The role of demographic and socio-economic characteristics in affecting subjective well-being: the case of Hungary

Róbert, Péter

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The Role of Demographic and Socio-Economic Characteristics in Affecting Subjective Well-being. The Case of Hungary

Péter Róbert*

Abstract:

This paper investigates the influence of various demographic and social factors on the perception of well-being in Hungary. For the purpose of the analysis, various measures of subjective well-being have been developed as dependent variables using both narrower and broader sets of items, and a principal factor analysis was applied to construct normalised indices. Demographic predictors include gender, age, family composition, residence; sociological predictors contain education, labour market position, income and wealth as well as questions on health and religiosity.

Hungary is an interesting case to study, given its well-known strong deficit in subjective well-being. The phenomenon is particularly motivating in light of the official propaganda from the governing political authorities on the country's economic and social progress. A low level of subjective well-being is confirmed again, partly in international comparisons, partly from the perspective of temporal change. Furthermore, a detailed analysis of the data reveals that Hungarians seem to be markedly divided into higher and lower assessments of well-being on the basis of age, residence and social status. Regression models prove that material conditions have the strongest impact on subjective well-being, even if controlled for education and labour market position. The results concerning subjective-wellbeing raise questions for public policy in Hungary.

Keywords: subjective well-being, public opinion research, multivariate analysis, Hungary.

Introduction

Well-being is a major tool for the assessment, description, classification and comparison of societies. The report of the Stiglitz Commission (Stiglitz, Sen, & Fitoussi, 2009; Stiglitz, 2010) has significantly contributed to the spread of the concept. Possibly the greatest merit of the report is that it goes beyond economic development, measured mostly by GDP (per capita), as being the major predictor of well-being. Instead, it recommends considering subjective factors for the measurement of well-being in accordance with previous – to a significant extent (socio) psychological – literature on the topic.[1]

Accordingly, the current study defines and applies *subjective* well-being indicators based on data from a public opinion poll. Factors considered include happiness, satisfaction with life, pleasure, pride and other positive emotions, or pain, fear, worry and other negative emotions that people experience in their everyday lives. In fact, psychological measures, developing related indicators and scales and the relevant psychological literature considerably precede the measurement and examination of social well-being (Diener, Suh, Lucas, & Smith, 1999); however, a more detailed review in this regard would go beyond the fundamentally sociological approach of the paper. Nevertheless, it is worth keeping in mind that literature in the field of psychology deals with

* E-mail: robert@tarki.hu

1 There are altogether eight dimensions: income, consumption and wealth; health; education; work; political voice and governance; social connections and relationships; environment; insecurity (economic and physical). Nussbaum and Sen (1993) suggest very similar dimensions regarding the quality of life: financial situation, life expectancy, health condition and quality of health provisions, education, work, political and legal situation, family relationships.

general human emotions whereas sociology – as in this analysis – wants to know how general human emotions *correlate with individual demographic and socio-economic attributes*. These features are fundamentally related to the dimensions emphasized by the Stiglitz Commission and include educational level, financial situation, work, residential circumstances, health, and others.

Hungary is an interesting test case for such a study, at least for two reasons. Subjective well-being tends to be exceptionally low comparatively speaking and this situation has been stable over time. Moreover, the current governing political regime in Hungary has started to develop a particular rhetoric on the economic and social success story of Hungary, claiming that the country is playing a leading role in Europe and in the European Union. More importantly, this government has already been re-elected for the third time in a row, even with a two-thirds majority.[2]

The paper is structured as follows. First, it provides a review of the literature on measuring subjective well-being and its connection with demographic and socio-economic indicators. Then, a separate section is devoted to the Hungarian context and previous studies on subjective well-being in Hungary. The next section looks at data and metrics and elaborates on the various well-being indices developed for the study. The descriptive results on subjective well-being in Hungary are then presented, including a short international comparison of Hungarian society on the basis of two major measures: satisfaction and happiness. Then, the bivariate association between subjective well-being indicators and socio-demographic variables is presented. Finally, the paper offers a multivariate analysis and examines how the socio-economic and socio-demographic characteristics of the respondents affect subjective well-being in Hungary. The study ends with a conclusion and the discussion of the findings under the special political circumstances in Hungary.

The concept of subjective well-being

In this paper, subjective well-being is regarded as an emotional orientation and has several psychological aspects (Kahneman, Diener, & Schwartz, 1999). We can ask how such data and indicators can be used to characterize societies. A short answer can be found in the Stiglitz report: "relying on people's own judgments is a convenient shortcut and potentially provides a natural way to aggregate various experiences in a way that reflects people's own preferences" (Stiglitz, Sen, & Fitoussi, 2009, p.145).[3] The same process of *aggregation* takes place in the case of subjective well-being, when individuals' emotions form an indicator of the quality of society (Kruger, 2009).

Social Indicators Research devoted a special issue to the examination of subjective well-being in 2013. In that issue, Noll (2013) provides an overview of the topic in terms of its strengths and weaknesses. According to some critics, the information on subjective well-being is too 'soft' compared to the objective measures of well-being. Their reliability and validity is weaker, since the source of the data is public opinion research. Indeed, the correlation between objective and subjective indicators of well-being is sometimes surprisingly low. However, according to Noll, this occurrence makes the examination of subjective well-being particularly interesting. In addition, the relevance of the concept for public policy can be emphasised as its main strength; that is, the influence of subjective judgements and opinions is considerable, even more so than that of objective factors in understanding the choices and decisions of individuals. Therefore, the examination of subjective well-being in the public policy plays an important role for many authors (Diener, 2006; Dolan, Layard, & Metcalfe, 2011; Deeming, 2013).

2 The two-third majority is debated claiming that elections in April 2018 were not completely fair in Hungary but the governing parties in power (Fidesz-KDNP) were favoured. Nevertheless it is hard to question that the winners have, indeed, the strongest support in Hungary these days, as shown by polls carried out since the elections.

3 Another appropriate phrase states 'perception is reality'; it expresses that not only someone's well-being, wealth or health is genuine but it is also valid, how happy, wealthy or healthy he/she feels himself/herself.

When defining subjective well-being, emphasis is put on the individual judgement given by each person according to his/her own criteria. As Diener (2006, p. 401) asserts, research on well-being is rather about personal experience. Subjective criteria means at the same time that there are various factors and accents behind individual well-being. The related analyses in many cases set different dimensions and life domains, and people are asked about how they assess or judge their family relationships, financial situation, work conditions, health and residential situation. The more important a field of life is to somebody, the more it contributes to subjective well-being. This is the bottom-up model that assumes that the assessment of each field of life has an impact on the overall judgement of an entire person's life. The top-down model, however, claims that judgement in any field of life has no impact on general satisfaction (or happiness). The opposite is true, namely a generally satisfied person views the different areas of his/her life as more favourable and he/she is more satisfied with them.

The measurement of well-being in this study builds various indices of well-being from many specific questions and considers both satisfaction and happiness, though these terms are not decomposed for the various areas of life. A fundamental element, going back to the psychological approach to well-being, is the distinction between the *cognitive* and *affective* aspect (Diener, 1984; Diener, Suh, Lucas, & Smith, 1999). The cognitive aspect tends to correspond to satisfaction, while the affective aspect tends to relate to happiness. Furthermore, all assessments linked to emotional well-being (affective aspect) can be either positive or negative. Accordingly, *three dimensions* are distinguished: a) satisfaction with life; b) positive feelings, emotions such as happiness, vitality and energy; and c) the lack of negative emotions, such as anger, sadness or depression (Argyle, 1996; Diener, Lucas, & Scollon, 2006).

