
10. **PÁLENÍK, V.:** Silver Economy v. Silver Employees. Conference 50+, Age Management Balancing Civic Association, Technopol, Bratislava, 13. 6. 2018.
11. **PÁLENÍK, V.:** Healthcare in the Context of the Silver Economy. Techsummit' Hotel Crowne Plaza, Bratislava, 18. – 7. 6. 2018.
12. **PÁLENÍK, V.:** Recent Macroeconomic Development of the SR and its Impact on Business. Business Info User Day 2018, CRIBIS, Bratislava, 16. 10. 2018.
13. **PÁLENÍK, V.:** Recent Macroeconomic Development and the Potential of Another Crisis. Business Info User Day 2018, CRIBIS, Bratislava, 17. 10. 2018.
14. **SIPKO, J.:** The Future of The European Union. 215<sup>th</sup> meeting of the International Club of the SR, Bratislava, 28. 6. 2018.

## 2019

1. **PÁLENÍK, V.:** Long-term Care as a Part of the Silver Economy – Risks and Examples of Solutions. Statistical Days in Nitra, Slovak Statistical and Demographic Society, Constantine the Philosopher University, Statistical Office of the Slovak Republic, Constantine the Philosopher University in Nitra, 4. 4. 2019
2. **STANĚK, P.:** Personalised and Holistic Medicine – Information Model of Human Body, 73<sup>rd</sup> Surgical day of Kostlivý Tradition and Innovation in Surgery, Comenius University in Bratislava and Slovak Surgical Society, Bratislava, 6. 12. 2019.

## 2020

1. **SIPKO, J.:** Covid-19 and its Impact on the Economy of countries. Economic Club. Pallfy's Palace, 25. 6. 2020, Bratislava.

## 2021

1. **OBADI, S. M.:** Position of the RF as the Strategic Partner of Europe in the Area of Energy. Today's Challenges in the Relations of Europe and Russia, Institute ASA (Analyses – Strategies – Alternatives) Online conference, 28. 10. 2021.
2. **SIPKO, J.:** Post-Pandemic Situation in the States of European Union. International Club of the SR, Bratislava, 9. 11. 2021.

### 2.3.11. List of researchers who served as members of organising and programme committees of national conferences

**HOŠOFF, B.:** Digitalizácia, zmeny vonkajšieho prostredia a spoločnosť budúcnosti, Digitization, changes in the external environment and the society of the future. Bratislava, 7. 12. 2018.

**LICHNER, I., RADVANSKÝ, M.:** EKOMSTAT 2016. Trenčianske Teplice, Slovak Republic, 29. 5. - 2. 6. 2016.

**LICHNER, I., MIKLOŠOVIČ, T., RADVANSKÝ, M.:** EKOMSTAT 2017, Trenčianske Teplice, Slovak Republic, 28. 5. – 1. 6. 2017.

**LICHNER, I., RADVANSKÝ, M.:** EKOMSTAT 2018, Trenčianske Teplice, Slovak Republic, 3. - 7. 6. 2018.

**LICHNER, I., RADVANSKÝ, M.:** EKOMSTAT 2019, Trenčianske Teplice, Slovak Republic, 2. - 5. 6. 2019.

**LICHNER, I., RADVANSKÝ, M.:** EKOMSTAT 2021, online, 31. 5. 2021.

**OBADI, S. M.:** Vývoj a perspektívy svetovej ekonomiky: Vysoké riziká a väčšie neistoty, The development and perspectives of the world economy: high risks and larged uncertainties. Bratislava, Slovak Republic, 24. 11. 2016.

**OBADI, S. M.:** Vývoj a perspektívy svetovej ekonomiky: Posun z oblasti rizika do rastovej trajektórie. The development and perspectives of the world economy : shift from areas of risk to growth trajectory Bratislava, Slovak Republic, 23. 11. 2017.

**OBADI, S. M.:** Vývoj a perspektívy svetovej ekonomiky: Pozitívny výhľad a hroziaca obchodná vojna. The development and perspectives of the world economy: positive economic outlook and impending trade war. Bratislava, Slovak Republic, 29. 11. 2018.

**OBADI, S. M.:** Vývoj a perspektívy svetovej ekonomiky: Spomalenie rastu vplyvom obchodnej vojny. The development and perspectives of the world economy: growth slowdown due to trade tensions. Bratislava, Slovak Republic, 27. 11. 2019.

**PÁLENÍK, V.:** Views on the Slovak economy 2016. Bratislava, 4. 4. 2016.

**PÁLENÍK, V.:** Pohľady na ekonomiku Slovenska 2017. Views on the Slovak economy 2017. Bratislava, Slovak Republic, 25. 4. 2017.

**PÁLENÍK, V.:** Trojkonferencia k 50. výročiu založenia Slovenskej štatistickej a demografickej spoločnosti. Three conferences on the 50th anniversary of the founding of the Slovak statistical and demographic society. Častá - Papiernička, Slovak Republic, 18. - 20. 6. 2018.

**PÁLENÍK, V.:** Pohľady na ekonomiku Slovenska 2019, Starnutie obyvateľstva na Slovensku a výzvy pre náš dôchodkový systém. Views on the Slovak economy 2019 : The aging of the population in Slovakia and the challenges for our pension system. Bratislava, Slovak Republic, 25. 4. 2019.

**ŠTEFÁNIK, M.:** Trh práce na Slovensku 2019+. Labor market in Slovakia 2019+. Bratislava, 6. 12. 2018.

## 2.3.12. List of researchers who received a national scientific award

### 2016

#### Awards of the SAS

##### **OSTRIHOŇ FILIP**

Scholarship of Štefan Schwarz Support Fund

Description: A scholarship of the Štefan Schwarz Support Fund aimed to create the postdoctoral positions in the SAS was granted from May 1<sup>st</sup> 2016.

Awarded by: Board of the SAS for Education and PhD. Studies

#### Other domestic awards

##### **TOMÁŠ DOMONKOS**

The Prize of the Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals for co-authored (König, B) paper "[Job creation by direct financial subsidies in Slovak Republic - a cost-benefit analysis](#)"

Awarded by: Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

##### **TOMÁŠ DOMONKOS**

The Prize of the Rector of the University of Economics in Bratislava

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals for co-authored (König, B) paper "[Job creation by direct financial subsidies in Slovak Republic - a cost-benefit analysis](#)"

Awarded by: Rector of the University of Economics in Bratislava

##### **BRIAN KÖNIG**

The Prize of the Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals for co-authored (Domonkos, T) paper "[Job creation by direct financial subsidies in Slovak Republic - a cost-benefit analysis](#)"

Awarded by: Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

##### **BRIAN KÖNIG**

The Prize of the Rector of the University of Economics in Bratislava

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals for co-authored (Domonkos, T) paper "[Job creation by direct financial subsidies in Slovak Republic - a cost-benefit analysis](#)"

Awarded by: Rector of the University of Economics in Bratislava

##### **OSTRIHOŇ FILIP**

The Prize of the Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

Description: Awarded for the publication activity in the category scientific papers in foreign CC journals for co-authored (Ivaničová, Z) paper "[Production \(Non\)Homogeneity across Slovak Regions](#)"

Awarded by: Dean of the Faculty of Business Informatics at the University of Economics in Bratislava

### 2017

#### Awards of the SAS

##### **DUJAVA DANIEL**

First prize in the SAS under 35 Young Researchers' Competition

Description: Awarded for the publication "[Economic Crises and Economic Science](#)".

Awarded by: SAS

#### Other domestic awards

##### **GARDOŇOVÁ KRISTÍNA**

Student personality of Slovakia

Description: Student personality of Slovakia for academic year 2016/ 2017 is a national completion of young talented people, students of first, second, and third degree of university studies. The aim of the competition

is to highlight young Slovak personalities across colleges in Slovakia, their talent, as well as their ambitiousness and success, introduce them wider public and give them the opportunity to find positions domestically and abroad. In the category of Economics the award was granted to Kristína Gardoňová, PhD., M.A., a student of the Faculty of National Economy at the University of Economics in Bratislava.  
Awarded by: University of Economics in Bratislava

#### **KORČEK MATEJ**

The Prize of the University of Economics in Bratislava for Exception Publication Outputs

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals

Awarded by: Rector of the University of Economics in Bratislava

#### **OBADI SALEH MOTHANA**

The Prize of the Rector of the University of Economics in Bratislava for Publication Activity

Description: Awarded for the publication activity in the category scientific papers in domestic CC journals

Awarded by: Rector of the University of Economics in Bratislava

### **2018**

#### **Other domestic awards**

#### **SIPKO JURAJ**

Premium for scientific citations in a three-year period

Awarded by: Literary Fund

### **2019**

#### **Other domestic awards**

#### **ŠIRAŇOVÁ MÁRIA**

The Prize of the University of Economics in Bratislava for Publication Activity

Description: The Prize of the University of Economics in Bratislava for the Best Scientific Paper Published in 2018 awarded for co-authored (Horvath, R., Kotlebova, J.) paper *"Interest Rate Pass-Through in the Euro Area: Financial Fragmentation, Balance Sheet Policies and Negative Rates"*

Awarded by: University of Economics in Bratislava

### **2020**

#### **Awards of the SAS**

#### **ŠIRAŇOVÁ MÁRIA**

First prize in the SAS under 35 Young Researchers' Competition

Description: First prize awarded within the 3<sup>rd</sup> department of sciences for collection of scientific papers on the topic *"Macroeconomic Imbalance Procedure and the Issue of Capital Flight"*.

Awarded by: SAS

#### **Other domestic awards**

#### **FIŠERA BORIS**

Student personality of Slovakia, academic year 2019/2020

Description: Laurite in the category Economics

Awarded by: Junior Chamber International – Slovakia

#### **ŠIRAŇOVÁ MÁRIA**

The Prize of the University of Economics in Bratislava for Publication Activity

Description: The Prize of the University of Economics in Bratislava for the Best Scientific Paper Published in 2019 awarded for co-authored (Némethová, V., Šipikal, M) paper *"Public support for firms in lagging regions - Evaluation of innovation subsidy in Slovakia. Science and Public Policy, 46(2), 173-183."*

Awarded by: University of Economics in Bratislava

## 2021

### Other domestic awards

#### FIŠERA BORIS

The Prize of the Governor of the National Bank of Slovakia

Description: Awarded for the dissertation *“Managed Devaluations/Depreciations as a Tool of Economic Recovery”*.

Awarded by: National Bank of Slovakia

#### HOJDAN DÁVID

Best paper award – EDAMBA 2021

Description: Awarded for the best paper of the conference *“24th International Scientific Conference for Doctoral Students and Post-Doctoral Scholars – EDAMBA 2021”* in the section *“From Better Economics to Better Economy”*. Name of the paper: *“Impact of Public Debt on Long-Term Interest rates”*.

Awarded by: University of Economics in Bratislava

#### LYÓCSA ŠTEFAN

University of Presov Prize for Significant Contribution in the Field of Science and Education

Description: Bronze medal

Awarded by: Rector of the University of Presov

## 2.4. Research grants and other funding resources

(List type of project, title, grant number, duration, total funding and funding for the institute, responsible person in the institute and his/her status in the project, e.g. coordinator “C”, work package leader “W”, investigator “I”. Add information on the projects which are interdisciplinary, and also on the joint projects with several participating SAS institutes)

- International projects and funding

### 2.4.1 List of major projects of Framework Programmes of the EU (which pillar), NATO, COST, etc.

*Add information on your activities in international networks*

No.	Type of project	Project title	Grant number	Duration	Total funding	Funding for the institute	Responsible person / Status in the project	Coordinating institute/Consortium members
1.	H2020	NEUJOBS - Employment 2025: How Will Multiple Transitions Affects the European Labour Market	ID: 266833, FP7-SSH-2010-1,	02/2011 - 01/2016	7 902 328 €	149 653 €	Viliam Páleník/ W	Centre for European Policy Studies, Brusel
2.	H2020	Towards a New Growth Path: Welfare, Wealth and Work for Europe (WWWforEurope)	ID: 290647, FP7-SSH.2011.1.2-1-1,	1.4.2012 - 31.3.2016	7 999 858 €	29 444 €	Ivana Šikulová/ W	WIFO
3.	H2020	FIRSTRUN - Fiscal Rules and Strategies under Externalities and Uncertainties	ID: 649261, H2020-Societal Challenge 6-EURO-2014-Firstrun	1.3.2015 / 28.2.2018	2 197 883 €	96 500 €	Tomáš Domonkos/ W	ETLA – The Research Institute of the Finnish Economy (Finland); LSE – London School of Economics (United Kingdom); NIESR – National Institute of Economic and Social Research (United Kingdom); LUISS Guido Carli University (Italy) CEPS – Centre for European Policy Studies (Belgium); IHS – Institute for Advanced Studies (Austria); CASE – Center for Social and Economic Research (Poland)

