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Ever Rising Expectations - The Determinants of Subjective Welfare in Croatia

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Abstract

The focus of this paper is the self-rated subjective welfare of the individual in the case of Croatia, a country which has recently undergone both a transitional process as well as a war with its neighbouring countries. The subjective welfare is different from objective welfare, which is commonly defined by income and the difference is first explored through objective and subjective profiles of poverty. The largest difference between the two measures is found among the ones *not* objectively poor. The determinants of subjective welfare are analyzed in an ordered probit model by the following groups (i) *objective variables* of personal or household circumstances, (ii) measures of *relative income*, compared with different reference groups and (iii) *attitudinal variables* such as future expectations. The results show that, apart from absolute income, relative income is a strong determinant as well as a set of attitudinal variables. This can be connected to the transitional heritage of Croatia and is also in line with what has been found in other countries.

Keywords

Subjective Welfare, Financial Satisfaction, Poverty, Ordered Probit Model, Croatia

List of Abbreviations

CBS	Croatian Statistical Bureau, Crostat
FS	Financial Satisfaction
GS	General Satisfaction
IEQ	Income Evaluation Question
MIQ	Minimum Income Question
SW	Subjective Welfare

List of Tables

TABLE 1: CROSS-TABULATION OF SUBJECTIVE AND OBJECTIVE WELFARE	15
TABLE 2: OBJECTIVE AND SUBJECTIVE PROFILES OF POVERTY	18
TABLE 3: ESTIMATE OF ORDERED PROBIT MODEL OF SUBJECTIVE WELFARE AND INCOME.....	20
TABLE 4: MULTIVARIATE ORDERED PROBIT MODEL OF SUBJECTIVE WELFARE	22

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Table of Contents

- 1. INTRODUCTION4**
- 2. ANALYSIS OF SUBJECTIVE WELFARE: REVIEW OF EXISTING LITERATURE..... 6**
 - 2.1 MEASURING OBJECTIVE WELFARE 6
 - 2.2 MEASURING SUBJECTIVE WELFARE 7
 - 2.3 DETERMINANTS OF SUBJECTIVE WELFARE 8
- 3. DESCRIPTION OF DATA AND CONTEXT 12**
 - 3.1 DESCRIPTION OF DATA 12
 - 3.2 SOCIO-ECONOMIC CONTEXT..... 13
- 4. DESCRIPTIVE ANALYSIS: OBJECTIVE AND SUBJECTIVE WELFARE IN CROATIA 15**
 - 4.1 OBJECTIVE AND SUBJECTIVE PROFILES OF POVERTY 16
- 5. MULTIVARIATE ANALYSIS: DETERMINANTS OF SUBJECTIVE WELFARE IN CROATIA 19**
 - 5.1 MODEL OF SUBJECTIVE WELFARE 21
 - 5.2 SUMMARY OF RESULTS..... 26
- 6. CONCLUSIONS 27**
- 7. REFERENCES 29**
- APPENDIX A.....31**
- APPENDIX B.....32**
- APPENDIX C.....33**

1. Introduction

The challenge of how to define and measure the welfare of the individual and the society has been and remains a highly debated issue within the field of economics. Also controversial is the normative issue of defining a lowest acceptable level of welfare. One of the few generally accepted definitions of an acceptable level of welfare is the individual's or household's capacity to live above a certain poverty line measured in terms of income or expenditure. This is based on the assumption that the welfare of the individual can be measured in terms of utility defined by consumption choices made depending upon disposable income. This paper challenges this focus on monetary aspects, both of poverty and general welfare analysis and instead turns to the self-determined subjective welfare of the individual.

While the subjective welfare of the individual is extensively covered in developed countries, empirical studies in developing countries are scarce. Some studies have been carried out on transitional countries and these are of particular interest for subjective welfare analysis. Their rapidly and profoundly changing economic, political, and social environment have affected both the way people view their own situation and that of others and empirical evidence from these countries can provide important insights for welfare analysis and both national and international welfare policies.

The country in focus of this study, Croatia, has carried out extensive transitional reforms since the beginning of the 1990's. The economic and social strain of the transition process was worsened by the fact that Croatia was in a state of war as a consequence of the break-up of the former Yugoslavia. The war begun just a few years after the transition had been initiated and as Croatia did not regain full control over its territory until 1998 a large part of the reforms was carried out in the shadow of the war. These circumstances provide a very special setting for subjective welfare analysis. Further more, the very rich data set of the "Quality of Life in Croatia" survey provides a promising ground for closely assessing the subjective welfare in Croatia. Finally, as a consequence of the challenging development of the 1990's a comparatively large part of the Croatian population is considered poor compared to European standards.¹ Apart from the general interest in analyzing what the determinants of subjective welfare are, the particular characteristics of the part of the population living in poverty are of importance and interest.

¹ Previous studies on poverty in Croatia; World Bank (2007) and UNDP (2006a)

When defining poverty, the general view is that it is first and foremost a monetary issue. Poverty is seen as a lack of income or consumption possibilities, for the poorest members of the population or in the least developed countries. But the multidimensionality of poverty and the concept of social exclusion are becoming increasingly important in anti-poverty policies both within countries and among international organizations.² This can be seen in more encompassing poverty measures such as the Human Development Index (HDI) which includes variables such as life expectancy, education, and living standard in terms of GDP per capita. As this kind of measures become more important it is crucial to conduct further research as to what the true determinants of welfare are, in order to provide basis for the choice of variables to be included. This confirms the need for further exploration of how different dimensions of poverty and social exclusion effect subjective welfare.

Monetary measures such as consumption, which are acceptable proxies for welfare, have in empirical studies been proven to be significantly different from a self-reported level of subjective welfare, even if the question determining the subjective welfare is focused solely on economic welfare.³ Therefore the purpose of this paper is to investigate this difference, if any, exists in the case of Croatia. The hypothesis which will be tested is that there *is* a difference between objective and subjective welfare and that this difference can be explained by individual *objective* characteristics, an individual's situation *relative* to others, and the *attitudes* of the individual.

In doing so an attempt to answer the following questions will be made:

- What are the characteristics of the differences between the objective and the subjective measure of poverty?
- To what extent does level of income determine subjective welfare?
- What characteristics and circumstances explain the level of subjective welfare?

The paper is structured as follows: the second section covers the present literature on subjective welfare. Section 3 describes the dataset used in this study and the socio-economic situation in Croatia as a background for the following empirical analysis. Section 4 provides the descriptive statistics which is extended into a multivariate model in section 5. Section 6 concludes.

