

## DOES THE LIFE SATISFACTION DEPEND ON SELF-PERCEIVED SOCIAL STRATIFICATION: EVIDENCE FROM AZERBAIJAN<sup>1</sup>

**Khatai Aliyev**

*Azerbaijan State University of Economics (UNEC)  
Baku, Azerbaijan*



### ABSTRACT

The relationship between income and life satisfaction, as well as income inequality and the well-being of individuals, have been examined extensively in the current literature. Empirical studies do not result in an unambiguous association between income and life satisfaction considering absolute, relative, and ranking income hypotheses. The current study aims to examine this association in a different context, considering self-perceived social class stratification by individuals. Employing a survey dataset ( $N = 2123$ ,  $n_{\text{Male}} = 1092$ ,  $n_{\text{Female}} = 1031$ ,  $\text{Mean}_{\text{Age}} = 34.37$ ) and multi-categorical dummy variable approach within polynomial regression analyses, we estimate the return of higher self-perceived social class stratification to individuals' life satisfaction. Estimations present evidence of positive return up to upper-income category, higher at lower social classes and slightly decreases towards higher social class stratifications. However, findings reveal that individuals belonging themselves to the upper-income category are significantly less satisfied with life compared to higher middle-income category participants. The results are robust and do not significantly vary when individual-specific factors are added to the models. Findings remind the potential role of using progressive taxation in Azerbaijan to enhance the overall well-being of society. Research results may have certain policy implications for public policy-makers in Azerbaijan.

**Keywords:** Life satisfaction; well-being; happiness inequality; social class; income groups; progressive taxation.

<sup>1</sup> Earlier version of the research is presented in 55th International Scientific Conference on Economic and Social Development – Baku, 18-19 June, 2020.

## INTRODUCTION

Self-perceived social class stratification is an important indicator of income distribution and inequality in the minds of individuals. One may consider self-perceived social class stratification as a functional household financial characteristics, positively associated with income (Blanchflower and Oswald, 2004; Verbic and Stanovnik, 2006; Hayo, 2007), while Habibov (2011) argues that social transfer based on household income negatively affects perceived social status. However, subjective well-being effects of self-perceived social status are not well known in the literature.

Although the relationship between life satisfaction and income has been studied extensively (Frijters, Haisken-Denew and Shields, 2004; Cheung and Leung, 2004; Boyce, Brown and Moore, 2010; del Mar Salinas-Jiménez, Artés and Salinas-Jiménez, 2010; Cheung and Lucas, 2016; Wolbring, Keuschigg and Negele, 2013; Proto and Rustichini, 2015; Plouffe and Tremblay, 2017), there are still debates about the direction of the association. Some scholars argue that the relationship relies on the absolute income hypothesis (Diener, 1984; Veenhoven, 1991), while the reference-income hypothesis by Easterlin (1974) has also attracted greater attention by those who focus on the importance of relative income (Boyce et al., 2010; Wolbring et al., 2013). Meanwhile, Boyce et al. (2010) bring rank income hypothesis to the income-life satisfaction related literature, arguing that individuals compare themselves with others within a reference group. More recently, using the survey data of ASERC (2018), Aliyev, Nadirov and Dehning (2020) employ a wave formation framework to incorporate all the three mentioned hypotheses and claim the existence of a non-linear wave-shaped association between income and life satisfaction at the individual level in case of Azerbaijan.

Self-perceived social class stratification logically refers to relative income comparison, which can be used to assess income-life satisfaction association in a different context. The major research question is whether the return of self-perceived social class improvements to the self-reported well-being of individuals changes at different social-class intersections or not. In this research, the main argument is towards heterogeneity in returns at each stage towards the highest self-perceived social class.

## 1. DATA AND METHODOLOGY

To assess the relationship between self-perceived social class stratification and life satisfaction of individuals in Azerbaijan, the research employs representative survey data presented by ASERC (2020). Empirical estimations rely on regression models with dummy independent variables representing multiple categories of self-perceived income class stratification and a set of individual-specific control variables. The outcome variable – life satisfaction of individuals, is measured according to the Satisfaction With Life Scale (hereafter SWLS) advanced by Pavot and Diener (1993, 2009).

