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**Macro & micro aspects of  
standard of living and quality of  
life in a small transition  
economy: The case of Croatia**



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# Macro & micro aspects of standard of living and quality of life in a small transition economy: The case of Croatia

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### **Abstract**

Increasing role of quality of life and standard of living took place in countries all over the world, especially nowadays, when numerous effects of the global crisis are felt all over the world. Emerging crisis caused many problems; thereby, in the current situation it is interesting to examine the level of the quality of life and standard of living. The purpose of this paper is to define standard of living and quality of life using objective and subjective indicators. Moreover, special emphasis is on the evaluation of quality of life and living standard in Croatia. After short overview of general development of concepts of standard of living and quality of life, situation in Croatia is analyzed in more details by using different indicators; GDP per capita, shopping basket, GFK basket, households' expenditures, poverty rate, income inequality, HDI, life satisfaction and happiness, deprivation and optimism about the future. The measures show an increase in the standard of living and quality of life in Croatia, but more importantly, they also show the trend of constant increase in the living costs and the rate of poverty. The level of HDI suggests high level of human development and the results of the level of satisfaction imply that people in Croatia are moderately satisfied with their lives and enjoy a rather high level of happiness. Concerning optimism about the future, Croatian people are mostly optimistic.

### **Keywords**

standard of living, quality of life

### **JEL classification**

I31

## 1. INTRODUCTION

Standard of living and quality of life have been omnipresent issues in transition countries for many years, especially nowadays, when numerous effects of the global crisis are felt all over the world. The financial security and prosperity of the economic systems disappeared almost overnight with the global financial crisis. This economic storm caused rising unemployment, falling incomes, increasing rates of poverty and declines in overall well-being. Thereby, in the current situation, it is interesting to examine quality of life and standard of living. Standard of living is defined as the level of welfare available to individual or to the group of people. It concerns goods and services people are able to consume and the resources they have access to. It depends on the quality and quantity of available goods and services and the way they are distributed within the population. Standard of living is generally determined by indicators such as real income per person and poverty rate. Quality of life refers to the overall welfare within a certain society, focused on enabling each member an opportunity of accomplishing its objectives. Unlike the concept of standard of living, quality of life refers to not only indicators of material standard, but also to various subjective factors that influence human lives. It is very often determined using descriptive measures like satisfaction and happiness. The concepts of standard of living and quality of life are very similar and their coherence is very strong so it is impossible to talk about one without mentioning another. The purpose of this paper is to define and analyze the standard of living and quality of life. Furthermore, this paper analyzes in more detailed current state of the standard of living and quality of life in Croatia with an emphasis on future expectations. In addition, for better understanding of certain figures, Croatia is compared to the European Union (in the further text EU). In the estimation of standard of living and quality of life, there are used two types of measures; objective and subjective indicators. Objective indicators are used to determine and to explain the economic segment, while subjective indicators are used as a descriptive indicator of the noneconomic segment of quality of life and standard of living.

### 1.1. Standard of living and Quality of life: Conceptual framework

In the recent years, the issues of standard of living and quality of life became rather interesting topics and many researches were done in the field of economics, psychology, clinical medicine, health care, philosophy and social sciences. The understanding of the concepts passed through a long period of evolution. For years, standard of living and quality of life were perceived as one and the same thing and even today their coherence is very strong, so it is impossible to talk about one without mentioning another. Standard of living is the level of welfare available to individual or to the group of people. It refers to the ease by which people are able to satisfy their needs. It concerns the physical circumstances in which people live, the goods and services they are able to consume and the resources they have access to (The social report 2009). It depends on the quality and quantity of available goods and services and their distribution within the population. The idea of standard of living requires a macro perspective and it is generally measured by standards such as real income per person and poverty rate. The most common measure is national output per capita, measured as GDP or GNP per capita. Other measures such as income inequality and life satisfaction are also used.

