

# What contributes to life satisfaction in transitional Romania?\*

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## Abstract

This paper analyzes life satisfaction in Romania in 2001, 12 years after the collapse of communism and the beginning of the transition into a market economy. Using a survey of 1770 individuals, we find that our results are very similar to studies in Western Europe and the US. Life satisfaction increases with housing standard, health status, economic situation, education, trusting other people, and living in the countryside, and decreases with rising unemployment. However, life satisfaction is lower than in Western countries with about 75% of the people in the sample being not at all satisfied or quite dissatisfied with their life in general. A policy discussion concludes the paper.

**Key words:** general life satisfaction, subjective well-being, domain specific satisfaction, Romania, transition economy.

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## 1. Introduction

This paper aims to analyze what factors influence people's life satisfaction in Romania a decade after the revolt and coup in December 1989. This was the starting point for the transition from a command economy to a market based economy. In the years following the revolution, there were optimistic views, especially among outsiders such as the International Monetary Fund and the World Bank, on Romania's own ability to change into a democratic country with a free-market economy (McCollum, 1998). Therefore, at the beginning of the 1990's, Romania received substantial assistance from various foreign sources such as governments and international organizations (e.g. the International Monetary Fund and the World Bank) in order to shorten the transition time needed. However, changing the economy turned out to be much more difficult than initially expected. Because of the changes in the economy during the 1990's, new negative features such as *unemployment* and *inflation* appeared, but also positive events like substantially *increased degrees of freedom*. In the backwash of the economic recession, there has been a sharp decline in average real income and a widening income gap between groups, which is mainly caused by increased unemployment and freer wage setting.

There is a recent and rapidly growing interest among economists to analyze life satisfaction (see e.g. Blanchflower and Oswald, 2002, Easterlin, 2001, and Frey and Stutzer, 2000, 2002a, 2002b).<sup>1</sup> More fundamentally, Ng (1997) argues that people's ultimate objective is life satisfaction, and that money is only one of many ways to increase overall life satisfaction. Moreover, there is also much evidence that life

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<sup>1</sup> In the literature several terms have been used to denote well-being collected in surveys such as life satisfaction, happiness, subjective well-being and reported well-being. In this paper, we use the term life satisfaction.

satisfaction, as a measure of well-being, compares well with other commonly used variables such as income or wealth (see e.g. Frey and Stutzer, 2002a, 2002b). Our analysis follows the standard approach applied in empirical studies on life satisfaction in economics, where life satisfaction is usually collected by asking respondents to rank their level of life satisfaction on a multi-point scale (e.g. Frey and Stutzer, 2002, Blanchflower and Oswald, 2000, Easterlin, 2000).<sup>2</sup> Results from studies on life satisfaction have provided direct information on what affects individuals' overall life satisfaction. For example the insight by Clark and Oswald (1994) and Di Tella et al. (2001), that unemployment causes larger welfare losses than previously assumed, since both lower income and the negative effect of being unemployed per se affect life satisfaction, seems to outweigh the traditionally assumed positive effect of increased leisure time as a result of being unemployed. Thus, the strength of analyzing life satisfaction is that it allows us to make conclusions that could not have been made when using the conventional economic toolbox.

A key characteristic of life in the pre-1989 Romania, if we disregard the *nomenclatura*,<sup>3</sup> was that citizens were equal in many aspects of life such as income, housing, clothing, and access to higher education. This gives us a unique opportunity to study how negative macroeconomic phenomena have affected people when they started off from a fairly equal level in 1989, 12 years later. By using survey data from the May 2001 Romanian Public Opinion Barometer, this paper investigates what factors influence people's life satisfaction. More generally, our study allows an interesting analysis of how the transition has affected different groups in the Romanian society.

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<sup>2</sup> It should be noted that happiness studies have traditions in other areas of social science such as in psychology (e.g. Kahneman et al, 1999) and sociology (see e.g. Veenhoven, 1996).