A further analytical challenge is whether material-financial advantages, at national or individual level, lead to a more favourable assessment of well-being. The positive relationship is questioned stronger by Easterlin (1973; 1995), and Layard (2005) also claims that becoming wealthy does not proportionally increase happiness. At the same time, according to Veenhoven (1989), there is a provable correlation between wealth at the national level and individual happiness. More recent data and analyses have also confirmed a positive association between financial improvement and happiness (Deaton, 2008), on the one hand, and satisfaction with life (Diener, Tay, & Oishi, 2013), on the other hand, at the individual level. This research question is re-examined for Hungary by analysing how subjective well-being is affected by the economic situation and material living circumstances of the respondents.

Determinants of subjective well-being

Variation in subjective well-being is substantially affected by individual demographic and social characteristics. Previous studies investigate these associations with gender, age, family composition, education, employment status, material conditions, region, health and religiosity. It is not easy to estimate the influence of these features because they interrelate and this makes previous studies inconclusive or makes the results dependent on other factors, used as controls. For gender, a recent review quoted numerous studies where subjective well-being is higher for men, and others where it is higher for women, and still others where there is no significant difference (Batz & Tay, 2018). For age, it matters whether ageing is considered literally (i.e. well-being is affected by getting older), or the study focuses on life cycle differences connected to various stages of life. Correlations with other factors are quite obvious; for example, wages tend to rise as one makes progress in a career, while health conditions tend to deteriorate and the two tendencies have opposing effects on subjective well-being. Life-cycle, at the same time, involves obvious variations in family status, family composition and employment. In sum, according to a related literature review, most previous studies found that the age effect on subjective well-being is non-linear but, more frequently, U-shaped or sometimes reversed U-shaped (Ulloa, Møller, & Sousa-Poza, 2013). In cases of subjective well-being in old age, attention can be called even to reversed causality: happier and satisfied people may live longer.

Family status and composition can also produce contradictory and controversial effects. It seems that living alone and loneliness can deteriorate subjective well-being, in particular in old age, but there is no conclusive evidence that married people are happier or more satisfied. Nevertheless, Grover and Helliwell (2017) report a less deep U-shaped curve in life satisfaction for married than unmarried (e.g. divorced people). Yet, one can argue that happier people are more successful in maintaining marriage relationships (reverse causality). The association between subjective well-being and having children or being childless is also mixed and varies by gender. The overview by Pedersen and Schmidt (2014) quotes a large number of studies with findings like: subjective well-being is lower for childless women but not for men; childless couples can be as happy as couples with children (intention matters); having children improves subjective well-being in old age as it may decrease loneliness; more children can raise happiness but a big family with several children to be supported can cause financial difficulties and this can worsen subjective well-being.

While higher education is usually a strong positive predictor of subjective well-being, this effect may not be 'per se' because higher levels of schooling enhances employment chances (helping to avoid unemployment), leads to higher job status and salaries (returns on human capital investments), improves health and life expectancy, makes one more successful in the marriage market, and so on. Apparently, education, occupation and income strongly interrelate and boost subjective well-being together with other favourable features. Nevertheless, people who have higher levels of schooling, better jobs and higher salaries may expect more from life and this fact can make them less satisfied.

Religiosity and good health conditions are also positive predictors of higher subjective well-being. Religion is supposed to contribute to social inclusion, to generate positive feelings and emotions, and to increase satisfaction with life. Faith also serves as insurance as it saves people from stress and the negative influences of life events like unemployment or financial risks (Blaine & Crocker, 1995; Clark & Lelkes, 2005; 2009). In the case of health, both mental and physical health matters and its positive relation with subjective well-being may not need much explanation. Finally, regional variation is interesting if this attribute relates to various geographical units and is based on differences in various macro-level indicators, in particular those connected to economic prosperity, level of GDP, employment prospects, but also softer features like culture or religious denomination can also matter. The link between region and subjective well-being is rooted in expected contextual effects derived from the individual characteristics discussed above (OECD, 2014).

Hungary in the context of this study

'Hungarian pessimism' is a well-known phenomenon, also according to Hankiss (2009). He cites an early reference from 1993, a Gallup survey where 39 per cent of the adult Hungarian population placed themselves on the three lowest steps on a ladder that had nine rungs. Since then, poll after poll show this nation to be exceptionally gloomy in Europe. The World Happiness Report series can be considered a reliable source; countries are ranked by the level of happiness, applying the Cantril (1965) ladder. Given the reliability concerns for a yearly measurement, mean scores on a 0–10 scale are averaged for each country over a longer period (e.g. 2014–2016 in the 2017 edition, or 2015–2017 in the 2018 edition). In the latest edition, Hungary takes 69th position in a ranking of 156 countries. At first sight, this is a place around the middle of the 'league table' but few European countries appear below Hungary (e.g. Portugal, Serbia, Greece, Croatia, Bulgaria); rather it is mostly third world countries that can be found in the lower part of the ranking. Regarding the placement of the other Visegrad 4 countries in the rank order, Poland is 42, Slovakia is 39 and the Czech Republic is 21 (Helliwell, Layard, & Sachs, 2018). Happiness or satisfaction with life used to be higher in Poland but Czech Republic or Slovakia had not previously outperformed Hungary (cf. Lelkes, 2006. Table 1).

In Hungary, the issue has been formerly investigated but researchers used to frame such analyses under the title 'quality of life'. In this regard, one of the biggest projects was the *Hungarostudy* led by Maria Kopp; it had three waves in 1988, 1995 and 2002 involving about 45,000 adults above 18 years old as respondents, representing the Hungarian population in terms of gender, age and region. The project provided a complex picture of Hungarian society in terms of well-being, satisfaction with health, 'sense of life', and positive and negative emotions. The most important findings involve the deterioration of quality of life, chronic stress, depression, hopelessness, learned helplessness – all characterising the Hungarian population (Kopp & Kovács, 2006).

Several previous studies view Hungary in a comparative context. An early report on the post-communist scene by Ferge et. al. (1997) compared Hungary to Czechoslovakia, Poland and East Germany and found the lowest level of satisfaction with life in Hungary. Socio-economic predictor variables turned out to have a particularly strong influence on this finding. A comparison between Hungary and Austria by Molnár and Kapitány (2014) reveals that higher levels of schooling improves subjective well-being less in Hungary and bad health conditions have a particularly strong negative effect on subjective well-being compared to Austria. Analysing ESS data for Hungary, Ivony (2017) finds that old age, low levels of schooling, unemployment and bad health deteriorate subjective quality of life most. Based on a comparison over time between 1991 and 2008, it appears that basic socio-demographic variables have a reinforcing impact on subjective well-being (Vecernik & Mysikova, 2014). This makes it necessary to re-investigate the influence of individual demographic and socio-economic characteristics in this paper. From among demographic features, the role of age can be underlined, assuming that the typical U-shape is particularly marked in Hungary. From the socio-economic measures, income and other material characteristics may play the strongest role in affecting subjective well-being. The OECD (2017) reports that Hungary has among the lowest levels of household disposable income per capita and among the lowest levels of average earnings, combined with one of the highest levels of job strain in OECD countries. Furthermore, regional variation is substantial in Hungary as indicated by a recently published *Happiness Map* (Mezei, 2018). Generally speaking, Hungarians are happier in the Western part of country and this division corresponds to the higher vs. lower level of economic performance in the Western and Eastern parts. The paper analyses this phenomenon taking region and other individual characteristics into account in the same model.

