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ECONOMIC INEQUALITY AND THE INFLUENCE OF SALARIES ON INCOME INEQUALITY IN THE REPUBLIC OF CROATIA^{3 4}

ABSTRACT

Reducing income inequality is an important development goal in every country since high inequality brings to social tensions and reduced effectiveness of the economic system. The efficiency of measures taken to reduce inequality presupposes a thorough knowledge of its causes and the factors that most influence the degree of inequality in a particular country. That is why the authors of this paper tried to establish to what extent the salaries – as one of the key sources of income – influence the income inequalities in the Republic of Croatia. Using their own analytical approach, based on the comparison of salary values and the standard of living in Croatian counties, the authors conclude that the salaries are not the key factor in income inequalities in the Republic of Croatia.

Key words: *income, salaries, income inequality, and standard of living*

1. Introduction

In recent years, an attitude about a significant rise of poverty and increase in inequality among the population has been adopted in Croatia. Research has shown that up to 80% of citizens consider themselves to be poor. A sense of great increase in inequality as opposed to the pre-transition period is also present.

The aim of this paper is to point out the overall significance of theoretical and applied research into income inequality, and to investigate to what extent the salaries – as one of the key sources of income, influence the trend of economic inequalities in the Republic of Croatia.

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2. Understanding and measuring inequality

Economists usually explain inequality as the dispersion of the distribution of economic power between individuals or households. Economic power can be shown through the income size, the extent of consumption or some other variable appropriate for the analysis.

An interest for the research of inequality and its influence on the economic growth and development has been present in economic literature for a long time. Ricardo, Marx, Keynes have dealt with the issues of income distribution. In the year 1955 the famous Kuznetz curve was published. This curve, which is called the Kuznetz reversed U curve⁵, explains the relation between income growth and the change in its distribution, proving that at the initial stage of economic growth inequality increases only to start decreasing later on. Kuznetz tested his research on the data for Germany, USA and Great Britain. Over the next few decades many researchers tried to prove the existence of the reversed U curve for a specific country, wanting to establish the relation between the growth of GDP and the level of inequality. Common feature of all the papers that supported and accepted the Kuznetz hypothesis is that economic growth and development inevitably lead to the increase of inequality, at least at the initial stage of development. This conclusion is based also on the view that effective economic activities and equal distribution of income are incompatible.

However, in the early 1990s this view was abandoned in the contemporary economic literature. It was proved that the Kuznetz curve cannot describe the contemporary experience in development and that it was possible to achieve economic growth and greater equality at the same time. New empirical and theoretical results are provided by the modern, more comprehensive databases that now deal with a greater number of information and longer time sequences⁶.

The starting point, when researching income inequality, is the category of disposable income that comprises income from salary, own business and self-employment, individual agriculture, pensions and other social transfers, property income, gains and gifts, and the value of natural consumption.⁷

Income inequality can be presented in two basic ways: through population share in the aggregate income or through income concentration indicators.

According to the share in the income approach, households are ranked in income classes, from the lowest to the highest received income – usually in quintals or deciles. For example, in the case of ranking into quintals, it is possible to determine the percentage share in the total income that is received by the lowest (the poorest) fifth of the pop-

⁵ Kanbur, R.: *Income Distribution and Development*, published in Atkinson, A.B., Bourguignon, F.: *Handbook of Income Distribution*, Amsterdam, 2000.

⁶ For a systematic review of the development of theories and empirical research of inequality and economic development, see: Nestić, D.: *Economic Inequalities in Croatia*, doctoral dissertation, Zagreb, 2002.

⁷ According to the UN System of National Accounts, 1993.

ulation, by the second fifth, the third, the fourth and the highest, or the richest, fifth. Those numbers are compared with the ideal distribution of complete equality.

The Gini index is most frequently used income concentration indicator. Theoretically, the Gini index will be 0 in case of totally equal distribution of income, and 100 in case of total inequality. This indicator is sometimes used for measuring deviations in the consumption among individuals or households. It is mathematically calculated as the surface beneath the Lorenz curve, which is often used for graphic presentation of the degree of inequality in income distribution and total population wealth.

Even though the Gini coefficient is the most commonly used inequality indicator, it is sometimes impossible to calculate it. That is because this coefficient is derived from household surveys and it is only in a small number of countries that the data from these surveys are available every year. The Theiles indicator that can be calculated from different groups of data available for an individual country is used to bridge this gap. In this way the degrees of inequality between individual countries within the same time periods can be compared.

Although the emphasis of this paper lies on income inequality, it is also necessary to mention here the measuring of poverty since the two categories are closely related with one another. Poverty is usually explained as the condition in which individuals have at their disposal an income that is below the estimated figure needed to cover the cost of living on the existential level.