<sup>3</sup> Pacepa (1987) mentions that "to the ordinary Romanian people, the world *nomenclatura* means the elite, a social superstructure recognizable by its privileges".

Similar analyses conducted in the US and Western European countries have found that, except for socio-economic factors such as age, gender and education, economic factors such as income and unemployment have a significant impact on life satisfaction. However, fluctuations and differences in income and persistence of unemployment are issues that have been a part of life in these countries for hundreds of years, while as mentioned, these are new features in post-1989 Romania. The question is whether the impact of these issues on life satisfaction would be the same if these were new features. Another interesting outcome of our analysis is to learn whether future public policies targeting for example, the health care sector, unemployment and the social security system can promote improvements in life satisfaction.<sup>4</sup>

The rest of the paper is organized as follows. Section 2 briefly describes the changes in Romanian economy over the last decade. Section 3 describes the household survey, while Section 4 presents the results from the econometric analysis. Finally, Section 5 summarizes and concludes the paper.

## **2. Development of the economy in Romania 1989-2001**

Before December 1989, Romania was characterized by state-owned companies and a centrally planned economy organized around a national plan. The main components of the economy were the 5-year plans and long-term directives for the next 10 years, with clearly specified objectives for each year.<sup>5</sup> However, the transition of the economy has not been a smooth and steady process with rapid economic growth as predicted in 1989.

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<sup>4</sup> For example, Di Tella et al. (2001), using a quarter of a million respondents from 12 European countries and the US, suggest that people on average would be indifferent in terms of happiness between a 1% increase in unemployment rate or a 1.7% increase in the inflation rate.

<sup>5</sup> The first 5-year plan covered the period 1951-1955. This was followed by eight 5-year plans up to 1990. All these plans were mainly designed for intensive labor-demanding industrialization.

The effects of the transition problems can be seen in increased unemployment, decreased real income and inflation. Maniu et al. (2001) discuss the development of the Romanian economy and conclude that the inability of enterprises to re-allocate their resources and efficiently adjust their production to the changing requirements of the market caused the first recession during 1990-1993. A second severe recession occurred during 1997-1999, and this was, according to Maniu et al. (2001), at least partly caused by a reduction in investment.

Following the decline in the economy, unemployment, a new experience for the Romanians, arrived. The number of unemployed people reached approximately 1 million in 2002 (in a country with approximately 22 million inhabitants), which corresponds to 11.8% of the labor force. Although the unemployment rate has increased throughout 1999, the rate of increase has substantially reduced over time. Moreover, the increase in unemployment has not been evenly spread between different sectors of the economy. The sharpest decline in employment is found in the industrial sector, while smaller declines are found in other sectors such as transport, hotels and restaurants. Because of these changes, the agriculture sector, which includes self-employed farmers, has become the largest sector in the economy in terms of numbers of individuals employed. This is partly explained by the increased unemployment in other sectors of the economy, but also by the reformation of the agricultural sector that allowed many people to become landowners at the beginning of the 1990's.

The recession in the economy has hit the level of real earnings, which have been reduced by almost 50% since 1990 (Romanian National Institute of Statistics, 1990-2001). In the early 1980's the wage system started to change from a fixed wage policy, where 20% of the salary depended on the degree of the fulfillment of the plans set for

the specific enterprise where the individual was employed. Since 1990, many of the features of the old Communist wage system have been abolished. As a result of the new Wage Law from 1991, the wages are now determined by collective and individual negotiations. Wage determination was decentralized to company level, irrespective of their ownership, with a few exceptions for enterprises known as “regii autonome”.<sup>6</sup> Although the recession has been severe, the effect on the gap in disposable income between groups has not been as wide as expected. This is because the social security system has improved substantially during the last decade by introducing unemployment benefits and support allowances (the latter being received by individuals who are not entitled to unemployment benefit). Moreover, the sharp decline in the population of workers has affected the Pay As You Go financed Romanian pension system, as the ratio of pensioners and contributors has increased substantially.