Finally, there is one more argument to support a particular analysis of Hungary. It is striking to realise how the low level of subjective well-being contradict the official narratives put out by the government about the recent economic and social progress in Hungary, making the country a strong nation in the European Union. More interestingly, this kind of contradiction does not exist in Poland where authoritarianism and illiberalism also tend to play a strong role in politics, but the level of subjective well-being is much higher compared to Hungary.

Data and metrics

The core part of the empirical analysis is based on data from the *Economic and Social Conflicts survey*.[4] The survey was carried out by TÁRKI, Inc. between December 2013 and February 2014; stratified random sample drawing was applied for gender, age and region. In order to correct for deviations from the sampling frame, the data was weighted by gender, age, education and region according to the 2011 Census. Valid cases numbered 2,031 from 117 settlements. For the purpose of additional (comparative) analysis, European Social Survey (ESS) data is used – downloaded from the official website of the NSD, Norwegian Centre for Research Data, Norway, data archive and distributor of ESS data for ESS ERIC. The ESS data was weighted following ESS instructions.

4 Financial support was provided by the project titled *'Social conflicts – Social well-being and security – Competitiveness and social development'; grant number: TÁMOP-4.2.2.A-11/1/KONV-2012-0069* offered by the Hungarian Government, the European Union and the European Social Fund.

The paper develops *four* indices of subjective well-being and these indices will be analysed systematically. The indices are derived from various items from the survey but there are overlaps; the same item can be an element in more than one index. Working with four subjective well-being variables has no strict methodological rationale. It is not a goal to develop the 'best index' in measurement terms, rather, the aim is to take validity and reliability into account for the measurement of subjective well-being. If the results based on the different measurements tend to correspond and no significant deviations emerge, this will enhance and confirm the validity and reliability of the results regarding subjective well-being in Hungarian society.[5]

The *first indicator* of well-being was essentially based on the two basic questions related to satisfaction and happiness. Then two further questions were added about optimism and the proper development of life. This is the *Narrowed index of well-being* with four elements. The four questions were as follows: (1) All things considered, how satisfied are you with your present life? (2) All things considered, how happy do you feel in yourself? In both cases answers were given on a scale of 0–10 where 0 = extremely dissatisfied / unhappy and 10 = extremely satisfied / happy.[6] (3) I am optimistic about the future (4) My life is going as I would like it to (1=not at all, 5=completely). Principal component analysis was applied to construct the index – KMO=0.742 – the only unrotated factor with an Eigenvalue above 1 explained 71% of the total variance of the four questions. For the *second indicator*, the E*xtended index of well-being*, three more variables were added to the four previous questions: Where would the respondent place himself/herself on a scale of 0–10 according to his/her (1) employment, (2) financial conditions, (3) education and abilities. This index was constructed again using principal component analysis – KMO=0.847 – the only unrotated factor with an Eigenvalue above 1 explained 61% of the total variance of the 7 variables.

The *third and fourth indices* were derived from items representing three dimensions: satisfaction, positive emotions, and lack of negative emotions. This can be labelled as the *Complete index of well-being*. An extended and a narrowed version of this index were constructed (practically one question was left out from the latter index). The satisfaction item is the same as described. The aggregate measure of *positive feelings* is based on four items: (1) agreement with the statement: I am optimistic about the future; (2) agreement with the statement: My life is going as I would like it to; (3) assessment of the residential area as pleasant; (4) positive answer to the question about happiness. The aggregate measure of *lack of negative feelings* includes the following items: (5) negation of fear from criminals; (6) no feeling of being ignored in society; (7) no lack of ability to find own way in life; (8) no lack of acknowledgement in life; (9) feeling of being despised is not present. The *extended* version of the index also contains a question related to stressful work: (10) no stress in job; (those who did not work had no stress). This element was not included in the *narrowed* version of the index to avoid any bias from working / not working. Principal component analysis was applied to construct the indices – KMO = 0.613 and 0.622 – the only unrotated factor with an Eigenvalue above 1 explained 56% and 57% of the total variance of the variables for the extended and the narrowed version of the index, respectively.

Subjective well-being in Hungarian society

International comparison, temporal changes

The aim of this section is to put Hungarian society into a comparative perspective by applying the European Social Survey data. The two core subjective well-being items on satisfaction and happiness are used for the purpose because these questions basically depict the cognitive and the emotional side of subjective well-being. On the one hand, Hungary appears in the context of 22 European countries for 2014 and 2016 (the two recent available survey years in ESS). On the other hand, the temporal developments between 2002 and 2016 are displayed in the subjective well-being for Hungary and Poland.

5 The research group at Széchenyi University (Zoltán Bugovics, Zoltán Csizmadia, Ádám Páthy, Péter Tóth) took part in developing the related items in the questionnaire and these indices.

6 The items on satisfaction and happiness are taken from the core questionnaire of the European Social Survey.

Figures 1 and 2 show the 'league table' of countries according to the mean value of the answers on a scale of 0–10 for satisfaction and happiness, respectively. In both figures, countries are formally ranked according to their position in 2016 but there is no real difference in the order of the ranking in the two years.[7] The two questions provide a similar ranking of the countries in terms of the cognitive and emotional side of subjective well-being. However, satisfaction with life seems to be a more 'critical' indicator; the range in the mean values is between 8.4 and 5.8, whereas the same range for happiness is a bit higher, at least at the lower end, between 8.2 and 6.3. This means people feel at bit less unhappy and a bit more unsatisfied. The level of subjective well-being is highest in the Scandinavian countries but Switzerland and the Netherlands also belong to this group. The former socialist countries stand at the lower end of the scale, but Portugal is also at the bottom of the ranking (at least for satisfaction). The chief point of this comparison is, however, that Hungary takes the third position from the end in the rankings for satisfaction and happiness. Among the former socialist countries the placement of Poland turns out to be the highest, followed by Slovenia. This result confirms the relevance of analysing the Hungarian case as being one of the most detrimental in the European context.

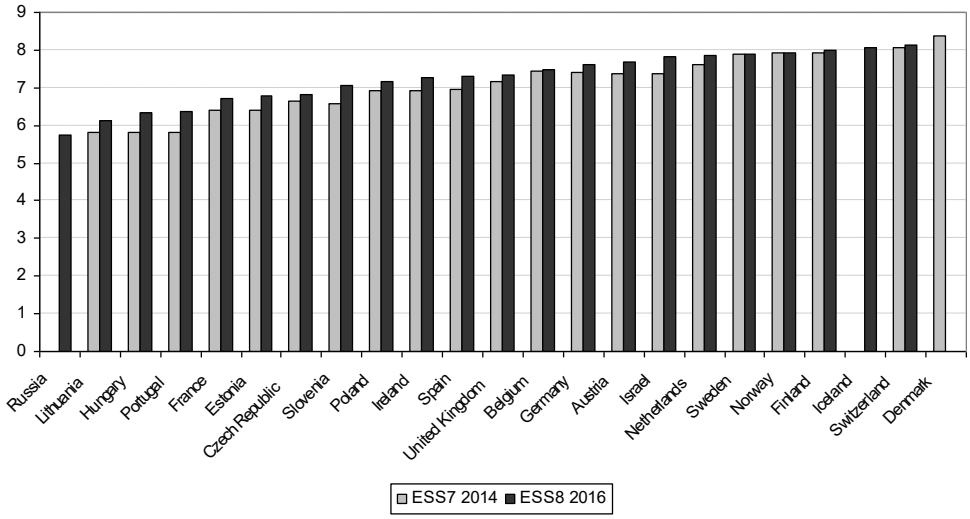

Figure 1: Rank order of European societies by the mean value of satisfaction with life

Note: No data for Russia and Iceland in 2014; for Denmark in 2016
Source: ESS Round 7 (2014) and ESS Round 8 (2016)

7 There is a slight dissimilarity in the participating countries in the two surveys: no data appear in Russia and Iceland for 2014 and in Denmark for 2016.

