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The impact of the level of economic freedom on the socio-economic development of national economies: the Eurasian economic union countries

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Abstract. The study assesses the impact of the level of economic freedom on the dynamics of socio-economic indicators of the four Eurasian Economic Union countries in the long time-span (2012-2021). This paper uses econometric modelling techniques to verify the hypothesis of existence of a direct statistically significant relationship between the level of economic freedom and Gross Domestic Product per capita, Gross Domestic Product itself, foreign direct investment in the economy, the Human Development Index; and an inverse relationship with the Corruption Perception Index. The study reveals the confirmation of a substantial part of the hypotheses put forward for economies of the Eurasian Economic Union countries. However, there is no statistically significant relationship between the level of economic freedom and Gross Domestic product capita or foreign direct investment in all of the economies studied.

Keywords: socio-economic development, Eurasian Economic Union (EAEU), economic freedom index, correlation analysis, The Heritage Foundation.

JEL codes: C12; C10; O17

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Introduction

The consensus in the economic literature concerns the economic freedom is a key factor in the development of a national economy.

Publishing its annual report on the state of economic freedom worldwide, The Heritage Foundation defines it as "the absence of government interference or obstruction in the production, distribution and consumption of goods and services, except for the protection and support of freedom as such that citizens need" (The Heritage Foundation, 2022).

In terms of the theoretical perspective, the relevance of economic freedom to the national economy is defined by a number of postulates:

- according to the Foundation's experts, there is a positive correlation between economic freedom and the success of economic development -- countries with a freer economy have much higher levels of well-being, and economic freedom brings relatively quick and tangible results in contrast to government regulation of the economy (The Heritage Foundation, 2022);
- there is also a direct correlation between the degree of regulation of the economy and the level of corruption (e.g. experience of India shows the corrupt officials, instead of trying to facilitate their duties, actually create administrative barriers to receive bribes) (Hellman et al., 2000);
- Economic Freedom Rating (The Heritage Foundation) is one of the indicators of a country's attractiveness to institutional investors in the global economy (reducing the economic functions of the state and transferring responsibility for economic decision-making to entrepreneurs generally results in a significant increasing of public prosperity. Countries with economic freedom policies provide positive conditions for trade and



entrepreneurship generating their own economic growth.

Moreover, applied works investigating the socio-economic aspects of economic freedom establish a correlation of this phenomenon with:

- Human Development Index (Staufer & Brockmann, 2018);
- level of corruption of the State (Malanski & Póvoa, 2021);
- Gross Domestic Product (GDP) per capita (Cebula, Clark & Mixon, 2013);
- direct foreign investment (Sayari, Sari & Hammoudeh, 2018);
- value of GDP (Ivanova & Vojtovic, 2016).

Meanwhile, the issue of country-specific aspects of the impact of economic freedom on the socio-economic development of economies is of considerable academic interest - how similar are the country-specific manifestations of this phenomenon?

Our previous work (Shkiotov, Markin & Shcherbakova, 2022) identified a strong direct correlation between the level of economic freedom and the Human Development Index in Russia.

The challenge is the results of the study may be affected both by the limitations of the model used and by the unprecedented external shocks to which the Russian economy has been subjected in recent years.

The purpose of this paper is to assess the impact of the level of economic freedom on the dynamics of socio-economic processes in the four EAEU countries.

Table 1 presents a number of hypotheses describing the impact of economic freedom on the dynamics of a country's socio-economic indicators.

Table 1 – Socio-economic aspects of economic freedom in economic studies.

The authors	The hypothesis	Identifies the dependence between		
Staufer & Brockmann (2018)	economic freedom affects people's quality of life	the level of economic freedom and the Human Development Index		
Cebula, Clark & Mixon (2013)	economic freedom affects per capita income	level of economic freedom and GDP per capita		
Sayari, Sari & Hammoudeh (2018)	economic freedom affects the flow of FDI	the level of economic freedom and amount of FDI		
Ivanova & Vojtovic (2016)	economic freedom affects the dynamics of economic growth	the level of economic freedom and the value of GDP		

Source: composed by author

Methods

The research methodology is described in detail in our previous study (Shkiotov, Markin & Shcherbakova, 2022).

Study hypothesis:

- 1. We possess a direct (statistically significant) correlation between the level of economic freedom and GDP per capita, GDP, foreign direct investment in the economy and the Human Development Index.
- 2. That meant there should be an inverse (statistically significant) relationship between the level of economic freedom and the Corruption Perceptions Index.

Selected countries: Kazakhstan, Belarus, Kyrgyzstan, Armenia.

Research method is correlation analysis. During this study, a significance level of 5% was assigned to test the validity of the correlation coefficient.

Table 2 provides the background of the analysis.