There is still no one universally accepted definition of quality of life or one common standard of its measurement. Quality of life refers to individuals' life situations. This concept requires a micro perspective, where the conditions and perceptions of individuals play a key role. Thus, quality of life can be measured by objective as well as subjective indicators (European Foundation of living and working conditions, 2007). It is often measured using descriptive measures like satisfaction or happiness. The most comprehensive definition came from Felce and Perry (1995) which defined quality of life as total welfare which includes objective and subjective evaluation of physical, material, social and emotional welfare, personal development and activity, all together evaluated throughout personal set of values.

## 2. STANDARD OF LIVING & QUALITY OF LIFE IN CROATIA AND THEIR MEASUREMENT

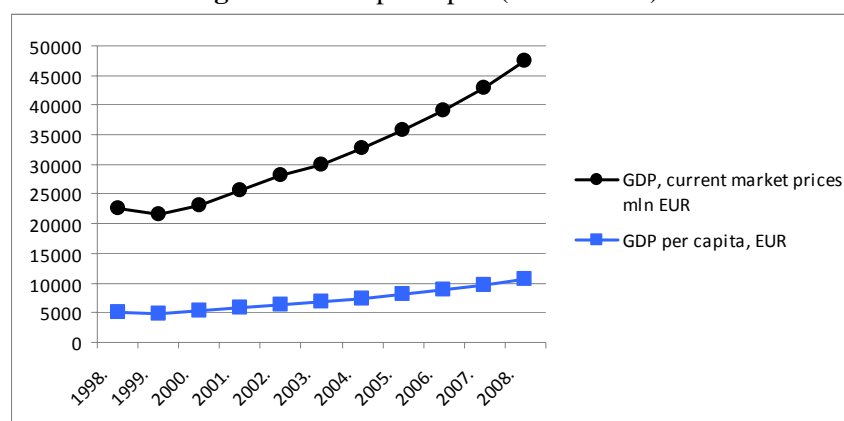
The purpose of this section is to show a comprehensive picture of the current living conditions and quality of life on the example of small transition economy, in this case Croatia, using objective and subjective indicators.

### 2.1. Objective indicators of Standard of living & Quality of Life

Objective circumstances refer to the economic and material conditions which are crucial aspects of the standard of living and quality of life. In the assessment, eight different indicators were used; GDP per capita, CPI, shopping basket, households' expenditures, GFK basket, poverty rate, income inequality and HDI.

**(1) Gross domestic product:** Gross domestic product (in further text GDP) is defined as the value of all goods and services produced less the value of any goods or services used in their creation. GDP per capita is the mean value of the output produced per person, which is also the mean income and it is very often used as a measure of an individual's welfare. Usually, countries with higher GDP are also more likely to score highly on other measures of welfare.

**Figure 1: GDP per capita (in mln EUR)**

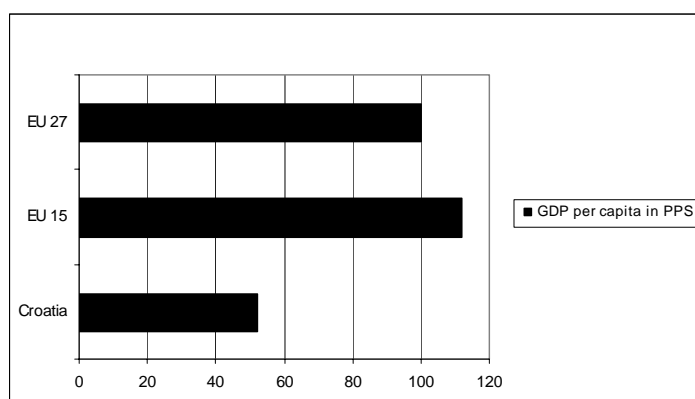


Source: Authors' calculations according to the data provided by Croatian Central Bureau of Statistics (2009)

GDP and GDP per capita increase in the observed period. According to the data provided in Factbook (Central Intelligence Agency, 2009), Croatia is ranked 70<sup>th</sup> out of 228 countries with GDP per capita for the year 2009 of \$17,600.