Poverty research demands some internationally comparable standards. The threshold of poverty according to the World Bank is calculated on the basis of consumption less than 1 or 2 dollars per day. However, based on the international standards, as well as the real purchasing power, each country determines its own poverty threshold. Due to methodological differences, the degree of poverty does not have to be the same by the national and the international standard⁸. The value of consumption is used as the better poverty indicator since it reflects, more accurately than the income, the standard of living of the population. The data for the calculation of the poverty threshold are usually obtained through appropriate questionnaires in surveys, and individuals and households are not as ready to reveal their real disposable income, as they are ready to reveal their consumption. If the data should be obtained from public statistical records, a «wrong picture» might be got about the actual situation in the economies that have a large share of grey economy (the informal sector). Numerous limitations that need to be kept in mind occur when attempting the international comparison of the degree of inequality and poverty. For example, when estimating the threshold of poverty, there is a distinction between developed and undeveloped countries, since in the developed countries the population on or below the threshold of poverty has greater purchasing power than the same category of population in the poor countries. Limitations occur

⁸ There is no official threshold of poverty in Croatia. According to the research conducted by the World Bank, and based on the prices from 1998, The threshold of absolute poverty amounts to 41, 500 kuna a year for a married couple with two children, or, 15,474 kuna for an adult person. From: the World Bank document: *Study of Economic Vulnerability and Social Welfare – Croatia*, June 2000.

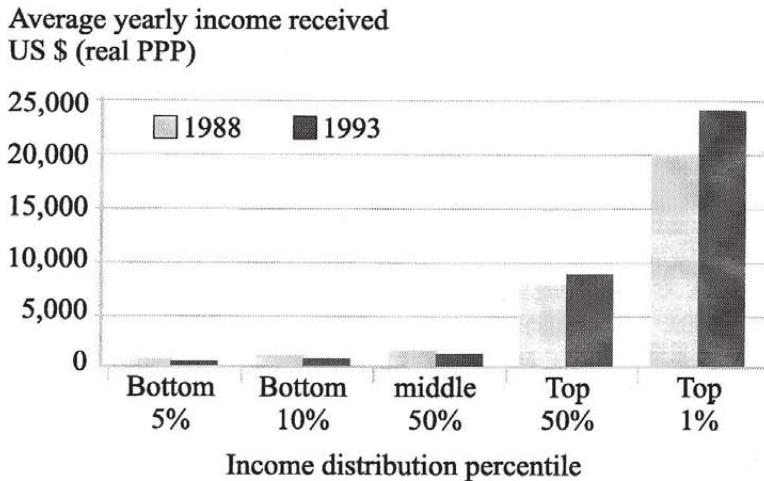
even when we compare poverty within a country because, for example, the costs of living are greater in urban than in rural areas.

It is interesting to mention the results of the latest research in the inequality trends on the global level. Despite the industrialization and urbanization of many countries in the last fifty years, the research shows negative trends⁹. Global income inequality has never been greater than at the beginning of the 21st century. According to Milanović¹⁰, the richest 1% of the world population has at their disposal the total income equal to that of the 57% of the poorest, respective of the income classes. The ratio between the average income of the top 5% and the lowest 5% has increased from 78:1 in 1988 to 114:1 in 1993 and the current trends indicate further increase of the ratio.

Milanović proves that, measured in purchasing power parity, 25% of the richest world population receives 75% of world income. The poorest 75% of the population participates with only 25% of the income. Or, 2,4 billion people whose income is under a 1000 dollars a year live in India, Indonesia and rural parts of China. Even though they make up for 42% of the world population this group receives only 9% of the world PPP income.

Chart 1

World inequality



Source: <http://www.globalpolicy.org/socecon/inequal/2002>

⁹ Some economic papers after the Second World War take the view that the industrial development and increase of income in the countries on the lower level of development, bring to greater equality in income distribution on the world scale.

¹⁰ Milanović, B.: *True World Income Distribution*, 1988 and 1993: First calculation based on household survey alone, World Bank, 1999.

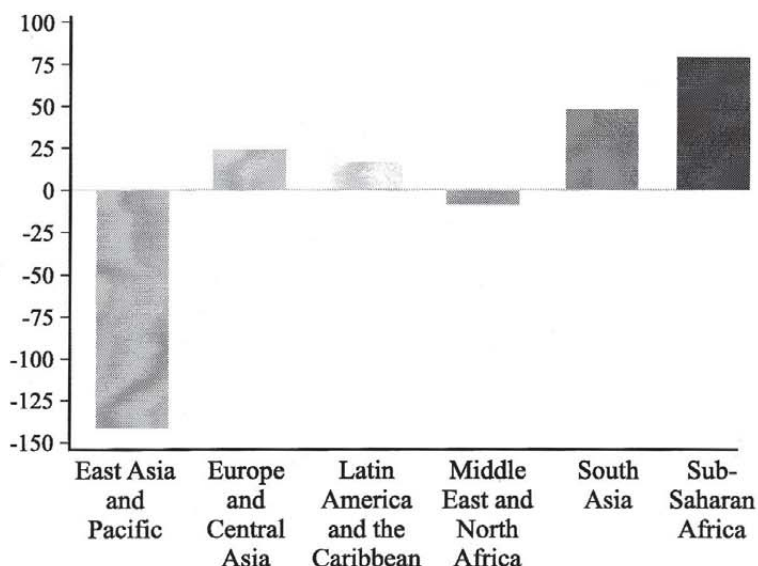
Measured in the Gini coefficient, world income inequality amounts to 66 if we use the dollar exchange rate by the purchasing power parity, and 80 if income is calculated according to the current parity of the dollar and the individual national currencies.

