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# Effects of Economic Freedom on Subjective Well-Being

Alexandra-Cristina Sirbu\*, Andreea-Oana Iacobuță-Mihăiță\*\*©, Mircea Asandului\*\*\*©, Madalina-Maria Brezuleanu

**Abstract:** Are people more likely to be satisfied with their lives if they had freedom from regulations, if they had the ability to trade freely internationally? In light of the demographic aging phenomenon we are facing, the present study analyzes the relationship between economic freedom and life satisfaction among European older adults. In order to do so, we are using data from the European Health, Ageing, and Retirement Survey and Economic Freedom of the World. By using the ordered logit regression method, we estimated different models to identify how sub-indicators of economic freedom affect the subjective well-being. According to the findings, the quality of the institutions that define the legal system and establish rules for the protection of private property and sound monetary policy have a positive effect on subjective well-being. On the other hand, openness to international trade has a negative effect and government and regulation doesn't show any significance.

**Keywords:** subjective well-being; economic freedom; SHARE; ologit; life satisfaction.

JEL classification: I31; J14; P14; P16.

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<sup>\*</sup> Alexandru Ioan Cuza University of Iași, Faculty of Economics and Business Administration Iași, Romania; e-mail: sirbuac@gmail.com (corresponding author).

Alexandru Ioan Cuza University of Iaşi, Faculty of Economics and Business Administration Iaşi, Romania; e-mail: andreea\_iacobuta@yahoo.com.

Alexandru Ioan Cuza University of Iaşi, Faculty of Economics and Business Administration Iaşi, Romania; e-mail: mircea.asandului@uaic.ro.

<sup>&</sup>lt;sup>§</sup> Alexandru Ioan Cuza University of Iași, Faculty of Economics and Business Administration Iași, Romania; e-mail: brezuleanu.madalina@yahoo.com.

## 1. INTRODUCTION

Increasing life expectancy is associated with an increase in the number of older adults in the population, and, as a result, they face changes in their social networks, economic conditions, health-related issues, and demographic characteristics. As the aging phenomenon becomes more evident in our society, many studies have been conducted in order to understand the factors that influence the subjective well-being of elderly people, such as family relationships, activities of daily living, health and so on. Among these factors, an area of research that is still in its developmental stages is the relationship between economic freedom and subjective well-being.

Based on the vast body of literature, it appears that improved economic freedom is associated with better economic outcomes, such as a higher per capita income and a faster economic growth rate. Then, wouldn't a better level of economic freedom also contribute to higher levels of well-being or happiness as a result?

There is evidence that can be used to answer this question. Esposto and Zaleski (1999), have found that an increase in economic freedom is associated with an increase in human well-being. Based on the findings of Ovaska and Takashima (2006), it was concluded that the level of economic freedom is positively related to the level of health. As they note, these are important findings, particularly at the individual and aggregate levels, due to the fact that health is one of the strongest predictors of well-being.

In view of this, the main objective of this paper is to examine the economic freedom—elderly's subjective well-being relationship at a disaggregated level. A person's economic freedom can be defined as their right to control the use of their own labor and property in the course of their life. A well-known assessment of economic freedom is the one produced by the Fraser Institute, namely the Economic Freedom of the World Index (EFW).

It has been argued by De Haan and Sturm (2006) that the five sub-indices of the Economic Freedom of the World offer many advantages over the summary-based index. There have also been several studies that have examined the importance of these components in explaining subjective well-being yield mixed results (Compen *et al.*, 2012; Nikolaev, 2013). Therefore, it is important to pay attention to each of the individual components, rather than the aggregate index of economic freedom, as it is possible for each of them to have a different effect on the European older adults' subjective well-being.

By decomposing the EFW index into its five primary categories, we discover that subjective well-being is not determined by the size of the government, but rather by the quality of the institutions that define the legal system, establish rules for private property protection, and sound monetary policy. Openness to international trade, on the other hand, is found to affect subjective well-being negatively and regulation doesn't have any effect on it.

The paper is structured as follows. Section 2 provides an overview of previous empirical research on the relationship between subjective well-being measures and economic freedom and other variables. Our empirical methodology and data sources are presented in Section 3. Section 4 presents the results of the empirical analysis, followed by conclusions in Section 5.