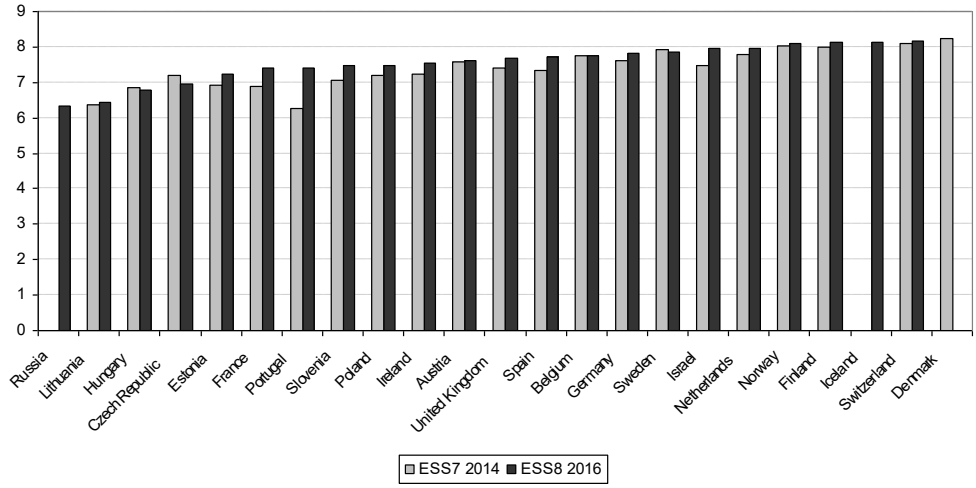

Figure 2: Rank order of European societies by the mean value of happiness

Note: No data for Russia and Iceland in 2014; for Denmark in 2016
Source: ESS Round 7 (2014) and ESS Round 8 (2016)

In order to examine changes in subjective well-being over the last one and half decades, Figure 3 displays a time series for the period between 2002 and 2016 regarding temporal changes in satisfaction with life and happiness in Hungary and Poland. Comparing the changes in the level of subjective well-being, these two countries used to be quite similar in 2002. Happiness was higher than satisfaction in both countries but the indicators, reflecting emotional and cognitive well-being, formed a close pair around 5.7 and 6.4. Then, the trends began to diverge – satisfaction with life and happiness started to increase in Poland, at least until 2010, though it levelled off through 2012–2016 at just above 7 on the 0–10 point scale. By contrast, both well-being measures deteriorated in Hungary between 2004 and 2008. Then, an increase in subjective well-being can be observed in 2010, followed by a drop in 2012. From this period onwards, a slight increase appears in both indicators of subjective well-being with a rise of less than 1 point on the 0–10 point scale for the rest of the period covered. However, these two basic indicators of well-being have never peaked over 7 in Hungary.

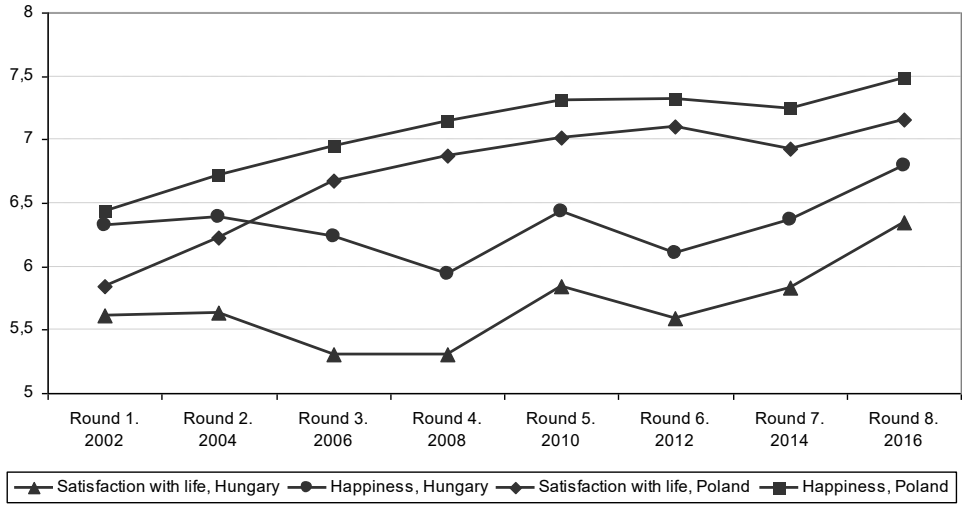

Figure 3: Temporal changes of subjective well-being in Hungary and Poland
Source: ESS 1-7 pooled data file (2002-2014) and ESS Round 8 (2016)

Bivariate relationship between subjective well-being and individual characteristics

The more detailed investigation of subjective well-being in Hungary is based on the four indices introduced in detail above. Six socio-demographic variables – education, income, type of settlement, region, age group and labour market position – are considered and the results are summarised in Figures 4a–f. The picture depicted by the four indices is largely congruent and reveals manifest breaking-points in the assessment of well-being in Hungary according to the demographic and socio-economic characteristics of the respondents.[8]

For education in Figure 4a, the breaking-point is between having a lower secondary level of schooling (or below) vs. a higher secondary level of schooling (or above). Completing tertiary level seems to bring a big reward in subjective well-being. Interestingly, there is no particular difference between a BA and an MA degree. Vocational training and especially primary school education can be associated with a low level of subjective well-being.

For the bivariate analysis, income is categorised on the grounds that someone earns less vs. more than the mean and whether these minuses and pluses are about 1 standard deviation or more. The breaking-point is between the minuses and the pluses but low income leads to higher losses in subjective well-being than the gains from high income. As Figure 4b displays, the negative values in the well-being indices for low income are bigger than the positive values for high income.

Regarding residence, both type of settlement and regional variation are of interest. First of all, living in a larger settlement or even in Budapest does not necessarily lead to the highest level of perceptions of well-being. In fact, the different measures indicate a dissimilar picture for subjective well-being at the top of the residential hierarchy; it seems that the Complete well-being index mirrors the differences in subjective well-being the most. The four indices show a more consistent and positive picture of the assessment of well-being in the case of city residents, while the lowest level of well-being appears for village inhabitants (Figure 4c). In terms of regions, Hungary is basically split into two: subjective well-being is high (positive values) in Central Hungary and in Central and Western Transdanubia; while it is particularly low (negative values) in Southern Transdanubia followed by Northern Transdanubia and, to a lesser extent, in Northern and Southern Lowland (Figure 4d).

8 Since the indices were constructed, as mentioned before, by PCA method, their average is 0, their standard deviation is 1, the higher negative values mean a lower level of subjective well-being and the higher positive values mean a higher level of subjective well-being.

The perception of well-being is not connected to age in a linear manner. Young people score higher on the subjective well-being scales, while well-being is strongly unfavourable among people in the age groups 50–59 and above 70. Interestingly, people aged between 60–69 years are better off; subjective well-being worsens but not consistently as one gets older (Figure 4e). Age variations seem to be related to labour market position; subjective well-being is high for students (youngsters) and also for professionals. Managers and self-employed achieve slightly lower positive values on the indices. The lowest values appear for unemployed and unskilled respondents. The well-being of skilled workers is around the average and that of retired respondents slightly lower (Figure 4f).