4.	H2020	CEMEA - Building-up Centre of Excellence for Advanced Materials Applications	ID: 664336, WIDESPREAD-2014-Teaming - CEMEA	1.6.2015 / 30.6.2016	15 999 €		Karol Fröhlich/ I Juraj Sipko/ I	Ministry of Economy of the Slovak Republic, SAS, Slovakia Finland
5.	Multilateral	The Millennium project	-	1997/ 31.12.2020	-	0	Ivan Klinec/ I	The Millennium project, 4421 Garrison Street, N.W., Washington, D.C., USA
6.	Multilateral	Evaluation helpdesk on Cohesion Policy in the 2014 - 2020 Programming	-	1.9.2015 - 30.9.2017	9 000 €	0	Karol Frank/ I	Applica, Belgium Ismeri, Italy
7.	Multilateral	Delivery system - Ex post evaluation of Cohesion Policy programmes 2007 - 2013, focusing on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF)	-	1.11.2015 / 31.3.2016	3 500 €	0	Karol Frank/ I	KPMG Germany
8.	Multilateral	Support of European Structural and Investment Funds (ESI Funds) to the implementation of the Country Specific Recommendations and to structural reforms in Member States	2014CE16BAT007/2014CE16BAT008/2014CE16BAT009	1.3.2016/ 28.2.2017	3 500 €	0	Karol Frank/ W	Ismeri, Italy
9.	Multilateral	ENCON - Enhancing CSOs Contribution to Evidence-Based Policy Making for Vulnerable Groups	ENCON, IVF 21650186	1.4.2017 / 30.6.2018	87 470 €	10 564 €	Marek Radvanský/ W	CASE - Belarus
10.	Multilateral	MALTA - Mid-term Skills & Occupational Forecasting for Malta	Jobsplus	1.11.2017 / 31.1.2020	127 391 €	127 391 €	Marek Radvanský/ C	
11.	Multilateral	Improving circular migration between Belarus and Poland, Slovakia and Czechia	CIRCMIGR, IVF 21930098	1.3.2020 / 28.2.2021	19 940 €	1 910,75 €	Marek Radvanský/ W	CASE - Center for Social and Economic Research
12.	Multilateral	Fact-finding study on the implementation of the evaluation requirement as foreseen by the GBER and relevant guidelines	COMP/2019/009	1.3.2020 / 31.7.2020	2 000 €	0	Karol Frank/ W	Ismeri, Italy
13.	Multilateral	MeRSA Research Project: Bank Branch Closings and Local SME Economic Activity in Slovakia – Good Servant but a Bad Master?	MeRSA Grant 2020	1.5.2021 / 30.4.2022	2 822,55 €	2 822,55 €	Mária Širaňová/ C	NO
14.	Multilateral	Intercept – Motivating mobilizing supporting reenergizing Green Career Pathway	NG/EEA, 2020-1-0033	1.10.2021 / 1.1.2024	2 181 660 €	158 725 €	Miroslav Štefánik/ C	Jobsplus
15.	Bilateral	Research and Innovation Observatory	JRC105850	1.1.2016	12 000 €	0	Karol Frank/ I	Joint Research Centre - European Commission
16.	ESF	Supporting the dissemination of research on European integration	ESF - CZ 1.07/2.300/09.0128	1.9.2009 / 30.4.2017	-	-	Milan Šíkula/ W	NEWTON College, a. s., Brno
17.	ESF	Survey of health, ageing and retirement in Europe	ESF - SHARE	1.5.2016 / 31.5.2018	-	8 600 €	Ján Košta/ W	Max Planck Institute for Social Law and Social Policy, Munich Center for the Economics of Aging (MEA)
18.	Erasmus+	Job Knowledge Discovery and Skill Development through Web Data Analytics towards facilitated mobility of European Professionals and Refugees - DISKOW	2018-1-DE02-KA202-005215	1.9.2018 / 31.8.2021	360 728,00 €	57 042,15 €	Miroslav Štefánik/ W	L3S Research Centre, Leibniz University Hannover
19.	JRC	Research and Innovation Observatory	JRC105850	1.7.2016 / 31.12.2019	12 000 €	0	Karol Frank/ I	Joint Research Centre - European Commission

- **National projects and their funding, incl. international projects with only national funding**

#### 2.4.2. List of ERA-NET projects funded from SAS budget

No project during the evaluated period.

#### 2.4.3. List of projects of the Slovak Research and Development Agency (APVV)

**1. Zladenie verejných financií a starobného dôchodkového zabezpečenia (Návrh udržateľného a rast podporujúceho dôchodkového systému pre starnúcu slovenskú ekonomiku) (Návrh udržateľného a rast podporujúceho dôchodkového systému pre starnúcu slovenskú ekonomiku) = [Reconciling public finances and old-age social security \(Designing a sustainable and growth friendly pension system for an ageing Slovak economy\)](#)**

**Principal investigator:** Tomáš Domonkos  
**Duration of the project:** 1.7.2015 / 30.6.2019  
**ID number of the project:** APVV-14-0787  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 132 595,76 €

**2. Sociálna pasca - náklady a cesta von = [Social trap - costs and the way out](#)**

**Principal investigator:** Michal Páleník  
**Duration of the project:** 1.7.2016 / 30.6.2020  
**ID number of the project:** APVV-15-0722  
**Coordinating institution:** Institute of Economic Research SAS/ Comenius University in Bratislava  
**Funding (eur):** 74 411,20 €

**3. Kooperácia pri tvorbe regionálneho modelu HERMIN na hodnotenie vplyvu kohéznej politiky v SR a PL = [Cooperation and development of regional HERMIN model for Cohesion policy interventions evaluation in Slovakia and Poland](#)**

**Principal investigator:** Marek Radvanský  
**Duration of the project:** 1.1.2016 / 31.12.2017  
**ID number of the project:** SK-PL-2015-0058  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 3 227,01 €

**4. Únik kapitálu a jeho dôsledky pre slovenskú ekonomiku = [Capital Flight and its Impact on the Slovak Economy](#)**

**Principal investigator::** Menbere Workie Tiruneh  
**Duration of the project::** 1.7.2016 / 31.12.2019  
**ID number of the project:** APVV-15-0666  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 240 272,01 €

**5. Prognózovanie regionálneho vývoja SR a hodnotenie účinnosti regionálnych politík pomocou štruktúrneho makroekonomického modelu HERMIN = [Forecasting of Regional Development and Assessment of Effectiveness of Regional Policies Using the Structural HERMIN Model](#)**

**Principal investigator:** Marek Radvanský  
**Duration of the project:** 1.7.2017 / 31.12.2020  
**ID number of the project:** APVV-16-0630  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 212 370,04 €

**6. Riešenie spoločenských výziev v oblasti tvorby politiky trhu práce založenej na vedeckých informáciách = Addressing social challenges related to the design of evidence-based labour market policies**

**Principal investigator:** Martina Lubyová  
**Principal investigator in institute:** Miroslav Štefánik  
**Duration of the project:** 1.7.2015 / 28.9.2018  
**ID number of the project:** APVV-14-0324  
**Coordinating institution:** Centre of Social and Psychological Sciences, SAS  
**Čerpané financie:** 75 227,56 €

**7. Tvorba vedeckých informácií na podporu politík trhu práce = Generating scientific information to support labour market policy making**

**Principal investigator:** Miroslav Štefánik  
**Duration of the project:** 1.8.2018 / 31.12.2021  
**ID number of the project:** APVV-17-0329  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 158 485,42 €

**8. Vyrovnávanie nerovnováh: prehodnotenie pohľadu na makroekonomické nerovnováhy v európskom rámci riadenia = Balancing out the imbalances: redefining the view on macroeconomic imbalances under the european governance framework**

**Principal investigator:** Vladimír Mlynarovič  
**Principal investigator in institute:** Tomáš Domonkos / Miroslava Dolinajcová  
**Duration of the project:** 1.7.2018 / 30.6.2022  
**ID number of the project:** APVV-17-0551  
**Coordinating institution:** Comenius University in Bratislava  
**Čerpané financie:** 91 614,43 €

**9. Systémové riziko na finančných trhoch: prepojenia medzi finančnými inštitúciami = Systemic risk on financial markets: interconnectedness of financial institutions**

**Principal investigator::** Štefan Lyócsa  
**Duration of the project::** 1.7.2019 / 31.12.2022  
**ID number of the project:** APVV-18-0335  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 151 049,- €

**10. Od vysokej k nízkej závislosti na verejných transferoch v starobe: dokáže viacpilierový dôchodkový systém zvládnuť negatívne následky starnutia populácie? = Transition from high to low dependence on public transfers in old age: can the multi-pillar pension system handle the negative consequences of population ageing?**

**Principal investigator:** Tomáš Domonkos  
**Duration of the project:** 1.7.2020 / 30.6.2024  
**ID number of the project:** APVV-19-0352  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 91 545,- €

**11. Hybridný systém modelov na podporu regionálnych politík: dopady na regióny, odvetvia a zamestnanosť = Hybrid modelling system for regional policy evaluation: regional, industry and labour effects**

**Principal investigator::** Marek Radvanský  
**Duration of the project::** 1.7.2021 / 31.12.2024  
**ID number of the project:** APVV-20-0621  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 31 819,- €

**12. Sledovať peniaze - Rozšifrovanie väzby medzi sektorom tieňového bankovníctva a nelegitímnymi finančnými tokmi = [Follow the Money - Deciphering the Link between Shadow Banking Sector and the Illicit Financial Flows](#)**

**Principal investigator:** Mária Širaňová  
**Duration of the project:** 1.7.2021 / 30.6.2025  
**ID number of the project:** APVV-20-0499  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** 25 807,- €

**2.4.4. List of projects of the Scientific Grant Agency of the Slovak Academy of Sciences and the Ministry of Education (VEGA)**

**1. Meranie ekonomických výnosov investícií do vzdelávania a ľudského kapitálu = [Measuring the economic returns to investment into education and human capital](#)**

**Principal investigator:** Miroslav Štefánik  
**Duration of the project:** 2.1.2014 / 31.12.2016  
**ID number of the project:** 2/0132/14  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 3 869 €

**2. Vytváranie a zhodnocovanie potenciálu znalostnej spoločnosti = [Creation and exaluation pf potential of knowledge society](#)**

**Principal investigator:** Daneš Brzica  
**Duration of the project:** 1.1.2015 / 31.12.2017  
**ID number of the project:** 2/0086/15  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 9 991€

**3. Analýza vplyvu Európskej legislatívy v oblasti daní a dôchodkov na ekonomiku SR s dôrazom na udržateľnosť verejných financií = [Analyzing the Impact of European Legislation in the Field of Taxes and Pensions on Slovak Economy with the Emphasis on the Sustainability of Public Finance](#)**

**Principal investigator:** Tomáš Domonkos  
**Duration of the project:** 1.1.2015 / 31.12.2017  
**ID number of the project:** 2/0181/15  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 17 863 €

**4. Dynamika a charakter zmien v slovenskej ekonomike v etape predpokladanej stabilizácie hospodárskeho rastu = [The Dynamics and Nature of Changes in the Slovak Economy in the Phase of Expected Stabilization of Economic Growth](#)**

**Principal investigator:** Karol Frank  
**Duration of the project:** 1.1.2015 / 31.12.2018  
**ID number of the project:** 2/0070/15  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 31 065 €

**5. Príjmová stratifikácia a perspektívy polarizácie slovenskej spoločnosti do roku 2030 = [Income stratification and polarization perspective of Slovakia until 2030](#)**

**Principal investigator:** Iveta Pauhofová  
**Duration of the project:** 1.1.2015 / 31.12.2018  
**ID number of the project:** 2/0026/15  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 22 185 €

**6. Inštitucionálna konkurencieschopnosť vo svetle zmien vonkajšieho prostredia = Institutional competitiveness in the light of changing external environment**

**Principal investigator:** Boris Hošoff  
**Duration of the project:** 1.1.2016 / 31.12.2018  
**ID number of the project:** 2/0109/16  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 27 500 €

**7. Ekonomické a geopolitické súvislosti meniacej sa globálnej energetickej scény a ich implikácie pre pozíciu EÚ v globálnej ekonomike = Economic and geopolitical causalities of the changing global energy scene and their implications for the EU's position in the global economy**

**Principal investigator:** Saleh Mothana Obadi  
**Duration of the project:** 1.1.2016 / 31.12.2018  
**ID number of the project:** 2/0005/16  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 32 609 €

**8. Kontradikcie vo vývoji zamestnanosti na pozadí očakávaných demografických a štruktúrnych zmien v SR = Contradictions in employment development at the background of anticipated demographic and structural changes in the SR**