# 2. LITERATURE REVIEW

Even though the concept is very complex and numerous definitions have been provided, in its essence economic freedom stands for "personal choice, voluntary exchange, freedom to

enter markets and compete, and security of the person and privately owned property" (Gwartney et al., 2022, p. v.).

Following the liberal tradition of Adam Smith, David Ricardo, John Stuart Mill, Ludwig von Mises, Friedrich August von Hayek, Milton Friedman etc., a significant body of theoretical and empirical literature developed over the past several decades has established the fact that economic freedom is related to growth and progress. One of the first aspects underlined by the latest Economic Freedom of the World Report (Gwartney *et al.*, 2022, p. VII) states that "Nations that are economically free out-perform non-free nations in indicators of well-being".

Furthermore, the literature includes a large number of studies that explore the relationship between economic freedom and subjective well-being, and most of these studies found that individuals in countries where the institutions are consistent with the principles of economic freedom are likely to report higher levels of subjective well-being (Bjørnskov *et al.*, 2010; Gehring, 2013).

In their overview of the literature using the Fraser Institute's Economic Freedom Index, Hall and Lawson (2014) show that over two-thirds of 198 studies found a positive impact of economic freedom on growth, better living standards, more happiness and only less than 4% found a negative influence, economic freedom being susceptible to increase income inequality. Using the index of economic freedom from Heritage Foundation, the study of Spruk and Kešeljević (2016) found that higher levels of economic freedom are associated with higher level of subjective well-being.

However, the relationship between economic freedom and subjective well-being is much too complex to be analyzed only by using aggregate indicators and, consequently, numerous studies address the issue of the relationship between components of economic freedom and/or components of subjective well-being, pointing out to the same positive effects (Benz & Frey, 2008; Arikan, 2011; Che *et al.*, 2017; Le Roux & Roma, 2018; Graafland, 2020).

The more recent study of Lawson (2022) increases the sample examined by Hall and Lawson (2014) with 523 papers, to a total of 721, using the Economic Freedom Index and/or its components and shows that 50.6% of them show a positive outcome of economic freedom, 4.6% conclude on a negative outcome while 44.8% of the papers fell into the mixed/null/uncertain category (Lawson, 2022).

Thus, economic freedom and/or its components, as an expression of a country's good institutions, have become significant explanatory variables for subjective well-being. Dawson (2003) considers that the freedom-welfare relationship is conditioned by the level of democracy in the country analysed.

Bjørnskov et al. (2010), noted that when there are changes in freedom and quality of institutions, happiness/well-being is affected across countries, with a difference appearing between the development levels of nations. Thus if economic freedom improves a person's financial situation and easy economic conditions are associated with increased levels of well-being, it shows that the relationship between the two may be implicit.

In accordance with the research of Rode et al. (2013), economic freedom and political freedom contribute to people's happiness through two channels. One of the channels is based on free markets and democracy, both of which result in economic growth, lower unemployment, and therefore an increase in the level of happiness in society overall. Secondly, risk aversion and the ability to make your own decisions are two of the things that make people happy and make them feel satisfied.

Based on data for 122 countries, Graafland and Compen (2012) have estimated the relationship between different sub-indicators of economic freedom and life satisfaction. Their results suggest that life satisfaction has a positive relationship with the protection of property rights as well as the quality of the legal system. Furthermore, it was found that freedom of trade is able to foster life satisfaction, but only for countries that are poor. In spite of this, once the model is controlled for income per capita, the relationship between economic freedom and life satisfaction becomes negative. Moreover, it has been shown that life satisfaction is negatively related to government size and sound money when income is held constant. A robust positive relationship is only found with the legal system.

Rode (2013), examines the idea of causality regarding subjective well-being, by examining whether good institutions, such as democratic systems and economic freedoms, are related to increased subjective well-being. He finds that in countries with lower incomes, economic freedom has a strong association with life satisfaction, and that electoral democracy is one of the major determinants of life satisfaction based on aggregated cross-country data from the WVS. Likewise, Rode demonstrates that by decomposing the EFW index, citizens in poor countries derive procedural utility through access to sound money and freedom to trade in the stock market.

