HAPPINESS AND ECONOMIC GROWTH:
WESTERN BALKANS AND EUROPEAN UNION

HYSA Eglantina, MANSI Egla


Economic development over the past years has been the core objective of most governments. Part of their overt reasoning has been that people have more choice and the ability to pursue that choice through increased national and individual incomes. However, with recent studies it seems that the relationship between increasing economic growth and individual satisfaction and social well-being that may have existed in ‘developed countries’ has broken down. The aim of this paper is to analyze whether there is a relationship between GDP per capita, happiness and education in the region of EU and the Western Balkans, during the period of 2009-2018. Other variables taken into consideration are Health Care Index, HDI, Quality of life, Safety and Security, Personal Freedom and Economic Quality. Therefore, we will use a regression analysis in order to observe the correlation between these variables, with Happiness being the dependent variable. What we expect to conclude is on accordance with the literature review.

In Western Balkans countries the link between education and satisfaction is more significant and positive while in EU countries it points at a lower satisfaction for more qualified individuals.

Keywords: Happiness, GDP per capita, Education, EU, Western Balkans, Human Development.

Introduction

Since the very beginning of the human beings’ history, humans were struggling to stay alive, or as Maslow defines at his pyramid, the Physiological needs (including air, water, shelter, sleep, clothing, reproduction). But as the time passes, the humans are requesting more and more, being in line with the Maslow pyramid. Consequently, the second level of this pyramid is the Safety needs, specifically, personal security, employment, resources, health and property. Some of the indicators are related to standards of living, thus, economic growth and some are more qualitative, defining as economic development. As we go from bottom to up, we realize that quality of life and self-esteem, self-actualization matter for people. In other words, we can generalize all these stages as happiness it-self.

Starting from this pyramid, we want to identify the existence of a relationship between economic growth and happiness, hence, if economic growth increases, will this have a positive effect on the increase of the happiness at the same time? Secondly, we want to identify the effect of different quality measurements in the level of happiness. Some of the quality dimensions are Health Care Index, HDI, Quality of Life, Safety and Security, Personal Freedom and Economic Quality. And lastly, we want to find out if
there is a gap between these relations among European Union countries and Western Balkan countries, given the fact that these two regions represent different economic and development levels. Specific hypotheses of this study are:
- H1: GDP per capita positively impact Happiness
- H2: Education per capita positively impact Happiness
- H3: Other quality variables per capita positively impact Happiness
- H4: There are some slight differences among WB and EU

Figure 1. Maslow’s Hierarchy of Needs

This study is organized in four sessions. The first one, is devoted to the introductory part. The second one is the literature review on focus, the third part is data and methodology, the fourth session is empirical results of regression, then analysis and discussion and last session comprises the conclusion part.

Literature Review
The relationship between GDP growth and happiness has been a discussable issue. This is because there are many factors effecting this relationship. From one hand, considering short-term or long-term, in most of the cases the relationship reveals different results. On the other hand, being a rich, developing, or a transition country may bring different results as well. This is why we consider this study to be important because it helps us to better identify the factors affecting happiness, and at the same time it will give a grand picture of the relationship economic growth and happiness for two
separate regions (EU and WB). In order to measure the annual economic growth, we consider the real domestic product (GDP) per capita. The term “happiness” might have similar meaning with other terms such as subjective well-being, life satisfaction or even ladder-of-life (Easterlin, 2010; Helliwell et al., 2012).

While some are considering well-being as “happiness”, some others are relating it closely with “material”, but again the researchers at all are accepting it as a new indicator that “ought” to be added as an indicator in order to have a broader view of development, enhancement and progress of developing countries by relating macro indicators with social indicators (Hoxhaj and Hysa, 2015). In his study of 2015, Easterlin shows that in the short-term relation of subjective well-being and GDP is positive, while in the long-term there does not exist any relation among these two variables. He supports the result of no significance in the long-run for all categories of countries, for rich, developing, and transition ones.

