

Relationship between Economic Security and Country Risk Indicators in EU Baltic Sea Region Countries

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ABSTRACT

Objective: The globalization phenomenon raises new challenges in terms of country risk and economic security for small open economies. The objective of this paper is to evaluate the relationship between economic security and country risk indicators in EU Baltic Sea region countries.

Research Design & Methods: This paper, after surveying definitions and typologies of risks, proposes the analysis of the relationship between economic security and country risk in EU Baltic Sea region countries based on statistical data from 2012. The results were optimized by implementing MOORA (Multi-Objective Optimization by Ratio analysis) and MULTIMOORA (MOORA plus Full Multiplicative Form) methods.

Findings: Findings provide evidence for economic security being dependent on country risk ratios. This result is robust with respect to the applied method of investigation.

Implications & Recommendations: It is crucial to identify the potential for different types of risks, security indicators as well as methods for risk evaluation and assessment. The key variables of interest include domestic economic variables, macroeconomic policy evaluation, balance of payments stability and social indicators. A general sustainability context (monetary, social and environmental indicators) should be also taken into consideration.

Contribution & Value Added: Several investigations come to strongly conclusive results, which could be used in creating a new model for country risk assessment and the derived economic security indicators for EU Baltic Sea region countries.

Article type: research paper

Keywords: Economic security; globalization; EU Baltic Sea region; MULTIMOORA

JEL codes: G11, G14, G23

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INTRODUCTION

The notion of economic security is quickly gaining attention and its importance has increased in the last years. Contemporary globalization – economic integration at the global level that is no longer limited to the industrialized countries – accelerated during the 1980s, as programs of economic liberalization spread throughout the developing world. A huge increase in capital flows to developing countries in the early 1990s reinforced positive views of globalization. Financial crises at the turn of the 21st century were caused by international effects and the United States high technology boom and its accompanying stock market bubble. They were a good push in governments' understanding of economic security. The economic crises and their repercussions occurring in an increasingly integrated global economy have spurred renewed interest in economic security and created initiatives to redefine it. This revised definition in turn has encouraged a search for policy prescriptions that will increase economic security in the new environment.

Globalization, after undermining the old definition of economic security, is at the centre of a new definition that emphasizes the risks of unexpected shocks and economic volatility. The new definition must capture the causal consequences of globalization accurately and establish explicit benchmarks for assessing globalization's effects on economic security. Economic security is not a new concern of governments. Earlier, economic instruments have long been part of the governmental strategy, as a mean to influence other states and their policies. Economic security in this traditional view was independence from manipulation by other governments that wielded these instruments.

THEORETICAL BACKGROUND: DEFINITIONS OF ECONOMIC SECURITY

Economic security is a topic, which is quite rarely approached by researchers. Very often, the significance of this issue is fully understood only post factum, when the threats to the economic security of a country have had effect (Geršl & Heřmánek, 2006). Economic history proves that economic security should become the object of a permanent monitoring and management system (Heslop & Helen, 2009; Hlaváček, 2007).

According to Huber, Rehm, Schlesinger, and Valletta (2010) economic security could be considered as a preparation state of the economy for ensuring decent conditions for living and developing the socio-economic stability and the political-military capability of the society and the country in order to eliminate internal and external threats. Generally, there is no universal definition of the concept of economic security, because of its multilateral and multidimensional features.

After analysing of different scientific articles and different opinions of researchers (Kesternich & Schnitzer, 2010; Bordo, Meissner, & Weidenmier, 2009; Busse & Hefeker, 2006; Finnerty, 2001), it is clear that the concept of economic security is complex and dynamic. Its complexity stems from the multitude of economic, social, financial processes, as well as, from the phenomena of globalisation (Miskiewicz & Ausloos, 2010; Scheve, Kenneth, & Slaughter, 2002), seen both as a process and as a phenomenon acting systematically and permanently upon national economies. Its dynamism is caused by the quick pace of the economic processes and phenomena on both national and global level (Reuer & Leiblein, 2000).

