

# III International Science Conference SER 2020

September 17<sup>th</sup> – 19<sup>th</sup>, 2020  
Igalo (Herceg Novi), Montenegro

## "NEW TRENDS AND BEST PRACTICES IN SOCIOECONOMIC RESEARCH"



# Conference program

Organized by:

Economic Laboratory for Transition Research,  
Podgorica, Montenegro

Adriatic University Bar,  
Faculty for Mediterranean Business Studies Tivat,  
Montenegro

Center for Sociological Research  
Szczecin, Poland

University "Mediterranean, Podgorica  
Montenegro



**Publisher:** *Economic Laboratory for Transition Research*, Podgorica, Montenegro; *Center for Sociological Research Szczecin*, Poland; *Adriatic University Bar, Faculty of Mediterranean Business studies Tivat*, Montenegro; and *University Mediterranean, Podgorica*, Montenegro

**Editors:** Professor *Veselin DRASKOVIC*, Montenegro, and Professor *Yurij BILAN*, Poland

**Scientific Committee:** Academician Prof. *Veselin DRASKOVIC*, the Chair, University of Montenegro, Maritime Faculty Kotor, Montenegro; Prof. *Yurij BILAN*, the Co-Chair, Rzeszów University of Technology, Faculty of Management, Poland; Prof. *Radislav JOVOVIC*, Rector of the University of Mediterranean Podgorica, Montenegro; Academician Prof. *Bagrat YERZNKYAN*, Laboratory of the Economic Reform Strategy, Central Economics and Mathematics Institute, Russian Academy of Sciences, Moscow, Russian Federation; Laszlo VASA, Associate Professor, Széchenyi István University, Győr, Hungary

**Program Committee:** Prof. *Yurij BILAN*, the Chair, Rzeszów; University of Technology, Faculty of Management, Poland; Academician Prof. *Veselin DRASKOVIC*, the Co-Chair, University of Montenegro, Maritime Faculty Kotor, Montenegro; Assit. Prof. *Pero NIKCEVIC*, Metiterranean University, Montenegro

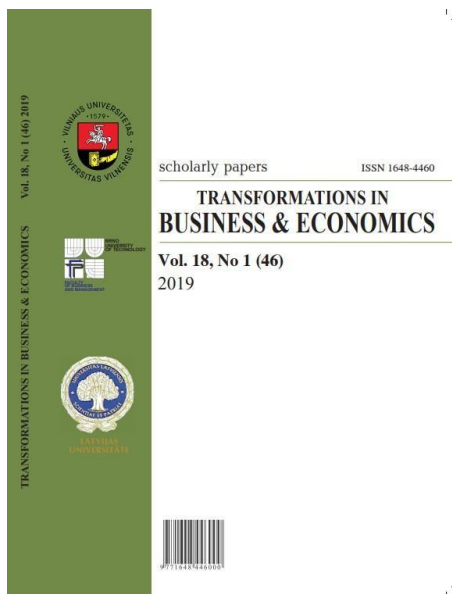
**Board of Editors:** Prof. *Dalia STREIMIKIENE*, the Chair (Editor in Chief of the *Transformations in Business & Economics – WoS - SSCI*); Prof. *Veselin DRASKOVIC* – Co-Chair (Editor in Chief of the *Montenegrin Journal of Economics - WoS - ESCI, SCOPUS; Socio-Economic Essays*); Prof. *Yurij BILAN*, the Co-Chair (Editor in Chief of the *Journal Economics and Sociology - WoS - ESCI, SCOPUS*; and *Journal of International Studies, SCOPUS*); Prof. *Vyacheslav V. VOLCHIK* (Editor in Chief of the *Terra Economicus - WoS - ESCI, SCOPUS*); Prof. *Radislav JOVOVIC* (Editor in Chief of the *Economics & Economy*); Assoc. Prof. *Mimo DRASKOVIC* (Editor in Chief of the *Media Dialogues*); Prof. *Bagrat YERZNKYAN* (Editor in Chief of the *Theory and Practice of Institutional Reforms in Russia*); Assist. Prof. *Milica DELIBASIC* (Editor in Chief of the *Montenegrin Journal of Ecology*)

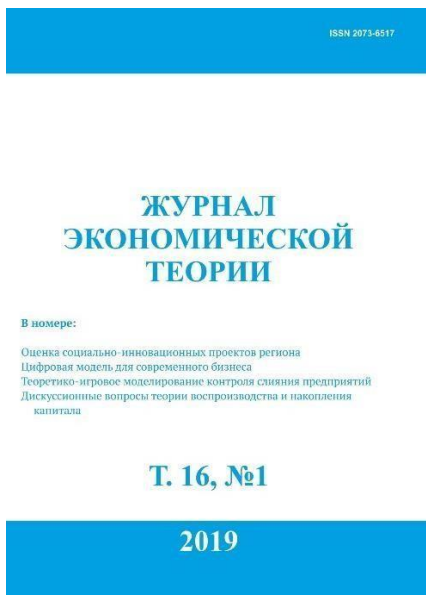
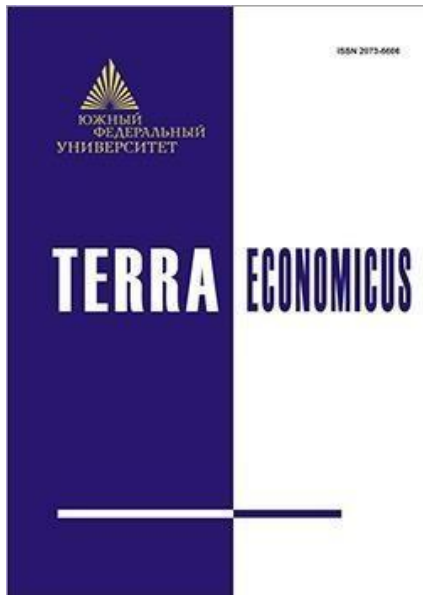
**Organizing Committee:** Prof. *Stevo NIKIC*, Rector of the University of of Adriatic Bar, Montenegro; Prof. *Dalia STREIMIKIENE*, Lithuanian Energy Institute, Lithuania; Prof. *Drago PUPAVAC*, Polytechnic of Rijeka, Croatia; Prof. *Serhiy KOZMENKO*, University of Customs and Finance, Dnipro, Ukraine; Professor Sanja BAUK, Durban University of Technology, South Africa, *Vesna KARADZIC*, University of Montenegro:

**Printing:** 150 Copies / **Printed:** “3M Makarije” , Podgorica

CIP - Каталогизација у публикацији  
Национална библиотека Црне Горе, Цетиње  
ISBN 978-9940-673-18-5

COBISS.CG-ID 35499792





## List of Participants

<p>Sanja BAUK, South Africa  Tomas BALEZENTIS, Lithuania  Svitlana BILAN, Poland  Yuriy BILAN, Poland  Victoria BOZHENKO, Ukraine  Anton BOYKO, Ukraine  Maryna BRYCHKO, Ukraine  Alina BUKHTIAROVA, Ukraine  Borjana BULAJIC, Canada  Igor CHELAK, Russia  Olena CHYGRYN, Ukraine  Balázs CSEH, Hungary  Adel DALAL, Russia  Vida DAPKIENE, Lithuania  Milica DELIBASIC, Montenegro  Fabio DELLA PIETRA, Italy  Tijana DJUROVIC, Montenegro  Nikolay DMITRIEV, Russia  Mimo DRASKOVIC, Montenegro  Sladjana DRASKOVIC, Montenegro  Veselin DRASKOVIC, Montenegro  Vinko ERBEZ, Serbia  Daniil FROLOV, Russia  Aistė GALNAITYTĖ, Lithuania  Niksa GRGUREVIC, Montenegro  Valeria GRISHINA, Russia  Natalia Y. IERSHOVA, Ukraine  Mladen IVIC, Bosnia and Herzegovina  Marija JANKOVIC, Montenegro  Borut JEREZ, Slovenia  Miroslav JOVOVIC, Montenegro  Nebojša JOVOVIC, Montenegro  Radislav JOVOVIC, Montenegro  Vladan JOVOVIC, Australia  Karine FONTANA, Russia  Rolf KARBACH, Slovakia  Vesna KARADZIC, Montenegro  Anastasia KIRILIEVA, Ukraine  Pavlo KOSTETSKYI, Ukraine  Svetlana KOSTORNOVA, Ukraine  Zoran KOVACEVIC, Montenegro  Ksenia KOZINSKAYA, Russia  Irena KRIŠČUKAITIENĖ, Lithuania  Emília KRAJŇÁKOVA, Slovakia  Vita KROL, Ukraine  Csaba LENTNER, Hungary  Oleksii LYULYOV, Ukraine  Serhii LYEONOV, Ukraine  Milan LUBARDA, Germany  Vasilisa A. MAKAROVA, Russia  Virginia NAMOTKO, Lithuania  Milan FILOTIC, Czech Republic</p>	<p>Mykolas NAVICKAS, Lithuania  Valentinas NAVICKAS, Lithuania  Kateryna ONOPRIIENKO, Ukraine  Pero NIKCEVIC, France  Marko NIKIC, Montenegro  Milica NIKIC, Montenegro  Stevo NIKIC, Montenegro  Vinko NIKIĆ, Montenegro  Volodymyr NOVIKOV, Ukraine  Urszula MENTEL, Poland  Radovan OGNJENOVIC, Poland  Dalibor PELEVIC, Montenegro  Jelena PEROVIC, Montenegro  Yuriy PETRUSHENKO, Ukraine  Tetyana PIMONENKO, Ukraine  Oksana PONOMARENKO, Ukraine  Olivera BLAGOJEVIC POPOVIC, Montenegro  Srdja POPOVIĆ, Montenegro  Oksana V. PORTNA, Ukraine  Justin PUPAVAC, Croatia  Drago PUPAVAC, Croatia  Marcin RABE, Poland  Misko RADJENOVIC, Montenegro  Victoria RADKO, Ukraine  Dragan RADOVIC, Montenegro  Natalia SAMOLIUK, Ukraine  Yaryna SAMUSEVYCH, Ukraine  Taras SAVCHENKO, Ukraine  Yuliia SHAFOROST, Ukraine  Hanna SHVINDINA, Ukraine  Tomas SKRIPKIŪNAS, Lithuania  Paulína SROVNALÍKOVÁ, Slovakia  Gintare STANKUNIENE, Lithuania  Jelena STJEPCEVIC, Montenegro  Dalia STREMIKIENE, Lithuania  Justas STREIMIKIS, Lithuania  Mantas SVAZAS, Lithuania  Inna TIUTIUNYK, Ukraine  Oleksandra TVEREZOVSKA, Ukraine  László VASA, Hungary  Tetyana VASILYEVA, Ukraine  Anna Y. VERETENNIKOVA, Russia  Imre VIDA, Hungary  Alina VYSOCHYNA, Ukraine  Vyacheslav VOLCHIK, Russia  Anna VORONTSOVA, Ukraine  Petar VUKANOVIC, Australia  Nikola VUKCEVIC, Montenegro  Liudmyla ZAKHARKINA, Ukraine  Andrey ZAYTSEV, Russia  Yuliia YELNIKOVA, Ukraine  Bagrat YERZKNYAN, Russia</p>
--	--

## Foreword

We would like to thank all the contributors, discussants and participants of the International Scientific Conference SER 2020, entitled “*New Trends and Best Practices in Socioeconomic Research*”, successfully organized and held in Igalo (September 17th-19th, 2020), which contributed to the same success and has a high scientific quality.

Special thanks to the organizers:

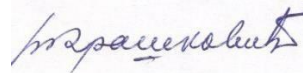
- Adriatic University Bar, Tivat, Montenegro,
- University of Mediterranean, Podgorica, Montenegro,
- Center for Sociological Research, Szczecin, Poland,
- Economic Laboratory for Transition Research, Podgorica, Montenegro and
- Palmon Bay Hotel & Spa, Igalo, Montenegro.

We had 103 authors from 19 countries (Australia, Bosnia and Herzegovina, Canada, Czech Republic, Croatia, France, Germany, Hungary, Italy, Lithuania, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, South Africa and Ukraine).

Conference participants submitted 68 scientific abstracts, which were reviewed by the International review board (Prof. *Dalia STREMIKIENE*, Prof. *Veselin DRASKOVIC*, Prof. *Yuriy BILAN*, Prof. *Vyacheslav V. VOLCHIK*, Prof. *Daniil FROLOV*, Russia, Prof. *Radislav JOVOVIC*, Assoc. Prof. *Mimo DRASKOVIC*, Prof. *Bagrat YERZUNKYAN* and Assist. Prof. *Milica DELIBASIC*).

I hope that the conference participants, in dynamic, interesting and original reports and discussions, will succeed in moving the boundaries of knowledge about the current theme of this conference. I believe that many of the old questions, problems and dilemmas will get some new arguments, information and evidence.

Chair of Scientific Committee



Academician *Veselin DRASKOVIC*, Professor

# PROGRAM

<b>DAY ONE:</b>	<b>Thursday 17th september 2020</b>
-----------------	-------------------------------------

<b>13:00-14:00</b>		<b>REGISTRATION of the participants</b>
14:00-14:10	<p align="center"><b>OPENING THE CONFERENCE (Hotel Palmon Bay Igalo)</b></p> <p><i>Radislav JOVOVIC</i>, Professor, Vicerector of the University of Mediterranean Podgorica, Montenegro</p> <p><i>Srdja POPOVIC</i>, Associate Professor, Director of the Agency for Control and Quality Assurance of Higher Education, Podgorica, Montenegro</p>	
<p align="center"><b>PLENARY SESSION : Introductory Papers – Keynote Speeches</b></p> <p align="center">Head: <i>Yuriy BILAN</i>, Associate Professor</p>		
14:10-14:30	<p align="center">RELATIONSHIP BETWEEN FORMAL, INFORMAL AND ALTERNATIVE INSTITUTIONS AS THE BASIS OF PROGRESS (REGRESS)</p> <p><u>Keynote Speaker</u>: Academician <i>Veselin DRASKOVIC</i>, Professor, University of Montenegro, Maritime Faculty Kotor, Montenegro...</p>	
14:30-14:50	<p align="center">ASSESSMENT OF TRENDS AND PRECONDITIONS FOR THE SOCIAL CAPITAL DEVELOPMENT OF ENTERPRISES</p> <p><u>Keynote Speaker</u> : <i>Yuriy BILAN</i>, Associate Professor, Rzeszów University of Technology, Faculty of Management, Poland</p>	
14:50-15:10	<p align="center">PROBLEMS OF THE GLOBAL ECONOMY</p> <p><u>Keynote Speaker</u> : <i>Radislav JOVOVIC</i>, Professor, Vicerector of the Mediterranean University Podgorica, Montenegro</p>	
15:10-15:30	<p align="center">APPLICATION OF STATED PREFERENCES METHODS TO ASSESS WTP FOR RENOVATION OF MULTI-FLAT BUILDINGS</p> <p><u>Keynote Speaker</u>: <i>Dalia STREMIKIENE</i>, Professor, Lithuanian Energy Institute, Lithuania</p>	
15:30-15:50	<p align="center">CORRELATIONS AND ANY QUESTIONS OF THE EFFICIENCY AT STATE AUDIT OFFICE (SAO) CONTROL FOR STATE-OWNED PUBLIC UTILITY COMPANIES IN HUNGARY</p> <p><u>Keynote Speaker</u>: <i>Laszlo VASA</i>, Associate Professor, Széchenyi István University, Győr, Hungary &amp; <i>Csaba LENTNER</i>, Professor National University of Public Service, Hungary</p>	
15:50-16:10	<p align="center">THE IMPORTANCE OF THE CULTURAL AND INSTITUTIONAL CONTEXTS FOR MANAGING THE DEVELOPMENT PROCESS</p> <p>Academician <i>Bagrat YERZUNKYAN</i>, Professor &amp; PhD <i>Karine FONTANA</i>, Central Economics and Mathematics Institute, Russian Academy of Sciences, Moscow, Russia</p>	

**DAY TWO:**

**Friday 17th May 2019**

<b>PLENARY SESSION – EXTENSION : Introductory Papers - Keynote Speeches</b>	
Head: <b>Mimo DRASKOVIC</b> , Associate Professor	
9:00-9:20	<b>INSTITUTIONAL CHANGE AND NARRATIVE ECONOMICS</b> <u>Keynote Speaker:</u> <b>Vyacheslav VOLCHIK</b> , Professor, Southern Federal University, Rostov-on-Don, Russia
9:20-9:40	<b>POSSIBLE INFLUENCE OF MODERN LOGISTICS TRENDS ON MONTENEGRO</b> <u>Keynote Speaker:</u> <b>Mimo DRASKOVIC</b> , Associate Professor, University of Montenegro, Maritime Faculty Kotor, Montenegro
9:40-10:00	<b>NEW TRENDS AND BEST PRACTICES IN IN THE CONTROL OF HIGHER EDUCATION IN MONTENEGRO</b> <u>Keynote Speaker:</u> <b>Srdja POPOVIC</b> , Faculty for Metiterranean Business Studies Tivat, Montenegro
<b>9:40 -10:30</b>	<b>Sweet, tea, coffee, seasonal fruits</b>
10:30-10:50	<b>BLOCKCHAIN AS A SCHUMPETERIAN INSTITUTIONAL TECHNOLOGY</b> <u>Keynote Speaker:</u> <b>Daniil FROLOV</b> , Professor, Faculty of Economics and Management, Volgograd State Technical University, Volgograd, Russia
10:50-11:10	<b>MICROSOFT TEAMS – A NEW TOY IN TERTIARY EDUCATION</b> <u>Keynote Speaker:</u> <b>Sanja BAUK</b> , Associate Professor Durban University of Technology, South Africa
11:10-11:30	<b>VALIDITY OF OKUN’S LAW – EMPIRICAL EVIDENCE FROM MONTENEGRO</b> <u>Keynote Speaker:</u> Associate Professor <b>Vesna KARADZIC</b> , University of Montenegro, Faculty of Economics, Podgorica, Montenegro
11:30-11:50	<b>NEW TRENDS IN PAINTING: CREATING A TRIPLE COMPOSITION</b> <u>Keynote Speaker:</u> <b>Pero NIKCEVIC</b> , Visiting Professor, Mediterranean University Podgorica, Montenegro
<b>11:50 -13:00</b>	<b>Lunch</b>
<b>SESSION 1 - Head : Radislav JOVOVIC, Professor</b>	
13:00 - 13:10	<b>SYSTEMIC RISK IMPACT ON THE SOCIO-ECONOMIC DEVELOPMENT OF THE COUNTRY</b> Associate Professor <b>Anton BOYKO</b> , Associate Professor <b>Victoria BOZHENKO</b> & <b>Victoria RADKO</b> , Sumy State University, Ukraine
13:10 - 13:20	<b>PRIORITIES DETERMINATION OF FINANCIAL POLICY OF TERRITORIAL COMMUNITIES’ SUSTAINABLE DEVELOPMENT</b> Professor <b>Yuriy PETRUSHENKO</b> , Ph.D. in Finance <b>Anna VORONTSOVA</b> , & Ph.D. student <b>Oksana PONOMARENKO</b> , Sumy State University, Sumy, Ukraine
13:20 - 13:30	<b>INSTITUTIONAL REGULATION OF FINANCIAL INVESTMENTS IN UGANDA</b> Research Professor <b>Laszlo VASA</b> , Széchenyi István University, Győr, Hungary Institute for Foreign Affairs and Trade, Budapest, Hungary & PhD student <b>Imre VIDA</b> , Szent István University, Gödöllő, Hungary



