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BACKGROUND PAPER #1**REGIONAL DEVELOPMENT AND SOCIAL INDICATORS IN CROATIA****Željko Lovrinčević****Davor Mikulić****INTRODUCTION**

Systematic analysis of living standards, poverty, inequality and regional development are not performed on a regular basis in Croatia. Comprehensive profile of living standards and poverty has not been derived since the last World Bank report in 2001, while regional growth and social profile have not been examined at all.

Therefore, the aim of this research is to provide a comprehensive profile of social and economic characteristics of Croatia's regions at NUTS III level. Regional profile of government's social transfers to households is also analyzed.

In this paper, demographic and economic structure of Croatian economy is analyzed, as well as the process of secondary distribution of income in Croatia on the regional level. According to data availability limitation, the analysis was restricted to the period 2001-2003. We also tried to assess effectiveness of government social transfers to households given the regional inequality profile. Also, sources of growth on the regional level and growth prospects were identified.

Final draft includes two appendices. The first appendix presents the regional GDP by counties for period 2001-2003, and the second appendix presents preliminary data on gross disposable income of household sector in Croatia.

REGIONAL TRENDS IN THE NMS10 COUNTRIES AND EU15

Prior to the development analysis of the Croatian counties, we briefly outline the experiences of the new NMS10 members as well as EU countries in terms of the regional development level differences. According to the GDP dynamics, employment, unemployment and population figures in the NUTS II regions of the new member states (NMS10¹), four groups of NUTS II regions can be identified in terms of the convergence process towards the EU15:²:

- Regions with high convergence potential
- Regions with moderate convergence potential

- Regions with moderate divergence risk
- Regions with high divergence risk.

¹ Cyprus, the Check Republic, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia and Slovenia.

² Revue élargissement no. 75, 11th April, 2005.

Figure 4.1 shows the average annual GDP growth rates in the various EU25 NUTS II regions. In the period 1995 - 2002, 31 out of the total of 41 regions on the NUTS II level of the new member states have recorded reductions in the difference in economical development, according to the GDP p.c. PPS with respect to the EU25 average. On average, the annual GDP p.c. PPS growth rate for the NMS10 amounted to 5.6 percent, while the EU15 countries recorded annual growth of 4 percent.

Six out of the ten NUTS II regions in the NMS10, which have grown at a slower rate in comparison to the EU25 average, are in the Check Republic, which is, along with Cyprus, the only country with a recorded slower rate of growth in comparison to the average of the older EU15 members. In the first group of NUTS II regions with **high convergence potential**, the three Baltic countries (Estonia, Lithuania and Latvia) and Slovenia are included, representing small economies which have been classified as one NUTS II region despite being nation states. Also, the three Hungarian regions are included here, located in the area between Vienna and Budapest, and the eastern region surrounding Debrecen, as well as the two Slovakian regions: Bratislava and Eastern Slovakia (Kosice). All of these regions are characterized by a high GDP growth levels, reductions in unemployment levels, gradual reductions or increases in the number of employees, and favorable demographic trends (increases or small reductions in the population figures).

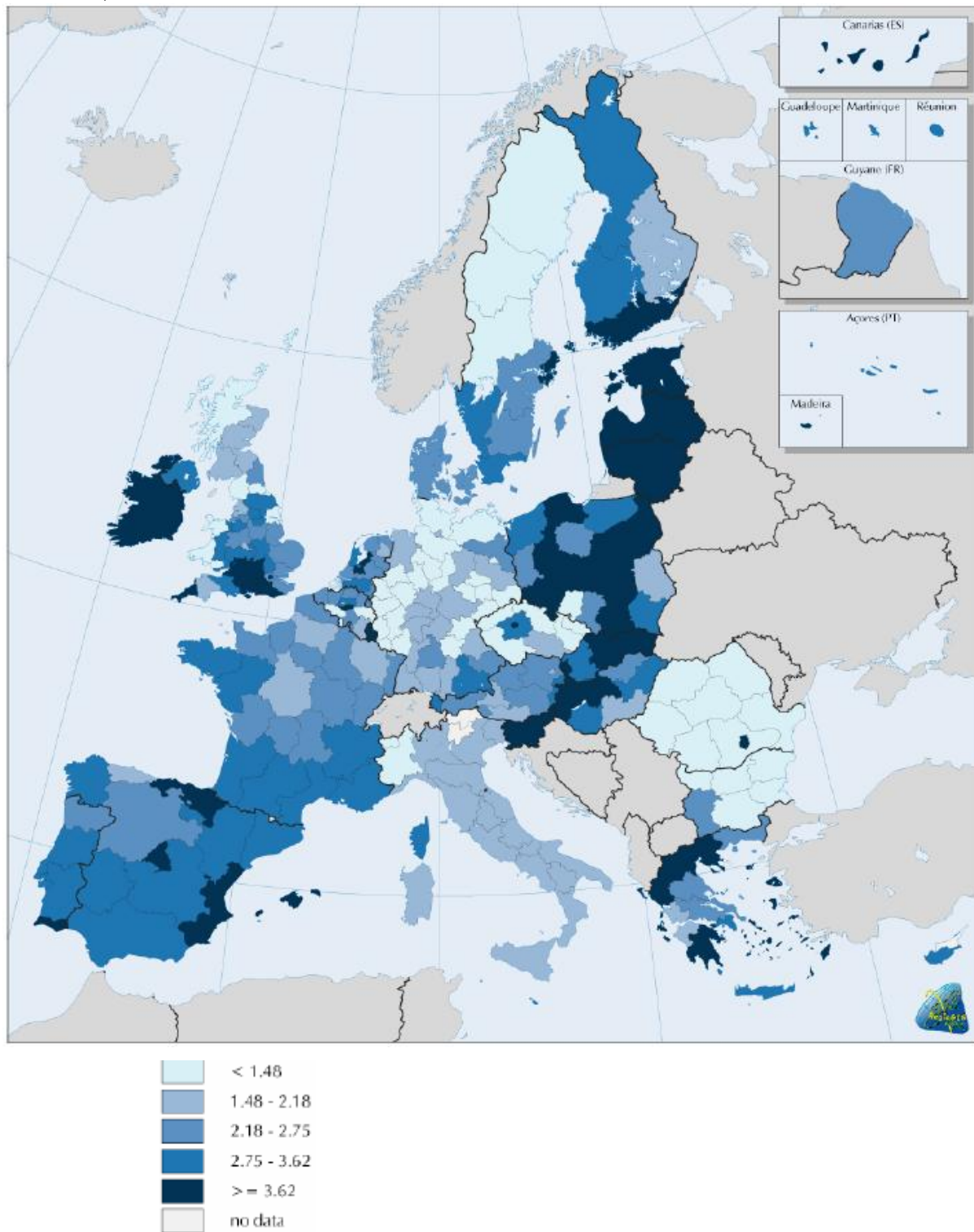
NUTS II regions with moderate convergence potential are characterized by relatively dynamic growth (average GDP per capita growth rate, according to PPS above 4.5 percent), but in conditions of gradual increases in unemployment or decreases in employment. In these regions, it is expected that the positive components of the "creative destruction" process will overwhelm the negative ones, thus the continuation should record positive trends towards further convergence.

In the NUTS II regions with moderate divergence risk, which are, in addition to Cyprus, found mainly along the borders of Check Republic and Germany, slower growth has been recorded (less or around the NMS10 average), however with increases in the unemployment rates. This group also includes the regions with slower GDP growth, but with reductions in the unemployment rates (Plzen, Karl. Vary).

The high divergence risk group includes 11 NUTS II regions, where the average annual increases of the GDP per capita PPS are more than one standard deviation lower than the NMS10 average. Apart from the slower growth, these regions are characterized by increases in the unemployment figures which, in addition to the reductions of the employment levels, lead to significant increases of the unemployment rate. Regions in this group also exhibit the worst demographic trends (reduction in population numbers).

The NUTS II region classification according to the economic growth potential is shown in Table 4.1. It should be emphasized that, for the benefit of easier location of the various regions on the map, the central cities of specific regions have been stated, and not the official name of the region.

Figure 1.1: Average Annual Real GDP Growth Rates of EU25 NUTS II Regions, 1995-2002, in %



Source: Eurostat DG REGIO.

Table 1.1: Average Annual GDP p.c. PPS (1995-2002), Unemployment (1999-2003), Employment (1999-2003) and Population (1995-2002) Growth Rates

NUTS II level regions	GDP growth	Unemployment	Employment	Population
<i>Regions with high convergence potential</i>				
Budapest	8.1	-5.1	0.6	-0.3
Talinn	7.8	-2.9	0.5	-0.7
Riga	7.7	-5.3	0.7	-0.8
Bratislava	7.4	-0.8	-0.1	-0.4
Vilnius	7.1	-1.5	-0.8	-0.6
Gyor	6.5	0.9	0.2	0.0
Tatabanya	6.1	-5.5	1.2	0.0
Kosice	6.0	0.5	0.4	0.3
Ljubljana	5.5	-2.0	0.3	0.1
Debrecen	5.1	-7.8	1.5	0.1
<i>Regions with moderate convergence potential</i>				
Warsaw	8.2	9.8	-3.0	0.2
Prague	6.5	1.0	-0.4	-0.6
Poznan	6.4	11.8	-0.3	0.1
Zilina	6.2	2.0	-0.1	0.0
Trnava	5.2	2.3	0.6	-0.1
La Valette	5.0	0.5	0.6	0.8
Pecs	4.9	-1.0	0.5	-0.1
Miskolc	4.6	-3.5	1.4	-0.1
Kladno	4.5	-8.3	0.9	0.2
<i>Regions with moderate divergence risk</i>				
Bialystok	5.8	7.7	-3.2	-0.1
Wroclaw	5.7	11.9	-4.4	-0.3
Kielce	5.6	7.7	-2.1	-0.3
Lodz	5.5	10.1	-1.1	-0.4
Krakow	5.4	14.1	-1.3	0.2
Gdansk	5.4	13.1	-2.1	0.1
Nikosia	3.8	-5.0	3.2	1.1
Jihlava	3.6	-2.8	-0.2	-0.2
Hradec	3.4	-3.3	-0.1	-0.1
Plzen	3.1	-4.0	0.1	-0.1
Karl. Vary	1.5	-3.7	0.1	-0.1
<i>Regions with high divergence risk</i>				
Szcecin	5.0	5.2	-2.9	-0.1
Olsztyn	4.9	4.2	-1.0	-0.2
Rzeszow	4.8	7.0	-0.8	0.0
Bydgoszcz	4.6	10.6	-0.5	-0.1
Katowice	4.4	12.7	-2.1	-0.4
Zielona G.	4.4	7.8	-0.7	-0.3
Lublin	4.1	8.5	-0.5	-0.1
Szeged	3.9	2.3	-0.4	0.0
Opole	3.4	5.4	-3.1	-0.3
Brno	2.6	-2.2	-0.2	-0.1
Ostrava	2.2	2.5	-0.6	-0.3

Source: Revue élargissement, no. 75, 11th April 2005.

It is important to notice that during the period 1995-2002, in the group of new member states there was a worsening of the ratio between the most developed and least developed region in all of the 4 analyzed countries with defined several NUTS II regions (Table 4.2).³

³ Malta, Cyprus, Estonia, Latvia, Lithuania and Slovenia are simultaneously state and NUTS II regions.

Table 1.2: Ratio between NUTS II Region with Highest/Lowest GDP p.c. PPS, 1995-2002

Country	1995	1997	1999	2001	2002
NMS					
Check Republic	2.4	2.5	2.6	2.9	2.9
Hungary	2.0	2.2	2.4	2.4	2.6
Poland	1.7	1.8	2.1	2.1	2.2
Slovakia	2.8	2.8	2.9	3.0	3.1
EU15					
Belgium	3.0	3.1	3.2	3.2	3.1
Germany	2.9	2.9	2.8	2.9	2.8
Greece	2.1	1.9	1.8	1.9	1.9
Spain	2.1	2.1	2.1	2.1	2.1
France	3.0	3.0	2.9	3.0	3.1
Ireland	1.4	1.5	1.5	1.5	1.6
Italy	2.4	2.3	2.3	2.3	2.4
Netherlands	1.6	1.7	1.7	1.7	1.7
Austria	2.3	2.2	2.2	2.2	2.1
Portugal	1.9	2.0	1.9	1.9	1.8
Finland	1.6	1.7	1.9	1.9	1.9
Sweden	1.5	1.6	1.6	1.6	1.6
Great Britain	4.1	4.2	4.4	4.3	4.3

Source: Eurostat.

The most significant regional development differences are noted in Slovakia and the Check Republic, while the relatively highest increases in inequalities are recorded in Hungary. Usually, this increasing divergence is consequence of the above average growth of regions comprising the capital city and the surrounding regions. That phenomenon occurs as a result of the so called "gateway" effect, where almost all of the capital cities in the transition countries represent the entry point for foreign investments. That implies a concentration of primarily financial services, telecommunications, IT and other logistic activities in the capital cities. The process is clear and present despite the efforts by the governments in the transition countries to achieve balanced regional development.

On the other hand, old member countries (EU15) are clearly experiencing an end of the trend of further centralization of economic activities in the most developed areas. The primary reason for this is the planned policy of balanced regional development supported by the European structural funds. Therefore in the NMS group, an end of the trend of centralization of economic activities and an emphasis on a more balanced regional development can be expected in the long run.

In the continuation, the dynamic of the economic structure changes in the European NUTS II regions are analyzed. Table 4.3 shows the growth rates of different activities, as classified in the National classification of economic activities (NACE), for the EU25 countries. It is clear that throughout the period, the GDP of new members grew at a faster rate in comparison to the old members, as expected since with the EU accession process, real convergence process begun, thus there is a so called low basis effect present. On average, the real growth of the new members was faster by 0.87 percentage points. However, when analyzing the growth according to activities, it is noticeable that the highest average growth among the new member states is recorded in the retail, hotel, restaurant and transportation sector, (G, H and I) and the business and financial services sector (J and K). Industry (C, D and E) and construction (F) are growing slightly faster than the total GDP, with noticeable seasonal pattern over the year, while the activities of public administration, education, health and other personal and community services (L, M, N and O) are growing at a slower rate in comparison to the average. The slowest growth (and in some cases real decreases) have been recorded in agriculture and fisheries (A and B).