Economic security should be understood as (Rehm & Schlesinger, 2013; Quadrini, 2011; Ausloos & Miskiewicz, 2010; Rehm & Schlesinger, 2010; Marshall, Maulana, & Tang, 2009; den Besten, 2007; Estrada, 2000; Meldrum, 2000):

- an essential factor of national security, ensuring resources and the dynamic balance of all other components of this system,
- a dimension of national, regional and global security, which is an aim of every individual, community, country, etc.,
- a priority objective of governments, regional and international organizations working to ensure and guarantee global human security,
- a state of the national economy, seen as a source and basis for eliminating poverty, famine, social and economic inequalities, both between individuals and between regions of a country.

Most of the definitions of economic security provided by researchers from various countries (Ratha, De Prabal, & Mohapatra, 2011; Schroeder, 2008; Quer, Claver, & Rienda, 2007) may be classified into three categories:

- definitions that identify economic security with its objectives,
- definitions that identify economic security with a state of the economy, which implies several favourable consequences,
- definitions that consider economic security as an element of production stability.

The country's economic security is determined by three main components: economic security of countries, companies and consumers. The balance of the three is crucial for the security of the whole country's economy. The main objective of the country's economic security consists of ensuring basic conditions for the country's socio-economic development (Rehm, Hacker, & Schlesinger, 2012; Osberg & Sharpe, 2009).

The concept of economic security has a lot of milestones, which should be considered: it lacks the historical primacy and intellectual currency assigned to military security; it suffers from a diffuseness of both potential threats and remedies; and its content resists clear categories of threat.

Further analysis will show how important it is to distinguish the dependence of economic security on country risk indicators, as by this approach, many decisions could be made, evaluating different types of opportunities.

RESEARCH METHODS: MOORA AND MULTIMOORA METHODS

Multi-Objective Optimization by Ratio Analysis (MOORA) method was introduced by Brauers and Zavadskas (2006). This method was developed (Brauers & Zavadskas, 2010) and became MULTIMOORA (MOORA plus the full multiplicative form). These methods have been applied in different studies (Brauers, Ginevičius, Zavadskas, & Antuchevičienė, 2007; Brauers & Ginevičius, 2009; Brauers & Zavadskas 2009; Brauers & Ginevičius, 2010; Baležentis A., Baležentis, T., & Valkauskas, 2010; Brauers, Ginevičius, & Podvezko, 2010).

According to Brauers and Zavadskas (2006), MOORA goes for a ratio system in which each response of an alternative on an objective is compared to a denominator, which is representative for all alternatives concerning that objective.

MOORA method begins with the matrix X where its elements x_{ij} denote j -th alternative of i -th objective ($i = 1, 2, \dots, n$ and $j = 1, 2, \dots, m$). In our case we have $m=8$ alternatives (EU

Baltic Sea region countries) and $n = 23$ objectives (indicators). MOORA method consists of two parts: the ratio system and the reference point approach.

The Ratio System of MOORA

The ratio system defines data normalization by comparing alternative of an objective to all values of the objective (1):

$$x_{ij}^* = \frac{x_{ij}}{\sqrt{\sum_{j=1}^m x_{ij}^2}} \quad (1)$$

where:

x_{ij} – response of alternative j on objective i ,

$j = 1, 2, \dots, m$; m – number of alternatives,

$i = 1, 2, \dots, n$; n – number of objectives,

x_{ij}^* – a dimensionless number representing the normalized response of alternative j on objective i .

These responses of the alternatives on the objectives belong to the interval [0; 1]. These indicators are added (if desirable value is maximal) or subtracted (if desirable value is minimal) and summary index of a country derives according to the formula (2):

$$y_j^* = \sum_{i=1}^{i=g} x_{ij}^* - \sum_{i=g+1}^{i=n} x_{ij}^* \quad (2)$$

where:

$i = 1, 2, \dots, g$ as the objectives to be maximized,

$i = g + 1, g + 2, \dots, n$ as the objectives to be minimized,

y_j^* – the normalized assessment of alternative j with respect to all objectives.