The communist regime did not only control the economy but also the citizens. This was done directly, for example by limited freedom of press and restrictions on migration,<sup>7</sup> and indirectly by the secret police, Securitate.<sup>8</sup> According to measures of political freedom and measures of civil freedom, as used by the Freedom House,

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<sup>6</sup> In 1990, the state-owned enterprises were divided into two groups: regii autonome and commercial companies. The former group consists of about 350 companies, but they account for 47 percent of total state-owned enterprise assets. Earle and Telegdy (2001) report that the average employment of the regii was 2988 employees (357 firms), compared with an overall Romanian average in the 38,833 firms of 145 employees.

<sup>7</sup> Intra-country migration could be allowed due to marriage, schooling, or getting a new job. However, new employment was often conditional on having a domicile close to the workplace. In comparison to other Eastern Europe countries, Romania had a relatively liberal emigration policy until the early 1980s when the government tightened it as a response to the drain on the country's skilled workers and its concern for the overall deterioration of the labor force. After 1989, both ethnic migration (especially among ethnic Germans and ethnic Hungarians), and labor migration increased (Fassmann and Münz, 1995).

<sup>8</sup> The secret police, called “Securitate”, was the government’s main supporting force and intelligence service.

Romania has improved substantially since 1989.<sup>9</sup> The index is measured on an integer scale between 1 and 7, where 1 is the highest level of freedom. Until 1989, Romania scored 7 on both measures, but has since then gradually improved to 2 for both measures in 2000 (Gwartney and Lawson, 2002).<sup>10</sup>

To summarize, the transition of the Romanian economy has not been a smooth and steady process with rapid economic growth as expected by most of the “outsiders” in the beginning of the 1990’s. The transition to a market economy has, since 1989, resulted in decline in real income, an income gap in the population, an uneven spread of unemployment and a high inflation. What is unclear, however, is how these different factors may influence the level of general life satisfaction, especially given that, at the time of revolution in 1989, most people were employed and enjoyed the same level of economic standard measured as e.g. income, housing, access to health care and education, etc.) .

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<sup>9</sup> Political freedom measures different issues in relation to election and the existence of political opposition, while civil freedom measures freedom of the press and the right of individuals to debate and form organizations.

<sup>10</sup> The difference between Romania and other Eastern European countries is that Romania has had a slower rate of improvement as measured by the freedom indices during the 1990s. However, in 2000, Poland, the Czech Republic, the Slovak Republic, Hungary and Bulgaria all scored 2 on civil freedom, while all these countries, except Bulgaria, scored 1 on political freedom (Gwartney and Lawson, 2002).

### 3. Data

We use the May 2001 survey from the Romanian Public Opinion Barometer database supplied by the Open Society Foundation. The sampling method is designed to produce a representative sample of the non-institutionalized adult population of Romania.<sup>11</sup> Data were collected by interviews in the respondents' home. The May 2001 survey contains 1816 individuals aged 18 or above.<sup>12</sup> Due to non-item responses on questions used in the analysis, we finally use a sample of 1770 individuals. The questionnaire includes questions on demographic characteristics, health, education, employment status and other socio-economic characteristics. The specific question on life satisfaction was framed as "In general, how satisfied are you with the way you live?".<sup>13</sup> This question was assessed using a four-point scale with the following alternatives: "not at all satisfied", "quite dissatisfied", "quite satisfied" and "very satisfied".<sup>14</sup> Moreover, specific life satisfaction questions related to specific domains of life such as housing, health, municipal cleaning, ready money and job satisfaction were also asked and responses reported using the same 4-point scale as in the general life satisfaction question. Table 1 presents the distributions of answers to the various satisfaction questions.