The greatest poverty is concentrated in South Asia, where the half of the poor population of the world is located. In the last decade poverty in East Asia has decreased significantly, especially in China where the standard of living is rising, especially in the coastal cities. This change is due to the opening of Chinese economy towards global economy. In the last decade poverty is increasing in Africa, South Asia, and especially – as a consequence of the transition processes, in Eastern Europe.¹¹

Chart 2

Changes in World Poverty 1987- 1998

Millions of people living
on less than \$1 per day



Source: <http://www.globalpolicy.org/soecon/inequal/2002>

Empirical research of inequality and poverty is of great importance for every country and the conduct of its economic policy. Considering that high inequality, as well as the large number of poor population, apart from the potential social unrest, means also a lower purchasing power, such conditions are not desirable for achieving long-term

¹¹ Data available on: www.globalpolicy.org/soecon/inequal/2002

economic growth. That means that, for a stable economic growth, it is necessary to set up an efficient system of income redistribution, based on quality promising factors, and not on dissimulating measures of income redistribution.

As estimated by the World Bank, the Gini coefficient for per capita income in the Republic of Croatia in the period between 1996 and 1999 was 0.35¹² and it is lower according to pre-transition period (between 1987-1990. it was 0,36 on average). In other transition countries inequality grew 36,3% on average, with the lowest increase in Slovenia (13,6%) and the rapid increase of inequality in Russia (80,8%)¹³.

However, the carriers of the economic policy of an actual economy, apart from the knowledge of the average inequality and degree of poverty, should find a particular interest in the following of the regional income inequalities considering the frequent substantial development differences between individual regions. In that way, through the specific measures implemented by the lower-ranking territorial units, together with the economic and social policy on the state level, and within the economic decentralization model, an influence could be made on the growth of equality, but also of the economic efficiency of each region.

Taking into account that salaries represent the most important source of household incomes in most countries, the remainder of this paper shall deal with the influence of salaries on regional inequalities in the Republic of Croatia.

3. The influence of salaries on inequality trends in Croatian counties

In Croatia, on county levels, there are no statistical databases necessary for the application of internationally recognized methods for determining the influence of salaries on income inequalities among the population or households. Therefore, we have come up with our own, relatively reliable approach that will enable us to determine this. The influence of salaries on inequality trends will be analysed through the investigation of the inter-relation between the average salaries in individual Croatian counties and achieved average consumption per capita in retail trade and the selected indicators of the achieved standard of living.

Notes on Methodology

The research includes years 1999 and 2000. It was not possible to form a longer time sequence as the official statistics has recorded the data on received salaries in individual counties since 1999. The data for a preceding year are published in the last quarter of the current year and for that reason it was not possible to put in the data for 2001.

We will analyse the influence of salaries on the average consumption in retail trade. For a fuller insight into the influence of salaries on the socio-economic position of house-

¹² World Bank: *Making Transition Work for Everyone*, Washington, 2000.

¹³ Karaman Aksentijević, N. and Denona Bogović, N.: *Economic Inequality in the Republic of Croatia – Comparison with the Selected CEE Countries*, Brno 2003

holds, the relation between the salary level and the selected indicators of the standard of living will be investigated as well. The number of indicators is limited because a small number of them are published on county level. Indicators of the standard of living that are exclusively the result of the general level of county development (development of public utilities and social infrastructure) or, are the result of the compulsory implementation of the national standard in providing public services, are not taken into account because the primary objective of this paper is to investigate the influence of salaries on the socio-economic position of households. Therefore, apart from the consumption per capita in retail trade, for the estimate of the achieved level of the standard of living, the following indicators will be used: the number of residents/inhabitants per television subscription, number of personal motor cars per 1 000 inhabitants, number of telephone users in fixed telephone network per one telephone subscription and the number of students per 1000 inhabitants.

The authors' intention was to include into the indicators of the achieved standard of living those indicators that adequately reflect the quality of housing (number of flats per household and amount of space in the flats per person) and also indicate the cumulated income and its influence on the standard of living in the course of years. But, because of the war devastation and the demographic consequences that the war had in the majority of Croatian counties, these indicators that are usually monitored in the censuses are not sufficiently representative.

All counties are ranked considering the value of a particular indicator where the lower rank value or the total rank value marks the better position of a particular county in Croatia. The intensity of positive or negative oscillations in relation to the Croatian average is presented through the value of percentage deviations of each of the selected indicators or through the total percentage deviations of each of the selected indicators when calculating the level of the living standard in a particular county.