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Table 2 - Data for correlation analysis for EAEU countries, 2012-2021

	Data Set	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Belarus	Corruption Perception Index	31	29	31	32	40	44	44	45	47	41
	Index of Economic Freedom	49.0	48.0	50.1	49.8	48.8	58.6	58.1	57.9	61.7	61.0
	GDP per capita (current US\$)	6953. 132515	7998. 125239	8341. 399679	5967. 052204	5039. 681886	5785. 670673	6360. 062473	6837. 717826	6424. 152176	N/A
	Current account balance (BoP, current US\$)	-1308 100000	-19839 00000	-17886 00000	-15457 00000	-11240 00000	-12085 00000	-13713 00000	-12771 00000	-13146 00000	-13178 68223
	GDP (current US\$)	6568 5102555	75527 984234	78813 839984	56454 734397	477226 57821	54726 595249	60031 262269	64409 647194	6025 8239056	N/A
	Human Development Index (HDI)	0.806	0.811	0.814	0.814	0.815	0.819	0.823	0.823	N/A	N/A
	Corruption Perception Index	28	26	29	28	29	31	31	34	38	37
	Index of Economic Freedom	63.6	63.0	63.7	63.3	63.6	69.0	69.1	65.4	69.6	71.1
Kazakhstan	GDP per capita (current US\$)	12386. 69927	13890. 63096	12807. 26069	10510. 77189	7714. 841844	9247. 581331	9812. 626371	9812. 595808	9122. 23343	N/A
	Current account balance (BoP, current US\$)	-11855 850310	-80343 78287	-46745 70616	-32614 47512	-137463 81891	-375612 9608	-472268 6549	-58954 89124	-60559 99984	N/A
	GDP (current US\$)	2,079 99E+11	2,366 35E+11	2,2141 6E+11	1,843 88E+11	1,3727 8E+11	1,6680 6E+11	1,793 4E+11	1,8166 7E+11	1,7108 2E+11	N/A
	Human Development Index (HDI)	0.782	0.791	0.798	0.806	0.808	0.815	0.819	0.825	N/A	N/A
Armenia	Corruption Perception Index	34	36	37	35	33	35	35	42	49	49
	Index of Economic Freedom	68.8	69.4	68.9	67.1	67.0	70.3	68.7	67.7	70.6	71.9
	GDP per capita (current US\$)	3681. 844691	3838. 17388	3986. 231624	3607. 289299	3591 .828052	3914. 527854	4220. 540321	4604. 646324	4266 .018074	N/A
	Current account balance (BoP, current US\$)	-4732 10732.1	-31582 9524.3	-3777 74324	-1553 76062	-26321 3931.7	-22187 8286.3	-25981 2449.7	-2339 41145	-74462 449.07	N/A
	GDP (current US\$)	10619 320049	11121 465767	116095 12940	105533 37673	10546 135160	115274 58566	124579 41907	13619 291361	12641 209802	N/A

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	Human Development Index (HDI)	0.756	0.762	0.764	0.768	0.766	0.769	0.771	0.776	N/A	N/A
Kyrgyzstan	Corruption Perception Index	17	24	24	27	28	28	29	29	31	27
	Index of Economic Freedom	60.2	59.6	61.1	61.3	59.6	61.1	62.8	62.3	62.9	63.7
	GDP per capita (current US\$)	1177. 974735	1282. 437162	1279. 769783	1121. 082835	1120. 666513	1242. 769643	1308. 140165	1374. 032105	1175. 698152	N/A
	Current account balance (BoP, current US\$)	-2770 59600	-61906 2900	-23043 5500	-10090 94000	-57896 8800	7814 3900	-1392 67900	-3366 59800	5824 05200	N/A
	GDP (current US\$)	6605 139933	73350 27592	74680 96567	66781 78340	68130 92066	77029 34800	82711 08638	88710 26074	7735 976273	N/A
	Human Development Index (HDI)	0.674	0.680	0.686	0.690	0.691	0.694	0.696	0.697	N/A	N/A

Source: https://www.heritage.org/index/pdf/2021/book/2021_IndexofEconomicFreedom_Highlights.pdf;

https://hdr.undp.org/en/indicators/137506#

Results

The results of the correlation analysis and their visual interpretation are presented in Table 3 and Figures 1-4.

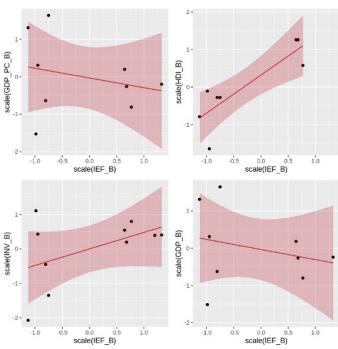


Figure 1. Scatter chart between Index of Economic Freedom (IEF_R) and GDP per capita (GDP_PC_R), Foreign Direct Investment (INV_R), GDP (GDP_R), Human Development Index (HDI_R) for the Belarusian economy

Source: composed by author

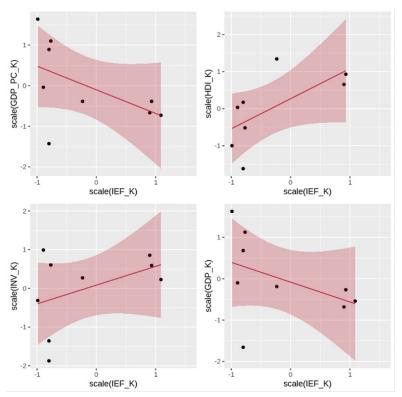


Figure 2. Scatter chart between Index of Economic Freedom (IEF_R) and GDP per capita (GDP_PC_R), Foreign Direct Investment (INV_R), GDP (GDP_R), Human Development Index (HDI_R) for the economy of Kazakhstan