Such trends indicate that the **economic structure greatly influences the growth potential of certain NUTS II regions**. A more favorable current economic structure (a higher proportion of propulsive service sectors and a smaller proportion of agriculture and government services) ensures higher growth rates in the middle run. Thus, this influenced further increases in the differences between the developed and less developed regions in the NMS10, since the most favorable economic structure is found in the most developed regions.

Table 1.3: Real GDP Growth Rates of the EU25 According to the NACE Classification Activities, 2000-2003

	GDP				A, B				C, D, E				F				G, H, I				J, K				L, M, N,			
	00	01	02	03	00	01	02	03	00	01	02	03	00	01	02	03	00	01	02	03	00	01	02	03	00	01	02	03
euro-zone	3.5	1.6	0.9	0.5	-0.6	-2.4	0.6	-3.8	4.3	0.6	0.2	0.0	2.7	0.0	-0.5	-0.4	4.4	3.2	1.2	0.5	4.9	2.9	0.8	1.4	2.3	1.8	2.2	0.6
EU25	3.6	1.7	1.1	0.9	-0.6	-2.4	1.3	-3.3	4.2	0.2	0.1	0.4	2.5	0.2	0.0	0.2	4.6	3.2	1.6	1.0	4.9	3.1	1.0	1.9	2.3	1.8	2.2	0.7
EU15	3.6	1.7	1.0	0.8	-0.5	-2.8	1.4	-3.4	4.1	0.2	0.0	0.1	2.5	0.4	0.0	0.2	4.6	3.1	1.5	0.9	4.9	3.1	1.0	1.9	2.3	1.8	2.2	0.7
Members																												
BE	3.9	0.7	0.9	1.3	1.0	-11.3	12.7	-3.2	5.0	-0.3	-0.2	-0.3	7.7	1.2	-1.5	-0.4	2.9	2.3	3.5	0.8	2.3	1.6	0.1	3.0	2.6	1.3	0.9	1.6
CZ	3.9	2.6	1.5	3.7	5.7	-7.0	2.6	-1.0	7.1	-5.0	7.8	7.1	-0.3	-8.2	3.1	-0.5	1.7	9.1	-1.0	-0.9	4.8	11.9	-3.9	5.3	3.8	1.4	0.9	1.6
DK	2.8	1.6	1.0	0.4	6.4	-1.5	-4.3	3.3	3.3	0.0	-0.4	-0.2	1.6	4.0	0.6	-2.7	7.3	2.9	1.9	1.5	3.9	3.9	1.3	0.4	-0.2	1.3	1.8	0.6
DE	2.9	0.8	0.1	-0.1	-0.8	0.3	-1.8	-0.7	4.6	-1.3	-0.4	0.5	-2.3	-5.6	-4.8	-4.4	3.4	3.9	1.4	0.9	4.8	3.8	0.1	0.5	2.1	0.2	1.6	-0.4
EE	7.8	6.4	7.2	5.1	-0.8	-5.4	0.1	-1.5	13.9	8.5	12.9	8.0	13.8	4.3	20.6	7.7	7.2	9.1	4.2	7.2	8.3	5.9	5.4	2.1	2.6	4.1	3.9	1.8
EL	4.5	4.3	3.6	4.5	-3.7	-3.8	-1.2	-4.0	5.3	3.0	2.6	2.6	5.7	14.4	0.8	11.2	7.6	7.0	3.6	6.1	5.1	4.2	-0.2	4.3	1.4	3.1	8.0	3.4
ES	4.4	2.8	2.2	2.5	2.7	-2.9	1.7	-1.4	3.9	2.5	0.7	1.3	6.1	5.3	5.2	4.3	3.8	3.5	1.9	1.6	5.9	6.1	0.4	1.3	4.4	2.5	2.8	3.3
FR	3.8	2.1	1.2	0.5	-2.2	-4.0	4.7	-7.4	4.2	2.8	0.8	-0.1	7.1	1.5	-0.1	-1.4	4.5	2.4	0.4	-0.8	4.8	0.8	1.6	3.1	2.4	3.3	3.4	-0.1
IE	9.9	6.0	6.1	3.7																								
IT	3.0	1.8	0.4	0.3	-2.9	-0.5	-3.9	-5.7	2.3	-0.2	-0.3	-1.0	3.5	3.1	2.5	2.5	5.6	3.5	-0.1	0.0	5.1	2.8	1.8	1.2	1.0	2.1	1.2	0.6
CY	5.0	4.1	2.1	1.9	-5.9	3.8	5.4	4.5	3.4	0.3	0.4	0.6	-1.2	4.0	4.7	4.4	8.8	5.2	-0.3	-0.7	6.4	5.5	3.5	2.7	3.6	3.1	4.0	4.3
LV	6.9	8.0	6.4	7.5	11.5	6.4	4.4	1.0	4.4	9.7	8.1	7.8	8.2	6.1	10.8	13.7	8.2	10.2	8.1	10.4	12.3	12.2	5.5	4.3	1.4	2.0	2.8	3.3
LT	3.9	6.4	6.8	9.7	6.4	-4.6	8.2	2.2	5.4	13.9	4.6	15.8	-18.2	7.4	12.7	22.0	6.7	8.1	9.3	9.1	5.0	5.6	6.6	6.2	4.3	-0.9	2.9	2.4
LU	9.0	1.5	2.5	2.9	-7.2	-15.1	0.1	-2.3	6.9	1.0	2.0	2.6	5.1	8.0	5.3	4.3	9.4	6.3	3.3	3.4	9.4	-0.5	2.5	1.7	2.9	4.7	1.0	3.6
HU	5.2	3.8	3.5	3.0	-7.4	23.4	-12.1	-4.0	6.4	0.4	1.3	5.4	19.2	5.2	12.9	1.2	0.8	5.0	4.7	4.3	8.3	4.4	6.3	-1.3	3.3	3.4	2.3	3.0
MT	6.4	-2.4	2.6	-0.3																								
NL	3.5	1.4	0.6	-0.9	1.5	-3.6	-1.6	-1.9	3.5	0.5	-1.0	-2.1	4.2	2.1	-3.2	-3.0	6.3	0.7	0.8	-1.3	2.9	1.6	-0.4	-0.1	1.6	2.8	2.8	2.3
AT	3.4	0.7	1.2	0.8	-3.0	0.6	-0.5	-1.3	6.2	2.5	1.7	0.2	1.7	-3.5	0.4	5.1	3.2	2.0	2.5	1.8	6.3	0.7	1.6	0.6	1.3	-0.7	-1.3	-0.5
PL	4.0	1.0	1.4	3.8	-7.9	9.2	2.0	2.1	6.5	-0.3	-0.2	6.3	0.3	-7.9	-6.8	-2.9	4.0	3.6	5.9	2.3	4.5	2.7	-0.1	5.8	2.5	0.4	0.2	3.4
PT	3.4	1.7	0.4	-1.2	-4.0	-0.3	5.7	-6.7	2.7	1.9	-1.0	-0.5	4.9	2.8	-3.8	-11.4	4.1	4.0	1.0	0.1	7.1	4.3	0.9	2.0	3.5	2.1	1.5	-1.4
SI	3.9	2.7	3.3	2.5	0.8	-12.1	15.4	-15.3	8.4	5.0	4.7	3.3	0.9	-2.2	0.6	3.4	2.1	3.7	3.4	3.1	1.2	4.7	4.0	4.3	4.8	3.3	2.3	3.0
SK	2.0	3.8	4.6	4.0	1.9	4.9	-1.6	4.4	0.8	1.4	-0.3	9.5	0.2	-0.5	9.3	6.9	2.2	9.7	-3.2	-2.4	2.5	1.9	17.5	8.9	2.8	14.0	16.6	5.5
FI	5.1	1.1	2.3	2.0	10.6	-4.8	3.6	0.6	11.0	0.3	2.1	0.9	-2.6	-2.9	2.5	1.3	5.3	2.8	2.3	3.3	5.3	0.7	2.6	3.6	2.1	3.0	1.8	0.5
SE	4.3	1.0	2.0	1.5	2.8	4.3	2.8	1.2	8.2	-1.6	4.5	1.9	0.7	5.2	-0.4	0.8	3.7	0.5	1.7	2.3	4.9	1.8	-0.3	1.9	1.7	1.4	1.9	1.3
UK	3.9	2.3	1.8	2.2	-0.6	-9.1	11.9	-2.6	1.9	-1.6	-2.5	-0.2	1.3	1.8	3.8	5.2	5.1	2.9	3.6	2.5	5.0	4.6	2.1	4.6	3.2	2.4	2.6	1.3

Source: Eurostat DG REGIO.

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS OF THE CROATIAN REGIONS

After the experience of the NMS10, in this section demographic and economic features of Croatian regions are analyzed. Because of some doubts regarding final regional breakdown of Croatia instead of preliminary NUTS II region, we rather used breakdown based on so-called analytical regions. According to main features Croatia could be divided in 5 analytical regions: Zagreb region, Central Croatia, Eastern Croatia, Adriatic North and Adriatic South. Besides analytical regions, all data are presented using current administrative breakdown on counties. Such administrative division of Croatia fulfils all of the EU criteria for NUTS III breakdown.

Demographic structure

Tables 4.4 and 4.5 show the demographic structure of the Croatian regions. The working population comprises 64 percent of the total population in Croatia, i.e. the male population between the age 15 and 64 and female population between 15 and 59. Senior population accounts for little less than 19 percent-and the remaining 17 percent of the total population are children.

Table 5.1.4: Demographic Structure of Croatia, by County (NUTS III)

County	Demographic structure			Demographic structure, %		
	Children (0-14)	Working contingent (F 15-59, M 15-64)	Senior population (F above 60, M above 65)	Children (0-14)	Working contingent (F 15-59, M 15-64)	Senior population (F above 60, M above 65)
Zagreb	53 822	202 003	51 866	17.5	65.7	16.9
Krapina-Zagorje	24 293	89 662	28 142	17.1	63.1	19.8
Sisak-Moslavina	29 948	114 647	40 331	16.2	62.0	21.8
Karlovac	20 521	86 853	33 496	14.6	61.7	23.8
Varaždin	31 807	118 247	34 061	17.3	64.2	18.5
Koprivnica-Križevci	21 064	78 410	24 604	17.0	63.2	19.8
Bjelovar-Bilogora	22 805	82 283	27 544	17.2	62.0	20.8
Primorje-Gorski kotar	42 835	201 527	59 482	14.1	66.3	19.6
Lika-Senj	8 200	30 896	14 315	15.4	57.8	26.8
Virovitica-Podravina	16 962	57 820	18 059	18.3	62.3	19.5
Požega-Slavonia	16 966	52 097	16 420	19.8	60.9	19.2
Slavonski Brod-Posavina	34 728	108 692	32 353	19.8	61.8	18.4
Zadar	29 496	101 242	30 336	18.3	62.9	18.8
Osijek-Baranja	58 719	210 882	60 036	17.8	64.0	18.2
Šibenik-Knin	18 953	67 375	26 063	16.9	59.9	23.2
Vukovar-Sirmium	39 359	128 317	36 119	19.3	63.0	17.7
Split-Dalmatia	85 585	296 386	79 531	18.5	64.2	17.2
Istria	31 177	135 445	38 984	15.2	65.9	19.0
Dubrovnik-Neretva	22 467	76 565	23 282	18.4	62.6	19.0
Međimurje	21 964	76 703	19 484	18.6	64.9	16.5
City of Zagreb	122 963	512 580	140 381	15.8	66.1	18.1
Croatia	754 634	2 828 632	834 889	17.1	64.0	18.9

Source: Census 2001, CBS.

The demographic structure of certain counties (NUTS III level) and 5 analytical regions significantly differ from the Croatian average. Therefore, according to the ratio of children, the two "youngest" counties are the County of Požega-Slavonia and Slavonski Brod-Posavina, in which children account for almost a fifth of the total population. If one considers that County of Vukovar-Sirmium can also be included in this group of counties with a high proportion of children, it can be concluded that Eastern Croatia is the youngest region in Croatia.

The highest proportion of the working population is present in three most developed counties (according to the GDP per capita levels – see Table 4.8), i.e. County of Primorje-Gorski kotar, County of Istria and the City of Zagreb (66 percent). The Zagreb region has the highest proportion of the working population in the overall population, followed by Adriatic North. Central Croatia is the most senior region in Croatia, with more than 20 percent of senior population, closely followed by the Adriatic North. The counties with the highest proportion of seniors are County of Lika-Senj (26.8 percent), County of Karlovac (23.8 percent) and County of Šibenik-Knin (23.2 percent).

Table 1.5: Demographic Structure of Croatia by Analytical Region

Region	Demographic structure			Demographic structure, %		
	Children (0-14)	Working contingent (F 15-59, M 15-64)	Senior population (F above 60, M above 65)	Children (0-14)	Working contingent (F 15-59, M 15-64)	Senior population (F above 60, M above 65)
Zagreb region*	176 785	714 583	192 247	16.3	65.9	17.7
Central Croatia**	172 402	646 805	207 662	16.8	63.0	20.2
Adriatic North***	82 212	367 868	112 781	14.6	65.4	20.0
Adriatic South****	156 501	541 568	159 212	18.3	63.2	18.6
Eastern Croatia*****	166 734	557 808	162 987	18.8	62.8	18.4
Croatia	754 634	2 828 632	834 889	17.1	64.0	18.9

*the City of Zagreb, the County of Zagreb

** Counties of Krapina-Zagorje, Sisak-Moslavina, Karlovac, Varaždin, Koprivnica-Križevci, Bjelovar-Bilogora, Međimurje

*** Counties of Istria, Primorje-Gorski kotar, Lika-Senj,

****Counties of Zadar, Šibenik-Knin, Split-Dalmatia, Dubrovnik-Neretva

*****Vukovar-Sirmium, Osijek-Baranja, Slavonski Brod-Posavina, Požega-Slavonia, Virovitica-Podravina

Source: Census 2001, CBS.

