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Kutnyi, Oleh

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The Effect of Geopolitical Region and Development Level on the Relationship Between Economic Freedom and Happiness.

Oleh Kutnyi

Kyiv School of Economics

Introduction

The discussion on economic freedom probably began with Milton Friedman and his famous Capitalism and Freedom. He believed that economic freedom leads to political freedom, which is impossible without the first one. But does it lead to happiness and well-being? According to previous researches (Cebula et all, 2012; Carlsson, Lundstrom, 2001), we know that there is a positive relationship between economic freedom and GDP and as a result GDP per capita. Thus, objective well-being should increase as well, however, what about subjective well-being? Does freedom make people happier? Again, thanks to the research Benefit or Burden. Unraveling the effect of economic freedom on subjective well-being (Gehring, K) we know that indeed economic freedom has a strong positive effect on subjective well-being. We also know that the effect of specific components of economic freedom on subjective well-being may vary. For example: the size of the government has a slightly negative effect or almost no effect, whereas the legal system and property rights might be the most influential positive factor.

But is there any difference in the effect on different groups of countries? Does the past of the country change the power of this effect? For example, does the increase in economic freedom in post-Soviet countries lead to the same increase in happiness levels as in other countries? Or is there any difference between well-developed countries, developing and non-developed countries? In other words, the main research question is how geopolitical regions and the level of development influence the effect of economic freedom on happiness. Providing answers to these questions might be useful for policymakers: it could encourage governments to implement policies that promote economic freedom. If it turns out that economic freedom has a stronger impact on subjective well-being in less developed countries, this can guide development organizations and governments in their efforts to improve the well-being of their citizens.

Literature Review

Economic freedom refers to the ability of individuals and businesses to make economic choices and decisions without government intervention or excessive restrictions. It is often used to describe the degree to which an economy allows for voluntary and market-driven economic activities to take place. Economic freedom encompasses several key components, including property rights, the rule of law, limited government, free market, low taxes, trade freedom etc. The components in different indexes may vary. However, the overall definition should be clear. One should not confuse it with political freedom which focuses more on democracy and political rights rather than free markets. There are states like Singapore with a high degree of economic freedom but with low political freedom.

In turn, the happiness index is subjective, respondents are asked to rate their life satisfaction on a 1 to 10 scale. "Satisfaction with life as a whole includes "past, present and anticipated experiences" (Veenhoven 2009, 5). This means that SWB today is still influenced by past experiences and expectations for the future. It does not refer to an optimal life, but rather to a degree of satisfaction which is always a subjective appreciation of life." (Ghering, 2012). Based on the above argument one might assume that a change in economic freedom might have a different effect on different countries, for example on post-soviet countries with one similar past and Western Europe with totally different.

Various researchers (Cebula et al., 2012; Carlsson, Lundstrom, 2001; and many others) proved that economic freedom enhances economic activity in the country and as a result leads to higher GDP. Boris Nikolaev in his work *Economic Freedom and Quality of Life: Evidence from the OECD's Your Better Life Index* investigates the impact of economic freedom on subjective well-being in OECD countries. He discovered that economic freedom has a strong positive effect

on the majority of indicators of objective well-being Similarly, Gropper et. al (2011) and Gehring (2012) have proved that there is a positive relationship between economic freedom and happiness. A paper by Bjørnskov et al. (2008) proves that economic development is an important factor, but it does not divide countries into groups, taking only those with GDP PPP > \$8000 instead.

One should note that the majority of studies examine a small set of countries or a short period a few decades ago. They do not investigate differences that might exist among countries with similar characteristics. This research will try to eliminate this drawback.

This study's main research objective is to analyze how geopolitical culture and level of economic development might influence the relationship between economic freedom and the level of happiness.

Data and Method Description

This section pursues two purposes. At first, it will identify the method of data collection. Then, the dependent and independent variables will be selected. The research will use cross-sectional secondary data. The sample includes 135 countries for which the data is available. Despite the fact, that there is data for both 2023 and 2022, the study will use the data from 2021 because the investigation of the relationship between happiness and economic freedom for post-soviet countries is an important part of the research. But there is a possibility that the Russian full-scale invasion, which happened in 2022, may have a strong effect on the relationship. Thus, the data from 2021 will be used.

