



Caucasus Research and Resource Center

**ANALYSIS AND COMPARISON OF SUBJECTIVE WELL-BEING
AND ITS DETERMINANTS IN SOUTH CAUCASUS**

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1. Introduction.

Interest in the study of subjective well-being in countries which have experienced transition from a centrally-planned to a market economy has grown during last 10 years. A number of recent studies have evaluated subjective well-being in the transitional countries (Ferrer-i-Carbonell and Van Praag 2001; Lokshin and Ravallion 2005; Ravallion and Lokshin 2001; Verbič and Stanovnik 2006). Some of the studies have made a comparison of subjective well-being in a number of the transitional countries (Abbott and Sapsford 2006; Hayo and Seifert 2003). To date studies on subjective well-being have focused almost exclusively on data from high or middle income countries in transition located in Eastern Europe and western part of the former Soviet Union, due in large part to the lack of adequate data in low-income transitional countries.

However, the low-income countries of the former Soviet Union located on the Caucasus and in Central Asia have required a particular attention as they have faced especially unfavorable conditions since the beginning of the transition (Sheills and Sattar 2004). The process of transition in these countries was accompanied by ethnic conflicts, civil unrests, refugee crises, and the collapse of economic cooperation between the former republics of the Union. After transition began, the countries of the region experienced the longer period of economic depression and the depth of economic depression was much more profound than in high and middle income transitional countries. As a result, nearly 20 million people, or up to half of the entire populations of these countries, are currently living in the extreme poverty, consuming less than USD \$1 per day (World Bank 2002). Under these circumstances, one cannot assume that the subjective well-being is the same in low-income transitional countries.

Against this background, the purpose of this study is to fill the existing gap in the literature by examining subjective well-being in three low-income transitional countries on the Caucasus: Armenia, Azerbaijan and Georgia. Using micro-data from these countries, this study seeks answer

the following questions: How citizens of these countries assess their own well-being? What are the specific factors which influence subjective well-being in these countries? Are these factors overlap in all countries under investigation and the same as in other transitional countries? By answering these questions, this study contributes to ongoing discussion about models of subjective well-being in transitional countries, especially in low-income ones.

In addition to theoretical contribution, this paper seeks to inform the current poverty reduction efforts in Armenia, Azerbaijan and Georgia. Presently, these countries are implementing a broad range of poverty reduction measures in the framework of Poverty Reduction Strategy Papers (PRSP) (GoAr 2003; GoAz 2004; GoG 2003). Public participation through town-halls, open forums and mass-media is a build-up component of developing and updating PRSPs. Nevertheless, the recent study has reported “disappointment that in the processes the direct consultation of with the key stakeholders (namely the poor) on a significant scale did not take place” and concern with the “lack of motivation on the part of the people to engage in the PRSP review process” (Mukherjee 2007, p.6-7). In light of this, survey data about subjective well-being can be used to cross-validate objective poverty analysis and provides valuable information to calibrate more effective poverty reduction policies (Lokshin et al. 2006).

Finally, subjective well-being is important from political economy perspective. The countries of the region are currently undergoing dramatic reforms in political, economic and social sectors. The extent of support for democracy and market reforms may be influenced by subjective assessment of well-being (Fidrmuc 2000). Since public support is crucial for the success of ongoing reforms, the factors affecting subjective well-being worth detailed investigation.

The paper is organized as follows. Section 2 describes the data set used in the study. Section 3 presents the comparison of subjective well-being across the countries under investigation. Section

4 present covariates of subjective well-being, describes statistical approaches used and present and discuss the results of the findings. The last section concludes.

2. Data

The information base of this study is a cross-country comparable household survey conducted in 2006 by Caucasus Research Resource Centre in the framework of Data Initiative (DI) which was developed and implemented under the supervision of international experts (CRRC 2007). Survey used multistage stratified clustered sampling with probability proportional to size. Using sampling weights contained in the data allow make the result of estimations nationally representative. To ensure comparability of collected data across countries, the survey uses unified procedures for sampling and questionnaire design, interviewers training and field procedures, and data coding and archiving. The number of respondent in the survey is 2065 in Armenia, 2400 in Azerbaijan and 2400 in Georgia. The data collected through face-to-face interview with 80 percent response rate in average. The survey covers several important areas on household and individual levels such as demographics and employment, education and health, and political attitudes and economic behavior.