Tables 4.6 and 4.7 show the education structure of the Croatian regions. The inhabitants of certain counties and regions have been classified according to the education level into three groups:

- Primary education (no school and elementary school)
- Secondary education (high school)
- Tertiary education (higher education and university level).

The most prominent education level in Croatia is the high school or secondary education level (47.4 percent), with the lowest share of the higher school education and university levels of education (12.0 percent). The regions with the poorest education structure are the Central and Eastern Croatia, where almost half of the population has no school or have elementary education only. Higher and university educated population in these regions comprise 7 percent of total population. The extremely unfavorable education structure is recorded in County of Koprivnica-Križevci (58.2 percent of the population with primary education and 7.0 percent with higher school and university level education) and the County of Virovitica-Podravina (56.8 percent of the population with primary education and 5.8 percent with higher school and university level education). The highest proportion of the tertiary education level can be found in the Zagreb region (18.5 percent) and the Adriatic North (13.5 percent).

Table 1.6: Education by County, 2001, in %

County of	Primary	Secondary	Tertiary
Zagreb	43.6	48.5	7.9
Krapina-Zagorje	53.0	41.1	5.8
Sisak-Moslavina	48.7	43.7	7.6
Karlovac	47.3	44.1	8.7
Varaždin	46.0	45.6	8.4
Koprivnica-Križevci	58.2	34.8	7.0
Bjelovar-Bilogora	54.9	38.5	6.6
Primorje-Gorski kotar	30.2	54.5	15.3
Lika-Senj	52.2	40.7	7.1
Virovitica-Podravina	56.8	37.4	5.8
Požega-Slavonia	53.4	39.9	6.8
Slavonski Brod-Posavina	49.7	43.4	6.9
Zadar	40.8	48.4	10.8
Osijek-Baranja	46.6	44.2	9.2
Šibenik-Knin	42.8	47.6	9.5
Vukovar-Sirmium	51.5	41.8	6.7
Split-Dalmatia	34.0	52.4	13.6
Istria	36.9	50.5	12.6
Dubrovnik-Neretva	34.5	51.4	14.0
Međimurje	48.3	45.2	6.6
City of Zagreb	25.1	52.3	22.6
Croatia	40.6	47.4	12.0

Source: Census 2001, CBS.

Table 1.7: Education by region, 2001, in %

Analytical regions	Primary	Secondary	Tertiary
Zagreb region	30.3	51.2	18.5
Central Croatia	50.5	42.1	7.3
Adriatic North	34.7	51.7	13.5
Adriatic South	36.5	50.9	12.6
Eastern Croatia	50.0	42.4	7.6
Croatia	40.6	47.4	12.0

Source: Census 2001, CBS.

Economic Structure

The three most developed counties according to the GDP per capita are the City of Zagreb, the County of Istria and the County of Primorje-Gorski kotar. Tables 4.8 and 4.9 show the development level of the Croatian counties according to that indicator. In addition to the City of Zagreb, County of Istria and County of Primorje-Gorski kotar, only County of Koprivnica-Križevci in 2001 and 2002 and County of Lika-Senj in 2003 have reached the GDP per capita levels above the Croatian average.

At the regional level, the Zagreb region and Adriatic North have above average GDP p.c. and along with Adriatic South generate the highest increases in GDP levels.

The least developed are Counties of Vukovar-Sirmium and Slavonski Brod-Posavina, where the GDP per capita levels reach less than 60 percent of the Croatian national average. It should be noted that some of the less developed counties generate below average growth levels of GDP (Counties of Krapina-Zagorje, Požega-Slavonia and Slavonski Brod-Posavina), and are therefore lagging even further in relation to the other counties (the last three columns in Table 4.8).

Table 1.8: Gross Domestic Product per capita, by County, Croatia =100

County of	2001	2002	2003	Index 2002/2001	Index 2003/2002	Index 2003/2001
Zagreb	67.9	77.1	74.2	125.1	106.5	133.3
Krapina-Zagorje	79.0	74.6	72.6	102.6	105.8	108.6
Sisak-Moslavina	86.8	81.2	77.0	101.7	103.2	104.9
Karlovac	84.9	85.4	77.7	109.1	98.7	107.7
Varaždin	95.1	98.1	94.2	112.5	104.6	117.6
Koprivnica-Križevci	103.5	101.9	95.8	107.2	102.5	109.9
Bjelovar-Bilogora	78.5	79.8	74.7	110.4	101.7	112.2
Primorje-Gorski kotar	117.5	112.5	118.1	104.6	114.8	120.2
Lika-Senj	80.2	90.9	103.4	122.9	124.1	152.5
Virovitica-Podravina	80.0	78.1	75.4	106.2	105.1	111.6
Požega-Slavonia	73.9	71.2	72.2	105.2	110.6	116.3
Slavonski Brod-Posavina	61.0	60.1	57.5	107.6	104.5	112.5
Zadar	72.1	73.4	80.1	112.4	120.7	135.8
Osijek-Baranja	77.6	80.1	75.3	112.7	102.6	115.6
Šibenik-Knin	63.6	65.8	69.7	113.2	116.2	131.6
Vukovar-Sirmium	58.0	58.3	57.5	109.3	107.3	117.3
Split-Dalmatia	75.8	75.1	75.3	109.2	110.4	120.5
Istria	134.5	135.6	137.5	110.7	111.6	123.6
Dubrovnik-Neretva	90.2	86.8	88.4	105.7	111.8	118.2
Međimurje	83.1	84.9	80.2	111.8	103.3	115.5
City of Zagreb	176.4	174.8	179.2	108.4	112.3	121.8
Croatia	100.0	100.0	100.0	109.4	109.5	119.8

Source: Project CBS-EIZG, Regional GDP preliminary results.

Table 1.9: Gross Domestic Product per capita by regions, Croatia = 100

Analytical regions	2001	2002	2003	Index 2002/2001	Index 2003/2002	Index 2003/2001
Zagreb region	145.5	146.8	148.9	110.7	111.4	123.3
Central Croatia	87.5	86.7	81.9	107.8	102.9	110.9
Adriatic North	120.2	118.9	123.8	108.3	114.1	123.6
Adriatic South	75.5	75.2	77.3	109.6	113.2	124.1
Eastern Croatia	69.7	70.0	67.4	109.6	104.9	115.0
Croatia	100.0	100.0	100.0	109.4	109.5	119.8

Source: Project CBS-EIZG, Regional GDP preliminary results.

Tables 4.10 and 4.11 describe the employment structure according to the economic activities and unemployment rates. The economic activities have been separated into agriculture, i.e. the primary

sector (activities A and B), industry, i.e. the secondary sector (activities C, D and E) and services, i.e. the tertiary sector, further separated into the public sector (activities L, M and N) and other service sector (activities F, G, H, I, J, K, O and P). At the national level, the highest employment can be found in the service sector (45.7 percent), and lowest employment in agriculture (10.4 percent).

Table 1.10: Employment Structure by Economic Activity and Unemployment Rate, by County, 2003, in %

County of	A, B	C, D, E	F, G, H, I, J, K, O, P	L, M, N	Unemployment rate*
Zagreb	15.9	27.6	41.7	14.8	22.0
Krapina-Zagorje	25.5	28.8	28.6	17.1	16.3
Sisak-Moslavina	12.6	33.2	33.1	21.1	31.9
Karlovac	12.9	28.2	39.1	19.9	29.8
Varaždin	11.2	36.1	33.9	18.8	16.9
Koprivnica-Križevci	28.5	30.7	25.9	14.9	18.6
Bjelovar-Bilogora	35.0	22.6	26.4	16.0	26.0
Primorje-Gorski kotar	2.4	22.0	54.6	20.9	16.5
Lika-Senj	18.2	13.6	44.5	23.7	26.7
Virovitica-Podravina	26.0	27.1	29.0	17.8	30.9
Požega-Slavonia	20.8	27.7	30.1	21.4	25.4
Slavonski Brod-Posavina	18.1	25.3	37.0	19.6	32.7
Zadar	7.0	15.8	53.1	24.2	30.1
Osijek-Baranja	14.3	22.5	41.6	21.6	29.5
Šibenik-Knin	5.6	22.5	48.1	23.8	35.4
Vukovar-Sirmium	24.5	16.1	38.1	21.3	36.2
Split-Dalmatia	3.9	20.7	52.9	22.5	28.4
Istria	3.9	23.5	54.1	18.6	11.3
Dubrovnik-Neretva	6.3	11.8	60.4	21.5	22.7
Međimurje	25.0	29.2	32.0	13.9	15.6
City of Zagreb	1.4	19.9	55.0	23.7	12.5
Croatia	10.4	23.3	45.7	20.7	21.9

* registered unemployment, not ILO definition.

Source: CBS.

Croatia is characterized by significant differences in regional unemployment levels, outlined by the data in the last column of Table 4.10. On one hand, there are most developed counties with relatively low unemployment levels in comparison with the Croatian national average (21.9 percent in 2002.). Thus, the County of Istria has 11.3 percent unemployment rate, and the City of Zagreb 12.5 percent. On the other hand, certain counties are recording high unemployment levels, namely County of Vukovar-Sirmium (36.2 percent), County of Šibenik-Knin (35.4 percent) and County of Slavonski Brod-Posavina (32.7 percent).

Table 1.11: Employment Structure by Economic Activities, by Analytical Regions, 2003, in %

Analytical regions	A, B	C, D, E	F, G, H, I, J, K, O, P	L, M, N	Total employment
Zagreb region	3.9	21.2	52.7	22.2	100.0
Central Croatia	20.9	30.3	31.4	17.5	100.0
Adriatic North	4.0	22.1	53.8	20.1	100.0
Adriatic South	5.0	18.6	53.6	22.8	100.0
Eastern Croatia	18.9	22.8	37.5	20.7	100.0
Croatia	10.4	23.3	45.7	20.7	100.0

Source: CBS.

The highest proportion of employment in agriculture can be found in Central Croatia (20.9 percent), where the leaders are Counties of Bjelovar-Bilogora (35.0 percent), Koprivnica-Križevci (28.5 percent), Krapina-Zagorje (25.5 percent) and Međimurje (25.0 percent). The high proportion of employment in agriculture is also present in the traditional agriculture counties in Eastern Croatia. The Zagreb region, Adriatic North and Adriatic South have single-digit agriculture employment levels, with the lowest percentage recorded in the City of Zagreb (1.4 percent).

Central Croatia is also characterized with the relatively highest proportion of employment in the industry sector (C, D, E). In this case, Counties of Varaždin and Sisak-Moslavina are the leaders with over a third of total employment in the industry sector. Other regions have similar proportions of industry employment (ranging from 18.6 percent to 22.8 percent). The lowest proportion of employment in the industry sector has been recorded in the County of Dubrovnik-Neretva (11.8 percent) and the County of Lika-Senj (13.6 percent).

The Zagreb region, the Adriatic North and the Adriatic South have the highest share of the service sector. Over a half of total employment in these regions is in the service sector. The highest proportions have been recorded in the County of Dubrovnik-Neretva (60.4 percent) and the City of Zagreb (55.0 percent). The most equalized employment level can be found in the public sector. The highest proportions are in the County of Zadar (24.2 percent), County of Šibenik-knin (23.8 percent), County of Lika-Senj and the City of Zagreb (both with 23.7 percent).

Table 4.12 shows the approximation of labor productivity according to the regions in Croatia, measured by the relation of gross value added per employee. It should be emphasized that different data sources are used regarding the value added (national accounts data) and number of person employed (administrative data). Productivity calculated in that way therefore is treated only as indication of real productivity. Methodological issues and different data sources can influence the reliability of productivity indicator. Because of that, productivity indicator is not presented on the county, but only on region level. The only two regions with above-average productivity are the Zagreb region (17.4 percent above average) and North Adriatic (5.8 percent above average). The Zagreb region has above average labor productivity in all sectors, except the primary sector. Eastern and Adriatic North and South recorded above-average labor productivity in the primary sector.

Table 1.12: Estimation of Labor Productivity by Economic Activities, by Analytical Regions, 2003, Croatia = 100

Analytical regions	A, B	C, D, E	F, G, H, I, J, K, O, P	L, M, N	Total
Zagreb region	93.5	133.9	115.1	103.9	117.4
Central Croatia	76.9	82.8	96.7	95.8	87.1
Adriatic North	144.8	121.4	97.4	97.4	105.8
Adriatic South	137.9	83.0	85.9	100.0	91.0
Eastern Croatia	120.9	67.2	86.7	99.2	88.8
Croatia	100.0	100.0	100.0	100.0	100.0

Source: Project CBS-EIZG, Regional GDP preliminary results.

Table 4.13 shows the road and water infrastructure indicators for Croatian counties. Infrastructure equipment is an important prerequisite for economic development. The end of this section will show the correlation analysis results, attempting to identify the various factors relevant in explaining the regional development differences, i.e. identify the factors showing statistically significant correlation with the regional GDP per capita levels. GDP per capita has been alternatively linked with specific variables from various groups of explanatory factors. As data on GDP are available for period 2001-2003 only, it is not possible to construct a strong econometric model implying causality in GDP and explanatory variables trends. Correlation coefficients are to be used as indication whether GDP and other variables are moving in the same or opposite direction.