The Reference Point of MOORA

This reference point theory starts from the already normalized ratios as defined in the MOORA method. The j -th coordinate of the reference point can be described as $r_j = \max_i x_{ij}^*$ in maximization case. Every coordinate of this vector represents maximum or minimum of certain objective. Then every element of normalized responses matrix is recalculated and final rank is given according to the deviation from the reference point and the Min-Max Metric of Tchebycheff (3):

$$\min_i (\max_j |r_j - x_{ij}^*|) \quad (3)$$

The Full Multiplicative Form of Multiple Objectives and MULTIMOORA

Brauers and Zavadskas (2010) proposed updated MOORA with the Full Multiplicative Form method embodying maximization as well as minimization of purely multiplicative utility function. Overall utility of the j -th alternative can be expressed as dimensionless number (4):

$$U'_j = \frac{A_j}{B_j} \quad (4)$$

where:

$$A_j = \prod_{g=1}^i x_{gi} ,$$

$$j = 1, 2, \dots, m,$$

m – number of alternatives,

i – number of objectives to be maximized,

$$B_j = \prod_{k=i+1}^n x_{kj} ,$$

$n-i$ – number of objectives to be minimized,

U'_j – utility of alternative j with objectives to be maximized and objectives to be minimized.

Thus MULTIMOORA summarizes MOORA (which includes Ratio System and Reference point) and the Full Multiplicative Form.

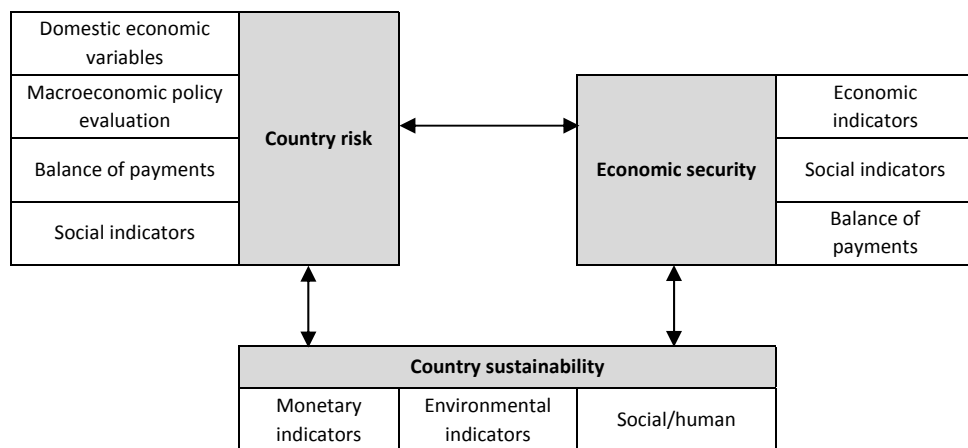


Figure 1. Interdependence between ratios

Source: own study.

ANALYSIS OF COUNTRY RISK AND ECONOMIC SECURITY VARIABLES

The main goal of this study is to determine the relationship between country risk, economic sustainability and economic security (Figure 1). In this article relationship between country risk and economic security ratios will be analysed. There is an assumption, proposed by the authors, that all three variables are interrelated with each other in one or another direction/dependence. This hypothesis has been already proved by several scientific researches (Stankevičienė, Sviderskė, & Miečinskienė, 2014; Stankevičienė & Sviderskė, 2012).

After consolidating different types of variables', different groups of country risk and economic security indicators were created (Table 1 and Table 2).

Table 1. Grouping of indicators for country risk evaluation

Domestic economic variables	Macroeconomic policy evaluation	Balance of payments	Social indicators
Gross domestic investment (% of GDP)	Inflation (End of Year Change %)	The current account balance (% of GDP - 3 year average)	Unemployment Rate (% of Labour Force)
GDP (PPP - billion USD)	Real effective exchange rate	Balance of trade (million EUR)	Natural population change
Private consumption (% of GDP)	Current taxes on income, wealth, etc. (% of GDP)	Exports of goods and services (% of GDP)	Employment (annual averages)

Source: created by authors.