Figure 2 presents GDP per capita in Purchasing Power Standards (in further text PPS). PPS is common currency that eliminates the differences in price levels between countries allowing meaningful volume comparisons of GDP between countries. The volume index of GDP per capita in PPS is expressed in relation to the EU-27 average set to equal 100. If the index of a country is higher than 100, this country's level of GDP per person is higher than the EU average and vice versa.

**Figure 2: GDP per capita in PPS**



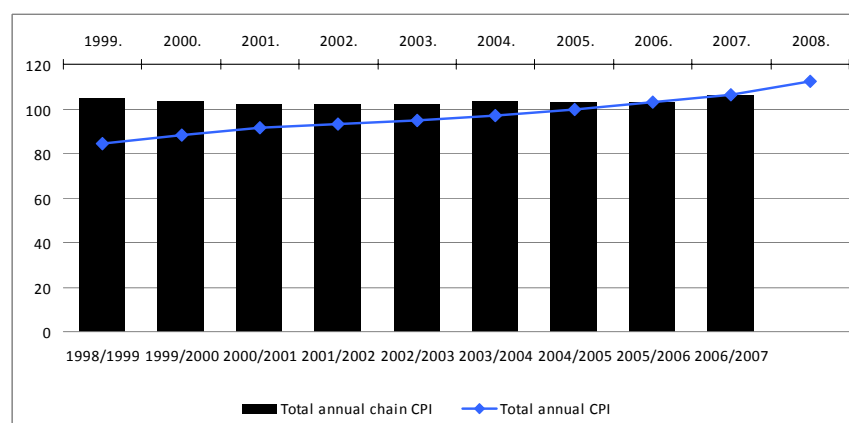
Source: Authors calculations according to the data provided in European Quality of Life Survey

European Quality of Life Survey (in further text EQLS) is made by the European Foundation for the Improvement of Living and Working Conditions. It was carried out in 2003 and it covered 28 countries and involved interviewing 26,000 people. The survey examined a range of issues, such as employment, income, education, housing, family, health, work-life balance, life satisfaction and perceived quality of society. Eurofound’s second EQLS, carried out in 2007, offered a wide-ranging view of the diverse social realities in the 27 Member States, as well as covering Norway and the candidate countries of Turkey, Macedonia and Croatia (European Foundation of living and working conditions, 2007).

According to the data provided in EQLS, in comparison to the EU15 and EU27, Croatia lags behind their average. Croatia’s GDP per capita in PPS is 52 and it is at half of the GDP per capita in PPS for the EU 27.

**(2) Consumer price index:** Consumer price index (in further text CPI) is normalized average of prices of the selected goods and services in a region which indicates to a certain level of development or „costs of living“ i.e. standard of living in a specific country.

**Figure 3: Total annual CPI and total annual chain CPI in Croatia in the period 1998-2008**

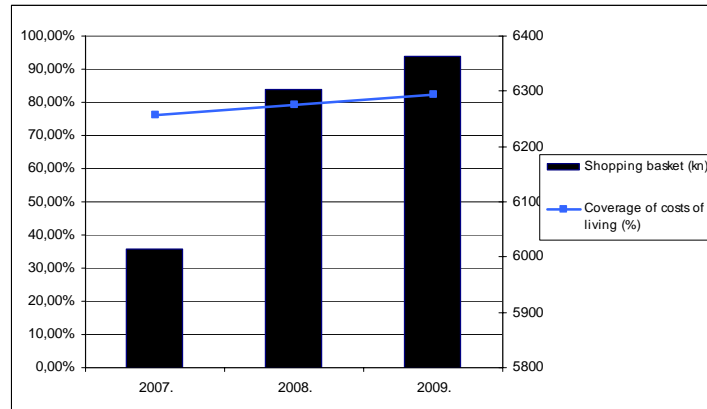


Source: Authors’ calculation according to the data provided by Croatian Central Bureau of Statistics (2009)

Total annual CPI in Croatia slightly varies during the observed period but ultimately it remains unchanged, while the total chain CPI constantly increases. This suggests that the costs of living over time are rising. According to the Croatian Central Bureau of Statistics (In further text CCBS) in December 2009, the rate of CPI was 1.9% which indicates a slower increase of the prices, in comparison to the previous months. This growth is primarily caused by the increase in the housing prices, water and energy prices, while all the other prices remain on average by 0, 1% higher.