Table 1.13: Infrastructure Development Indicators

County of	Number of inhabitants per road km		Road density in relation to surface area (km/km ²)		Total water delivered to users (m ³ /household)	Waste waters from public sewage (m ³ /household)
	2001	2003	2001	2003	2001	2001
Zagreb	160.351	165.033	0.616	0.612	59.538	113.30
Krapina-Zagorje	151.231	153.034	0.763	0.758	32.949	10.69
Sisak-Moslavina	90.722	90.713	0.455	0.463	43.698	34.84
Karlovac	86.604	86.860	0.447	0.449	50.533	33.99
Varaždin	165.971	160.616	0.879	0.909	59.343	54.76
Koprivnica-Križevci	112.898	105.655	0.632	0.672	38.614	52.23
Bjelovar-Bilogora	90.706	88.652	0.540	0.564	25.392	26.35
Primorje-Gorski kotar	199.091	203.837	0.426	0.417	110.320	74.99
Lika-Senj	28.319	28.169	0.345	0.355	93.794	18.27
Virovitica-Podravina	102.418	101.996	0.446	0.451	34.747	26.03
Požega-Slavonia	116.637	118.388	0.398	0.397	37.322	29.98
Slavonski Brod-Posavina	192.001	191.209	0.444	0.455	29.105	23.16
Zadar	95.860	95.032	0.455	0.463	74.237	34.46
Osijek-Baranja	199.961	205.656	0.394	0.389	43.600	37.25
Šibenik-Knin	92.696	94.293	0.404	0.403	80.236	38.06
Vukovar-Sirmium	196.658	200.969	0.411	0.413	39.315	18.43
Split-Dalmatia	185.232	186.813	0.545	0.546	93.797	63.74
Istria	110.839	112.308	0.660	0.650	121.130	52.75
Dubrovnik-Neretva	124.868	125.912	0.548	0.548	89.693	32.87
Međimurje	212.866	214.286	0.748	0.756	39.880	16.01
City of Zagreb	1.039.215	1037.543	1.158	1.172	105.450	112.50
Croatia	155.792	155.689	0.497	0.501	71.688	-

Source: CBS.

The first group comprises structural variables, defined as the proportion of employed population in various economy sectors for each specific county. Sectors are defined in the same manner used in the explanations accompanying Tables 4.10 and 4.11. As shown in Table 4.14, it is evident that there is a statistically significant correlation between the proportion of employed in the primary sector and the size of GDP per capita in a specific county, a correlation with medium intensity and a negative sign (-0.46 for period 2001-2003). In other words, less developed counties on average have higher employment levels in the primary sector. The proportion of employment in the secondary sector has not been identified as significant as an explanation for regional development, same as in the case of tertiary sector employment. However, the latter variable does show statistical correlation with the regional GDP per capita. When excluding the public sector employees from the sample, the correlation coefficient becomes significant, with a medium intensity positive sign (0.41). The correlation coefficient increases even further following the exclusion of tourist sector employees (0.47).

Furthermore, the county infrastructure equipment levels also have a statistically significant correlation with the regional GDP per capita. In this analysis, all of the infrastructure variables included have shown a positive correlation with the level of regional GDP per capita, with medium and strong intensity. The correlation coefficient between the GDP per capita and the road density is 0.63, while in the case of the correlation with the total water delivered to users, the resulting value is 0.62. The education structure in specific counties has also been found as significant variable in explaining regional development differences.⁴ The correlation analysis has established a statistically significant correlation between the regional GDP per capita and the proportion of population with primary and tertiary education levels. The correlation coefficient in the first example has a negative sign and the

⁴ The education structure of the population in specific Croatian regions has been shown by Tables 4.6 and 4.7.

value of -0.59, while in the second case, an even stronger positive relationship has been established, with the coefficient value of 0.75.

Table 1.14: Overview of Correlation Coefficients between County GDP p. c. and Various Variables

Correlation between GDP p.c. and:	2001	2002	2003	2001-2003
Structural variables				
Employed in primary sector	-0.45 (-2.26)*	-0.44 (-2.22)	-0.50 (-2.61)	-0.46 (-4.09)
Employed in tertiary sector (without public service)	0.37 (1.8)	0.40 (1.93)	0.48 (2.44)	0.41 (3.61)
Employed in tertiary sector (without tourism)	0.44 (2.19)	0.46 (1.93)	0.52 (2.74)	0.41 (3.61)
Infrastructure variables				
Road intensity	0.67 (4.06)	0.67 (4.07)	0.61 (3.42)	0.63 (6.50)
Water	0.59 (3.26)	0.62 (3.54)	0.71 (4.48)	0.62 (6.37)
Educational structure				
Primary education	-0.59 (-3.31)	-0.59 (-3.26)	-0.63 (-3.65)	-0.59 (-5.81)
High education	0.77 (5.40)	0.76 (5.18)	0.79 (5.73)	0.75 (9.01)
Demographic structure				
Children	-0.57 (-3.10)	-0.59 (-3.28)	-0.60 (-3.31)	-0.57 (-5.51)
Working contingent	0.55 (2.92)	0.53 (2.79)	0.46 (2.33)	0.49 (4.53)

*Note: in parentheses are t-statistics
Source: Own calculations.

Finally, the demographic structure is equally important in explaining of regional development discrepancies. A statistically significant correlation with the regional GDP per capita have the variables of the proportion of children in the total county population levels, and the level of working population, while the ratio of senior population has not been shown as significant. The correlation between the regional GDP per capita and the proportion of children (as an indicator of economically supported population) has a negative sign, with medium to strong intensity (-0.57). On the other hand, the working population has shown a positive relationship with the regional GDP per capita, also with a medium to strong intensity (0.49).

SOURCES OF GROWTH OF THE CROATIAN COUNTIES – REGIONAL ECONOMY STRUCTURE ACCORDING TO SECTORS, ENTERPRISE SIZE AND OWNERSHIP

This section analyses the relationship between the economic growth of certain counties on one hand, and the regional economy structure according to sectors, enterprise size and ownership on the other. The findings of this section research, in addition to the previously illustrated education and demographic indicators, as well as infrastructure capabilities indicators, provide a complete picture concerning the growth potential of certain Croatian counties.

Economy Structure of Croatian Counties

The experiences of the new EU member states show that the economy structure has a significant influence on the economy growth rates. The regions with a higher share of the tertiary sector (excluding the public sector) in the process of EU accession and transition into a market economy, are

experiencing higher rates of GDP growth. In regards to industry sector⁵ (industries C, D and E of NACE classification), the growth rates are dependant on the internal industrial structure (export orientation, technology transfer), rather than the total share of industry sector. The areas with a significant share of agriculture and public sector mainly experience slower growth in comparison to the average.

This section analyses the relationship between the economy structure of the Croatian counties and the average rate of nominal growth in the period 2001-2003. The regional accounts system has started developing in Croatia only recently; therefore the data on the gross value added and GDP are available only in current prices. The real growth rates on the county level are not calculated at this point even for experimental purposes. Due to the differing regional economy structure not only in terms of sector distribution, but also the difference regional market conditions, the use of the national GDP deflator which does not reflect the differences in the levels and regional price trends in specific activities would not be justified. However, the analysis of the nominal GDP growth in various sectors brings us to some conclusion on the relationship between the economy structure and the growth rate.

For analytical purposes, the activities have been grouped into five sectors. The primary sector includes agriculture (A) and fisheries (B). The secondary sector includes the processing industry with mining, manufacturing and electricity distribution (C, D and E). The tertiary sector has been separated into three sub-sectors. The first is comprised of services similar to manufacturing industry (construction, F) or activities that are closely related to product distribution (trade, G, transport and communications, I, and hotels and restaurants, H). The second sub-sector within the tertiary sector comprise financial services (J), business services (K), other personal services (O), and private households (P). The third service sub-sector in general comprises the government units, and includes public administration (L), education (M) and health (N). Table 4.15 shows the industry structure of gross value added in various counties in Croatia in the period 2001 - 2003.

On the level of the total economy, the service sector (F, G, H and I) is dominant and comprises 33.3 percent of total value added. In all counties, apart from the Counties of Varaždin, Koprivnica-križevci, Sisak-Moslavina and Međimurje, the proportion of this sector is the most significant. If financial, business, personal services and private households (industries J, K, O and P) are added, it is clear that the total tertiary sector (excluding public services) comprises 48.3 percent of total value added. As a rule, a higher proportion of the tertiary sector in the gross value added (GVA) is found in developed counties. In addition, some less developed counties close to the Adriatic Sea (for example, Counties of Zadar and Šibenik-Knin) have a high share of tertiary sector (tourism)⁶.

The development level of various counties is well illustrated by the proportion of the primary sector (A and B) in a way that less developed counties have a higher proportion of the primary sector in total value added. Primarily, this refers to the counties in Eastern and Central Croatia.

Significant differences between counties in GVA proportions have been recorded in industry sector (C, D and E). Therefore the smallest proportion, just above 10 percent has been recorded in the County of Zadar (13.1 percent) and Dubrovnik-Neretva (11.7 percent), while the highest proportions have been recorded in the County of Međimurje (35.7 percent), Koprivnica-Križevci (35.5 percent) and Sisak-Moslavina (32.4 percent). The relationship between the share of this sector and total development levels are not clearly identifiable.

⁵ Industry sector comprises mining and quarrying (C), manufacturing (D) and electricity supply (E).

⁶ More detailed sectoral breakdown of value added is presented in Appendix 1.

Table 1.15: Regional Distribution of GVA, Current Prices in the Period 2001-2003, in %

County of	A, B	C, D, E	F, G, H, I	J, K, O, P	L, M, N	TOTAL
Zagreb	15.0	30.5	35.9	7.1	11.5	100.0
Krapina-Zagorje	12.8	30.1	30.4	7.1	19.6	100.0
Sisak-Moslavina	12.0	32.4	28.3	8.0	19.3	100.0
Karlovac	10.0	25.4	37.5	8.7	18.4	100.0
Varaždin	11.8	32.1	28.5	9.5	18.1	100.0
Koprivnica-Križevci	21.8	35.5	22.6	6.9	13.2	100.0
Bjelovar-Bilogora	27.9	19.8	24.6	9.0	18.6	100.0
Primorje-Gorski kotar	2.3	23.5	41.7	14.8	17.6	100.0
Lika-Senj	17.0	19.0	37.2	6.4	20.3	100.0
Virovitica-Podravina	28.6	22.5	26.5	6.3	16.1	100.0
Požega-Slavonia	21.9	21.5	25.3	6.9	24.4	100.0
Slavonski Brod-Posavina	18.7	21.0	28.9	10.0	21.4	100.0
Zadar	10.1	13.1	40.0	14.4	22.3	100.0
Osijek-Baranja	19.3	18.4	29.6	12.3	20.3	100.0
Šibenik-Knin	8.4	16.4	36.9	13.6	24.7	100.0
Vukovar-Sirmium	27.2	13.4	30.4	7.2	21.8	100.0
Split-Dalmatia	4.0	20.8	37.7	15.8	21.6	100.0
Istria	5.2	30.9	35.9	14.1	14.0	100.0
Dubrovnik-Neretva	8.4	11.7	39.9	17.3	22.7	100.0
Međimurje	15.8	35.7	23.6	10.0	14.8	100.0
City of Zagreb	0.4	25.2	32.7	23.2	18.4	100.0
Croatia	8.7	24.6	33.3	15.0	18.4	100.0

Source: Author's calculations.

In continuation, Table 4.16 presents the average nominal GDP growth rates in the period 2001 - 2003 according to various sectors and counties. It is clear that the fastest growth has been recorded in the tertiary sector (except public administration). Thus, fastest growth, 19.0 percent, has been recorded in the business, financial and personal services. The sub-sector comprising of activities F, G, H and I in the analyzed period has increased at a very high average nominal rate of 16.9 percent.

On the other hand, the nominal decrease in gross value added has been recorded in agriculture and fisheries (-2.4 percent). Slow nominal growth has been recorded in the public sector (L, M and N, 4.8 percent).

In industry, the average nominal growth amounted to relative low 6.8 percent, but with significant differences across counties. Here, industrial production growth rates higher than 20 percent have been recorded in the Counties of Vukovar-Sirmium, Zagreb, Požega-Slavonia, Lika-Senj and Šibenik-Knin, and on the other hand the largest decreases have been recorded in the County of Sisak-Moslavina (-7.5 percent) and Split-Dalmatia (-4.2 percent). It is evident that in industry sector the county structure of industrial manufacture is crucial since industry encompasses at the same time rapidly developing companies (publishing, part of capital products manufacture) but also decreasing traditional activities under the influence of the growing international competition (textiles, metal industry, etc.).

Table 1.16: Gross Value Added Average Nominal Growth Rate, Current Prices, in the Period 2001-2003, in %

County of	A, B	C, D, E	F, G, H, I	J, K, O, P	L, M, N	TOTAL
Zagreb	2.5	28.2	15.0	18.8	11.6	16.7
Krapina-Zagorje	-4.4	8.4	5.9	15.5	2.8	5.3
Sisak-Moslavina	-4.9	-7.5	19.2	4.2	6.9	3.5
Karlovac	3.6	10.2	0.4	15.8	2.3	4.9
Varaždin	-1.5	0.0	26.2	20.7	6.3	9.6
Koprivnica-Križevci	-1.3	4.0	12.4	21.1	4.7	6.0
Bjelovar-Bilogora	-1.7	4.2	18.3	22.2	2.9	7.0
Primorje-Gorski kotar	-0.2	0.6	16.4	20.8	6.6	10.8
Lika-Senj	-2.7	24.9	52.6	26.1	4.0	24.8
Virovitica-Podravina	-4.0	10.5	16.2	16.8	2.3	6.7
Požega-Slavonia	-4.6	27.3	11.0	17.7	3.2	9.0
Slavonski Brod-Posavina	-4.5	1.0	21.2	11.3	5.3	7.2
Zadar	-2.0	13.7	31.9	17.5	6.5	17.8
Osijek-Baranja	-3.2	5.7	19.5	16.8	3.9	8.7
Šibenik-Knin	-2.6	28.0	22.0	18.2	5.8	15.9
Vukovar-Sirmium	-5.6	33.7	16.4	13.6	5.4	9.5
Split-Dalmatia	-5.2	-4.2	23.1	16.7	5.3	10.9
Istria	2.3	14.0	10.7	22.3	7.8	12.4
Dubrovnik-Neretva	-2.7	1.9	15.2	19.0	3.1	9.9
Međimurje	-4.6	8.4	17.0	18.5	5.0	8.6
City of Zagreb	-0.3	6.0	15.3	19.9	3.3	11.5
Croatia TOTAL	-2.4	6.8	16.9	19.0	4.8	10.6

Source: Author's calculations.