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<sup>11</sup> Collection of the data was based on sampling in three stages: (i) the sample is stratified into 18 geographic areas, 5 types of residence (rural and 4 types of urban localities) and 3 categories of development of rural localities, (ii) within each of the sample units, a sub-sample of localities was randomly selected and (iii) within each of these sub-samples of localities, a sub-sample of non-institutionalized adult population was randomly selected from electoral register.

<sup>12</sup> In addition, the Open Society Foundation collected a sample of 286 young people aged 18-25 years. However, in order to analyze a representative sample, we do not use this group in our analyses.

<sup>13</sup> In Romanian, "Cât de mulțumit sunteți în general de felul în care trăiți?"

<sup>14</sup> In Romanian, "deloc mulțumit", "nu prea mulțumit", "destul de mulțumit", and "foarte mulțumit".

**Table 1** Answers to general and domain specific satisfaction questions

	How satisfied are you with ...					
	<b>the way you live?</b>	your housing?	your health?	cleaning in your area?	your ready money?	your job?
Not at all satisfied	0.208	0.075	0.098	0.162	0.377	0.121
Quite dissatisfied	0.527	0.171	0.287	0.275	0.400	0.220
Quite satisfied	0.247	0.547	0.460	0.475	0.204	0.504
Very satisfied	0.018	0.207	0.155	0.088	0.019	0.155
Number of observations	1770	1770	1770	1770	1770	742

Note: Only people who work answer the job satisfaction question.

As shown in Frey and Stutzer (2002) and also supported by Table 1, Romania scores lower than the US and Western European countries on the general life satisfaction question. Approximately 74% of the sample were not at all satisfied or quite dissatisfied in 2001. There are some differences between the answers to the domain specific satisfaction questions, but overall individuals do not seem to be as dissatisfied with any of these specific domains as they are with life in general, with exception of the monetary situation. The answer to the general life satisfaction question, which is the dependent variable in our regression model, is unevenly distributed. Moreover, because there were so few observations of those being very satisfied with their life (1.8%), we merged them with those stating that they were quite satisfied. Thus, we analyze life satisfaction on a 3-point scale.

The other explanatory variables analyzed in this study are standard ones used in this type of analysis, and these are presented in Table 2 together with their descriptive statistics.

**Table 2 Mean values \***

Variable	All (n = 1770)	Not at all satisfied (n = 368)	Quite dissatisfied (n = 933)	Quite satisfied/ Very satisfied (n = 469)
Age	43.504 (18.125)	46.856 (17.511)	42.551 (17.140)	42.770 (20.127)
Male	0.470	0.454	0.467	0.488
Romanian	0.899	0.878	0.901	0.913
Orthodox	0.872	0.875	0.872	0.868
Marital status				
Married	0.649	0.693	0.650	0.614
Unmarried	0.219	0.136	0.225	0.271
Divorced/Widowed	0.132	0.171	0.125	0.115
At least one child	0.384	0.408	0.392	0.348
Education				
Lower (than high-school)	0.497	0.602	0.483	0.443
High-school	0.406	0.339	0.429	0.414
Higher (than high-school)	0.097	0.060	0.088	0.143
Household expenditures per capita (in million ROL)	1.079 (1.120)	0.845 (0.803)	1.055 (1.019)	1.328 (1.461)
“Income”-groups				
0- 300,000 ROL	0.138	0.217	0.133	0.085
300,000- 600,000 ROL	0.168	0.198	0.178	0.124
600,000-1,000,000 ROL	0.167	0.155	0.177	0.158
1,000,000-1,500,000 ROL	0.186	0.179	0.191	0.183
More than 1,500,000 ROL	0.341	0.250	0.322	0.450
Employment status				
Working	0.406	0.318	0.424	0.439
Unemployed	0.099	0.177	0.096	0.043
Retired	0.263	0.313	0.241	0.267
Student	0.055	0.014	0.055	0.087
Housewife	0.102	0.133	0.098	0.087
Farmer	0.075	0.046	0.086	0.077
Residence area groups				
City, above 200,000 inhabitants	0.266	0.299	0.250	0.271
City, 100-200,000	0.093	0.117	0.087	0.087
Small town, 30-100,000	0.115	0.090	0.134	0.098
Very small town, <30,000	0.103	0.076	0.115	0.100
Big village	0.208	0.220	0.204	0.207
Village	0.215	0.198	0.211	0.237
If born in a residence area group				
City, above 200,000 inhabitants	0.141	0.147	0.133	0.151
City, 100-200,000	0.045	0.046	0.042	0.049
Small town, 30-100,000	0.046	0.024	0.053	0.051
Very small town, <30,000	0.043	0.024	0.046	0.051
Big village	0.130	0.120	0.130	0.139
Village	0.136	0.125	0.144	0.130