### 1.1. Sampling

The dataset used for empirical estimations is obtained from Social Survey -4 conducted by ASERC (2020) from 22.02.2020 till 31.03.2020 period. Random sampling procedure has been achieved through paid and unpaid social media facilities (Facebook, WhatsApp and Instagram). Due to the novel coronavirus pneumonia (COVID -19) threat, online data collection is realized. The total sample includes 2123 participants (1092 males and 1031 females) within 17-83 age range ( $Mean_{age} = 34.37$ ,  $SD_{age} = 11.26$ ).

## 1.2. Variables

### *Dependent variable*

*Life satisfaction (hereafter LS)* denote self-reported satisfaction with life for each respondent according to SWLS methodology. Note that SWLS assesses subjective well-being of individuals, more precisely, evaluates life satisfaction and goal achievements of each participant on the basis of responses to 5 statements (see Pavot and Diener, 1993, p.172). Those statements include (1) *In most ways, my life is close to my ideal*, (2) *the conditions of my life are excellent*, (3) *I am satisfied with my life*, (4) *so far, I have gotten the important things I want in life*, and (5) *if I could live my life over, I would change almost nothing*. A seven-point Likert scale has been used to quantify responses to each statement, ranging from 1 = *totally disagree* to 7 = *totally agree*. LS is a sum of quantified responses to all statements, which gets discrete values between 5 (if a respondent chooses the “strongly disagree” option in all cases) and 35 (if a respondent chooses the “strongly agree” option in all cases).

Higher LS score display to be more satisfied with life. Overall, an individual is considered to be:

- extremely dissatisfied if  $5 \leq LS \leq 9$
- dissatisfied if  $10 \leq LS \leq 14$
- slightly dissatisfied if  $15 \leq LS \leq 19$
- neither dissatisfied nor satisfied (neutral) if  $LS = 20$
- slightly satisfied if  $21 \leq LS \leq 25$
- satisfied if  $26 \leq LS \leq 30$
- extremely satisfied if  $31 \leq LS \leq 35$ .

A high Cronbach’s Alpha value ( $\alpha = 0.85$ ) confirms the reliability of the scale to assess the self-reported happiness of individuals.

### *Self-perceived social class stratification*

In the survey, respondents are asked to report their income class by choosing one of the given alternatives: (1) lower-income class, (2) higher than lower but lower than middle-income class, (3) middle income class, (4) higher than middle but lower than upper-income class, and (5) upper-income class. Participants response to this question actually displays his/her perceived social class.

To assess life satisfaction differences across self-perceived social class, a binary variable with a multiply categories approach is followed. Based on responses to the corresponding question, 5 dummy variables are created:  $Lower_i$  (equals 1 if respondent belongs himself/herself to lower-income class, 0 otherwise),  $Lower\_middle_i$  (equals 1 if respondent belongs himself/herself to higher than lower but lower than middle-income class, 0 otherwise),  $Middle_i$  (equals 1 if respondent belongs himself/herself to middle-income class, 0 otherwise),  $Upper\_middle_i$  (equals 1 if respondent belongs himself/herself to higher than middle but lower than upper-income class, 0 otherwise), and  $Upper_i$  (equals 1 if respondent belongs himself/herself to upper-income class, 0 otherwise). The lower-income class is left as the base group in empirical estimations.

According to the survey data, 40.3% of total respondents belong to the lower-income class, while 29.8% consider themselves within the lower-middle income group. Therefore, the self-perceived social class stratification of more than 70% among whole respondents is below middle class. It is

noteworthy to mention that the share of the perceived middle class is 27.3%. Very few people (2.6%) places themselves over the middle class on the income ladder. Hence, the share of the self-perceived upper-middle class is 2.3%, while the upper-income class constitute only 0.3% of the total sample.