**(3) Shopping basket:** Shopping basket enables estimation of the average costs of living of the household. According to the CCBS (2009), shopping basket for the four member family for August 2008 is 6576.97 KN and the share of food in the basket is 40, 2%. Average net earnings for the June 2008 are 5370 KN and cover 81, 65% of the average basket. Average monthly gross and net earnings in Croatia constantly increase in the period 1999-2008 and in 2008 average gross earnings are 7544 KN while average net earnings amount 5178 KN. An average increase in the monthly gross earnings in the period 1999-2008 is 5, 78%, while the average increase in net earnings is 6, 04%.

**Figure 4:** Shopping basket and average wage coverage of costs of living in the period 2007-2009

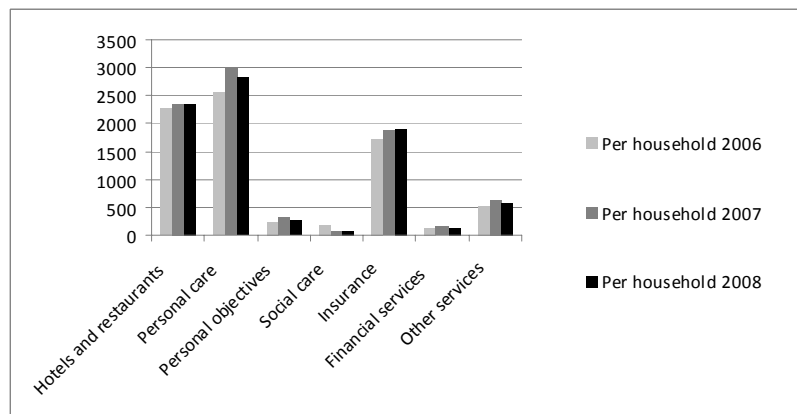


Source: Authors' calculation, The Union of Autonomous Trade Unions of Croatia (2009)

The shopping basket slightly increases in the observed period. Since the average earnings increase in the same period, the average coverage of costs of living also rise from 76.12% in 2007 to 82, 29% in 2009.

**(4) Households' expenditures:** According to the research done by GFK - Market Research Centre Ltd (2009), more than one fourth of the households in Croatia believe that in 2010 they will be forced to spend more money on consumption goods. As a result, total number of households able to save money, will diminish to 42%. The trend in average annual consumption per household in Croatia is presented in the following figure.

**Figure 5:** Average annual consumption expenditures per household (in KN)

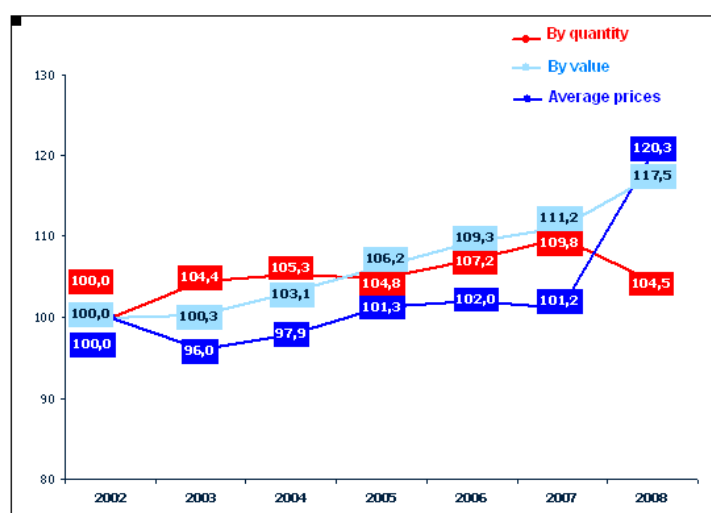


Source: Authors' calculation according to the data provided by CCBS

Average annual consumption per household, in most categories, increases in 2007, and then, decreases in 2008. In 2009 expenditures per household decrease or remain the same among most of the categories except in the category of insurance where the expenditures increase. This is usual, since in the times of crisis people are even more concerned about their future, thereby; they tend to spend more money on their insurances.