Studies of Veenhoven (1991) and Oswald (1997) suggest that economic progress buys only a small amount of extra happiness in a developed nation. Furthermore, Oswald (1997) adds that unemployment is one of the main indicators stimulating unhappiness. This last result has been supported from previous studies such as Jahoda (1982), Peter Warr (1978) and Jackson et al (1983). While discussing the relation among one of the most important instruments that supports the basic needs, thus employment, most of the studies find a negative relationship with the GDP (Zuckerman, 2004; Okun, 1962). Even in the case of WB, the study of Vladi and Hysa (2019) show that there exists an indirect relationship among unemployment and GDP. The results show that an increase of unemployment rate by 1% would impose a decrease of GDP per capita by 5.6%. The impact of unemployment is found to be much more severe for WB countries comparing what the Okuns’ law (1962) has proposed (unemployment rate falls with 1%, GDP increases with 3%). Another study of Gjurra et al. (2013) shows that the unemployment rate for the case of WB is much related to the countries’ GDP and FDI.

Another important variable that is commonly used while discussing the development, is the human development index (HDI). There have been previous studies finding correlation of HDI with good governance (Blunt, 1995; Work, 2002; Santagata et al., 2019; Hysa and Çela, 2019), inequality (Stiglitz, 2012; Martínez, 2012; Hysa, 2014; Permanyer and Smits, 2019), corruption (Akçay, 2006; Hysa, 2011; Ortega et al., 2014; Rothstein and Holmberg, 2019), poverty (Cosgrove and Curtis, 2017; Fukuda-Parr and Yamin, 2017; Laçaj and Hysa, 2018), etc. In our study we will try to find the relation of HDI with respect to happiness.

Studies having in focus quality of life, human development and happiness related to Western Balkans are limited compared to the studies for European Countries. The study of Hysa (2011) exploring the relationship between corruption and human development in WB, show that there is a statistically significant negative relationship between corruption indexes and human development. Consequently, more corrupted countries tend to have lower levels of human development. Another study of Hysa (2011) investigates the comparison of this relationship with Albania and EU, and not surprisingly, the findings reveal a stronger relation of corruption and human development in Albania.

Another important variable of human development, thus quality of life, is for sure the health indicators in a certain country. Investing in health sector brings some positive
spillovers to the economy. This statement is supported by the study of Frasholli and Hysa (2015) which takes into consideration the South Eastern European Countries and confirm a strong evidence that health investment leads to economic growth.

All described above is some of the indicators that might have some significant effect in the happiness level. In the meantime, this study will give a deeper analysis on the relationship of GDP to happiness, education to happiness, and other quality factors to happiness. Furthermore, this study will offer some comparison data on WB and EU cases.

Data and Methodology

In this section we will focus on the relationship between key variables such as Happiness with GDP per capita as a proxy for standard of living, and Education in the region of European Union and Western Balkans, during the period of 2009 to 2018. This period is chosen based on the availability of data. Other variables taken into consideration are Health Care Index, HDI, Quality of Life, Safety and Security, Personal Freedom and Economic Quality. The secondary data is collected from World Bank and the Legatum Prosperity Index and we are dealing with unbalanced panel data. Below is a summary of the data chosen for this analysis.

GDP per capita is a measure of a country’s economic output that accounts for its number of people. It divides the country’s gross domestic product by its total population. That makes it a good measurement of a country’s standard of living.

Happiness Index is a development philosophy as well as an index which is used to measure the collective happiness in a nation.

Education Index is a calculation of the average number of years of education received by people ages 25 and older in their lifetime based on education attainment levels of the population converted into years of schooling based on theoretical duration of each level of education attended.

Health Care Index is a statistical analysis of the overall quality of the health care system, including health care infrastructure; health care professionals; competencies; cost; quality medicine availability, and government readiness.

Human Development Index is a statistic composite index of life expectancy, education, and per capita income indicators, which are used to rank countries into four tiers of human development. Quality of Life includes the following in its computation:
1. Cost of living and purchasing power
2. Affordability of housing
3. Pollution including air, water, etc.
4. Crime rates
5. Health system quality
6. Traffic (commute times)

Safety and Security pillar measures the degree to which conflict, terror, and crime have destabilized the security of individuals, both immediately and through longer lasting effects.

Personal Freedom pillar measures country-wide progress towards basic legal rights, individual liberties, and social tolerance.