Table 1: Descriptive statistics of variables

Variables	No. of Obs.	Men	Minimum	Maximum	Std. Dev.
<i>Dependent variable</i>					
$LS_i$	2118	17.06	5	35	6.854
<i>Social class stratification dummies</i>					
<i>Lower (Ref.)</i>	2058	0.403	0	1	0.490
<i>Lower middle<sub>i</sub></i>	2058	0.298	0	1	0.457
<i>Middle<sub>i</sub></i>	2058	0.273	0	1	0.446
<i>Upper middle<sub>i</sub></i>	2058	0.023	0	1	0.149
<i>Upper<sub>i</sub></i>	2058	0.003	0	1	0.053
<i>Control variables</i>					
<i>Age<sub>i</sub></i>	2122	34.37	17	83	11.26
<i>Gender<sub>i</sub></i>	2123	0.486	0	1	0.499
<i>School<sub>i</sub></i>	2123	0.171	0	1	0.377
<i>College<sub>i</sub></i>	2123	0.119	0	1	0.324
<i>Bachelor (Ref.)</i>	2123	0.472	0	1	0.499
<i>Master<sub>i</sub></i>	2123	0.189	0	1	0.392
<i>PhD<sub>i</sub></i>	2123	0.047	0	1	0.212
<i>Unmarried (Ref.)</i>	2123	0.348	0	1	0.476
<i>Married<sub>i</sub></i>	2123	0.592	0	1	0.491
<i>Divorced<sub>i</sub></i>	2123	0.059	0	1	0.237
<i>Religious<sub>i</sub></i>	2107	0.209	0	1	0.407
<i>Believer (Ref.)</i>	2107	0.642	0	1	0.479
<i>NonBeliever<sub>i</sub></i>	2107	0.149	0	1	0.356
<i>Baku<sub>i</sub></i>	2123	0.501	0	1	0.500
<i>Absheron<sub>i</sub></i>	2123	0.147	0	1	0.354

(Source: Author's own creation)

#### Control variables

For robustness of results, a set of individual-specific independent variables are included to the model for control purposes. These variables include:

- $Age_i$ : denote the age of the respondent.
- $Gender_i$ : a dummy variable equals 1 for females and 0 for males
- Dummy variables displaying the highest level of educational attainment ( $School_i$ ,  $College_i$ ,  $Bachelor_i$  (left as the base group),  $Master_i$ , and  $PhD_i$ ),
- Dummy variables representing the marital status of respondents ( $Unmarried_i$  – equals 1 for those never married before and left as the base group,  $Married_i$ , and  $Divorced_i$  – equals 1 for those who are divorced/widowed).
- Dummy variables indicating religiosity level of respondents ( $Religious_i$  – equals 1 if the respondent considers himself/herself as a religious person),  $Believer_i$  – equals 1 if the respondent considers himself/herself not a religious person while believing in God and left as the base group, and  $NonBeliever_i$  – equals 1 if the respondent does not believe in God).
- Dummy variables displaying living area of the respondent ( $Baku_i$  – equals 1 if the respondent is living in Baku city (which is the capital of Azerbaijan Republic with high population

density),  $Absheron_i$  – equals 1 if the respondent is living in the Absheron region (the closest region to Baku). All other regions are left as the base group).

Descriptive statistics of all variables are tabulated in table 1.

### 1.3. Model

Baseline empirical model specification is as follows:

$$\log(LS)_i = \alpha_0 + \alpha_1 * Lower_{middle}_i + \alpha_2 * Middle_i + \alpha_3 * Upper_{middle}_i + \alpha_4 * Upper_i + \sum_{k=1}^{12} \gamma_k * Z_k + u_i$$

Note that  $\log$  means natural logarithm,  $\alpha$  and  $\gamma$  are parameters of the regression model.  $Z_k$  covers all control variables. Following non-linearity of age-life satisfaction association (see Frijters and Beaton (2012) and Morgan and O'Connor (2017)) and Ramsey-Reset functional specification test results, age has been included as quadratic form as well. In the model,  $u$  is the error term while  $i$  stand for  $i^{th}$  observation.