² Social Exclusion is defined by the UNDP Croatia as deprivation in three fields; income, employment and socio-cultural engagement (absence of social participation or tertiary sociability). See UNDP. 2006a:21.

³ See section 2 for review of studies on subjective welfare.

2. Analysis of Subjective Welfare: Review of Existing Literature

The study of subjective welfare is a growing field in economics and whereas developed countries are well covered, studies on transitional and developing countries are of less frequency.⁴ A reason for this is lack of adequate data, as a comprehensive survey with more in-depth and targeted questions than usually incorporated into the household budget surveys is necessary to closely assess subjective welfare and its determinants.

This section introduces the notion of subjective welfare⁵ (SW) in relation to objective measures of welfare, it examines the way subjective welfare is measured and briefly reviews the results of previous empirical studies in terms of the determinants of subjective welfare.

2.1 Measuring Objective Welfare

Based on the general assumption that the individual is maximizing his or her utility the consumption pattern based on the available income is commonly seen as a sufficient measure of welfare. Through revealed preferences the individual level of utility and hence welfare can be identified.⁶ Graham & Pettinato (2006) among others question this; the rational, material self-interest of the individual may not determine economic behaviour to the extent commonly assumed.

Notable is that economists in general prefer not to incorporate level of utility into empirical studies in order to compare individuals. Measuring welfare is considered too difficult and inaccurate and instead welfare is indirectly measured by GDP per capita.⁷

⁴ For studies on developing countries see among others; Carletto & Zezza (2004) on Albania, Graham & Pettinato (2006) on Peru, Herrera et al. (2006) comparing Madagascar and Peru, Knight et al. (2007) on rural China, Neff. (2006) on South Africa and Ravallion & Lokshin (1999, 2002) on Russia.

⁵ Ferrier-i-Carbonell (2002:2) promotes the following definitions; subjective well-being denotes individual satisfaction with life or the general happiness mentioned above, whereas subjective welfare is used in the more narrow sense of financial satisfaction. Here the term *subjective welfare* (SW) will be used throughout to avoid confusion and as the main focus is on financial satisfaction.

⁶ Frey & Stutzer. 2002:404

⁷ Ferrier-i-Carbonell. 2002:2 and Neff. 2006: 316

Poverty is objectively measured by income or consumption either in relative or absolute terms. The relative poverty line used by the EU is 60% of median income, this stands in contrast with absolute measures that relate income or consumption to a poverty line defined on national or international basis. National level absolute poverty lines are defined by the minimum level of income required to consume a basket of goods and services determined to be the basic needs in the country in question.⁸

2.2 Measuring Subjective Welfare

When measuring subjective welfare we can as stated above not rely on GDP per capita or the revealed utility of the individual; instead we need to let the individuals themselves describe their welfare, in general or in more specific areas of life such as the financial or social sphere. In doing so we accept the assumptions that the individual is capable of assessing its own situation in relation to the questions posed and that the answers are interpersonally comparable. This requires that different individuals perceive the scale of the question in the same way and hence the only thing determining a difference in position on the scale would be their actual subjective welfare.⁹

Easterlin (1974) and Frey and Stutzer (2002) among others, focus on the determinants of the individual's general happiness whereas studies such as those by Ravallion and Lokshin (1999, 2000, 2002) focus more specifically on economic welfare. In the terminology of Ferrier-i-Carbonell (2002) general happiness is determined by different *General Satisfaction* (GS) questions. This stands in contrast with the subjective economic welfare that is determined by *Financial Satisfaction* (FS) questions which is the focus of this paper and will now be discussed more closely.

A common method of determining financial satisfaction is by the *income evaluation question* (IEQ), first introduced by Van Praag (1971), where the individuals places themselves on a ladder with rungs ranging from rich to poor with a number of steps in between. The *minimum income question* (MIQ) asks the individual to estimate how much income is needed to "make ends meet", but can also ask the individual to estimate how much more or less income he or she would require to live exactly on a subjective poverty line. This can be a complement to determining the objective poverty line on a national basis. A simple way of

⁸ See for instance World Bank (2007)

⁹ Ferrier-i-Carbonell. 2002:7

determining subjective poverty is the straightforward question “Are you poor?” with a “yes”, “no” or “do not know” answer.¹⁰

Apart from the form of the question, the unit of interview, the time, and the interaction with the interviewer may bias the outcome. Whether the household head is asked about the household’s general welfare, or his or her individual welfare, will be affected by different aspects and produce different outcomes. Household level answers may not be representative for the entire household which is more evident if a random person within the household is the respondent. These issues are hard to control for but should be taken into account and sometimes reduce the weight given to certain conclusions.¹¹

Notable is that several variables are inherently unobservable which is one reason for the unexplained difference between objective and subjective welfare. One part of this is mood effects; there is clear evidence that individual assessments of SW are affected by temporary changes in mood, such as just after getting married or a win of the national football team. These are hard to control for as they also interact with more long-term personality traits.¹²

2.3 Determinants of Subjective Welfare

The determinants of subjective poverty consist both of quantifiable variables, for example income and demographic characteristics and qualitative subjective variables such as trust in government institutions. These are in empirical studies found to constitute a large share of the difference between objective and subjective welfare, but still a considerable part of the difference remains unexplained.

In this section both the parts explained by previous studies and the theories on further explanations will be outlined and discussed. The grouping of the determinants into *objective variables*, *relative income variables* and *attitudinal variables* is also found in the multivariate analysis in section 4.

Objective variables

The role of income in individual subjective welfare is one of the most researched topics in subjective welfare literature. A positive correlation between income and SW has been found

¹⁰ In the Philippines this kind of surveys on subjective poverty have been carried out for more than 20 years to provide an backup for the Household Budget Surveys that due to high costs are not carried out every year. See Mangahas (1995).

¹¹ Ravallion & Lokshin. 2000

¹² Lokshin et al. 2004:2

by, among others, Easterlin, one of the pioneers of subjective welfare research.¹³ This positive correlation holds up to a certain income level, and seems to be stronger in developing countries and among the poor part of the population in richer countries. Above the threshold level the marginal benefit of income for SW diminishes. Notable is also that several studies have found little correlation between aggregate economic growth and SW and also in this case there seems to be a threshold level above which there is almost no correlation.¹⁴ The diminishing marginal benefit of income and the imperfect correlation with SW draws attention to the question of *relative income* instead of absolute as a determinant, which will be discussed more in detail below.