13:30 - 13:40	<p>MODERN CIVILIZATION AS A PRODUCT OF TRAGIC PARADOX</p> <p><u>Keynote Speaker:</u> Professor <b>Stevo NIKIC</b>, University "Adriatic" Bar, Faculty for Mediterranean Business Studies Tivat, Montenegro, mr <b>Milica NIKIC</b>, University "Adriatic" Bar, Maritime Faculty Bar, Montenegro</p>
13:40 - 13:50	<p>CHALLENGES FOR PUBLIC INVESTMENT POLICY IN TERMS OF SUSTAINABLE DEVELOPMENT</p> <p>Assistant Professor <b>Yuliia YELNIKOVA</b>, Sumy State University, Ukraine</p>
13:50 - 14:00	<p>ENVIRONMENTAL EDUCATION FOR YOUTH AND ADULTS</p> <p>Professor <b>Yuriy PETRUSHENKO</b>, Sumy State University, Sumy, Ukraine &amp; Ph.D. student <b>Kateryna ONOPRIENKO</b>, Sumy State University, Sumy, Ukraine</p>
14:00 - 14:10	<p>AGRI-ENVIRONMENTAL FOOTPRINT INDEX OF FAMILY FARMS USING FADN DATA: METHODOLOGY AND APPLICATION</p> <p><b>Vida DAPKIENE</b>, Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania</p>
14:10 - 14:20	<p>BLOCKCHAIN FOR SUPPLY CHAINS IN 2020 – STILL EXPERIMENTATION STAGE</p> <p>Professor <b>Borut JEREB</b>, University of Maribor, Faculty of logistics, Slovenia</p>
14:20 - 14:30	<p>LONG-TERM EFFECTS OF THE ECONOMY CRISIS</p> <p>Professor <b>Oksana V. PORTNA</b>, Department of Management and Administration, V.N. Karazin, Kharkiv National University, Ukraine</p>
14:30 - 14:40	<p>PROBLEMS OF BIODIVERSITY AND HABITATS IN LITHUANIA</p> <p><b>Aistė GALNAITYTĖ</b>, Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania</p>
14:40 - 14:50	<p>TENDENCIES OF CLIMATE CHANGE MITIGATION AND ADAPTION IN LITHUANIA</p> <p><b>Virginia NAMJOTKO</b>, Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania</p>
14:50 - 15:00	<p>FINTECH TECHNIQUES AS PRACTICAL TOOLS OF ECONOMY UNSHADOWING</p> <p>Professor <b>Taras SAVCHENKO</b>, Sumy State University, Ukraine &amp; Ph.D. in Economics <b>Alina BUKHTIAROVA</b>, Sumy State University, Ukraine</p>
15:00 - 15:10	<p>STATE SUPPORT OF INNOVATIVE DEVELOPMENT IN THE STRATEGIC SECTORS OF THE NATIONAL ECONOMY</p> <p>Professor <b>Tetyana VASILYEVA</b>, Sumy State University, Ukraine &amp; Associate Professor <b>Liudmyla ZAKHARKINA</b>, Sumy State University, Ukraine</p>
15:10 - 15:20	<p>POPULATION AGING AND ITS INFLUENCE ON THE EMPLOYMENT POLICY OF MANUFACTURING COMPANIES</p> <p>Professor <b>Rolf KARBACH</b>, Alexander Dubcek University in Trenčín, Faculty of Social and Economic Relations, Trenčín, Slovakia</p>
15:20 - 15:30	<p>TAX GAP AND MACROECONOMIC EQUILIBRIUM: THE DYNAMIC IMPACT OF UNOFFICIAL SECTOR OF ECONOMY</p> <p>Associate Professor <b>Inna TIUTIUNYK</b>, Sumy State University, Ukraine</p>

15:30 - 15:40	<p>BANKING CREDIT RISK MANAGEMENT AS AN ELEMENT OF ENSURING NATIONAL ECONOMIC SECURITY</p> <p>Associate Professor <b>Liudmyla ZAKHARKINA</b>, Sumy State University, Ukraine, <b>Volodymyr NOVIKOV</b>, Sumy State University, Ukraine &amp; <b>Oleksandra TVEREZOVSKA</b>, Sumy State University, Ukraine</p>
15:40 - 15:50	<p>BEHAVIORAL BARRIERS OF CLIMATE CHANGE MITIGATION IN HOUSEHOLDS</p> <p><b>Gintare STANKUNIENE</b>, Lithuanian Energy Institute</p>
<b>15:50 -16:00</b>	<b>Sweet, tea, coffee, seasonal fruits</b>
16:00 - 16:10	<p>IMPACT OF SYSTEMIC RISKS ON SOCIOECONOMIC COUNTRY DEVELOPMENT</p> <p>Professor <b>Tetiana VASILYEVA</b>, Sumy State University, Ukraine &amp; Ph.D. researcher <b>Pavlo KOSTETSKYI</b>, Sumy State University, Ukraine</p>
16:10 - 16:20	<p>MODERN INDUSTRIALIZATION AND MODELS OF TECHNOLOGICAL DEVELOPMENT</p> <p>Professor <b>Oleg Sergeevich SUKHAREV</b>, Chief Researcher, Institute of Economics, Russian Academy of Sciences, Moscow, Russia</p>
16:20 - 16:30	<p>SMART ENERGY-MODERNIZATION TRANSFORMATIONS IN UKRAINE</p> <p>Associate Professor <b>Svitlana KOLOSOK</b>, Sumy State University, Ukraine</p>
16:30 - 16:40	<p>BUSINESS CLUSTERS' CONVERSION TO BLOCKCHAINS AND DEVELOPMENT OF SUSTAINABLE PRODUCTS</p> <p>Associate Professor <b>Mantas SVAZAS</b>, Kaunas University of Technology, Lithuania, <b>Valentinas NAVICKAS</b>, Kaunas University of Technology, Lithuania &amp; Associate Professor <b>Marcin RABE</b>, University of Szczecin, Poland</p>
16:40 – 16:50	<p>QUASI-ORIGINAL THEORETICAL APPROACHES AS A NEW TREND IN ECONOMIC THEORY</p> <p><b>Milica DELIBASIC</b>, Assistant Professor, University Mediterranean, Faculty of Business Studies, Podgorica, Montenegro, University of of Adriatic Bar, Faculty for Metiterranean Business Studies Tivat, Montenegro</p>
16:50 – 17:00	<p>CAUSALITY BETWEEN SYSTEMIC RISK AND REAL ECONOMY DEVELOPMENT IN UKRAINE</p> <p>Associate Professor <b>Victoria BOZHENKO</b>, Sumy State University, Ukraine &amp; <b>Anastasia KIRILIEVA</b>, Sumy State University, Ukraine</p>
17:00 – 17:10	<p>DYNAMIC ECONOMETRIC MODEL OF PUBLIC TRUST IN THE FINANCIAL SECTOR</p> <p>Associate Professor <b>Maryna BRYCHKO</b>, Sumy State University, Ukraine</p>
17:10 – 17:20	<p>SYSTEMIC RISK IMPACT ON THE SOCIO-ECONOMIC DEVELOPMENT OF THE COUNTRY</p> <p>Associate Professor <b>Anton BOYKO</b>, Sumy State University, Ukraine, Associate Professor <b>Victoria BOZHENKO</b>, Sumy State University, Ukraine &amp; <b>Victoria RADKO</b>, Sumy State University, Ukraine</p>
17:20 – 17:30	<p>ASSESSMENT OF AGRICULTURAL PRODUCTIVITY WITH UNDESIRABLE OUTPUTS</p> <p><b>Justas STREIMIKIS</b>, Lithuanian Institute of Agrarian Economics</p>

17:30 – 17:40	FOREIGN DIRECT INVESTMENT, TOURISM, ECONOMIC GROWTH AND TRADE: PANEL VECTOR AUTO REGRESSION (VAR) MODEL <b>Jelena PEROVIC</b> , professor, Faculty of Economics and Business, Mediterranean University, Podgorica Montenegro & <b>Milica RAICEVIC</b> , MSc, Faculty of Economics and Business, Mediterranean University, Podgorica, Montenegro		
17:40 – 17:50	INVESTORS' MOOD AND RATES OF RETURN. BEHAVIORAL ANALYSIS <b>Urszula MENTEL</b> , assistant, Faculty of Management, Rzeszow University of Technology, Poland		
<b>19:00 - 22:00</b>	<b>Cocktail</b>		
<table border="1" style="margin: auto;"> <tr> <td><b>DAY THREE:</b></td> <td><b>Saturday 18th May 2019</b></td> </tr> </table>		<b>DAY THREE:</b>	<b>Saturday 18th May 2019</b>
<b>DAY THREE:</b>	<b>Saturday 18th May 2019</b>		
<b>SESSION 1 - EXTENSION –</b> Head: <b>Laszlo VASA</b> , Associate Professor			
10:00 -10:10	MANAGEMENT OF NATURAL RESOURCES SUCH AS WATER, SOIL AND AIR IN LITHUANIA <b>Irena KRIŠČIUKAITIENĖ</b> , Lithuanian Institute of Agrarian Economics, Vilnius, Lithuania		
10:10 -10:20	THE IMPACT OF POVERTY ON MODERN SLAVERY <b>Drago PUPAVAC</b> , Professor, Polytechnic of Rijeka, Republic of Croatia		
10:20 -10:30	THE STRUCTURAL DYNAMICS, INVESTMENTS, EMPLOYMENT AND PRODUCTION IN THE BALTIC STATES AGRICULTURE <b>Vaida SAPOLAITE</b> , Lithuanian Institute of Agrarian Economics		
10:30 -10:40	ENERGY EFFICIENCY GAP ON NATIONAL ECONOMY <b>Serhii LYEONOV</b> , Professor, Sumy State University, Ukraine & <b>Yuliia SHAFOROST</b> , Sumy State University, Ukraine		
10:40 -10:50	DISTRIBUTION OF EU COUNTRIES ACCORDING TO LOSSES AND BENEFITS FROM LABOR MIGRATION Assistant Professor <b>Emília KRAJŇÁKOVA</b> , Alexander Dubcek University in Trenčín, Faculty of Social and Economic Relations, Trenčín, Slovakia		
10:50 -11:00	DIGITALIZATION AS A MEANS OF ACHIEVING THE COMPETITIVE ADVANTAGE OF MARINAS <b>Nikola VUKCEVIC</b> , Assistant Professor, University „Adriatic” Bar, Faculty for Mediterranean Business Studies Tivat, Montenegro, <b>Marko NIKIC</b> , Assistant Professor, University “Adriatic” Bar, Maritime Faculty Bar, Montenegro,		
11:00 -11:10	THE KEY FEATURES OF LABOUR MIGRATION PROCESSES IN UKRAINE <b>Hanna SHVINDINA</b> , Associate Professor, Sumy State University, Ukraine & <b>Serhii LYEONOV</b> , Professor Sumy State University, Ukraine		
11:10 -11:20	GREEN PRODUCTION AND GREEN COMPETITIVENESS: LINKING BETWEEN CATEGORIES <b>Olena CHYGRYN</b> , Associate Professor, Sumy State University, Ukraine <b>Oleksii LYULYOV</b> , Associate Professor, Sumy State University, Ukraine & <b>Svetlana KOSTORNOVA</b> , Sumy State University, Ukraine		
11:20 -11:30	PREREQUISITES FOR THE DEVELOPMENT AND FEATURES OF DIGITALIZATION OF INTER-COMPANY INTERACTIONS <b>Valeria GRISHINA</b> , Ural State University of Economics, Yekaterinburg, Russian Federation		

11:30 -12:00	<b>Sweet, tea, coffee, seasonal fruits</b>
<b>SESSION 2</b>	
Head: <i>Milica Delibasic</i> , Assistant Professor	
12:00 -12:10	ANALYTICAL RESEARCH OF THE COMPETITIVE ENVIRONMENT OF THE COMPANY Professor <i>Natalia Y. IERSHOVA</i> , Department of Economic Analysis and Accounting, Educational and Scientific Institute of Economics, Management and International Business; National Technical University «Kharkiv Polytechnic Institute», Ukraine
12:10 -12:20	OPPORTUNITY BEHAVIOR AS A BRAKE FACTOR OF CONSTRUCTION SOCIOCULTURAL CAPITAL <i>Niksa GRGUREVIC</i> , Assistant Professor, Faculty of Management Herceg Novi; Adriatic University Bar, Montenegro
12:20 - 12:30	COMPARATIVE ANALYSIS OF CORPORATE GOVERNANCE IN DEVELOPED SEAPORTS <i>Jelena STJEPCEVIC</i> , PhD, University of Montenegro, Maritime Faculty of Kotor, Montenegro
12:30 -12:40	THE ROLE OF HEALTH TOURISM IN ENHCANCING THE COMPETITIVENESS OF TOURIST DESTINATION <i>Zoran KOVACEVIC</i> , PhD, Institute Igalo, Herceg Novi, Montenegro
12:40 - 12:50	UNIONS AND THE HOTEL INDUSTRY OF THE 21 <sup>ST</sup> CENTURY <i>Justin PUPAVAC</i> , PhD student, Faculty of Tourism and Hospitality Management, Opatija, Croatia
12:50 - 13:00	AVAILABILITY OF PROFESSIONAL DEVELOPMENT PROGRAMS AND THEIR LINKS WITH ECONOMIC SUCCESS OF ENTERPRISES <i>Natalia SAMOLIUK</i> , Associate Professor, Labour Resources and Entrepreneurship Department, National University of Water and Environmental Engineering, Ukraine <i>Svitlana Bilan</i> , PhD, Rzeszów University of Technology, Poland
13:00 - 13:10	STRUCTURAL CHARACTERISTICS AND POTENTIAL OF HUMAN RESOURCES IN HOTEL INDUSTRY OF MONTENEGRO Assistant Professor <i>Misko RADJENOVIC</i> , University of "Adriatik", Budva, Montenegro
13:15 - 15:00	<b>Lunch</b>
<b>SESSION 2 - EXTENSION</b> : Head: <b>Borut JEREB</b> , Professor	
15:00 - 15:10	RISK AND OPPORTUNITY MANAGEMENT IN THE HOTEL BUSINESS: CASE OF MONTENEGRO <i>Olivera BLAGOJEVIC POPOVIC</i> , PhD, University of Montenegro, Faculty for Tourism and Hotel Management, Kotor, Montenegro
15:10 - 15:20	THE EVALUATION OF EFFICIENCY OF CORPORATE INVERSION <i>Vasilisa A. MAKAROVA</i> , PhD student & <i>Adel DALAL</i> , PhD student, Department of Finance, St. Petersburg School of Economics and Management, National Research University Higher School of Economics, Saint Petersburg, Russia
15:20 - 15:30	COMPETITION PROTECTION POLICY AS A FACTOR OF COMPETITIVENESS OF MONTENEGRO

	<i>Nebojsa JOVOVIC</i> , PhD student, Mediterranean University Podgorica, Montenegro
15:30 - 15:40	LOGISTICS ACTIVITIES THROUGH THE PORT OF BAR AS AN EXPORT PRODUCT OF MONTENEGRO <i>Dalibor PELEVIC</i> , PhD student, University of Montenegro, Maritime Faculty Kotor, Montenegro
15:40 - 15:50	BEHAVIOR OF CRYPTOCURRENCIES INVESTMENTS <i>Miroslav JOVOVIC</i> , MSc, University of Montenegro, Faculty of Economics, Podgorica
15:50 – 16:00	APPLICATION OF ECONOMIC MODELING IN ADRIATIC SEAPORTS <i>Tijana DJUROVIC</i> , Msc student, University of Montenegro, Maritime Faculty Kotor, Montenegro
16:00 – 16:10	ASSESSMENT OF TRENDS AND PRECONDITIONS FOR THE SOCIAL CAPITAL DEVELOPMENT OF ENTERPRISES <i>Vita KROL</i> , PhD student, Labour Resources and Entrepreneurship Department, National University of Water and Environmental Engineering, Ukraine <i>Yuriy BILAN</i> , PhD, Rzeszów University of Technology, Poland
16:10 – 16:20	STRATEGIC PLANNING: BALANCE BETWEEN PUBLIC SPACE, MARITIME SECTOR AND ITS IMPACT ON SHADOW ECONOMY PhD Student <i>Mykolas NAVICKAS</i> , Klaipėda University, Lithuania & PhD Student <i>Tomas SKRIPKIŪNAS</i> , Kaunas University of Technology, Lithuania
16:20 – 16:30	EVOLUTION OF REGIONAL INNOVATION ECOSYSTEMS <i>Igor CHELAK</i> , Aspirant, Deputy Director, State Unitary Enterprise of the Sverdlovsk Region Sverdlovskytortresursy, Yekaterinburg / Ural Institute of Management of the Russian Presidential Academy of National Economy and Public Administration, Yekaterinburg, Russian Federation
16:30 – 16:40	PERSONNEL MEASURES FOR SMALL AND MEDIUM – SIZED ENTERPRISES IN CONDITIONS OF ECONOMIC RECESSION Ing. <i>Paulína SROVNALÍKOVÁ</i> , PhD., MBA, Alexander Dubcek University in Trenčín, Faculty of Social and Economic Relations, Trenčín, Slovakia
16:40 – 16:50	MONTENEGRO AND THE POLICY OF MULTICULTURALISM MSc <i>Radovan OGNJENOVIC</i> , Data Analyst for German and English, Accenture Operations Poland, Warsaw, Poland
16:40 – 16:50	INTELLECTUALIZATION AS A FIRST STEP OF TRANSITION TO NOONOMICS Student PhD <i>Nikolay DMITRIEV</i> , Assistant Professor <i>Andrey ZAYTSEV</i> , Peter the Great Saint-Petersburg Polytechnic University, Saint Petersburg, Russian Federation
16:50- 17:00	EDUCATION IN THE FUNCTION OF DEVELOPMENT OF HUMAN RESOURCES COMPETITIVENESS IN THE MONTENEGRIN MARITIME MSc <i>Sladjana DRASKOVIC</i> , University of Montenegro, Maritime Faculty Kotor, Montenegro
17:00 –17:30	<b>Coffee Break</b>

<b>17:30 -18:00</b>	<b>Conclusions of the Conference</b>
<b>18:30 -23:00</b>	<b>Gala Dinner in Budva</b>

Professor **Bagrat YERZNKYAN**  
Central Economics and Mathematics Institute,  
Russian Academy of Sciences,  
Moscow, Russia

PhD in Economics **Karine FONTANA**  
Central Economics and Mathematics Institute,  
Russian Academy of Sciences,  
Moscow, Russia

## **TRANSFORMING HARMFUL OUTPUT INTO USEFUL INPUT**

### **ABSTRACT**

*This paper attempts to constructively solve the problem of negative externalities in terms of turning them into positive ones by transforming the negative side effects into the harmless resources necessary for the production of the same or other useful products necessary for consumption. Harmful output, as a rule, is not a core product, but a by-product – what is commonly referred to as the term of negative externalities. The idea of this paper is simple enough: to transform harmful products into useful resources necessary for production or direct consumption.*

*The problem of negative side effects is solved not so much as such, but as necessary for the production and consumption of alternative resources. For example, water, being a public or quasi-public good, is at the same time a meritorious good (the demand for which on the part of economic agents does not coincide with the normative guidelines of society) (Musgrave, 1987), which, as a result of pollution, can turn into a de-meritorious good. To prevent such pollution of water, either protective mechanisms in the form of, say, government intervention / guardianship, or other ways to solve the problem of negative externalities are needed. In the case of water, it is an alternative water supply. The need for this is dictated by both economic and environmental considerations. Economic reasons are explained by the fact that traditional methods of water supply by reducing the specific consumption of water resources and/or reducing water losses during transportation in water supply and drainage systems (including through reconstruction and modernization of water supply and sewage facilities), reconstruction of various kinds of systems, including irrigation, at present are insufficient. Environmental reasons do not need to be clarified at all, since the problem of negative externalities exists as much as economic science. It is important to underline, that a transition to alternative methods of water supply is necessary, which are based, in particular, on wastewater treatment and reuse of purified water (Fontana, Fontana, 2016). It is one of the alternative sources of water in regions with limited water resources, in addition it is an effective way to mitigate water stress and solve a number of environmental problems associated with the pollution of natural water resources.*

*A feature of this approach is that alternative water supply, energy supply, etc., can compensate for the shortage of water, energy, etc., where it is possible to implement technologically and institutionally and where it is advisable to implement it from an economic point of view. The technological solutions concern technical methods, such as*

wastewater treatment and their repeated or better regular reuse, as it is practiced in the circular economy, the institutional ones affect solutions that can be divided into three types from a theoretical and methodological point of view: government intervention (practiced in a situation of "market failures"); a Coasen solution (involving market contracting between producers and consumers of negative externalities); a hybrid way of problem solving (combining the market efforts of the parties involved and non-market activities of organizations interested in the public good).