Also, Gehring (2013), examines the effect of different dimensions of the EFW index on subjective well-being. His findings show that legal security and property rights, sound money, and regulation are key predictors of subjective well-being. It is important to note that the overall effect is not affected by socio-demographic factors such as gender, age, political orientation or social class but rather by the level of economic development. Compared to richer countries, the poorer ones benefit more from economic freedom.

The study of Ovaska and Takashima (2006), which used cross-sectional data from 68 countries to examine the effects of economic freedom on happiness and life satisfaction, found that economic freedom had a significant positive impact on happiness and life satisfaction in 3 out of 4 estimated relationships, but lost significance after controlling for the effects of religion and age.

Veenhoven (2000), in an analysis of 44 countries, found that there was a significant correlation between economic freedom and life satisfaction. It is important to note that this relationship remains statistically significant if it is controlled for differences in per-capita income. Therefore, Veenhoven (2000) concludes that economic freedom affects life satisfaction in a different way than trough economic growth.

According to Spruk and Kešeljević (2016), countries with better economic institutions, a greater degree of economic freedom, captured by an environment that is conducive to property rights, international trade, and a monetary system with more limited government authority are much more likely to experience greater subjective well-being.

Economic freedom has the potential to affect life satisfaction in many ways, including through increased entrepreneurial activity, as indicated by Benz and Frey (2003), because entrepreneurs are more satisfied, and entrepreneurship is stimulated by economic freedom. There is evidence from research conducted by Bjørnskov and Foss (2008) that countries that have higher levels of 'sound money' also tend to have higher levels of entrepreneurship.

#### 3. DATA AND METHODOLOGY

According to the proposed objective of the study, the biggest part of our used data will be retrieved from the survey conducted by SHARE-ERIC - Survey of Health, Ageing and Retirement in Europe – European Research Infrastructure Consortium (Börsch-Supan *et al.*, 2013). SHARE is the largest pan-European panel study, collected every 2 years, which includes data on socio-economic, lifestyle and health-related information for people aged 50 that have the residence in the European Union's countries and Switzerland.

The analysed dataset is build by combining wave 8 of SHARE (Börsch-Supan, 2021) and Economic Freedom of the World index. Our sample consists 41490 respondents that have been questioned about several aspects of their life, in the first period of 2020, just before the burst of the Coronavirus pandemic. The used method for collecting the survey data from the respondents was Computer-Assisted Personal Interviewing (CAPI), method that offers many attractive benefits over paper-and-pencil interviewing.

A description of all variables used in this study is given in Annex, while a more detailed description of some of the main variables will be provided below.

# • Subjective well-being

In terms of subjective well-being (SWB) as well as its components, there are a number of measures available. In spite of this, most of the national data come from large social surveys which include only brief measures. The most commonly used measures are single items that assess life satisfaction and happiness. Subjective well-being is defined as "a person's cognitive and affective evaluations of his or her life" (Diener *et al.*, 2002). Consequently, life satisfaction items measure the cognitive aspect of SWB, and they correlate more strongly with positive affect than with the absence of negative affect. On the other hand, happiness measures are associated more specifically with positive affect, rather than negative affect. The SHARE survey measures subjective well-being by asking individuals whether they feel satisfied with their lives in general. They are required to rate their life satisfaction on a scale of 0 (completely dissatisfied) to 10 (completely satisfied).

# • Economic Freedom

As a measure of the level of economic freedom in a country, we refer to the 2012 Economic Freedom of the World index by Gwartney *et al.* (2012) which measures "the degree to which the policies and institutions of countries are supportive of economic freedom" (Gwartney *et al.*, 2021). According to the index, economic freedom is assessed in the following five major areas: (1) Size of Government; (2) Legal Structure and Security of Property Rights; (3) Sound Money; (4) Freedom to Trade Internationally; (5) Regulation of Credit, Labor, and Business. The five sub-indices of economic freedom will be briefly described to aid in understanding the concept of economic freedom.