Personal determinants such as gender and age also play a role for SW, although gender to a smaller degree. Studies such as van Praag et al. (2000) have found differences between men and women but these go in both directions and are small. Age on the other hand has an established effect on SW and many studies have found a negative correlation between age and SW, but only up until to a certain age. The relationship is U-shaped and has its turning point around the age of 30 or 40 and after this point subjective welfare is likely to increase with age.¹⁵

Education normally has a positive effect on SW but it is hard to determine whether this is due simply to the factor of education or if other factors correlated with a higher education, such as getting a fulfilling job and higher social status also impact SW. The individual's employment status proves important for SW and being employed affects positively and unemployed negatively. This is true even if the individual is replaced with the same amount of income while being unemployed, which points to unemployment having effects on SW other than the loss of income. The emotional distress of the state of unemployment is a likely cause. It has been shown to create even more mental distress than, for instance, being divorced and an explanation is the low social status associated with not having a job. Also having a job that one is dissatisfied with is negative, but unemployment is clearly worse.¹⁶

Demographic characteristics such as household size, marital status and composition of the household have been shown to affect the subjective welfare of individuals. Having a spouse is highly and positively correlated with SW but it is unclear in which direction causality runs. It is equally likely that being satisfied (high SW) increases the chances of

¹³ See Easterlin. (1974) and (2001)

¹⁴ Graham & Pettinato 2006: 131

¹⁵ Ferrer-i-Carbonell, 2002 and van Praag et al. 2000.

¹⁶ Ibid

finding and keeping a partner.¹⁷ In Albania people living in large households feel comparatively less poor than the ones living in single households which may both be a sign of economics of scale in consumption and mental distress from living alone and without the support of the people in the household.¹⁸

Relative income variables

Of great importance for the subjective welfare is relative income, both in terms of relative income towards neighbours, region and country but also over time. Easterlin (2001) states that subjective welfare varies positively with own income and inversely with the income of others and Ferrier-i-Carbonell (2002) found a much higher correlation between the grading of the individuals financial situation in relation to others and SW, than between absolute income and SW. The relative income of the reference group which the individual feels that he or she belongs to, provide a mental image of what standard the individuals consider themselves to be entitled to.

The aspect of economic mobility is important, if the individual perceives equal economic opportunities and the possibility of reaching the same level as the reference group generates a higher subjective welfare. Hirschman (1973) introduced the “tunnel effect” analogy of a traffic jam in a tunnel. In early development welfare is enhanced by the other lanes moving faster as this gives hope for own lane to move as well. This is stronger than the feeling of envy but if the own income is not improved the individual feels frustration and relative deprivation. One example is that there has been shown a correlation between rising inequalities in transition countries and decreasing subjective welfare. In the early years of transition some “lanes” move faster as economic mobility increases which is positive for SW, but only for a period of time, if the overall level of income does not increase a strong negative effect on SW is to be expected.¹⁹

The relation of income and SWB also carries the aspect of time. If the individual expects rising incomes it tends to value his or her present situation in a better way. Equally, if the individual is looking forward to an insufficient pension, today’s SW level will be lower. Over the life cycle the average subjective welfare of a cohort stays rather constant, even though a substantial increase in income is common. Although the cohort’s SW levels remain

¹⁷ Ferrier-i-Carbonell, 2002 and van Praag et al. 2000.

¹⁸ Carletto & Zezza. 2004

¹⁹ Sanfrey & Teksoz. 2005: 12

constant individuals generally think they were worse off in the past and will be better off in the future.²⁰

That the SW depends on the incomes of the past is by Easterlin called “habit formation”. This implies that it is the change in income that generates a rise in SW rather than the absolute level of income. The individual also adapts to the increases of income by changing his or her expectations, this is in the literature called adaptation theory or preference drift.²¹ Ferrer-i-Carbonell (2002) states that adaptation theory needs to be treated with care as studies have shown that when income increases the individual adopts and we get the diminishing marginal returns whereas when income drops the individual experiences a strong decline in SW.

Aspirations also affect subjective welfare. The level of income of family and parents, the education of parents, the social origins, the support given by the family builds aspirations which affects SW both positively and negatively. Aspirations may boost SW if the aspirations are met but also decrease if the individual is not able to reach the level expected.²²

Attitudinal variables

Ravallion and Lokshin (2002) integrates attitudinal variables into their “low dimensionality hypothesis” and find that they have a strong effect on the Pseudo-R² (the fit of the model) and hence that they “pick up” determining factors not shown by the objective variables. But there is also a warning about the possible endogeneity to subjective welfare of these variables. These variables are also often interlinked as for example health status. If the individual perceives his or her health to be good the SW is likely to be higher. But this is also linked to the availability of secure health care that may increase subjective welfare even if the individual’s personal health is poor. The trust in the healthcare system coincides with the concept of uncertainty, if the individual is sure to be properly taken care of without regard of economic possibilities this creates security and an increased level of SW.

It is within this section the greatest room for future studies are found. Uncertainty is one example that can be measured in different ways and can be brought about by different factors. Many factors are hard to quantify and may contribute to a large part of the unexplained differences between objective and subjective poverty.

²⁰ Easterlin. 2001

²¹ Frey & Stutzer.2002 :412

²² Herrera et al. 2006: 17

3. Description of Data and Context

The data used throughout this paper is from the UNDP Croatia's *Quality of Life Survey* carried out in 2006. The study covers a rich spectrum of aspects of life and is hence very well suited for a study such as this. This section further discusses the data, the questions used for the objective and subjective measures and finally briefly comments on the socio- economic context beyond the scope of the survey that may influence the subjective welfare of the individual in Croatia.

3.1 Description of Data

The survey covers 8534 respondents and is representative at the country level. The European Quality of Life Questionnaire was used as created by the European Foundation for the Improvement of Living and Working Conditions and this, with its nearly 100 questions, covers wide areas of life and society.²³

The objective measure of welfare in the survey is total household income. The individual is asked to sum all the incomes of the household and place this sum in the suitable interval.²⁴ This may of course be inaccurate; particularly since the respondents are not only household heads. The respondent may hence not be aware of all parts of household income and an underestimation is likely compared to the income reported in the household budget surveys. For instance income in kind is likely to be omitted as it is hard to quantify.²⁵ Income in kind is shown to play a big role in the economy of the Croatian households but this role has been decreasing over time.²⁶ Mistakes in estimating the income is of concern as they may bias the sample and this should be kept in mind throughout the analysis.

There are several potential questions to be used as basis for the subjective measure of welfare in the present dataset. Here the question where the individual is asked to grade how

²³ UNDP. 2006a: 21. The first Pan-European survey was launched in 2003 and included the EU25 and three candidate countries- Romania, Bulgaria and Turkey. The actual survey in Croatia was carried out by TARGET Ltd. Market and Public Opinion Research Agency. For the full results of the survey see UNDP Croatia, Human Development Report 2006. Unplugged: Faces of Social Exclusion in Croatia.