According to the research hypothesis,  $\alpha_4 > \alpha_3 > \alpha_2 > \alpha_1 > 0$ , and  $\alpha_1 > (\alpha_2 - \alpha_1) > (\alpha_3 - \alpha_2) > (\alpha_4 - \alpha_3)$ . More precisely, we expect a diminishing marginal return for self-reported happiness towards the upper-income class.

Robust Least Squares method is employed to estimate the parameters of the regression model.

## 2. RESULTS

### 2.1. Preliminary analyses

Figure 1 displays the average life satisfaction scores of respondents belonging to different self-perceived income classes. The average life satisfaction score within 5-35 range for the whole sample is 17.06, which implies “slightly dissatisfaction” in the society. On the contrary, respondents who place themselves into the “lower-income class” – the lowest class given as an options report a relatively lower level of happiness. Thus, the average life satisfaction of those belonging themselves to this group is at the upper bound of the “dissatisfaction” area: they are “dissatisfied with life”. However, respondents belonging themselves to the “lower-middle-income class” in the society are “slightly dissatisfied” while “middle-income class” participants are above neutral – slightly satisfied with life.

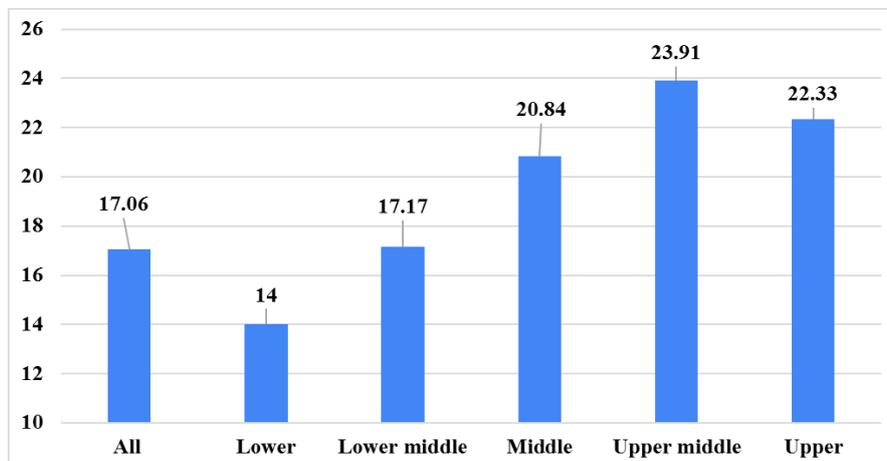


Figure 1: Average life satisfaction across self-perceived income classes  
(Source: Author's own creation based on survey data)

The average life satisfaction of those who belong themselves to the lowest income group (approximately 40.3% of the total sample) is 14, which is significantly less than the average of all other social classes and the whole sample. From lower-income to lower-middle-income class, average life satisfaction increases 22.6% ( $\frac{17.17-14}{14}$ ) while the change from lower-middle to middle-income class is 3.67 points or 21.4% ( $\frac{20.84-17.17}{17.17}$ ). Average life satisfaction increases 14.7% ( $\frac{23.91-20.84}{20.84}$ ) within upper-middle-income class compared to middle-income class. Positive but diminishing marginal return suddenly becomes negative at the upper-class stage. Compared to upper-middle-income level, average life satisfaction decreases nearly 6.6% ( $\frac{22.33-23.91}{23.91}$ ).

## 2.2. Empirical analyses

Although preliminary analyses results confirm the heterogeneity of returns to individuals' well-being at each stage of income classes, empirical results present better scientific evidence. Table 2 tabulates empirical estimation results from Robust Least Squares method. Note that here, we control the possible spurious effects of given individual-specific factors such as age, gender, educational attainment, marital status, religiosity level and living area.