The highest average nominal growth rate has been recorded in the County of Lika-Senj (24.8 percent). It should be noted that during the analyzed period, this county benefited from intensive motorway construction, which had positive impacts not only on the construction industry, but on other industries, either directly (construction material manufacture, transport, wholesale retailing) or indirectly through increased spending by the temporary labor force (retail, hotels and restaurants, personal and business services). However, as motorway construction moves towards the Adriatic South, it is to be expected that the positive effect will be transferred to the southern counties (Zadar, Šibenik-Knin, Split-Dalmatia), and that the County of Lika-Senj will experience the fate of the County of Karlovac which recorded very low growth rates after the finalization of the transport routes.

Apart from the County of Lika-Senj, the other fastest growing counties were in central Dalmatia (Zadar 17.8 percent, Šibenik-Knin 15.9 percent), and the County of Zagreb (16.7 percent). In the observed period, the first two counties benefited, apart from motorway construction, from rapid tourism growth. In the case of the County of Zagreb, there is a favorable economic structure and a favorable position surrounding the capital city. The proximity of the City of Zagreb and the cost aspects (lower property prices, lower tax burdens) have influenced entrepreneurship growth which is growing more rapidly in the proximity of Zagreb than in the city itself.

The three most developed counties (the City of Zagreb, the Counties of Istria and Primorje-Gorski kotar) with their favorable economic structure have secured high and stable growth rates above Croatian average (10.6 percent). The highest average growth rate in that group was recorded in Istria (12.4 percent), following with the City of Zagreb (11.5 percent), and Primorje-Gorski kotar (10.8 percent). However, if the temporary motorway construction effects (the County of Lika-Senj), and the low basis phenomenon (tourism in central and southern Dalmatia) are excluded, it is clear that the most developed counties will continue to increase the difference in the development level in comparison to the rest of Croatia.

On the other hand, the less favorable economic structure (relatively high proportion of agriculture and companies not yet restructured) in some counties of Central (Counties of Krapina-Zagorje, Sisak-Moslavina and Karlovac), and Eastern Croatia (primarily Counties of Virovitica-Podravina and Slavonski Brod-Posavina, but others as well) represent a significant risk of further lagging behind. Table 4.17 shows the contribution to the GDP growth across various activity groups in Croatia in the period 2001-2003.

Table 1.17: Contribution to Total Gross Value Added Growth, Current Prices, in the Period 2001-2003, in % of Total Nominal GVA Increase

County of	A, B	C, D, E	F, G, H, I	J, K, O, P	L, M, N	TOTAL
Zagreb	2.29	48.31	32.93	8.02	8.45	100.00
Krapina-Zagorje	-10.82	47.21	33.91	19.37	10.33	100.00
Sisak-Moslavina	-17.03	-73.75	143.61	9.58	37.58	100.00
Karlovac	7.12	54.22	2.79	27.10	8.77	100.00
Varaždin	-1.91	1.63	71.40	19.84	12.30	100.00
Koprivnica-Križevci	-4.89	24.21	46.96	23.12	10.59	100.00
Bjelovar-Bilogora	-6.96	12.27	59.85	26.98	7.87	100.00
Primorje-Gorski kotar	-0.04	1.37	61.27	26.56	10.84	100.00
Lika-Senj	-2.00	18.18	73.87	6.42	3.53	100.00
Virovitica-Podravina	-17.33	36.20	60.62	14.89	5.62	100.00
Požega-Slavonia	-11.45	57.31	32.24	12.93	8.97	100.00
Slavonski Brod-Posavina	-12.20	3.05	78.45	14.88	15.83	100.00
Zadar	-1.20	10.83	67.96	13.89	8.52	100.00
Osijek-Baranja	-7.53	12.30	62.77	23.16	9.29	100.00
Šibenik-Knin	-1.43	25.67	50.78	15.45	9.53	100.00
Vukovar-Sirmium	-16.92	43.15	51.14	10.03	12.61	100.00
Split-Dalmatia	-2.03	-8.32	76.11	23.58	10.66	100.00
Istria	0.98	33.45	32.32	24.27	8.97	100.00
Dubrovnik-Neretva	-2.32	2.35	61.23	31.47	7.28	100.00
Međimurje	-8.87	34.98	44.86	20.10	8.92	100.00
City of Zagreb	-0.01	13.76	42.32	38.44	5.49	100.00
Croatia	-2.04	16.12	51.61	25.80	8.52	100.00

Source: Author's calculations.

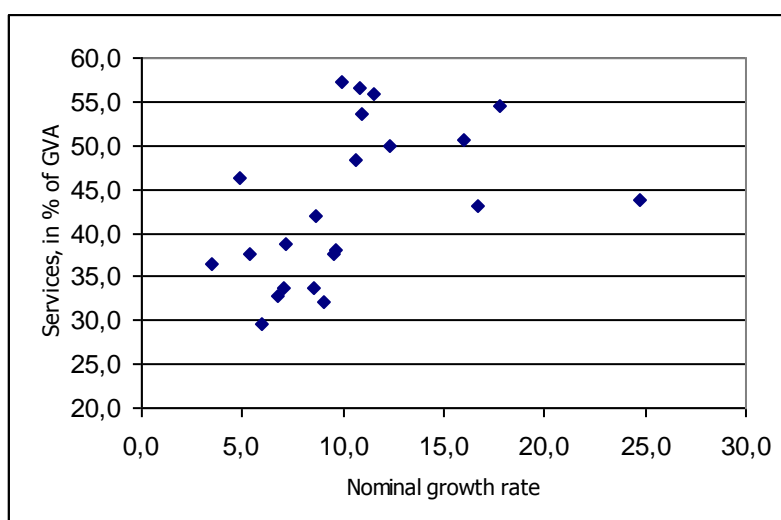
It is clear that more than 50 percent of nominal gross value added increases originates from the growth of the sector which includes construction, retail, hotels and restaurants, and transport and communications (F, G, H and I). In all counties, except for Counties of Zagreb, Požega-Slavonia and Karlovac, the growth contribution of this sector is the most significant. If financial, business and personal services and private households are added (industries J, K, O and P), it is clear that the total tertiary sector (except public administration) comprises more than 75 percent of the growth of total gross value added. The negative contribution to the nominal increases to value added stems from the primary sector (A and B). This sector positively influences the increases of value added only in Counties of Karlovac, Istria and Zagreb.

In terms of the secondary sector (C, D and E), it is clear that there are significant differences between various counties. On one side, there are counties with a favorable industry sector structure and a strong growth potential, while on the other side, there are non-restructured industrial manufacturers in certain counties even creating nominal reductions in total industrial manufacture. The high contribution of industrial manufacture to the total increases of gross value added has been recorded in the counties of Zagreb, Požega-Slavonia, Karlovac, Krapina-Zagorje and Vukovar-Sirmium. It should not be forgotten that in certain counties this is a result of low base phenomenon. On the other hand, the significant nominal reduction of gross value added in the industry sector has been recorded in the Counties of Sisak-Moslavina and Split-Dalmatia.

In the period observed, the sector containing the public units activities (L, M and N) has recorded low nominal growth (on the level of total economy even real decreases), and thus total nominal growth contributions are low.

Clear demonstration of the relationship between the economy structure and the growth potential is given by Figure 4.2. It can be seen that the counties with a significant proportion of the tertiary sector (except public administration) have recorded on average higher nominal gross value added growth rates. The highest proportion of the tertiary sector (higher than 50 percent) has been recorded in the three most developed counties (the City of Zagreb, Istria and Primorje-Gorski kotar counties) and the counties in Adriatic South (Zadar, Split-Dalmatia, Šibenik-Knin and Dubrovnik-Neretva). On the other hand, the lowest proportion of the tertiary sector (with a high proportion of the primary sector) has been recorded in the counties of Eastern and Central Croatia which are underdeveloped. Such economy structure in the middle run within the EU accession process could contribute to the widening of the inequalities among the Croatian counties.

Figure 1.2: The Relationship between the Proportion of Tertiary Sector (except public administration) in gross value added and the nominal growth index in the period 2001-2003



Source:

In continuation, other factors influencing the differences in growth rates of the Croatian counties are investigated. Primarily, this refers to the effects of small and medium entrepreneurship growth and the differences in the ownership structure.

Economy Growth and Enterprise Size According to Counties

This section analyses the economy structure of certain Croatian counties according to enterprise size. Economy structure data, according to the unit size are not officially calculated and published in Croatia even on the level of the national economy. Therefore, the author's estimates based on various information sources are presented.⁷ For analytical purposes, the estimation of the economy structure has been formulated according to size and separated into four sectors. These are the small and medium enterprise sector, large entrepreneurs sector, financial institutions sector and the general government administration units sector. The small and medium enterprise sector has been separated into two sub-sectors: small and medium market producers (crafts, small and medium legal units), and

⁷ Primarily, this is the data set covering the FINA (financial agency) surveys, used in the official GDP calculations. The authors would like to thank the colleagues from DZS, and particularly Mrs. Maja Gorjan Bregeš for the help and assistance in data processing for the purposes of this research.

non-market producers (owner occupied dwellings and individual agricultural producers). Table 4.18 shows the average proportions of various sectors in the period 2001 - 2003.

Table 1.18: Average Proportions in the GVA of Various Unit Groups According to Size in the Period 2001-2003

County of	SME		Large entrepreneurs	Financial institutions	Government units	Total
	Market	Non-market				
Zagreb	42.5	16.7	28.4	2.2	10.2	100.0
Krapina-Zagorje	35.9	15.8	28.1	3.1	17.1	100.0
Sisak-Moslavina	19.7	15.5	43.7	3.2	17.9	100.0
Karlovac	30.2	13.0	36.9	3.1	16.8	100.0
Varaždin	34.9	13.3	32.0	3.6	16.2	100.0
Koprivnica-Križevci	18.0	24.2	42.9	3.2	11.7	100.0
Bjelovar-Bilogora	29.0	27.3	22.6	4.2	16.9	100.0
Primorje-Gorski kotar	39.4	6.2	33.7	4.6	16.1	100.0
Lika-Senj	20.7	15.9	42.1	2.7	18.6	100.0
Virovitica-Podravina	18.1	25.0	39.0	3.1	14.7	100.0
Požega-Slavonia	22.1	19.8	32.5	3.1	22.5	100.0
Slavonski Brod-Posavina	30.8	20.2	25.6	3.7	19.7	100.0
Zadar	35.0	11.2	28.5	4.8	20.5	100.0
Osijek-Baranja	24.8	15.5	36.8	4.3	18.6	100.0
Šibenik-Knin	30.0	12.6	29.4	5.1	22.9	100.0
Vukovar-Sirmium	25.5	24.1	27.9	2.3	20.1	100.0
Split-Dalmatia	41.9	7.6	25.8	4.6	20.1	100.0
Istria	39.9	8.8	34.1	4.5	12.8	100.0
Dubrovnik-Neretva	36.0	12.2	24.6	6.0	21.2	100.0
Međimurje	40.0	16.8	26.3	3.8	13.1	100.0
City of Zagreb	35.0	5.1	35.0	7.9	16.9	100.0
Croatia	33.8	11.2	32.9	5.1	16.9	100.0

Source: Author's calculations.

The largest proportion of GVA is created by the small and medium market producers (33.8 percent). This is followed by the large entrepreneurs sector with 32.9 percent, and government units with 16.9 percent proportion. The smallest proportion, amounting to 5.1 percent in total gross value added, is recorded for financial institutions (banks and insurance) and the non market small producers (11.2 percent).

Market oriented small and medium entrepreneurs have the most significant proportion in the County of Zagreb (42.5 percent), followed by the County of Split-Dalmatia (41.9 percent), Međimurje (40.0 percent) and Istria (39.9 percent). On the other hand, the smallest proportion of this group has been recorded in the County of Koprivnica-Križevci (18.0 percent), Virovitica-Podravina (18.1 percent), and Sisak-Moslavina (19.7 percent). The low share of this sector (below 30 percent) has been

recorded in almost all of the counties in Eastern Croatia. All three most developed counties (The City of Zagreb, Counties of Istria and Primorje-Gorski kotar) have above-average share of this sector.

The differences in non-market small producers' proportions are mainly due to the differences in the proportions of agriculture producers, considering that the proportion of household owners (imputed dwelling rent) does not vary significantly across counties. Thus, the highest proportions have been noted in the Eastern and Central Croatia (Counties of Bjelovar-Bilogora, 27.3 percent, Virovitica-Podravina, 25.0 percent, Vukovar-Sirmium, 24.1 percent and Koprivnica-Križevci, 24.2 percent). Expectedly, the lowest share of this sector has been recorded in the three most developed counties.

Due to the fact that the large enterprises includes public companies (INA, HEP, HP, HT) which are equally active in all parts of Croatia, low levels of proportional variation have been recorded in comparison to the small manufacturers. However, depending on the geographical position of the other large entrepreneurs (private or state owned) certain differences do exist. Thus, the smallest proportion of large entrepreneurs has been estimated in the County of Bjelovar-Bilogora (22.6 percent) and the largest for the County Sisak-Moslavina (43.7 percent).

On the other hand, significant differences in the county proportions in the GVA have been registered in the financial sector (banks and insurance). The economic development differences, business profitability but also disposable income of households has a significant influence of the regional distribution of the financial services covering households and companies. Thus the highest proportions of this sector have been recorded in the City of Zagreb (7.9 percent) and the smallest in the County of Zagreb (2.2 percent). In this example, suggested explanation is that the business branches of the financial institutions in the City of Zagreb simultaneously serve households and entrepreneurs from the surrounding counties as well. In principle, it can be stated that there is a strong positive relationship between the proportion of the financial institutions sector and the development of a certain county. In addition, the counties in the coastal regions have even higher financial sector proportion than indicated by their development levels. An explanation is that financial institutions try to service the needs of the domicile units and foreign tourists as well and therefore collect the foreign exchange deposits originating from tourism income.