The alternatively produced resources of water, energy, etc., are in this case not general assets, but specialized ones. This means that we are not interested in waste as such, the solution of which is a separate global task, but in waste that can be transformed by relatively local efforts. That is why we are talking about them as specific (by location) assets (resources). In fact, an internalized solution is proposed, without resorting to state guardianship, in other words, a local solution, in which the participants are potential producers and consumers of resources. In a sense, this decision can be considered based on an extended interpretation of Coase's theorem: stakeholders who can agree without significant transaction costs of interaction and without special legal delays can achieve a Pareto optimal result (Yerznkyan, 2012). Of course, it is difficult to do this nationwide, but on a local scale – taking into account the specificity of assets by location – it is possible. The appeal to the alternative can be caused by various reasons. For example, countries that do not have their own traditional resources or have a limited amount of them will try to make up for their absence or shortage by resorting to alternative methods of generating them.

The approach considered in the paper opens the way to a circular economy, which serves to represent a type of economy based on the use of renewable resources, say, water, energy, etc., in this sense, contrasted with the traditional, linear economy based on the creation, use and disposal of them. A detailed analysis and identification of the emergence and development of the circular economy in the sphere of innovation-driven water supply oriented to the sustainable development of urban economy is considered. In the situation with water, the circular nature of the economy is manifested in the waste water reuse. Barriers to the implementation of its principles in Russia are: lack of incentives for the introduction of innovative technologies and methods of water supply; inadequate local conditions and technological solutions institutional support for wastewater water reuse; weak linkage of the policy pursued by the city (municipal) authorities with the essence of specific problems of water reuse, etc.

**KEYWORDS:** input, output, negative externalities, technological and institutional solutions, water reuse.





Academician Professor *Veselin DRASKOVIC*  
University of Montenegro, Maritime Faculty Kotor,  
Montenegro

**RELATIONSHIP BETWEEN FORMAL, INFORMAL AND  
ALTERNATIVE INSTITUTIONS AS THE BASIS OF PROGRESS  
(REGRESS)**

**ABSTRACT**

*The subject of this article is to investigate the cause and effect relationship between legal (formal and informal) and illegal (alternative) institutions, as well as their key impact on socio-economic progress. The aim of this paper is to point out quasi-neoliberal causes of the permanent crisis transition, which caused major problems and deformities, creating a new dogma and new "elitist system". The specified relationship is determined through profound contradictions between individualism and collectivism, liberalism and dirigism, permissible and incomprehensible, private and group interests, irresponsible "rules-free games" and "rules-defined games". The starting point is the assumption that for the socio-economic development of Montenegro, it is imperative to improve the observed relationship, in the direction of limiting and eliminating alternative institutions. The basic hypothesis is that the main goals of the so-called. Of the "reformers" were of high interest, as evidenced by their enormous wealth and stratification in society. Our descriptive and critical analysis showed the correctness of the hypothesis. It is fully consistent not only with the long-standing media reports of scientific analysis, but also with visible practical manifestations. In conclusion, it is noted that alternative institutions have played a key role in realizing the interest motives of the "reformers".*

**KEYWORDS:** Formal institutions, informal institutions, alternative institutions, quasi-neoliberalism, institutional monism



## **APPLICATION OF STATED PREFERENCES METHODS TO ASSESS WTP FOR RENOVATION OF MULTI-FLAT BUILDINGS**

**This research was funded by a grant (No. S-MIP-17-131) from the Research Council of Lithuania**

### **ABSTRACT**

*The main energy policy document - Lithuanian National Energy Independence Strategy (2018) states that more than 70% apartment buildings currently in Lithuania are inefficient in heat consumption and requires deep energy renovation. In 2020 it was 35500 multi-flat buildings in Lithuania requiring energy renovation and almost 65 years are necessary to renovate all of them. So, as the pace of energy renovation is very slow it is necessary to define the main drivers and barriers of energy renovation of multi-flat buildings in Lithuania and to define policies and measures able to deal with these barriers. Use of stated preferences methods like Contingent Valuation Method for assessment of WTP for energy renovation will provide more insights into the problem and allow to enhance policies and measures targeting energy renovation of multi-flat buildings. Conducted survey in Lithuania allowed to get the following results. The organizational, behavioral and economic barriers hampering deep energy retrofitting in Lithuanian households living in multi-flat buildings were identified. The main organizational barriers of energy renovation are linked to problems and difficulties in reaching common agreement on energy renovation between apartment owners and lack of coordinating body able to take all responsibilities linked to renovation of multi-flat buildings. The main economic barrier of energy renovation identified during survey are: inadequate governmental support, reluctance of apartment owners to take loan and low income of households having impact of inability to pay energy renovation costs. The findings of conducted study allowed to generate valuable policy recommendations for enhancement of energy renovation of multi-flat buildings. As during the survey it was indicated that willingness to pay for energy renovation by monthly energy bills is higher than willingness to pay total costs of renovation before it starts, the extended Energy Service Company Obligation (ESCO) model was proposed for enhancement of energy renovation of multi-flat buildings which allows to overcome three main barriers of energy renovation in residential sector. ESCO scheme allows to apply on bill financing model for covering energy renovation costs and to have coordinating body for implementation of all organizational issues linked to energy renovation. The ESCO scheme also allows to deal with behavioural barriers like limited cognition, limited behavioural, status quo bias, risk aversion and informational barriers.*

**KEY WORDS:** Climate change mitigation; Stated preference methods; Willingness to Pay; Renovation; Barriers; ESCO.

## **PROBLEMS OF THE GLOBAL ECONOMY**

### **ABSTRACT**

*The subject of this research are problems in the global economy and consideration of their consequences. The aim is to analyse the global challenges that the world is facing. It is focuese on identification of numerous threats before humanity. It starts with the hypothesis that the humanity has entered into a negative cycle, which unfortunately threats with a possible global crisis of various forms. This research uses the scenario method as well as methods of analysis, synthesis, deduction, induction. In addition, this research relies on different statistics (Eurostat, World Bank, OMS, etc.). Presented empirical data, qualitative and quantitative, verify the theoretical hypothesis. This argumentative research shows that humanity must face major threats: political, economic, ecological, technological, financial, social, and geopolitical.*

**KEY WORDS:** risk, crisis, market, altruism, threats.



## **BLOCKCHAIN AS A SCHUMPETERIAN INSTITUTIONAL TECHNOLOGY**

*Schumpeter's framework for disruptive innovation (Schumpeter-1 approach) is the standard approach to the study of new technologies among institutional and evolutionary economists. Blockchain, as a new information and communication technology (ICT), is most often interpreted through a Schumpeterian lens of diffusing new innovations and creative destruction. In this sense, blockchain is one of a many Schumpeterian technologies increasing total factor productivity. Davidson, De Filippi, and Potts (2018) offer a new explanation of the blockchain through a Coasian lens of transaction cost minimization. Blockchain is not considered only as an ICT, but as institutional technology. But recognition that blockchain reduces transaction costs comprehensively is still not enough to understand its real complexity. Rather than use a Coasian lens of cost minimization, I advocate looking through a Schumpeterian lens of value creation (Schumpeter-2 approach). I argue that blockchain is an institutional technology not only in Coasian terms but also in a Schumpeterian sense: it not only reduces costs of transacting (and therefore is a Coasian institutional technology) but also increases transaction value and improves the quality of transactions (which means it is a Schumpeterian institutional technology).*

The research is supported by the grant of the Russian Foundation for Basic Research (project no. 18-010-00832).



Visiting Professor *Pero NIKCEVIC*  
Mediterranean University Podgorica,  
Montenegro

## **NEW TRENDS IN PAINTING: CREATING A TRIPLE COMPOSITION**

### **ABSTRACT**

The subject of the paper is the explanation how to make a triple composition of a painting work. The aim of the research is to free the painting from the frame and to expand people's horizons of experiencing space. The starting point is the hypothesis that this new approach will bring the works of great masters closer to modern possibilities. Thus, a concrete and original experiment of making a triple composition of painting work in a given space and time is made. The author has developed a new methodological approach to composition in painting, looking for a concrete expression that he believes can be universal. It is concluded that the considered approach is original and it will contribute methodologically and technically to the improvement of artistic expression and creativity of painters.

**KEYWORDS:** painting work, triple composition, experimental art methodology



Professor *Oleg Sergeevich SUKHAREV*

Chief Researcher, Institute of Economics,  
Russian Academy of Sciences, Moscow, Russia

## **MODERN INDUSTRIALIZATION AND MODELS OF TECHNOLOGICAL DEVELOPMENT**

### **ABSTRACT**

*The purpose of the study is to identify the conditions for the industrialization of the Russian economy, which are reduced to the formation of a certain model of technological development. The research methodology is composed of structural analysis and the general theory of economic growth, considering the need for industrialization and structural changes in the Russian economy as an integral reason for the formation of a new quality economic growth model. The study found that Russia did not have an innovative type of economic growth, and the number of innovative agents decreased with an increase in gross domestic product, which fundamentally differs in the economic and innovative dynamics in Russia from many advanced countries. The next essential point was that the sensitivity of manufacturability to investments in technological innovations (new technologies) was negative, that is, with the growth of investments in new technologies, manufacturability at least did not grow, but at the maximum it decreased. Thus, an economic structure has emerged that “locks” development and counteracts technological renewal. However, the level of technological is very sensitive to investments in old technologies, that is, with their growth it increased. This means that the so-called conservative growth model is acting, as opposed to innovative. Bearing in mind that the process of modern industrialization in the most developed countries does not follow the vector of increasing the share of manufacturing sectors, but rather the direction of growth of their manufacturability and innovative component, Russian economy continues to show the opposite trend, despite the fact that the policy of supporting “local innovations” is being implemented. In total, the macroeconomic policy pursued is not acting in the direction of creating a new model of economic growth based on the achievements of scientific and technological progress and the development of the domestic technological base. To change the main vector of economic development in the direction of technological breakthrough, a radical change in investment policy and strategy is required, aimed at a multiple increase in investment in new technologies and the improvement of the current technological basis. It is problematic to carry out without structural changes, affecting the risk of doing business in sectors of the economy, and other institutional changes affecting the motives for investing in technological updates.*

**KEYWORDS:** industrialization, deindustrialization, technological, new and old technologies, economic growth, risk, investments



Associate Professor *Laszlo VASA*  
Széchenyi István University, Győr, Hungary  
Institute for Foreign Affairs and Trade, Budapest, Hungary

PhD student *Imre VIDA*  
Szent István University, Gödöllő, Hungary

## INSTITUTIONAL REGULATION OF FINANCIAL INVESTMENTS IN UGANDA

### ABSTRACT

*The aim of this paper is to analyse the scheme and status of the institutional regulations of Ugandan financial investments. We investigate Uganda as it is one of the most developed and regulated financial market in Africa, having a strong legal base of the English law system – a heritage with benefits from the colonialism. The country's stock market has been available on the Uganda Securities Exchange (USE) since 1997 and currently stocks of 16 companies listed through eight stockbrokers and four custodian banks are traded, with permission from Uganda's Capital Markets Authority. Ugandan capital markets are dominated by insurance and pension funds. While there are 64 registered pension savings, the Uganda National Social Security Fund is the most dominant institutional investor in local capital markets with 86% of the funds of the national pension fund. The CMA is active in the country since 1996. In cooperation with the National Bank of Uganda, it supervises 25 commercial banks in the country. The regulatory directives, thanks to their colonial past and international background, follow European directives to some extent. On the other hand, we cannot ignore the fact that it is a young capital market and as such has all the advantages and disadvantages of this. It has skipped many stages of development, thanks to the rapid and globalized development of recent decades, yet the financial culture that has developed is only a few decades old. There are financial services that have been left out completely during the structuring of the market and there are some that go much further than European markets. An example is the proliferation of the Mobile Money system, which covers an out-of-bank payment network used by 73% of the population.*

**KEYWORDS:** institutional regulation, capital markets, financial sistem, Uganda



Professor *Stevo NIKIC*

University "Adriatic" Bar,  
Faculty for Metiterranean Business Studies Tivat,  
Montenegro

MSc *Milica NIKIC*

University "Adriatic" Bar,  
Maritime Faculty Bar,  
Montenegro

## MODERN CIVILIZATION AS A PRODUCT OF TRAGIC PARADOX

### ABSTRACT:

*In the beginnings of modern civilization, there are two ambivalent views whose leitmotif appears in different, so divergent theoretical and practical origins. On one hand, it is the attitude of Rene Descartes, an advocate of the power of common sense, science and scientific mastery of nature, and on the other, Blaise Pascal, who denies that reason and science posses the power to make man free and happy and takes the modern age as a period of tragic paradox. While Descartes speaks of reason as the universal power of man, Pascal speaks of fear for man who stands in front of the infinite secrets revealed by reason. According to Pascal, the meaning of human life cannot be found in the scientific logic of calculating reason, but as a personal confession within the framework of what we come to know as the most important human problem - the finality of life. Precisely, this split between the rational and the irrational is the basic issue of the European way of thinking and certainly reaches its peak in modern man and society in an attempt to reflect on the search for the meaning of human existence.*

**Keywords:** modern civilization, tragedy, rational, irrational, paradoxicality, meaning, nonsense, man.





## **MICROSOFT TEAMS – A NEW TOY IN TERTIARY EDUCATION**

### **ABSTRACT**

*Just before the suspension of lectures at tertiary education institutions in South Africa, allegedly due to the danger of a pandemic, Office 365 and Microsoft Teams were placed. Training of lecturers on these IT wonders has been organized. The Microsoft Teams program is very similar to the Adobe Connect program that was used in Montenegro ten years ago, with the difference that everything is completely moved from university servers to Cloud. This program requires a good computer, Windows 10 operating system, because Windows 7 slows it down and swallows data. It can satisfy the transfer of knowledge in some areas, but for the transfer of skills, I think it is not suitable. Therefore, multi-modal education is recommended when it comes to teaching mathematics, statistics, operational research, geographic information systems, navigation, radar plotting, etc.*

*Few days ago I spent two or three hours setting up a register for students in Microsoft Teams. Then I spent more than half an hour explaining to the students online which channel to use, how to open the register and how to fill it out. It was especially annoying with those students who used a virtual smartphone instead of a computer. When we finally made it, I noticed that two students had registered, even though they were not present in the virtual classroom! I take this opportunity to report this bug to Microsoft! Surely they will immediately invest millions of dollars to solve the problem. And they should! One should not regret money when it comes to such important things, as a correct register of students (?!). I believe the focus is deliberately shifting from the important to the irrelevant. This presumes form to the content and quality. As I write this, I notice that linguistics has shifted from higher education to the term tertiary education. Is it a coincidence? I do not think so. It is a matter of targeted humiliation of higher education and those who carry it on their shoulders, and these are professors, who are increasingly today called lecturers or teachers. They are under huge pressure to lecture, work on projects, publish, but in uncertainty of whether their contract will be extended or not and under what conditions. Higher education policy is mainly created by students' representatives (most often bad students) who are undoubtedly backed by certain political entities, who give them wings. Professors, lecturers or teachers, obviously do not have the strength nor authority to effectively oppose these plagues of the new, information age, to which the sky is the limit. Too bad!*

**KEYWORDS:** Microsoft Teams, challenges of multi modal tertiary education



## **VALIDITY OF OKUN'S LAW – EMPIRICAL EVIDENCE FROM MONTENEGRO**

### **ABSTRACT**

*The objective of this paper is to examine whether the Okun's law is valid in case of Montenegro. The goal is to estimate the empirical relationship between unemployment and GDP in Montenegrin economy using official quarterly data on unemployment rate and GDP growth rate for the 2011-2019 period. The two analyzed series are tested for stationary and co-integration. Augmented Dickey – Fuller test proved that unemployment rate is a series stationary on the second differential and Dickey - Fuller test showed GDP growth rate series to be stationary at level. Johansen co-integration test confirms the long-run relationship between these two variables. The Vector Error Correction Model, with unemployment being dependent and GDP growth rate being independent variable, is estimated. The estimated Okun's coefficient is -0.273358, meaning that the increase in the GDP growth rate by 1% causes a decrease in the unemployment rate of 0.273358%, which indicates that there is an inverse or negative relation between these two variables, so in this respect Okun's law is valid in Montenegro. On the other hand, under Okun's law a percentage increase in GDP should trigger a 0.5% decrease in unemployment. Okun's coefficient is less than the value it should have, so in this respect it can be concluded that the Okun's law does not apply in Montenegrin economy in the observed period. However, it should be noted that Okun's coefficient is expected to have different values from country to country, since there are many other factors that affect unemployment in a country and that not all countries are equally developed. This paper is a small contribution to the ongoing debates on the validity of Okun's law.*