Calculating indicators

We continue with the calculation of indicators presented in tables. The level of average net salaries per employee in the counties in the two selected years and the retail trade turnover are shown first. It is followed by the presentation of the selected indicators of the achieved level of living standard. Table 4 gives the position of all the Croatian counties according to the calculations from the preceding tables. Through the comparison of their positions it is possible to determine with relative certainty, the influence of average salaries on the socio-economic position of households in individual Croatian counties.

Table 1
Average net salaries per employee and retail trade overturn in individual counties in 1999 and 2000

| Country | Average net salaries per employee | | | | | | Retail trade overturn in 1000s of kunas per capita | | | | | |
|-------------------------------|-----------------------------------|----|--------|---------|----|-------|--|----|--------|-------------|----|--------|
| | 1999 | | | 2000 | | | 1999 | | | 2000 | | |
| | Kn | R | POIH | Kn | R | POIH | thousand Kn | R | POIH | thousand Kn | R | POIH |
| Zagrebačka | 3 383 | 1 | 18,3 | 3 018 | 16 | -3,1 | 6,55 | 10 | -9,89 | 9,1 | 6 | -1,88 |
| Krapinsko-zagorska | 2 683 | 18 | -6,18 | 2 910 | 19 | -6,57 | 6,3 | 12 | -13,28 | 5,18 | 17 | -44,13 |
| Sisačko-moslavačka | 2 957 | 7 | 3,4 | 3 301 | 2 | 5,98 | 3,47 | 19 | -52,24 | 4,13 | 20 | -55,49 |
| Karlovačka | 2 809 | 11 | -1,77 | 3 099 | 10 | -0,5 | 7,2 | 8 | -1,02 | 4,34 | 19 | -53,18 |
| Varaždinska | 2 681 | 19 | -6,25 | 2 888 | 20 | -7,28 | 6,61 | 9 | -9,06 | 7,64 | 11 | -17,54 |
| Koprivničko-križevačka | 2 750 | 15 | -3,84 | 3 023 | 15 | -2,94 | 5,31 | 15 | -26,9 | 9,23 | 5 | -0,46 |
| Bjelovarsko-bilogorska | 2 719 | 16 | -4,92 | 2 975 | 17 | -4,48 | 4,85 | 17 | -33,29 | 7,79 | 10 | -15,96 |
| Primorsko-goranska | 3 050 | 3 | 6,65 | 3 301 | 3 | 5,98 | 12,09 | 2 | 66,35 | 9,67 | 3 | 4,36 |
| Ličko-senjska | 2 685 | 17 | -6,11 | 3 092 | 11 | -0,73 | 6,39 | 11 | -12,15 | 5,3 | 14 | -42,81 |
| Virovitičko-podravnska | 2 673 | 20 | -6,53 | 2 932 | 18 | -5,86 | 5,85 | 14 | -19,49 | 5,22 | 16 | -43,74 |
| Požeško-slavonska | 2 765 | 13 | -3,35 | 3 037 | 13 | -2,49 | 3,57 | 18 | -50,93 | 7,8 | 9 | -15,87 |
| Brodsko-posavska | 2 781 | 12 | -2,75 | 3 047 | 12 | -2,17 | 2,42 | 21 | -66,74 | 3,37 | 21 | -63,63 |
| Zadarska | 2 990 | 5 | 4,56 | 3 236 | 6 | 3,9 | 9,06 | 4 | 24,61 | 9,52 | 4 | 2,74 |
| Osječko-baranjska | 2 756 | 15 | -3,63 | 3 032 | 14 | -2,65 | 7,33 | 7 | 0,77 | 6,26 | 13 | -32,45 |
| Šibensko-kninska | 2 931 | 8 | 2,49 | 3 282 | 4 | 5,37 | 5,1 | 16 | -29,85 | 7,02 | 12 | -24,27 |
| Vukovarsko-srijemska | 2 815 | 10 | -1,56 | 3 182 | 7 | 2,16 | 3,34 | 20 | -54,07 | 4,43 | 18 | -52,22 |
| Splitsko-dalmatinska | 3 000 | 4 | 4,91 | 3 267 | 5 | 4,89 | 8,53 | 5 | 17,26 | 8,8 | 7 | -5,02 |
| Istarska | 2 842 | 9 | -0,62 | 3 154 | 9 | 1,26 | 6,15 | 13 | -15,47 | 8,37 | 8 | -9,72 |
| Dubrovačko-neretvanska | 2 971 | 6 | 3,89 | 3 179 | 8 | 2,07 | 8,22 | 6 | 13,09 | 5,26 | 15 | -43,27 |
| Međimurska | 2 431 | 21 | -14,99 | 2 741 | 21 | -12 | 10,25 | 3 | 40,97 | 9,68 | 2 | 4,42 |
| Grad Zagreb | 3 383 | 1 | 18,3 | 3 711 | 1 | 19,15 | 24,15 | 1 | 232,23 | 18,87 | 1 | 103,53 |
| Republic of Croatia - AVERAGE | 2 859,71 | | 0 | 3 114,6 | | 0 | 7,27 | | 0 | 9,27 | | 0 |

Source: Employment and Salaries in 2000, DZS, Zagreb, 2001, p. 168-175, Employment and Salaries in 2001, DZS, Zagreb, 2002, p. 190-197, Sijih-2001, p. 586-591.