The main concepts are happiness, economic freedom, level of development and geopolitical region. The first two are continuous variables. The happiness index by the World

Happiness Report is used to measure the happiness level. The Happiness Index is not based on any predictors such as GDP level or life expectancy, "the scores are instead based on individuals' own assessments of their lives, in particular, their answers to the single-item Cantril ladder life evaluation question, much as epidemiologists estimate the extent to which life expectancy is affected by factors such as smoking, exercise, and diet" (World Happiness Report). The range of values for the happiness index is 1-10. The measurement of economic freedom is much more complicated here is the explanation from The Heritage Foundation:

"We measure economic freedom based on 12 quantitative and qualitative factors, grouped into four broad categories, or pillars, of economic freedom:

- 1. Rule of Law (property rights, government integrity, judicial effectiveness)
- 2. Government Size (government spending, tax burden, fiscal health)
- 3. Regulatory Efficiency (business freedom, labour freedom, monetary freedom)
- 4. Open Markets (trade freedom, investment freedom, financial freedom)

 Each of the twelve economic freedoms within these categories is graded on a scale of 0 to

 100. A country's overall score is derived by averaging these twelve economic freedoms,

 with equal weight being given to each."

Another two independent variables are geopolitical region and level of development, both are categorical polytomous factor variables. The first has six categories: post-Soviet, Western Europe, Sub-Saharan Africa, Latin America and Caribbean, Central and Eastern Europe, Asia and the rest of the countries in the "Other" category. Some potential categories here are omitted because of the lack of data or different factors that might have a significant effect on the dependent variable. For example, North America is omitted because the number of countries is too small to make a good analysis or the Middle East where military conflicts are ongoing which in combination with the small number of countries might produce a poor quality result so both of

them are in "Other" category. Development level has three categories developed, developing, and least developed. The countries are divided into those categories by the UN and IMF.

Four hypotheses should be checked:

H1: The impact of economic freedom on happiness in Western Europe is stronger than in other countries.

H2: The impact of economic freedom on happiness in highly developed countries is stronger than in developing and least developed countries.

H3: Geopolitical region has a strong effect on the relationship between economic freedom and happiness.

H4: Development level has a strong effect on the relationship between economic freedom and happiness.

OLS regression will be constructed to check the hypothesis. A simple linear model will be enough to show the relationship between the happiness index and the index of economic freedom. But to reject or accept the hypothesis above the model should include interactions between economic freedom and both factor variables. It hopefully will help to reveal the difference in the effect of increasing the economic liberty among the group of countries. So the model looks like this:

Happiness = $\beta 0 + \beta 1$ (Economic Freedom) + $\beta 2$ (Level of Development) + $\beta 3$ (Geopolitical Region) + $\beta 4$ (Economic Freedom * Level of Development) + $\beta 5$ (Economic Freedom * Geopolitical Region) + ϵ

This model allows to assess how economic freedom impacts happiness, whether the level of development and geopolitical region have independent effects, and how the relationship between economic freedom and happiness varies across different levels of development and geopolitical culture contexts.

Empirical Analysis

As stated above, I begin with the model without interactions (Table 1). Every variable proves to be statistically significant. Indeed, there is a positive relationship between economic freedom and happiness (Figure 1, Table 1). As for other variables, the results just show the difference in happiness between the group of countries. Developed countries are happier, which is logical because people there have a better level of life, better medicine, longer life expectancy, higher income and purchasing power as a result. Interestingly, Latin America and the Caribbean are almost as happy as Western Europe, which is the happiest region. Sub-Saharan Africa and Asia are two regions with the lowest level of happiness. While post-Soviet states, Central and Eastern Europe are in between. Variation of happiness across, therefore, varies depending on development level; in general, more developed regions are happier.