**(5) GFK basket:** Another indicator used as a measure of standard of living and quality of life in Croatia is a GFK basket, measured by index of spending of Croatian households. GFK basket is made out of 60 groups of products for everyday consumption. For the purposes of this index there are three subgroups; basic nutrition products (milk, oil, coffee), basic hygiene products (detergent for dishes and machine washer detergent, soap, toothpaste, shampoos and cleansers) and nonessential products (instant coffee, fruit juices, water, ice tea, fermented dairy products, dairy desserts, chocolate, margarine, mayo, ketchup and mustard). The sample consists out of 1,500 households and it is representative for the whole Croatia. For the purposes of calculation of this index, the basket is reduced to a smaller number of products which should be available in every household.

**Figure 6:** Index of spending of the Croatian households – Basket of consumer goods



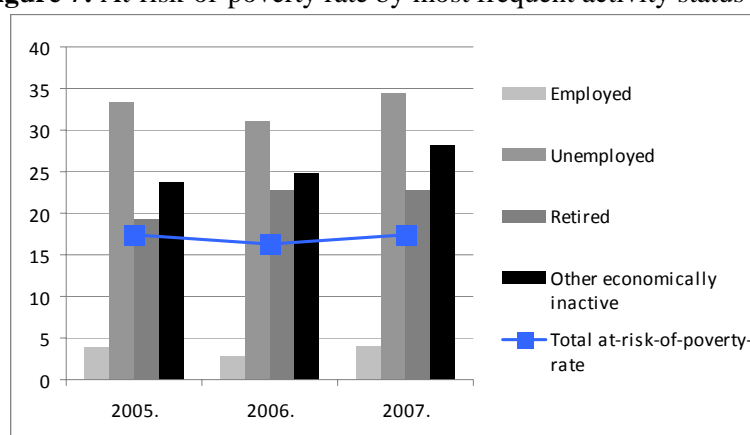
Source: GFK

Index for 2008 shows a negative trend in the volume of the expenditures and increase in the value, due to sharp increase in average prices. Concerning basic nutrition products, in 2008 average prices and values significantly rise, and quantities bought significantly decrease. Average price of basket of hygiene products increases significantly and consequently, the quantities bought, decrease. Finally, average prices of nonessential products increase significantly and the volume in the consumption of these products diminishes.

**(6) Poverty:** According to the statistics (CCBS, 2009), regarding problems with poverty, Croatia does not differ from the EU average (16-18% of poor). However, in the research done by GFK (2009), more than 50% of citizens report that they feel poor. In general, those who are exposed to the risk of poverty are citizens whose income is less than 2 000 KN per month. In 2009, number of unemployed raised by 47 000 people and it is expected that in 2010 this trend will continue. It is estimated that 17.4% of Croatian people lives on the line of poverty or 850 000 people, which are formally recorded at the CCBS (2009), where citizens whose incomes exceed that limit by 100-200 KN are not included. If those people were counted, the total number of socially vulnerable people would exceed 1000 000. Poverty is measured using at-risk-of-poverty rate and HPI.

*At-risk-of-poverty rate* is the percentage of people whose equivalised net income is below the at-risk-of-poverty threshold. The at-risk-of-poverty threshold is defined as 60% of equivalised net income median of all households. It is determined relatively, based on the distribution of income. Relative risk of poverty presents the ratio of poverty rate of specific age group and general rate of poverty for the whole society. When the risk of poverty is greater than 1, specific group has above average risk of poverty. If the rate is lower than 1, group has below average risk of poverty.