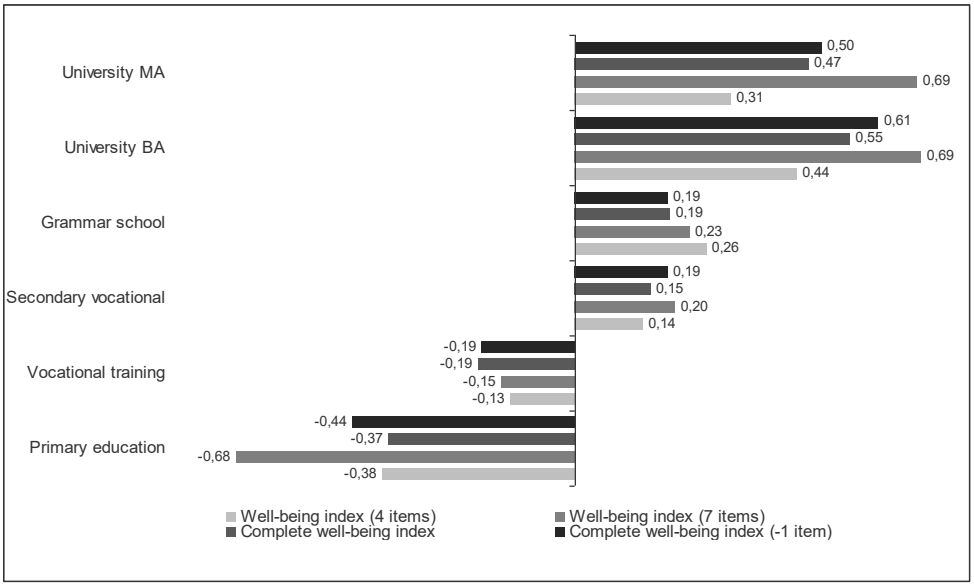

Figure 4a: Subjective well-being and socio-demographic measures (bivariate view), education
Source: Survey data 'Economic and social conflicts' (2014)

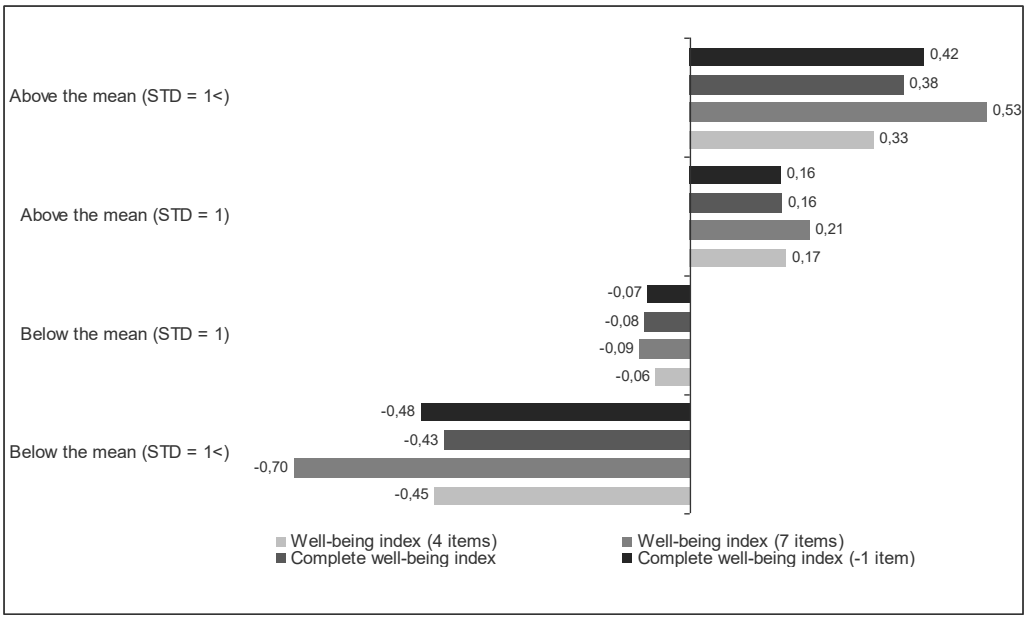

Figure 4b: Subjective well-being and socio-demographic measures (bivariate view), income
Source: Survey data 'Economic and social conflicts' (2014)

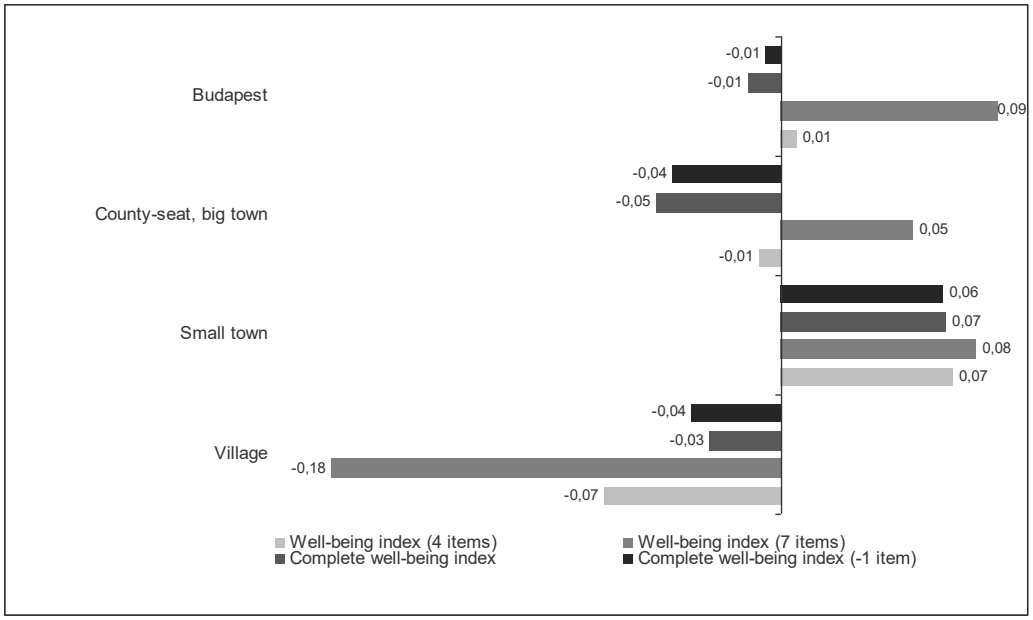

Figure 4c: Subjective well-being and socio-demographic measures (bivariate view), type of settlement
Source: Survey data 'Economic and social conflicts' (2014)

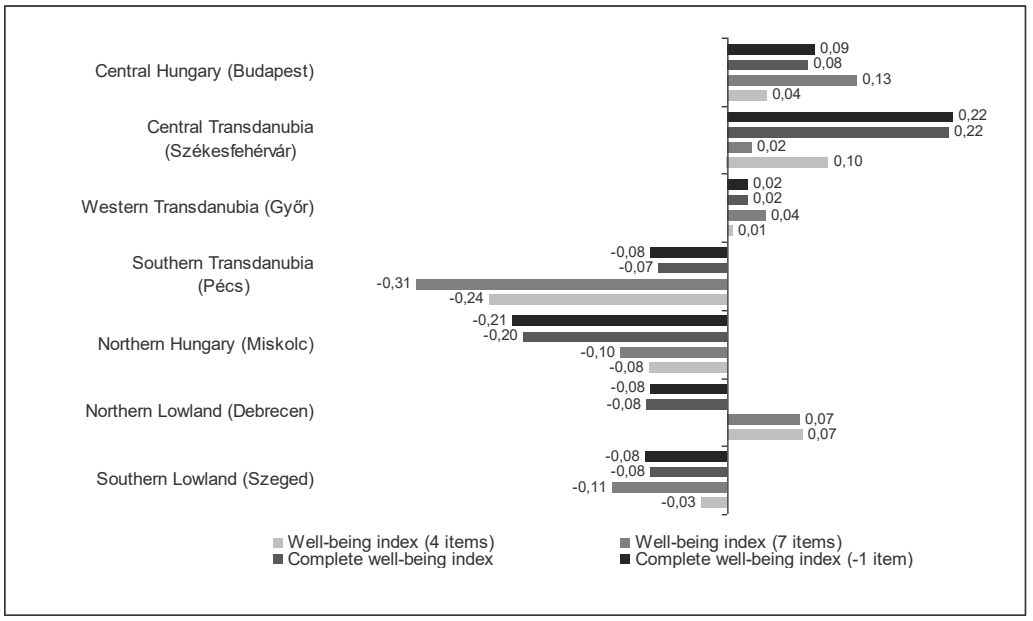

Figure 4d: Subjective well-being and socio-demographic measures (bivariate view), region
Source: Survey data 'Economic and social conflicts' (2014)