Table 2. Grouping of indicators for country's economic security evaluation

Economic indicators	Social indicators	Balance of payments
<ul style="list-style-type: none"> ◦ Total intramural R&D expenditure (GERD) (EUR/inhab.). ◦ High-tech exports (% of exports). ◦ Gross fixed capital formation (investments) MEUR. ◦ General government deficit/surplus (% of GDP). ◦ General government gross debt (MEUR). 	<ul style="list-style-type: none"> ◦ Long-term unemployment rate (more than 12 months) (%). ◦ At-risk-of-poverty rate (%). ◦ Inequality of income distribution (Income quintile share ratio). 	<ul style="list-style-type: none"> ◦ Balance of international trade in goods (% of GDP). ◦ Market integration by type of trade activities (%). ◦ Share of import from EU in total imports (%).

Source: created by authors.

For country risk, four main groups of variables were distinguished – domestic economic variables, macroeconomic policy evaluation, balance of payments and social indicators. Each group includes a set of three indicators, which mostly describe country risk.

For economic security, three main groups of variables were distinguished – economic indicators, social and balance of payments. Each group includes a set of indicators, which describe countries' economic security (Saisana & Saltelli, 2010; Saaty, 2010).

RESULTS AND DISCUSSION

All data for analysis was received from European Statistics Database (Eurostat) and International Monetary Fund for EU Baltic Sea region countries. The data therefore covers eight EU Baltic Sea region countries, year 2012 (latest available data) and 23 structural indicators, 184 observations in total. The indicators used for calculations are presented in Table 3 and Table 4.

Table 3. Country risk indicators for EU Baltic Sea region countries for 2012

Countries	Domestic economic variables			Macroeconomic policy evaluation		
	Gross domestic investment (% of GDP)	GDP (PPP - USD, billions)	Private consumption (% of GDP)	Inflation (End of Year Change %)	Real effective exchange rate	Current taxes on income, wealth, etc. (% of GDP)
Denmark	17.32	210.15	49.50	1.96	96.20	30.40
Estonia	27.63	29.09	51.80	3.76	111.30	7.00
Finland	18.74	197.48	56.30	3.45	95.00	15.90
Germany	17.22	3 197.07	57.60	2.04	93.70	12.10
Latvia	25.89	37.27	62.10	1.60	116.10	7.70
Lithuania	17.10	65.01	64.20	2.93	109.30	4.90
Poland	21.08	800.93	61.20	2.40	100.60	7.20
Sweden	18.54	392.96	48.20	1.04	100.80	18.30

Countries	Balance of payments			Social indicators		
	The current account balance (% of GDP - 3 year average)	Balance of trade (million EUR)	Exports of goods and services (% of GDP)	Unemployment Rate (% of Labour Force)	Natural population change	Employment (annual averages)
Denmark	5.60	585.40	54.50	7.55	1.00	2 688.60
Estonia	1.30	-203.50	92.50	9.77	-1.10	624.40
Finland	-0.60	-527.90	39.70	7.68	1.40	2 483.20
Germany	6.50	16 097.60	51.60	5.46	-2.30	40 062.10
Latvia	-0.30	-135.90	61.10	14.94	-4.50	885.60
Lithuania	-1.40	40.30	84.20	13.25	-3.50	1 278.50
Poland	-4.50	-788.20	46.20	10.35	0.00	15 590.70
Sweden	7.00	459.90	48.70	7.90	2.20	4 657.10

Source: own study.