²⁴ See Appendix A for more details on questioning.

²⁵ Ravallion & Lokshin. 2000

²⁶ Crostat. Statistical Yearbook. 1998-2006

easily “ends are meet” with its current income is used. It determines the “financial satisfaction” and is a kind of *income evaluation question* (IEQ). Financial satisfaction questions are expected to correlate with the objective measure of welfare to a higher degree than a measure of general happiness.²⁷

3.2 Socio-Economic Context

Some points beyond the scope of the survey presented above are worth mentioning in relation to the subjective welfare analysis of Croatia and provide a background for the analysis and further conclusions.²⁸

Croatia has since the early 1990’s carried out extensive transitional reforms in order to establish a market economy. Notable is that the previous socialist economy of the former Yugoslavia was never a full plan-economy and was well integrated in global trade which smoothed the transition. Still, it was a great change that has in many ways affected economy, politics and social setting. This particularly regarding social patterns and discourses; “bureaucratic paternalism, clientelism and lack of personal or business responsibility” that has been the norm for decades must be changed for a more market oriented approach.²⁹

The break up of the former Yugoslavia and the following war in the 1990’s has of course affected the welfare of the Croatian population both in a short- and long-term perspective. Several country level variables have in previous studies been shown to affect subjective welfare and they will be briefly discussed here. These are not likely to affect different individuals in a systematically different way and hence carry few implications for the analysis of the determinants of SW but will provide important insights for further conclusions.

Aggregate economic growth have been rather high and stable since the stabilization program of 1993 and has been accompanied with a low and stable inflation. The unemployment rate is on the other hand high which carries a negative effect on subjective welfare. It is sometimes argued that the numbers are overstated but in relation to subjective welfare this is of lesser importance as the perception of the population still is that unemployment is a problem.³⁰ Inequalities are generally perceived to have increased

²⁷ The present dataset also includes a question of general happiness, Q.53 in UNDP.2006c

²⁸ If not otherwise stated from Franičević. 2004 and Bičanić & Franičević. 2005.

²⁹ Franičević. 2004:235

³⁰ On levels of unemployment in Croatia see UNDP. 2006a

dramatically during the transition but how much they actually have increased is unclear and results from different studies are incoherent.³¹

This is all highly related to the transitional setting that can be argued to create both political and economic uncertainty. The changing culture and expectation of greater economic mobility increase aspirations and if these are not perceived to be fulfilled a considerable negative impact on subjective welfare is to be expected.

³¹ Nestić. 2003.

4. Descriptive Analysis: Objective and Subjective Welfare in Croatia

The first purpose of the descriptive analysis is to assess the correlation between the objective and subjective measures of welfare. The second step is to further investigate the correlation by profiling individual characteristics in relation to an objective and a subjective poverty line. The profiles include several variables that are incorporated in the multivariate analysis in section 5. This section will provide the basic facts and a descriptive overview of objective and subjective welfare in Croatia.

The cross-tabulation of the objective and subjective measures of welfare establishes the correlation and gives an idea of the extent other variables are explaining. The objective measure is *total household income* divided by the number of equivalent adults in the household.³² The measure of subjective welfare is a variant of the financial satisfaction question; how well the individual considers ends to be met with the current income on a scale from “with great difficulty” to “very easily”.³³ The table is constructed in the way that for all rungs the number of individuals placed on each objective welfare rung equals the number of individuals that are on the corresponding subjective rung. The results are shown in Table 1. A perfect correlation would require all off-diagonal elements in the table to be zero.

Table 1: Cross-tabulation of Subjective and Objective Welfare

		Subjective Measure						Total
		1	2	3	4	5	6	
Objective Measure	1	365	238	221	67	49	8	948
	2	291	383	528	116	88	19	1,425
	3	261	580	1,198	450	203	49	2,741
	4	26	174	552	405	170	46	1,373
	5	3	41	202	267	179	84	776
	6	2	9	40	68	87	80	286
Total		948	1,425	2,741	1,373	776	286	7,549
Pearson		chi2(25)=	2.5e+03	Pr=		0.000		
Cramér's		V=	0.2577					

The correlation is highly significant, Pr=0.000 and the Cramer’s V measure of association of 0.26 is higher than for both Albania where the same exposition generates a Cramer’s V of

³² Using the OECD-modified equivalence scale as first proposed by Haagenars et al. (1994). The scale assigns a value of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child.
³³ See Appendix A for details on the form of the questions.

0.23 and for Russia that has a Cramer's V of 0.1.³⁴ This implies a closer correlation between income and subjective welfare in Croatia than in the above mentioned peer transition countries. This may be due to differences in the methodologies of the surveys and the wording of the questions and hence a detailed comparison is of lesser importance. More important is that the results are similar which confirms the hypothesis that there is generally a gap between objective and subjective welfare and that this applies to transition countries and also to the case of Croatia.

More specifically; when examining individual objective rungs it is found that less than 50% of the individuals places themselves in the "right" rung subjectively. If the sample is cut in half, which means the lowest three rungs, 79% of those objectively within the rungs places themselves in the same half objectively. Out of the individuals placing themselves in the lowest subjective rung only 38% is objectively in the same rung and regarding the two lowest rungs together nearly 54% is both objectively and subjectively within these rungs. The two lowest rungs constitute limit for the subjective poverty line below. The fact that only 50% of the individuals subjectively within these rungs also are objectively placed in the same rungs should be remembered when analysing the poverty profiles.

4.1 Objective and Subjective Profiles of Poverty

The difference between the two measures is further investigated by profiling the objective and subjective poverty rates according to a range of characteristics.

Any random level of welfare could have been used for this comparison but as there is debate in Croatia about the actual levels of subjective poverty and that the approach to defining a measure of objective poverty is weak it serves a further purpose to highlight the different measures of poverty in this comparison.³⁵

The official poverty measure in Croatia is 60% of median income as reported by the Croatian Statistical Bureau (CBS) on a yearly basis. The measure is used in order to be comparable with the standard measures used by the European Union. In the profile of poverty the measure is based on the present survey and the poverty rate becomes slightly different from the CBS rate for 2005. The median income of the survey is 2250 kunas per month and equivalent adult out of which 60% equals 1350 which in turn generates a poverty rate of 27%.

³⁴ Cramer's V is a measure of association given by the square root of chi-square divided by sample size, n, times m, which is the smaller of (rows - 1) or (columns - 1): $V = \sqrt{\frac{\chi^2}{nm}}$. This results in a measure of association between 0 and 1, but requires row marginals to equal column marginals.