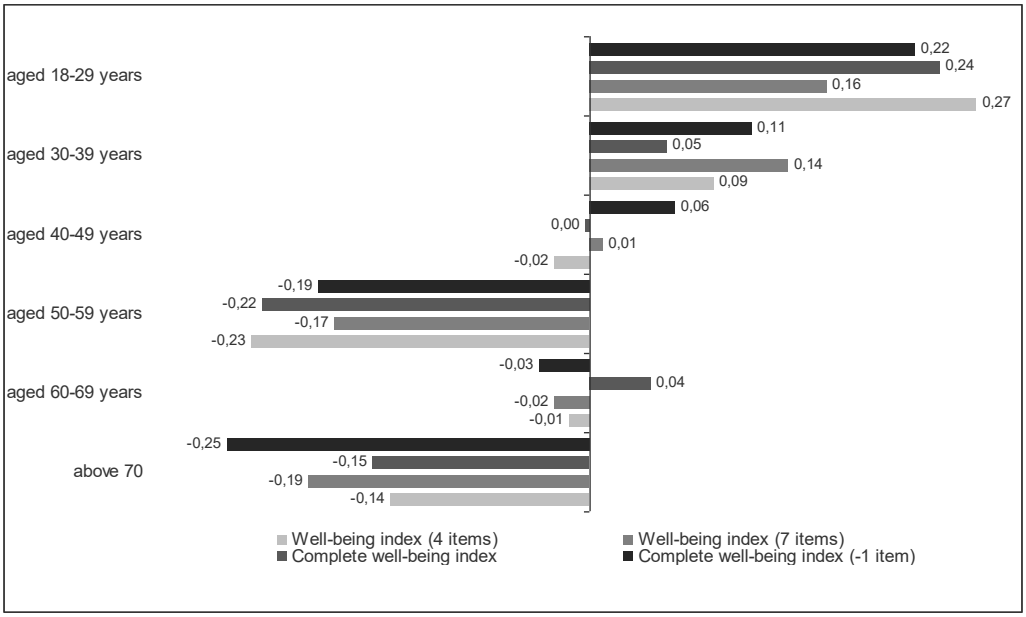

Figure 4e: Subjective well-being and socio-demographic measures (bivariate view), age (cohort)
Source: Survey data 'Economic and social conflicts' (2014)

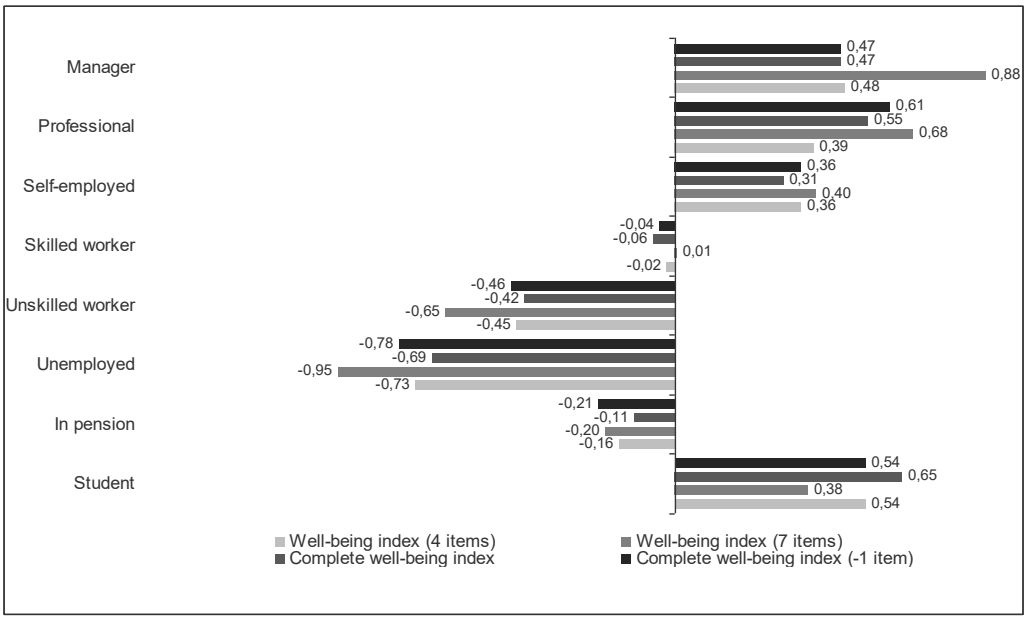

Figure 4f: Subjective well-being and socio-demographic measures (bivariate view), labour market position
Source: Survey data 'Economic and social conflicts' (2014)

The complex role of individual characteristics: A multivariate analysis

In this section, the relationship between subjective well-being and socio-demographic characteristics is examined by applying multivariate analysis. The dependent variables are the four indices of subjective well-being and the explanatory variables are the social and demographic measures – partly objective, partly subjective – characterizing the respondent and his/her household. The statistical model examines the effect of the explanatory variables on subjective well-being in *three steps*.
The first model contains the demographics: gender, age, family structure and regional location. Gender is coded as male=1, female=0. For age, both linear in years and quadratic terms are included. For family structure a series of dummies were computed. Size of the family is measured using two dichotomous variables: single person in household=1, other=0; 6 people or more=1, other=0; reference: household with 2–5 people. Number of children is also measured using two dichotomous variables: no children=1, other=0; 3 or more children=1, other=0; reference: 1–2 children. In the case of regions, the same 7 units are separated as in the descriptive analysis and the reference is Central-Hungary.

The second model adds socio-economic measures to the equation, such as education, labour market position, income and various elements of the financial situation. Education has 6 levels, coded as in the bivariate analysis. Three dummies describe typical labour market positions: unemployed=1, other=0; self-employed=1, other=0; being an upper- or middle-level manager=1, other=0. The aim of using these particular dummies is to keep multicollinearity with schooling or income low. Income means household income per capita. The other elements of material conditions include a) number of durable goods (0–13); b) number of various forms of savings (0–5); c) number of various forms of debts (0–3); and d) having problems paying utility costs (4-point scale: no problem with the payment – completely unable to pay utilities). Finally, the third model adds three more predictors: satisfaction with place of residence, evaluation of health condition, and religiosity. Satisfaction with residence is a factor based on two items describing satisfaction with the residential environment and with the settlement, both measured on a 0–10 point scale. Subjective health is measured using a scale derived from two questions: What is your general health condition? (5=very good, 1=very bad); Are you hindered in your daily activity by any kind of long-lasting illness, invalidity, bad health condition or mental problem? (1=very much, 2=to some extent, 3=no). Religiosity is a dichotomous variable so that if the respondent belongs to a religion or denomination = 1.