Most importantly for our study, the questionnaire asked the following question about subjective well-being: “How would you describe the current economic condition of your household?” The respondents may choose among several answers: “very poor”, “poor”, “fair”, “good”, and “very good”. The posted question and answers have two important ramifications (Ravallion and Lokshin 2001). On the one hand, by using words “economic conditions” rather than “income” or “costs of living”, the question does not presume that income is the relevant variables for defining well-being. The concept of economic condition is fairly open and definition of it leaved up to respondent. On the other hand, by using word “poor”, the question focuses on narrower concept of well-being than

often used for measuring well-being such as “satisfaction with life” or “happiness”. Asking about poverty makes this question very relevant to the current studies on poverty in the region.

All together, the cross-country comparability, representativeness and richness of the data and relevancy of the asked question make DI the best available source to study subjective well-being in the region. Nevertheless, the major disadvantage of DI is the omission of several important explanatory variables which can be associated with subjective well-being. For instance, amount of income received from different sources (labor income, social transfers, etc), information about self-rated health status and social capital are among unfortunate omissions.

3. Well-being in the region and across countries

Table 1. Subjective well-being in the countries of Caucasus (%)

Degree of well-being	Coding	Region as whole	Armenia	Azerbaijan	Georgia
Very poor	1	14.62	13.61	14.15	15.92
Poor	2	32.17	25.81	35.66	34.54
Fair	3	48.37	53.03	45.25	47.14
Good	4	4.35	6.54	4.56	2.27
Very good	5	0.49	1.02	0.37	0.13
Total		100	100	100	100

Notes: Data are rounded up.

Analysis of well-being in the region as whole and in separate countries is shown in Table 1. In the region as a whole the majority of the people, approximately 48 percent, self-rate own well-being as fair. However, the significant number of people, approximately 32 percent, considers themselves poor. Furthermore, the considerable number of people, about 15 percent, considers themselves very poor. On the contrary, much smaller proportion of respondents, only 4 percent,

perceive own well-being good and less than 1 percent very good. The same tendency in the proportions in distribution of well-being ranking can be observed in each country under investigation. In all countries the majority consider own well-being fair, followed by significant number of poor and very poor. The very small number of respondents evaluate own well-being as good or very good.

Cross country comparison reveal that Georgia leads with the number of very poor, followed by Azerbaijan and Armenia. By contrast, poor status is more common in Azerbaijan and Georgia – 36 and 35 percent respectively, than in Armenia – 25 percent. Likewise, Armenia has more respondents that rated own well-being as fair than Georgia and Azerbaijan – 53 percent vs. 47 and 45. As well, Armenia has more people with good and very good subjective well-being followed by Azerbaijan and Georgia. Overall, it seems that subjective well-being in Armenia is more positive with more respondents identifying themselves as the fair, good and very good and less people identifying themselves as poor and very poor than in other countries of the region.

4. Explaining subjective well-being

Covariates of well-being

We continue with analysis of covariates of subjective well-being. Ravallion and Lokshin (2002) suggest a practical framework for selecting variables associated to subjective well-being. According to this framework, the explanatory variables used as the covariates fall into three broader categories: (1) objective indicator of well-being, (2) supplementary objective indicators of well-being and (3) attitudinal variables. We shall use this framework in our paper.

(1) An important component of the literature on subjective well-being focused on the effect of monetary metrics of well-being (Verbič and Stanovnik 2006). To adjust income for the number of

people in household we divide total income to number of members in household to receive per capita total income. Per capita measurement of well-being is used to computation of poverty in all three countries under investigation (GoAr 2003; GoAz 2004; GoG 2003). To make incomes comparable across countries we normalize them by adjusting to purchasing power parity (PPP) (Alam et al. 2006). Adjusting income in different countries using PPP exchange rates helps to avoid the bias caused by different purchasing power of currencies in three countries.