**Figure 7:** At-risk-of-poverty rate by most frequent activity status (%)

Source: Authors' calculation according to the data provided by CCBS

The highest at-risk-of-poverty rate is present among unemployed people. Furthermore, other economically inactive people are second most affected, followed by retired people and finally, the least affected are employed people. Comparing the years, at-risk-of-poverty rate on average, increases in the observed period.

**The Human poverty index** (in further text HPI) is a measure of the standard of living in a country. The HPI-1 is used in developing countries, and it measures severe deprivation in health by the proportion of people who are not expected to survive by the age of 40, the education is measured by the adult illiteracy rate while a decent standard of living is measured by the unweighted average of people not using an improved water source and the proportion of children under age of 5 who are underweight for their age. According to data provided in the Human Development Report 2009 (United Nations Development Programme (UNDP), 2009) the HPI-1 value for Croatia is 1.9%. This ranks Croatia 2<sup>nd</sup> among 135 countries for which the index is calculated. Concerning probability of not surviving to the age of 40, the value for Croatia is 2.6%. Adult illiteracy rate is 1.3%, the proportion of people not using improved water sources 1% and the percentage of children underweight for their age, 1%. According to the provided data, in Croatia lives <2% of the people under \$1, 25 a day and <2 % of people under \$2 a day.

**(7) Human development index:** The human development index (in further text HDI) measures the average progress of a country in human development. HDI in the interval 1-0, 8 is considered high, from 0, 8-0, 6 as medium, and from 0, 6-0, 4 as low. HDI goes beyond GDP to a broader definition of well-being. It provides a composite measure of three dimensions of human development: living a long and healthy life (measured by life expectancy), being educated (measured by adult literacy and gross enrolment in education) and having a decent standard of living (measured by purchasing power parity). It provides a possibility for viewing human progress and the relationship between income and well-being. According to the data provided in Human Development Report 2009 (United Nations Development Programme (UNDP), 2009), between 1990 and 2007 Croatia's HDI rises by 0.38% annually. The HDI for 2007 is 0.871, which is considered as high HDI, and it ranks Croatia 45<sup>th</sup> out of 182 countries.

**(8) Income inequality:** Income inequality refers to the extent of disparity between high income and low income households. The degree of income inequality is often regarded as an important aspect of the fairness of the society. Gini coefficient is a measure of income inequality, which takes into account the full distribution of income. Its value ranges between 0 and 1. The higher it is, the greater is the income inequality. According to the data provided by CCBS (2009), the income inequality in Croatia, in the period 2005-2006 diminishes, from 5,1 to 4,8, and then in 2007 it slightly increases to 4,9. The Gini coefficient also diminishes in the observed period from 0, 29 in 2005 to 0, 28 in 2006 and in 2007.

**Findings:** The level of GDP per capita in Croatia increases during the past 10 years, but is still below the average for the EU. Moreover, CPI increases, suggesting an increase in the costs of living in Croatia. Over

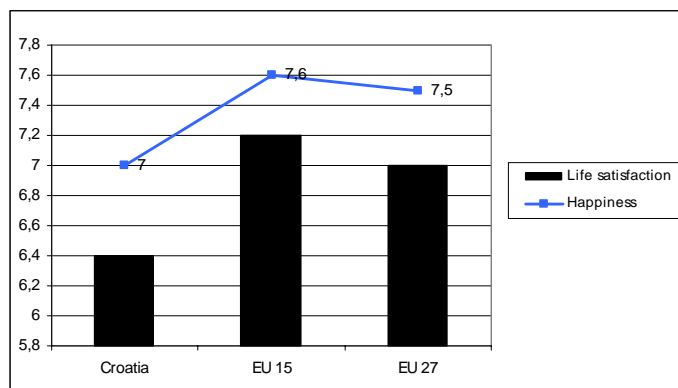
the past 10 years, gross and net earnings rise, but since the costs of living also rise, the purchasing power of people either remains unchanged or diminishes. In addition, this also negatively affects citizens' incomes and causes increase in the rates of poverty. Poverty in Croatia does not differ from the EU average (16-18% of poor), however, every day, more people face the line of poverty. Due to increase of poverty, expenditures of the households also decrease. HDI for Croatia is 0,871, and it suggests a high level of human development. Income inequality is rather modest and quite stable over time.

