



**System Dynamics Group  
University of Bergen**



**National University  
of Kyiv-Mohyla Academy,  
Department of Finance,  
Laboratory of Financial and  
Economic Research**



**The Ivan Franko  
National University of  
Lviv**

3rd Annual Research Conference  
**THEORY AND PRACTICE OF SYSTEM DYNAMICS  
IN FINANCE**

**AGENDA**

Monday, December 7, 2020

Zoom Meeting [https://ukma-edu-ua.zoom.us/j/3813683283?  
pwd=MUVDeU1GajBwSWNLOW0xdTdmUFpndz09](https://ukma-edu-ua.zoom.us/j/3813683283?pwd=MUVDeU1GajBwSWNLOW0xdTdmUFpndz09)

10.00 to 10.15	Welcome Remarks
10.15 to 11.30	Session 1 <b><i>Dynamics of Socio-economic System: A System Dynamics Approach</i></b>
	Coffee Break
11.45 to 12.45	Session 2 <b><i>System Dynamics Modeling Framework for the Banking System of Ukraine</i></b>
	Coffee Break
13.00 to 14.15	Session 3 <b><i>Applying System Dynamics Modeling for Macroeconomic Analysis</i></b>
	Coffee Break
14.30 to 15.30	Session 4 <b><i>Practice of System Dynamics Modeling</i></b>
	Coffee Break
15.30 to 16.50	Session 5 <b><i>Introducing System Dynamics at Schools</i></b>
16.50 to 17.00	Closing Remarks

3rd Annual Research Conference  
**THEORY AND PRACTICE OF SYSTEM DYNAMICS  
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**WELCOME REMARKS**

**I. David Wheat**, PhD, MPP, Professor Emeritus, University of Bergen, Norway

**SESSION 1**

***Dynamics of Socio-economic System:  
A System Dynamics Approach***

Viktoriia Surovets, Maria Bykovska, Master students, NaUKMA

**MODELING THE IMPACT OF PERSONAL INCOME TAX ON GOVERNMENT REVENUE OF UKRAINE**

Alina Novik, Assistant, NaUKM, Maryna Sysa, Master student, NaUKMA

**THE IMPACT OF REMITTANCES ON THE NATION'S WEALTH AND BUSINESS DEVELOPMENT IN THE COUNTRY OF ORIGIN**

Oleksandra Orlovska and Yevhen Riabtsun, 4th year students, NaUKMA

**MODELING NATIONAL INCOME RESPONSE TO EXTERNAL SHOCKS IN UKRAINE**

Tetiana Donkohlova, PhD student, NaUKMA

**DYNAMIC NATURE OF THE LABOR MARKET. FRAMEWORK ANALYSIS**

Nataliia Dubrovna, Kateryna Savolchuk, Master students, LNU

**RELATIONSHIP BETWEEN PRICE AND WAGE IN UKRAINE: SYSTEM DYNAMIC EVALUATION**

**SESSION 2**

***System Dynamics Modeling Framework for the Banking System of Ukraine***

A.Kaminskyi, Professor of Kyiv National University of Taras Shevchenko, Oleksii Petrovskyi, Head of risk modeling department of bank "Ukrgasbank", O.Petrovskyi, PhD student, NaUKMA

**CONCEPTUAL FRAMEWORKS OF CREDIT SYSTEMS MODELING BY MEANS SYSTEM DYNAMICS TOOLS**

Anna Melnyk, Anastasiia Pokydko, Master students, NaUKMA

**SYSTEM DYNAMIC MODELING FOR BANKING SYSTEM**

Mariia Nasachenko, PhD student, NaUKMA

**DYNAMIC APPROACH TO MONETARY POLICY EFFECTS MODELING IN UKRAINE**

Anatolii Hlazunov, Oleksand Tarnavskii, PhD students, NaUKMA

**NON-PERFORMING LOANS ACCUMULATION PATH**

Pervin Dadashova, Senior lecturer, NaUKMA

**CYCLICAL COMPONENT MODELLING**

### SESSION 3

#### *Applying System Dynamics Modeling for Macroeconomic Analysis*

Hennadii Hryhoriev, Associate professor, NaUKMA

#### **PATH DEPENDENCE IN SOVEREIGN DEBT MODELING**

Karyna Lehka, Victoriia Nazarenko, Master students, NaUKMA

#### **MODELLING THE IMPACT OF FOREIGN TRADE ON NATIONAL INCOME IN UKRAINE**

Hlushchenko Viktoriia, Klimchenko Vladyslav, Master students, NaUKMA

#### **INFLUENCE OF FINANCIAL STABILITY FACTORS ON THE SHADOW ECONOMY DYNAMICS IN UKRAINE**

Panchenko Nataliia, PhD student, NaUKMA

#### **MAIN MACROECONOMIC FACTORS OF CHANGES IN BUDGET REVENUES IN MODERN CONDITIONS**

### SESSION 4

#### *Practice of System Dynamics Modeling*

Vasyl Gorbachuk, Professor, NaUKMA Maxym Dunaievskiy, Seit-Bekir Suleimanov, Ph.D. students, V.M.Glushkov Institute of Cybernetics, National Academy of Sciences of Ukraine

#### **REGULATORY ASSET BASE ON DYNAMIC DATA**

Olena Khrystan, Master student, LNU

#### **SYSTEM DYNAMIC MODELING OF KNOWLEDGE ACCUMULATION PROCESSES**

Vladyslav Ripko

#### **BUSINESS OPTIMIZATION BY USING SYSTEM DYNAMICS**

Olena Khrystan, Khrystyna Tsvyk, Master students, LNU

#### **ECONOMIC COSTS OF THE UKRAINIAN CONFLICT IN DONBASS**

### SESSION 5

#### *Introducing System Dynamics at Schools*

Olena Primierova, Associate professor, NaUKMA

#### **INTRODUCING SYSTEM DYNAMICS AT SCHOOLS: PRACTICE AND PERSPECTIVES**

Marianna Olishevych, PhD, Doctor of science, Professor of the Department of Mathematical Economics and Econometrics, LNU

#### **IMPLEMENTATION OF SYSTEM DYNAMIC APPROACH IN NEW UKRAINIAN SCHOOL EDUCATION**

Lesia Protsyshak, Teacher of the highest category, Lviv Academic Gymnasium at the National University "Lviv Polytechnic»

#### **PROJECT ACTIVITIES DURING PHYSICS LESSONS USING SYSTEM DYNAMICS**

Alina Novik, Assistant, NaUKMA

#### **SYSTEM DYNAMICS METHOD IN SCHOOL TEACHING**

### CLOSING REMARKS

**Iryna Lukianenko**, PhD, Doctor of science, Professor, Head of Finance Department, NaUKMA