(2) Supplementary objective indicators of well-being include wide range of household and personal characteristics. The recent study on the subjective well-being found that household head variables actually reflects overall well-being of household (Bookwalter et al. 2006). Thus, in our study household size and proportion of children in household education reflects different needs of household, while importance of various sources of income for household reflects responds to those needs¹. In addition, household head age and education serves as proxies for place of household in life-course and human capital of household.

Several personal characteristics that found to be associated to subjective well-being in transitional countries are also included (Abbot and Sapsford 2006; Lokshin and Ravallion 2005). These variables include gender and age, and marital, employment and occupational status as well as geographical characteristics and place of residence. As in the 1990s the region was a scene for ethnic conflicts caused the mass movement of people who fled violence, we also control for ethnicity in each country (Armenians in Armenia, Azeri in Azerbaijan and Georgians in Georgia). Using titular ethnicity also allows us to control for possible systematic discriminations of minorities in each country. Likewise, we control for migration status where variable migrated mean that the person was not born in the current place of residence and moved there later. The reasons for moving may include war and ethnic conflicts, job searching, receiving education and change in marital status. Household assets and durables constitute another set of supplementary

objective characteristics. Using these characteristics permit us to control for past income that may influence current perception of well-being (Ravallion and Lokshin 2002)

(3) Attitudinal variables are the last category of variables we use as covariates of well-being. To directly examine perception on the current situation in each country, we include the questions about whether “country moving in wrong or mainly in wrong direction” (Hayo and Seifert 2006). Likewise, to account for possible social exclusion of the low-income population from policy process we include variable “never or rarely have policy discussions”. Finally, we include two questions which reflect perceived changes in subjective well-being for the last 3 years and expectations about future changes in well-being for the next year.

Statistical analysis

The obvious concern with the selected variables is their endogeneity that led to severe collinearity in multivariate analysis of covariates of subjective well-being (Hayo and Seifert 2006; Lokshin and Ravallion 2005; Ravallion and Lokshin 2001, 2002). Therefore, we begin with bivariate analysis of covariates.

Since our dependent variable is ordinal and ordered, the Kendall’s τ correlation coefficient is used to measure the degree of correspondence between two covariates and assessing the significance of this correspondence (Newson 2001). Kendall’s τ measures the strength of the tendency of independent and dependent variables to move in the same direction. The value of τ lays on the scale from -1 to +1, where -1 indicates a perfect negative correlation, 0 indicates no relationship at all, while +1 indicates a perfect positive relationship. In addition, since Kendall’s τ has a known sampling distribution, we compute and report its significance.

To conduct multivariate analysis we use ordered probit regression. As mentioned above, collinearity is the common problem in analysis of subjective well-being and our study is no

exception. In fact, we encountered the severe form of collinearity when the sign of regression coefficients changed to the opposite. To deal with collinearity, we employ the following strategy. We estimate regression one-by-one for all independent variables separately in all three countries and record the sign of coefficient. Following this, we keep in multivariate regression model only those variables whose sign remains the same as in one-by-one regression estimations.

Findings

Table 2. Bivariate analysis

Variables	Armenia	Azerbaijan	Georgia
Household total income (USD PPP)	0.1563*	0.1779*	0.1278*
<i>Household characteristics</i>			
Household size	0.0873*	0.0283	0.1585*
University education of household head	0.1620*	0.1696*	0.1146*
Household head age	-0.1269*	0.0027	-0.1300*
Proportion of children in household	-0.0474*	-0.0741*	-0.0579*
Salary is the main source of household income for last year	0.2399*	0.1956*	0.2505*
Social benefits are the main source of household income for last year	-0.2632*	-0.1778*	-0.3091*
Other sources are the main source of household income for last year (alimony, financial help of relatives or fiends, and income from lease or renting households good or property).	-0.039	-0.0295	0.0422
<i>Personal characteristics</i>			
Titular ethnicity in each country (Armenians in Armenia, Azeri in Azerbaijan, Georgians in Georgia)	0.0166	-0.0062	0.0156
Female	-0.0507*	-0.0472	-0.0004
Age	-0.1174*	-0.0332*	-0.1394*
Never married	0.1032*	0.0271	0.0379
Married	0.0399	0.0707	0.0354
Divorced/separated/widow/widower	-0.1522*	-0.1102*	-0.1712*
Migrated	-0.0732*	-0.0381	-0.0571*
<i>Occupational characteristics</i>			
Unemployed	-0.0515*	-0.1023*	-0.0306
Trade/service	0.0461	0.0368	0.0121