The OLS regression method is applied and the estimates are presented in Table 1 and Table 2. Table 1 contains results related to the first two indices of well-being, while Table 2 displays results for the second two indices of well-being.

According to the analysis, there is no significant difference between men and women in their perception of well-being in the case of the four measurements. Since the bivariate analysis uncovered a non-linear association between age and a deficit for subjective well-being in the cohorts 50–59 and above 70, the multivariate model includes a quadratic term for age. The negative estimate for the linear term and the positive one for the quadratic term confirm a U-shaped relationship: subjective well-being is on the decline with ageing but not evenly. This effect basically appears for any form of the well-being measures. Regarding family structure, assessments of well-being are influenced negatively by childlessness and if someone lives alone. Childlessness persists when socio-economic controls are added. Having 3 or more children also lowers subjective well-being although this effect becomes insignificant if controlled for the other variables in Model 2 and 3. This pattern also holds for all four types of indices.

The multivariate analysis further develops the study on regional differences. In Model 1, the estimates are basically in line with the bivariate results: subjective well-being is significantly lower in Southern Transdanubia (Table 1) and Northern Hungary (Table 2), compared to Central Hungary, the reference category. For the more complex measures of subjective well-being (Table 2), significantly negative effects appear even for the Northern and Southern Lowlands. However,

when adding further objective and subjective sociological variables in Model 2 and 3, the estimates for Northern Hungary and the Northern Lowlands become positive (Table 1) and the same occurs to the Northern and Southern Lowlands (Table 2). In contrast to the bivariate results, these regions seem to score higher for subjective well-being, due to the fact that the multivariate analysis takes the (regional) variation for education, labour market position and material conditions into account.

A higher level of education is assumed to affect subjective well-being positively. This effect is weaker in the case of the simplest measure of well-being but education is indeed a significant positive predictor when estimating the more complex indicators. Unemployment reduces subjective well-being significantly in the case of any measurement and the magnitude of the estimate is also high. The effect of self-employment is much smaller, even insignificant in one case. Managerial positions are not a significant predictor if controlled for income or material circumstances.

In regard to the financial situation, higher per capita household income, larger number of durable consumer goods in the household and more types of savings all increase assessments of well-being. As with education, the effect of income is weaker for the first index of well-being. However, well-being is reduced by greater debts and by greater difficulty in paying utilities. As a whole, the effect of financial measures at the individual level seems to be strong, particularly that the model controls for education and labour market situations.

Model 3 shows that subjective well-being is increased if someone is more satisfied with residence where he/she lives, or if someone believes that he/she is healthy and does not suffer from any illness hindering him/her in daily life. Finally, those who classify themselves as religious with a certain denomination also score higher on the well-being indices.

Table 1: Social and demographic effects on subjective well-being I

Explanatory variables*	Subjective well-being index (4 items)*			Subjective well-being index (7 items)*		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender (Male=1)	-0.018	-0.032	-0.042	0.022	0.031	0.026
Age	-0.006***	-0.008***	-0.002	-0.005**	-0.006***	-0.001
Age squared	0.081***	0.083***	0.070***	0.026	0.051**	0.041*
No children (=1)	-0.094	-0.154**	-0.108*	-0.049	-0.137**	-0.104*
More (3+) children	-0.329*	-0.040	-0.048	-0.309*	-0.008	-0.015
One person household	-0.236**	-0.093	-0.122+	-0.292***	-0.115+	-0.140*
Large (6+) household	-0.071	0.119	0.087	-0.270+	0.001	-0.043
Region: Central Transdanubia	0.036	0.152*	0.127+	-0.116	0.080	0.060
Region: Western Transdanubia	-0.085	0.015	-0.007	-0.170+	0.031	-0.002
Region: Southern Transdanubia	-0.333***	-0.030	-0.036	-0.511***	-0.059	-0.059
Region: Northern Hungary	-0.125	0.165*	0.176*	-0.236**	0.140*	0.147**
Region: Northern Lowland	0.024	0.403***	0.356***	-0.074	0.410***	0.366***
Region: Southern Lowland	-0.132+	0.143*	0.113+	-0.290***	0.094	0.077
Education		0.031+	0.021		0.114***	0.107***
Unemployed (=1)		-0.372***	-0.374***		-0.494***	-0.491***
Self-employed, entrepreneur (=1)		0.165*	0.167*		0.132+	0.131+
In managerial position (=1)		0.139	0.158		0.294*	0.319**
Income per capita		0.001*	0.001+		0.002***	0.002***
No. of durables in household		0.045***	0.037***		0.061***	0.054***
Number of savings		0.052**	0.044*		0.044*	0.036*
Number of debts		-0.105***	-0.096**		-0.109***	-0.099***
Problem with paying utilities		-0.423***	-0.365***		-0.392***	-0.345***
Satisfaction with residence			0.167***			0.136***
Subjective health			0.133***			0.110***
Religiosity			0.086*			0.115**
Constant	0.414***	0.645***	-0.357*	0.469***	0.152	-0.692***
Adj. R-square	0.035	0.300	0.353	0.047	0.434	0.472

Notes:
* See text for explanation
Significance: *** p<0.001; ** p<0.01; * p<0.05; + p<0.1
Reference: 1-2 children; family with 2-5 persons; Central Hungary; not unemployed, not self-employed, not in managerial position, no religion
Source: Survey data 'Economic and social conflicts' (2014)

Table 2: Social and demographic effects on subjective well-being II

Explanatory variables*	Complete well-being index*			Complete well-being index (-1 item)*		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Gender (Male=1)	0.033	0.028	0.026	0.042	0.038	0.034
Age	-0.005***	-0.005***	-0.002	-0.007***	-0.007***	-0.003+
Age squared	0.071***	0.087***	0.071***	0.029	0.049*	0.034+
No children (=1)	-0.083	-0.141**	-0.103*	-0.083	-0.144**	-0.105*
More (3+) children	-0.294*	0.003	0.006	-0.341*	-0.050	-0.049
One person household	-0.242***	-0.091	-0.119+	-0.244***	-0.091	-0.119+
Large (6+) household	-0.204	0.002	-0.026	-0.227	-0.011	-0.040
Region: Central Transdanubia	0.148+	0.283***	0.258***	0.138+	0.283***	0.258***
Region: Western Transdanubia	-0.097	0.022	-0.006	-0.105	0.027	0.001
Region: Southern Transdanubia	-0.179*	0.155*	0.159*	-0.192*	0.158*	0.161*
Region: Northern Hungary	-0.257***	0.059	0.071	-0.268***	0.077	0.087
Region: Northern Lowland	-0.155*	0.232***	0.191***	-0.153*	0.247***	0.205***
Region: Southern Lowland	-0.162*	0.133+	0.109	-0.170*	0.144*	0.118+
Education		0.054***	0.048***		0.064***	0.057***
Unemployed (=1)		-0.267***	-0.264***		-0.396***	-0.393***
Self-employed, entrepreneur (=1)		0.111	0.113		0.135*	0.137+
In managerial position (=1)		0.042	0.057		0.030	0.045
Income per capita		0.002***	0.001*		0.002***	0.002**
No. of durables in household		0.055***	0.047***		0.057***	0.049***
Number of savings		0.065***	0.060***		0.066***	0.060***
Number of debts		-0.076*	-0.067*		-0.068*	-0.059+
Problem with paying utilities		-0.369***	-0.318***		-0.352***	-0.301***
Satisfaction with residence			0.176***			0.172***
Subjective health			0.096***			0.104***
Religiosity			0.100*			0.098*
Constant	0.372***	0.253+	-0.483*	0.495***	0.287*	-0.503**
Adj. R-square	0.035	0.286	0.328	0.044	0.315	0.358