Note: \* standard deviation reported within parenthesis only for the continuous variables.

We use annual consumption expenditure per capita in the respondent's household as a proxy for income, or more broadly as a proxy for the standard of living (Deaton, 1997). The household expenditure per capita variable is grouped into five "income" groups: 0-300,000 lei (ROL) per month,<sup>15</sup> 300,000-600,000 ROL, 600,000-1,000,000 ROL, 1,000,000-1,500,000 ROL and above 1,500,000 ROL, where the highest group is used as the reference group in the analysis. The cut-off for poverty is defined as 60% of the average expenditure per person (UNDP, 2002). In our sample, the average expenditure per capita corresponds to 1,070,000 ROL and hence the poverty line is at 620,000 ROL, which roughly equals the cut-off point between the second and third income group. According to our data and using the cut-off point for poverty at 60% of the average expenditure per capita, 30.6% of the sample is defined as being below the poverty line. Income is one of the variables that has been most substantially affected by the recession in the economy.

#### **4. Econometric framework and results**

To address the question of what determines life satisfaction, we follow the approach by Blanchflower and Oswald (2002), which links an economic model with an econometric specification. In the estimations we use an ordered probit model. The explanatory variables can broadly be separated into domain specific satisfaction variables, socio-economic and demographic variables. Respondents report on a four-point scale for each of the domain specific satisfaction variables and therefore we create 3 dummy variables for each of them, where the reference group is very satisfied, with the exception of job

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<sup>15</sup> The exchange rate in May 2001 was ROL 28,234 for USD 1 at the beginning of the month, and 28,702 at the end of the month.

satisfaction. Job satisfaction needs a special categorization since not all people are part of the labor force. The comparison category is again very satisfied (with the job situation), and in order to disentangle the effect of life satisfaction on those who currently do not work, we also create the following dummy variables: students, farmers, retired, and unemployed. This gives us the opportunity of studying the impact of unemployment directly, which is a new feature influencing life satisfaction in post-revolutionary Romania. Moreover, one way out of unemployment has been to take up the opportunity of farming, thus we may also expect negative impact on general life satisfaction from people belonging to this category in comparison to those who are very satisfied with their job situation.

We use annual consumption expenditure per capita in the respondent's household as a proxy for income. This approach has several advantages: responses to questions regarding household expenditure are considered to be more reliable than direct questions concerning income, and consumption expenditures tend to be smoother across seasons than income, particularly since some of the respondents are farmers. Given the fact that a relatively large number of people (e.g., 30.6%) are defined as being below the poverty line, we expect that belonging to either of the two lowest income groups will confer a significant negative effect on life satisfaction. However, the effect of a widening income gap, which is another characteristic of the post-revolutionary Romania, on life satisfaction is less clear, and if any effect were to be expected, it would be that there would be a negative impact of income on life satisfaction even for the higher income groups since the highest income group is the reference group.