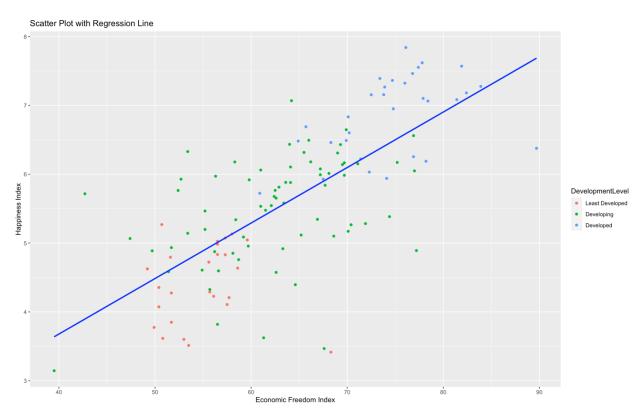


Figure 1: EF index & Happiness index. Scatter plot with the regression line

	Dependent variable:	
Variables		
	happiness_index	
econ_freedom_index	0.040***	
	(800.0)	
DevelopmentLevelDeveloping	0.175	
	(0.176)	
DevelopmentLevelDeveloped	0.707**	
	(0.295)	
regional_indicatorWestern Europe	1.253***	
	(0.274)	
regional_indicatorOther	0.863***	
	(0.221)	
regional_indicatorLatin America and Caribbean	1.241***	
	(0.191)	
regional_indicatorCentral and Eastern Europe	0.679***	
	(0.219)	
regional_indicatorAsia	0.456**	
	(0.192)	
regional_indicatorPost-Soviet	0.643***	
	(0.225)	
Constant	2.124***	
	(0.430)	
Observations	125	
\mathbb{R}^2	0.757	
Adjusted R ²	0.738	
Residual Std. Error	0.554 (df = 115)	
F Statistic	39.740*** (df = 9; 115)	
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 1: Summary of the model without interactions

After providing support for the initial assumption from theory (Gehring, Gropper) about the positive relationship between the dependent variable and economic freedom I developed the model with interactions to answer the research question. I constructed three models (table 2): the first includes interaction only with the development level, the second encompasses the interactions with only geopolitical. The third model is the final one and includes both types of

interactions. When including interactions between economic freedom and regions the result suggests that economic freedom is very important for happiness in Western Europe, if compared to other regions. The interaction term is positive and statistically significant. This suggests that the positive impact of economic freedom on happiness is stronger for West European countries than for any other region of the globe.

In the second model, I did not receive any evidence suggesting that the positive effect of economic freedom depends on the level of development in my sample. This suggests that economic freedom is equally important for all countries regardless of their development level. This conflicts with the research by Stryzhak where she indicates that "economic freedom is positively related to happiness in poor nations, but not in rich nations". Both models contradict the results of the research by Bjørnskov et al. There are several reasons why this might happen. Firstly, the sample is different because I used more up-to-date data. Secondly, there are a few differences in the research design. Bjørnskov et al. used different groups of countries e.g. they divide countries into two groups based on development level, not three like in this paper. They also stated that post communism is important, which is slightly different to post-Soviet countries, as it includes more countries.

When including interactions for both the geopolitical region and development level, the results do not change. The positive effect still does not depend on the level of development but preserves its variation across regional groups. Similar to the results in model 1, the impact of economic freedom on happiness is stronger for Western Europe than for other countries.

To sum up, economic freedom is important for happiness in every country, in other words, there is a strong positive relationship between both variables. However, this effect does not depend on the country's development level but may depend on geopolitical classification. It

is especially important in Western Europe, where one unit increase in economic freedom leads to an estimated average increase of happiness by ≈ 0.1 , which is a lot considering its measurement scales. There might be several reasons that can shed light on my results. On the one hand, it can be explained by historical specificities. Western Europe has a long history of democracy and economic development, while economic freedom has often been associated with prosperity and development. On the other hand, it is worth considering that Western Europe includes market-driven economies. Western European countries have adopted market-driven economic systems emphasizing competition, private enterprise, and free trade. A successful market economy is almost impossible without a high level of economic freedom.

Despite some limitations and slightly controversial results, the analysis manages to prove two hypotheses (H1, H3) related to the regional effect. However, there is not enough evidence to accept H2 and H4, thus, one should conclude that there is no difference in the effect of economic freedom on happiness among countries with different levels of development.