Table 4. Economic security indicators for EU Baltic Sea region countries for 2012

Countries	Economic indicators				
	Total intramural R&D expenditure (GERD) (EUR/inhabitant)	High-tech exports (% of exports)	Gross fixed capital formation (investments) MEUR	General government deficit/surplus (% of GDP)	General government gross debt (MEUR)
Denmark	1 311.50	9.50	42 638.50	-4.10	110 980.20
Estonia	284.90	14.10	4 392.00	-0.20	1 712.10
Finland	1 264.90	7.30	37 868.00	-1.80	103 145.00
Germany	951.00	13.90	470 550.00	0.10	2 160 192.50
Latvia	71.70	6.30	5 072.80	-1.30	9 038.00
Lithuania	98.90	5.80	5 483.60	-3.20	13 333.10
Poland	89.00	5.90	72 981.60	-3.90	217 691.00
Sweden	1 464.90	12.90	77 454.90	-0.20	158 000.30

Countries	Social			Balance of payments		
	Long-term unemployment rate (more than 12 months) (%)	At-risk-of-poverty rate (%)	Inequality of income distribution (Income quintile share ratio)	Balance of international trade in goods (% of GDP)	Market integration by type of trade activities (%)	Share of import from EU in total imports (%)
Denmark	2.10	13.10	4.50	2.20	32.40	70.70
Estonia	5.50	17.50	5.40	-4.30	76.10	80.00
Finland	1.60	13.20	3.70	0.10	29.20	62.80
Germany	2.50	16.10	4.30	6.70	41.00	63.50
Latvia	7.80	19.20	6.50	-9.80	49.50	78.20
Lithuania	6.60	18.60	5.30	-3.20	71.80	56.80
Poland	4.10	17.10	4.90	-1.40	39.20	67.20
Sweden	1.50	14.10	3.70	2.10	32.00	67.10

Source: own study.

Table 5. Country risk indicators for EU Baltic Sea region countries, normalized by MOORA

Countries	Domestic economic variables			Macroeconomic policy evaluation			
	Gross domestic investment (% of GDP)	GDP (PPP - US \$,billions)	Private consumption (% of GDP)	Inflation (End of Year Change %)	Real effective exchange rate	Current taxes on income, wealth, etc. (% of GDP)	
Denmark	0.29	0.06	0.31	0.27	0.33	0.71	
Estonia	0.47	0.01	0.32	0.52	0.38	0.16	
Finland	0.32	0.06	0.35	0.48	0.33	0.37	
Germany	0.29	0.96	0.36	0.28	0.32	0.28	
Latvia	0.44	0.01	0.39	0.22	0.40	0.18	
Lithuania	0.29	0.02	0.40	0.41	0.37	0.11	
Poland	0.36	0.24	0.38	0.33	0.34	0.17	
Sweden	0.32	0.12	0.30	0.14	0.35	0.43	
Countries	Balance of payments			Social indicators			
	The current account balance (% of GDP - 3 year average)	Balance of trade (mil.EUR)	Exports of goods and services (% of GDP)	Unemployment Rate (% of Labour Force)	Natural population change	Employment (annual averages)	
Denmark	0.46	0.04	0.31	0.27	0.15	0.06	
Estonia	0.11	-0.01	0.52	0.34	-0.16	0.01	
Finland	-0.05	-0.03	0.23	0.27	0.20	0.06	
Germany	0.54	1.00	0.29	0.19	-0.34	0.92	
Latvia	-0.02	-0.01	0.35	0.53	-0.66	0.02	
Lithuania	-0.12	0.00	0.48	0.47	-0.51	0.03	
Poland	-0.37	-0.05	0.26	0.36	0.00	0.36	
Sweden	0.58	0.03	0.28	0.28	0.32	0.11	

Source: own study.