**Principal investigator:** Veronika Hvozdíková / Ivan Lichner  
**Duration of the project:** 1.1.2017 / 31.12.2020  
**ID number of the project:** 2/0182/17  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 39 645 €

**9. Modelovanie a analýza možností znižovania regionálnych rozdielov v SR prostredníctvom verejných politík = Modeling and analysis of options for reducing regional disparities in Slovakia through public policies**

**Principal investigator:** Marek Radvanský  
**Duration of the project:** 1.1.2017 / 31.12.2019  
**ID number of the project:** 2/0135/17  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 20 423 €

**10. Atraktivita krajiny a veľkých miest z hľadiska mobility talentov = Attractiveness of country and large-scale cities in terms of mobility of talents**

**Principal investigator:** Daneš Brzica  
**Duration of the project:** 1.1.2018 / 31.12.2020  
**ID number of the project:** 2/0138/18  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 11 244 €

**11. Predpovedanie ekonomických a finančných kríz po recesii v Európskej únii = Prediction of economic and financial crisis in the wake of recession in the European Union**

**Principal investigator:** Filip Ostrihoň  
**Duration of the project:** 1.1.2018 / 31.12.2020  
**ID number of the project:** 2/0158/18  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 25 169 €

**12. Hodnotenie a predikcia vývoja slovenskej ekonomiky v kontexte (dez)integračných tendencií v EÚ = Assessment and Prediction of Changes in the Slovak Economy in the Context of (Dis)Integration Tendencies in the EU**

**Principal investigator:** Karol Frank  
**Duration of the project:** 1.1.2019 / 31.12.2022  
**ID number of the project:** 2/0097/19  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 23 301 €

**13. Reálna konvergencia v Európskej únii: empirické dôkazy a implikácie = Real convergence in the European union: empirical evidence and implications**

**Principal investigator:** Boris Hošoff  
**Duration of the project:** 1.1.2019 / 31.12.2022  
**ID number of the project:** 2/0167/19  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 14 708 €

**14. Energetická bezpečnosť a udržateľná konkurencieschopnosť: implikácie pre Európsku úniu = Energy Security and Sustainable Competitiveness: Implications for the European Union**

**Principal investigator:** Saleh Mothana Obadi  
**Duration of the project:** 1.1.2019 / 31.12.2022  
**ID number of the project:** 2/0007/19  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 16 531 €

**15. Systémové implikácie 4. priemyselnej revolúcie a adaptačné procesy informačnej spoločnosti (ekonomické, technologické a kultúrne aspekty) = System implications of the fourth industrial revolution and adaptation processes of the information society (economic, technological and cultural aspects)**

**Principal investigator:** Peter Staněk  
**Duration of the project:** 1.1.2019 / 31.12.2022  
**ID number of the project:** 2/0002/19  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 12 748 €

**16. Flexibilita štruktúry ekonomiky a environmentálne zmeny: výzvy pre mestá a firmy = Flexibility in the structure of the economy and environmental change: challenges for cities and companies**

**Principal investigator:** Daneš Brzica  
**Duration of the project:** 1.1.2021 / 31.12.2023  
**ID number of the project:** 2/0111/21  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 2 796 €

**17. Výzvy starnutia slovenskej populácie a možnosti eliminácie jeho negatívnych dopadov = Challenges of demographic ageing in Slovakia and possibilities to eliminate its negative impacts)**

**Principal investigator:** Ivan Lichner  
**Duration of the project:** 1.1.2021 / 31.12.2023  
**ID number of the project:** 2/0143/21  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 10 406 €

**18. Mikro makro modelovanie v slovenských podmienkach = Micro macro modeling in Slovak conditions**

**Principal investigator:** Tomáš Miklošovič  
**Duration of the project:** 1.1.2021 / 31.12.2023  
**ID number of the project:** 2/0150/21  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 6 029 €

**19. Odhad združených predikčných intervalov pomocou bootstrapu = Bootstrap Based Empirical Joint Prediction Regions for Path Forecasts)**

**Principal investigator:** Ing. Marián Vávra, PhD.  
**Principal investigator in institute:** Filip Ostrihoň  
**Duration of the project:** 1.1.2021 / 31.12.2023  
**ID number of the project:** 1/0476/21  
**Coordinating institution:** Faculty of Social and Economic Sciences Comenius University Bratislav  
**Funding (eur):** Institute of Economic Research SAS: 1 942 €

## 20. Nelegitímne toky kapitálu a externé makroekonomické nerovnováhy = **Illicit capital flows and external macroeconomic imbalances**

**Principal investigator:** Mária Širaňová  
**Duration of the project:** 1.1.2021 / 31.12.2023  
**ID number of the project:** 2/0101/21  
**Coordinating institution:** Institute of Economic Research SAS  
**Funding (eur):** Institute of Economic Research SAS: 10 046 €

### 2.4.5. List of projects supported by EU Structural Funds

**Národný projekt: Sektorovo riadenými inováciami k efektívnemu trhu práce v Slovenskej republike = National project: Sector-driven innovations towards an effective labor market in the Slovak Republic**

**Principal investigator in institute:** Ján Košta  
**Duration of the project:** 1.4.2019 / 28.2.2023  
**ID number of the project:** 4621/2019-M\_OPTP  
**Coordinating institution:** Trexima, s.r.o.

### 2.4.6. List of other projects funded from national resources: -

### 2.4.7. List of projects funded from private funds

**1. Project title: Towards a common vision on addressing SMEs skills needs in the automotive sector: strengthening the development of upskilling and reskilling strategies**

**Principal investigator:** Miroslav Štefánik  
**Duration of the project:** 2019-2020  
**Funding for the institute:** 3 600€  
**Client:** On behalf of the European Commission - Fondazione Brodolini  
**Web site:** <https://www.fondazionebrodolini.it/>

**2. Project title: Asociácia doplnkových dôchodkových spoločností - Association of Supplementary Pension Companies (ADDs)**

**Description:** analytical report prepared by the team of the IER SAS described the results of the analysis of the cost-effectiveness of the Slovak system of supplementary pension savings (Pillar III).

**Principal investigator:** Marek Radvanský  
**Duration of the project:** 1.12.2019 / 30.4.2020  
**Funding for the institute:** 24 000€

### 2.4.8. List of projects funded from other competitive funds: -

## 2.5. PhD studies and educational activities

### 2.5.1. List of accredited programmes of doctoral studies, period of validity, source of funding

#### **Economic Theory 3.3.3. 2016-2021**

The Faculty of National Economy at the University of Economics in Bratislava.

#### **Political Science 3.1.6. 2019-2021**

The Faculty of Social and Economic Sciences, Comenius university in Bratislava

**2.5.2. Summary table on doctoral studies (number of internal/external PhD students at the end of the year; number of foreign PhD students, number of students who successfully completed their theses during the year, number of PhD students who quit the programme during the year)**

PhD study	2016			2017			2018			2019			2020			2021		
Number of potential PhD supervisors	7			11			11			12			12			12		
PhD students	number, end of year	defended thesis	students quitted	number, end of year	defended thesis	students quitted	number, end of year	defended thesis	students quitted	number, end of year	defended thesis	students quitted	number, end of year	defended thesis	students quitted	number, end of year	defended thesis	students quitted
from which foreign citizens	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0
External	1	0	0	1	0	0	1	0	0	0	0	1	1	0	0	1	0	0
Other supervised by the research employees of the institute	1	0	0	2	0	0	2	1	0	1	0	0	1	0	0	1	0	0

**2.5.3. PhD carrier path – Information on the next career steps of the PhD graduates who received their degree from the institute**

**Overview of the status of the PhD. students who graduated during the evaluated period**

Name of the PhD. graduate	Current position
Michelle Chmelová	Analyst at the Slovak Business Agency
Kristína Gardoňová	Lead analyst at the Institute of Strategic Analysis at the Governmental Office of the Slovak Republic
Jozef Kubala	Analyst at the Value for Money Unit at the Ministry of Finance of the Slovak Republic
Dávid Martinák	Director at the Institute of Educational Policies of the Ministry of Education, Science, Research and Sport of the Slovak Republic
Adrián Ondrovič	Researcher at IER SAS
Róbert Prno	Private sector

**2.5.4. Summary table on educational activities**

Teaching	2016	2017	2018	2019	2020	2021
Lectures (hours/year)*	707	569	687	778	767	858
Practicum courses (hours/year)*	811	2 156	1 026	1 014	571	636
Supervised diploma and bachelor thesis (in total)	60	60	62	69	52	47
Members in PhD committees (in total)	8	8	10	6	4	3
Members in DrSc. committees (in total)	0	0	1	0	0	0
Members in university/faculty councils (in total)	6	6	4	2	2	2
Members in habilitation/inauguration committees (in total)	1	1	2	1	3	3

**2.5.5. List of published university textbooks**

BCI01 [DOMONKOS, Tomáš. Simulácie: Vysokoškolské učebné texty = Simulations: University textbooks](#). Reviewers: Nora Grisáková, Filip Ostrihoň. Bratislava : Letra Edu, 2018. 80 s. ISBN 978-80-89962-01-3. Available at internet: <https://app.crepc.sk/?fn=detailBiblioFormChildMCHP2&sid=4E0FD8AB6AD1703547533E4C45&eo=CREP%C4%8C-detail-kniha>

## 2.5.6. Number of published academic course books

Number of published academic course books	1
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## 2.5.7. List of joint research laboratories/facilities with universities: -

## 2.5.8. Supplementary information and/or comments on doctoral studies and educational activities – focused on what changes have occurred since the last evaluation in 2016

During the evaluated period, a new study programme was added to the portfolio, by signing a cooperation agreement with the Faculty of Social and Economic Sciences of the Comenius University in Bratislava. Therefore, the Institute offers the option to study in two programmes:

- **Economic theory**, provided jointly with the Faculty of the National Economy of Economic University in Bratislava and
- **Political science**, provided jointly with the Faculty of Social and Economic Sciences of the Comenius University in Bratislava.

The IER SAS has been firmly committed to increasing the quality of its doctoral study and remains in intensive communication with both partner Faculties, through regular Study programme-Board meetings. Currently, IER SAS has only two positions per year for this programme study. Therefore, the management of the Institute was very active in increasing the number of stipends for PhD students. This activity resulted in an increase in the number of allocated stipends from two to three for this school year (2022/23).

Since 2016, the IER SAS has increased the number of supervisors. Nevertheless, Pandemics has also challenged the organisation of doctoral studies. IER SAS has considered the situation and adopted appropriate measures by switching to the online environment, providing all the necessary IT tools.

During the last years has been a trend of decreasing interest for the PhD study as a whole in Slovakia in the field of Economics. Despite the overall trend IER SAS managed a steady flow of students, thorough the whole evaluation period. There has also been some interest in postgraduate study from abroad. Recently, both partner Faculties started to provide the option to study in English. IER SAS should be able to facilitate its share of the study in English, thus, extending the potential pool of students to international students.

## 2.6. Societal impact

### 2.6.1. The most important case studies of the research with direct societal impact, max. 4 for institute with up to 50 FTE researchers, 8 for institutes with 50 – 100 FTE researchers and so on. Structure: Summary of the impact; Underpinning research; References to the research; Details of the impact; Sources to corroborate the impact. One page per one case study

#### Case study 1: Monitoring of Slovak economic policy

##### Summary of the outcome

IER SAS prepares an annual analytical and evaluative view of the economic development of Slovakia since the establishment of the independent Slovak Republic. Although the title of the publication always includes a specific year to which the assessment is linked, this does not mean a narrow focus on that year alone. The publication examines the development trends in the context of a longer period. The line of sequence in

this analysis progresses from an initial summary view through a series of more detailed views on sub-issues (selected areas of competitiveness, macro-stability, the functioning of markets and policy) to an indication of changes in the future trajectory of developments. Recently, research has focused on the interrupted convergence of the Slovak economy (2018), slowed productivity growth lagging behind the growth of labour costs (2019) or how the coronavirus crisis is changing the Slovak economy (2020).

### Underpinning research

Initially, in 1995, the publication was prepared on behalf of the United Nations Economic Commission for Europe. Later, the annual study was sheltered by a chain of VEGA spanning until today. At its inception, this publication provided an independent assessment of economic developments - at a time when independent assessments were still rare. The publication balanced politically inclined interpretations of economic development in the 1990s. Later, the function of this publication changed: When it was no longer necessary to perform the role of independent assessment of developments, the analytical nature of the publication was strengthened. Currently, its main focus is on understanding the functioning of former transforming economies and identifying future challenges and qualitative changes. Every year the monograph is published in Slovak and English. Both versions are freely available on the institute's website (<https://ekonom.sav.sk/sk/publikacie>). The publication is also presented at an accompanying conference. The conference is usually attended by representatives and experts from state and public administration (e.g. the Ministry of Economy of the Slovak Republic, Slovak Business Agency, Ministry of Finance etc.), as well as international organisations (OECD, European Commission).