In terms of government administration units, it should be noted that the relative differences between the proportions of this sector in the GVA in certain counties are relatively smaller in comparison to the case of small entrepreneurs and financial institutions.

Table 4.19 shows the average nominal growth rates of various sectors in the period 2001 - 2003. It is clear that on the total economy level, the highest nominal growth rate has been recorded in the financial institutions sector (19.2 percent), followed by sector of market small and medium enterprises (13.6 percent). The financial institutions sector has recorded double-figure nominal average growth rates in all counties except the Counties of Sisak-Moslavina (7.4 percent) and Slavonski Brod-Posavina (8.3 percent). The highest growth rate of this sector has been found in Counties of Split-Dalmatia (27.9 percent), Bjelovar-Bilogora (21.9 percent), and the City of Zagreb (21.8 percent), which also has the highest proportion of gross value added in this sector.

The small market enterprises in the analyzed period have been experiencing stable high growth rates. The highest nominal growth (50.0 percent) has been recorded in County of Lika-Senj where it is evident that motorway construction has stimulated additional activities, with small and medium sector as the most flexible in that respect. According to growth rates, the County of Lika-Senj is followed by Counties of Šibenik-Knin (23.6 percent) and Vukovar-Sirmium (23.3 percent). Small and medium entrepreneurs generated the least momentum in the County Virovitica-Podravina even with average nominal reductions, amounting to 0.6 percent annually. Low growth rates in this sector have also been recorded in Counties of Osijek-Baranja (4.5 percent) and Karlovac (7.2 percent). In the analysis of these indicators, the above average presence of the underground economy in the SME sector should be expected. Therefore the reported value added and hence the increases are most likely underestimated. The counties with a significant proportion of areas of special state concern with

significant tax incentives have recorded the highest value added growth rates in this sector (Counties of Lika-Senj, Vukovar-Sirmium and Šibenik-Knin).

Table 1.19: Average Nominal GVA Growth Rates in the Period 2001 - 2003, in %

County of	SME		Large entrepreneurs	Financial institutions	Government units	Total
	Market	Non-market				
Zagreb	17.6	2.6	26.0	18.1	10.8	16.4
Krapina-Zagorje	12.7	-7.3	4.7	12.3	1.1	5.1
Sisak-Moslavina	17.7	1.1	-2.4	7.4	6.1	3.5
Karlovac	7.2	4.5	4.8	13.2	0.4	5.0
Varaždin	9.1	-1.6	16.3	16.8	5.0	9.5
Koprivnica-Križevci	8.8	0.6	7.1	21.7	4.0	5.9
Bjelovar-Bilogora	10.6	2.0	10.0	21.9	2.0	7.0
Primorje-Gorski kotar	12.9	1.4	11.0	15.3	5.5	10.4
Lika-Senj	50.0	1.0	34.3	14.6	3.6	24.1
Virovitica-Podravina	-0.6	-0.4	16.1	17.4	1.5	6.6
Požega-Slavonia	8.8	-6.6	23.5	16.7	2.1	8.7
Slavonski Brod-Posavina	11.1	-2.6	12.0	8.3	4.4	7.0
Zadar	11.8	-7.4	47.7	16.9	5.7	17.1
Osijek-Baranja	4.5	3.5	16.7	11.6	2.9	8.6
Šibenik-Knin	23.6	4.9	21.1	17.2	4.7	15.4
Vukovar-Sirmium	23.3	-2.3	11.4	16.3	4.4	9.3
Split-Dalmatia	16.3	-2.9	8.2	27.9	4.4	10.6
Istria	10.3	-0.9	18.5	17.8	6.8	11.9
Dubrovnik-Neretva	20.3	-3.5	7.3	15.9	2.1	9.6
Međimurje	7.8	-2.1	19.9	14.1	2.9	8.4
City of Zagreb	14.9	4.8	11.2	21.8	1.6	11.2
Croatia	13.6	0.3	12.9	19.2	3.5	10.4

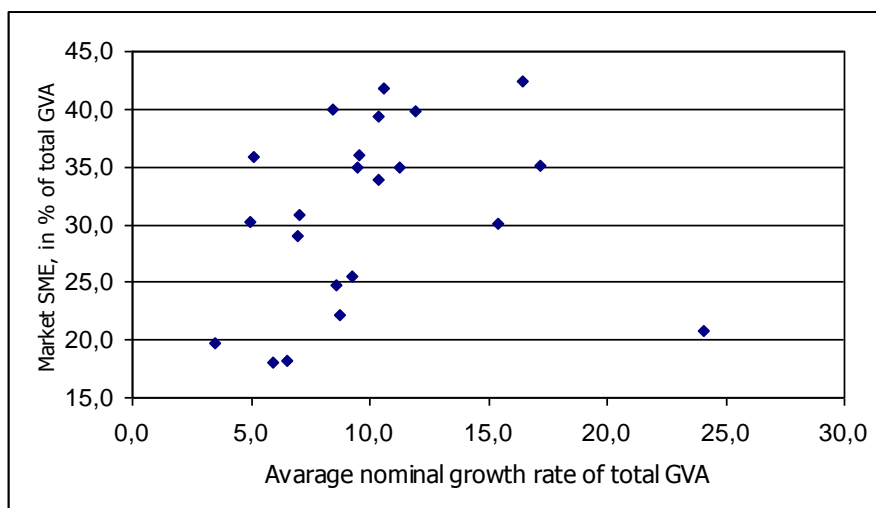
Source: Author's calculations.

Above average nominal growth rate has also been recorded in the large entrepreneurs sector. On one hand, the growth of income of large entrepreneurs is a result of the infrastructure cycle which is mainly undertaken by large entrepreneurs (construction), but also consolidation and value added growth rate (price liberalization) in the case of public companies (INA, HEP, HT). On the other hand, the counties with a significant proportion of the large, unstructured manufacturers (textiles industry, metal processing, etc.) have recorded low growth rates or even decreases of gross value added in the case of large entrepreneurs. Consequently, the largest value added increases among large entrepreneurs have been noted in the County of Zadar (47.7 percent) and the County of Lika-Senj (34.3 percent). Large entrepreneurs have demonstrated the worst results in the County of Sisak-Moslavina (nominal reduction of 2.4 percent), and low nominal growth rates were also recorded in Counties of Krapina-Zagorje (4.7 percent), Karlovac (4.8 percent), and Koprivnica-križevci (7.1 percent).

Slow nominal growth (real reduction) on total economy level has been noted in the government administration units sector, and the small non-market manufacturers sector, where agriculture is the most significant. Such trends in these sectors are not unexpected. In the analyzed period, the bulk of the structural adjustments involved the consolidation of public finances, which explains the gross value added trends in the government administration units sector. The expected public sector reform, as well as further transition process towards market economy will definitely influence the slow growth of the government sector in the following period. In terms of non-market manufacturers, reduction of their proportions is to be expected, and partly a transformation into competitive market manufacturers.

From the above mentioned, it can be concluded that there is a positive relationship between the proportion of the market small and medium entrepreneurs in total gross value added and economy growth rates (see Figure 4.3). Financial institutions sector contributed to the rapid growth in the analyzed period, while counties with a higher proportion of government administration units and non-market producers have recorded lower rates of growth on average.

Figure 1.3: Relationship between the Average Nominal Growth rate of the Total GVA and the proportion of Market Small and Middle Entrepreneurs in Total Gross Value Added



Source:

The Economic Growth and Ownership Structure According to Counties

This section analyses the influence of ownership structure on the growth at the county level. The data concerning the ownership structure are not officially published; therefore the data used in this analysis represents the author's estimates based on available data sources. For analytical purposes, the ownership structure has been classified into four sectors. These are the private ownership sector, public ownership sector, mixed ownership sector with the majority private stake and the mixed ownership sector with the majority public stake. Private property also includes the crafts sector, property owners and residents, privately-owned companies, and private financial institutions. The analysis used the data from FINA research, and since there is no statistical registry in Croatia which contains updated data concerning the ownership structure, this estimate should be considered as estimation only and not entirely accurate.

Apart from the lack of a satisfactory statistical registry, an additional problem should be mentioned, concerning the related companies where it is very difficult to establish the final ownership structure. This is especially important in cases relating to state property where the registered owners are often various units owned by the government. In addition, the unsolved cases of property returns present further problems as well. Therefore, it remains questionable to what extent do the units filling in the statistical forms actually have full knowledge of the complete ownership structure. However, such estimates enable an insight into the relative importance of the private and the state property in various counties.

Table 4.20 shows the estimated proportions of private and state ownership shown as the proportion of total gross value added in a certain county. The total proportion of private property on the total national economy level has been estimated at 69.0 percent, while the proportion of gross value added created by the state owned units in the same period amounted to 31.0 percent. The largest proportion of private property has been estimated in the County of Medimurje, 79.1 percent in the period 2001 -

2003. The County of Zagreb had a slightly smaller proportion, 78.9 percent, followed by the County of Koprivnica-Križevci with 78.6 percent. On the other hand, the smallest proportion of private property has been estimated in the county of Lika-Senj (49.6 percent), followed by the Counties of Šibenik-Knin (59.2 percent), Osijek-Baranja (66.0 percent) and Požega-Slavonia (66.1 percent).

Table 1.20: Estimated GVA Proportion According to the Ownership Structure in the Period 2001-2003, in % of Total GVA for the County

County of	Private property			State property		
	Full	Mixed, mainly private	Total	Full	Mixed, mainly state	Total
Zagreb	73.5	5.4	78.9	20.0	1.1	21.1
Krapina-Zagorje	66.6	9.0	75.6	23.1	1.2	24.4
Sisak-Moslavina	48.2	20.4	68.6	28.4	3.0	31.4
Karlovac	63.2	9.1	72.4	25.3	2.3	27.6
Varaždin	63.0	10.4	73.4	24.6	2.0	26.6
Koprivnica-Križevci	55.5	23.1	78.6	19.9	1.5	21.4
Bjelovar-Bilogora	69.1	6.1	75.2	24.3	0.6	24.8
Primorje-Gorski kotar	61.2	6.9	68.1	28.9	3.0	31.9
Lika-Senj	44.1	5.6	49.6	48.5	1.8	50.4
Virovitica-Podravina	59.1	14.9	74.0	22.5	3.5	26.0
Požega-Slavonia	58.9	7.3	66.1	29.8	4.1	33.9
Slavonski Brod-Posavina	59.3	7.7	66.9	28.2	4.9	33.1
Zadar	64.0	6.1	70.1	29.1	0.9	29.9
Osijek-Baranja	57.4	8.6	66.0	31.2	2.8	34.0
Šibenik-Knin	51.0	8.2	59.2	32.8	8.0	40.8
Vukovar-Sirmium	56.9	7.2	64.1	31.3	4.6	35.9
Split-Dalmatia	61.1	6.8	67.9	28.8	3.2	32.1
Istria	64.5	10.3	74.8	21.8	3.4	25.2
Dubrovnik-Neretva	52.8	9.4	62.2	31.2	6.6	37.8
Međimurje	72.9	6.2	79.1	19.3	1.6	20.9
City of Zagreb	56.1	9.8	65.9	32.3	1.7	34.1
Croatia	59.6	9.4	69.0	28.5	2.5	31.0

Source: Author's calculations.

Table 4.21 shows the average annual nominal growth of gross value added according to the ownership structure in the period 2001 - 2003. It is clear that gross value added in the units with private owners (12.5 percent) grew at a much faster rate in comparison to the state owned units (5.7 percent). However, the interpretation of these estimates should be read with caution since there is a distinct possibility that a part of the units initially owned by the state have transferred ownership into private hands within the privatization process. In addition, it is possible that in some cases the failure to meet the payments to the government results in the government increasing its ownership share. In that way, some proportion of the difference in the growth rate most probably originates from the statistical reclassification. However, it can be concluded that in all counties, apart from the County of Zagreb, the gross value added of the units in private property is growing at a faster rate in comparison to the units in state ownership.

Table 1.21: Average Annual Nominal GVA Growth According to the Ownership Structure in the Period 2001-2003

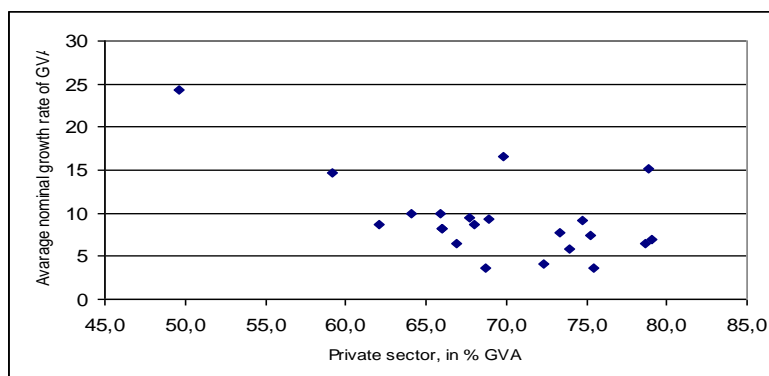
County of	Private ownership			Government ownership		
	Full	Mixed, mainly private	TOTAL	Full	Mixed, mainly state	TOTAL
Zagreb	17.9	-14.0	15.4	19.1	54.5	20.5
Krapina-Zagorje	14.4	-34.7	6.7	0.6	0.0	0.6
Sisak-Moslavina	7.9	4.6	6.9	2.2	-41.2	-3.2
Karlovac	7.4	4.1	7.0	0.1	-3.2	-0.1
Varaždin	12.9	20.0	13.7	0.6	-19.4	-1.1
Koprivnica-Križevci	10.0	-1.9	6.2	4.4	10.4	4.8
Bjelovar-Bilogora	10.0	-10.3	8.2	2.9	27.4	3.3
Primorje-Gorski kotar	14.0	-5.3	11.9	7.4	6.6	7.3
Lika-Senj	31.0	19.5	29.5	19.2	19.9	19.3
Virovitica-Podravina	16.1	-4.8	11.5	4.9	-57.2	-6.0
Požega-Slavonia	11.1	4.9	10.4	5.6	6.0	5.6
Slavonski Brod-Posavina	10.5	-15.2	7.3	4.7	16.4	6.4
Zadar	20.0	17.8	19.8	10.9	22.4	11.2
Osijek-Baranja	11.0	-0.6	9.4	6.9	8.4	7.0
Šibenik-Knin	22.8	8.3	20.8	7.5	11.6	8.2
Vukovar-Sirmium	11.4	5.8	10.7	1.0	51.8	7.0
Split-Dalmatia	17.8	-9.6	14.7	0.4	25.1	2.7
Istria	14.3	0.7	12.2	3.5	112.1	11.0
Dubrovnik-Neretva	16.1	16.2	16.1	0.9	-5.4	-0.2
Međimurje	11.2	-3.4	10.0	3.7	-6.3	2.8
City of Zagreb	18.8	-10.6	14.0	5.6	14.1	6.0
Croatia	15.4	-4.4	12.5	5.2	11.2	5.7

Source: Author's calculations.