Transportation/communication	0.0410	0.035	0.0253
Industry	-0.0065	-0.0355	0.0099
Construction	-0.0408	-0.0979	0.0232
Science/education/high-tech	0.1107*	0.1084*	0.0214
Culture/sport	0.0188	-0.0131	-0.0224
Healthcare	-0.0045	0.0142	-0.0054
Banking/finance	0.0840	0.0726	0.0791
Agriculture	-0.1994*	-0.1098*	-0.0974*
Media	0.0466	.	-0.0355
Public administration	0.0705	0.0204	0.0017
Non-profit	0.0714	0.0424	0.0158
<i>Geographical characteristics</i>			
Urban (excluding capital cities)	0.0030	0.0606*	0.0580*
Rural	0.0008	-0.0601*	-0.0692*
Capital cities	-0.0037	0.0068	0.0213
Regions of residence ¹	not significant	not significant	not significant
<i>Assets and durables</i>			
Own flat or house	0.0818*	0.0596	0.0868*
Own car	0.2476*	0.2064*	0.2789*
Own mobile phone	0.2875*	0.2563*	0.3387*
Own satellite dish	0.1266*	0.1635*	0.1306*
Own land plot	0.0411	0.05	0.0298
Own livestock	0.0526	0.0606	0.0418
<i>Attitudinal characteristics</i>			
Country moving in wrong or mainly in wrong direction	-0.1261*	-0.1395*	-0.0882*
Never or rarely have policy discussions	-0.0427	-0.0828*	-0.0236
Very interested in politics	-0.0023	0.0393	-0.0383
Somewhat interested in politics	0.0745*	0.0728*	0.0869*
Not very interested in politics	-0.0056	0.0261	-0.0062
Not at all interested in politics	-0.0056	0.0261	-0.0062
For the last 3 years economic conditions of household became:			
Significantly better	0.2037*	0.1742*	0.1062*
A little better	0.1965*	0.2457*	0.2638*
Remain the same	0.0255	0.0974*	0.1032*
A little worse	-0.1303*	-0.2353*	-0.1263*
Significantly worse	-0.3081*	-0.2570*	-0.3022*
For the last 3 years economic conditions of household become:			
Significantly better	0.1587*	0.1287*	0.1317*

A little better	0.1730*	0.2103*	0.2162*
Remain the same	-0.0128	-0.0580	-0.0187
A little worse	-0.1069*	-0.1466*	-0.1413*
Significantly worse	-0.1069*	-0.1466*	-0.1413*

Notes: Significance: * $p < 0.05$.

¹ To conserve the space, no figure is presented for regions of residence since correlations are not significant for all regions in Armenia, Azerbaijan and Georgia.

The result of bivariate analysis is reported in Table 2. Most results are the same for all countries under investigation with high significance level. The increase in household total income and university education of household head is associated to improvement in subjective well-being. Similarly, having salary as the main source of income in household and ownership of car, mobile phone or satellite dish correlates to the increase in well-being. Likewise, some interest in politics as well as having expectation that economic conditions became better for last three year or will be better for the next year correlates with the increase in subjective well-being. On the contrary, having high proportion of children in household and having social benefits and other sources of income as the main source of income is correlates of diminishing well-being. Being divorced, separated, widow/er or unemployed and working in agriculture are also correlates of demising well-being. Likewise, increase in respondent age correlates with reduction in well-being. In addition, considering that country is moving in wrong direction as well as having expectation that economic conditions became worse for last three year or will be worse for the next year are correlated with decrease in subjective well-being.