## 2.2. Subjective measures of Standard of living & Quality of life

Subjective well-being refers to people' subjective evaluations of their lives; problems and situations they face with and circumstances in which they live (European Foundation of living and working conditions, 2007). It usually includes the factors like satisfaction and happiness, as a measure of standard of living and quality of life. In the paper the following subjective indicators were used: life satisfaction and happiness, deprivation and optimism about the future.

**(1) Life satisfaction and happiness:** One of the essential elements in improving the standard of living and quality of life is establishment of atmosphere and conditions in which people are able to achieve their objectives. The more opportunities of fulfilling their goals they get, the happier and more satisfied they are. The life satisfaction index gives an insight into how a respondent evaluates its life as and it is intended to represent a broad, reflective appraisal that a person makes of its life. At the same time, the happiness index encompasses several meanings in popular discourse, as well as in literature, but is usually used as a measure of the affective component of subjective well-being. Happiness generally refers to the feeling of more pleasant, as opposed to unpleasant, emotions. In the EQLS (European Foundation of living and working conditions, 2007), respondents were asked to rank their happiness and satisfaction with their lives on the scale from 1, where 1 stands for very dissatisfied/very unhappy to 10, where 10 means very satisfied/very happy.

**Figure 8:** Comparative view of the level of life satisfaction and happiness in Croatia, EU 15 and EU 27



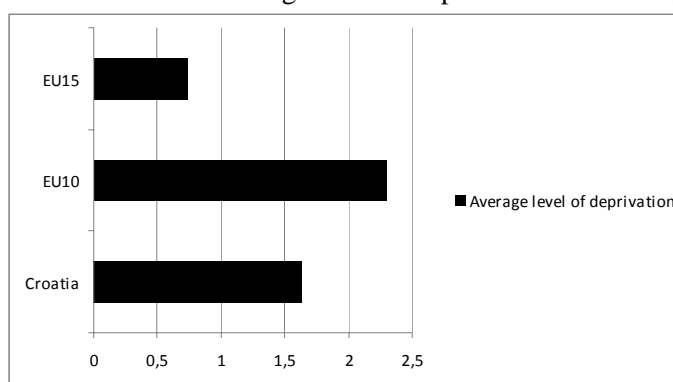
Source: Authors' calculation according to the data provided in EQLS

Happiness ratings are increasing in Croatia since 1995, which might be explained by improvements in the country's economic, political and social situation. Figure 8 shows that the level of happiness in Croatia, EU 15 and EU 27, is generally higher than the level of the satisfaction. In Croatia the level of satisfaction is 6, 4, a bit lower than in EU 15 and EU 27. The results show that people in Croatia, on average, are moderately satisfied with their lives and enjoy a rather high level of happiness. In addition, in the Second EQLS (European Foundation of living and working conditions, 2009) respondents were asked to rank their attitude towards following sentence: "My life is close to how I would like it to be." Five categories of response were offered to respondents; strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. Comparing the proportions of the respondents mostly satisfied (35%) with the proportion of those generally dissatisfied (37%), taking into account the proportion of respondents who neither agree nor

disagree with the statement, it is concluded that an average citizen of Croatia is moderately satisfied or unsatisfied with its life.