The highest growth rate of private sector is recorded in the County of Lika-Senj with average annual nominal growth of 29.5 percent. It is followed by the County of Šibenik-Knin (20.8 percent) and the County of Zadar (19.8 percent). The private sector exhibited the slowest growth in the Counties of Krapina-Zagorje (6.7 percent) and Koprivnica-križevci (6.2 percent).

In the case of the ownership structure it can be concluded that faster growth of private ownership in comparison to state ownership can be expected, but it cannot be concluded that higher share of the private sector in itself ensures higher growth rates. Figure 4.4 shows that for instance, 15 percent growth rates are simultaneously achieved by the County of Zagreb with the private sector share of almost 80 percent and the County of Šibenik-Knin with the proportion of private sector lower than 60 percent.

Figure 1.4: The Relationship between the Gross Value Added Growth Rate and Private Sector Share



Source:

In conclusion, in terms of the structural characteristics of the Croatian counties, it can be stated that economic growth primarily depends on the economy structure according to the activities in a way that favorable economy structure, with a high share of the tertiary sector (except public administration) ensures the generation of high economic growth. Growth is significantly stimulated by propulsive small and medium market oriented entrepreneurs, and not own-account producers. A higher proportion of private property in the analyzed period has not shown itself to be the factor which individually ensures high growth rates. The probable cause is the fact that within private property there are two basic divisions, privatized and new-private. The majority of the research so far discusses the problems with a part of the privatized property (tycoonisation), while the situation is significantly better in the case of new property. However, on the aggregate level there are no clear conclusions.

In terms of the structural characteristics the following can be concluded:

- The most developed counties, the City of Zagreb, the County of Istria and Primorje-Gorski kotar according to the economy structure characterised by a high proportion of the tertiary sector and a relatively propulsive small and medium entrepreneurs' sector, as well as a solid group of large entrepreneurs in both private and state ownership, have above average growth potential which could lead to further increases of regional development inequalities.
- The large infrastructure projects contributes significantly to county growth where these are implemented, but the largest direct and indirect impacts are felt during the period wherein these projects are underway, followed by expectedly much slower growth rates. The best examples for this claim are the Counties of Karlovac and Lika-Senj. In the observed period, the County of Karlovac was in the final part of the infrastructural motorway construction cycle, and exhibited very low nominal increases, while motorway construction through the County of Lika-Senj was at the most intensive stage, which corresponds with the highest growth rates in this county. Therefore the effects of the projects can be considered to be temporary only.
- The counties in Adriatic Croatia, in addition to the propulsive small and medium enterprises sector, as well as demographic and educational structure, also have extremely favorable economic structure which ensures above average growth in the future. However, it should be noted that the growth of the gross value added and the development of the SME sector is largely linked with the extremely positive tourism results in Croatia in the analyzed period. This also represents a certain level of risk in light of changing consumer preferences, but also this is a source of threat as tourism is volatile on a global level, therefore the economies of these areas are potentially in jeopardy.
- The county which definitely has an enormous growth potential is the County of Zagreb, characterized by a favorable economic structure and extremely propulsive SME sector. In the analyzed period, this county was only in the initial phases of complete exploitation of its geographical position as the "ring" surrounding the capital city. The relatively favorable cost aspects (property values, commercial spaces, housing, and lower taxes) as well as the proximity of the City of Zagreb make this area extremely attractive for entrepreneurs.
- The analytical regions Central and Eastern Croatia are exposed to the largest risk of further lagging behind the most developed counties. The reasons for the smaller growth potential are relatively unfavorable economic structure (with high agriculture and non-market manufacturers share), war-related damages, and the slow developments in the process of restructuring the large companies (Table 4.22).

Table 1.22: Average Annual Growth Rates: GDP p.c. (2001-03), Population (2001-03) and Employment (2001-2003)

County of	GDP	Population	Employment
<i>Counties with high convergence potential</i>			
Zadar	17.8	1.0	2.4
Zagreb	16.7	0.9	3.2
Šibenik-Knin	15.9	0.2	2.1
City of Zagreb	11.5	0.1	2.6
Split-Dalmatia	10.9	0.7	3.4
Istria	12.4	0.5	2.0
<i>Counties with moderate convergence potential</i>			
Lika-Senj	24.8	-0.6	10.4
Varaždin	9.6	-0.4	3.2
Dubrovnik-Neretva	9.9	0.3	-0.4
Primorje-Gorski kotar	10.8	-0.1	1.8
Međimurje	8.6	0.0	3.1
<i>Counties with moderate divergence risk</i>			
Vukovar-Sirmium	9.5	-0.6	1.9
Osijek-Baranja	8.7	-0.2	0.9
Požega-Slavonia	9.0	-0.3	1.2
Bjelovar-Bilogora	7.0	-0.8	0.6
Koprivnica-Križevci	6.0	-0.5	1.4
<i>Counties with high divergence risk</i>			
Slavonski Brod-Posavina	7.2	-0.2	0.4
Virovitica-Podravina	6.7	-0.6	-1.9
Karlovac	4.9	-0.9	0.4
Krapina-Zagorje	5.3	-0.6	1.1
Sisak-Moslavina	3.5	-0.7	0.2

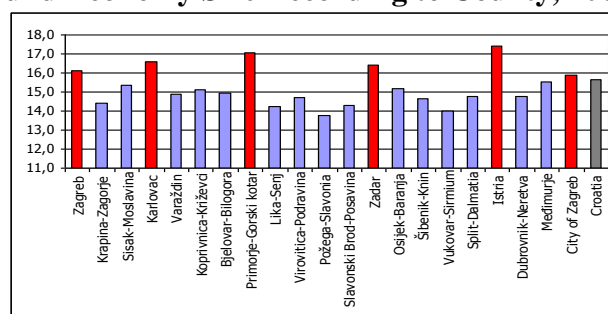
Source: CBS, author's estimates.

Underground Economy and Regional Development

This section shows the results of the underground economy calculations (lower estimation boundary – Eurostat approach) in various counties in Croatia. Considering the fact that the regional GDP calculations are relatively new, therefore the data available only refers to the period 2001-2003, the underground economy estimation refers to this period as well. The results are given by Table 4.23.

The methodological framework for the calculation of the underground economy on county level is influenced by the data availability. On one hand, there is data concerning regional gross value added and regional GDP separated according to activities, while on the other hand there is data describing the proportion of the underground economy according to activities, but only on the national level. It is for that reason that the regional division of the underground economy can only be executed by applying the proportions according to activity on a national level to all of the counties in Croatia. Figure 4.5 shows the size of the underground economy in various counties, i.e. the proportion of the underground economy in the GDP of various Croatian counties.

Figure 1.5: Underground Economy Size According to County, 2002 (Eurostat Approach)



Source:

Table 1.23: Underground Economy Size in Various Counties in Croatia (lower estimation boundary – Eurostat approach), 2002, in HRK thousands

County of	Official GDP	Underground economy (N1-N7)	Methodological changes to the housing rent calculations	Total corrections	Total corrected GDP	Correction percentage, in %	Correction percentage including housing rent, as % of GDP
Zagreb	9 839	1 128	457	1 584	11 423	11.5	16.1
Krapina-Zagorje	4 305	441	179	620	4 925	10.2	14.4
Sisak-Moslavina	6 097	643	293	936	7 033	10.6	15.4
Karlovac	4 895	584	228	812	5 707	11.9	16.6
Varaždin	7 371	780	318	1 098	8 469	10.6	14.9
Koprivnica-Križevci	5 146	522	257	778	5 924	10.1	15.1
Bjelovar-Bilogora	4 296	433	210	643	4 939	10.1	15.0
Primorje-Gorski kotar	14 021	1 696	695	2 391	16 412	12.1	17.1
Lika-Senj	1 974	187	95	281	2 255	9.5	14.2
Virovitica-Podravina	2 955	296	138	434	3 389	10.0	14.7
Požega-Slavonia	2 490	231	112	342	2 832	9.3	13.8
Slavonski Brod-Posavina	4 332	432	187	619	4 951	10.0	14.3
Zadar	4 916	569	237	806	5 722	11.6	16.4
Osijek-Baranja	10 777	1 119	517	1 636	12 413	10.4	15.2
Šibenik-Knin	3 043	306	140	446	3 489	10.0	14.7
Vukovar-Sirmium	4 847	471	206	677	5 524	9.7	14.0
Split-Dalmatia	14 350	1 536	585	2 122	16 472	10.7	14.8
Istria	11 481	1 446	554	2 000	13 481	12.6	17.4
Dubrovnik-Neretva	4 379	452	195	647	5 026	10.3	14.8
Međimurje	4 107	440	197	637	4 744	10.7	15.5
City of Zagreb	55 610	6 392	2 442	8 834	64 444	11.5	15.9
Croatia	181 231	20 102	8 242	28 344	209 575	11.1	15.6

Source: Author's calculations.

In relation to the 2002 Croatian average of 15.6 percent of the underground economy in the total GDP, above average proportions of the underground economy have been recorded in the Counties of Istria (17.4 percent), Primorje-Gorski kotar (17.1 percent), Karlovac (16.6 percent), Zadar (16.4 percent), Zagreb (16.1 percent) and the City of Zagreb (15.9 percent). All other counties have recorded below average proportions of the underground economy in the official GDP. The lowest proportion has been observed in the Counties of Požega-Slavonia (13.8 percent) and Vukovar-Sirmium (14.0 percent).

In continuation, we show the results of the correlation analysis which aimed to establish the factors influencing or linking the county differences in the underground economy size. These factors have been grouped in various groups. The first is the demographic structure of the counties. The proportions of various age categories have been taken for each county, i.e. children (population younger than 14 years of age), working contingent (female population between 15 and 59 years of age and male population between 15 and 64) and senior population (females older than 60, males older than 65). The second group of factors is the educational population structure. Depending on the education level, the population in each county has been separated into those with no education and with finished primary education, with finished secondary education and those with finished higher education programs and universities and masters levels, called tertiary education.

The third group of factors is the economic structure of the economies in the counties. The economic structure is comprised on the basis of the proportions of employment in various activities in the total employment figures, and contains the employment in the primary (agriculture and fisheries, A+B), secondary (industry, C+D+E) and the tertiary sectors (services, G+H+I+J+K+L+M+N+O+P). The tertiary sector has been additionally separated into the group containing the public employees, those employed in education and health services, and others in the other group.

The county differences in the size of the underground economy have been examined in comparison with some other factors. Primarily these are the total tax incomes of the local authorities, as the approximation of the tax burden across counties. Another analysis involved examining the link between the underground economy according to counties and the development levels (measured by the regional GDP), and the county differences in the unemployment levels. The correlation analysis results are given in Table 4.24.

Table 1.24: The Correlation Coefficients between Certain Variables and County Proportions of the Underground Economy in the GDP Figure

Variable	Correlation coefficient
Demographic structure	
Children	-0.53*
Working contingent	0.67*
Seniors	-0.22
Education structure	
Lower qualification level	-0.75*
Middle qualification level	0.76*
High and higher qualification level	0.65*
Economic structure	
Employment ratio in the primary sector	-0.70*
Employment ratio in the secondary sector	-0.08
Employment ratio in the tertiary sector	0.56*
Employment ratio in the tertiary sector, except government services	0.66*
Employment ratio in the tertiary sector, except tourism and government services	0.69*
Total local authority tax income as a % of GVA	0.71*
Per capita GDP	0.55*

Note: * 5 percent significance level.

Source: Author's calculations.

Regarding demographic structure, statistically significant relationship can be found in the case of variables children and the working contingent. With the educational structure of the Croatian counties, all of the variables have shown a statistically significant and strong relationship with the county differences in the size of the underground economy. The middle, high and the highest qualifications have positive signs, indicating that on average, the Croatian counties with a more favorable education structure have higher levels of the underground economy.

The most interesting results refer to the relationship between the underground economy and the economy structure of certain Croatian counties. The counties with higher ratios of population employed in the primary sector, on average exhibit lower proportions of the underground economy. The relationship between employment in the secondary sector and the size of the underground economy is weak and not statistically significant. However, the relationship between the tertiary sector and the size of the underground economy is significant and medium strong positive sign. This implies that the counties with higher shares of the service sector have on average higher proportions of the underground economy. This relationship is strengthened if the scope of the tertiary sector excludes the public services, education and health (correlation coefficient 0.66), and if in addition, one excludes tourism as well (0.69).

The tax income is also statistically significantly correlated with the size of the underground economy in various Croatian counties. The correlation coefficient is 0.71 with a positive sign, confirming the theoretical assumption that one of the main reasons for the growth of the underground economy is the increases in the tax burden. The more developed counties on average have higher proportions of the underground economy. The correlation coefficient between the county development level, measured by the per capita GDP and the size of the underground economy is 0.55.