**KEY WORDS:** Okun's law, unemployment, GDP, stationary, co-integration, Error Correction Model.



## **POSSIBLE INFLUENCE OF MODERN LOGISTICS TRENDS ON MONTENEGRO**

### **ABSTRACT**

*The subject of this paper is the analysis of the importance of contemporary trends (technological and commercial nature) in the marketing logistics development in Montenegro. The aim of the paper is to point out the possibility to increase the role of the service sector and maritime services in the globalized economic life (with reference to Montenegro) through marketing logistics, which will be reflected through increased employment and the growing participation in many aggregate indicators, primarily BDP. The hypothesis is that in the near future, rapid technological changes will lead to greater affirmation of marketing logistics in creating additional values of various industries, including the Montenegrin maritime industry. Using the methodology of economic science, the starting hypothesis was confirmed and certain conclusions were made, suggesting the need for increased study and practical use of marketing logistics in the Montenegrin maritime industry.*

**KEYWORDS:** Logistics, marketing logistics, modern logistics trends, Montenegro



## **RISK AND OPPORTUNITY MANAGEMENT IN THE HOTEL BUSINESS: CASE OF MONTENEGRO**

### **ABSTRACT**

*The subject of this paper is to point out the importance of risk and opportunity analysis, as important quality determinants of hotel business. The purpose of this paper is to emphasize the necessity for continuous review and assessment of risks and opportunities of all hotel business processes. The subject, purpose and goal determined the methodology of scientific research. The paper presents risk and opportunity analysis using quantitative analysis of FMEA (Failure Mode and Effect Analysis). By applying the qualitative methods we aim to perform a deeper research as well as clarify the importance of the impact of risks and opportunities on certain processes in hotel business. In the risk assessment, all processes of the company, organization, etc. are considered. When, by using this method we identify medium or high risk for business, we are able to perform corrective actions in order to reduce risk, achieve continuous improvement, reduce side effects and ensure that the quality management system achieves its intended results and targets. The paper especially takes into consideration the risk assessment related to the pandemic and the current situation. The results indicate the need to revise the current methodology of risk and opportunities assessment and to evaluate the results in the broader business context. Originality: Based on the assessment performed, high, medium and moderate risks in the hotel business on the example of Montenegro have been identified. Thereafter, measuring proposals were suggested in order to reduce the risk to a reasonable level or at least to be able to accept them until the conditions reach the sensible level.*

**KEY WORDS:** Risks and opportunities, hotel business, quality management, Montenegro



## **QUASI-ORIGINAL THEORETICAL APPROACHES AS A NEW TREND IN ECONOMIC LITERATURE**

### **ABSTRACT**

*The subject of the research is to identify some relatively new trends in economic theory, primarily the contradictory "new self-classifications" of theoretical directions, as well as their renaming. The aim of this research is: a) to show and criticize their paradoxicality and illusiveness, and b) to point out that an authorial way is much more effective in informing the society objectively and critically about the consequences (benefits and harms) of certain political solutions. Initial hypothesis is that economic reality should not be avoided in economic research, but it should be called by its real name, while identified irregularities should be criticized. Because, excessive research abstractness and futile "originality", to the same extent as excessive application of econometrics, cannot contribute to solving many problems in practice. This paper uses classical economic methods, primarily abstractions, inductions, deductions, and comparisons. It is concluded that economic science must accompany the reality of life, which should be studied, presented, and analyzed evolutionarily (not revolutionary).*

**KEYWORDS:** Economic theory, own classifications, renaming economic directions



## ASSESSMENT OF AGRICULTURAL PRODUCTIVITY WITH UNDESIRABLE OUTPUTS

### ABSTRACT

*The agricultural sector is the primary sector of economy providing the other sectors and resident with food resources. The agricultural productivity is associated with food security issues and environmental sector. However, the intensifying agricultural production has resulted in an increasing environmental degradation. In the case of the EU agriculture, the CAP allocates substantial public support for improvements in agricultural sustainability. Therefore, in the case of the European Union (EU), the need for sustainable growth has been envisaged in umbrella strategies (e.g., Europe 2020 and Resource-efficient Europe) and sector-wide frameworks (e.g., the Common Agricultural Policy – CAP). Therefore, there is a need for devising multi-criteria methodologies for assessment of the sustainability at different levels of agricultural sector.*

*From the methodological viewpoint, the production theory has been revisited so that undesirable outputs have been accounted for. Indeed, as the undesirables are often ignored, the profitability and productivity indicators may be biased. The notion of the undesirable outputs has been addressed by Pittman (1981), Färe et al. (1989), Hailu and Veeman (2001) and Kuosmanen (2005). More recently, Murty et al. (2012) and Dakpo et al. (2016) discussed the extensions of the production technologies with the undesirables. These studies use the frontier methods which allow assessing the production possibilities by the means of the production frontier. The Data Envelopment Analysis is often applied to construct the production frontier. This approach is appealing in that it follows economic axioms of convexity, monotonicity and minimum extrapolation (e.g., Farrell, 1957; Afriat, 1972). The DEA can be successfully extended with the undesirable outputs (Sueyoshi, Goto, 2018).*

*The main goal of the research – to prepare integrated framework for assessment of agriculture productivity with undesirable output based on literature review. The properties and linkages of the existing approaches towards sustainability and productivity assessment in agriculture were analysed and summarized. The integrated framework was developed for integration of undesirable outputs in productivity function. The productivity function can be applied for measuring the directions and differences in productivity change in Lithuania and selected countries.*

**KEY WORDS:** sustainable agriculture; agricultural productivity; undesirable outcomes, Data Envelopment Analysis.



## **COMPETITION PROTECTION POLICY AS A FACTOR OF COMPETITIVENESS OF MONTENEGRO**

### **ABSTRACT**

*Improving antitrust policy is vital not only for market participants, but also for the progress of society, ie for achieving the basic goal of economic policy - raising the living standards of citizens. By analyzing the data concerning antitrust policy, as an important indicator of the nation's competitiveness, it can be seen that the results of the implementation of antitrust policy in Montenegro are below the European average and below the average of the Balkan region. Weaknesses in antitrust policy are not the only ones affecting Montenegro's poor competitive position. The analyzes conducted in this paper have shown that the Montenegrin economy continues to be burdened by challenges typical of lower-level economies, such as macroeconomic stability, the state of institutions and the lack of adequate conditions for improving competitiveness at the micro level. Along with eliminating these shortcomings, Montenegro must improve, but also more efficiently implement the existing legal framework of antitrust policy, with constant education of the target public on the importance of equal conditions for all market participants.*

**KEY WORDS:** competitiveness, competition, antitrust policy, market, investments.



## **LOGISTICS ACTIVITIES THROUGH THE PORT OF BAR AS AN EXPORT PRODUCT OF MONTENEGRO**

### **ABSTRACT**

*The subject of research in this article is logistics activities that are being performed via Bar port and their contribution to GDP of Montenegro, not only as activities in the port itself but in all of connecting businesses in Montenegro which perform its activities thanking to the port of Bar. The logistics activities via Bar port run the work of various business entities as well as the branches of the State administration. The business entities involved in logistics activities via Bar port may be divided on the State's owned companies as it is "Luka Bar AD" and "Montecargo AD" as a railway operator while the private companies are: "Port of Adria", the companies which offer pilotage and tug service, the company for sanitary and environmental protection, various represents of shipping lines, private companies for handling of cargo in their warehouses within the Free trade Zone Bar, numerous freight forwarding, port agency and logistics companies, numerous trucking companies, surveying of cargo companies, maintain of equipment companies... The branches of State administration which collect money from the agents of vessels in Bar port filling the budget of Montenegro are Maritime Safety department charging for light dues fee as well as Port Authority which charge for using of shore. The other branches of State Administration employed in the port are: Customs Administration of Montenegro and other inspecting administration offices. At this moment, there are no vessel of the State's own company "Barska Plovidba AD" connecting the shores of Montenegro and Italy but hope in the close future the vessel will be bought what will affect positively not only the company itself, but numerous freight forwarding companies which handle cargo that is being transported between Bar and Bari. The aim of research is to present benefits of enhancing all of types of logistics activities that are being performed via Bar port, on the terminals for cargo handling as well as on the passenger terminal. The results of this paper should present importance of establishing well infrastructure connections to neighboring countries, good business relations and make Bar port closer to them for their logistics needs what will attract more regional cargo and passengers via Bar port. According to the above mentioned, the Government of Montenegro should arrange its activities in that direction what will as result have more business activities which are direct and indirect connected to Bar port. The hypothesis of this article is logistics activities via Bar port may contribute to the gross domestic product of Montenegro significantly keeping in mind that Bar port is built to serve neighboring countries hence the selling of logistics activities via Bar port in the countries of the Western Balkans should be one of the priority, not only of Bar port community but for the State of Montenegro. In order to measure benefits of cargo handling via Bar port and dispatching it to the countries of the region as well as in the opposite direction for exports from region via Bar port to overseas destinations, the earning of all entities in the logistic chain will be measured per ton of cargo handled and in the case of container business per TEU unit. The direct communication with all of entities*



*will be organized in reaching of that goal in order to better understand how logistics activities affect their businesses. The best practices of regional ports of Rijeka and Durrës will be used as well. Not only logistics activities will be involved in the research but and restaurants and café bars in Bar which have direct benefits of passengers that spend its money in their premises waiting to be boarded onto ferry boat. The pandemic of CoVID19 releaved weakness of the economy of Montenegro which is being relied on tourisam mostly so evaluation of new businesses which may contribute to GDP must be one of priority. The logistics activities via Bar port and their multiplicative effects on the economy of Montenegro are one of solutions.*

**KEYWORDS:** Logistics activities, multiplicative effects, Bar port, regional cooperation, GDP of Montenegro.



## BEHAVIOR OF CRYPTOCURRENCIES INVESTMENTS

### ABSTRACT

*The aim of this paper is to analyse the platforms that cryptocurrencies for investments. Despite the fact that at least ten years have passed since the introduction of this technology of cryptocurrencies to the public, its potentials are still not exploited enough. Its two main functions would still remain as an alternate mean of payments and as an investment asset.*

*This research paper is aimed to determine relation between volume of trade of already established classical currencies markets and its effect on digital currencies market. We should note that unlike the classical currencies markets, cryptocurrencies, such as bitcoin, are highly volatile. Due to that, within this research paper, the volume of trade of the second most traded currency, the euro, and the second most traded digital currency, ethereum, shall be analyzed.*

**KEY WORDS:** Cryptocurrency, Ethereum, Investments, Volume of trade, Forex, euro futures.



## UNIONS AND THE HOTEL INDUSTRY OF THE 21<sup>ST</sup> CENTURY

### ABSTRACT

*The aim of this paper is to explore the future of the unions and the hotel industry according to social and economic changes during the last few decades. Since the 1980's the tourism and the hotel industry have become one of the largest world industries. At the same time, number of union members dropped significantly (absolute loss) along with the percentage of union employees (relative loss) that influence the power of the unions worldwide. In the USA's hotel industry, only 8% of the employees are union members while in most of the European Union member states, trade union density in the hotel industry is near 15%. Simultaneously, the number of precarious types of work is increasing. Hotel industry along with fun industry, agriculture (seasonal jobs), construction and retail sectors employ high number of precarious workers. International tourism has an influence on structural changes of the employees, creates high number of low paid jobs, low-skilled precarious types of work and increases number of foreign labor force, even when there is a high demand. Accordingly, the main question of this paper is: Are unions suitable for the hotel industry of the 21st century? If the answer is yes, then the main question is: How to transform low-wage work into decent jobs. The results of field research have been used as primary data. Survey has been conducted among hotel employees (N=452) along the Adriatic coast during the summer season 2018. Scientific methods of analysis and synthesis together with differential and inferential statistics, have been used to evaluate, formulate and present the results. The results obtained may be very important for unions and their representatives to help them form new strategy that will help unions to achieve its goals in effective way. Their goals should comply with wishes and interests of the employees such as better wages, benefits, better working hours, job security, safe environment to work and respect. Moreover, the results obtained may be very important for managers in the hotel industry in the function of more efficient management of human resources.*

**KEY WORDS:** unions, tourism, hotel industry, employees



## **RESILIENCE AND ALTERNATIVE INSTITUTIONS: MULTI-DIMENSIONAL FRAMEWORK**

### **ABSTRACT**

*Can a resilient approach to spatial economics overcome the institutional constraints faced by unsustainable development? I believe that the probability of this is great. Resilience concept was born in 1960-70 as a contrast to the dominant idea of the stability of socio-ecological systems. For the first time, the term “resilience” was proposed by C. Holling in 1973. Resilience is the ability of socio-ecological systems to absorb repeated extreme shocks (hurricanes, floods, fires, etc.) while maintaining the basic structures, processes, and feedback. Holling questioned the very concept of equilibrium as the basis of the classical ecology of ecosystems. At present, resilience has colonized many adjacent and very far from the ecological field spheres.*

*I argue that resilient approach institutionally opposes the traditional engineering approach and teleologism (assigning a goal to spatial systems), advocating the understanding of territories as complex adaptive polycentric systems. The resilient approach is against optimization, considers redundancy and diversity as the main resources for overcoming crises, increasing adaptive efficiency and responding to challenges in as many different ways as possible. The resilient approach attracts a stakeholder concept that opposes centralized management of spatial development, but taking into account the limitations of decentralization. It also includes support for flexible institutions and multi-level management systems. I give examples of alternative institutions that impede resilient development, including corruption in the field of ecology, traditional economic and spatial planning, a system of quantitative assessments of the performance of state bodies, and some others.*

The research is supported by the grant of the *Russian Foundation for Basic Research* (project no. 18-010-00832)



Professor *Drago PUPAVAC*

Polytechnic of Rijeka,  
Croatia

## **THE IMPACT OF POVERTY ON MODERN SLAVERY**

### **SUMMARY**

*It is estimated that 1, 3 billion people are multidimensionally poor and that over 40 million men, women and children are in modern slavery. Poverty and modern slavery has become a global phenomenon's. Accordingly, the main aim of this research is to explore the relationship between poverty and number of people in some form of modern slavery – forced labour, human trafficking and slavery or slavery like practices. The starting point of this paper is that poverty and political and cultural mechanisms which excluding people from economic and social justice, pushes people into modern slavery. The purpose of this work is to prove hypothesis that the reduction in poverty will erode the causes of slavery. To confirm the set hypothesis, we used method of analysis and synthesis, method of descriptive statistics and method of correlation and regression analysis. Results of this research are based on secondary data sources.*

**KEY WORDS:** poverty, modern slavery, multidimensional poverty index.



Assistant Professor **Nikola VUKCEVIC**

University "Adriatic" Bar,  
Faculty for Metiterranean Business Studies Tivat,  
Montenegro

Assistant Professor **Marko NIKIC**

University "Adriatic" Bar, Maritime Faculty Bar,  
Montenegro

## **DIGITALIZATION AS A MEANS OF ACHIEVING THE COMPETITIVE ADVANTAGE OF MARINAS**

### **ABSTRACT**

*Changes are the only constant in today's complex and dynamic world. Globalization, digitalization, and economic crisis have triggered a global transformation of society. Digitalization through digital technology has disrupt business environment in all industries including nautical tourism. There are many suggestions on how to further develop marinas as main elements of nautical tourism under the growing influence of digitalization process. Some of them suggests of tourism development is collaboration, integration, and synergy amongst stakeholders which makes nautical tourism a complex holistic network of stakeholders connected in digital environment.*

*This paper deals with the issue of digitalization importance and possibilities, in marinas, as ports of nautical tourism, in order to significantly improve their competitive advantage. The digitalization should become a new capability as it supports the activities of value co-creation amongst the stakeholders including the customers. But there are some pre-requisites that needs to be fulfilled in order to successfully harness the benefits that digitalization brings. Developing digital strategy, entrepreneurial leadership and digital culture are just some of them. Marinas as leader in digital transformation of nautical destinations, must encourage digital collaboration of different stakeholders on tourism destination level, and conduct intensive digital socialization and training. Today many industries who has adopted digitalization through digital transformation, are facing new challenges but also exploiting many benefits of her, and nautical tourism must be one of those industries.*

**KEYWORDS:** digitalization, digital transformation, competitive advantage, marinas, nautical tourism.



## TENDENCIES OF CLIMATE CHANGE MITIGATION AND ADAPTION IN LITHUANIA

### ABSTRACT

*In Lithuania, as the number of livestock has decreased in recent years, the impact of livestock farming on climate change has decreased. However, due to increasing GHG emissions from the crop subsector, total GHG emissions from agricultural activities (including emissions from arable land, grassland and pastures) have increased. Another adverse phenomenon in terms of climate change mitigation in the country is related to the decrease of soil organic carbon - with the predominance of narrow farm specialization, narrow crop rotations, no perennial grasses, soil organic carbon has decreased in recent years and compared to other EU countries with similar natural conditions – one of the smallest. As much as two-thirds of soil organic carbon was stored in meadows, but they only accounted for about a quarter of all agricultural land. In Lithuania, the increase in the number of extreme meteorological phenomena in recent years, new plant diseases and pests, increasing outbreaks of animal disease epidemics have increased farm losses, reduced production stability, interest in farming and willingness to contribute to the development and modernization of the sector.*

**KEY WORDS:** climate change; mitigation; adaptation; agriculture; Lithuania.



*Irena KRIŠČIUKAITIENĖ*

Lithuanian Institute of Agrarian Economics,  
Vilnius, Lithuania

## **MANAGEMENT OF NATURAL RESOURCES SUCH AS WATER, SOIL AND AIR IN LITHUANIA**

### **ABSTRACT**

*In Lithuania, many indicators describing natural resources are higher quality than the EU average, but in recent years some negative trends have clearly appeared. First of all, with the changes in land use in Lithuania, more and more soil was lost due to water-induced erosion. Second trend can be described as excessive and unbalanced fertilization with mineral fertilizers, leading to an excess of some nutrients in the soil. Third, the quality of groundwater and surface water has deteriorated as production intensity has increased and extreme events have become more frequent. In view of this, the new strategic plan for agriculture and rural development in Lithuania must first of all include measures to encourage agricultural producers to use fertilizers properly, to apply soil-friendly tillage methods and crop rotations.*

**KEY WORDS:** management; natural resources, water, soil, air, Lithuania





## **PROBLEMS OF BIODIVERSITY AND HABITATS IN LITHUANIA**

### **ABSTRACT**

*In Lithuania, in recent years, due to both the intensification of agricultural production and the abandonment of land, the condition of bird populations living on agricultural land, reflecting the state of all biodiversity, has deteriorated and was one of the worst in the EU. The conservation status of all grassland habitats in the country was also unfavorable. In addition, the number of landscape elements in Lithuania was lower than the EU average. In view of this, the new Strategic Plan for Agriculture and Rural Development of Lithuania must first and foremost include measures to promote the conservation of agricultural biodiversity with appropriate farming intensity and the management of habitats and landscape elements.*