Table 6. Economic security indicators for EU Baltic Sea region countries, normalized by MOORA

Countries	Economic indicators						
	Total intramural R&D expenditure (GERD) (EUR/inhab.)	High-tech exports (% of exports)	Gross fixed capital formation (investments) MEUR	General government deficit/surplus (% of GDP)	General government gross debt (MEUR)		
Denmark	0.52	0.33	0.09	-0.60	0.05		
Estonia	0.11	0.50	0.01	-0.03	0.00		
Finland	0.50	0.26	0.08	-0.26	0.05		
Germany	0.37	0.49	0.97	0.01	0.99		
Latvia	0.03	0.22	0.01	-0.19	0.00		
Lithuania	0.04	0.20	0.01	-0.47	0.01		
Poland	0.03	0.21	0.15	-0.57	0.10		
Sweden	0.58	0.45	0.16	-0.03	0.07		
Countries	Social			Balance of payments			
	Long-term unemployment rate (more than 12 months) (%)	At-risk-of-poverty rate (%)	Inequality of income distribution (Income quintile share ratio)	Balance of international trade in goods (% of GDP)	Market integration by type of trade activities (%)	Share of import from EU in total imports (%)	
Denmark	0.16	0.28	0.33	0.16	0.23	0.36	
Estonia	0.43	0.38	0.39	-0.32	0.54	0.41	
Finland	0.12	0.29	0.27	0.01	0.21	0.32	
Germany	0.19	0.35	0.31	0.50	0.29	0.33	
Latvia	0.60	0.42	0.47	-0.73	0.35	0.40	
Lithuania	0.51	0.40	0.38	-0.24	0.51	0.29	
Poland	0.32	0.37	0.36	-0.10	0.28	0.35	
Sweden	0.12	0.31	0.27	0.16	0.23	0.35	

Source: own study.

The initial data was normalized according to formula (1) for Ratio System of MOORA, and then formula (2) was used for obtaining ranks of the Ratio System of MOORA. Formula (3) was applied for the ratios obtained according to formula (1) for Ratio System of MOORA. At the end, initial data was computed according to formula (4),

providing ranks of the Full Multiplicative Form. Final ranks were obtained through the dominance theory (Brauers, 2004). The results are presented in Table 5 for country risk indicators and in Table 6 for economic security indicators¹.

After data is normalized, the correlation analysis (Mirkin, 2011; Miskiewicz, 2012) could be presented in order to understand the relationship between each variable for each country risk and economic security group (Table 7).

Table 7. Correlation matrix between country risk and economic security indicators for EU Baltic Sea region countries

Indicators	Economic security											
	Intramural R&D expenditure (EUR/inhab.)	High-tech exports (%)	Gross fixed capital formation MEUR	Government deficit/surplus (% of GDP)	Government gross debt (MEUR)	Long-term unemployment rate (%)	At-risk-of-poverty rate (%)	Inequality of income distribution	Balance of international trade in goods	Market integration (%)	Share of import from EU i (%)	
Country risk	Gross domestic investment (% of GDP)	-0.558	0.083	-0.391	0.314	-0.358	0.604	0.538	0.675	-0.744	0.491	0.863
	GDP (PPP - US \$,billions)	0.177	0.438	0.992	0.359	0.989	-0.330	-0.052	-0.289	0.684	-0.237	-0.293
	Private consumption (% of GDP)	-0.755	-0.699	0.009	-0.283	0.059	0.660	0.722	0.549	-0.440	0.332	-0.316
	Inflation (End of Year Change %)	-0.295	-0.069	-0.241	-0.073	-0.191	0.164	0.110	0.059	-0.179	0.514	-0.031
	Real effective exchange rate	-0.744	-0.230	-0.556	0.104	-0.511	0.915	0.811	0.869	-0.909	0.733	0.507
	Current taxes on income, wealth, etc. (% of GDP)	0.832	0.220	0.039	-0.216	-0.003	-0.712	-0.858	-0.552	0.524	-0.670	0.001
	The current account balance (% of GDP - 3 year average)	0.742	0.766	0.491	0.482	0.461	-0.548	-0.515	-0.455	0.624	-0.316	0.046
	Balance of trade (mil.EUR)	0.211	0.519	0.979	0.458	0.990	-0.260	-0.028	-0.220	0.640	-0.126	-0.244
	Exports of goods and services (% of GDP)	-0.568	0.156	-0.311	0.116	-0.255	0.671	0.614	0.584	-0.464	0.968	0.272
	Unemployment Rate (% of Labour Force)	-0.789	-0.644	-0.617	-0.252	-0.576	0.910	0.785	0.845	-0.920	0.538	0.228
	Natural population change	0.753	0.263	-0.096	-0.084	-0.168	-0.860	-0.877	-0.827	0.535	-0.626	-0.107
	Employment (annual averages)	0.104	0.367	0.966	0.281	0.960	-0.306	-0.013	-0.263	0.656	-0.243	-0.294