By contrast, some variables are important only for one or two countries. The increase of household age and household size is significant factor in Armenia and Georgia, being female and never married in Armenia, being migrant in Armenia and Georgia, while working for science and education in Armenia and Azerbaijan. Likewise, living in urban and rural places is a significant

correlate in Azerbaijan and Georgia, owing flat in Armenia and Georgia, while having no and rare policy discussion in Azerbaijan.

Table 3. Multivariate analysis

Variable	Armenia	Azerbaijan	Georgia
Household total income (USD PPP)	.0014851*** (.0002)	.0029717*** (.0003)	.0010965*** (.0001)
Household size	.0404961** (.0134)	.0709112*** (.0130)	.0862227*** (.0124)
University education of household head	.3091309*** (.6327)	.2992481*** (.0659)	.1513256* (.0590)
Salary is the main source of household income for last year	.2249293*** (.0585)	.2041168*** (.0618)	.2247058*** (.0572)
Social benefits are the main source of household income for last year	-.4952328*** (.0765)	-.1706581** (.0628)	-.5943119*** (.0628)
Unemployed	-.1617588* (.0702)	-.2219061** (.0748)	-.1475051* (.0577)
Migrated	-.1766823*** (.5279)	-.1742633** (.0554)	-.1973941*** (.0508)
Country moving in wrong or mainly in wrong direction	-.2247655*** (.0499)	-.7617368*** (.1040)	-.222466*** (.0474)
Never or rarely have policy discussions	-0.0830672 (.0558)	-.1733628* (.0775)	-0.0069 (.0501)
Number of observation	2065	2148	2380
LR chi2(9)	338.25	347.60	423.66
Prob > chi2	.0000	.0000	.0000

Notes: Significance: *** $p < 0.001$, ** $p < 0.01$, and * $p < 0.05$.
Standard errors are in parenthesis.

After accounting for collinearity, our multivariate model of determinants of subjective well-being contains nine independent variables all but one of which have the same direction for three countries and highly significant. In all countries increase in household total income and household size predict the significant increase in well-being. Likewise, having university educated household

head and salary as the main source of income strongly predicts higher level of well-being. In comparison, having social benefits as the main source of income or being unemployed lead to significant decrease in well-being. Similarly, being a migrant from other places is associated to considerable reduction in well-being.

In all countries, people with low level of subjective well-being believe that country moving in wrong or mainly wrong direction. However, only in Azerbaijan, low level of well-being is significantly associated to the reduction in discussing policy. This is the only independent variable in our model whose effect is not significant for all three countries.

Discussion

Our findings about the determinants of subjective well-being in low-income transitional countries need to be discussed against broader background of the literature on subjective well-being, especially available literature on the other transitional countries. From this perspective, the serious impact of objective monetary indicators to subjective well-being is well-documented. The positive effect of monetary indicators is reported in many transitional countries, see for example, Abbot and Sapsford (2006) for middle-income Russia and Ukraine and Hayo and Seifert (2003) for high-income transitional countries of Eastern Europe. This effect also found to be robust overtime in spite of dramatic socio-economic changes occurred in transitional countries, see for instance, Ravallion and Lokshin (2001) for Russia and Verbič and Stanovnik (2006) for Slovenia.

Positive effect of household size is similar to that found in Russia by Ravallion and Lokshin (2001) but opposite to that found in Slovenia by Verbič and Stanovnik (2006). There are two major contributors to the growing positive effect of household size. First, Young and O'Keefe (1997) stress the importance of transfers among members of households for their survival strategies. These transfers may be in the form of: giving money, lending money free of interest, or not asking charge services from members of the extended family. Second, low-income transitional countries have

experienced dramatic reduction in public expenditures for health, education and social services (Bonilla-Chanin et al. 2005). Under these circumstances, an additional household member can play an important role substituting services formerly provided by state, for instance, by caring for children, elderly, sick and disabled.