The third element of the post-1989 era in Romania is increased freedom. Adaptation to freedom is difficult to measure since this is partly dependent on the

environment in which you live. In order to incorporate a notion of this, we included a variable on whether in general the respondent trusts other people, expecting that people who do trust others also have a higher degree of life satisfaction. Moreover, the population size of the place of residence may also affect life satisfaction as this variable may pick up social networks and local levels of criminality, both of which are likely to be negatively correlated with the size of the population. Table 3 presents both the parameter estimates from the ordered probit regression and the estimated marginal effects (calculated at the mean of the independent variables for each of the three different outcomes). A positive marginal effect for a given outcome indicates that an increase in the independent variable increases the probability of a respondent belonging to that specific category of life satisfaction and vice versa.

Three variables of specific interest are, as discussed above, income, employment status and increased freedom. As expected, economic status, measured by the household expenditures per capita, is positively correlated with life satisfaction, which is in line with other studies (e.g. Frey and Stutzer, 2000, Gerdtham and Johannesson, 1997, and Winkelmann and Winkelmann, 1998). Interestingly, the two lowest income groups, containing individuals who are classified to belong to households below the poverty line according to the Zamfir (1999) definition, have a significantly lower life satisfaction than other income groups.

**Table 3** The determinants of life satisfaction (ordered probit)

Variable	All		Not at all satisfied		Quite unsatisfied		Quite satisfied/ Very satisfied	
	Coeff	Std.err	Marg eff	Std.err	Marg eff	Std.err	Marg eff	Std.err
How satisfied are you with your house? (CG: very satisfied)								
Not at all satisfied	-0.652	0.130***	0.193	0.046***	-0.048	0.026*	-0.145	0.021***
Quite dissatisfied	-0.331	0.097***	0.086	0.028***	0.001	0.006	-0.087	0.023***
Quite satisfied	-0.133	0.077*	0.031	0.018*	0.008	0.005	-0.038	0.022*
How satisfied are you with your health? (CG: very satisfied)								
Not at all satisfied	-0.416	0.133***	0.113	0.041***	-0.010	0.015	-0.103	0.028***
Quite dissatisfied	-0.140	0.101	0.034	0.025	0.006	0.003*	-0.039	0.028
Quite satisfied	-0.088	0.090	0.020	0.021	0.005	0.005	-0.025	0.026
How satisfied are you with cleaning services? (CG: v. satisfied)								
Not at all satisfied	-0.243	0.122**	0.061	0.033*	0.004	0.004	-0.065	0.030**
Quite dissatisfied	-0.031	0.112	0.007	0.026	0.002	0.006	-0.009	0.032
Quite satisfied	0.037	0.107	-0.009	0.025	-0.002	0.006	0.011	0.031
How satisfied are you with your ready money? (CG: very satisfied)								
Not at all satisfied	-1.306	0.231***	0.348	0.067***	-0.024	0.023	-0.324	0.049***