### Referencies to the research

- Link 1: [Economic Development of Slovakia in 2020 - Focus on: How Corona Crisis Has Changed Economy \(pdf\)](#)
- Link 2: [Economic Development of Slovakia in 2019 - Focus on: Slower Productivity Growth Lagging behind Labour Costs \(pdf\)](#)
- Link 3: [Economic Development of Slovakia in 2018 and Outlook up to 2020 - Focused on: Interrupted Convergence \(pdf\)](#)
- Link 4: [Economic Development of Slovakia in 2017 and Outlook up to 2019. \(pdf\)](#)
- Link 5: [Economic Development of Slovakia in 2016 and outlook up to 2018. \(pdf\)](#)
- Link 6: [Economic Development of Slovakia in 2015 and Outlook up to 2017. \(pdf\)](#)

### Beneficiaries of the research results/Details of impact

Copies of the monographs are regularly sent to all major economic institutions within the state administration as well as to key political and governmental institutions: the Office of the Government of the Slovak Republic, the National Council of the Slovak Republic, and the Office of the President of the Slovak Republic, as well as to embassies in the Slovak Republic.

Although the publication is focused on economic phenomena, it targets a broader audience of individuals who are interested in the economic development of Slovakia. The monograph is used in economic policy practice in the creation of soft legislation, evaluation and impact studies by public authorities and government agencies. Its particular editions are regularly quoted by reports prepared by the European Commission or the OECD. Some of the topics and recommendations outlined in the editions of the „Economic Development of Slovakia“ can be traced in the Country Specific Recommendations annually produced by the European Commission. One of its editions was highly praised by Maroš Šefčovič, Vice-President of the European Commission, with a letter of thanks.

It is used as supplementary literature in education at the University of Economics in Bratislava. Specifically in the study program National Economy (bachelor's degree) and in the program Economic Policy (master's degree).

Some topics related to the development of the Slovak economy that are not covered in the publications are given more detailed attention in separate ad-hoc topical monographs or working papers published by IER SAS. For example:

BRZICA, Daneš - DUJAVA, Daniel - FRANK, Karol - HOŠOFF, Boris - HUDCOVSKÝ, Martin - JECK, Tomáš - KAČÍRKOVÁ, Mária - KOŠTA, Ján - MORVAY, Karol - ŠIRANOVÁ, Mária - VOKOUN, Jaroslav. Slovenská ekonomika po štvrtstoročí samostatného štátu [Slovak Economy after 25 Years of Independent State]. Bratislava : Ekonomický ústav Slovenskej akadémie vied, 2019. 271 s. Dostupné na internete: [http://ekonom.sav.sk/uploads/journals/397\\_slovenska\\_ekonomika\\_po.pdf](http://ekonom.sav.sk/uploads/journals/397_slovenska_ekonomika_po.pdf). ISBN 978-80-7144-309-4.

ŠTEFÁNIK, Miroslav - LUBYOVÁ, Martina - BABOŠ, Pavol - GERBERY, Daniel - HVOZDÍKOVÁ, Veronika - KARASOVÁ, Katarína - LICHNER, Ivan - MIKLOŠOVIČ, Tomáš - RADVANSKÝ, Marek - RUBLÍKOVÁ,

Eva – STUDENÁ, Ivana. Labour market in Slovakia 2017+ [Trh práce na Slovensku 2017+]. Bratislava : Center of Social and Psychological Sciences of the Slovak Academy of Sciences : Institute of Economic Research of the Slovak Academy of Sciences: Faculty of Arts Comenius University in Bratislava, 2016. 226 p. [https://ekonom.sav.sk/uploads/journals/358\\_lubyova\\_stefanik\\_labour\\_market\\_in\\_slovakia\\_2017.pdf](https://ekonom.sav.sk/uploads/journals/358_lubyova_stefanik_labour_market_in_slovakia_2017.pdf). ISBN 978-80-970850-4-9.

MORVAY, Karol. Prekonávanie deficitu v kapitálovom vybavení práce v slovenskej ekonomike [Overcoming of Deficit in the Capital to Labor Ratio in the Slovak Economy]. In Working papers, 2017, č. 94, s. 1-18. ISSN 1337-5598. [http://www.ekonom.sav.sk/uploads/journals/366\\_wp\\_94.pdf](http://www.ekonom.sav.sk/uploads/journals/366_wp_94.pdf).

JECK, Tomáš. Slovenská ekonomika a štvrtá priemyselná revolúcia : faktory a predpoklady = Slovak Economy and the Fourth Industrial Revolution: Drivers and Determinants. In Working papers, 2017, č. 99, s. 1-26. ISSN 1337-5598. <[http://www.ekonom.sav.sk/uploads/journals/373\\_wp\\_4\\_priemyselna\\_a\\_sk\\_final.pdf](http://www.ekonom.sav.sk/uploads/journals/373_wp_4_priemyselna_a_sk_final.pdf)>.

## Case study 2: **Counterfactual impact evaluation of active labour market policy programmes**

### **Summary of the outcome**

Counterfactual impact evaluation (CIE) became a standard in public policy evaluation, especially in the case of EU-funded programmes. At the same time, new applications of CIE methodology arise most lively in the field of active labour market policies (ALMP). CIE comprises a set of data processing techniques developed to estimate the net impact of participation in a policy programme, cleared of the composition of the participants or other factors potentially driving the differences in observed post-participation outcomes. CIE techniques require experimental data or imposing a quasi-experimental setup on observational data. IER SAS maintains a team of researchers applying CIE techniques to produce evidence on the impact of Slovak ALMP programmes. The core activities involve processing annual data updates received from COLSAF and producing ad-hoc evaluation studies on particular ALMP programmes implemented in Slovakia. Since 2021, impact evaluation reports are produced by a pre-coded automatised script and published on a project web, at: [http://www.lmevidence.sav.sk/?page\\_id=270](http://www.lmevidence.sav.sk/?page_id=270)

### **Underpinning research with referencies**

IER SAS researchers were commissioned to deliver an impact evaluation of selected ALMP using CIE techniques under the Confederation of Trade Unions of Slovakia in 2014 and the Governmental Office of the Slovak Republic in 2015. This initiative resulted in the first data export prepared by COLSAF after more than 10 years in 2014 (the data specification used was later disseminated among researchers and analysts of multiple ministries). Results published before the evaluation period later led to further requests from the decision-making sphere. The cooperation with COLSAF was formalised in a project titled „Generating scientific information to support labour market policy-making“, supported by the Slovak Research and Development Agency. During this project, two technical reports and 10 automated CIE reports were delivered to COLSAF and the Ministry of Labour, Social Affairs and Family. One employee of the Institute of Social Policy at MoL was trained, jointly preparing a report on the impact of a training programme offered to the unemployed – REPAS. Additionally, multiple reports prepared by analytical units of MoL and the Ministry of Finance were reviewed and commented. One of the IER SAS researchers (Miroslav Štefánik) also contributed to the Revision of Financing of Employment Policies prepared by the Value for Money Unit at the Ministry of Finance (see: <https://www.mfsr.sk/sk/financie/hodnota-za-peniaze/revizia-vydavkov/socialne-politiky/>).

At the international scene, Miroslav Stefanik (IER SAS) was invited to deliver a presentation at a meeting of the Community of Practice on Counterfactual Impact Evaluation (CoP-CIE) organised by the Competence Centre on Microeconomic Evaluation at the Joint Research Centre of the European Commission (JRC). Research results were presented at international conferences such as the:

European Association of Labour Economists conference – EALE,

Counterfactual Methods for Policy Impact Evaluation conference – COMPIE, as well on multiple smaller-scale, international workshops.

Finally, also been published in international research journals (e.g. Empirica, Labour). Cooperation with two Slovak research institutions, the Comenius University in Bratislava and the Matej Bel University in Banská Bystrica.

New projects following this activity started in: September 2021 (INTERCEPT – a collaborative project including partners from Malta, Italy, Poland, Lithuania and Slovakia, financed by the Norwegian Grants) and July 2022 (Supported by the Slovak Research and Development Agency, partnering the Matej Bel University in Banská Bystrica, Institute of Fiscal Policy of the Ministry of Finance and a private company Profesia).

### **Beneficiaries of the research results/Details of impact**

Impact evaluation, by design, serves to steer policy creation. Slovak analytical units across multiple ministries have widely referenced outputs from IER SAS CIE activities, but also by international policy-advising bodies such as the OECD or the European Commission. Some of our findings are traceable in the documents accompanying the annual Country Specific Recommendations for Slovakia. At the national level, COLSAF made adjustments to the implementation rules of REPAS and the Contribution to support commuting to work.

### **Selected references to IER SAS research**

ŠTEFÁNIK, Miroslav - KARASOVÁ, Katarína. Evaluating the Effectiveness of Policy Measures to Support Spatial Mobility in Slovakia : the Contribution for Commuting to Work and the Contribution for Resettlement. In Ekonomický časopis, 2016, roč. 64, č. 8, s. 711-736. [https://www.sav.sk/?lang=sk&doc=user-org-user&user\\_no=7940&action=publications](https://www.sav.sk/?lang=sk&doc=user-org-user&user_no=7940&action=publications)

ŠTEFÁNIK, Miroslav - KARASOVÁ, Katarína - STUDENÁ, Ivana. Can supporting workplace insertions of unemployed recent graduates improve their long-term employability? : Evidence on the treatment effects of the Contribution for the graduate practice in Slovakia. In Empirica, 2020, vol. 47, iss. 2, pp. 245-265. (2019: 0.890 - IF, Q3 - JCR, 0.357 - SJR, Q2 - SJR, karentované - CCC). (2020 - Current Contents). ISSN 0340-8744. Dostupné na: <https://doi.org/10.1007/s10663-018-9413-y>

ŠTEFÁNIK, Miroslav. Shifting the Training Choice Decision to the Jobseeker - The Slovak Experience. In Labour : Review of Labour Economics and Industrial Relations, 2021, vol. 35, iss. 2, pp. 192-213. (2020: 0.403 - SJR, Q1 - SJR). (2021 - WOS, Scopus). ISSN 1467-9914. Dostupné na: <https://doi.org/10.1111/labr.12189>

### **Selected institutions recognising IER SAS research:**

Country Report Slovakia 2019. Commission Staff Working Document. Brussels: European Commission, 2019. 72 p. at: <http://www.europedirecttrecin.sk/dokumenty/1551337244.pdf>

OECD Economic Surveys: Slovak Republic 2017. Chapter 1. Enhancing Advanced Skills to Better Meet Labour Market Demand. Paris: OECD, 2017. p. 67-99. ISSN 1995-3526.

<https://www.employment.gov.sk/sk/ministerstvo/vyskum-oblasti-prace-socialnych-veci-institut-socialnej-politiky/kto-chce-zat-musi-siat.html>

<https://www.mfsr.sk/sk/financie/hodnota-za-peniaze/revizia-vydavkov/socialne-politiky/>

## **Case study 3: The publication on Bitcoin volatility has found its outreach into the investor community**

### **Summary of the impact**

The study published in a high-ranked journal showed that while news and sentiment about Bitcoin regulation and the hacking of Bitcoin exchanges represent one of the most important drivers of Bitcoin volatility, scheduled macroeconomic news announcements did not matter substantially, with the only exception of forward-looking indicators. Findings from this research were met with positive reaction in investors community using this research to comment on (a-normal) behaviour of Bitcoin prices (ABM Crypto, finance.yahoo) or presenting it as a vital addition to Bitcoin-related literature (Quantpedia). Due to its significant citation and download rate, the findings presented in the publication have influenced the wider professional investor community, about which we do not have precise information.

### **Underpinning research**

Over the last few years, Bitcoin (cryptocurrencies in general) has become one of the hottest topics in the scientific community and among the wider population. To date, the general consensus has been that Bitcoin should be viewed as a form of a speculative asset rather than a future currency or long-term investment. Interestingly, the role of a scheduled macroeconomic announcement on Bitcoin price volatility has not been studied, even though standard asset valuation models implied so.

The international team initiated by Stefan Lyocsa decided to address this open gap. Long-term research interest into the topic of Bitcoin (Peter Molnar) was perfectly blended with text data-mining techniques (Tomas Plihal), expertise in quantitative finance (Stefan Lyocsa) and complemented by a macro-finance-oriented focus (Maria Siranova). As seen from the composition of the team, this was a solid international collaboration involving authors based in Slovakia, the Czech Republic and Norway.

Paper 'Impact of macroeconomic news, regulation and hacking exchange markets on the volatility of bitcoin' was published in 2020 in one of the most reputable journals in the field of Economics and Finance, the Journal of Economic Dynamics and Control. Thematically, it was a highly topical issue, which found its resonance not only in the academic sphere but also in the wider investment community.