**KEY WORDS:** biodiversity; agriculture; land; habitats, Lithuania



## AGRI-ENVIRONMENTAL FOOTPRINT INDEX OF FAMILY FARMS USING FADN DATA: METHODOLOGY AND APPLICATION

### ABSTRACT

*Lithuania is running an ecological deficit as its Ecological Footprint exceeds its bio-capacity. Despite the fact that this deficit is small (0.4 gha), Lithuania is the only country with an ecological deficit among Baltic countries. Lithuania is losing the image of “green country” and there are the reasons behind this state. Agriculture’s role is essential, both in adaptation to the climate change and contribution to the mitigation efforts. Strategic plan for the next long-term EU budget 2021–2027 will be drawn by Lithuania under the EU Common Agricultural Policy strategic plan (COM (2018) 392) towards the transition to a more sustainable farming. The environmental performance of farming is linked to three of nine main objectives: “Contribute to climate change mitigation and adaptation, as well as sustainable energy”; “Foster sustainable development and efficient management of natural resources such as water, soil and air” and “Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes”. The environmental performance of agriculture is manifold, therefore to capture important aspects of farm environmental performance a list of criteria and indicators have been proposed to reveal the situation in the country. Having many indicators, there is a problem to view the main picture of environmental performance and to track the environmental changes influenced by policy. Alongside to that, most indicators enable the analysis at sector level, which limits to disclose problems within farm groups in terms of specialization and size. Farmers adopt new technologies and practices to deal with climate change, protect and preserve the environment, therefore it is important to determine how and how well farmers mitigate and adapt to climate change. Developing the Agri-environmental Footprint Index (AFI) of family farm addresses the need to assess the farm-scale environmental performance. The AFI methodology is based on index construction steps in combination with the primary data of Lithuanian FADN, to reveal differences across farms in terms of their specialization and economic size and to test whether it could be used routinely for policy purposes. Lithuanian FADN of family farms data of the year 2017 were used covering 1300 farms. Furthermore, in this paper the AFI values are reported on the basis of the weighting used in the Lithuanian FADN sample for Lithuanian family farms so that the surveyed farms results represent a national farming population. The final set of indicators for agri-environmental assessment of the farms was derived from extensive literature review on farms’ environmental and sustainability studies. The min–max method was applied to transform values of indicators expressed in variety dimensions for their need to be put on a common basis, namely in interval from 0 to 1. The Principal Components Analysis (PCA) and equal weighting was applied to estimate weights for the indicators. The thresholds values of farms’ AFI intervals indicating low, medium and high environmental performance were estimated based on descriptive statistics. The findings of assessment indicates very good level of Lithuanian family farms environmental performance as 74% and 70% of the*

*sample farms were defined by medium level of AFI, using PCA and equal weighting, respectively. With respect to applied methods of weighting, the results differed within farm groups in terms of their specialization: the highest level of AFI was found for grazing livestock and for field crop farms, using PCA and equal weighting, respectively. At the other end of spectrum, the lowest values of AFI were found for specialist granivores farms regardless of the weighing method being applied. The highest AFI values within farm groups regarding their economic size were found for medium sized farms despite the weighting method used. The index structure is flexible and can respond to diverse local policy needs. The results of the AFI provide a new knowledge about farms environmental performance, disclose problems across farm groups and can be the basis for political decisions that lead to sustainable development of agricultural sector in Lithuania.*

**KEY WORDS:** footprint; index, agri-environment; family farms, FAND



PhD Candidate **Anna Y. VERETENNIKOVA**

Researcher in the Institute of Economics,  
the Ural Branch of Russian Academy of Sciences,  
Yekaterinburg, Russia;

**Ksenia M. KOZINSKAYA**

Researcher in the Institute of Economics,  
the Ural Branch of Russian Academy of Sciences,  
Yekaterinburg, Russia;

## **SOCIAL ENTREPRENEURSHIP AS A DRIVER OF INSTITUTIONAL CHANGE IN A CRISIS**

### **ABSTRACT**

*Social entrepreneurship as a new organization form of economic relations has the potential of alternative solutions to social problems. This subject is particularly relevant in times of crisis, accompanied by the growth of social problems in society. The study deals with the role of social entrepreneurship as an object and subject of institutions transformation in a crisis. The study determined that the lack of institutions contributes to social entrepreneurship development. Social entrepreneurship projects are more prevalent in areas with significant socio-economic, cultural or environmental problems, where existing institutional structures are not sufficiently functional. It is proved that entrepreneurs with an innovative vision in solving social problems can eliminate these problems and fill institutional voids, which is due to the potential of a social entrepreneur to create a resource that solves the problem of institutions lacks or their inefficiency. The research methodology was based on the methods of analysis and synthesis, categorization, and systematization.*

**KEYWORDS:** social entrepreneurship, crises, institutional change, drivers, transformation, social and economic goals



## **BLOCKCHAIN FOR SUPPLY CHAINS IN 2020 – STILL EXPERIMENTATION STAGE**

### **ABSTRACT**

*Blockchain is a fundamental technology as it is internet or personal mobile devices. It could transform how we do it, in fundamental ways. Technology is relatively new and full of excitement about its possibilities how to use it. We believe it is not just a technology question but it is also a decision that can transform business models and processes. It is changing the face of business and government today – supply chains is just one case. According to Deloitte's 2019 global blockchain survey the question for executives is no longer, "Will blockchain work?" but, "How can we make blockchain work for us?" However, still today blockchain technology spur more questions than answers. We still do not have enough promising test cases in the area of supply chains. To develop a specific supply chain blockchain application, it's important to evaluate each potential use in terms of the following main factors: desirability, feasibility and viability. On the other hand six factors that should be considered to create a successful blockchain application are well known. They are Consortium (partnering with the necessary players to ensure network effect), Operations (designating maintenance responsibilities), Talent (sourcing the right people to lead implementation, Compliance (adapting to accommodate rules and regulations), Business impacts (understanding impacts to core business process) and Technology (navigating through rapid technological changes). We are also faced with: a) lack of a federated identity connected with the digital identity and b) lack of reliable cost projections and analysis connected with the experience and knowledge about quantifiable efficiency increases, reduced delays and cost savings to show clear and measurable added value. We know that working with a fundamental technology in its early days can bring many challenges, but can offer far greater rewards. It seems that the time to start testing and learning how to use blockchain technology in supply chain is beginning.*

**KEY WORDS:** Blockchain, supply chain, feasibility, desirability, viability.



## COMPARATIVE ANALYSIS OF CORPORATE GOVERNANCE IN DEVELOPED SEAPORTS

### ABSTRACT

*The development of corporate governance in the world's advanced seaports is closely linked and conditioned by the strengthening of institutional frameworks, in which institutional investors have played a dominant role. They are actively fulfilling their role in corporate governance. The institutional and operational field of corporate governance is always closely linked to systemic, structural, procedural and legal rules, regulations and control mechanisms, which regulate the management of the company in a way that ensures the benefit and satisfaction of all stakeholders.*

*Although corporate governance in seaports covers several aspects (organizational, economic, administrative, institutional, legal, financial, environmental, etc.), their connection and conditionality was certainly decisive in the general development lag of several groups of parameters (transfer of power of attorney, functional and financial autonomy). etc.). In addition to the stated development limit, many other constraints stood in the way of achieving sustainable competitiveness, among which the most important are physical (infrastructural), regulatory (institutional) and market constraints. Some seaports, however, have managed to adapt faster and better to modern local changes (organizational, operational, cost, ownership, institutional, administrative and corporate). When the appropriate redistribution of responsibilities and authorities between the public and private sectors is also taken into account, there are clear setbacks in the development of corporate governance in many seaports. Basic models of corporate governance in seaports have evolved depending on the distribution of risks between corporate governance entities, as well as on the role and responsibilities of the private sector in the four most important areas: infrastructure, superstructures, terminal operations and other services. At the same time, institutional and organizational reforms in seaports have conditioned a gradual but significant redefinition of the role and operational powers of port authorities as a public (state) regulatory body. It is believed that corporate governance in seaports should deal much more with micro-regulations and micro-problems, and less with gaps between institutional and organizational reforms, due to which the resource capabilities of seaports (financial, personnel, logistics, security, operational, ecological, infrastructural, etc.) often "suffer". Private investors, by the logic of things, demanded precise "rules of the game" in the area of corporate governance. They have contributed to reducing the dependence of seaports on state funding while reducing the risk of its division and overcoming conflicts and interests between different levels of government (government and seaports). This paper aims to point out the need to accept modern world standards, concepts and strategies, conceptual approaches to solving problems in the subject areas, especially*

*institutional pluralism, which arise from the analyzed exemplary world models and advanced seaports.*

**KEYWORDS:** institutions, corporate governance, seaports, economic development, institutional investors, institutional pluralism



## **LONG-TERM EFFECTS OF THE ECONOMY CRISIS**

### **ABSTRACT**

*Current global economic trends in times of crisis caused by the pandemic, confirm that both global and national economic systems operate in a turbulent environment in the presence of interdependent complex network. Studies of the long-term effects of the crisis and recommendations for stabilizing the economy focus on production volumes, production chains, job preservation, investment activity, income levels, turnover, etc. The effects of the crisis are that under the influence of many factors the structural pattern of the economy is changing but IT (digital services) is developing and agribusiness remains stable against the background of near destruction of entire sectors and industries (services, transport, tourism, restaurant business, energy, etc.). Stabilization measures and tools for the economy at all levels (from global to individual small businesses) provide both the availability of resources (especially financial) and their optimal allocation and redistribution using modeling of resource flows, which determines not only opportunities but also the effects of stabilization measures. The results of the study can be used to shape and achieve long-term positive effects of the economy.*

**KEY WORDS:** economy, long-term effects, crisis, stabilization, structure, resources, finances





Professor *Natalia Y. IERSHOVA*

Department of Economic Analysis and Accounting,  
Educational and Scientific Institute of Economics, Management and International Business;  
National Technical University «Kharkiv Polytechnic Institute»,  
Ukraine

## **ANALYTICAL RESEARCH OF THE COMPETITIVE ENVIRONMENT OF THE COMPANY**

### **ABSTRACT**

*A study of general trends in functioning and development of companies has proved that the company as an open system functions in a complex, unstable and dynamic external environment. The use of innovative analytical tools increases the relevance of data when making management decisions to ensure the competitiveness of the company. The system of key indicators of analysis of the competitive environment focuses on non-financial indicators, i.e. the effectiveness of internal business processes and stakeholders relationships. Organizational modeling of competitive environment analysis processes is studied. The findings of the study can be used to gain and strengthen a company's competitive advantage.*

**KEY WORDS:** innovative analytical tools, analytical research, competitive environment, relevant information, variable economic factors.



Assistant Professor *Niksa GRGUREVIC*

Faculty of Management Herceg Novi, Adriatic University Bar,  
Montenegro  
Faculty of Economics, University of Business and Management Engineering Banja Luka,  
Bosnia and Herzegovina

## **OPPORTUNITY BEHAVIOR AS A BRAKE FACTOR OF CONSTRUCTION SOCIOCULTURAL CAPITAL**

### **ABSTRACT**

*Opportunistic behavior represents central category of transactional economic theory. Since it is not possible to neutralize uncertainty, there are always possibilities of opportunistic behavior as a way of acting of economic agents in accordance with their own interests. The subject of research in this paper is the asymmetry of information as a consequence of uncertainty, which is the direct basis of opportunistic behavior. As economic processes are realized in real time, two types of opportunistic behavior may be distinguished: before contracting and after contracting. The aim of this research is to prove that opportunistic behavior is a braking factor in building sociocultural capital. It starts from the basic hypothesis that opportunistic behavior is undesirable for all economic agents no matter what part of the income from a specific resource they can appropriate to their advantage. In the case of radical uncertainty and opportunism as a representative of the mismatch of economic interests (or even conflict between them), the possibility of strategic manipulation of information is reduced to competition.*

**KEY WORDS:** opportunity behavior, sociocultural capital, information uncertainty



## **THE STRUCTURAL DYNAMICS, INVESTMENTS, EMPLOYMENT AND PRODUCTION IN THE BALTIC STATES AGRICULTURE**

### **ABSTRACT**

*The Baltic States have faced multiple changes in the agricultural policy. The latest stage of the agricultural policy development in these countries began in 2004 following the accession to the European Union. The Common Agricultural Policy has been in effect since then. The analysis shows that the Baltic States still show different productivity levels from those observed in the old EU Member States. The results suggest that Poland, Denmark and Germany shape the frontier if the labor productivity is considered. The Baltic States show relatively small farm size if compared to Germany and Denmark, yet Poland shows the lowest size among all the countries analyzed (measures in terms of hectares per Annual Work Unit). Lithuania has seen a transition from the smallest farm size comparable to that in Poland to the higher level (from 7.5 ha/AWU to 15 ha/AWU). Estonian farms showed the highest increase in the farm size. In general, all the countries showed the increasing labor productivity along with increasing farm size.*

**KEY WORDS:** investments; agriculture, production, employment; Baltic States



## **BEHAVIORAL BARRIERS OF CLIMATE CHANGE MITIGATION IN HOUSEHOLDS**

### **ABSTRACT**

*There is huge energy saving and greenhouse gas (GHG) emission reduction potential in households however due to behavioral barriers this potential is not fully exploited. The insights of behavioral economics can be applied to overcome behavioral barriers of climate change mitigation actions in households. There are seven main behavioral barriers or dragons of inaction in climate change mitigation area: Limited Cognition; Ideologies; Social Comparisons; Sunk Costs; Discredence, Perceived Risks and Limited Behavior. The changes of household behavior in mitigating climate change is seen as an inexpensive and rapid growing field of state interventions. In this paper the barriers of behavioral changes in households are analysed and policies and measures targeting behavioral changes are discussed. The main policies and measures tackling behavior changes are: nudging and boosting.*

**KEYWORDS:** Climate change mitigation, households, behaviour change, energy consumption, Nudging; Boosting; interventions.



## **APPLICATION OF ECONOMIC MODELING IN ADRIATIC SEAPORTS**

### **ABSTRACT**

*The maritime business is conducted in a very changeable environment, accompanied with uncertainty and the risk of criminal activity (in addition to failure and unforeseen damage). In order to minimize the effects of uncertainty and security risks, it is necessary to learn, monitor, study, properly assess, and take appropriate measures to eliminate them and/or reduce security threats to a minimum. This requires the elaboration and existence of an appropriate security measures methodology. The subject of this research consists of: a) explanation and presentation of the scientific methods used by economics, with emphasis on concretization and economic modeling, b) analysis of the possibilities for the application of economic modeling in economics, in general, and in the Adriatic seaports of Koper, Rijeka, and Bar, and c) concrete modeling of the application of multiple linear regression analysis in three considered Adriatic seaports, with the selection of one dependent and four independent variables, which are listed below.*

*The research and analysis of some important issues in this paper made it possible to verify the following initial hypothesis in the conclusion: further business development of the Adriatic seaports of Koper, Rijeka, and Bar, among other things, can be based on their partnership, because, generally, it can significantly increase their competitiveness in the region, as well as business and logistics competencies, and the following auxiliary hypothesis: in order to establish partnership cooperation between the Adriatic seaports of Koper, Rijeka, and Bar, it is necessary to overcome many business barriers, which are treated as negative external effects, which differ in these seaports, and relate to political and economic barriers, institutional and infrastructural growth, corporate governance level, realization efficiency of port services, development level of transport and marketing logistics.*

**KEY WORDS:** Economic modeling, seaports, Koper, Rijeka, Bar



PhD student *Vasilisa A. MAKAROVA*

Department of Finance, St. Petersburg School of Economics and Management,  
National Research University Higher School of Economics,  
Saint Petersburg, Russia

PhD student *Adel DALAL*

Department of Finance, St. Petersburg School of Economics and Management,  
National Research University Higher School of Economics,  
Saint Petersburg, Russia

## **THE EVALUATION OF EFFICIENCY OF CORPORATE INVERSIONS**

### **ABSTRACT**

The study considers corporate inversion, also known as tax inversion, which involves companies to move their operations overseas in order to avoid tax burden in the domestic country. Although the following strategy gains popularity among corporate managers, experts emphasize its' controversial and risky nature (Lusch et al., 2016). The aim of this paper is twofold. First, we consider previous literature and market trends to create a classification of corporate inversions. Second, the efficiency of inversions is measured using event study method and Monte-Carlo tool. Data sample was collected from Compustat and Thomson Reuters; it covers 18 firms that undertook inversion strategy in the period from 2008 to 2014. The first part of the study reveals that although corporate inversions are a subject of comprehensive research efforts, the consensus regarding its' effect on firm's prospects has not yet been reached among academic scholars. It was seen that in long-term perspective inversions hamper business sustainability due to lack of administration in the company's new domicile (Cortes et al., 2016; Laing et al., 2019). At the same time, shareholders' positive attitude towards this strategy is observed which casts doubt on their rationality. However, we found studies that highlight strongly positive impact of inversions on share prices of firms which lowered corporate tax rate and saved best practices of corporate control (Col et al., 2016). This fact explains why shareholders vote in favour of these arrangements.

We found that discrepancy in previous research is due to chosen data. To achieve the first aim and for the sake of our empirical study, we divided previous deals in two groups according to their purposes, structure and headquarters country. The first group consists of transactions in the times when market was in its' infancy, such schemes are not used in recent deals. Including this group in our sample may provide irrelevant results, as it was seen in previous studies. Final sample included inversions announced in the period from July 2008 to June 2014. Data was limited to U.S. public companies to make it comparable. At the first stage, we considered market reaction to the announcement of inversion using event study method. Under assumption of efficient markets, the cumulative abnormal return (CAR) of company's share prices is considered to be a robust indicator of inversion's efficiency. Further, we integrated the whole sample using average of each company's CAR (CAAR). In order to consider not only immediate effect of the deal but also its' long-run consequences, our methodology includes the analysis of the event, three months prior to it

and subsequent seven months. We found that CAAR is positive during the studied period, significant at 1% confidence level and growing few months before the inversion in announced. The observed phenomenon may stem from investors expectations of the deal due to noticed internal changes in the company. At the second stage, Monte-Carlo method was implemented to run simulations based on calculated returns. CAAR was seen to be positive with increasing trend throughout the observation window. The analysis showed 9% probability of a negative CAAR and 41% chance of CAAR to be around 0.04. Our results support the view that inversions are an efficient corporate tool in investors opinion, as it is seen from the hike of company's value in the period of deal announcement. The main limitation of this study is that the results are hardly extrapolated to other samples, since inversions are dynamic and change when companies need to adapt to new regulatory environment. Nevertheless, the algorithm of the evaluation of these deals is versatile and may be applied to different types of corporate inversions, which is the primary contribution of the paper.