Quite dissatisfied	-0.610	0.228***	0.151	0.060**	0.016	0.008**	-0.167	0.059***
Quite satisfied	0.022	0.231	-0.005	0.053	-0.001	0.014	0.006	0.067
Income-groups (CG: more than 1,500,000 ROL)								
0- 300,000 ROL	-0.452	0.104***	0.123	0.032***	-0.010	0.012	-0.113	0.022***
300,001- 600,000 ROL	-0.300	0.092***	0.077	0.026***	0.002	0.005	-0.079	0.022***
600,001-1,000,000 ROL	-0.113	0.087	0.027	0.022	0.004	0.002*	-0.032	0.024
1,000,001-1,500,000 ROL	-0.139	0.083*	0.034	0.021	0.005	0.002**	-0.039	0.022*
Trust people	0.269	0.062***	-0.060	0.013***	-0.020	0.007***	0.080	0.019***
How satisfied are you with your job?								
Not at all satisfied	-0.153	0.192	0.038	0.051	0.003	0.003	-0.041	0.049
Quite dissatisfied	-0.173	0.141	0.043	0.038	0.004	0.003	-0.047	0.036
Quite satisfied	-0.090	0.116	0.022	0.029	0.004	0.004	-0.025	0.032
Employment status (CG: employee or employer)								
Unemployed	-0.294	0.134**	0.077	0.039**	0.000	0.009	-0.076	0.031**
Retired	-0.027	0.130	0.006	0.031	0.001	0.006	-0.008	0.037
Student	0.169	0.166	-0.036	0.033	-0.015	0.021	0.051	0.053
Housewife	-0.044	0.138	0.011	0.033	0.002	0.005	-0.013	0.039
Farmer	0.100	0.143	-0.022	0.030	-0.008	0.014	0.030	0.044
Male	-0.085	0.063	0.020	0.015	0.005	0.004	-0.024	0.018
Marital status								
Married	0.143	0.096	-0.034	0.023	-0.007	0.004*	0.041	0.027
Unmarried	0.081	0.140	-0.018	0.031	-0.005	0.011	0.024	0.042
Children (1=at least one)	-0.031	0.068	0.007	0.016	0.002	0.004	-0.009	0.019
Age	-0.051	0.011***	0.012	0.003***	0.003	0.001***	-0.015	0.003***
Age-squared	0.001	0.000***	0.000	0.000***	0.000	0.000***	0.000	0.000***
Educational groups (CG: less than high school)								
High-school	0.080	0.070	-0.018	0.016	-0.005	0.005	0.023	0.020
University	0.375	0.112***	-0.074	0.018***	-0.047	0.022**	0.120	0.039***
Orthodox	-0.052	0.109	0.012	0.024	0.003	0.008	-0.015	0.032
Romanian	0.012	0.122	-0.003	0.029	-0.001	0.006	0.004	0.035
Residence area groups (CG: village)								
City, > 200,000 inhabitants	-0.445	0.136***	0.115	0.038***	0.003	0.008	-0.117	0.032***
City, 100-200,000	-0.495	0.168***	0.139	0.054**	-0.020	0.023	-0.119	0.032***
Small town, 30-100,000	-0.428	0.153***	0.116	0.047**	-0.010	0.016	-0.107	0.032***
Very small town, <30,000	-0.324	0.155**	0.085	0.046*	-0.002	0.011	-0.083	0.035**
Big village	-0.416	0.144***	0.109	0.042***	-0.001	0.010	-0.108	0.033***
If born in the residence area groups								
City, > 200,000 inhabitants	0.059	0.114	-0.013	0.025	-0.004	0.009	0.017	0.034
City, 100-200,000	0.067	0.188	-0.015	0.041	-0.005	0.016	0.020	0.057
Small town, 30-100,000	0.057	0.171	-0.013	0.038	-0.004	0.014	0.017	0.051
Very small town, <30,000	0.323	0.179*	-0.064	0.029**	-0.040	0.034	0.104	0.063*
Big village	0.296	0.130**	-0.061	0.024**	-0.031	0.020	0.092	0.043**
Village	0.022	0.129	-0.005	0.029	-0.001	0.008	0.006	0.038
Thresholds								
$\mu_1$	-3.494	0.384						
$\mu_2$	-1.649	0.378						

Note: significant at the 10% level (\*), at the 5% level (\*\*), and at the 1% level (\*\*\*).