A detailed explanation of the first sub-index, Size of Government can be found in the 2021 Annual Report Economic Freedom of the World: "As government spending, taxation, and the size of government-controlled enterprises increase, government decision-making is substituted for individual choice and economic freedom is reduced" (Gwartney *et al.*, 2021). The second sub-index, Legal System and Property Rights, quantifies the quality and integrity of the legal system and the protection of property rights. This element can be interpreted as an attempt to quantify the rule of law. The third component of economic freedom relates to

how much citizens can rely upon a strong currency, since a strong currency is essential for the conduct of business: "Inflation erodes the value of rightfully earned wages and savings" (Gwartney et al., 2021). Sound money is thus essential to protect property rights. When inflation is not only high but also volatile, it becomes difficult for individuals to plan for the future and thus use economic freedom effectively" (Gwartney et al., 2021). The fourth subindex, Freedom to Trade Internationally refers to the exchange of goods and services across national boundaries. The ability to trade freely with people in other countries is an important component of economic freedom. The economic freedom of a country is diminished when governments impose restrictions that limit the ability of its citizens to engage in voluntary exchanges with people in other countries. The fifth sub-index, Regulation, " measures how regulations that restrict entry into markets and interfere with the freedom to engage in voluntary exchange reduce economic freedom" (Gwartney et al., 2021).

Components and subcomponents are rated on a scale from 0 to 10, reflecting the distribution of the underlying data. The mean of the subcomponent ratings is used to determine the component rating for each component. Afterwards, the component ratings for each of the five domains have been averaged in order to obtain ratings for each of these domains. A summary rating for each country is derived by averaging the ratings for the five domains. Lastly, the World Economic Freedom Index is calculated on a scale of 0 (least free) to 10 (most free).

#### • Control variables

Our analysis takes into account a wide range of individual-level characteristics that have found that they have the ability to influence subjective well-being. These variables include categorical variables such as marital status, gender, living area, employment status, marital status, as well as discrete variables such as age, years of education, social network satisfaction. All microeconomic controls are derived from the Survey of Health, Ageing and Retirement in Europe. A full description of these variables is given in Table in the Annex.

Based on the fact that the dependent variable is ordinal, we had to take into consideration more models (logit, probit, ordere probit, multiple linear) in estimating subjective well-being. After a large number of estimations with various models, we settled into using ordered logistic regression (ordered logit) to predict the model since the elderlys life satisfaction is discrete and defined on a finite ordinal scale. In our model, the observed ordinal variable, Y can take 11 values (i.e.  $SWB \in (0,...,10)$ ). Y is a function of an unmeasured variable, Y\*. The value of this continuous latent variable Y\* determines what the observed ordinal variable Y equals depending on 10 thresholds (or cut-off terms) c1 to c10.

As a result, the following model has been developed:

$$\begin{cases} Y_i = 0 & if \ Y_i^* \le c_1 \\ Y_i = 1 & if \ c_1 < Y_i^* \le c_2 \\ Y_i = 2 & if \ c_2 < Y_i^* \le c_3 \\ \vdots \\ Y_i = 7 & if \ c_7 < Y_i^* \le c_8 \\ \vdots \\ Y_i = 10 & if \ Y_i^* > c_{10} \end{cases}$$

where  $Y_i^* = \sum_{j=1}^J X_{ji} \beta_j + \varepsilon_i$ ,  $X_j$  represent the explanatory variables and  $\varepsilon_i$  is the error term. Taking into consideration the cut-off terms, a particular value of Y can be predicted:

$$\begin{split} &\Pr\left(\mathbf{Y}\!\!=\!\!0\right) = \!\frac{1}{1\!+\!\exp(c1\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \\ &\Pr\left(\mathbf{Y}\!\!=\!\!1\right) = \!\frac{1}{1\!+\!\exp(c2\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} - \!\frac{1}{1\!+\!\exp(c1\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \\ &\Pr\left(\mathbf{Y}\!\!=\!\!2\right) = \!\frac{1}{1\!+\!\exp(c3\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} - \!\frac{1}{1\!+\!\exp(c2\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \\ &\vdots \\ &\vdots \\ &\Pr\left(\mathbf{Y}\!\!=\!\!5\right) = \!\frac{1}{1\!+\!\exp(c5\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} - \!\frac{1}{1\!+\!\exp(c4\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \\ &\Pr\left(\mathbf{Y}\!\!=\!\!6\right) = \!\frac{1}{1\!+\!\exp(c6\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} - \!\frac{1}{1\!+\!\exp(c5\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \\ &\vdots \\ &\Pr\left(\mathbf{Y}\!\!=\!\!10\right) = 1 - \!\frac{1}{1\!+\!\exp(c10\!-\!\sum_{j-1}^{J} X_{ij}\beta_{j})} \end{split}$$

#### 4. RESULTS

The Survey of Health, Ageing and Retirement in Europe provides a measure of subjective well-being. First, SHARE asks individuals how satisfied they with their life are. They can answer on a scale from 0 (very dissatisfied) to 10 (very satisfied). Figure no. 1 shows that the distribution of the responses is concentrated in the top of the scale (values of 7, 8, 9 and 10) with an average value of 7.81. It indicates that European older adults feel rather satisfied with their life.