**KEYWORDS:** corporate inversion, tax inversion, event study method, Monte-Carlo method



Associate Professor **Natalia SAMOLIUK**  
Labour Resources and Entrepreneurship Department, National University of Water and  
Environmental Engineering,  
Ukraine

**Svitlana BILAN**, PhD  
Rzeszów University of Technology,  
Poland

## **AVAILABILITY OF PROFESSIONAL DEVELOPMENT PROGRAMS AND THEIR LINKS WITH ECONOMIC SUCCESS OF ENTERPRISES**

### **ABSTRACT**

*The objective of the article is to identify the availability of professional development programs in enterprises, as well as their perception by employees. In order to reveal it, we conducted a survey of small and medium-sized businesses with different economic activity results and different programs of professional training of the staff.*

*As a consequence, we found that "payment for short-term training programs" is important for 67% of surveyed employees of profitable enterprises, and "payment for long-term training" - for 39.2% respectively. At the same time, for employees of unprofitable enterprises, the employer's investment in their training is less important: 34.4% of respondents are interested in funding of short-term training programs, and only 9.4% are interested in funding of long-term training. However, the aspiration of employees to train with the use of the enterprise funding is not fully satisfied, mainly in profitable enterprises.*

*The availability of collective bargaining with the specification of employer's expenditures for employees' training has a positive effect on the share of employees regarding to accessibility of training. However, in group of reviewed enterprises, the employer's main obligations considering professional development programs are limited to the short-term training programs (courses, trainings, workshops, master classes, etc.), which becomes available for 47.9% of employees. At the same time, only 14.4% of employees can consider the long-term training (higher education, internship abroad), which is expensive for employees, even if the company use the tools of social dialogue.*

**KEY WORDS:** professional development, staff training, staff costs, vocational training costs, training programs.





PhD student **Vita KROL**  
Labour Resources and Entrepreneurship Department, National University of Water and  
Environmental Engineering,  
Ukraine

Professor **Yuriy BILAN**  
Rzeszów University of Technology,  
Poland

## **ASSESSMENT OF TRENDS AND PRECONDITIONS FOR THE SOCIAL CAPITAL DEVELOPMENT OF ENTERPRISES**

### **ABSTRACT**

*Theory of social capital is widely used in modern economics. The majority of social capital researches are aimed at explanation of its links with economic development, living standards, civil society development, trust, quality of life, including poverty, and other socio-economic results and features. However, imperfection of the social capital theory implementation at the enterprise level remains, as there are limited researches substantiate social capital and its impact on entrepreneurship.*

*Taking into account the lack of direct indicators which can be used to evaluate the social capital influence, it is possible to assess the level of its impact considering its manifestations by specific constituents.*

*There are determining factors that affect social interactions, and therefore they allow to determine social capital. We explore how the internal social capital of the enterprise affects the economic success in terms of three forms of social capital manifestation: structural, relational and cognitive. All of them are critical components of social capital, and each can shift economic results of entrepreneurs' activity via influence on the amount of resources a firm can acquire, integrate, and transfer within its networks.*

**KEY WORDS:** entrepreneurial success, social capital, structural, relational and cognitive social capital.



Research Professor **László VASA**  
Széchenyi István University  
Hungary

PhD Student **Balázs CSEH**  
National University of Public Service  
Hungary

Professor **Csaba LENTNER**  
National University of Public Service  
Hungary

## **CORRELATIONS AND ANY QUESTIONS OF THE EFFICIENCY AT STATE AUDIT OFFICE (SAO) CONTROL FOR STATE-OWNED PUBLIC UTILITY COMPANIES IN HUNGARY**

### **ABSTRACT**

*The 2008 global economic crisis plasticized the failure of former economic policy. States that succeed in increasing the role of the state are showing success. Through non-conventional economic policy, so is Hungary. Since 2010, the Hungarian government has pursued responsible public finances and economic policies that have recognized that it is not only a key economic, but also a national defence interest to increase state involvement in strategic sectors, certainly, by maintaining openness to a market economy and taming globalization interests. State involvement in strategic sectors can be achieved through the acquisition of state ownership in potential companies. This means an acquisition of at least 25%. Since 2010, the role of the state, embedded as an “invisible hand” in economic thinking, has increasingly contributed to the revitalization and bleaching of the economy, with state-owned or partly owned companies at the forefront. That is why these respective companies have become the focus of the State Audit Office of Hungary (SAO). The SAO of Hungary is the supreme financial and economic audit institution of the National Assembly. It performs its duties subordinate to the Parliament. Its legal status and powers are regulated by the new Fundamental Law and by Act LXVI of 2011 on the SAO. Since the amendment of the SAO Act effective from January 2011, it has been possible to audit state- and municipally owned companies. The SAO has been auditing public utilities since 2012. The medium-term strategic goal is to promote the transparency and orderliness of public finances and to contribute to “good governance” through value-creating control based on a sound professional basis. The main task of the audit is to support and assist the regular, economical, efficient, and effective use of public funds and assets with its purposeful audits and advice. In the framework of the control of the management of national assets, based on a new approach, it controls the management of assets belonging to public finances, the activities of state-owned (partly-owned) or municipally-owned enterprises to preserve and increase assets, the compliance with the rules on alienation or encumbrance of assets belonging to the national budget, and might control the asset management of state-owned or municipally-owned (majority-owned) economic entities. During its audits, it assesses the observance of the accounting system of public finances and the operation of the internal control system of public finances. All these activities promote the operation of public utilities, which is also important from a national strategic point of view, which is of*

*particular importance in crisis situations and after them (as we have seen in connection with the COVID-19 pandemic). Our analysis was performed for the past 5 years on the basis of the reports of the SAO, according to the audit methodology developed by the SAO over the years, focusing on public utilities of key importance in Hungary's national economy. We performed our analysis by paying particular attention to international trends and in the spirit of the new public finance management and by highlighting the importance of the going concern principle. Our findings highlight the importance of the role of the state as well as the importance of increasing the position of publicly owned companies in the economy, and emphasizes the national strategic importance of the continued operation of public utilities in (or after) crisis situations and of the provision of benefits.*

**KEYWORDS:** public utility company, state audit, public finance management



## **TAX GAP AND MACROECONOMIC EQUILIBRIUM: THE DYNAMIC IMPACT OF UNOFFICIAL SECTOR OF ECONOMY**

### **ABSTRACT**

*The current state of the world's economy requires intensification of efforts of state institutions of different hierarchical levels to increase budget revenues due to the exit of economic entities from the shadows. The presence of a significant share of the shadow economy limits the opportunities for the state to effectively perform its functions, and business - for stable and profitable work. Improving the quality of life of the population, stimulating the country's economic growth, increasing its investment attractiveness are possible only under conditions of social and economic transformations in the country, creating comfortable conditions for doing business and capital inflows. The article deals with the study of the impact of tax gaps on the level of macroeconomic stability of the country. The research deals with the assessment of the level of tax gaps, compare the magnitudes of its impact on the level of economic development in EU countries. Based on the literature review, the main risks of the tax gaps are identified. The amount of the total tax gap as the sum of the tax gap on personal income tax, single social contribution, corporate income tax, export-import payments, and VAT is calculated. Estimation of total tax gaps for 34 countries of the world showed that during this period the highest growth rates are shown by Spain, Cyprus, Bulgaria, Italy, while in 15 of the 34 analyzed countries the trend is declining, in particular: in Poland, Ireland, Germany, The Netherlands, Turkey, and the Czech Republic. The econometric analysis concludes that tax gaps have a statistically significant effect on macroeconomic stability in most countries: the growth of the volume of the tax gap has a negative impact on public debt in the country, its investment attractiveness, level of social development. This study underlines the necessity to review the current state tax policy to increase the level of tax morale and responsibility of the population, increase the number of tax revenues to the budget, and the level of economic stability of the country.*

**KEYWORDS:** tax gap, shadow economy, economic development, tax evasion, macroeconomic equilibrium

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine № 0117U003930



## **CHALLENGES FOR PUBLIC INVESTMENT POLICY IN TERMS OF SUSTAINABLE DEVELOPMENT**

### **ABSTRACT**

*The emergence of new investment mechanisms, products and technologies that are integrated into the traditional practice of financial markets creates new challenges for the methods of their regulation by public institutions and authorities and requires an adequate response to new investment policy in financing sustainable development and its goals. Such challenges were summarized and presented in four groups. Firstly, public investment policy should ensure not only the fulfillment of ESG criteria by different market participants, but also the financial efficiency of responsible investments aimed at financing sustainable development through public investment policy. These actions should include favorable tax regimes and incentives, as well as detailed conceptual frameworks and models of responsible investment chains with clearly defined roles participants and descriptions of investment products.*

*Secondly, the importance of a transparent environment at all stages of the investment chain to promote trust between chain participants, benchmarks, information intermediaries (rating, credit, news agencies) was underlined. It should be mentioned the common approaches to defining responsible investment criteria. They tend to make sound investment decisions based on long-term risks and benefits sustainable development at all levels of the financial system - from the integration of such risks and benefits in the formation of monetary policy by central banks to their incorporation into corporate strategies for sustainable development for the best allocation of capital. Thirdly, we can stress the need to consolidate at the level of regulatory acts of new models, principles and schemes of interaction for each type of participants in investment chains (households, companies, regulators, financial intermediaries (development banks, sustainable development exchanges) and their unambiguous interpretation of financial innovations and products aimed at restructuring economic and financial systems on the basis of sustainable development. Finally, we cannot omit the importance of developing common harmonized approaches and methodology for defining ESG criteria, investment screening, investment standards, ensuring disclosure and clear outlines of regulatory roles (prudential supervision, compliance with capital adequacy and liquidity by market participants) in the new type of financial system. So, the main ideas of public investment policy reforming in terms of sustainable development is the clear disclosure, framework, benchmark and incentives settings for harmful responsible investments and investment chains.*

**KEYWORDS:** public investment policy, responsible investment, investment chain.

**FUNDING:** This research was funded by a grant (№0117U003936) from the Ministry of Education and Sciences of Ukraine



## **SMART ENERGY-MODERNIZATION TRANSFORMATIONS IN UKRAINE**

### **ABSTRACT**

*The object of the study is the process of multicriteria optimization of grids, taking into account financial and time constraints, resource potential of regions and optimal logistical decisions regarding to the geospatial allocation of energy capacities. The aim of the study is an optimization model development of "smart" and environmentally-friendly grids, the implementation of which will scale local energy-efficient smart solutions to a high level of pain - to build a "road map" of energy-modernization transformations for all subjects of the regional energy chain implementation of energy innovation, coordinated by budget, resources, priority and priority of events, time factor.*

*On the basis of the conducted research the scientific results were obtained:*

*1. Analytical materials on the state of thermal energy on the example of the city of Sumy were formed, the prospects for the development of smart energy grids as a component of the heat supply system were identified and the reasons that hindered this process were identified.*

*2. A systematic analysis of the directions of development of the smart power system abroad is carried out.*

*3. The drivers of innovative development of the power grid based on the use of smart energy technologies are identified.*

*4. The necessity of building smart energy grids in stages is established, which will allow to create as soon as possible the necessary infrastructure base for intensification of transformation of the energy system of Ukraine in accordance with current requirements and ensure the systematic energy reforms.*

**KEYWORDS:** energy grids management, smart power system, smart energy grids

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine № 0119U100766



Professor *Taras SAVCHENKO*

Sumy State University,  
Ukraine

Ph.D. in Economics *Alina BUKHTIAROVA*

Sumy State University,  
Ukraine

## **FINTECH TECHNIQUES AS PRACTICAL TOOLS OF ECONOMY UNSHADOWING**

### **ABSTRACT**

*Currently, the rapid development of the digital economy has become an essential global trend of dynamic socio-economic development, which has led to the spread of financial technology impacts on the entire system and structure of socio-economic relations. Small and medium-sized enterprises (SMEs) in Ukraine and other post-Soviet states have the strong potential to create jobs and sustain economic growth if critical obstacles are overcome. Limited access to financing resources one of the main problems in the SMEs development in Ukraine, especially taking into account the high level of the shadow economy, which provoked worsening of the investment climate.*

*Representatives of the German Advisory Group Institute for Economic Research and Policy highlighted that access to finance is consistently mentioned among the top three business constraints in surveys about Ukrainian SMEs and the SME financing gap estimated as EUR 9.3 bn. In turn, new financial technologies (blockchain, neo-bank, crowdfunding, InsurTech, etc.) create new opportunities for expansion and democratization of SME's direct access to financing on transparent bases. In addition to prospects, companies' use of fintech poses many institutional problems related to the regulation and legal regulation of activities. Risk factors must consider at both the micro and macro levels. Risks include limited protection of investors in the retail sector (retail, sale of goods or services to the final consumer), the potential increase in financing of unreliable borrowers, systemic risk due to the functioning of a partially unregulated and non-transparent sector.*

*New firms and business models emerge so often and grow so fast that they sometimes reach economically significant sizes before regulators realize they exist. Also, technology-based firms that operate on outdated regulations run the risk of not complying with current requirements. The structure of financial intermediation continues to change as a result of technological advances. Still, the rationale for state participation in the form of regulation is unlikely to change: consumer protection, development of competition, protection of stability, and reliability of the financial system. Accelerating the pace of technological progress raises the question of whether the traditional approach to regulating the financial sector is adequate. On the one hand, the digitization of financial institutions of their processes and services is a well-understood market trend with specific regulatory implications and obligations related to technology use. Business structures, technology companies, and regulators work with each other. On the other hand, new technology*

*players (Fintech 3.0) are entering the financial industry with limited or no prior interaction with financial regulators. These companies generally do not have an economic compliance culture that defines the prudential obligations of suppliers or the requirements to protect consumers in providing financial services.*

*Nowadays, many countries are not sure of their position on the issue of cryptocurrency, so additional work by international organizations on this topic is needed. In this regard, the development of recommendations for this area's regulation in various fields of the application continues. Such areas include financial and commodity markets, financial services, tax administration, consumer protection, anti-money laundering, and combating the financing of terrorism (AML / CFT).*

*Ukraine was one of the first countries in the world to try to introduce a legal framework for blockchain technology (a bill on regulating the circulation of cryptocurrencies). Thus, the complexity of the existing financial system entails significant risks for its subjects. The development of technological innovations will help to minimize them and create new financial products. It will increase financial inclusiveness, transparency of financial flows, and reduce the costs of participants in business relations. Technological innovations make it possible to increase the efficiency of the public finance system. They lead to healthy decentralization, giving open access to the public financial management process through increased transparency and empowerment. The application of technological innovations in the financial sector will create preconditions for the unshadowing of the national economy and the growth of Ukraine's international ratings.*

*Besides, the quantitative estimates obtained based on causal modeling will allow us to offer a well-grounded tool of unshadowing that will take into account the microeconomic nature of business models of financial intermediary interaction and provide a significant positive macroeconomic and social impact.*

**KEYWORDS:** financial technologies, blockchain, neo-bank, cryptocurrency, shadow economy.

**FUNDING:** The study conducted as part of state budget research of Sumy State University «Formation of tools for the Ukrainian economy unshadowing based on causal modeling of interaction trajectories of financial intermediaries» (№0120U100473)





Professor **Yuriy PETRUSHENKO**

Sumy State University, Sumy, Ukraine

Ph.D. in Finance **Anna VORONTSOVA**

Sumy State University, Sumy, Ukraine

Ph.D. student **Oksana PONOMARENKO**

Sumy State University, Sumy, Ukraine

## **PRIORITIES DETERMINATION OF FINANCIAL POLICY OF TERRITORIAL COMMUNITIES' SUSTAINABLE DEVELOPMENT**

### **ABSTRACT**

*Nowadays, there is a tendency in the world for citizens to actively participate in solving local problems and strengthening public control over the actions of the authorities, especially concerning the formation and use of local budgets. This situation is a consequence of the tendency to decentralize power (in Ukraine - to the level of such administrative units as territorial communities) and the formation of a new type of relationship that involves all interested stakeholders in management and decision-making processes that concern the community. These principles contribute to the sustainability of local development. This work is devoted to the development of a methodological approach to determining the main priorities of financial policy for the sustainable development of territorial communities. As a result of the study, the authors proposed a three-tier approach based on the participation of all stakeholders and taking into account the tools of self-assessment for sustainable local development. This technique was tested in the implementation of the administrative-territorial reform in Ukraine in 2016-2020. The first stage of the methodology is the implementation of self-assessment of sustainable local development by collecting information from four groups of stakeholders (local authorities, residents of local communities, private sector representatives, representatives of environmental organizations), using various methods (expert survey, working groups, focus groups, etc.). The second stage proposes to determine the strategic priorities of financial support for sustainable development of territorial communities following the Global Sustainable Development Goals, which is carried out through public discussion and the formation of an effective plan of collective action. The last stage is the creation of a system of regular monitoring of the effectiveness of local development financing based on the establishment of priorities of capital assets and means of their economic measurement. The developed methodology is universal and can be used by different administrative-territorial units to achieve sustainable local development in terms of planning their financial policy.*

**KEYWORDS:** sustainable development, financial policy, territorial communities.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0117U003935).



Professor *Tetyana VASILYEVA*

Sumy State University, Ukraine

Associate Professor *Liudmyla ZAKHARKINA*

Sumy State University, Ukraine

## **STATE SUPPORT OF INNOVATIVE DEVELOPMENT IN THE STRATEGIC SECTORS OF THE NATIONAL ECONOMY**

### **ABSTRACT**

*The study of the current state of innovative activities financing in the context of strategic directions and priorities of the national economy' development shows the limited funds allocated for ensuring such development and insufficient level of state participation in priority strategic branches support. Therefore, there is a need to find effective mechanisms for increasing the state's influence on innovative processes in these areas. The aim of the research is the analysis of the state support of innovative development in the strategic sectors of the national economy. Such research methods are used: comparison method, systematization method and method of logical generalization (during the research of state financial support of strategic priority directions); method of systematic structural analysis (during the development of measures for the financial and security subsystem transformation in the public administration of the innovative potential development of the national economy's strategic sectors).The article considers the content and essence of the strategic priority directions of innovative activity in Ukraine. The present state of innovative activity's financial support in the context of strategic priorities is investigated. Its unsatisfactory state is defined, especially in budget financing. The analysis of innovative activity's budget financing and technology transfer according to strategic priorities shows that in most cases financial funds are aimed at technological updating and development of the agro-industrial complex. At the same time, there is insufficiency financial funding in high-tech strategic directions. The directions of expansion of the measures' list for innovative activity indirect financing are determined. These directions include improving the taxation system by introducing tax incentives for innovative enterprises in strategic sectors of the national economy, expanding public-private partnerships and government contracts, and simplifying administrative regulation in these sectors. The implementation of these measures can ensure innovative activity's increasing in the strategic sectors of the national economy in the long run. These measures are much more effective than additional budget funds investment. The effectiveness of measures of innovative activity stimulation in Ukraine is analyzed.*

**KEYWORDS:** innovation development, strategic priorities, state support, budget financing, incentive measures.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0117U003922).