Negative effect of being divorced, separated or losing a spouse to subjective well-being has also been observed in other transitional countries and can be explained by the fact that unattached respondents may feel more economically insecure (Ravallion and Lokshin 2002) and/or by the non-economic, positive psychosocial effect of marriage (Hayo and Seifert 2003).

Similar to Russia (Lokshin and Ravallion 2001), we find negative impact of age to self-rated well-being. This effect can be explained by differences in survival strategies of younger and older households. In exploring the different survival strategies vis-a-vis transitional shocks of households, Young and O'Keefe (1997) classified the full spectrum of household responses into three categories: (1) reductive and depletive strategies such as reducing consumption or using up household resources and selling assets; (2) maintaining strategies such as transfers among extended families and humanitarian assistance; (3) regenerative strategies such as increasing the production from one's own land plot and involvement in the informal sector. The authors concluded that regenerative strategies were the only sustainable approaches in the long term. They describe various regenerative strategies such as small trade, private tutoring, and using one's own car as a taxi. At the same time, Lokshin and Yemtsov (2004a) explored which socio-economic characteristics affected the selection of household survival strategies. They report that younger households are significantly more likely to implement regenerative strategies than older households.

Strong positive effect of education is also common for many transitional countries (Hayo and Seifert 2003). Prior to transition, centrally planned economic systems in the former socialist

countries imposed a strict wage grid that reduced the return from education for the purpose of a more egalitarian distribution of income (Ferreira 1999). Since the transition began, the wage grid was abolished, and enterprises could begin to assign wages without constraints that led to significant increase in return of education.

Having salary as a major source of household income exerts strong positive influence to increase subjective well-being as compared with strong negative effect exerted by having social transfers as a major source of income and being unemployed. Indeed, the system of social transfers in low-income transitional countries is ineffective (Habibov and Fan 2007a, 2007b). The amount of benefits is too small to significantly change welfare of recipients and they are paid with arrears. Furthermore, the targeting mechanism is inefficient: coverage of the neediest and the amount of benefits reaching them is inadequate, while considerable proportion of non-poor is still covered by social transfers and receive significant share of benefits.

The negative effect of unemployment to subjective well-being is also well-documented in transitional countries (Verbič and Stanovnik 2006). In addition to obvious lost of income, unemployment is associated with losing in-kind benefits provided by employer such as child-care and housing and losing the status of employed person which may explain why so many workers continued to work in spite of wage arrears (Pavlovskaya 2004). As well, the negative effect of unemployment can be explained by the strong feelings of unhappiness among unemployed (Winkelmann and Winkelmann 1998).

Geographical differences are important as living in rural areas and workings in agriculture have negative effect on subjective well-being and can be linked with the lack of public infrastructure. For instance, in Azerbaijan, 100 percent of household are connected to electricity grid and price is more affordable than in other transitional countries (World Bank 2005). Nonetheless, the supply of electricity in winter varies between regions from 8 to 18 hours per day, with only the capital region

receiving more or less stable supply. The reason is the lack of investment in infrastructure outside of capital. The effects of improving infrastructure on well-being have been highlighted by research studies in transitional countries. For example, in Georgia, improvement in school and health care infrastructure, and road and bridges rehabilitation projects have found to have significant positive impact of subjective well-being in communities and increased feeling of empowerment (Lokshin and Yemtsov 2004b).

Another important factor affecting well-being is migration. Migration from other regions is associated with the low subjective well-being. Against this backdrop it is interesting to notice that we find no effect of ethnicity to subjective well-being. Taken together these evidences show that low subjective well-being is not related to ethnicity but rather to the fact than person (even person of titular ethnicity) migrated from other place. This result is in line with the findings of Lokshin and Ravallion (2006) who reported that in the Russia Federation, Russians (titular ethnicity) do not perceive to have higher subjective welfare than non-Russians.