Variables	Dependent variable: happiness_index		
	econ_freedom_index	0.030**	0.021
	(0.015)	(0.027)	(0.026)
DevelopmentLevelDeveloping	0.232	-0.640	-0.587
1 0	(0.172)	(1.569)	(1.671)
DevelopmentLevelDeveloped	0.668**	-2.200	2.213
,	(0.331)	(2.053)	(3.005)
regional_indicatorWestern Europe	-2.596	1.373***	-4.692
ogional_materior in escerii Zarope	(1.850)	(0.289)	(3.161)
regional_indicatorOther	-2.098	0.863***	-2.190
regional_mulcatorother	(1.392)	(0.221)	(1.522)
regional_indicatorLatin America and Caribbean	0.942	1.241***	1.162
regional_indicatorLatin America and Caribbean	(1.277)	(0.192)	(1.350)
ragional indicator Control and Eastern Furance	2.593	0.724***	2.487
regional_indicatorCentral and Eastern Europe	(2.687)	(0.224)	(2.763)
			, ,
regional_indicatorAsia	0.551 (1.248)	0.446**	0.299
· · · · · · · · · · · · · · · · · · ·		(0.192)	(1.414)
regional_indicatorPost-Soviet	2.556*	0.652***	2.824*
	(1.490)	(0.225)	(1.581)
econ_freedom_index:regional_indicatorWestern Europe	0.056**		0.083*
	(0.026)		(0.044)
econ_freedom_index:regional_indicatorOther	0.045**		0.046*
	(0.022)		(0.025)
econ_freedom_index:regional_indicatorLatin America and Caribbean	0.005		0.001
Caribbean	(0.021)		(0.023)
	(0.021)		(0.023)
econ_freedom_index:regional_indicatorCentral and Eastern Europe	-0.026		-0.025
Surope	(0.040)		(0.042)
econ_freedom_index:regional_indicatorAsia	-0.001		0.003
	(0.021)		(0.024)
econ_freedom_index:regional_indicatorPost-Soviet	-0.030		-0.035
con_nection_mack.regional_mateutorrost soviet	(0.024)		(0.026)
econ_freedom_index:DevelopmentLevelDeveloping	()	0.015	0.015
econ_n eedom_maex.bevelopmentLevelbevelopmg		(0.028)	(0.030)
geen freedom inder Development ovel Developed		0.043	-0.017
econ_freedom_index:DevelopmentLevelDeveloped		(0.032)	(0.045)
Constant	2 C22***	3.169**	
Constant	2.633*** (0.832)	(1.474)	3.184** (1.423)
	(0.032)	(1.4/4)	(1.423)
Observations	125	125	125
R ²	0.791	0.762	0.793
Adjusted R ²	0.762	0.738	0.760
Residual Std. Error	0.528 (df = 109)	0.553 (df = 113)	0.530 (df = 107)
F Statistic	27.439*** (df = 15; 109)	32.834*** (df = 11; 113)	24.068*** (df = 17; 107)

Table 2: Summary of the models with interactions

Conclusion

To conclude, the main objective of the research was to analyze how geopolitical culture and the level of economic development might influence the relationship between economic freedom and the level of happiness. The results are contradictory. Indeed, there is a strong positive relationship between economic freedom and happiness, which once again proves the results of many researchers (all included in this paper and much more). Obviously, more developed countries have a higher level of EF, as it is crucial for development, especially in market economies. However, it turns out that there is not enough evidence to believe that the effect differs among countries with different development levels. Unlike the development, the geopolitical context is more important. Results suggest that economic freedom is very important for citizens in Western Europe. In other regions, EF have roughly the same effect.

This research, however, has some limitations. It is based only on cross-sectional data, while panel data might better describe the relationship and give more precise results. Also, this research only shows the impact of EF on happiness among different country groups but cannot explain it. Division of countries into groups could be done better for example including all post-communist countries, not only post-soviet might increase the sample and improve the results. These limitations provide a ground for future research, which hopefully will include a model with more significant results.

The research highlights a significant link between economic freedom and happiness, especially in Western Europe. Governments globally should aim to enhance economic freedom, understanding its potential to bolster subjective well-being. However, the impact on happiness might take much longer to materialise in other regions compared to Western Europe. Thus, Western European governments might increase their chance of being reelected because their

policies will be associated with an increase in happiness. As the effect of EF on happiness is not so strong in the rest of the world, policymakers there will have less motivation to increase economic freedom, however, it should be done because it is important not only for well-being but also for economic development.

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