Moreover, the effect of satisfaction with ready money also has a significant impact on general life satisfaction, and there is a similarly strong effect on life satisfaction from satisfaction with housing standard. In the analysis of the impact of employment status, employed people who are very satisfied with their job situation form the base case. The only group that is significantly different from the base case is the one containing unemployed people. This finding that being unemployed has a negative effect on life satisfaction is similar to findings in studies on Western Europe. Thus, it seems that adapting to being in an unemployed state, although a relatively new phenomenon in Romania, out-weighs the effect of more leisure time (see e.g. Clark and Oswald, 1994, Oswald, 1997, and Winkelmann and Winkelmann, 1998). Furthermore, to be a farmer, which is a growing sector has no significant impact on general life satisfaction in comparison to those who report a very high job satisfaction. Individuals who trust other people report significantly higher life satisfaction. The population size of the place of residence has a negative impact on life satisfaction, but it is only significant for those living in the countryside. There are several effects of population size, including the possibility of higher crime rates and smaller social networks in areas with relatively high population densities. Interestingly, being born in the place in which an individual currently lives, increases life satisfaction. This might be the result of a more solid social network that always can make life much easier in Romania. Higher self-reported satisfaction with personal health status has a positive and significant effect on life satisfaction as expected, which is in line with previous studies in other countries (e.g. Clark, 1994 and Gerdtham and Johannesson, 1997). The effect of marital status, i.e. being married or unmarried has a positive impact on life satisfaction when compared to being divorced or widowed. The effect of gender, i.e. that males report lower levels

of life satisfaction, is similar to previous findings but is not significant at conventional levels (see e.g. Gerlach and Stephan, 1996, Theodossiou, 1998, and Winkelmann and Winkelmann, 1998). There is a significant non-linear effect of age that describes a U-shape indicating that people are least satisfied with life in their late 20s, which also broadly follows other empirical findings (e.g. Blanchflower and Oswald, 2000). The effect of education indicates that people with more education are more satisfied with their life, and significantly more satisfied if holding a university degree. Once again, this is similar to studies of Western European countries (e.g. Frey and Stutzer, 2000, and Gerdtham and Johannesson, 1997). Finally, there is a positive effect on life satisfaction from self-reported improvements in local environmental quality.

## **5. Discussion and conclusions**

In this paper, we have used data from the May 2001 Public Opinion Barometer in Romania in order to analyze which factors influence subjective well-being. The general distribution of life satisfaction is not skewed towards the upper part of the distribution as found in surveys in Western European countries and the US, rather 73% stated that they were not at all satisfied or quite dissatisfied with their life in general. While the absolute level of life satisfaction is lower, the results from the econometric analysis show that different explanatory factors have similar impacts on life satisfaction as obtained when using data from Western European countries and the US in the analysis such as education, marital status, income and unemployment.

Life satisfaction among the citizens of a country should be of primary concern for policy-makers. By directly analyzing life satisfaction, areas where public policies could have a significant impact on individuals' life satisfaction may be identified. In our

analysis we find that low levels of life satisfaction in Romania can largely be explained by dissatisfaction with areas of life where policy makers could actually have some influence, such as housing standards, health status, economic status (e.g., ready money), unemployment, and local environmental quality. The post-revolutionary years in Romania did not result in the expected economic growth, which possibly explains the low absolute level of life satisfaction in comparison with other countries. In the light of the poor performance of economic growth, it is not surprising that unemployment has increased and real average income has decreased. The Romanian government has, however, taken steps to reduce poverty by introducing redistribution schemes, of which unemployment benefit is an important part. One reason for the strong effect of unemployment per se on life satisfaction may be that this is a new phenomenon in post-revolutionary Romania, where the norm used to be that everyone had a job. Another effect of the stagnation in the economy during the 1990s is that material standards, especially in housing, have not been improved (UNECE, 2002). Surprisingly though, 20% of the respondents still report themselves to be very satisfied with the standard of their housing, but this could be due to the fact that the reference point of what is considered to be a good standard of housing may differ from that of individuals living in other countries.

The overwhelming issue, however, is how changes in public policies might affect people's life satisfaction and thus which areas of public policy should be concentrated on. More broadly, there might be two competing paths for changes in public policies: improvements to the general situation versus concentrating on a specific area such as health care, employment, and environment. As usual, policy makers need to be aware of the trade off between raising the absolute level of life satisfaction and

decreasing the differences in life satisfaction between groups. It remains to be seen which route the Romanian government will choose.

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