The attitudinal characteristics provide interesting insights. One may say that people take into consideration past experience and future expectations while evaluating current well-being. We find that most people with low subjective well-being believe that has the same status three years ago and do not believe that their situation will improve in the nearest future. This funding is alarming. It may imply the strong tendency to low mobility of respondents and chronic poverty. However, more research, preferably with panel data, is needed to reach firm conclusion on this issue.

We also found that support for current policies in all countries demise with the decrease in subjective well-being. Similar effect is also reported in Russia and Eastern European countries (Ravallion and Lokshin, 2002; Hayo and Seifert, 2003). Finally, for Azerbaijan, but not other countries, decrease in well-being is linked to low level of participation in politics that implies social exclusion of the poor.

5. Summary and conclusion

In this paper we present the analysis of subjective well-being in Armenia, Azerbaijan and Georgia, three low-income transitional countries located on Caucasus. Drawing on newly available Data Initiative comparative survey covering all three countries of the region, we compare self-assessment of well-being across countries, explore correlates and examine determinants of subjective well-being in the region. The findings of the study provide several interesting insights.

First, empirical evidence presented in this paper suggests that in all three countries under investigation economic factors greatly influence self-rating of well-being. Factors affecting subjective well-being are strongly linked to well-known objective problems of transitional societies such as consumption poverty, unemployment and inefficiency of social protection system. Impact of objective factors to subjective well-being is much stronger in the region than can typically be found in the West or middle-income transitional countries such as Ukraine or Russia (Abbot and Sapsford 2006). The explanation for this phenomenon is that since the beginning of the transition population of the region experienced dramatic decrease in the well-being due to prolonged and profound economic recession that led to widespread poverty and severe deprivation. Under these circumstances, satisfaction with objective measures of economic survival has become the most important factor influencing perceived well-being. Therefore, from theoretical perspective, it can be concluded that by the model of determinants of subjective well-being the countries of the Caucasus is close to Ukraine and Russia, but the effect of economic factors is stronger than in the middle income countries of the former Union.

Second, from practical perspective, this study reveals the priorities for the future reforms, as identified by the determinants of subjective well-being. As the return for high education is important determinant of well-being, one of the challenges faced the countries in the region is to ensure equal access to high quality education regardless of income, residence of living or migration

status. Similarly, the strengthening social protection system through development of efficient targeting mechanism is another priority, while economic growth generating new jobs is a key to alleviate unemployment. What is important is that, as shown in this paper, the determinants of subjective well-being are significant and robust across all countries under investigation. This provides the evidence in favor of region-wide co-operation towards alleviation of common problems. The countries of the region may share their successes and pitfalls to identify “best practice” in addressing the common challenges.

Third, non-economic factors are important. Thus, our findings suggest that marital and migration status is also significantly affecting self-rated well-being. As well, special attention should be paid to the fact that low subjective well-being is strongly associated to having negative perception of the past and future welfare. This may imply low upward mobility and chronic poverty. Likewise alarming is the evidence of the strong association between low subjective well-being and withdrawal from discussing politics in Azerbaijan that may suggest social exclusion of the poor. All together, these trends may indicate the emergence of disenfranchised underclass. In turn, the existence of the large share of population not supporting transition to democracy and market may hamper reforms and undermine politically unstable regimes in the region.

Finally, taken together, the findings of this paper demonstrate the necessity of regular monitoring and analysis of subjective well-being. Together with town halls and round-tables, the quantitative analysis of subjective well-being should be part of public participation process in the current poverty reduction efforts. The findings about analysis the factors affecting subjective well-being will enrich and validate the process of poverty analysis which conducted regularly in all countries of the region in the framework of Poverty Reduction Strategy Papers.

Note

¹ As already mentioned, data set does not have data about income by sources. Instead, the respondents indicate what the main source of their household income was for last year. Therefore, several broader categories of main sources of income were constructed. Labor market income category includes incomes from primary and additional place of employment. Social benefits category encompasses income from all types of social transfers comprising pensions, poverty reduction benefits, children's benefits, scholarships, all type of compensations and discounts for utilities and the like. Other sources of income encompasses alimony, financial help of relatives or fiends, and income from selling or renting households good or property are similarly included in our analysis.

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