Table 2

Standard of living – selected indicators for the year 1999

| County | 1.** | | 2.** | | 3.** | | 4.** | | 5.** | | TOTAL RANK | POSITION |
|-------------------------------|-------|----|-------|----|-------|----|----------|----|---------|----|------------|----------|
| | 1. | R | 2. | R | 3. | R | 4. | R | 5. | R | | |
| Zagrebačka | 6,55 | 10 | 4,354 | 13 | 1,727 | 9 | 239,777* | 5 | 3,7810* | 21 | 58 | 13 |
| Krapinsko-zagorska | 6,3 | 12 | 4,78 | 17 | 1,193 | 19 | 209,791 | 14 | 3,1768 | 12 | 74 | 16 |
| Sisačko-moslavačka | 3,47 | 19 | 4,269 | 11 | 1,42 | 16 | 196,658 | 16 | 3,3265 | 16 | 78 | 18 |
| Karlovačka | 7,2 | 8 | 4,236 | 9 | 1,68 | 10 | 223,624 | 8 | 2,9256 | 9 | 44 | 6 |
| Varaždinska | 6,61 | 9 | 4,258 | 10 | 1,502 | 14 | 219,084 | 10 | 3,1906 | 14 | 57 | 10 |
| Koprivničko-križevačka | 5,31 | 15 | 4,004 | 7 | 1,44 | 15 | 216,009 | 12 | 3,1871 | 13 | 62 | 14 |
| Bjelovarsko-bilogorska | 4,85 | 17 | 3,77 | 6 | 1,339 | 17 | 227,57 | 7 | 3,1363 | 10 | 57 | 11 |
| Primorsko-goranska | 12,09 | 2 | 3,217 | 1 | 2,553 | 4 | 312,292 | 2 | 2,1157 | 2 | 11 | 2 |
| Ličko-senjska | 6,39 | 11 | 4,542 | 15 | 1,227 | 18 | 176,574 | 18 | 2,5346 | 5 | 67 | 15 |
| Virovitičko-podravska | 5,85 | 14 | 3,728 | 5 | 1,185 | 20 | 159,397 | 20 | 3,2296 | 15 | 74 | 17 |
| Požaško-slavonska | 3,57 | 18 | 4,112 | 8 | 1,536 | 13 | 150,423 | 21 | 3,5102 | 19 | 79 | 19 |
| Brodsko-posavska | 2,42 | 21 | 4,3 | 12 | 1,536 | 12 | 177,439 | 17 | 3,5822 | 20 | 82 | 20 |
| Zadarska | 9,06 | 4 | 5,754 | 21 | 2,256 | 6 | 212,379 | 13 | 2,6135 | 6 | 50 | 8 |
| Osiječko-baranjska | 7,33 | 7 | 3,549 | 4 | 1,754 | 8 | 201,775 | 15 | 3,1599 | 11 | 45 | 7 |
| Šibensko-kninska | 5,1 | 16 | 5,228 | 18 | 2,296 | 5 | 218,281 | 11 | 2,6281 | 7 | 57 | 12 |
| Vukovarsko-srijemska | 3,34 | 20 | 4,651 | 16 | 1,168 | 21 | 171,584 | 19 | 3,4535 | 18 | 94 | 21 |
| Splitisko-dalmatinska | 8,53 | 5 | 5,572 | 20 | 3,004 | 2 | 243,008 | 4 | 2,7168 | 8 | 39 | 4 |
| Istarska | 6,15 | 13 | 3,423 | 2 | 1,848 | 7 | 367,357 | 1 | 2,274 | 3 | 26 | 3 |
| Dubrovačko-neretvanska | 8,22 | 6 | 5,36 | 19 | 2,859 | 3 | 220,192 | 9 | 2,5056 | 4 | 41 | 5 |
| Međimurska | 10,25 | 3 | 4,383 | 14 | 1,556 | 11 | 236,333 | 6 | 3,3298 | 17 | 51 | 9 |
| Grad Zagreb | 24,15 | 1 | 3,516 | 3 | 3,155 | 1 | 288,959* | 3 | 2,0080* | 1 | 9 | 1 |
| Republic of Croatia – AVERAGE | 7,27 | | 3,584 | | 2,424 | | 273,913 | | 2,7033 | | | |

**Notes: 1. Retail trade overturn in 1000s of kunas per capita in the year 1999

2. Number of inhabitants per one TV subscription in the year 1999

3. Number of students per 100 inhabitants in the year 1999

4. Number of personal cars per 1000 inhabitants in the year 1999

5. Number of inhabitants per one telephone subscriber in the year 1999

R – Ranking

* Estimate based on SLJH-2000, p. 544

Source: 1. SLJH-2000, p. 544, 547-552, 563, 650.