Economic quality pillar measures how well a state’s economy is equipped to generate wealth sustainably and with the full engagement of its workforce.
Multiple regression analysis is used as an analytical tool to identify regression equations and draw conclusions on the effects of the selected independent variables on the dependent variable to check the influence of the independent variables on Happiness. In order to have more accurate results, GDP per capita and Quality of Life are expressed in logarithm form. In addition, taking the logarithmic shape of variables tends to straighten out exponential growth patterns and eliminates heteroscedasticity. Before running the regression, the stationary of data will be checked using the Unit Root Test.

The multiple regression equation can be presented as follow:

\[
\text{Happiness} = \beta_0 + \beta_1 \log(\text{GDP per capita}) + \beta_2 \text{Education} + \\
\beta_3 \text{Health Care Index} + \beta_4 \text{HDI} + \beta_5 \log(\text{Quality of life}) + \\
\beta_6 \text{Safety and Security} + \beta_7 \text{Personal Freedom} + \beta_8 \text{Economic Quality} + \varepsilon
\]

There are two methods for panel data for estimating the aforementioned regression equation: Fixed Effect model and Random Effect model. The Hausman test will be run to choose between the aforementioned versions. The Hausman test suggests that the random effect is more acceptable, and whether this hypothesis will be approved or rejected will be inferred according to its results.

**Empirical Results**

**Descriptive Statistics**

Table 1: Descriptive Statistics for European Union, 2009-2018

<table>
<thead>
<tr>
<th>ECONOMIC_ QUALITY</th>
<th>EDUCATION_INDEX</th>
<th>GDP_PER_CAPITA</th>
<th>HAPPINESS_INDEX</th>
<th>HDI</th>
<th>HEALTH_CARE_INDEX</th>
<th>PERSONAL_FREEDOM</th>
<th>QUALITY_OF_LIFE</th>
<th>SAFETY_AND_SECURITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>32.81452</td>
<td>0.856847</td>
<td>34930.53</td>
<td>6.3</td>
<td>67.41403</td>
<td>86.13000</td>
<td>25.20968</td>
<td>153.1760</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>32.50000</td>
<td>0.868500</td>
<td>30164.25</td>
<td>6.3</td>
<td>68.92000</td>
<td>81.00000</td>
<td>23.00000</td>
<td>160.5300</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>135.00000</td>
<td>0.946000</td>
<td>116639.9</td>
<td>7.7</td>
<td>86.13000</td>
<td>81.00000</td>
<td>206.49000</td>
<td>70.00000</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>3.000000</td>
<td>0.751000</td>
<td>6993.783</td>
<td>3.9</td>
<td>46.13000</td>
<td>46.13000</td>
<td>53.71000</td>
<td>1.000000</td>
</tr>
<tr>
<td>STD. DEVIATION</td>
<td>24.14838</td>
<td>0.053419</td>
<td>21188.08</td>
<td>0.9</td>
<td>10.40546</td>
<td>18.70710</td>
<td>33.94968</td>
<td>14.90215</td>
</tr>
<tr>
<td>SKEWNESS</td>
<td>1.524207</td>
<td>-0.257352</td>
<td>0.055664</td>
<td>-0.2</td>
<td>-0.232571</td>
<td>-0.317980</td>
<td>0.657247</td>
<td>-0.903899</td>
</tr>
<tr>
<td>KURTOSIS</td>
<td>6.689629</td>
<td>1.826038</td>
<td>4.038042</td>
<td>2.1</td>
<td>2.101315</td>
<td>1.929516</td>
<td>2.754917</td>
<td>3.418813</td>
</tr>
<tr>
<td>JARQUE-BERA</td>
<td>118.3486</td>
<td>8.489378</td>
<td>24.44200</td>
<td>4.8</td>
<td>8.010295</td>
<td>9.237795</td>
<td>17.79162</td>
<td>4.245991</td>
</tr>
<tr>
<td>PROBABILITY</td>
<td>0.000000</td>
<td>0.014340</td>
<td>0.000005</td>
<td>0.0</td>
<td>0.089234</td>
<td>0.070983</td>
<td>0.009864</td>
<td>0.000137</td>
</tr>
</tbody>
</table>

Source: Compiled by the authors.