³⁵ See Nestić. 2006 and Nestić & Vecchi. 2006a

This is high compared to the “at risk of poverty rate” (without income in kind) calculated by the CBS that was 19.9% for 2005. The source of the difference is probably the character of the survey’s questioning on income but does not imply that the results of the present survey should be rejected, particularly as other similar studies generate the same results.³⁶

The established objective measure of poverty corresponds fairly well with the number of people grading themselves within the two lowest rungs of the subjective question. Placing oneself in the two lowest rungs signifies that the individual considers that ends are met with great difficulty or with difficulty. With these definitions the poverty rates are 27% for objective poverty and 30.9% for subjective poverty. The subjective rate is 14% higher but even though this is higher it seems reasonable when turning to the definitions of the question. Living *with difficulty* seems intuitively equivalent to living in some poverty and would correspond well with the “at risk of poverty” level of 60% of median income.

Table 2 below seems to confirm many of the stylized facts from the previous studies reviewed in chapter 2. Particularly the adaptation theory seems validated. The subjective poverty rate is remarkably higher than the objective rate among those relatively well off. These are individuals active in the labour force, highly educated and living in urban areas and particularly city of Zagreb. They are likely to have a comparatively higher income, for instance the group that has employment status “active” and “higher education” has an average income of 4415 kunas per month whereas the average income of the full sample is 2570 kunas per month. The group is on the other hand likely to have a reference group that is wealthier than the average. Possibly the reference group of this section of the population is not only the wealthiest in Croatia but also spread to international circles. Travelling and a more frequent use of IT are likely among this part of the population. This outcome can also be attributed to the “ever rising bar of perceived needs” pushing a higher subjective poverty.³⁷ This particularly when taking into account the transitional setting of Croatia. Inherent to the transition process is the hope and expectation of improving living standards.

On the other hand the young (15-24 years of age), those with no or low education, homemakers, members of large families and individuals living in Eastern Croatia (mainly rural areas) have a lower rate of subjective poverty than objective poverty. These are also the groups that in absolute terms are both objectively and subjectively poor (apart from the age group 15-24). The poorest groups in addition include people who are over 65 years of age, retired, unemployed and living in single households.

³⁶ See Šućur 2005 that is based on a similar survey carried out by the Croatian Caritas.

³⁷ Graham & Pettinato. 2006: 132

Table 2: Objective and Subjective Profiles of Poverty

	Objective Poverty Rate *	Subjective Poverty Rate **	% Change
Total	27	30,9	14%
Gender			
Female	29,2	33,92	16%
Male	25,7	27,73	8%
Age			
15-24	18,5	17,51	-5%
25-49	18,1	28,26	56%
50-64	28,1	37,13	32%
65-	42,1	44,12	5%
Employment status			
Active	10,9	21,61	98%
Unactive- unemployed	41,8	48,85	17%
Retired	33,8	38,7	14%
Homemaker	47,0	45,44	-3%
In education	15,5	16,04	4%
Education status			
No education/unfinished primary	56,2	55,29	-2%
Full primary education	37,7	41,38	10%
Professional training	20,4	29,16	43%
Higer education	8,3	17,25	109%
Health Status			
Good health	24,6	31,26	27%
Average health	25,2	31,55	25%
Poor health	23,2	32,32	39%
Household size			
1	41,6	43,88	6%
2	29,1	36,53	26%
3	18,7	28,48	52%
4	15,5	25,11	62%
5	25,5	28,1	10%
6	24,1	30,65	27%
7-	36,6	34,65	-5%
Remittances			
Recieving	21,7	28,04	29%
Not Recieving	25,7	32,59	27%
Rural vs Urban home			
Rural	26,8	32,37	21%
Urban	12,3	26,74	118%
Region			
Central	25,2	33,12	31%
Eastern	37,8	37,79	0%
Zagreb	11,6	24,57	112%
Adriatic North	18,4	23,72	29%
Adriatic South	18,7	30,34	62%

* Total household monthly income, per equivalent adult divided by poverty line of 60% of median income

** How well ends are met with the current available income, with difficulty and with great difficulty are considered as poverty.

5. Multivariate Analysis: Determinants of Subjective Welfare in Croatia

The difference between the objective and subjective measure of welfare has now been established both by cross-tabulation and in terms of objective and subjective poverty lines. The next step is to further investigate what, other than income (the objective welfare) can explain the subjective welfare of the individual.

The multivariate analysis in this section is inspired by the Ravallion and Lockshin (1999) “low dimensionality hypothesis”. By including more variables than household income to explain the level of subjective welfare they test whether the standard income measure, in their case of poverty, can be extended to better account for the true welfare of the households. A similar study, Herrera et al. (2006), compares the determinants of SW for Peru and Madagascar.

Initially, subjective welfare is analyzed in a basic model with income as the only explanatory variable. This can be seen as estimating the explanatory power of objective welfare for subjective welfare and creating a benchmark for the following analysis. The basic assumption is a continuous underlying variable determining where the individual places he or she on the subjective welfare ranking, from making ends meet with great difficulty to making ends meet very easily. This latent continuous variable, which denotes the individuals true welfare is here called w and assumed to be determined by the logarithm of total household income per equivalent adult (from now on simply income) denoted by $\ln(y)$ and a range of other variables, for now lumped together in the error term e . The model formalized:

$$[1] \quad w = b \ln(y) + e$$

If w is lower than, for example, c_1 the individual is placed in the lowest category and if w is between c_1 and c_2 the individual is placed in the second lowest category and so on. Also assuming that e is normally distributed, an ordered probit model can be used to estimate the determinants of subjective welfare. Probit is a maximum likelihood estimation and the coefficients reported maximizes the likelihood function. The maximum likelihood estimates are the parameters most likely to produce the actual data.

If the coefficient is positive the individuals are more likely to place themselves on a higher rung of subjective welfare. When interpreting the coefficients it is important to note that they do not constitute marginal effects. Marginal effects can instead be calculated for each rung of the categorical dependent variable.³⁸

Running the ordered probit regression with income as the only variable generates the following results:

Table 3: Estimate of Ordered Probit Model of Subjective Welfare and Income

	Coeff	S.E
Income	0.634	0.0151
cut1	3.918	0.121
cut2	4.693	0.124
cut3	5.775	0.127
cut4	6.464	0.129
cut5	7.230	0.133
Number of observations		7526
Pseudo R ²		0.0764

As expected the estimated coefficient for income is significant and positive which implies a positive effect on subjective welfare by an increase in income. The Pseudo R² is very low which tells that the explanatory power of this model is weak.³⁹ More factors than income are affecting subjective welfare but notable is that in this type of model only a limited explanatory power is expected due to some specific factors. Among them are unobserved personality traits and measurement errors which are captured in the error term. Measurement errors such as mistakes in peoples answers are mostly random and will not considerably bias the sample. This would also apply to the order of questions, the daily mood of the individual and similar disturbing effects. On the other hand the unobserved personality traits can be correlated with the socioeconomic variables in the sample, as well as how the individual responds to subjective welfare questions and hence bias the sample. Examples of these traits could be whether the individual is a “happy” or “unhappy” person or optimistic versus pessimistic in general. These traits could be controlled for by conducting repeated surveys on the same

³⁸ See Appendix C for marginal effects of the full ordered probit model.