2. SLJH-2002, p. 561.

Table 3
 Standard of living – selected indicators for the year 2000

| COUNTRY | 1.** | | 2.** | | 3.** | | 4.** | | 5.** | | 6.** | | TOTAL RANK | POSITION |
|-------------------------------|-------|----|-------|----|---------|----|--------|----|--------|----|-------|----|------------|----------|
| | I. | R | 2. | R | 3. | R | 4. | R | 5. | R | 6. | R | | |
| Zagrebačka | 9,1 | 6 | 4,26 | 13 | 260,301 | 4 | 28,105 | 12 | 1,7436 | 10 | 3,882 | 21 | 66 | 11 |
| Krapinsko-zagorska | 5,18 | 17 | 4,763 | 17 | 221,85 | 13 | 21,168 | 18 | 1,2553 | 19 | 3,127 | 13 | 97 | 19 |
| Sisačko-moslavačka | 4,13 | 20 | 4,151 | 11 | 210,041 | 15 | 25,2 | 14 | 1,4947 | 15 | 3,165 | 15 | 90 | 17 |
| Karlovačka | 4,34 | 19 | 4,091 | 9 | 236,111 | 8 | 31,529 | 10 | 1,7851 | 8 | 2,879 | 9 | 63 | 9 |
| Varaždinska | 7,64 | 11 | 4,212 | 12 | 232,439 | 10 | 25,494 | 13 | 1,5349 | 14 | 3,138 | 14 | 74 | 13 |
| Koprivničko-križevačka | 9,23 | 5 | 3,968 | 7 | 225,52 | 12 | 14,353 | 20 | 1,4478 | 16 | 3,095 | 11 | 71 | 12 |
| Bjelovarsko-bilogorska | 7,79 | 10 | 3,702 | 6 | 218,809 | 14 | 11,854 | 21 | 1,3698 | 18 | 3,119 | 12 | 81 | 15 |
| Primorsko-goranska | 9,67 | 3 | 3,237 | 1 | 328,097 | 2 | 60,202 | 2 | 2,7417 | 4 | 2,071 | 1 | 13 | 1 |
| Ličko-senjska | 5,3 | 14 | 4,44 | 16 | 203,864 | 17 | 23,113 | 17 | 1,3749 | 17 | 2,355 | 4 | 85 | 16 |
| Virovitičko-podravska | 5,22 | 16 | 3,657 | 5 | 197,346 | 19 | 23,565 | 15 | 1,2389 | 20 | 3,194 | 16 | 91 | 18 |
| Požeško-slavonska | 7,8 | 9 | 3,973 | 8 | 200,811 | 18 | 23,521 | 15 | 1,7103 | 11 | 3,34 | 19 | 80 | 14 |
| Brodsko-posavska | 3,37 | 21 | 4,146 | 10 | 191,852 | 20 | 20,741 | 19 | 1,6027 | 12 | 3,235 | 17 | 99 | 20 |
| Zadarska | 9,52 | 4 | 5,558 | 21 | 231,288 | 11 | 36,323 | 7 | 2,4456 | 6 | 2,4 | 5 | 54 | 5 |
| Osiječko-baranjska | 6,26 | 13 | 3,47 | 3 | 207,057 | 16 | 31,806 | 9 | 1,747 | 9 | 3,02 | 10 | 60 | 8 |
| Šibensko-kninska | 7,02 | 12 | 4,937 | 18 | 233,122 | 9 | 52,03 | 4 | 2,5095 | 5 | 2,52 | 7 | 55 | 6 |
| Vukovarsko-srijemska | 4,43 | 18 | 4,288 | 15 | 184,697 | 21 | 32,698 | 8 | 1,1682 | 21 | 3,471 | 20 | 103 | 21 |
| Splitsko-dalmatinska | 8,8 | 7 | 5,357 | 20 | 258,294 | 5 | 48,281 | 5 | 3,2887 | 1 | 2,631 | 8 | 46 | 4 |
| Istarska | 8,37 | 8 | 3,39 | 2 | 388,514 | 1 | 53,919 | 3 | 1,8605 | 7 | 2,222 | 3 | 24 | 3 |
| Dubrovačko-neretvanska | 5,26 | 15 | 5,301 | 19 | 251,167 | 7 | 43,398 | 6 | 2,9755 | 3 | 2,473 | 6 | 56 | 7 |
| Međimurska | 9,68 | 2 | 4,273 | 14 | 254,567 | 6 | 29,856 | 11 | 1,5807 | 13 | 3,283 | 18 | 64 | 10 |
| Grad Zagreb | 18,87 | 1 | 3,481 | 4 | 311,745 | 3 | 62,774 | 1 | 3,1595 | 2 | 2,075 | 2 | 13 | 1 |
| Republic of Croatia – AVERAGE | 9,27 | | 4,008 | | 256,73 | | 39,853 | | 2,5167 | | 2,662 | | | |

