



# Caucasus Research and Resource Center

Research Fellowship project, 2007:

**"Analysis and Comparison of Subjective Well-being and Its Determinants in the South Caucasus"**

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# Objective and Research Questions

- **The objective** 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.
- **Research 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?

# Paper Design

- The paper is organized as follows:
  - ✓ **Section 1** introduces the problem.
  - ✓ **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.
  - ✓ **Section 5** concludes.

# Data Used

- The data 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).
- ✓ Strength of the DI
  - *Cross-country comparability*
  - *Country representativeness*
  - *Richness of the data*
- ✓ Weaknesses of the DI
  - *Omission of several important explanatory variables*
    - *Amount of income received from different sources, information about self-rated health status and social capital are among unfortunate omissions.*
  - *Irrelevancy of several important explanatory variables*
    - *The HH marital status is not available from the data set. Same problem for ethnicity.*

# Methodology (1)

- I.** We explore subjective well-being for SC as a whole by calculating subjective well-being for Armenia, Azerbaijan and Georgia together. Following this, we investigate how subjective well-being different for each country of region. Thus, we compute subjective well-being for each AAG country separately and then compare results of computations across countries.
- II.** We examine how subjective well-being is different by a wide range of household socio-economic characteristics by using cross-tabulation. We examine relationship between households' characteristics and subjective well-being in AAG separately.
- III.** We examine the determinants of subjective well-being due to the regression model.
  - ✓ The dependent variable: Answers to the economic condition satisfaction question. In our models it takes 5 values, the value 1 is taken if the respondent declared his/her (household) economic condition as “very good”, the value 2 corresponds to “good”, 3 to “fair”, 4 to “poor”, and 5 to “very poor”.
  - ✓ Explanatory variables: Household consumption; Gender of household head; Age of household head; Size of household; Number of children in household; Number of elderly in household; Number of female in household; Education of household head; Place of living; Immigration status; Whether the family holds own flat.

# Methodology (2)

- Independent variables divided into 3 categories:
  1. *Monetary metrics*
  2. *Supplementary objective indicators*
  3. *Attitudinal metrics*
- Since our dependent variable is ordinal and ordered, the Kendall's  $\tau$  correlation coefficient is used to measure the degree of correspondence between two covariates and assessing the significance of this correspondence
- **Ordered probit regression.**

$$P_{prob} = Prob (Y_i = 1, \dots, 5) = F (X_p \beta / s)$$

# Objective vs. Subjective Welfare

*Objective*

**Poverty**

*Subjective*

| Poverty lines                                | Poverty rate (%) |            |         | Degree of well-being | Coding | Armenia | Azerbaijan | Georgia |
|--|------------------|------------|---------|----------------------|--------|---------|------------|---------|
|  | Armenia          | Azerbaijan | Georgia |                      |        |         |            |         |
| Absolute poverty (2.15 USD PPP per day)      | 17.7             | 0.8        | 24.8    | Very poor            | 1      | 13.61   | 14.15      | 15.92   |
| Absolute poverty (4.30 USD PPP per day)      | 34.9             | 1.1        | 42.6    | Poor                 | 2      | 25.81   | 35.66      | 34.54   |
| Relative poverty (40% of median expenditure) | 13.8             | 1.8        | 14.8    | Fair                 | 3      | 53.03   | 45.25      | 47.14   |
| Relative poverty (50% of median expenditure) | 18.6             | 6.5        | 22.2    | Good                 | 4      | 6.54    | 4.56       | 2.27    |
| Relative poverty (60% of median expenditure) | 23.9             | 13.7       | 30.5    | Very good            | 5      | 1.02    | 0.37       | 0.13    |
|  |                  |            |         | Total                |        | 100     | 100        | 100     |

# Ordered Probit Models

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

# Results & Conclusion (1)

- **Bivariate analysis:**
  - ✓ Most results are the same for all countries under investigation with high significance level.
  - ✓ By contrast, some variables are important only for one or two countries.

| Variable                             | Armenia | Azerbaijan | Georgia |
|--------------------------------------|---------|------------|---------|
| HH age                               | sig     | n/sig      | sig     |
| HH size                              | sig     | n/sig      | sig     |
| Being female and never married       | sig     | n/sig      | n/sig   |
| Being migrant                        | sig     | n/sig      | sig     |
| Working for science and education    | sig     | sig        | n/sig   |
| Living in urban and rural places     | n/sig   | sig        | sig     |
| Owing flat                           | sig     | n/sig      | sig     |
| Having no and rare policy discussion | n/sig   | sig        | n/sig   |

# Results & Conclusion (2)

- **Empirical evidence 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.
    - *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.*

# Results & Conclusion (3)

- **The priorities for the future reforms.**
- ✓ 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 though development of efficient targeting mechanism is another priority, while economic growth generating new jobs is a key to alleviate unemployment.
- ✓ What important is that, 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.*

# Results & Conclusion (4)

- **Non-economic factors are important.**
- ✓ Thus, our findings suggest that marital and migration status is also significantly affecting self-rated well-being. The negative effect of being divorced, separated or losing a spouse to subjective well-being was explored. Migration from other regions is associated with the low subjective well-being.
- ✓ 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 finding is alarming. Hence, 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.*

# Results & Conclusion (5)

- 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.

# Thanks!

The author welcomes all questions, comments  
and suggestions:

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