³⁹ The Pseudo R² measure calculated by STATA is by Veall & Zimmermann (1996) argued to be downward biased for this type for study and other measures such as the Aldrich and Nelson R² should generate a stronger explanatory power. This should be considered when assessing the results from the probit model.

individuals as these types of qualities in a person are likely to be rather constant over the lifetime.⁴⁰

5.1 Model of Subjective Welfare

After concluding that income carries a positive and significant effect on subjective welfare further variables are included into the model that are likely to be of importance in determining subjective welfare.

The following grouping of the variables is used by Ravallion and Lokshin (2002) and will also be structuring this analysis: (i) *objective variables* of personal or household circumstances, (ii) measures of *relative income*, compared with different reference groups and (iii) *attitudinal variables* such as future expectations. This typology clarifies the different areas within which the determinants of subjective welfare are found.

The model incorporating these groups:

$$[2] \quad w = b \ln(y) + g_1 x_1 + g_2 x_2 + g_3 x_3 + e$$

Where

$x_1 = \text{objective variables}$

$x_2 = \text{relative income variables}$

$x_3 = \text{attitudinal variables}$

The results of the ordered probit model are given in table 4 but first a note on interpreting categorical variables such as education level and employment status. Every category is analyzed in relation to the omitted category, the reference category. Hence on an indicator variable like gender the chosen category female is analyzed as; what is the effect of being in the category female, rather than in the omitted category male.

⁴⁰ Examples of such studies are Ravallion & Lokshin (1999) and Frey & Stutzer (2002).

Table 4: Multivariate Ordered Probit Model of Subjective Welfare**Dependent Variable:**

Thinking of your household's total monthly income, is your household able to make ends met:

1. Very easily
2. Easily
3. Fairly easily
4. With some difficulty
5. With difficulty
6. With great difficulty

Explanatory variables	Category	Coefficient	S.E
(i) objective variables			
Total income of household (log)		0,409	0,023 *
Gender (female)		-0,131	0,029 *
Age (log)		-0,142	0,057 *
Education status			
	No education/unfinished primary	-0,051	0,063 **
	Full primary education	-0,114	0,051 *
	Professional training	-0,128	0,037 *
	Higer education	reference	
Employment status			
	Active	0,130	0,046 *
	Unactive- unemployed	reference	
	Retired	0,241	0,057 *
	Homemaker	0,100	0,066
	In education	0,177	0,077 **
Household size (log)		-0,238	0,033 *
Remittances (recieving)		0,100	0,034 *
Population in home town		-0,078	0,016 *
Region ⁴¹			
	Central	0,058	0,057
	Eastern	0,125	0,067 ***
	Zagreb	reference	
	Adriatic North	0,205	0,067 *
	Adriatic South	-0,020	0,061
(ii) relative income variables			
Regional Ginicoefficient ⁴²		-0,008	0,005
Average income of region		0,000	0,000 *
Financial situation relative to majority		0,559	0,025 *
(iii) attitudinal variables			
Health (selfgraded health status)		0,028	0,008 *
Satisfaction with	social life	0,026	0,008 *
	accomodation	0,094	0,008 *

⁴¹ Using the World Bank (2007:28) 5-region disaggregation, see Appendix B for the division of the counties.

⁴² Regional Gini coefficients are calculated by Nestić & Vecchi. (2006b)

	working life		0,011	0,005 *
	family life		-0,042	0,009 *
Trust in	people in general		0,020	0,006 *
	pension system		0,084	0,019 *
	health insurance system		-0,040	0,019 *
	unemployment protection		0,136	0,018 *
Perceived tension between	rich and poor		0,152	0,023 *
	racas and ethnic groups		-0,075	0,018 *
Optimistic about the future			0,095	0,016 *
Subjective Social Exclusion			0,055	0,017 *
General happiness			0,041	0,010 *
Pseudo R ²	0,1904	cut1	4,665	0,350
Number of observations	6134	cut2	5,670	0,351
		cut3	7,005	0,353
		cut4	7,848	0,355
		cut5	8,762	0,358

Note: *** significant at 10%, **significant at 5% and * significant at 1%.

x1 = objective variables

From the model with only income as an explanatory variable, it is clear that income is likely to generate a higher SW and the inclusion of income into the full model confirms the strong and positive relationship. Being female rather than male makes it more likely to be in a low SW category and by examining the marginal effects for individual SW categories it is found that being female increases the likelihood of being in the three lower categories (see Appendix C). Possible explanations can be cultural aspects inherent in Croatian society and also that women are more likely to be poor than men (see section 4, table 2).

With increasing age the likeliness to grade oneself in a lower category of subjective welfare increases. In general happiness research, a U-shaped relationship between age and SW is commonly encountered; up until a certain threshold age the correlation is negative but after this age is likely to increase SW or at least not be increasingly negative.⁴³ The interesting part is at which point the threshold age is found. By a graphically examining the relation between the mean of the SW grading and age in the categories used in the poverty profiles in chapter 4, a vague u-shaped relation can be seen and it is only for the category 65 years and older, that SW is no longer decreasing with age. As absolute poverty is high among the elderly this relationship is interesting. The relationship cannot be explained by decreasing

⁴³ Ferrier-i-Carbonell. 2002

needs (real or perceived) as determined by the MIQ. The average minimum income perceived to be required by this group is only 9 percent lower than for the entire sample whereas the actual income is 40 percent lower. Other factors are likely to be determining this and the closest candidates are aspects of personality that develop with age, like greater patience and lower expectations.

High education and active working life results, as expected, in a higher likelihood of placing oneself in a high SW category. Regarding employment status all other states are better than being inactive, even being a home maker which does not, per se, generate a salary. This confirms the theory that it is not the monetary loss of being unemployed that is important for SW but rather the low social status and psychological distress of losing employment.