** Notes: 1. Retail trade overturn in 1000s of kunas per capita in the year 2000
 2. Number of inhabitants per one TV subscription in the year 2000
 3. Number of personal cars per 1000 inhabitants in the year 2000
 4. Water consumption per household (m³/prsn)
 5. Number of students per 100 inhabitants in the year 2000
 6. Number of inhabitants per one telephone subscriber in the year 2000
 R – Ranking

Source: 1. Consensus households and flats, First results, National Institute for Statistics the Republic of Croatia
 2. Consensus 2001, National Institute for Statistics Republic of Croatia, Zagreb <http://www.dzs.hr/popis%202001/popis20001.htm> (23.7. 2002.)
 3. SHLJ-2001, p. 583, 561, 601, 602, 586-590.
 4. Slj of the town of Zagreb, 2001, Development and Environmental Protection Institute
 5. Annual report on public water-supply (VOD-2V)

Table 4:

Position of Croatian counties according to the average net salary, per capita consumption in retail trade and the living standard level

| County | 1999 | | | 2000 | | |
|------------------------|------|-------|-------|------|-------|-------|
| | RPPP | RPPTM | PPRŽS | RPPP | RPPTM | PPRŽS |
| Zagrebačka | 1 | 10 | 13 | 16 | 6 | 11 |
| Krapinsko-zagorska | 18 | 12 | 16 | 19 | 17 | 19 |
| Sisačko-moslavačka | 7 | 19 | 18 | 2 | 20 | 17 |
| Karlovačka | 11 | 8 | 6 | 10 | 19 | 9 |
| Varaždinska | 19 | 9 | 10 | 20 | 11 | 13 |
| Koprivničko-križevačka | 15 | 15 | 14 | 15 | 5 | 12 |
| Bjelovarsko-bilogorska | 16 | 17 | 11 | 17 | 10 | 15 |
| Primorsko-goranska | 3 | 2 | 2 | 3 | 3 | 1 |
| Ličko-senjska | 17 | 11 | 15 | 11 | 14 | 16 |
| Virovitičko-podravska | 20 | 14 | 17 | 18 | 16 | 18 |
| Požeško-slavonska | 13 | 18 | 19 | 13 | 9 | 14 |
| Brodsko-posavska | 12 | 21 | 20 | 12 | 21 | 20 |
| Zadarska | 5 | 4 | 8 | 6 | 4 | 5 |
| Osječko-baranjska | 15 | 7 | 7 | 14 | 13 | 8 |
| Šibensko-kninska | 8 | 16 | 12 | 4 | 12 | 6 |
| Vukovarsko-srijemska | 10 | 20 | 21 | 7 | 18 | 21 |
| Splitsko-dalmatinska | 4 | 5 | 4 | 5 | 7 | 4 |
| Istarska | 9 | 13 | 3 | 9 | 8 | 3 |
| Dubrovačko-neretvanska | 6 | 6 | 5 | 8 | 15 | 7 |
| Međimurska | 21 | 3 | 9 | 21 | 2 | 10 |
| Grad Zagreb | 1 | 1 | 1 | 1 | 1 | 1 |

Note: RPPP – Ranking by average salary per employee
 RPPTM – Ranking by per capita consumption in retail trade
 PPRŽS – Position by the standard of living level
 Source: Tables 1-3.

Interpretation of the research results

Considering the size of the average net salaries per employee in the two selected years the city of Zagreb and Primorsko-Goranska County have the best position, and Međimurska County the worst. Zagrebačka County has the greatest negative deviation with a fall from the first to the 16th position, and the greatest positive shift displayed Sisačko-Moslavačka County that rose from the seventh position in 1999 to the second position in the year 2000 and Vukovarsko-Srijemska County with the shift from the tenth to the seventh position.

In the year of 1999 the percentage difference in salary oscillations between the best and the worst ranking county was 33.2%. In the year 2000 it was reduced to 31.15%. However, research results show that in many aspects the salaries or the difference in the av-

erage salaries in the counties do not decisively influence the consumption in retail trade. Here are some of the findings:

- The City of Zagreb with its 18.3% of the net salary per employee deviation from the Croatian average in 1999 recorded more than three times greater consumption in retail trade than the Croatian average, and, in the year 2000, with 19.15% higher average salary it had two times greater consumption.
- Međimurska County has the worst position considering the size of the average salary in the two selected years. In the year 1999 the county had the net salary 15% lower than the Croatian average and at the same time 41% higher consumption in retail trade. In 2000, the average salary was 12% lower and the consumption 42% greater.
- The stated deviations for the City of Zagreb and Međimurska County show that the change of the intensity of the deviations of the net salaries in a particular county is not accompanied by the matching change of the intensity of the deviation in the consumption per capita in retail trade.
- In most Croatian counties there is a significantly higher negative intensity of deviation in the consumption in retail trade than the intensity of the deviation in the average salary. In the year 1999 this is evident in: Sisačko-Moslavačka, Koprivničko-Križevačka, Bjelovarsko-Bilogorska, Požeško-Slavonska, Brodsko-Posavska, Vukovarsko-Srijemska and Istarska County. In the year 2000 the same applies to: Krapinsko-Zagorska, Sisačko-Moslavačka, Bjelovarsko-Bilogorska, Ličko-Senjska, Virovitičko-Podravska, Požeško-Slavonska, Brodsko-Posavska, Osječko-Baranjska, Šibensko-Kninska and Dubrovačko-Neretvanska County.