## References to the research

<https://www.sciencedirect.com/science/article/pii/S0165188920301482>

## Details of the impact

Since its publication date, the study in question has been consistently on the list of the most downloaded publications in the last 90 days. The publication currently ranks 10<sup>th</sup> in List of most cited papers published in the journal since 2019. Information from the publication has clearly been reflected in the broader research community with a wider social impact.

According to official information (PlumX Metrics), the publication obtained 34 Shares, Likes & Comments, 2 Tweets, 4 News Mentions, e.g. yahoo.finance, yahoo.singapore, AMB Crypto, or Observer Research Foundation. At the same time, Quantpedia.com also covered the publication in its blog selection. One can only assume that the paper's findings have helped investors adjust their investment decisions by treating Bitcoin price volatility as less fundamentally driven and more responding to regulatory pressure.

## Sources to corroborate the impact

<https://www.journals.elsevier.com/journal-of-economic-dynamics-and-control/most-downloaded-articles>

<https://www.journals.elsevier.com/journal-of-economic-dynamics-and-control/most-cited-articles>

<https://quantpedia.com/what-drives-volatility-of-bitcoin/>

<https://plu.mx/plum/a/?doi=10.1016/j.jedc.2020.103980>

## Case study 4: **Advisory on and implementation of cohesion policy programmes:**

Optimal implementation curves of the European Structural and Investment Funds in Slovakia

## Summary of the impact

During the implementation of EU funds in the programming period 2014-2020 the Central Coordination Authority (CCA) at the Government Office of Slovakia decided to construct the „Optimal implementation curves“ tool to provide support for better policy planning. To achieve this goal, researchers from the Institute during the years 2016 and 2017 developed and delivered a unique framework for EU Cohesion Policy analysis and implementation to the beneficiary.

## Underpinning research

The developed optimisation model finds a solution that meets the criterion of the least square deviation from yearly commitment for each operational program, type of European fund and region. Initial results indicated that some operational programmes would have difficulties meeting the minimum implementation threshold from 2017 and onwards. If no action was taken, the operational programmes would lose some of their financial allocations due to the de-commitment rule.

The results were discussed with the beneficiary (CCA) and used to assess and discuss the reliability and feasibility of Mandatory implementation plans that were Managing Authorities of respective Operational programmes delivered to CCA annually.

The methodology and findings were presented in in-house series of IER SAS seminars (Link 1), domestic (Link 2) and international (Link 3) conferences. In May 2021 the final output of the research was accepted as a paper titled: “Performance management of European Structural and Investment Funds—the case of Slovakia” by an international, impacted, peer-reviewed journal Public Money & Management (PMM) under a thematic issue on ‘Challenges in managing European funds’.

## References to the research

Link 1: <https://ekonom.sav.sk/sk/seria-ustavnych-seminarov>

Link 2: [http://www.sds.sk/publikacie/Zbornik\\_Ekomstat\\_2017.pdf](http://www.sds.sk/publikacie/Zbornik_Ekomstat_2017.pdf)

Link 3: <https://ecomod.net/system/files/Radvansky%20Lichner%20Frank%20-%20Ecomod%202017%20%20Optimal%20Implementation%20Curves.pdf>

## Details of the impact

The optimal implementation curves represent a unique methodology that provides additional information for the efficient management and implementation of ESIF. The Central Coordination Authority at the Government Office of Slovakia (the main coordinator for ESIF implementation in Slovakia) used the framework of implementation curves for monitoring and evaluation purposes. This framework also served as an early warning mechanism (EWM) for the managing authorities responsible for individual operational programmes to avoid potential de-commitment of financial allocations. Each operational programme was analysed for its distinct features, which were then included in the individual output for each operational programme. The results of the optimal implementation curves were compared with the mandatory financial plans of the Managing Authorities. The OICs results provided the Central Coordination Authority with the ability to negotiate with the responsible managing authorities to adjust their plans and put more effective actions in place to avoid any de-

commitment of financial allocations. Given the extremely high inertia and time lags pertaining to the entire process of programming, selection and actual financial implementation of the projects, time is of the essence. Therefore, the Central Coordination Authority needed to have a reliable source of information that enabled them to negotiate the adjustment of the managing authorities' mandatory plans at least one year in advance.

### Sources to corroborate the impact

Alena Kuruczová ([alena.kuruczova@vicepremier.gov.sk](mailto:alena.kuruczova@vicepremier.gov.sk)) the Head of the monitoring unit Ministry of Education, Science, Research and Sport of the Slovak Republic referred to the shape of implementation curves of operational program research and innovations in its comments to the "Proposal to merge the Operational Programme Research and Innovation with the Operational Programme Integrated Infrastructure implemented within the programming period 2014 – 2020": <https://www.slov-lex.sk/legislativne-procesy/-/SK/LP/2019/726/pripomienky/COO-2145-1000-3-3649784>

## 2.6.2. List of the most important studies and/or other activities commissioned for the decision-making authorities, the government and NGOs, international and foreign institutes (title, name of institution, contract value, purpose (max 20 words))

### 1. Title: **Optimal implementation curves / Optimálne implementačné krivky**

Name of institution: Office of the Deputy Prime Minister for Investment and Informatisation, Central Coordination Body

Lead researchers: Ing. Karol Frank, PhD., Ing. Ivan Lichner, PhD., Ing. Marek Radvanský, PhD.

Year: 2016

### 2. Title: **Review of spending on labour market and social policies: proposal for action / Revízia výdavkov na politiky trhu práce a sociálne politiky: návrh opatrení**

Name of institution: Ministry of Finance of the Slovak Republic

Lead researcher: Mgr. Miroslav Štefánik, PhD.

Year: 2017

### 3. Title: **Assessment of Under-Declared Employment in Croatia**

Name of institution: Ministry of Labor and Pension System, Zagreb, Croatia

Lead researchers: Ing. Marek Radvanský, PhD. , Mgr. Miroslav Štefánik, PhD.

Year: 2017

### 4. Title: **Sectoral analysis of CETA impacts on the automotive, mechanical engineering and electrical engineering industries / Sektorová analýza dopadov CETA na automobilový, strojársky a elektrotechnický priemysel**

Name of institution: Ministry of Economy of the Slovak Republic

Lead researcher: doc. Ing. Martin Lábaj, PhD.

Year: 2017

### 5. Title: **Review of expenditure on labor market and social policies: proposal for action / Revízia výdavkov na politiky trhu práce a sociálne politiky: návrh opatrení**

Name of institution: Ministry of Finance of the Slovak Republic

Lead researcher: Mgr. Miroslav Štefánik, PhD.

Year: 2017

### 6. Title: **The Impact of Brexit on Slovakia's External Economic Relations and Labour Market in the Light of Previous Analyses and Negotiations / Vplyv Brexitu na vonkajšie ekonomické vzťahy Slovenska a trh práce vo svetle doterajších analýz a negociácií**

Name of institution: The Office of the Slovak Academy of Sciences

Lead researcher: Ing. Boris Hošoff, PhD.

Year: 2017

### 7. Title: **Proposal of the Economic Policy Strategy of the Slovak Republic until 2030 / Návrh Stratégie hospodárskej politiky Slovenskej republiky do roku 2030**

Name of institution: Office of the Government of the Slovak Republic, Committee of Advisers to the Prime Minister

Lead researcher: prof. Ing. Peter Staněk, CSc.

Year: 2018

### 8. Title: **Analysis of the impact of external risks on the Slovak economy using a macroeconomic model / Analýza dopadov vonkajších rizík na slovenskú ekonomiku s využitým makroekonomického modelu**

Name of institution: Office of the Slovak Academy of Sciences

Lead researcher: Mgr. Tomáš Miklošovič, PhD.  
Year: 2018

9. Title: **Analysis of the establishment of a national air carrier** / Analýzy zriadenia národného leteckého dopravcu

Name of institution: Ministry of transport of the Slovak republic

Lead researcher: Ing. Martin Hudcovský, PhD.

Year: 2018

10. Title: **Evaluation of the effectiveness of the REPAS program** / Vyhodnotenie účinnosti programu REPAS

Name of institution: Institute of Social Policy, Ministry of Labor, Social Affairs and Family of the Slovak Republic

Lead researcher: Mgr. Miroslav Štefánik, PhD.

Year: 2018

11. Title: **Labour Market Policy Thematic Review 2018: Health and safety at work and labour inspectorate - Slovakia**

Name of institution: ECE, Directorate-General for Employment, Social Affairs and Inclusion, European Commission

Lead researcher: Ing. Veronika Hvozdíková, PhD.

Year: 2018

12. Title: **Proposal of the Public Administration Budget for 2019-2021** / Návrh rozpočtu verejnej správy na roky 2019 až 2021

Name of institution: Office of the Government of the Slovak Republic, Committee of Advisers to the Prime Minister

Lead researcher: prof. Ing. Peter Staněk, CSc.

Year: 2018

13. Title: **Challenges arising from the UN Agenda 2030 strategy** / Výzvy vyplývajúce zo stratégie OSN Agenda 2030

Name of institution: Office of the Deputy Prime Minister for Investment and Informatisation

Lead researcher: Ing. Jaroslav Vokoun

Year: 2018

14. Title: **Proposal of the Digital Transformation Strategy of Slovakia 2030** / Návrh Stratégie digitálnej transformácie Slovenska 2030

Name of institution: Office of the Government of the Slovak Republic, Committee of Advisers to the Prime Minister

Lead researcher: Prof. Ing. Peter Staněk, CSc.

Year: 2019

15. Title: **Medium-term strategy of development cooperation of the Slovak Republic in 2019–2023** / Strednodobá stratégia rozvojovej spolupráce SR na roky 2019–2023

Name of institution: Office of the Government of the Slovak Republic, Committee of Advisers to the Prime Minister

Lead researcher: prof. Ing. Peter Staněk, CSc.

Year: 2019

16. Title: **Simulation of labor demand following the revision of employment and reward expenditures in the public sector** / Simulácia dopytu po pracovnej sile v nadväznosti na revíziu výdavkov zamestnanosti a odmeňovania vo verejnom sektore

Name of institution: Value for the money department, Ministry of Finance of the Slovak Republic

Lead researcher: Mgr. Tomáš Miklošovič, PhD.

Year: 2019

17. Title: **Comprehensive analysis of the use of water transport for other sectors of the economy** / Komplexná analýza využitia vodnej dopravy pre iné odvetvia hospodárstva

Name of institution: Ministry of Transport and Construction of the Slovak Republic

Lead researcher: Ing. Martin Hudcovský, PhD.

Year: 2019

18. Title: **Proposal of the Low Carbon Development Strategy of the Slovak Republic until 2030 with a outlook to 2050** / Návrh Nízkouhlíkovej stratégie rozvoja Slovenskej republiky do roku 2030

s výhledom do roku 2050

Name of institution: Office of the Government of the Slovak Republic, Committee of Advisers to the Prime Minister

Lead researcher: Prof. Ing. Peter Staněk, CSc.

Year: 2020

19. Title: **Analysis of labour productivity, methods of its calculation at the national level, comparison with EU countries in relation to the wage level (minimum wage and average wage) of the country.** /

Analyza produktivity práce, spôsobov jej výpočtu na národnej úrovni, porovnanie s krajinami EÚ v nadväznosti na mzdovú úroveň (minimálnu mzdu a priemernú mzdu) krajiny.

Name of institution: Confederation of Trade Unions of the Slovak Republic

Lead researcher: Ing. Ján Košta, CSc.

Year: 2020

20. Title: **Creation of a microsimulation model, which will allow to analyse and forecast the number of pupils and teachers within districts.** / Vytvorenie mikrosimulačného modelu, ktorý umožní analyzovať a prognózovať počty žiakov a učiteľov v rámci okresov.

Name of institution: Ministry of Education, Science, Research and Sport of the Slovak Republic / Institute of Educational Policy

Lead researcher: Mgr. Tomáš Miklošovič, PhD.

Year: 2021

21. Title: **Improving the Quality of Higher Education in Slovak Republik**

Name of institution: OECD

Lead researcher: Mgr. Miroslav Štefánik, PhD.