Notes:
* See text for explanation
Significance: *** p<0.001; ** p<0.01; * p<0.05; + p<0.1
Reference: 1-2 children; family with 2-5 persons; Central Hungary; not unemployed, not self-employed, not in managerial position, no religion
Source: Survey data 'Economic and social conflicts' (2014)

Discussion and conclusion

This study examined subjective well-being in Hungary in a descriptive and explorative way. Empirically, several indices of subjective well-being have been developed – basically in line with the concept derived from the literature that well-being involves partly cognitive evaluative and partly affective emotional content. The aim of building (four) different indices of well-being was not to develop a 'best measure' but to make the analysis more valid and reliable. The analysis based on four indices can be regarded as a *robustness check*. The use of the European Social Survey as an additional data source alongside Hungarian survey data also served this goal: widening the context of interpretation and underlying the particular relevance of the study for Hungary. The particular comparison between Hungary and Poland was motivated by realising the contradiction: there are similarities in the authoritarian political governing techniques in both countries, while the state of subjective well-being markedly differs.

From the international comparative perspective, subjective well-being, more precisely satisfaction with life and happiness, turned out to be low in Hungary. Out of 22 countries, Hungary is one of the societies at the bottom of the ranking order according to the 2014–2016 ESS data. This result is in line with those from other sources: European Value Studies (Vecernik & Mysikova, 2014) or World Happiness Report. Hungary does not perform better in a temporal perspective either. In the last decade, a fluctuating trend at low levels was typical with a peak in 2010 and a moderate rise between 2012 and 2016. In 2010, the better results were the outcome of a special politically optimistic atmosphere in the country after a regime change when the conservative party collation (Fidesz-KDNP) won the elections after two 4-year periods under a socialist government. Although this government stayed in power through subsequent elections in 2014 and 2018 and developed a success narrative for Hungary in economic and social terms, the assessment of well-being remained low in the country.

The relationship between subjective well-being and the demographic and socio-economic characteristics of individuals has been investigated in a bivariate and multivariate manner and the independent variables uncover typical cleavages in Hungarian society. These results also confirm previous findings but some effects seem to be more marked in Hungary.

For age differences, the core finding is that subjective well-being is not related linearly to age. It is probably not surprising that subjective well-being scores the lowest for the oldest people above 70; possible reasons can be worsening financial situation, deteriorating health condition and less active social relationships. The fact that the situation is as bad for people aged 50–59 as for those above 70 in Hungary needs further explanatory analysis. Respondents of this age have probably achieved the peak in their professional career and income level but this may not lead to a higher degree of satisfaction and happiness in Hungary. In fact, these people are the so called 'sandwich generation' who are supporting both children who are *still* dependent on their help but also their old parents being *already* dependent on their assistance. This situation lays a double burden on this cohort and deteriorates their well-being causing a deficit in subjective well-being for the middle-aged. Compared to them, the assessment of well-being is more favourable for people aged 60–69. Characterizing this cohort, they may be fresh pensioners enjoying more benefits than losses (e.g. removal of job-related stress, being crucial according to the OECD Better Life Index for Hungary). Further advantages for this cohort include the fact that their financial circumstances, health conditions and social integration have not started to deteriorate yet. Indeed, when variation on the basis of labour market position is examined, pensioners are not in the worst situation regarding subjective well-being. However, unemployed score the lowest on the well-being indices showing that losing a job at an active age with its financial and social consequences has a serious impact.

The analysis confirmed additional evidence on the relationship between the social status and subjective well-being. A higher level of education (college or university degree), and consequently, higher occupational status (being a professional or a manager) presumes a higher degree of subjective well-being as opposed to those with a low level of education and the resulting unqualified, unskilled job. More importantly, the analysis has clearly proven that better income

situations and more favourable financial circumstances improves, whereas financial difficulties (problems with debts or with paying utilities) deteriorates the level of subjective well-being, even after controlling for education and labour market position in the multivariate model. Therefore, the Hungarian case matches the studies that confirm that higher levels of material circumstances matters for subjective well-being and increases it. Both the relative measure of income in the bivariate analysis and the absolute measure of income in the multivariate analysis show a strong and significant impact on the extent of subjective well-being. This issue should also be further examined, but a relevant assumption is that the association may be stronger in societies like Hungary (or other post-socialist countries) where material values play a more substantial role in attitude formation like evaluating well-being.

Further important results of the analysis relate to the impact of residential and regional factors in the assessment of well-being. First, the degree in subjective well-being is less consistent with the hierarchy of the type of settlement at the top but more coherent with the hierarchy of the type of settlement at the bottom. It seems, that subjective well-being is not necessarily high among those people living in larger settlements (e.g. in Budapest), while residence in small settlements, like villages, makes a lower level of subjective well-being more likely. Most probably, this is due to compositional effects in terms of education, occupation and material living circumstances among the population. These elements of status are consistently low in villages, while there is a significant variation in these individual features in larger settlements. Second, compositional effects also operate in determining the regional differences for subjective well-being, as shown by the multivariate analysis. The evaluation of well-being is, in absolute terms, above average among those people who live in more prosperous areas of the country: Central Hungary, Central Transdanubia or Western Transdanubia. However, when the statistical models control for those facts, as the education of the population in these regions is higher, the unemployment is lower, incomes are higher, more people can save money and less people get into debt or struggle with paying utilities, it turns out that, in relative terms, subjective well-being scores higher in the Northern and Southern Lowlands or in Southern Transdanubia due to the compositional characteristics.

The last step in the multivariate analysis confirms that the level of subjective well-being is higher for those people who feel themselves to be healthier. The data also shows a higher well-being among those who define themselves as religious, confirming previous results in the literature cited. The main reason for adding these further predictors to the analysis was to check whether the estimates in the previous steps in the model are affected substantially. This has not been the case.

The general idea of the paper was to present a systematic overview on the assessment of well-being in Hungary. In this goal, the relationship between four different indices of well-being and selected individual factors was investigated. In conclusion, the analysis detected two main results: (1) the evaluation of well-being is low in Hungary; (2) Hungarian society is highly divided on the basis of demographic and socio-economic factors influencing the level of subjective well-being. Low assessments of well-being combined with the strong impact of social circumstances raises important questions for public policy. These days, it seems the current Hungarian government offers a propagandist account of Hungary's economic and social development and the role of the country in the current European economic and political developments. Consequently, there is a contradiction between individuals' perception of their well-being and the 'official' claims by the governing political forces about the country's economic and social progress. Nevertheless, despite this contradiction the current political regime is successful in obtaining convincing support from the electorates from time to time. Apparently, this analysis will not 'explain' why authoritarianism and illiberalism are so successful in Hungary, but the low level of subjective well-being and the high inequality in the distribution of objective well-being in the society should be taken into account when trying to understand this political outcome in future research.

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Péter Róbert is Professor of Sociology at Széchenyi University, Győr, and senior researcher at TÁRKI Social Research Institute. Currently, he is a Senior Core Fellow at the Institute for Advanced Study at the Central European University. His research interests include social stratification, educational inequalities, school-to-work transition, perception of social inequalities and subjective well-being. He has published in edited volumes by OUP, Princeton University Press, Edward Elgar, Routledge, Springer, Stanford University Press as well as in journals like RSSM, ESR, European Societies, ERE and IJM.

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