As the number of individuals in the home town raises the likeliness of high subjective welfare decreases. This is a common finding in empirical studies and can be explained by the often smaller and more coherent reference group in the smaller city. Compared to living in Zagreb, living in the Central, Eastern and Northern Adriatic regions increases the SW. The categories of the variable region are jointly significant, but not individually significant and hence only a brief attempt to explain the results will be made. The Central and Eastern regions have the lowest average income whereas The Northern Adriatic that includes the counties of Istria, Lika Senj and Primorje Gorski Kotar has the highest average income after Zagreb. Whether other regional factors affect this relationship is beyond the scope of this study but may well provide insights for SW theory.

x2 = relative income variables

The higher the regional Gini coefficient is; the more unequal the income distribution is in the region⁴⁴, the less likely is the individual to have a high SW level. This is interesting in relation to the results of the variable average income of region which is positive, but has very small marginal effects and hence not a strong effect on SW. But still, taking into account the results from the Gini coefficient a high and equal income of the region is what is likely to be most positive for subjective welfare. Opposing this conclusion is the variable self graded financial situation relative to majority, which is highly positive and significant. It has stronger marginal effects in all categories of SW than both Gini coefficient and average income of region which implies a stronger effect on SW. It also has higher marginal effects than the absolute income variable which speaks in favour of the hypothesis that relative income, the income of the

⁴⁴ Here region signifies "županija", the 21 administrative counties of Croatia.

reference group, is important and even more important than the absolute level of income. In fact it has the highest marginal effects out of all the variables in the model which confirms the importance of relative income for SW.

x3 = attitudinal variables

As the attitudinal variables may be endogenous to subjective welfare the model was fit both with and without this group of variables. The increase in Pseudo R² from 0.154 to 0.19 is considerable and all of the variables in this group proved to be significant at the 5% level. Most of the attitudinal variables have, as expected, a positive correlation with SW. For instance being satisfied with one's social life, with one's accommodation, feeling trust in people and to be optimistic about the future are likely to result in a higher level of SW. The variables not positively correlated are satisfaction with family life, trust in the health insurance system, and that the individual perceive tension between different racial and ethnic groups. These results are surprising and seem hard to explain; why would a low satisfaction with family life result in a higher subjective welfare? The marginal effects of these variables are small but it is still interesting to search for explanations for their unexpected relation with SW. The trust in health insurance system could be explained by that certain income and age groups are more prone to have a strong trust. Neither of this explains the negative impact on SW as trust in health insurance system is positively correlated with income, the strongest trust is found among the age group 15-24 and the correlation with age is negative. The trust in health insurance system is, at least in terms of income and age, among those likely to have high SW. The average satisfaction with family life is higher in larger families, from 3 people and upwards, and as household size is negative for SW this could be an explanation for the negative effect of satisfaction with family life on SW. Regarding tension between races and ethnic groups, the variable is negatively correlated with income (which means that more tension is perceived among people with higher incomes) which could be one part in the explanation for its negative impact on SW.

The attitudinal variables are the ones who may incorporate the above mentioned personality traits that are blamed for much of the unexplained differences between objective and subjective welfare. Self-graded happiness and whether the individual is optimistic about the future can give a hint on the general personality of the respondent and in the model they are as expected positive for subjective welfare. The happiness question is posed as "taking all things together (...) how happy would you say you are?" which should provide information about the individual's general happiness and not only at the time of the interview.

5.2 Summary of Results

When bringing together the analysis from the descriptive part and the multivariate part we find an anomaly regarding the groups with both the lowest absolute objective and subjective poverty. They are the active in the labour market, the highly educated and the ones living in urban areas. These are characteristics that are likely to have a positive impact on subjective welfare if we look at the multivariate analysis, but at the same time are people in these groups the ones most prone to perceive themselves as poorer than they really are. This is an interesting fact, particularly from a social or psychological point of view. Relative income and the particular reference groups of urban people may as mentioned be an explanation.

Anomalies are also found among the attitudinal variables satisfaction with family life, trust in health insurance system and perceived tensions between races and ethnic groups. It is interesting and hard to explain why these three variables have a negative correlation with SW. Since the marginal effects are not particularly strong these results are not determining for the overall results but should be kept in mind for future studies.

In general the results are as expected and confirm the hypothesis that the difference between objective and subjective welfare can be explained by a broad spectrum of variables where relative income and attitudes of the individual play an important role.

6. Conclusions

The difference between objective and subjective welfare in the case of Croatia has been confirmed within the present dataset and a wide range of variables have been found to be determining.

As to the objective and subjective profiles of poverty it is important to note the differences between the two; it is clear that it is those with high objective welfare that perceive themselves as subjectively poorer. Even though the determinants are positive for subjective welfare in the framework of the multivariate model, these groups still perceive themselves as poorer than they are in general. This strongly support the adaptation theory and preference drift and is not surprising in Croatia's transitional setting. The sharp changes in socio- economic environment of the past 15 years have increased the expectations for future earnings and stand in sharp contrast to the past context of socialism. The transitional heritage is also interesting in terms of the effects of income inequalities on subjective welfare.

The results from the multivariate analysis are strongly as expected from previous studies and theory. Including a set of attitudinal variables also resulted in expected results apart from the three negatively correlated variables satisfaction with family life, trust in health insurance system and perceived tensions between races and ethnic groups. How to explain their negative correlation and further analyze this kind of variables is something that requires further research. The results from the probit model are also contradictory as equality and a high average income of the neighbourhood is positive for subjective welfare but still the financial situation of the individual relative to majority implies that being above the majority increases SW. This contradiction can be seen as a display of the contradictory state of development, the lingering solidarity mixed with the newly rich and the increasing differences in income.

In addressing general welfare and poverty issues the results from this study tell us that it is the generally approached determinants of poverty that should be focused upon. It also shows that in addressing these, such as low income, unemployment and low incomes for retired people there is no particular effect on subjective welfare as the objective and subjective measures coincide to a large extent regarding these groups. Hence, in order the raise the level of subjective welfare, the best path is to address the objective variables generally acknowledged associated with poverty alleviation. Policy measures range from

promoting education and fighting unemployment and a general promotion of aggregate growth and increasing individual incomes. Fighting inequalities is of particular importance in transition countries as relative income is strongly determining for subjective welfare.

The main conclusion to be drawn is that the basic determinants of subjective welfare in Croatia confirm the general view of what determines subjective welfare. It provides a fundament for further research, of particular interest is the variables composing the measures of social exclusion increasingly used to define poverty. The determining power of these variables for subjective welfare could be important both in a theoretic perspective and for welfare and poverty alleviation policy. Also the attitudinal variables are of interest for further research. For example, the relation between attitudes and variables such as education level and personality are both of interest for general social science but also for practical policy measures.