As we can see from the table, the EU mean for the Happiness index is 6.3 out of the maximum that is 10. Nordic countries showing the highest scores when compared with other countries. Its skewness is -0.2 meaning that it has long left tail and since the kurtosis is less than 3, the distribution is flat relative to the normal. The average GDP per capita in EU is €34,930 which is lower than the 2018 GDP per capita in the Euro Area that is approximately €40,000. Its skewness is more than 0, so it has a long right tail and
kurtosis is more than 3, thus distribution has reached its peak. Regarding the Education index, from the mean we see that it is quite high, 0.86 out of 1. It is lefty skewed, and distribution is flat compared to the normal.

Table 2: Descriptive Statistics for Western Balkans, 2009-2018

| Source: Compiled by the authors. |

Right away we see a decline in the three key variables. Happiness index is 1.2 points lower on average in the Western Balkan countries with an average of 5.1 out of 10. From the data we noticed that in 2018, reportedly, Albania had the lowest score of 4.7 when compared with the other WB countries. It has a negative skewness of -0.4 meaning that it has a long-left tail and since the kurtosis is less than 3, the distribution is flat compared to normal. The GDP per capita is significantly lower when compared with the EU countries, with a mean of €5,845. The highest GDP per capita in 2018 belonging to Montenegro with €8,844 followed by Serbia’s €7,246. The variable is rightly skewed, and the distribution has a peak, with a kurtosis more than 3. The last key variable, Education index, when compared with EU countries, it is still lower with a mean of 0.7 out of 1. From the data we notice that the highest belonged to Montenegro with a score of 0.797 and the lowest belonged to North Macedonia with a score of 0.697. It has a long right skewness and a kurtosis of 1.48 < 3, suggesting that the distribution is flat compared to normal.

**Unit root Test**

As mentioned in the methodology section, before running the regression equation, the stationary data is going to be checked using the Unit Root Test. The hypotheses of such a test are:
- **H0**: Data is non-stationary (Data has a unit root)
- **H1**: Data is stationary (Data does not have a unit root)

The chosen level of significance is 5%.
### Table 3: Unit root test for EU countries, 2009-2018

<table>
<thead>
<tr>
<th></th>
<th>ADF test t-values</th>
<th>Probability values</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATION_INDEX</td>
<td>-12.3182</td>
<td>0</td>
</tr>
<tr>
<td>ECONOMIC_QUALITY</td>
<td>-2.9524</td>
<td>0.0016</td>
</tr>
<tr>
<td>GDP_PER_CAPITA</td>
<td>-5.3672</td>
<td>0</td>
</tr>
<tr>
<td>HDI</td>
<td>-5.38121</td>
<td>0</td>
</tr>
<tr>
<td>HEALTH CARE_INDEX</td>
<td>-9.39164</td>
<td>0</td>
</tr>
<tr>
<td>PERSONAL FREEDOM</td>
<td>-7.98658</td>
<td>0</td>
</tr>
<tr>
<td>QUALITY_OF_LIFE</td>
<td>-2.53183</td>
<td>0.0057</td>
</tr>
<tr>
<td>SAFETY_AND_SECURITY</td>
<td>-1.6379</td>
<td>0.0507</td>
</tr>
</tbody>
</table>

Source: Compiled by the authors.

### Table 4: Unit root test for WB countries, 2009-2018

<table>
<thead>
<tr>
<th></th>
<th>ADF test t-values</th>
<th>Probability values</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATION_INDEX</td>
<td>-6.23128</td>
<td>0</td>
</tr>
<tr>
<td>ECONOMIC_QUALITY</td>
<td>-3.85575</td>
<td>0.0001</td>
</tr>
<tr>
<td>GDP_PER_CAPITA</td>
<td>-4.18088</td>
<td>0</td>
</tr>
<tr>
<td>HDI</td>
<td>-5.34058</td>
<td>0</td>
</tr>
<tr>
<td>HEALTH CARE_INDEX</td>
<td>-2.42099</td>
<td>0.0077</td>
</tr>
<tr>
<td>PERSONAL_FREEDOM</td>
<td>-3.71048</td>
<td>0.0001</td>
</tr>
<tr>
<td>QUALITY_OF_LIFE</td>
<td>-2.53183</td>
<td>0.0057</td>
</tr>
<tr>
<td>SAFETY_AND_SECURITY</td>
<td>-3.06622</td>
<td>0.0011</td>
</tr>
</tbody>
</table>

Source: Compiled by the authors.