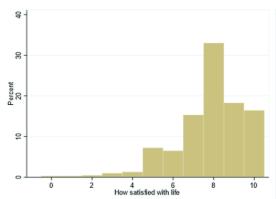


Figure no. 1 – Distribution of subjective well-being (SHARE, wave 8)

The skewed distribution of subjective well-being created a series of problems in estimations. For example, when the logit model was used, we created two grouped the 11 categories into 2 categories, but the results were not robust. Through many series of estimations, we opted for the estimation using an ologit type model, and the results are presented in Table no. 1.

According to the results, what matters is not the size of the government, but the quality of the institutions in the government. Life satisfaction has been found to increase when there is a better legal system and protection of private property as well as sound monetary policies. There is a risk associated with every trade agreement if property rights are not protected. Mutually beneficial agreements cannot be concluded because, in the absence of an enforcement mechanism, contracting parties cannot make binding commitments to each other (Goldsmith, 1997). In his research, Gehring (2013) shows that Legal Security & Property Rights dimension is significant for subjective well-being only in the case of older people since they have a higher aversion to a possible loss caused by an instable institutional environment.

Sound money, which is particularly associated with lower and less volatile inflation, is found to have a positive effect on the SWB of older adults. As previously shown in the literature, the sound money area is positively associated with the degree of control that individuals perceive they have over their lives (Nikolaev & Bennett, 2016). Furthermore, this perception was found to be the strongest predictor of life satisfaction (Verme, 2009). Thus, the perception of control mediates the positive relationship between sound money and subjective well-being.

Promotion of international trade negatively impacts life satisfaction. To stay in business, a country needs to compete with other countries, which may result in more working hours. It is important to note that excessive workloads can have a negative impact on the life satisfaction of older adults. This is because they may adversely affect both their health and, in terms of the time, they have to pursue activities that contribute to a higher level of well-being. Furthermore, if there is a high degree of freedom of trade, it may create a high level of competition in the market, which can result in stress and uncertainty, feelings that people would like to avoid if possible. Besides, at psychological level, older people might feel emotionally closer to traditional products and familiar companies (the ones already existing on the market) which may come across difficulties due to harsh international competition (Gehring, 2013). Regulation fails to show any significance.

These results are supported in the existing literature which analyses the relationship between the components of economic freedom and subjective well-being. When considering, for example, income inequality as a channel through which economic freedom affects life satisfaction, the study of Graafland and Lous (2018) on OECD countries shows that income inequality has a significant negative impact on life satisfaction. More precisely, trade openess increases income inequality (Cornia, 2004; World Bank, 2006) thus, decreasing life satisfaction while sound money, since it reduces inflation, decreases income inequality and increases life satisfaction.

Variable	β	Robust SE	p-value
Age	-0.079***	0.0114	0.000
Age square	0.0006***	0.00007	0.000
Gender (ref. Woman)			
Male	0.0960***	0.0194	0.000
Marital status (ref. Married, living with spouse)			
Registered partnership	-0.2432***	0.0726	0.001
Married, not living with spouse	-0.3392***	0.0926	0.000
Never married	-0.2528***	0.0435	0.000
Divorced	-0.3120***	0.0336	0.000
Widowed	-0.3442***	0.0292	0.000
Employment status (ref. Retired)			