To conclude, this study has proven the difference between objective and subjective measures of welfare and the strong influence by other variables on the subjective welfare of the individual. Further research, more interest and a greater recognition from policy makers is invited as this kind of research provide basis for targeted policy measures that may focus upon what is truly important for the welfare of the individual, as the individual him or herself perceive it.

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Appendix A

Full outline of the questions in the Quality of Life in Croatia Survey determining objective and subjective welfare:

Objective welfare:

Q 80. Using this card, if you add up all of these income sources (for all household members), which letter corresponds with your household's total net income, that is the amount that is left over after taxes have been deducted? If you don't know the exact figure, please give an estimate.

1. up to 500 kn
2. 501 – 1 000 kn
3. 1 001 - 1 500 kn
4. 1 501 - 2 000 kn
5. 2 001 - 3 000 kn
6. 3 001 - 4 000 kn
7. 4 001 - 5 000 kn
8. 5 001 - 6 000 kn
9. 6 001 - 7 000 kn
10. 7 001 - 8 000 kn
11. 8 001 - 10 000 kn
12. 10 001 - 12 000 kn
13. 12 001 - 14 000 kn
14. 14 001 - 16 000 kn
15. 16 001 - 18 000 kn
16. 18 001 - 20 000 kn
17. 20 001 - 25 000 kn
18. 25 001 - 30 000 kn
19. 30 001 and more kn
20. (Refused)
21. (Don't know)

Subjective welfare:

Q 69. A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income is your household able to make ends meet:

1. Very easily
2. Easily
3. Fairly easily
4. With some difficulty
5. With difficulty
6. With great difficulty
7. (Don't know)

When used in the statistical analysis the order of the responses have been replaced as:

1: With great difficulty, 2: With difficulty ... 6: Very easily

Appendix B

Definition of Analytical Regions

Central Croatia: Krapina-Zagorje, Sisak-Moslavina, Karlovac, Varazdin, Koprivnica-Krizevci, Bjelovar, Medimurje

Eastern Croatia: Vitrovitica-Podravina, Pozega-Slavonia, Slavonski Brod-Posavina, Osijek-Baranja, Vukovar-Sirmium.

Zagreb Region: Zagreb County, Zagreb City

Adriatic North: Primorje-Gorski Kotar, Lika Senj, Istria

Adriatic South: Zadar, Sibenik-Knin, Split- Dalmatia, Dubrovnik-Neretva

Appendix C

Marginal Effects of Variables in Ordered Probit Model

Marginal Effects Outcome 1		"Making ends meet with great difficulty"	
(i) objective variables		marginal effect (dy/dx)	
Total income of household (log)			-0,038
Gender (female)			0,012
Age (log)			0,013
Education status			
	No education/unfinished primary		0,005
	Full primary education		0,011
	Professional training		0,012
	Higer education	reference	
Employment status			
	Active		-0,012
	Unactive- unemployed	reference	
	Retired		-0,020
	Homemaker		-0,009
	In education		-0,014
Household size (log)			0,022
Remittances (recieving)			-0,010
Population in home town			0,007
Region			
	Central		-0,005
	Eastern		-0,011
	Zagreb	reference	
	Adriatic North		-0,017
	Adriatic South		0,002
(ii) relative income variables			
Regional Ginicoefficient			0,001
Average income of region			0,000
Financial situation relative to majority			-0,051
(iii) attitudinal variables			
Health (selfgraded health status)			-0,003
Satisfaction with	social life		-0,002
	accomodation		-0,009
	working life		-0,001
	family life		0,004
Trust in	people in general		-0,002
	pension system		-0,008
	health insurance system		0,004
	unemployment protection		-0,013

Perceived tension between rich and poor races and ethnic groups	-0,014 0,007
Optimistic about the future	-0,009
Subjective Social Exclusion	-0,005
Happiness	-0,004

Marginal Effects Outcome 3		"Making ends meet with some difficulty"
(i) objective variables		marginal effect (dy/dx)
Total income of household (log)		-0,0072
Gender (female)		0,0030
Age (log)		0,0025
Education status		
	No education/unfinished primary	0,0005
	Full primary education	0,0001
	Professional training	0,0024
	Higer education	reference
Employment status		
	Active	-0,0026
	Unactive- unemployed	reference
	Retired	-0,0102
	Homemaker	-0,0036
	In education	-0,0088
Household size (log)		0,0042
Remittances (recieving)		-0,0006
Population in home town		0,0014
Region		
	Central	-0,0012
	Eastern	-0,0039
	Zagreb	reference
	Adriatic North	-0,0100
	Adriatic South	0,0003
(ii) relative income variables		
Regional Ginicoefficient		0,0001
Average income of region		0,0000
Financial situation relative to majority		-0,0098
(iii) attitudinal variables		
Health (selfgraded health status)		-0,0005
Satisfaction with	social life	-0,0005
	accomodation	-0,0017
	working life	-0,0002
	family life	0,0007

Trust in	people in general	-0,0003
	pension system	0,0007
	health insurance system	-0,0015
	unemployment protection	-0,0024
Perceived tension between		
	rich and poor	-0,0027
	racess and ethnic groups	0,0013
Optimistic about the future		-0,0017
Subjective Social Exclusion		-0,0010
Happiness		-0,0007

Marginal Effects Outcome 6		"Making ends meet very easily"
(i) objective variables		marginal effect (dy/dx)
Total income of household (log)		0,0095
Gender (female)		-0,0031
Age (log)		-0,0033
Education status		
	No education/unfinished primary	-0,0011
	Full primary education	-0,0024
	Professional training	-0,0030
	Higer education	reference
Employment status		
	Active	0,0031
	Unactive- unemployed	reference
	Retired	0,0065
	Homemaker	0,0026
	In education	0,0050
Household size (log)		-0,0056
Remittances (recieving)		0,0022
Population in home town		-0,0018
Region		
	Central	0,0014
	Eastern	0,0032
	Zagreb	reference
	Adriatic North	0,0057
	Adriatic South	-0,0005
(ii) relative income variables		
Regional Ginicoefficient		-0,0002
Average income of region		0,0000
Financial situation relative to majority		0,0130
(iii) attitudinal variables		
Health (selfgraded health status)		0,0007

Satisfaction with	social life	0,0006
	accomodation	0,0022
	working life	0,0003
	family life	-0,0010
Trust in	people in general	0,0005
	pension system	-0,0009
	health insurance system	0,0020
	unemployment protection	0,0032
Perceived tension between		
	rich and poor	0,0035
	races and ethnic groups	-0,0018
Optimistic about the future		0,0022
Subjective Social Exclusion		0,0013
Happiness		0,0009