Professor **Yuriy PETRUSHENKO**

Sumy State University, Sumy, Ukraine

Ph.D. student **Kateryna ONOPRIENKO**

Sumy State University, Sumy, Ukraine

## ENVIRONMENTAL EDUCATION FOR YOUTH AND ADULTS

### ABSTRACT

*In recent years there has been a sharp increase in the interest of humanity to environment preservation. It has become clear that the reckless use of nature will sooner or later lead to a catastrophe that will have not only environmental, but also economic and social consequences. The expediency of environmental education of adults is a well-known fact, because the vast majority of countries in one sense or another owe their technological, socio-cultural and economic progress to this field of education. In the same way, they represent a vector of their further socio-economic growth through its development. However, modern realities require a significant acceleration and renewal of the complex of conditions, the implementation of which directly depends on environmental education of the adult population. The research provides a bibliographic analysis of scientific papers from around the world on the basis of Scopus with the keywords "environmental education" and "environmental adult education" for the period 1968 - 2019. It was found that in this regard most attention is paid to the US authors. The scientific works of the authors, who are the leaders in terms of the number of publications on environmental education of adults, have been studied. With the help of Vosviewer software it was determined which countries publish the biggest and the smallest number of scientific papers with the keyword "environmental adult education". Scientific works of domestic scientists were also analyzed. Adult education is becoming important in addition to the classic concept of school education. The article analyzes, which fields of science have the biggest and the smallest number of scientific papers with the keyword "environmental adult education", where social and environmental sciences became the leaders. The analysis of the past helps to understand the future. In today's culture there are two main directions - the separation of society from nature and rapprochement, mutual adaptation or co-adaptation of society and nature. The transition from formal environmental education to "education for sustainable development" should be based on the knowledge about the development of society, economy and natural environment, environmental culture and a sense of personal responsibility for the environment. Environmental education and upbringing are focused on the active interaction of man with nature, built on a scientific basis, on the perception of man as part of the nature.*

**KEYWORDS:** adult education, environmental education, youth, adults.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0120U102001).



Associate Professor *Liudmyla ZAKHARKINA*

Sumy State University, Ukraine

*Volodymyr NOVIKOV*

Sumy State University, Ukraine

*Oleksandra TVEREZOVSKA*

Sumy State University, Ukraine

## **BANKING CREDIT RISK MANAGEMENT AS AN ELEMENT OF ENSURING NATIONAL ECONOMIC SECURITY**

### **ABSTRACT**

*The issue of national economic security has recently become increasingly relevant and explored. It is due to both the internal factors of development of each state and the external challenges of the modern world, in particular, the financial crisis of 2008, the current consequences of the COVID-19 pandemic, etc, are worth mentioning. This study focuses on the issue of financial security of national economic security of Ukraine. It is caused by a significant increase in the number of problem loans in banks, the share of which among the loan portfolio of Ukrainian banks increased rapidly from 21.21% to 57.39% in 2018 compared with 2017 year and continues to exceed more than 50% of all loans till today. The sharp increase in the number of problem loans provokes an increase in credit risks, in particular the risk of non-repayment of credit resources by borrowers. The banking sector is losing strength. The correlation-regression analysis examines the impact of macro and microeconomic indicators that affect the level of credit risk and indicators on which the financial security of the state depends. The relationship between banks' net income and unemployment and GDP was found. According to the results, the bank's net profit increases due to lower unemployment and an increase in the total value of goods and services produced in the country. As a result, it was proposed ways to minimize the level of credit risk by making a more independent credit policy for analyzing the creditworthiness of borrowers. During study the proposals for constant monitoring of its financial condition, deepening of cooperation with investment funds, insurance companies, creation of more transparent conditions of cooperation with the borrower by introducing a single credit register of creditors were analyzed.*

**KEYWORDS:** national economic security, financial security, credit risk, banking credit risk management

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0117U003922).



Professor **Tetiana VASILYEVA**  
Sumy State University, Ukraine

Ph.D. researcher **Pavlo KOSTETSKYI**  
Sumy State University, Ukraine

## **IMPACT OF SYSTEMIC RISKS ON SOCIOECONOMIC COUNTRY DEVELOPMENT**

### **ABSTRACT**

*Country socioeconomic development highly depends on different internal and external factors that in complex or separately might damage country equilibrium. In such conditions it is become crucial to identify systemic risks for country sustainability and forecast it potential destructive influence. In the paper, it is realized comprehensive literature review in order to identify the essence and types of systemic risks. It is also developed a set of indicators aimed at systemic risks assessment. Moreover, it is underlined key performance indicators of country socioeconomic development. Under the comprehensive analysis, it is found out such the most widely used metrics of country social development as GINI index, household income and consumption per capita distribution, unemployment ratio etc. In turn, it is proposed to assess economic stability through growth rates of key macroeconomic indicators (GDP, inflation, foreign direct investments, gross capital formation, trade (sum of export and import to GDP ratio etc.), Thereby, this research aimed at testing the following hypotheses: 1) systemic risks influence country social equilibrium; 2) systemic risks influence country macroeconomic stability. Social development metrics are collected from the Poverty and Equity collection and World Development Indicators of the World Bank DataBank, economic stability metrics – from the World Development Indicators collection. Research period – 2005-2019 (or the latest available data for some indicators). Country sample – Central and East European countries. Testing the hypotheses is realized with the help of panel data regression analysis in Stata 12/SE software. Based on the empirical research results it was developed a set of practical recommendation on how to lower social inequality in order to strengthen economic stability.*

**KEYWORDS:** macroeconomic stability, socioeconomic development, sustainable development, systemic risks.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0118U003569).



Associate Professor **Olena CHYGRYN**

Sumy State University, Ukraine

Associate Professor **Oleksii LYULYOV**

Sumy State University, Ukraine

**Svetlana KOSTORNOVA**

Sumy State University, Ukraine

## **GREEN PRODUCTION AND GREEN COMPETITIVENESS: LINKING BETWEEN CATEGORIES**

### **ABSTRACT**

*The current trends in modern enterprises development characterize by implementing green production and as a result, increasing the sustainable competitiveness. The goal of the article is to investigate the structural and functional environment of the formation and development the green production and green competitiveness, to provide the strategies for increasing sustainable competitiveness of enterprises. The authors using the methods of bibliometric analysis for determining vectors of perspective development of green production and green competitiveness. The main hypothesis of investigation is studying the increasing tendency on analyzing of green competitiveness strategies by the scientists. In order to formulate the terminological basis of the implementation the green competitiveness strategies, a bibliometric analysis of the spread of the concept of "green production" and "green competitiveness" in scientific articles indexed by the Scopus and Web of Science science base was performed. These authors reviewed more than 3500 papers from Scopus Web of Science base. The period for the analysis was chosen since 1995 till 2019. Used the Scopus Web of Science screening tools showed that in 2005 the numbers of articles which focused on green competitiveness strategies began to increase. On the international level the investigated area represented by the next countries: United States, United Kingdom, China, Taiwan, Australia, India etc. Using the VOS viewer program were identified 14 clusters of the scientific papers which investigated green competitiveness strategies from the different points of views. In the paper justified that in the condition when the scale of green production and purchasing the green goods are constantly increasing the level of environment competitiveness of enterprises will also increase. In that case, in the paper have been determined the main drivers on green competitiveness.*

**KEYWORDS:** green production, green competitiveness, strategy, green customer, promotion.

**FUNDING:** This research was funded by the grants from the Ministry of Education and Science of Ukraine (№ 0119U101860 and № 0120U102002).



Associate Professor **Hanna SHVINDINA**

Sumy State University, Ukraine

Professor **Serhii LYEONOV**

Sumy State University, Ukraine

## **THE KEY FEATURES OF LABOUR MIGRATION PROCESSES IN UKRAINE**

### **ABSTRACT**

*The aim of this paper is to explore the causes and consequences of “brain drain” and “brain waste” phenomena that took place in Ukraine. The main stimulants and destimulants were identified that impact the processes of labour migration. The demographic survey results, the findings of previous research in demography, political sciences, and education tendencies are united in current research. The methodology of the research is a comparative analysis by using secondary data (open statistical sources), statistical analysis, scenario design methodology; qualitative data analysis (open interviews, previous findings). The set of basic scenarios was formalized that allow to recreate the system of migration factors and to design the preventive measures to slow down the process. The trends of migration were classified by gender, by age, by residence location, by destination and by the level of qualification. The East-West shift is one of the dominant tendencies in the labour migration since 2012, as an example the migration to the Russian Federation were declined in favour of Poland and other EU countries. Another tendency is the de-skilling risk for the migrants of downshifting, but the difference in wages between Ukraine and Western Europe is the main cause of the choice of the job below the current qualification of a migrant. At the same time, there is a paradox of migration: the migrants with high education are less likely to migrate, but the hubs in the EU and programs are to attract the high-skilled migrants. Therefore, dichotomic trends appeared: “brain waste” when in a process of education, the trajectory of professional growth was chosen mistakenly; and “brain drain” that means that the international community attracts the best minds and talents from Ukraine. In the short-run there are benefits for Ukraine: migration pushes the wage growth inside of the country, remittances improve significantly the welfare of migrants’ families, the programs that encourage social security to create a more attractive environment takes place. However, under the process of aging and depopulation of Ukraine, the further brain drain will reduce the opportunity to increase the competitiveness of the country in a long-run. The sustained migration can be reduced through the consistent cooperation between institutions towards prevention the labour migration. The main projects, programs, and complex initiatives were analyzed in the current research (regional programs, dual education, adults education, lifelong learning concept), cases were formalized, the main groups of potential migrants were targeted. The general recommendations were elaborated to reduce the labour migration both at regional and the country levels. The results may be implemented within the government and regional projects in a sphere of employment and education sphere.*

**KEYWORDS:** labour migration, brain drain, brain waste, education, education scenarios.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№0120U102001).

Senior Lecturer **Yaryna SAMUSEVYCH**

Sumy State University, Ukraine

Senior Lecturer **Alina VYSOCHYNA**

Sumy State University, Ukraine

## **MULTIPLEX EFFECTS OF ENVIRONMENTAL TAXATION IMPACT ON THE NATIONAL SECURITY**

### **ABSTRACT**

*The national strategy of the countries is concentrated on the concept of sustainable development. This defines the necessity of findings such as state policy instruments that can provide a broad impact on the sustainability of countries' development. The significant regulatory effects of environmental taxes in ensuring the achievement of public policy objectives are proved. In terms of national security ensuring through the management of environmental taxes, environmental, economic, and energy security are the most perspective directions. It is essential to assess the element-by-element change of various parameters of national environmental, economic, and energy security under the influence of environmental taxes, and determine the potential for their simultaneous impact. The paper's primary purpose is to assess the impact of the dynamics and structure of different groups of environmental taxes on environmental, energy, and economic security parameters. Research results are concentrated on finding the optimal structure of environmental taxes that provides maximum simultaneous impact on all three areas of national security. The information base of research is formed by data of environmental tax structure in 30 European countries for the period 2009-2018. Energy taxes, transport taxes, and taxes on pollution and resources were selected as structural elements of environmental taxes. The set of national security indicators is presented by 9 indicators for each direction. The modeling involves constructing a set of multiple panel regression equations using the generalized least squares method with random effects. Constructed regression equations also involve a list of control variables that affect the result variable (inflation, trade openness, business development, control of corruption, regulatory quality, and government effectiveness). The estimation results showed that energy taxes have the highest regulatory potential for the simultaneous ensuring of the three studied components of national security. Therefore, the identified relationships prove that in the context of increasing the multiplex efficiency of the national environmental taxation system, attention should be paid to the potential for energy taxes.*

**KEYWORDS:** environmental taxes; national security; environmental security; energy security; economic security; panel regression; energy taxes; transport taxes; pollution/resource taxes.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№0119U100759).





Associate Professor **Tetyana PIMONENKO**

Sumy State University,  
Ukraine

Professor **Serhii LYEONOV**

Sumy State University, Ukraine

**Yuliia SHAFOROST**

Sumy State University, Ukraine

## **ENERGY EFFICIENCY GAP ON NATIONAL ECONOMY**

### **ABSTRACT**

*The unsynchronized of the country's environmental, energy and economic policies raises the dilemma of the priority of a fundamentally new trajectory of the country's development and the achievement of the Sustainable Development Goals in the field of energy efficiency and energy saving. At the same time, reinforcing of environmental conflicts, increasing tendency of energy consumption and greenhouse gas emissions requires a primary focus on the formation of effective mechanisms for solving and energy problems and providing energy security. In this direction, the formation of a fundamentally new model of stakeholder interaction in providing the country's energy security by minimizing the existing energy efficiency gaps (mismatch between optimal and actual energy efficiency levels in the absence of opportunistic behaviour of stakeholders), modelling explicit and making energy-efficient decisions; constructive modelling of causal socio-ecological economic interdependencies in energy-efficient decision-making in the state-business-society chain. In this case, it is necessary to develop the economic-mathematical model for checking the causal links between stakeholders in energy efficiency decisions, which will describe and formalize the patterns of complementary effects and risks of energy efficiency decisions to achieve a balance between optimal and current levels of energy efficiency. The authors proposed to develop the optimal and time-balanced road map of sustainable energy development of Ukraine, which will contain guidelines and criteria for decision-making by stakeholders to minimize energy efficiency gaps which will contribute to the country's energy breakthrough in the context of global development trends.*

**KEYWORDS:** energy, green energy, energy consumption, efficiency, sustainable development, energy gap.

**FUNDING:** This research was funded by the grants from the Ministry of Education and Science of Ukraine (№ 0120U102001 and №0117U003932).



## **DYNAMIC ECONOMETRIC MODEL OF PUBLIC TRUST IN THE FINANCIAL SECTOR**

### **ABSTRACT**

*Trust has long been a question of great interest in a wide range of fields. Recently, a considerable literature has grown up around the theme of public trust in the financial sector due to its relevance to the real sector development and growth. Various socio-economic events encourage economic agents to implement or terminate credit and deposit relations with financial corporations. Thus, the stability of the economic environment for a long time encourages economic agents to entrust their own financial resources to the financial system. In the opposite extreme, adverse events of the current or previous periods, in particular, the devaluation of the national currency, a large number of bankrupt financial institutions, high court costs for the return of own funds from liquidated banks, leads to the formation of funds in national or foreign currency outside the centralized financial sector and therefore demonstrates the erosion of public trust in it.*

*The purpose of this paper was to develop a dynamic econometric model of public trust in the financial sector of the economy, which allows taking into account the lag of consumer investment decisions of economic agents in the financial market, formed under the influence of socio-economic events, and previously achieved levels of trust in the financial sector.*

*It was shown that level of public trust in the financial sector of the economy is not a permanent category, and therefore depends on the magnitude of unexpected economic and financial upheavals of economic agents due to adverse social and economic events. Thus, the level of public trust of the current period depends on the level of public trust in the financial sector of the economy of previous periods. This means that the current level of public trust in the financial sector of the economy depends on the number of financial losses due to the negative impact of the global financial and economic injustices and imbalances that economic agents were suffering at the national and international levels, which enabled it to form a corresponding level of trust or distrust in the financial sector.*

**KEYWORDS:** public trust, distrust, financial sector, financial imbalances, economic agents.

**FUNDING:** This research was funded by the grant from the Ministry of Education and Science of Ukraine (№ 0117U003924).



Associate Professor **Victoria BOZHENKO**

Sumy State University,  
Ukraine

**Anastasia KIRILIEVA**

Sumy State University,  
Ukraine

## **CAUSALITY BETWEEN SYSTEMIC RISK AND REAL ECONOMY DEVELOPMENT IN UKRAINE**

### **ABSTRACT**

*The stable functioning of the national financial system creates objective conditions for increasing the market capitalization of economic entities, increasing the inflow of foreign investment, improving the business climate in the country, as well as increasing GDP growth. The authors of the article are convinced that the financial and real sectors of the economy are closely interrelated, and therefore it is possible to determine the root cause of crisis situations by analyzing the causal links between these processes. The Granger test is chosen as a methodological tool, which involves estimating autoregressive equations. To characterize the level of systemic risk in the country, the index of financial stress was chosen, while the state of development of the real sector of the economy is proposed to analyze based on exports of goods, imports of goods, industrial production index, retail turnover, agricultural production index. The information base of the study is monthly data from April 2008 to December 2019. The preparatory stage in the study of causal relationships between the level of systemic risk and the real economy development was a check of time series for stationarity with an extended Dickie test -Fuller and, if necessary, converted stationary time series using the operator of the first and second differences depending on the variable. As a result of the conducted empirical research it is established that the reason of aggravation of crisis phenomena in the real sector of economy is action of system risks. Prospects for further research in this area are to assess the degree of impact of systemic risks on the development of socio-economic relations in the country.*

**KEYWORDS:** Systemic risk, real economy, financial sector, Granger test, stationarity

**FUNDING:** This research was funded by the grants from the Ministry of Education and Science of Ukraine (№ 10117U003930, 0118U003574, 0118U003569).



Associate Professor **Anton BOYKO**

Sumy State University, Ukraine

Associate Professor **Victoria BOZHENKO**

Sumy State University, Ukraine

**Victoria RADKO**

Sumy State University, Ukraine

## **SYSTEMIC RISK IMPACT ON THE SOCIO-ECONOMIC DEVELOPMENT OF THE COUNTRY**

### **ABSTRACT**

*Systemic risk has not only primary consequences for a country's financial system, but their hazards are more likely to have secondary and tertiary impacts, as they are embedded in the broader context of social, economic and political risks and threats. The aim of the study is to develop an econometric model for assessing the systemic risks impact on the socio-economic development in the country. To achieve this goal, the following research methods were used: correlation matrix, Diki-Fuller test, Census X-13 method, vector-autoregressive model (VAR). The study of the relationship between the systemic risk in the country and the socio-economic development in the article is carried out in the following logical sequence: firstly, formed the information base of the study and adjusted the data for the seasonal component, secondly the checked the multicollinearity between the selected factors, thirdly, the socio-economic factors that have the closest connection with the level of systemic risk were identified, fourthly, a vector autoregressive model (VAR) is built and its adequacy is checked. To characterize the level of systemic risk in the country, the financial stress index was calculated, which is formed by the National Bank of Ukraine. The information base of the study are monthly data from April 2008 to December 2019. As a result of the study it was found that the shock caused by systemic risk leads to: rising unemployment in the coming months, a sharp decline in wages in the first four months, the decline in business activity of economic entities in the industrial sector, as well as a decrease in foreign trade. The obtained practical results can be taken into account in the formation of macro prudential policy in the context of identifying measures to prevent the emergence and accumulation of systemic risks.*

**KEYWORDS:** systemic risk, financial stress index, unemployment, wages, exports, imports, VAR model

**FUNDING:** This research was funded by the grants from the Ministry of Education and Science of Ukraine (№ 10117U003930, 0118U003574, 0118U003569).