Source: composed by author

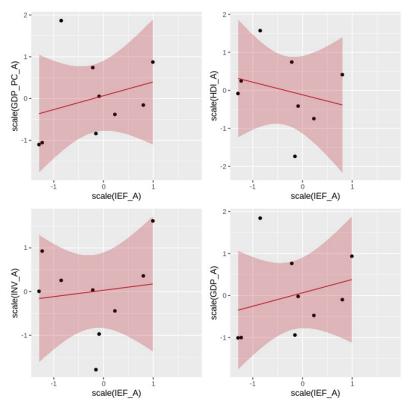


Figure 3. Scatter chart between Index of Economic Freedom (IEF_R) and GDP per capita (GDP_PC_R), Foreign Direct Investment (INV_R), GDP (GDP_R), Human Development Index (HDI_R) for the economy of Armenia

Source: compiled by author

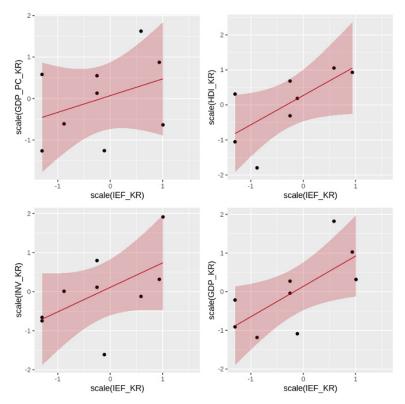


Figure 4. Scatter chart between Index of Economic Freedom (IEF_R) and GDP per capita (GDP_PC_R), Foreign Direct Investment (INV_R), GDP (GDP_R), Human Development Index (HDI_R) for the economy of Kyrgyzstan

Source: composed by author

Table 3 – Results of correlation analysis

		Corruption Perception Index	GDP per capita (current US\$)	Current account balance (BoP, current US\$)	GDP	Human Development Index (HDI)
Armenia	ш	Dependence average direct (0.665638)	No dependence	No dependence	No dependence	No dependence
Belarus	omic Freedo	Dependence average direct (0.8630852)	No dependence	No dependence	No dependence	Dependence strong direct (0.8596929)
Kazakhstan	Index of Economic Freedom	Dependence average direct (0.8154698)	No dependence	No dependence	No dependence	Dependence average direct (0.6502255)
Kyrgyzstan	i H	No dependence	No dependence	No dependence	Dependence average direct (0.6946909)	Dependence average direct (0.6846682)

Source: composed by author

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Discussion

The results obtained for the EAEU countries confirm the research results:

- Staufer & Brockmann (2018) on the correlation between the level of economic freedom and the Human Development Index (for Belarus, Kazakhstan, Kyrgyzstan);
- Malanski & Póvoa (2021) on the correlation between the level of economic freedom and the level of corruption (for Armenia, Belarus, Kazakhstan);
- Ivanova & Vojtovic (2016) on the correlation between the level of economic freedom and GDP (for Kyrgyzstan).
 - The results for the EAEU countries are inconsistent with the results of the studies:
 - Cebula, Clark & Mixon (2013) on the correlation between economic freedom and GDP per capita;
- Sayari, Sari & Hammoudeh (2018) on the correlation between the level of economic freedom and foreign direct investment in the economy.

Conclusions

Table 3 shows:

- average direct correlation (statistically significant) between the level of economic freedom and the level of perception of corruption for the Armenian economy. However, the level of economic freedom has no influence (statistically) on GDP per capita, total foreign direct investment, GDP volume and the Human Development Index for that economy.
- strong direct correlation (statistically significant) between the level of economic freedom and the level of perception of corruption, as well as the Human Development Index for the Belarusian economy. However, the level of economic freedom has no influence (statistically) on GDP per capita, total foreign direct investment, GDP volume and the Human Development Index for that economy.
- strong direct correlation (statistically significant) between the level of economic freedom and the level of perception of corruption, as well as the Human Development Index for the economy of Kazakhstan. However, the level of economic freedom has no influence (statistically) on GDP per capita, total foreign direct investment, GDP volume and the Human Development Index for that economy.
- average direct relationship (statistically significant) between the level of economic freedom and the Human Development Index as well as the value of GDP for the economy of Kyrgyzstan. However, the level of economic freedom has no influence (statistically) on GDP per capita, total foreign direct investment, GDP volume and the Human Development Index for that economy.

The results of the study can be explained by the limitations of the model used (insufficient sample to conduct correlation analysis; changes in the methodology of data collection and evaluation of complex indicators such as HDI and CPI; uncertainty in the conceptual framework (differences in understanding of corruption, quality of life); indirect influence of economic freedom on the indicators examined.

Therefore, the hypotheses and results derived will stimulate a new wave of applied research on economic freedom for the EAEU countries.

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