**(2) Deprivation:** Another measure of quality of life and standard of living is the level of deprivation. Income can vary during certain periods however households usually try to maintain certain level of consumption or certain life style even in the situation when their income tends to decrease. The approach of deprivation concerns measurement of socially unacceptable standard of living throughout restricted access or usage of specific goods, services and activities. The intention is to measure involuntary or enforced deprivation regarding total number of items that households cannot afford. The average number of items people are deprived of is recorded as an index of deprivation. Deprivation is determined using several different indicators, each has the same weight, which concern five dimensions of the living standard; housing, nutrition, clothing, leisure and social relationships. The respondents were asked to answer whether they can afford themselves each of the 6 offered indicators. Group of materially deprived people is composed out of those individuals that cannot afford themselves certain goods or services. Index of deprivation shows average number of indicators that respondent cannot afford.

**Figure 9:** Comparative view of the average level of deprivation in Croatia, EU15 and EU10



Source: Authors' calculation according to the data provided in EQLS

Figure 9 shows that the households in Croatia cannot afford themselves 1, 67 of the indicators. This is below the amount of indicators that people from EU10 are deprived from (2, 3) and above the amount of indicators that cannot afford an average person in EU15 (0, 74).

**(3) Optimism about the future:** Optimism about the future is a descriptive measure used to examine the standard of living and quality of life that people expect in the future. In the EQLS (European Foundation of living and working conditions, 2007), respondents were asked to agree with the following sentence: "I am optimistic about the future." Five categories of response were offered to respondents; strongly disagree, disagree, neither agree nor disagree, agree and strongly agree. According to the results, the largest proportion of respondents in Croatia (40%) agrees with the statement and is optimistic about their future.

**Findings:** The level of happiness in Croatia is generally higher than the level of the satisfaction. The results suggest that people in Croatia are moderately satisfied or unsatisfied with their lives and enjoy a rather high level of happiness. Concerning the level of deprivation, people in Croatia cannot afford 1, 67 of the indicators. Finally, considering optimism, the results show that Croatian people are mostly optimistic about their future.

### 3. CONCLUSION

Standard of living and quality of life refer to the overall well-being of the society. Standard of living refers to the ease by which people are able to satisfy their needs. It concerns the physical circumstances in which people live, the goods and services they are able to consume and the resources they have access to. The

idea of standard of living requires a macro perspective and it is generally measured by standards such as real income per person and poverty rate. On the other hand, quality of life refers to individuals' life situations and requires a micro perspective, where the conditions and perceptions of individuals play a key role. It is usually measured using descriptive measures like satisfaction or happiness. The level of standard of living and quality of life are examined on the example of small transition country, in this paper, on the example of Croatia. In the evaluation, two types of indicators are used; objective and subjective. Objective indicators refer to the measurement of the economic conditions while the subjective indicators estimate the well-being through the perspective of the individual.

The findings show that GDP per capita in Croatia increases in the past 10 years, but is still below the average for the EU. CPI increases in the observed period, suggesting an increase in the costs of living. Furthermore, gross and net earnings increase, but since the costs of living also rise, the purchasing power of people either remains unchanged or diminishes. Due to increase of poverty, expenditures decrease. HDI for Croatia is 0,871, and suggests a high level of human development. Income inequality is rather modest and quite stable over time. The level of happiness in Croatia is higher than the level of the satisfaction. Moreover, the results suggest that people in Croatia are moderately satisfied with their lives and enjoy a rather high level of happiness. The level of deprivation indicates that people in Croatia cannot afford 1, 67 of the indicators. Finally, considering optimism about the future, Croatian people turn out to be mostly optimistic.

#### 4. LIMITATION OF THE STUDY AND FUTURE STUDIES

In this paper, it was used a limited number of objective and subjective indicators. However, many other indicators of standard of living and quality of life can be used in the future. New indicators might affect the results. Also, the overall effects of the ongoing crisis on standard of living and quality of life will be more suitable for evaluations in the coming years, since the effects will be more obvious. Future research on standard of living and quality of life will be improved if the effects of the current crisis on changes in standard of living and quality of life can be measured. In addition, estimation of the living standard and quality of life should be expanded by adding new variables in the future researches.

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