Year: 2021

**2.6.3. List of contracts and research projects with industrial and other commercial partners, incl. revenues (study title, name of institution, contract value, country of partner, purpose (max 20 words))**

## 2017

**Contract name: Strategy for the Slovak economy**

**Partners:** Slovak Academy of Sciences,

Institute for Strategic Studies,

Ministry of Agriculture of the Slovak Republic

**Start of cooperation (in accordance with the signed contract):** 2017

**Termination of cooperation (if it is a short-term cooperation):** ongoing

**Amount of funds received in the current year (€):** 0

**Brief description of the output/outcome:** Identification of external risks and their quantification.

**2.6.4.1 List of intangible fixed assets (internally registered IP (confidential know-how), patent applications, patents granted, trademarks registered) denoting background IPR: -**

**2.6.4.2 List of licences sold abroad and in Slovakia, incl. revenues (background IPR identification, name of institution, contract value, country of partner, purpose (max 20 words)): -**

**2.6.5. Summary of relevant activities, max. 300 words (describe the pipeline of valorization in terms of Number of disclosure, Number of registered IP internally, number of CCR/LIC contracts and their respective summary values, the support you are receiving in specific points internally at the institute, at SAS, externally – also the limitations and drawbacks: -**

**2.7. Popularisation of Science (outreach activities)**

### 2.7.1. List of the most important popularisation activities, max. 20 items

No.	Name of the researcher	Name of the media	Topic	Date of appearance	Type of media
1.	Ing. Daniel Dujava, PhD.	Klubovňa Mensa	What does contemporary economics look like and is the economic crisis a sign of its failure?	9.6.2016	In person
2.	Doc. Ing. Saleh Mothana Obadi, PhD.	Slovenský rozhlas, Relácia z prvej ruky	Oil prices and their impact on the economy	20.1.2016	Radio
3.	RNDr. Viliam Páleník, PhD.	Euractiv.sk, <a href="http://euractiv.sk/fokus/buducnost-eu/ako-zreformovat-europsku-pokladnicu/">http://euractiv.sk/fokus/buducnost-eu/ako-zreformovat-europsku-pokladnicu/</a>	How to reform the European treasury?	29.4.2016	Internet
4.	RNDr. Viliam Páleník, PhD.	RTVS, Správy a komentáre	The economic dimension of welcoming migrants.	1.3.2016	TV
5.	RNDr. Viliam Páleník, PhD.	RTVS, Správy RTVS	OECD: Brexit would harm Britain economically.	20.6.2016	TV
6.	Prof. Dr. Ing. Menbere Workie Tiruneh, PhD.	RTVS	Discussion on the EU-Canada trade agreement	20.9.2016	TV
7.	Dr. h. c. prof. Ing. Milan Šikula, DrSc.	RTVS	On unfair conditions of guarantee for developer's loans after the payment of the apartment	1.5.2016	TV
8.	Ing. Marek Radvanský, PhD.	Rádio Slovensko, Z prvej ruky	Economic expectations for 2018	8.1.2018	Radio
9.	Ing. Marek Radvanský, PhD.	Rádio Slovensko, Z prvej ruky	Economic aspects of the new Programme Statement	13.4.2016	Radio
10.	Ing. Marek Radvanský, PhD.	RTVS, Ranné spravodajstvo	Guest in the RTVS studio on the EU Presidency of the Slovak Republic	14.6.2016	TV
11.	prof. Ing. Peter Staněk, CSc.	SOPK, Bratislava	100 years of economic development in Czechoslovakia.	8.11.2018	In person
12.	Ing. Ján Košta, CSc.	TA3	Family policy in the Slovak Republic.	11.12.2019	TV
13.	Ing. Jaroslav Vokoun	Správy RTVS	Background and statements in the report Economy in the Time of Socialism	2.11.2019	TV
14.	Ing. Jaroslav Vokoun	Rádio Slovensko	Reportage Shadow economy	9.12.2019	Radio
15.	Ing. Jaroslav Vokoun	Profesia days Bratislava	Economic context of urbanization in Bratislava	4.3.2020	In person
16.	Prof. Ing. Juraj Sipko, PhD., MBA. Prof. Dr. Ing. Menbere Workie Tiruneh, PhD. Ing. Mária Širaňová, MA., PhD. Prof. Ing. Saleh Mothana Obadi, PhD. Ing. Ivan Lichner, PhD. Ing. Adrián Ondrovič, PhD. Ing. Martin Hudcovský, PhD.	SAS, personal videos at web	Virtual Open Week for those interested in doctoral studies	12. - 16. 4. 2021	Videos, internet
17.	RNDr. Viliam Páleník, PhD.	RTVS Jednotka; Správy RTVS	Pension freezes loom in the future	22.5.2021	TV
18.	prof. Ing. Juraj Sipko, PhD., MBA.	TA3	Covid-19 and its impact on the world economy	16.7.2021	TV
19.	Ing. Filip Ostrihoň, PhD.	NTI livestream CVTI SR / YouTube CVTI SR	Lecture within the Scientific Café of CVTI SR	28.10.2021	In person
20.	Mgr. Miroslav Štefánik, PhD.	Radio FM	Radio discussion: „Živé mesto FM“ on population ageing and immigration.	22.11.2021	Radio

### 2.7.2. Table of outreach activities according to institute annual reports

Outreach activities	2016	2017	2018	2019	2020	2021	total
Articles in press media/internet popularising results of science, in particular those achieved by the Organization	27	24	20	20	23	23	137
Appearances in telecommunication media popularising results of science, in particular those achieved by the Organization	99	113	94	104	86	69	565
Public popularisation lectures	10	15	25	33	7	2	92

## 2.8. Background and management. Infrastructure and human resources, incl. support and incentives for young researchers

### 2.8.1. Summary table of personnel

#### 2.8.1.1. Professional qualification structure (as of 31 December 2021)

	Degree/rank				Research position		
	DrSc./DSc	CSc./PhD.	professor	docent/ assoc. prof.	I.	II.a.	II.b.
<b>Male</b>		25	5	2		16	9
<b>Female</b>		7		1		4	3

- I. – director of research with a degree of doctor of science/DrSc.  
 II.a – Senior researcher  
 II.b – PhD holder/Postdoc

#### 2.8.1.2. Age and gender structure of researchers (as of 31 December 2021)

Age structure of researchers	< 31		31-35		36-40		41-45		46-50		51-55		56-60		61-65		> 65	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
<b>Male</b>	3,0	1,8	5,0	3,5	6,0	5,6	3,0	3,0	4,0	3,7	1,0	1,0	4,0	4,0	1,0	1,0	4,0	4,0
<b>Female</b>			3,0	2,8	3,0	3,0	5,0	5,6	1,0	1,0			2,0	2,0	1,0	1,0	2,0	1,5

- A – number  
 B – FTE

### 2.8.2. Postdoctoral fellowships (list of positions with holder name, starting date, duration. Add brief information about each fellow's career path before and after receiving PhD degree, etc.)

#### 2.8.2.1. MoRePro and SASPRO fellowships

The first accepted SASPRO visitor to IER SAS is Igor Vakulenko from the SUMI State University, Ukraine, supposed to start his research stay at the Institute in September 2022.

#### 2.8.2.2. Stefan Schwarz fellowships

## OSTRIHOŇ FILIP

### Scholarship of Štefan Schwarz Support Fund

Description: A scholarship of the Štefan Schwarz Support Fund aimed to create the postdoctoral positions in the SAS was granted from May 1<sup>st</sup> 2016.

Awarded by: Board of the SAS for Education and PhD. Studies

### 2.8.2.3. Postdoctoral positions from other resources (specify)

All postdoctoral positions created at the Institute during the evaluation period were funded by national APVV grant schemes and post-doc researchers were hired to address specific tasks within the respective APVV projects for which they were recruited. Once the project work was completed, they were usually recruited and funded from the same source to work on follow-up projects.

### 2.8.3. Important research infrastructure introduced during the evaluation period with the information about the sources of funding (max. 2 pages)

The technical equipment of the Institute has stabilized during the whole evaluated period and currently is at an adequate level, enabling satisfactory scientific research. During the evaluated period, major changes in the Institute's technical equipment can be divided in two categories, those implemented before the-pandemic and those initiated by the pandemic. The first category involves an upgrade of the library creating a space for projecting presentations, modernization of Institutes internet network security with an extension of end target security by firewall, establishment of a new central printer and a central Wi-Fi network. These were accompanied by on request modernisation of hardware and software accessories for researchers.

During the pandemic we invested to improve working from home. The research infrastructure has been upgraded in the following areas: setting up hybrid meeting and conference facilities, securing the institutional network and allowing VPN access, securing institutional cloud storage and setting up online meeting services (Webex licence) for all employees.

The capacity of the Institute's premises does not correspond to its current size and number of its employees. We have 2 to 3 researchers in one office. The Institute lacks an adequate conference room, which could be used to organize seminars, lectures, workshops, plenary meetings, etc. At present, the library of the Institute or external premises is used for this purpose. There is also a lack of a common room for informal meetings of researchers in smaller-groups/project teams.

Researchers' library resources have access to the databases EconLit (full texts), EZB (ElektronischenBibliothek), SCOPUS, ProQuest Central, Web of Sciences (Current Contents Connect; Journal Citation Reports; Web of Sciences CORE Collection). Researchers also benefit from the services of a librarian updating the database of publications and citations.

Regarding the organization of research activities, research teams are structured according to their main research orientation into four departments of the Institute. However, the performance of research activities is not limited to the structure of individual departments, in most research projects and other activities it is carried out in the framework of cooperation between departments.

The Institute is a research entity recognized by Eurostat and the Statistical Office of the Slovak Republic, which is a prerequisite for providing access to micro-data from statistical surveys (EU-SILC, EU-LFS,). The contracts with Eurostat and the Statistical Office of the Slovak Republic are currently ongoing with regular updates. In their work, researchers use mainly publicly available database sources, such as International Monetary Fund data, World Bank data and reports, OECD data and publications, and the public services of the Eurostat database. Researchers use a number of statistical and econometric software to process data from these databases, including Stata, eViews, Gretl, Matlab, SPSS, R. Whenever necessary, licenses for these software are regularly updated and renewed.

The diverse membership of our Institute, as well as individual researchers in national and international networks, gives them access to other research infrastructure or data, such as part of the Ifo Institute network, membership of the European Network of Economic Policy Research Institutes (ENEPRI), membership of the Economic and Social Committee in Brussels, membership of ERSA (European Association for Regional Science), SSEM (Society for the Study of Emerging Markets), IMA (International Microsimulation Association) or Consensus Economics.

We provide special access to data and publications through agreements with some of our partners, namely the Memorandum of Understanding with the Korea Institute for International Economic Policy, the Memorandum of Understanding with the Bulgarian Academy of Economic Research and the Cooperation Agreement with the University of Miskolc. The Institute also has very intensive cooperation with research institutes of the decision-making sphere, with which it cooperates and has signed bilateral agreements with

them (Institute of Financial Policy, Institute of Educational Policy, Value for Money Department, Institute of Social Policy, or the National Bank of Slovakia and the Slovak Council for Budget Responsibility).

Last but not least, the current scientific infrastructure of the Institute, technical equipment, access to databases and specialized software, benefits from membership in national and international research networks (mentioned earlier) and access to the outputs of our contractual partners provide suitable conditions for achieving the goals set in research and development for the future.

## 2.9 Supplementary information and/or comments on all items 2.1 – 2.8 (max. 2 pages in total for the whole section)

The Institute's research activities often combine significant publications resulting from research tasks performed in international consortia (*success in obtaining international funding*) and feedback from national or the EU policy makers (*policy impact; benefits for policy making*); collaboration in international grant projects (*international position of the Institute*) with traceable societal impact (*direct societal impact*); or competition-based or solicited expert opinions (*contract research*) with feedback from governmental bodies or professional organisations (*activities for gov.bodies/NGO/institutions*). Below, we provide one selected example of each type of research impact listed above. The examples illustrate the interconnectedness of several types and aspects of research activities individually described in the previous sections of the questionnaire.

### 1) An example of a publication resulting from an international collaboration supported by EU funding with resonance among top-level policy makers

#### Domonkos et al. (2017). *Analysing the Relevance of the MIP Scoreboard's Indicators*

**Narrative.** The work on this research began in 2016 as part of a larger work package for related Horizon 2020 Project No. 649261 "FIRSTRUN - Fiscal Rules and Strategies under Externalities and Uncertainties", in the international consortium in which the IER SAS was involved between March 2015 and February 2018. The Project was focused on then **highly discussed and evolving topic of fiscal rules, their implementation and efficacy for the EU as a whole as well as within individual member states**, and on associated institutional mechanisms. The work package relevant for aforementioned publication was named "WP 2: Ex ante policy coordination: the new EU fiscal rules", more specifically the task "Task 5: Assessing the Macroeconomic Imbalance Procedure".

**Underpinning Research.** Performed research therefore aimed to evaluate the Scoreboard headline indicators of the Macroeconomic Imbalance Procedure (MIP) as **a single early-warning system (EWS)** regarding its overall performance in relation to preventing drops in total product of individual member states as well as the importance and relevance of particular indicators forming the Scoreboard. **Preliminary results** of the research were presented at the *INFER Workshop on European Integration in the Aftermath of Debt Crisis* in Bratislava (Domonkos et al., 2016a) and the *EcoMod2016 Conference* in Lisbon (Domonkos et al., 2016b). To incorporate the obtained feedback, the research was considerably expanded, mainly by exploring the relationships among the Scoreboard headline indicators via methods of factor analysis. After completing and publishing the research (as Domonkos et al., 2017), it was subsequently **presented and disseminated** to the Horizon 2020 consortium partners at the Project's workshop at the *CASE - Center for Social and Economic Research*, in March 2017, and to Slovak policymakers at the *Ministry of Finance of the Slovak Republic*, in September 2017.