Source: own study.

As we can see from Table 7, there are both – positive and negative correlations between variables. The relationship between indicators is quite strong, the strongest correlation is between macroeconomic policy evaluation (country risk group) and social indicators (economic security group), as well as between social indicators (country risk group) and social indicators (economic security group). Domestic economic variables and balance of payments for country risk are also correlating with economic, balance of payment and social indicators for economic security. The strongest negative correlation is between real effective exchange rate (country risk ratio) and balance of international trade in goods for economic security, as well as between unemployment rate (social indicator of country risk) and balance of international trade in goods for balance of payments in economic security. If one indicator increases, another one will be decreasing and vice versa. Positive correlation is between GDP in domestic economic variables and

¹ All calculations are available from the authors upon request.

balance of trade in balance of payment (country risk) and gross fixed capital formation and general government gross debt (in economic indicators for economic security). As well, strong positive correlation is between exports of goods and services (balance of payments for country risk) and market integration by type of trade activities (balance of payments for economic security). Ratios of country risk such as inflation do not present a strong correlation with all economic security ratios.

CONCLUSIONS

The system of 23 indicators for eight EU Baltic Sea region countries for country risk and economic security was introduced. It includes four groups for country risk: domestic economic variables (gross domestic investment, GDP, private consumption), macroeconomic policy evaluation (inflation, real effective exchange rate, current taxes on income, wealth, etc.), balance of payments (current account balance, balance of trade, exports of goods and services) and social indicators (unemployment rate, natural population change, employment rate). Economic security is based on three groups of indicators: Economic indicators (Total intramural R&D expenditure, high-tech exports, gross fixed capital formation, general government deficit/surplus, general government gross debt), social indicators (long-term unemployment rate, at-risk-of-poverty rate, inequality of income distribution) and balance of payments (balance of international trade in goods, market integration by type of trade activities, share of import from EU in total imports).

Both MOORA method and its updated model MULTIMOORA could be perfectly used while evaluating and standardizing country risk and economic security, as a ratio system, reference point and multiplicative form appropriately suit for cases, where there are several alternatives (EU Baltic Sea region countries) and several objectives (indicators, which directly show country risk and economic security).

After implementation of MOORA method for EU Baltic Sea region countries, it could be concluded that the data was correctly normalized, standardized and optimized. The results are as follows: the correlation between country risk and economic security does exist. The strongest negative correlation is between real effective exchange rate (country risk ratio) and balance of international trade in goods for economic security, as well as between unemployment rate (social indicator of country risk) and balance of international trade in goods for balance of payments in economic security. Strong positive correlation is observed between GDP in domestic economic variables and balance of trade in balance of payment (country risk) and gross fixed capital formation and general government gross debt (in economic indicators for economic security). Strong positive correlation can also be noticed between exports of goods and services (balance of payments for country risk) and market integration by type of trade activities (balance of payments for economic security). Such elements of country risk as inflation are not very influencing all economic security ratios (no strong relationship was detected). It was proved that economic security was related to / dependent on country risk ratios.

For future investigations, new methods for country risk assessment and economic security evaluation could be used (for example, utilizing S&P ratings) and results compared to those received by using MULTIMOORA method. Furthermore, a new

investigation on interrelationship between economic security and economic sustainability could be introduced, implementing a three-dimensional analysis.

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