Empirical results present robust scientific evidence for the significant return of self-perceived social class stratification to individuals' life satisfaction. Life satisfaction changes at all stages of self-perceived income classes is economically and statistically significant ( $p < 0.01$ ). The return is heterogeneous. *Ceteris paribus*, in average, compared to those who belong themselves to lower-income class, the life satisfaction of self-perceived lower-middle-income group is 22.8% higher while the difference is 42.6% between middle and lower-income classes, 58.3% between upper-middle and lower-income classes and finally, 49.9% between upper and lower-income classes.

Here, diminishing marginal return to individuals' well-being towards self-perceived upper-income class is confirmed once more by supporting preliminary analyses results. *Ceteris paribus*, changing from lower to lower-middle-income classes increases life satisfaction by 22.8% while the marginal return is 19.8% at the middle class, 15.7% at upper-middle-class and negative 8.4% at the upper class. There is a diminishing marginal return which even turns to be negative at the top of the self-perceived income class.

Regarding the impact of control variables over individuals' life satisfaction in Azerbaijan, empirical results confirm the existence of a U-shaped association between age and life satisfaction ( $p < 0.01$ ). The threshold value of age is approximately 40, which means that getting older decreases happiness up to 40 age while marginal impact turns to be positive after 40 years old. Simultaneously, results show that females are significantly more satisfied than males in Azerbaijan ( $p < 0.05$ ) while holding other factors fixed, on average. The gender happiness gap is around 4.3%.

Table 2: Empirical estimation results

Variables	Estimated coefficients	95% CI		99% CI	
		Low	High	Low	High
<i>Lower (Ref.)</i>					
<i>Lower middle<sub>i</sub></i>	0.228***	0.184	0.272	0.170	0.286
<i>Middle<sub>i</sub></i>	0.426***	0.379	0.472	0.365	0.487
<i>Upper middle<sub>i</sub></i>	0.583***	0.459	0.707	0.419	0.747
<i>Upper<sub>i</sub></i>	0.499***	0.165	0.835	0.059	0.940
<hr/>					
<i>Age<sub>i</sub></i>	-0.032***	-0.043	-0.022	-0.046	-0.018
<i>Age<sub>i</sub><sup>2</sup></i>	0.0004***	0.0002	0.0005	0.0002	0.0005
<i>Gender<sub>i</sub></i>	0.043**	0.005	0.081	-0.006	0.093
<hr/>					
<i>School<sub>i</sub></i>	-0.092***	-0.145	-0.039	-0.162	-0.022
<i>College<sub>i</sub></i>	-0.069**	-0.129	-0.010	-0.148	0.008
<hr/>					
<i>Bachelor (Ref.)</i>					
<i>Master<sub>i</sub></i>	-0.029	-0.078	0.020	-0.094	0.036
<i>PhD<sub>i</sub></i>	0.077*	-0.012	0.165	-0.039	0.193
<hr/>					
<i>Unmarried (Ref.)</i>					
<i>Married<sub>i</sub></i>	0.089***	0.038	0.141	0.021	0.157
<i>Divorced<sub>i</sub></i>	-0.060	-0.149	0.029	-0.178	0.057
<hr/>					
<i>Religious<sub>i</sub></i>	0.187***	0.049	0.141	0.035	0.155
<hr/>					
<i>Believer (Ref.)</i>					
<i>NonBeliever<sub>i</sub></i>	-0.092***	-0.145	-0.039	-0.162	-0.022
<hr/>					
<i>Baku<sub>i</sub></i>	0.008	-0.032	0.048	-0.045	0.061
<i>Absheron<sub>i</sub></i>	-0.002	-0.058	0.054	-0.076	0.071
<i>C</i>	3.125***	2.931	3.320	2.869	3.382
<hr/>					
<i>R<sub>w</sub><sup>2</sup></i>			0.264		
<i>Std. of Regr.</i>			0.408		
<i>No. of Obs. Inc.</i>			2045		

Note: Dependent variable is  $\text{Log}(LS)_i$ . \*\*\*, \*\*, and \* denote statistical significance at 1%, 5% and 10%, respectively. CI means confidence interval.