**Previous Research and Policy Implications.** **Relative novelty of the topic and of associated research assessing the EWS perspective** is one of the key factors behind the relevance of the performed analysis. Prior to the aforementioned publication, there were handful of studies (see, e.g., Boysen-Hogrefe et al., 2015; Csontos and Szalai, 2013; Dufrenot et al., 2016; Knedlik, 2014) that treated the MIP as an example of public governmental EWS and scientifically examined its merits in this regard. **From the policy perspective** the issue is highly important, as the MIP features potential negative repercussions for individual member states as well as represents a pioneer endeavour in international macroeconomic surveillance and coordination. Proper functioning of the Procedure is, therefore, crucial for achieving its objectives, building trust of individual member states and the public, as well as for expecting adoption of similar EWS instruments in other countries over the world. Such values of the proposed research were apparent already at the stage of accepting the IER SAS into the Horizon 2020 consortium.

**References and Impact.** In the subsequent period **the publication and the results** gained traction from and were referenced in various studies published **under relevant EU institutions**, such as the **Joint Research Centre** (the European Commission's science and knowledge service), the **European Systemic**

**Risk Board**, and the **European Central Bank** (see Erhart et al., 2018; Erhart, 2019; Sondermann and Zorell, 2019). Moreover, the importance of the research was recognized by some of the **most relevant stakeholders**, when the Economic Governance Support Unit of the Directorate-General for International Policy was instructed, by the Coordinators of the ECON Committee, to commission expert analysis about the performance and potential capacity for improvement of the MIP (Zoppè, 2022). From the three resulting studies, an analysis on the impact of the MIP on the resilience of individual member states (Kriwoluzky and Rieth, 2020) **references the publication of Domonkos et al. (2017)**. Taking into account recent development of this issue represented by the Audit of the MIP (European Court of Auditors, 2018), subsequent two rounds of the Economic governance review (Zoppè, 2022), and the resolution of the European Parliament on the review of the macroeconomic legislative framework (European Parliament, 2021), the **performed research can be expected to contribute, in its own way, to the decision-maker discussions on the shape of this novel international policy mechanism**, which may still be a subject of reforms.

## 2) An example of CEE-intraregional cooperation resulting in the training for NGO representatives with a direct societal (including financial) impact

### Enhancing Civil Society Organisations' (CSOs) Contribution to Evidence-Based Policy Making for Vulnerable Groups (ENCON; Central and Eastern Europe cooperation)

**Narrative.** Based on the previous cooperation with the CASE Poland, the Institute was a member of a consortium, led by CASE in 2017 and 2018, applying for the “**Visegrad+ Grant**” support – the scheme which contributes to **the democratization and transformation processes in, a.o., the Eastern Partnership regions**. The target focus of the project was civil society in Belarus. The Consortium members as well as stakeholder CSOs (Civil Society Organisations) shared the view that **policy towards vulnerable groups in post-Soviet countries is costly while also not effective**. One of the reasons is the **absence of evidence-based approach to social policy design and implementation**, resulting in underestimation of the necessity of policy impact evaluation by authorities and the lack of skills and abilities at CSOs to perform monitoring and evaluation on state policy or their own projects. In CIS countries these issues are compounded by a lack of relevant experience as well as dialogue between CSOs and authorities at all levels on vulnerable groups' issues.

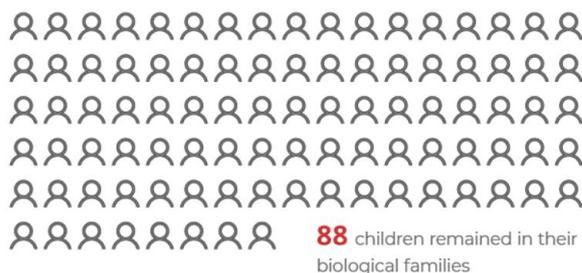
**Mission.** To improve evidence-based public policy literacy and ability of CSOs to effectively design and implement projects aimed at supporting vulnerable groups, **to strengthen capacity of CSOs to participate in and contribute to policy dialogue** and accountability processes at local and national level.

#### IER SAS Task Responsibility. Prevention of Losing Parental Care

**Outcome.** We provided CSOs with the methodology based on cost-benefit analyses approach (modul elaborated by the consortium designed for the specific target – child orphans being placed in the institutional care rather than in the personal substitute care or family care in Belarus) and with case-studies to effectively argue for improved access of vulnerable groups of population to the higher quality services. We provided detailed information on legal framework implemented in the SR related to all forms of substitute care for children. We participated in the workshop in Minsk prepared by the coordinator **to educate CSOs (including Church organisations) representatives, how to use the methodology to support their arguments in policy dialogue** with the authorities on the effectiveness of implementation of higher quality care for orphans/children outside family care.

**Details of Impact.** (Infographic: Financial effect per each child remaining in biological family based on the CBA model developed for the project)

In Puchavicy district, where the SOS prevention program was implemented, the share of children removed from biological families during 10-year period is **29% less** than the average share in 8 similar districts. **It means that**



**Main Deliverable.** Analytical report [«Prevention of Losing Parental Care: International Evidence and a Belarusian Case»](#).

The methodology elaborated within the project has been applied on 3 vulnerable groups of population (participation of the authors from our Institute in all of them; full reports accessible on web page; besides the topic of losing parental care, the topic of **interventions for people with disabilities** and the **effectiveness**

of the prison and post-prison programmes were also included.

**References/Web.**  
<https://case-belarus.eu/encon/>  
<https://case-belarus.eu/prevention-of-losing-parental-care-infographic/>

### 3) An example of an expert-opinion study for professional organisation with a broader national-social context

#### Promoting the quality of social dialogue (expert activities for The Confederation of the Trade Unions of the Slovak Republic)

**Narrative.** In 2020, the Institute established deeper cooperation with the Confederation of Trade Unions of the Slovak Republic (KOZ SR). Within one of the sub-activities of the **National Project “Promoting the Quality of Social Dialogue”**, the aim of the cooperation was to create analytical studies that would serve the social partners as highly specialized materials in their work from the lowest regional level of social dialogue through the national level within the Economic and Social Council at the highest level. As part of this cooperation, 4 analytical studies were submitted.

**One of the main results.** The main results of the study were **recommendations for economic policy in terms of improving social dialogue**, regarding both **average and minimum wage development** in relation to labor productivity in Slovakia. In accordance with the terms of reference of the study, we paid great attention to international comparisons of Slovakia with other EU countries, especially V4 and Baltic countries. A negative factor in the healthy wage growth process is the problematic development of labor productivity in Slovakia (similarly in other former transforming economies). The requirements for wage growth then inevitably meet the argument of slower labor productivity growth. Analyzes of these problems resulted in **concrete proposals in addition to traditional approaches** to respecting the natural economic relations between labor productivity and wages, as well as labor productivity growth as a basis for well-being of the society, while relied on the **"work pays" principle**. According to the main results, strengthening policies that support labor productivity growth (especially in small and medium-sized enterprises) opens up more scope for stimulating wages. Summing up, the publication contributes to a deeper understanding of the links between labor productivity and remuneration, including a more objective process of **setting the minimum wage in the Slovak Republic as a tool to eliminate working poverty** and to secure the sufficient **motivation for the unemployed to accept work also for the minimum wage**.

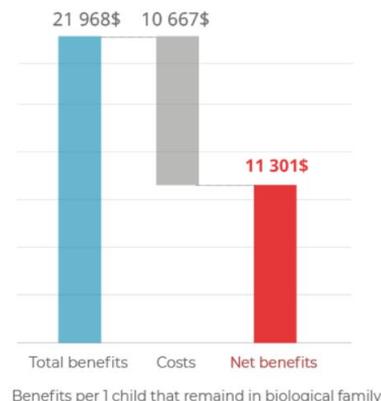
**Deliverables** (Expert studies in Slovak, for online access see References to Example 3 below).

- 1) The relationship between labour productivity and minimum wage.
- 2) Approaches for subsistence level determination of the population in selected EU countries as well as in Slovak Republic. The relationship of subsistence minimum to the minimum and average wage.
- 3) Implementation of policies in the field employment from the social partners' and implementation quality assessment system of public services employment's point of view, evaluation of active labor market policy measures.
- 4) The influence of trade unions on labor market policy, analysis of institutional factors and the cost of unemployment, which determine the development of unemployment.

**Follow-up scientific publication.** KOŠTA, Ján - DOVÁĽOVÁ, Gabriela - HOŠOFF, Boris - HUDCOVSKÝ, Martin - MORVAY, Karol - VOKOUN, Jaroslav. *The relationship between labour productivity and minimum wage (in Slovak)*. Bratislava: VEDA, 2021. 199 p., ISBN 978-80-224-1934-5. Available at: [http://www.ekonom.sav.sk/uploads/journals/412\\_kosta\\_a\\_kol-produktivita\\_a\\_mzdy\\_2021.pdf](http://www.ekonom.sav.sk/uploads/journals/412_kosta_a_kol-produktivita_a_mzdy_2021.pdf).

References to Example 1

#### Cost-and-Benefit Analysis of the SOS-Center Prevention Program



a.  $1\$ = 2\$$   
invested      received

b. The total net economic effect over 10-year period of program implementation is **more than USD 1 million**.

c. It takes **7 years** for the intervention to break even.

BOYSEN-HOGREFE, J. – JANNSEN, N. – PLÖDT, M. – SCHWARZMÜLLER, T., 2015. An empirical evaluation of macroeconomic surveillance in the European Union. Kiel Working Paper. No. 2014. Kiel Institute for the World Economy (IfW), Kiel.

CSORTOS, O. – SZALAI, Z. 2013. Assessment of Macroeconomic Imbalance Indicators. MNB Bulletin, October 2013.

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### **3. Implementation of the recommendations from the previous evaluation period**

Following the recommendations of the last international accreditation, the management of the Institute, in close cooperation with the Scientific Board, has prepared an action plan and research strategy for the Institute of Economic Research of the Slovak Academy of Sciences (IER SAS) for the next accreditation period. In the Action plan, tasks were precisely specified, and specific responsibility for their implementation was delegated.

Despite the complexity of the developments in the second half of the accreditation period associated with the global pandemic of COVID, all recommendations from the international accreditation were addressed.

At the end of the accreditation period under review, the Slovak Academy of Sciences, including the Institute of Economics, was transformed into a new legal body of a public research institute. The Institute utilised this as an opportunity to further incorporate the recommendations of the previous international accreditation.

The Research strategy of IER SAS was oriented toward the implementation of the main objectives declared in our previous accreditation questionnaire. Additionally, IER SAS accepted and implemented the substantiated recommendations of the international panel.

The International Accreditation Panel, after a comprehensive assessment of the overall activities of the IER SAS, provided the following recommendations:

**1. While the institute has multiple very important advisory roles with various government offices these tend to be ad hoc and not systematic or long-term. It would be beneficial if the institute could manage to convince government offices to enter into long terms framework contracts with the institute.**

During the evaluation period, IER SAS entered multiple cooperation contracts with public administration bodies in Slovakia as well as abroad. In the case of Slovakia, the contracts were usually three-partite, with the Slovak Research and Development Agency (APVV) sheltering these cooperations under an applied research funding scheme. During the evaluation period, such cooperation contracts were signed with the Central Office of Labour, Social Affairs and Family (2018-2021), the Institute of Social Policy of the Ministry of Labour, Social Affairs and Family (2018-2022 and 2021-2024), the Governmental Office of the Slovak Republic (2019-2022). Outside of Slovakia, IER SAS had bilateral cooperation with the Public Employment Service of Malta – JOPSPLUS (2017-2020) on delivering a forecasting model. The cooperation later evolved into a multilateral international project INTERCEPT funded by the Norwegian Grants. Finally, through the whole evaluation period, IER SAS also continued to deliver policy advisory through its membership at the Slovak and European Economic and Social Committee, an advisory body to the European Parliament.

IER SAS continues to work hard to convince Slovak and foreign policy-making bodies about the relevance and value of our expertise. The number of contractually sheltered cooperations is accompanied by a more substantial number of collaborations and advisory activities delivered without a formal contractual agreement at the institutional level. In 2022 IER SAS is about to sign a cooperation agreement with the Institute of Fiscal Policy under the Ministry of Finance and a private company administrating an online job vacancy platform in Slovakia – Profesia a.s.