As shown in table 3 and 4, the p-values of each variable are less than 5%, rejecting the null hypothesis and concluding that each of the variables is stationary at 5%.

Based on the Hausman test as well, in order for us to choose whether a Fixed Effect or a random effect should be used, at 5% level, the test suggested that the Fixed Effect would be more appropriate for our regression analysis.

### Analysis and Discussions

Based on the results of Hausman test, a Fixed Effect Model is more appropriate for analyzing the impact of our independent variables on Happiness of the Western Balkan countries and EU zone for the period 2009-2018. Using the Fixed Effects, the regression equation for EU countries is as below:

\[
\text{Happiness} = -6.18 + 0.24 \log(\text{GDP per capita}) - 11.76 \text{Education} + 0.0005 \text{Health Care Index} + 20.84 \text{HDI} + 0.19 \log(\text{Quality of life}) + 0.001 \text{Safety and Security} + 0.008 \text{Personal Freedom} - 0.01 \text{Economic Quality}
\]

And as for the Western Balkans:

\[
\text{Happiness} = 6.24 + 0.39 \log(\text{GDP per capita}) + 2.33 \text{Education} + 0.002 \text{Health Care Index} - 7.4 \text{HDI} + 0.001 \log(\text{Quality of life}) - 0.001 \text{Safety and Security} + 0.006 \text{Personal Freedom} - 0.007 \text{Economic Quality}
\]

Starting off with the case of the European Union countries we notice that education has a negative impact on happiness. With one unit increase in Education, Happiness is reduced by 11.76 units. From the regression we see that the variable is also highly significant. This goes in par with the literature that discusses the fact that despite
increasing the education level, it doesn’t impact their level of happiness by much, and in fact it does the complete opposite. However, not the same could be said for the GDP per capita. From the regression we see that one unit increase in per capita GDP, Happiness is increased by 24%. Suggesting that when a country is performing well, it will have positive impact in the country’s life satisfaction. New evidence shows that there is a clear, positive relation in the poorer nations and regions, but it flattens out at around $30,000–$35,000, and then turns negative (Proto & Rustichini, 2014). When comparing other well-being variable, we notice that all of them have a positive impact, with HDI and Quality of life having the most impact on Happiness. One unit increase in HDI, increases Happiness with almost 21 units and one unit increase in Quality of Life upsurges Happiness with 19%.

On the other hand, in the Western Balkan region we notice a different trend when it comes to the education level of these countries. If in EU we noticed a negative trend, in the WB, education has a positive impact on the levels of Happiness as it has a direct relationship with the per capita GDP as well. This trend is generally accepted in low-income or developing countries. This makes individuals with a higher education attainment more prone to be satisfied in developing countries. Furthermore, one unit increase in GDP per capita, increases the level of Happiness with almost 40%; that is 16% more than in EU countries. What piqued our interest was also the fact that HDI, Safety and Security, Economic Quality seem to have a negative impact on Happiness. Quality of Life, despite showing positive impact on Happiness, seems to not have a great impact on it. With one unit increase in QoL, we notice 0.1% increase in the level of Happiness, unlike the first case in EU countries. Overall, the main drivers on WB countries for increased levels of life satisfaction appear to be Education and per capita GDP.

Conclusion

Economic growth over the past years, has been the main focus when analyzing the well-being of a country. Even though that seems to be one reason, we notice different results in our two cases. Our hypotheses show different takes on EU and WB countries. On one hand, GDP per capita, and other quality variables do in fact positively impact the levels of Happiness in European Union countries. On the other hand, only GDP per capita and Education seemed to positively impact Happiness, with other variables having a negative impact on it. As for the fourth hypothesis, we conclude that because of differences in levels per capita, there are for sure differences in outcomes between the two cases.

Furthermore, what we conclude is that education attainment in developed countries does not imply higher levels of Happiness, in fact it had the opposite impact. Individuals with a higher education level generally have higher expectations which are harder to fulfill and less satisfied with their work. However, this appeared not to be the case in developing countries such as Western Balkans where Education appeared to have a positive impact, due to the fact that higher levels of education interpret in higher income and the population is focused more on it that in other sectors of life satisfaction.

REFERENCES