Table no. 1 – Ordered logit estimation results

Variable	β	Robust SE	p-value
Employed or self-employed	0.0619**	0.0290	0.033
Unemployed	-0.5050***	0.0718	0.000
Permanently sick	-0.3265***	0.0708	0.000
Homemaker	0.0938**	0.0385	0.015
Other	0.1618**	0.0809	0.046
Living area (ref. Rural)			
Urban	0.0553***	0.0194	0.004
Years of education	-0.009***	0.0023	0.000
Social network satisfaction	0.3516***	0.0087	0.000
Social support-Given help to others (how many)	0.0486***	0.0130	0.000
Social support-Received help from other	-0.0606***	0.0148	0.000
Done voluntary or charity work (ref. No)			
Yes	0.1157***	0.0229	0.000
No. of chronic disease	-0.0703***	0.0067	0.000
IADL	-0.0391***	0.0122	0.001
ADL	-0.1053***	0.0197	0.000
Depression scale EURO-D	-0.2408***	0.0051	0.000
Isolation (ref. Often)			
Sometimes	0.3658***	0.0524	0.000
Rarely	0.6522***	0.0529	0.000
Never	1.0797***	0.0533	0.000
Consume of Fruits (ref. Everyday)			
3-6 times a week	-0.1156***	0.0236	0.000
Twice a week	-0.1517***	0.0472	0.001
Once a week	-0.1432*	0.0765	0.061
Less than once a week	-0.3580***	0.1034	0.001
Consume of Meat (ref. Everyday)	0.000	0.100	0.001
3-6 times a week	0.0952***	0.0214	0.000
Twice a week	0.0677**	0.0296	0.022
Once a week	0.0819*	0.0449	0.068
Less than once a week	-0.1224*	0.0703	0.082
Consume of Dairy products (ref. Everyday)	0.122.	0.0702	0.002
3-6 times a week	-0.0488**	0.0232	0.036
Twice a week	-0.1270***	0.0334	0.000
Once a week	-0.0985**	0.0484	0.042
Less than once a week	0.1156**	0.0530	0.029
Able to make ends meet (Ref. With great difficulty)	0.1150	0.0550	0.029
With some difficulty	0.4139***	0.0368	0.000
Fairly easily	0.8193***	0.0383	0.000
Easily	1.1839***	0.0404	0.000
Number of children	0.0706***	0.0077	0.000
Regulation	-0.0320	0.0252	0.204
Freedom Trade	-0.0558*	0.0232	0.204
Sound Money	0.1571***	0.0323	0.000
Legal System	0.1371	0.0349	0.000
Size of Government	0.1336****	0.0173	0.431
Observations	0.0093 41490	0.0110	0.431
	0.1078		
Pseudo – R <sup>2</sup>			0.000
Wald chi2	13179.64***		0.000

Note: \*\*\*p<0.001; \*\*p<0.05; \*p<0.1

Additionally, most of the other control variables in the model are also consistent with previous findings in the literature on subjective well-being as well. It is, therefore, not surprising that a high level of personal income, being married, employed, living in an urban area, having a high level of satisfaction with one's social network, helping others, volunteering, doing charitable work, the number of children and having a low level of depression are all related to high levels of life satisfaction.

On the other hand, divorce, unemployment, poor health, are associated with lower levels of life satisfaction. An interesting result is the relation between the number of school years and life satisfaction. People with a higher educational level have lower chances of reporting greater well-being. There is a possibility that this may be due to the fact that, as education levels increase among older adults, life satisfaction perception may change due to higher educational objectives which, if not achieved, can lead to a decrease in subjective well-being. Clark and Oswald (1994) have also found that the level of education is negatively related to the level of life satisfaction as well. According to their argument, people with a high level of education see a greater decrease in their subjective well-being due to unemployment than people with a low level of education. Educational expectations that are unrealistic may adversely affect subjective well-being.

In order to test the proposed model for robustness, we followed 3 different paths, for which we did not enter the estimation results due to the lack of space. The first way we checked the robustness was with the help of an ordered probit model. Another option was the estimation of a multiple linear model in which the dependent variable is the conditional average of SWB at the national level, and the third option was bootstrap estimation. All three variants confirmed that the results obtained by us are robust.

#### 5. CONCLUSIONS

This paper empirically addresses the question of whether economic freedom affects life satisfaction. Our findings contribute to the existing literature by covering more recent data and examining the relationship between economic freedom and life satisfaction of older adults as a part of a larger study of the determinants of their well-being. As we face the demographic phenomenon of aging, it is imperative that we understand the determinants of their well-being.

According to our findings, the legal system and right to property as well as sound money, positively influence subjective well-being. As a result, this points to the importance of policies that can improve the quality of the legal system, and must establish rules to protect private property, and sound monetary policy, all of which have been proven to be associated with improved subjective well-being for older adults.