PhD Student *Mykolas NAVICKAS*

Klaipėda University  
Lithuania

PhD Student *Tomas SKRIPKIŪNAS*

Kaunas University of Technology  
Lithuania

## **STRATEGIC PLANNING: BALANCE BETWEEN PUBLIC SPACE, MARITIME SECTOR AND ITS IMPACT ON SHADOW ECONOMY**

### **ABSTRACT**

*The balance between real estate developments and infrastructure of maritime sector in the coastal area of a city is explored in this study. Network of public spaces, maritime sector and its impact on shadow economy are main objectives of this research. New real estate developments next to water have valuable benefits resulting in overall attractiveness of cityscape. However, coordination between strategic city planning, urban design and maritime sector is required to achieve best results. Also, inferior planning of ports and other maritime infrastructure could lead to increased shadow economy, which makes significant negative impact on overall economy and in-turn ability to successfully develop further public space.*

**KEYWORDS:** maritime sector, public space, shadow economy, strategic planning



Assoc. Professor **Mantas SVAZAS**,  
Kaunas University of Technology,  
Lithuania

**Valentinas NAVICKAS**,  
Kaunas University of Technology,  
Lithuania

Associate Professor **Marcin RABE**,  
University of Szczecin  
Poland

## **BUSINESS CLUSTERS' CONVERSION TO BLOCKCHAINS AND DEVELOPMENT OF SUSTAINABLE PRODUCTS**

### **ABSTRACT**

*As the conjuncture of the business system in countries or different regions changes, sustainability ideas play a significant role. This presentation describes the usage of blockchain technology-based sustainable systems that not only allows tracing the emergence of green solutions, but also contributes to the development of sustainable business performance. Biomass market can essentially operate in clusterization principles – various regions provide different supply, transportation, burning business. In general, market is particularly composed of huge amount of subjects. Most of them belong to biomass preparation. Biomass energy market products are different, and it can be classified in two groups – primary and final products. Primary products lead to final product energy production. These are various types of organic wastes, which may be burning or decay. From them final products are obtainable, which later sale as energy. The cost price of the final product depends primarily on product type. Consequently, new biomass types emerge, which are gotten from manufactory wastes. Later they are used in energy production. Biomass usage generated manifold benefits both nation and society. Benefit of biomass energy sector asserts by new workplaces creation, increasing energy independence and ecological ideas. Biomass energy motives are best apparent, when countries search, how to safely supply the local production energy. The research shows that a blockchain enables simplification of production process, thus saving resources and contributing to the expansion of forests and the development of common business system. The aim of the research – to research the possibility to adapt blockchain technology to traditional sustainable production. Blockchain technology-based biomass clusters would become more efficient, if would be possible to plan production more accurately simultaneously increasing the level of sustainable development within the region. The objectives of the study - analysis of the possibilities to use blockchain technology in traditional business structures; prerequisites for clusters' conversion to blockchains are established; ways how using blockchain technology could ensure the development of sustainable production are determined. Blockchain technology allows increasing the pace of sustainable development growth because in this case natural resources would be saved*

*and conditions for more efficient utilization would be created. Comparing traditional biomass sales structure with blockchain structure it is notable that the latter is more flexible, less time consuming, improves the monetary flow and saves resources.*

**KEYWORDS:** business structures, clusters, blockchain, sustainable production, strategic planning



Deputy Director, State Unitary Enterprise of the Sverdlovsk Region Sverdlovskytorresursy,  
Yekaterinburg, Russian Federation,  
Ural Institute of Management of the Russian Presidential Academy of National Economy  
and Public Administration, Yekaterinburg, Russian Federation

## **EVOLUTION OF REGIONAL INNOVATION ECOSYSTEMS**

### **ABSTRACT**

Despite the state and municipal programs that provide the activities of the so-called development institutions associated with the formation of the innovative segment of the economy, it is not always possible to note their positive impact on the effective interaction of business entities in the organization of innovative processes. The scientific problem is seen in identifying and systematizing the factors of influence of inter-firm interactions on the formation of innovative regional ecosystems. Research subject: Economic relations regarding the formation of regional innovation ecosystems.

Achieved the purpose of the study is to identify the impact of inter-firm interactions on the innovation ecosystem of the region. In modern conditions of the explosive nature of technological and social changes, innovative ecosystems are becoming the vanguard echelon of the world economy, designed to create, broadcast, apply, commercialize and socialize new ideas of scientific and technical knowledge to ensure sustainable socio-economic development. Based on the complexity of the research phenomenon, its relative novelty, the concept, the logic of development, the institutional role of innovation ecosystems in scientific research are controversial and require clarification.

The author's definition of a regional innovation ecosystem: self-organizing, highly adaptive, geographically limited within the natural, institutional, social and political environment, a network complex of freely cooperating, interacting and mutually influencing elements - organizations, processes, projects, services. In the future, both the increasing role of the socio-cultural component of innovative ecosystems, the development of social entrepreneurship, and the shift in the morphology of ecosystems towards virtual, digital communications are determined. Recommendations for the development of an innovation ecosystem in a region based on effective interfirm interactions can be used in the analysis of regional and interregional value chains, clusters, industrial holdings that have the potential to transform into full-fledged innovation ecosystems. The obtained results of the study are applicable for diagnostics and improvement of state socio-economic, industrial policy, overcoming the post-pandemic crisis and accelerating the pace of regional innovative development, qualitative adjustment of development institutions.

**KEYWORDS:** evolution, innovation, regional ecosystems, inter-firm relations





Professor **Jelena PEROVIC**,

Faculty of Economics and Business, Mediterranean University,  
Podgorica Montenegro,

MSc **Milica RAICEVIC**

Faculty of Economics and Business, Mediterranean University,  
Podgorica, Monteneg

## **FOREIGN DIRECT INVESTMENT, TOURISM, ECONOMIC GROWTH AND TRADE: PANEL VECTOR AUTO REGRESSION (VAR) MODEL**

### **ABSTRACT**

*Tourism plays a crucial role in development and growth of all countries, especially developing ones and it is one of the world's main business and a progressively significant source of investment. The main aim of this research paper is to investigate a long-run relationship and the direction of causality among the open trade, foreign direct investment (FDI), GDP growth, international tourism and number of arrivals using Panel vector auto regression (VAR) models, applied on annual data from 1995 to 2016 for a sample of 19 Mediterranean countries.*

**KEY WORDS:** foreign direct investment (FDI), international tourism, economic trade and growth, gross domestic product per capita, VAR model



## **POPULATION AGING AND ITS INFLUENCE ON THE EMPLOYMENT POLICY OF MANUFACTURING COMPANIES**

### **ABSTRACT**

*In almost all European countries and other developed countries of the world, the process of population aging has been going on for a long time. The real result of this demographic trend in relation to the employment policy of manufacturing enterprises is that in the structure of the working population the number of older people is growing and the number of young people preparing for a profession and job is decreasing. At the same time, this means that there is a similar disproportion in the structure of employees - employees of older age groups dominate among employees and younger workers are missing. In the case of the retirement of some older workers, there is no adequate number of young workers who can replace them in employment. In addition, experienced workers retire, their compensation is less numerous, inexperienced, and often low-skilled. The question is, what decisions of the management of manufacturing companies are possible in such cases, what principles and measures in the employment policy of manufacturing companies become dominant? In response to this question in this paper, we focused on finding out how the management of manufacturing companies solves problems with the lack of necessary manpower caused by aging processes. This means that the main goal of this study is to find out what specific decisions and measures are applied by production companies to ensure production by the necessary workers, and at the same time which of those measures the management of companies considers effective and efficient. Achieving this goal requires the analysis of adequate information and data that we have obtained in the process of conducting empirical research. The subject of this empirical survey were statements and evaluations of currently implemented personnel and employee measures by experts - personnel managers or directors of manufacturing companies.*

**KEY WORDS:** population aging, manufacturing companies, disproportion in employment, employment policy, employment decisions.



## **PERSONNEL MEASURES FOR SMALL AND MEDIUM – SIZED ENTERPRISES IN CONDITIONS OF ECONOMIC RECESSION**

### **ABSTRACT**

*One of the important structural components of production factors in small and medium-sized enterprises is human labor. Small and medium-sized enterprises do not have large working capital, modern and highly productive production technologies. Therefore, labor productivity per worker in small and medium-sized enterprises as a rule is lower than in large enterprises, which use high-performance modern technologies in their production. For this reason, in contrast to large, small and medium-sized enterprises, workers are a relatively high cost component. It includes the costs of wages, levies, costs of education, social care, etc. It follows that, in times of economic recession or crisis, staffing measures in small and medium-sized enterprises should be specific. Based on this, the main goal of the study is to perform an analysis of personnel work in small and medium-sized enterprises in times of economic recession or crisis and to identify and name specific personnel measures implemented by small and medium-sized enterprises. The subject of our analyzes and findings will be primarily personnel decisions in small and medium-sized enterprises, presented by their personnel staff or the management of small and medium-sized enterprises. For these purposes, the results of an empirical survey of personnel managers or persons responsible for personnel work in small and medium-sized enterprises, which we conducted after the end of the economic crisis in 2008 and 2010, will be used. due to the COVID-19 disease, small and medium-sized enterprises were most affected.*

**KEY WORDS:** personnel measures, personnel decisions, small and medium enterprises, economic recession, company managers, personnel managers.



## **DISTRIBUTION OF EU COUNTRIES ACCORDING TO LOSSES AND BENEFITS FROM LABOR MIGRATION**

### **ABSTRACT**

*Following the creation of the EU and its subsequent enlargement to include Eastern European countries, labor migration flows have become more intense and extensive. Within them, two mainly their currents are created. The first of them is characterized by the migration of workers to EU countries from European countries that are not members of the European Community and other countries. The second stream of migration flows takes place within the EU from economically less developed countries to developed EU countries. Especially after the enlargement of the EU to Eastern European countries, labor emigration assesses both a certain balance of losses and benefits for both its countries of origin and the countries of destination. In this study, we want to present labor migration as a process that divides EU countries according to the losses and benefits of labor migration. Our initial analyzes and adequate calculations of economic losses and benefits of labor migration suggest that, both in previous periods and now, labor migration is accompanied by economic losses for one group of countries and economic benefits for another group. Based on this, the main goal of this study was to identify which countries or groups of countries ultimately have economic losses and which countries have economic benefits from labor migration. The subject of our analyzes and researches are mainly economic losses and benefits from labor migration both in the countries of origin of labor migration and in the whole countries. Economic losses and benefits will be determined on the basis of the calculation of the development of GDP dynamics per worker, the costs of vocational training and education of the worker, the degree of employee participation by its consumption expenditures of the country and other economic factors.*

**KEY WORDS:** labor migration, economic losses, economic benefits, countries of origin, destination countries



## **PREREQUISITES FOR THE DEVELOPMENT AND FEATURES OF DIGITALIZATION OF INTER-COMPANY INTERACTIONS**

### **ABSTRACT**

*Relevance. Currently, there is a progressive introduction of digital technologies in all spheres of human life. The direction is becoming especially relevant for business entities. The development of integration processes in the economic system leads to the complication of the formation of interfirm interactions. Its continuous development in an innovative direction inevitably leads to an increase in the level of use of various information and communication means, which leads to an increase in the economic efficiency of interfirm interactions. Today, in the context of the coronavirus pandemic, the issue of a closer theoretical understanding of the issues of digitalization of interfirm interactions is acute.*

*The study of the prerequisites and features of digitalization of interfirm interactions expands the theoretical aspects of the development of the digital economy in relation to the effectiveness of interfirm relations. The goal is to identify and systematize the prerequisites for the development and features of digitalization of interfirm interactions. The objectives of the research are reduced to a comparative analysis of existing studies on the formation of a digital society, as well as the study of economic relations arising in the process of digitalization of interfirm interactions. Results. Development prerequisites and factors influencing the level of digitalization of interfirm interactions are systematized. The promising directions of development of the selected prerequisites and features of digitalization of interfirm interactions are determined.*

**KEYWORDS:** digitalization, interfirm interactions, prerequisites, trends



MSc *Radovan OGNJENOVIC*

Data Analyst for German and English,  
Accenture Operations Poland,  
Warsaw, Poland

## **MONTENEGRO AND THE POLICY OF MULTICULTURALISM**

### **ABSTRACT**

*The economic, social, and political forces of the process of globalization are pushing today's world in the direction of creating one unique global culture – where elements of various different cultures get intertwined, and cultural homogeneity slowly, but steadily becomes a relic of the past. This process, also exemplified through the regional integration of the European continent, is also unstoppably conquering the area of Montenegro, an area that has always had a history of coexistence of various national, religious, linguistic, and other groups' members. Upon first glance, today's Montenegro leaves the impression of a rather harmonious multicultural environment. However – as this article is going to try and prove – just a simple scratch beneath the surface reveals some information that leads to the conclusion that a lot of work still needs to be done in order to achieve multiculturalism in its essential form. Through a theoretical introduction, a description of the legal framework, followed by a general overview of the implementation of the multicultural policy in the political, media, and educational arena, I have tried to define the key problems in this field, as well as potential guidelines for action for both official institutions, and the civil sector and the population as a whole.*

**KEY WORDS:** Multiculturalism, minority rights, civil society, Montenegro



## **STRUCTURAL CHARACTERISTICS AND POTENTIAL OF HUMAN RESOURCES IN HOTEL INDUSTRY OF MONTENEGRO**

### **ABSTRACT**

*This paper gives an overview of the current status and potential of employees in the hotel industry of Montenegro. The aim is to analyse present situation, define main disadvantages and suggest the best solutions. The main purpose of the research is to determine under what conditions the development of human resources can be considered as an appropriate contribution to the development of sustainable labor market for tourism needs. Authors conducted field research according to the original questionnaire, the theoretical knowledge of the hospitality industry and many years of practical experience.*

*Methodology – The survey was conducted among employees in several municipalities in Montenegro: Budva, Podgorica, Zabljak, Kotor, Bar and Ulcinj. Data processing software SPSS was used for statistical data processing. Cross demographic and educational characteristics of human resources were analysed in relation to their distribution by position, sector and category in which they are employed. The general hypothesis in this work is based on the premise that most hotels in Montenegro have no strategic human resources development and education plan that is in line with market needs. Research shows that despite the global problems of human resources in hospitality, there are certain specificities in Montenegrin hotels. It is crucial to make some structural changes regarding to employees because there is lack of qualified and competent managers in Montenegro. Originality of the research. The originality of the work is reflected in the scientific research of analysis current situation in Montenegro.*

**KEYWORDS:** human resources, tourism, hotel, Montenegro, education



Student PhD *Nikolay DMITRIEV*

Assistant Professor *Andrey ZAYTSEV*

Peter the Great Saint-Petersburg Polytechnic University,  
Saint Petersburg, Russian Federation

## **INTELLECTUALIZATION AS A FIRST STEP OF TRANSITION TO NOONOMICS**

### **ABSTRACT**

*Global socio-economic trends determine the significance of the transition to innovative technologies that can optimize production processes and make structural economic shifts towards increasing production of the national product. Economic relations in the context of globalization are unstable, and their dynamics lead to unpredictability in forecasting market conditions. This fact shows the importance of maintaining and systematically increasing the competitiveness of the national economy, which cannot be achieved only by material and financial factors, which are based on rational economic theory and classical scientific approaches. Considering the practice of economic growth in the most technologically developed countries, it is proposed to note the fact of obtaining additional income and excess income due to the introduction of intellectual property objects into economic circulation. All over the world, there is an uptrend in the use of intelligent technologies in economic activities, the commercialization of which brings not only increased profitability, but also allows you to obtain additional competitive advantages in the market environment. We can assume that the trends of not only socio-economic, but also universal human development determine the need to switch to innovative technologies that will allow us to take the first step towards qualitative structural changes in the economy and society. Without the activation of innovative processes at the national level, it is impossible to optimize production and build relationships based on non-material components. Considering the aspects of countries with economies in transition, such as Russia, it is necessary to note the strong scientific and technological backwardness of the national economy and a strong dependence on foreign components. It is believed that there is significant progress in technological development, but from the author's point of view, the macroeconomic dynamics indicates the presence of many problems and global imbalances, without solving which it is not possible to increase the intensification of intellectual processes. Every year, the relevance of research in the field of finding ways to overcome the backlog of developing countries is increasing, which can be achieved by systematically increasing the level of intellectualization as a way to achieve economic competitiveness and improve the quality of life of the population. The intellectualization of the economy leads to the formation of intellectual rents, which are additional profits and superprofits due to the use of human capital, knowledge, innovation and other achievements of technological progress. However, it is necessary to realize that reducing scientific and technological backwardness and innovative development of socio-economic relations should not be the ultimate goal of sustainable development of all mankind. You need to think of further alternatives, which could be the transition to noonomics. It is proposed to suggest that the processes of intellectualization will allow*



*creating a completely new society in the future, in which the maximization of knowledge and the satisfaction of non-economic needs will become the main dominants. In the scientific community, this phenomenon is called the new industrial society of the second generation. Under the influence of such trends, there must be a change in the structure and content of individual needs, as well as in the forms of organization of production processes. The displacement of human resources from the sphere of material production should in the future lead to a transformation of economic rationality, which today does not allow us to take into account many externalities, such as environmental degradation under man-made pressure, the increasing gap between the poor and the rich, the inability to meet the growing needs of the population, demographic catastrophe (uncontrolled birth rates in undeveloped countries and the extinction of the population in advanced intellectual countries), and much more. Based on these factors, it is necessary to provide a non-economic way of organizing production and economic activities, which will be noonomics. Under these conditions, production activities will be regulated by people from the outside, as an external sphere in relation to them. Since human resources must leave the direct production process, then in the future, people's social relations will no longer be determined by their participation in production activities.*

**KEYWORDS:** intellectualization, noonomics, sustainable development, the new industrial society.



## **EDUCATION IN THE FUNCTION OF DEVELOPMENT OF HUMAN RESOURCES COMPETITIVENESS IN THE MONTENEGRIN MARITIME**

### **ABSTRACT**

*Montenegrin maritime affairs have been in a great crisis for three decades. However, this did not discourage various levels of maritime education from providing quality services in order to maintain and increase the competitiveness of human resources in the maritime industry of Montenegro. The subject of this paper is the development of a hypothetical perception model of 180 respondents, which refers to their subjective assessment of the human resources competitiveness level in the Montenegrin maritime industry (as dependent variables), and the positive impact of four independent variables (secondary, applied, and academic education, as well as training of Montenegrin seafarers in various training centers). The aim of the research is to point out the growing role and importance of human resources for creating a competitive advantage of maritime in Montenegro. It starts with the basic hypothesis that all forms of maritime education are extremely important for the development of human resources in Montenegro, and the auxiliary hypothesis that maritime higher education is most important in the structure of all forms of maritime education for the development of competitiveness of human resources in Montenegro. Both of these hypotheses were verified in the Annals and the Conclusion.*

**KEYWORDS:** education, human resources, competitiveness, maritime industry Montenegro,