Source: Author's own creation

Considering the role of educational attainment, we reveal that people with pre-bachelor education are less satisfied than the reference group ( $p < 0.05$ ) while post-bachelor education does not have a significant return to individuals' well-being ( $p > 0.05$ ). On the other hand, married people seem to be more satisfied with life than unmarried individuals ( $p < 0.05$ ), while the difference between unmarried and divorced/widowed people's well-being is not substantially large and statistically significant ( $p > 0.05$ ). The living area also does not have a significant role in predicting individual well-being ( $p > 0.1$ ). On the contrary, religiosity seems to be one of the most important determinants of life satisfaction in Azerbaijan ( $p < 0.01$ ). Compared to believers (those who do not pray but believe in God), the life satisfaction of non-believers is 9.2% less while religious people are 18.7% more satisfied with life, on average, ceteris paribus.

## CONCLUSION

The primary goal of this research is to estimate the well-being effects of self-perceived social class stratification in the case of Azerbaijan. Self-belonging income class is a reliable proxy for self-perceived social stratification.

Results show that higher self-perceived income classes positively return to the well-being of individuals in Azerbaijan. The only exception is about the return of belonging to the upper-income class. Empirical results display a negative return of belonging to the upper-income class

compared to the well-being of the upper-middle-income class group. However, this result is doubtful due to the upper-income category in the sample. Note that only 0.3% of total participants belong themselves to the upper-income class category. Due to the relatively small share of upper-income class category, the negative well-being returns from belonging to the corresponding income class is scientifically less valuable and requires further investigation with greater participation. Anyway, results confirm diminishing positive return of self-perceived social stratification to life satisfaction of individuals in the case of Azerbaijan.

It is noteworthy to mention that life satisfaction also affects work motivation in economies (Nadirov, Aliyev and Dehning, 2017). Research findings can be used to assess the well-being effects of public policy in Azerbaijan as well as other countries with similar economic and social structure. Azerbaijan government should focus on determinants of self-perceived social stratification, especially those belonging to lower-income classes and implement policy actions accordingly to support them and enhance their well-being. This would lead to a decrease in happiness inequality in the country. In this context, policies to decrease income inequality can be considered helpful to have less income inequality (see Delhey and Kohler (2011) and Kollamparambil (2020), among others). Meanwhile, studies display a positive return of progressive taxation over the happiness of individuals (Oishi, Schimmack and Diener, 2012; Oishi, Kuslev and Schimmack, 2018). From this point of view, research findings imply that progressive taxation is recommended to decrease income and happiness inequality in Azerbaijan.

Considering that the subjective well-being related studies are highly limited in the case of Azerbaijan society (see Aliyev and Agayeva (2019), Aliyev and Gasimov (2020), Aliyev (2020)), the current paper also makes a substantial contribution to existing literature. Besides, research findings could be useful for policy-makers while making decisions to support citizens under the Covid-19 related quarantine regime.

#### LITERATURE

1. Aliyev, K., Nadirov, O. & Dehning, B. (2020). Income and Life Satisfaction: A 'Wave Formation' Framework. Forthcoming *Journal of Happiness Studies*.
2. Aliyev, K., & Gasimov, I. (2020). Life (dis) satisfaction and intention to emigrate in Azerbaijan: Mediating role of institutional trust. *Economic and Social Development: Book of Proceedings*, 3, 306-313.
3. Aliyev, K. (2020). Well-Being Effects of Novel Coronavirus Pneumonia (Covid-19): Moderating Role of Age. *ASERC Journal of Socio-Economic Studies*, 3(1), 1-11.
4. Aliyev, K. & Agayeva, S.(2019). Determinants of students' life satisfaction in Azerbaijan: Empirical analyses. *ASERC Journal of Socio-Economic Studies*, 2(1), 49-61.
5. ASERC. (2018). Social Survey -1. *Unpublished dataset*.
6. ASERC. (2020). Social Survey -4. *Unpublished dataset*.
7. Blanchflower, D.G. & Oswald, A.J. (2004). Well-being over time in Britain and the USA. *Journal of public economics*, 88(7-8), 1359-1386.
8. Boyce, C.J., Brown, G.D. & Moore, S.C. (2010). Money and happiness: Rank of income, not income, affects life satisfaction. *Psychological science*, 21(4), 471-475.
9. Cheung, C.K. & Leung, K.K. (2004). Forming life satisfaction among different social groups during the modernization of China. *Journal of Happiness Studies*, 5(1).
10. Cheung, F. & Lucas, R.E. (2016). Income inequality is associated with stronger social comparison effects: The effect of relative income on life satisfaction. *Journal of personality and social psychology*, 110(2).
11. Delhey, J. & Kohler, U. (2011). Is happiness inequality immune to income inequality? New evidence through instrument-effect-corrected standard deviations. *Social science research*, 40(3), 742-756.

12. Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3).
13. del Mar Salinas-Jiménez, M., Artés, J. & Salinas-Jiménez, J. (2010). Income, motivation, and satisfaction with life: An empirical analysis. *Journal of Happiness Studies*, 11(6), 779-793.
14. Easterlin, R.A. (1974). Does economic growth improve the human lot? Some empirical evidence. In *Nations and households in economic growth* (pp. 89-125). Academic Press.
15. Frijters, P., Haisken-DeNew, J.P. & Shields, M.A. (2004). Money does matter! Evidence from increasing real income and life satisfaction in East Germany following reunification. *American Economic Review*, 94(3), 730-740.
16. Frijters, P. & Beaton, T. (2012). The mystery of the U-shaped relationship between happiness and age. *Journal of Economic Behavior & Organization*, 82(2-3), 525-542.
17. Hayo, B. (2007). Happiness in transition: An empirical study on Eastern Europe. *Economic Systems*, 31(2), 204-221.
18. Habibov, N.N. (2011). Self-perceived social stratification in low-income transitional countries: Examining the multi-country survey in Armenia, Azerbaijan, and Georgia. *International Journal of Social Economics*, 38(1), 5-22.
19. Kollamparambil, U. (2020). Happiness, happiness inequality and income dynamics in South Africa. *Journal of Happiness Studies*, 21(1), 201-222.
20. Morgan, R. & O'Connor, K.J. (2017). Experienced Life Cycle Satisfaction in Europe. *Review of Behavioral Economics*, 4(4), 371-396.
21. Nadirov, O., Aliyev, K., & Dehning, B. (2017). To work more or less? The impact of taxes and life satisfaction on the motivation to work in continental and eastern Europe. *Economics & Sociology*, 10(3), 266-280.
22. Oishi, S., Schimmack, U. & Diener, E. (2012). Progressive taxation and the subjective well-being of nations. *Psychological science*, 23(1), 86-92.
23. Oishi, S., Kushlev, K. & Schimmack, U. (2018). Progressive taxation, income inequality, and happiness. *American Psychologist*, 73(2).
24. Pavot, W. & Diener, E. (2009). Review of the satisfaction with life scale. In *Assessing well-being* (pp. 101-117). Springer, Dordrecht.
25. Pavot, W. & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5, 164-172.
26. Proto, E. & Rustichini, A. (2015). Life satisfaction, income and personality. *Journal of Economic Psychology*, 48, 17-32.
27. Plouffe, R.A. & Tremblay, P.F. (2017). The relationship between income and life satisfaction: Does religiosity play a role?. *Personality and Individual Differences*, 109, 67-71.
28. Verbič, M. & Stanovnik, T. (2006). Analysis of subjective economic well-being in Slovenia. *Eastern European Economics*, 44(2), 60-70.
29. Veenhoven, R. (1991). Is happiness relative?. *Social indicators research*, 24(1), 1-34.
30. Wolbring, T., Keuschnigg, M. & Negele, E. (2013). Needs, comparisons, and adaptation: The importance of relative income for life satisfaction. *European Sociological Review*, 29(1), 86-104.