These results are even more important in the case of Central and Eastern European countries with low and relatively low levels of subjective well-being for which explanations can also be found at the institutional level. After more than three decades of transformations and a significant number of years of EU membership, some of these countries still face a highly unstable economic environment and serious institutional issues affecting population's well-being. Thus, our research results confirm the need to improve the institutional setting, especially in terms of stability, predictability and protection of property.

In contrast, we have found that the freedom to trade internationally is negatively correlated with subjective well-being, contrary to our expectations. There may be an explanation for this by the fact that market competition leads to increased levels of stress due to the necessity for continuous improvement. As Graafland (2020) explains, market competition may adversely affect the virtues and thereby negatively impact life satisfaction.

#### **ORCID**

Andreea-Oana Iacobuță-Mihăiță https://orcid.org/0000-0003-3318-6895
Mircea Asandului https://orcid.org/0000-0002-6182-7103

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# ANNEX

# List of variables

Variable	Min	Max	Description and measurement
Life satisfaction	0	10	On a scale from 0 to 10 where 0 means completely
			dissatisfied and 10 means completely satisfied, how satisfied
			are you with your life?
Size of Government	0	10	Size of Government
Legal System and Property Rights	0	10	Legal System and Property Rights
Sound Money	0	10	Sound Money
Regulation	0	10	Regulation
Freedom to Trade Internationally	0	10	Freedom to Trade Internationally
Age	32	103	Number of years lived at the time of the interview
Gender	0	1	Woman=0, Men=1
Marital status	1	6	Marital status of the respondent at the time of the interview:
			1. Married and living with a spouse; 2. Registered partnership;
			3. Married and living separately from the spouse; 4. Never
			married; 5. Divorced; 6. Widowed
Education	0	25	Number of years of education
Living area	1	5	In which type of area is the building located? 1. A big city; 2.
			The suburbs or outskirts of a big city; 3. A large town; 4. A
			small town; 5. A rural area or village
Employment status	1	3	Current job situation: 1. Retired; 2. Employed or self-
			employed (including working for family business); 3. Other
		10	inactive
Social network satisfaction	0	10	Satisfaction with personal network (0-completely dissatisfied-
0 11	0	2	10 completely satisfied)
Social support-Received help	0	3	Received help from others like: personal care, practical
from other			household help; help with paperwork, such as filling out
Conial aument Circan bala to	0	2	forms, settling financial or legal matters
Social support-Given help to	0	3	Given help to others (how many) like: personal care; practical
others (how many)			household help; help with paper work, such as filling out
Dono voluntomy on abonity yyonk	0	1	forms, settling financial or legal matters
Done voluntary or charity work Self-rated overall health	1	5	Done voluntary or charity work Would you say your health is: 1. Excellent; 2. Very good; 3.
Sen-rated overall hearth	1	3	Good; 4. Fair; 5. Poor
ADL-Functional capacity	0	6	Limitations with activities of daily living
IADL-Functional capacity	0	9	Limitations with activities of daily living  Limitations with instrumental activities of daily living
Depression scale EURO-D	0	12	Depression scale EURO-D: 0-not depressed- 12-Very
Depression scale Lord-D	U	12	depressed
Isolation	1	4	Feeling left out of things: 1. Often; 2. Sometimes; 3. Rarely;
Isolation	1	7	4. Never
Able to make ends meet	1	4	Household able to make ends meet: 1. With great difficulty; 2.
Tible to make onds meet	•	•	With some difficulty; 3. Fairly easily; 4. Easily
Dairy products	1	5	How often serving of dairy products: 1. Everyday; 2. 3-6
Dan's products	•		times a week; 3. Twice a week; 4. Once a week; 5. Less than
			once a week
Meat	1	5	How often a day do you eat meat, fish or poultry: 1.
1,1040	•		Everyday; 2. 3-6 times a week; 3. Twice a week; 4. Once a
			week; 5. Less than once a week
Fruits	1	5	How often a week do you consume a serving of fruits or
	-	-	vegetables: 1. Everyday; 2. 3-6 times a week; 3. Twice a
			week; 4. Once a week; 5. Less than once a week
Number of children	0	17	Number of children stated by the respondent