**2. In order to accomplish this, it might be advisable to change the composition of the research advisory board and include representatives from government offices (e.g., prime minister's office, central bank, etc.), but also representatives of key Western and Central European research partners.**

Following the recommendations of the international accreditation, for the first time after decades, IER SAS actively outreached to public administration bodies when collecting potential candidates for the Scientific Board. Since 2021, one representative of the Ministry of Labour Social Affairs and Family is a member of the Scientific Council. The Scientific Board has currently 7 members out of which 5 are, by definition, employees of IER SAS.

During the transformation of IER SAS into a public research institute, it was stipulated that one-third of the Scientific Board members elected in the next term should be representatives of practice and institutions using our research results. During the period under review, discussions were held on the participation of representatives of foreign research institutes in the IER SAS's Scientific Board. In the future IER SAS aims to attract Scientific Board members from this segment.

**3. The institute has an institutional structure (departments) that does not seem to match with its everyday activities that are dominated by projects; it would be advisable to rethink internal structures to better fit with actual research activities.**

The management of IER SAS reviewed the organisational structure of the Institute and took concrete measures in light of the recommendations of the international accreditation panel. In the first step, four departments were created from the original five by merging the Department of Social Policies with the Macroeconomic Department. In the second step, a new Macro-Financial Analysis department was created by shifting the thematic focus of the previous Department of Empirical Research.

The decision to create this Department of Macro-Financial Analysis was driven from the bottom-up, copying the research focus of existing teams. Moreover, it was motivated by the demand to address the process of financialisation of the world economy. In addition, the emergence of the global financial crisis and its implications for macroeconomic and financial stability have also led to the need to strengthen research in this area at the Institute. Further, the embarked process associated with FinTech, the dynamic process of digitalisation and the unprecedented growth of crypto-assets (including the creation of digital currencies by central banks) will create demand for studying the macro-financial stability in the context of technological innovations.

Finally, IER SAS consists of four departments:

- Department of the World Economy
- Department of Macroeconomics
- Department of Economic Modelling and Analyses
- Department of Macro-Financial Analysis

**4. The institute is seeking to widen its theoretical research which is very commendable; however, there seems to be no clear strategic plan how to go about it. It might be advisable to seek institutional partnerships with leading heterodox economic institutes (e.g., Levy Institute in the USA)**

In line with the recommendations of the Presidency of the Slovak Academy of Sciences, basic research dominates the activities of IER SAS. IER SAS aims to address the need to investigate the current processes and unpredictable changes associated with systemic external shocks for both the world economy and the economy of EU Member States, including Slovakia.

Therefore, after expert discussions with leading and renowned institutions and experts in the field, the Institute's management has launched consultations oriented towards the area of sustainable, resilient and inclusive socio-economic development. These efforts resulted in the application and subsequent confirmed acceptance of the Institute of Economics into the Sustainable Solution Network Program (SDSN) of a major global network. Membership of this international network, with nearly 1500 institutions and 40 active regional and national networks, will create better conditions for scientific research within the framework of the adopted SDGs.

Senior researchers of the Institute of Economics also actively engage in research networks and cooperations with other leading scientific institutions and universities in the international context. IER SAS has members, for example, in the European Academy of Sciences and Arts, European Economic Association, Slovak Economic Association, European Regional Science Association, European Association of Labour Economists or the Network for Economic Modelling (EcoMod) and many others. Particular researchers use these networks to initiate research cooperations and exchange expertise.

The transformation to a green, digital, and socially just economy will further motivate towards international but also interdisciplinary research cooperation.

**5. Common institute wide PhD research seminars might enhance integration of PhD students into research activities; these seminars could be open to other institutes (e.g., Institute of Forecasting) as well.**

IER SAS has a long tradition (since 2010) of organising Empirical Economics seminars held in English. They are open to participants from IER SAS, other Institutes of SAS, and the wider public. Invitations are being sent to a long list of partnership research institutions. During the Pandemics, these seminars moved to the online environment, and in the post-Pandemic period are organised in a hybrid form.

Additionally, since 2014, IER SAS has organised internal seminars. The purpose of these seminars is feedback collection from colleagues and awareness-raising of issues addressed by research activities of IER SAS. PhD. students are actively involved in these seminars. Invitations for the seminars are being also sent to other Slovak economic research institutes. Seminars are being held in Slovak and were interrupted during the Pandemics.

Additionally, supervisors of PhD. students prepared a PhD. course on research methodology and publishing skills, which is going to be taught since September 2022. Within the course, PhD. students are

expected to deliver a presentation of a selected paper relevant to their research, including a practical reproduction of the analysis.

#### **6. The institute might gain from supporting article based PhDs.**

The long-term priority goal of the Institute's management and the Scientific Board is to provide quality support for doctoral studies. Supervisors mentor their PhD students and encourage them to publish in peer-reviewed and internationally visible journals. At present, it can be observed that PhD students under the guidance of their supervisors are actively involved in publishing activities. Favourable results of IER SAS PhD students were recognised also by our the Economic University in Bratislava, where Dávid Hojdan was awarded the price for the best contribution at the PhD. conference in 2020 and 2021 and Kristína Gardoňová was selected as the student personality of the year 2017. Additionally, there are multiple examples of the excellent publications of PhD students with their supervisors in international impacted journals, such as:

FIŠERA, Boris - WORKIE TIRUNEH, Menbere - HOJDAN, Dávid. Currency Depreciations in Emerging Economies : A Blessing or a Curse for External Debt Management? In *International Economics*, vol. 168, pp. 132-165.

OBADI, Saleh Mothana - GARDOŇOVÁ, Kristína. How does the Production of Unconventional Resources of Energy Influence Energy Security : Empirical Approach. In *International journal of energy economics and policy*, 2019, vol. 9, no. 5, p. 46-54.

Despite this trend, we remain without the first article-based PhD thesis. Nevertheless, a positive position of IER SAS towards article-based format is also observable as senior researchers of the Institute already successfully defended article-based habilitation theses. We hope to observe this trend soon also at the level of PhD studies.

#### **4. Research strategy and future development of the institute for the next five years** (Recommended 3 pages, max. 5 pages)

##### **Research strategy of the institute in the national and international contexts, objectives, and methods (including the information on when the strategy was adopted)**

##### **The research strategy of the Institute of Economic Research of the Slovak Academy of Sciences for the period 2022-2026**

Based on its Foundation Charter, the primary mission of the Institute of Economic Research of the Slovak Academy of Sciences (IER SAS) can be organised in four main areas:

- a) delivering research in the field of Economics;
- b) cooperation with universities, other research entities and private companies in delivering economic research;
- c) acquisition, processing and dissemination of scientific information (including results from its own research) by also using the research journal (*Ekonomický časopis*, ISSN 0013-3035);
- d) cooperation in providing third-level university education (PhD.) in the field of economics.

In line with this assignment, IER SAS aims to deliver a mixture of basic and applied research addressing up-to-date issues relevant from national and international perspectives. Produced research aspires to both: international recognition and national societal relevance.

##### **The present state-of-the-art research activities at IER SAS**

In 2021, the research activities of IER SAS were organised under four research departments.

**The Department of World Economy** monitors the development of the world economy and picks up the issues relevant to the development of the Slovak economy. This activity is embodied in the publication „The Development and Perspectives of the World Economy“ published annually. This publication maps the development in the key world economies, is written in Slovak and addresses the domestic research community. Additionally, researchers of the Department of World Economy cover topics of the energy market (oil and gas), energetic transition, trends related to globalisation such as income polarisation and the impact of technological progress on the economy and society.

**The Department of Macroeconomics** inversely maps the development of the Slovak economy. It publishes an annual monitoring publication: „Economic Development of Slovakia ...“, both in Slovak and

English. The target group of this publication is the domestic but also international community demanding policy-relevant background information on socio-economic development in Slovakia. The interest of researchers of the Department of Macroeconomics also spreads to more specific issues mostly emerging from the reality of Slovak economic development, namely the minimum wage, labour productivity and the risk of the middle-income trap, impacts of ageing, or the European cohesion policy.

**The Department of Economic Modelling and Analyses** presents a transversal department delivering tailored, quantitative research. It dominantly covers applied topics, such as macroeconomic predictions, quantification of the macroeconomic effects, labour market modelling and impact evaluations of public policies. The department develops macroeconomic and microsimulation models of the Slovak economy and labour market. In some of them, novel methodological advancements were introduced, thanks to which the models were also applied internationally (Malta, Czechia, FYRoMacedonia). The department is robust in generating information supporting decision making, also addressing international journals within its focus.

**The Department of Macro-Financial Analyses** addresses the increasing relevance of international finance in the everyday operation of individuals, households, firms and the state. In an effort to understand the mechanisms behind financial markets and public finance, the department generates internationally visible output combining basic and applied research. Especially solid is the expertise in financial market volatility, international banking transaction and public finance sustainability.

### **Outline of the future plans for the period 2022-2026**

Generally, the portfolio of ongoing research activities is well balanced and personally supported. The topics cover the main challenges and pressing issues of Slovak economic policy. Selection of particular research topics will remain the responsibility of particular researchers and especially senior researchers. Researchers should receive the best support and appreciation in selecting their topics and initiating new research activities. Therefore, the composition of research activities is expected to develop organically, based on bottom-up initiatives. It can be expected that future selection of topics will align with the activities described in the previous section.

Only by positive motivation and opening new cooperations novel topics could be introduced in the current portfolio of activities. A non-exhaustive list of the new-emphasised topics would include:

- transition to a green and digitalised economy,
- systemic external shocks caused by the COVID-19 and the Russian invasion in Ukraine and their impact on the macro-and microeconomic and financial stability,
- process of fragmentation in the global economy, but mainly in the: international trade, finance, capital markets, payments, global supply chains,
- potential global risks, mainly: cyberattacks, pandemics, including security, food sufficiency and, energy security,
- applications of big data and natural language processing,
- mechanisms behind inflation, with potential implications on income and wealth inequality of Slovaks,
- long-term investment behaviour of Slovaks,
- labour productivity growth and competitiveness of the Slovak economy,
- macro and microeconomics imbalances, but mainly the sustainability of public finance, unemployment and financial stability,
- further consequences of population ageing, demographic development and immigration
- research and development and the quality of education,

Researcher-level initiatives remain crucial in initiating particular research activities. For this reason, internal discussion of the Institute needs to be stimulated. For this reason, internal seminars would differentiate based on their format into:

- a) "PhD. study seminars" - with a longer time allocation diving more into the topic
- b) "Work in progress" seminars –presenting unpublished work or particular research problems to collect feedback within a 20+20 minutes time-allocation (presentation+discussion)
- c) "Policy relevance" seminars – focused on policy and societal implications of published work, also facilitating discussions on future research options within a 20+20 minutes format (presentation+discussion)

Intensified support will also be devoted to the international seminars in empirical economic research held in English. A limited but distinct budget will be allocated to costs related to inviting external researchers.

Contact with international research networks is vital for keeping and further increasing the quality of research outputs. For this reason, participation in international cooperative projects is going to be enforced by the active diplomacy of IER SAS management. Professional research networks serve as a platform for this type of diplomatic activity. Attending annual meetings and conferences of research associations is going to be actively suggested and recommended. Cooperation options also exist at the regional level. Besides the spatially very close analytical units based at the Ministry of Finance, the National Bank or the Budgetary Council of Slovakia, multiple universities and research institutes are at hand in Bratislava, Vienna, Brno, Prague and Budapest. Existing connections with these institutions need to be further nourished.

Attracting and raising talent remains another priority of IER SAS. In hiring new, full-time researchers, IER SAS would like to apply for the HR Excellence in Research Award by following a standard and transparent protocol of hiring procedures. Also, because of the unfavourable wage grid at more senior stages, PhD. study remains the liveliest channel for the inflow of new (although fluctuating) workforce. Because PhD. students remain with the Institute for a relatively short time, more can be done in engaging PhD. students into research activities as early in their career as possible. For this purpose, IER SAS would like to develop a focused course for PhD. students tailored to speed their learning in the first year of their study. The course could include an overview of research methodologies used in contemporary economic research together with academic publishing skills.

IER SAS aims to build a more systematic public image. While the existing public image of IER SAS is concentrated around a few selected researchers, we would like to spread public appearance among a broader list of researchers, allowing for more topical specialisation. This will be done by a financial remuneration allocated to research outputs targeting a wider audience (Policy briefs in English and Slovak). Improved public appearance should, in the long run, generate project-based funding.

Our research activities vary from basic to applied and from national to international. Similar variability is observable in terms of funding schemes. Therefore, each type of research activity should aim to generate project-based funding. At the same time, entering a project must be for researchers linked with a minimal administrative burden. Further improvements in organising the IER SAS administration need to be introduced in line with this priority.

Additional project-based funding will be used further to improve Institute's premises and infrastructure.

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