The stated disparities in most Croatian counties can be partially explained by:

1. significant differences in the share of other sources of income in the total available/disposable household resources;
2. household resources earned in the informal sector;
3. agricultural-industrial structure of some counties and the connection of their population with the country which results in greater orientation towards the natural consumption with lower salaries;
4. the consumption of the population of the bordering counties across the state border, which was profitable at the time, since there was not yet sufficient supply of cheaper products in large merchant chains in the country.

However, it is indisputable that the key cause for the pronounced disparities between the salary trends and personal consumption is that the salaries are not the exclusive source of the available household resources.

In all transition countries changes have occurred in the structure of the gross household income as a consequence of the transformation of the ownership and market relations. The common features of this changes are: fall in the salary share and the rise in the share of all private income (but not salaries) as well as the rise in the share of the pensions and other social transfers. In Croatia, in the period between 1988-1998, salary income fell 23% (in Slovenia, for example; gross salary share decreased 15%, in Hungary 16,5%, in

Poland this was 38%), that is – from 53% to 40,7% in the gross household income. The share from other private income increased 50%. In the period between 1999-2002, the share of salaries increased to 44% of gross household income.

Comparison of the average net salaries in counties with the selected group of indicators of the standard of living, confirms the conclusion that the salaries are not the key factor in the socio-economic position of households in Croatia, and that they are not the fundamental source of inequality in Croatian society. In very few Croatian counties their position according to the standard of living coincides with their rank according to the average salary per employee (see table 4). Some counties record great deviations in that area. In the year 1999, the following counties had a low level of living standard compared to the average net salary: Zagrebačka, Sisačko-Moslavačka, Brodsko-Posavska, Požeško-Slavonska, Šibensko-Kninska and Vukovarsko-Srijemska County. In 2000, the same applied to: Sisačko-Moslavačka, Ličko-Senjska, Brodsko-Posavska and Vukovarsko-Srijemska County. A far better ranking than it was expected, according to the level of the living standard and considering the average net salary, was recorded in 1999 in: Karlovačka, Varaždinska, Bjelovarsko-Bilogorska, Osječko-Baranjska, Istarska and Međimurska County.

A conclusion may be drawn that there are several Croatian counties in which the salary earned by working in the Croatian economic subjects is not the prevailing source of income for the population. Those counties are: Međimurska, Vukovarsko-Srijemska, Osječko-Baranjska and Istarska County. In only three Croatian counties it may be said that the net salaries have the crucial effect on the socio-economic position of households. In the City of Zagreb, Primorsko-Goranska and Splitsko-Dalmatinska County., the ranking according to the average net salaries and the retail trade overturn and according to the selected indicators of the living standard is identical or only slightly different.

4. Conclusion

In most countries salaries make up the main part in the household income structure: on average, their share is over 50% of the total income; 20% is income from entrepreneurship and other transfers, while ownership income makes up less than 10% of the total available household income. As a consequence, the population's quality of life is determined chiefly by the size of the salaries, and the salaries are the fundamental factor of regional differences in the standard of living among a country's population.

In the Republic of Croatia, the long term share of salaries in the total income of the households is about 40%. This leads to the conclusion that salaries are not the key factor of the socio-economic position of households. In only 3 out of 22 selected Croatian counties there is perfect correspondence between the rank according to salaries and rank according to the composite measure of the standard of living.

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EKONOMSKE NEJEDNAKOSTI I UTJECAJ PLAĆA NA DOHODOVNE NEJEDNAKOSTI U REPUBLICI HRVATSKOJ³

SAŽETAK

U svim je zemljama smanjenje dohodovne nejednakosti značajni razvojni cilj, jer visoka nejednakost dovodi do socijalnih tenzija i smanjenja efikasnosti gospodarskog sustava. Efikasnost mjera za smanjenje nejednakosti pretpostavlja poznavanje njenih uzroka, odnosno čimbenika koji najviše utječu na stupanj nejednakosti u pojedinoj zemlji. Zbog toga su autorice u ovom radu pokušale utvrditi s kolikim intenzitetom plaće, kao jedan od ključnih izvora dohotka utječu na dohodovne nejednakosti u Republici Hrvatskoj. Služeći se vlastitim analitičkim pristupom temeljenim na usporedbi vrijednosti plaća i razine životnog standarda u hrvatskim županijama, autorice zaključuju da plaće nisu ključni čimbenik dohodovnih nejednakosti u Republici Hrvatskoj.

Ključne riječi: *dohodak, plaće, dohodovna nejednakost, životni standard*

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