SECONDARY DISTRIBUTION OF INCOME

Tables 4.25, 4.26 and 4.27 show gross disposable income (GDI), primary income, and the disposable income and GDP ratios per county and regions.⁸ These indicators are significant for the identification of the sectoral distribution of regional value added. The influence of the redistribution policies is also presented.

As can be seen from Table 4.25 process of income redistribution significantly reduces the difference measured by GDP p.c. between the most developed county (City of Zagreb) and the least developed counties (County of Vukovar-Sirmium in 2001 and 2002, County of Slavonski Brod – Posavina in 2003). The ratio between the most and the least developed county in terms of GDP p.c. was 3.04 (2001) to 3.08 (2003), and in terms of household GDI p.c. the ratio was 1.59 (2001) to 1.69 (2003).

The higher ratio between the disposable and primary income of the household sector indicates higher net income transfers to the region (increased by the social and other transfers and reduced by taxes on income and social security contributions) within the secondary income distribution process. In the Croatian economy, the highest indicator has been recorded in Counties of Vukovar-Sirmium (117.9 in 2001, 116.0 in 2002 and 115.1 in 2003), Slavonski Brod-Posavina (114.8, 112.9 and 113.0), Lika-Senj (113.4, 111.6 and 106.6), and Šibenik-Knin (116.9, 113.4 and 112.6). This is an expected result, since these are the less developed counties, but also counties with the highest proportion of the population in areas of special state concern status. On the other hand, the highest net provider is the City of Zagreb. The lowest ratio

⁸ Primary income records gross wages and salaries, gross operating surplus (consumption of fixed capital included), mixed income and property income. Disposable income is derived from primary income after adding and subtracting all secondary distribution transaction (social transfers, other transfers, taxes and social security contributions). More about the concept of primary and disposable income see in ESA 1995 or SNA 1993.

between the disposable income and primary income has been recorded in the City of Zagreb (87.3 in 2003), followed by Counties of Zagreb (91.3), Istria (92.6) and Primorje-Gorski kotar (95.9).

Table 1.25: Gross Disposable Income of Households per capita, by county, Croatia =100

County of	2001	2002	2003	2002/2001	2003/2002	2003/2001
Zagreb	100.4	101.2	100.9	105.8	107.6	113.8
Krapina-Zagorje	93.3	93.0	91.7	104.6	106.3	111.2
Sisak-Moslavina	95.0	95.3	94.4	105.3	106.8	112.5
Karlovac	93.3	96.5	96.3	108.5	107.6	116.8
Varaždin	95.6	97.3	95.4	106.8	105.7	112.9
Koprivnica-Križevci	102.8	103.2	102.8	105.3	107.4	113.1
Bjelovar-Bilogora	95.4	95.3	96.3	104.8	109.0	114.3
Primorje-Gorski kotar	109.3	109.5	109.8	105.1	108.2	113.7
Lika-Senj	96.8	100.0	104.3	108.3	112.6	121.9
Virovitica-Podravina	91.9	90.1	89.0	102.8	106.5	109.5
Požega-Slavonia	88.7	87.7	84.5	103.7	103.9	107.8
Slavonski Brod-Posavina	79.4	77.7	76.5	102.7	106.2	109.0
Zadar	89.9	88.1	88.1	102.9	107.8	110.9
Osijek-Baranja	90.7	90.0	89.7	104.0	107.5	111.9
Šibenik-Knin	87.9	88.4	88.8	105.6	108.4	114.5
Vukovar-Sirmium	81.6	81.1	80.4	104.4	106.9	111.5
Split-Dalmatia	88.1	87.3	87.2	103.9	107.7	111.9
Istria	115.5	116.5	114.4	105.8	106.0	112.1
Dubrovnik-Neretva	96.3	96.4	94.5	105.1	105.7	111.1
Međimurje	86.2	85.9	86.2	104.5	108.3	113.1
City of Zagreb	126.7	126.6	129.0	104.9	109.9	115.3
Croatia	100.0	100.0	100.0	104.9	107.9	113.2

Source:

The disposable income, as the broadest measure of household current purchasing power, in relation to GDP, apart from the aspect of secondary income distribution, encompasses the aspect of value added distribution among the residential and non-residential households inhabiting the county. It also encompasses the aspect of value added distribution between the various institutional sectors, households, government, entrepreneurs and the foreign sector. The lowest ratio between disposable income and GDP has been recorded in the City of Zagreb. There are numerous factors influencing the value of this indicator. The first is the already mentioned distribution policy. The second factor is the significant number of residents of neighboring counties employed in the City of Zagreb, thus according to the residential rules, GDP is recorded in the residence of the producers, and the household income in the region where the residential employee household is located. The third factor relates to the distribution of value added between the households and the entrepreneurs. The City of Zagreb is the location of domestic and foreign companies with high profits (banks, insurance companies, large state companies, successful foreign-owned companies), therefore a significant proportion of value added is not allocated to the household sector, but is allocated to non-household owners (government, entrepreneurs, abroad) through the income distribution.

Apart from the City of Zagreb, the below-average levels of this indicator have been recorded in other counties with the above average GDP per capita: Counties of Istria and Primorje-Gorski kotar. On the other hand, from the household viewpoint, the most favorable ratio has been recorded in Counties of Vukovar-Sirmium, Šibenik-Knin, Slavonski Brod-Posavina and Zagreb.

Table 1.26: Some Derivative Indicators on Disposable Income by Households, Primary Income and GDP by counties, ratio in %

County of	Disposable income/primary income			Disposable income/GDP		
	2001	2002	2003	2001	2002	2003
Zagreb	94.1	92.2	91.3	96.4	82.1	83.8
Krapina-Zagorje	102.0	100.2	99.5	76.9	77.9	77.8
Sisak-Moslavina	108.6	106.5	106.6	71.3	73.4	75.5
Karlovac	107.1	104.3	103.2	71.6	70.6	76.3
Varaždin	100.7	98.3	97.9	65.5	62.0	62.4
Koprivnica-Križevci	100.0	98.9	98.9	64.8	63.3	66.1
Bjelovar-Bilogora	105.4	104.5	103.8	79.2	74.7	79.4
Primorje-Gorski kotar	98.5	96.4	95.9	60.6	60.9	57.3
Lika-Senj	113.4	111.6	106.6	78.7	68.7	62.1
Virovitica-Podravina	108.3	107.5	109.0	74.9	72.1	72.7
Požega-Slavonia	108.2	105.4	106.1	78.2	77.0	72.1
Slavonski Brod-Posavina	114.8	112.9	113.0	84.8	80.9	81.9
Zadar	107.5	105.9	104.4	81.3	75.1	67.7
Osijek-Baranja	107.4	105.4	104.7	76.2	70.3	73.4
Šibenik-Knin	116.9	113.4	112.6	90.0	84.0	78.6
Vukovar-Sirmium	117.9	116.0	115.1	91.6	87.0	86.1
Split-Dalmatia	106.5	102.9	101.8	75.8	72.7	71.4
Istria	94.3	92.5	92.6	56.0	53.7	51.3
Dubrovnik-Neretva	104.8	101.5	100.0	69.6	69.4	65.8
Međimurje	101.7	99.9	99.3	67.6	63.2	66.3
City of Zagreb	90.4	88.2	87.3	46.8	45.3	44.4
Croatia	100.6	98.4	97.6	65.2	62.5	61.6

Source: Project CBS-EIZG, Regional GDP preliminary results.

At the level of analytical regions, it is evident that the indicator of the ratio between disposable income and primary income indicate the development level of a specific region to a great extent, meaning that a higher indicator implies lower regional development. Therefore, the indicator is the highest in the case of Eastern Croatia, and the lowest for Zagreb region. The strong link can also be established between the development level and the ratio of disposable income and GDP.

In comparison to the EU member countries, Croatia, according to the estimated indicators, has significantly high ratio between the total disposable income and primary income (97.6 percent in 2003).

The EU average in 2001 was 87 percent.⁹ Mainly, this originates from the high value of the estimated transfers from abroad. If the value of transfers received from abroad were to be excluded from the calculation, then this indicator would be slightly above the EU average at 91.5 percent. Due to the same reason, the ratio between the disposable income of the household sector and GDP is also higher than the EU average, with 65.2 percent in Croatia and 61 percent in the EU (both for 2001).

However, this indicator in the EU member countries is demonstrating same characteristics as evident in the case of Croatia. The more developed regions have noted lower values of ratios between disposable income and primary income, as well as disposable income and GDP.

Table 1.27: Some Derivative Indicators on Disposable Income by Households, Primary Income and GDP by analytical regions, ratio in %

Analytical regions	Disposable income/primary income			Disposable income/GDP		
	2001	2002	2003	2001	2002	2003
Zagreb region	91.3	89.1	88.2	53.4	50.8	50.0
Central Croatia	103.7	101.8	101.3	70.5	68.8	71.3
Adriatic North	97.9	96.0	95.5	59.9	58.4	55.2
Adriatic South	107.6	104.5	103.3	77.3	73.9	70.6
Eastern Croatia	111.0	109.1	108.9	80.7	76.1	77.1
Croatia	100.6	98.4	97.6	65.2	62.5	61.6

Source: Project CBS-EIZG, Regional GDP preliminary results.

Tables 4.28 and 4.29 show the regional data on the social transfer ratios (subcategory at the secondary income distribution account) in the household disposable income, primary income and GDP. Social transfers include pensions, social care, child allowance, health insurance compensations and the unemployment benefits¹⁰. According to the sum of all social transfers, the County of Šibenik-Knin has highest share of social transfers received. This county is followed by the County of Vukovar-Sirmium, thus it can be concluded that all of the indicators observed are in an inverse proportional relationship with the economic development level. The Spearman's rank correlation analysis between the indicators of the ratios of social transfers in GDP and GDP per capita of certain counties has shown a negative relationship (at the 5 percent significance level, the resultant coefficient was significant, with the value of -0.70). The significance of the negative correlation has been confirmed by the correlation analysis between the ratio of social transfers in primary income and GDP per capita (-0.42), while in the third case the correlation is insignificant, albeit with a negative sign (-0.22).

In addition to Counties of Šibenik-Knin and Vukovar-Sirmium, the highest ratio of social transfers in the primary income can be found in Counties of Slavonski Brod-Posavina, Lika-Senj, Split-Dalmatia and Zadar. It leads to the conclusion that according to this criterion, the regions with the highest social transfer income are the Eastern and Adriatic Croatia. The lowest ratio of social transfers in primary income in 2003 was identified in Counties of Zagreb (17.6 percent), Koprivnica-Križevci (17.9 percent) and Međimurje (20.0 percent).

The three last mentioned counties have also recorded the lowest proportion of social transfers in disposable income. According to this indicator, the order changes somewhat in relation to the previous

⁹ According to Eurostat: Income of private households and gross domestic products in Europe's regions, Statistics in focus, 2003.

¹⁰ Structure of disposable income in more detail is presented in Appendix 2.

indicator. The first is still the County of Šibenik-Knin (32.1 percent in 2003), followed by Counties of Split-Dalmatia (28.6 percent), Vukovar-Sirmium (28.3 percent), Zadar (27.8 percent), Slavonski Brod-Posavina (27.6 percent and Lika-Senj (27.4 percent). This clarifies the conclusion that Adriatic Croatia has the highest total proportion of social transfers in disposable income. It is interesting to note that the City of Zagreb has also recorded an above average proportion of social transfers in disposable income (25.3 percent), despite the highest GDP per capita level in Croatia. Primarily, this is a consequence of the significant proportion of pension supplements, which are mostly not dependant on the social status of the recipients.

Finally, the highest proportion of social transfers in GDP is found in Eastern Croatia (20.4 percent in 2003), where Counties of Vukovar-Sirmium and Slavonski Brod-Posavina county have notably high proportions. High proportions have also been recorded in certain counties of the Adriatic South (County of Šibenik-knin, 25.2 percent). The lowest proportion of social transfers in GDP has been noted in the City of Zagreb (11.2 percent), the County of Istria (11.5 percent), County of Koprivnica-Križevci (12.0 percent in 2003) and the County of Međimurje (13.3 percent).

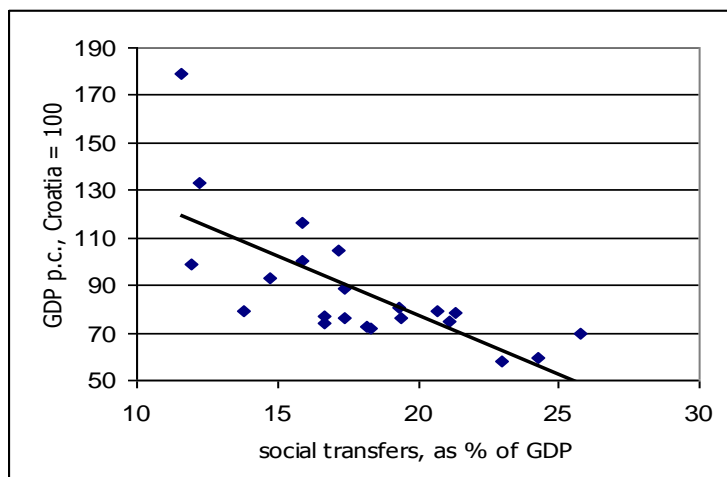
Table 1.28: Social Transfers Relations to Primary Income, Disposable Income and GDP by counties, in %

County of	Social transfers/ primary income			Social transfers/ disposable income			Social transfers/GDP		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
Zagreb	19.2	18.4	17.6	20.4	20.0	19.3	19.6	16.4	16.2
Krapina-Zagorje	23.8	23.3	22.7	23.3	23.2	22.8	17.9	18.1	17.7
Sisak-Moslavina	30.5	29.6	29.2	28.1	27.8	27.4	20.1	20.4	20.7
Karlovac	31.2	29.5	28.3	29.1	28.2	27.4	20.8	19.9	20.9
Varaždin	23.9	22.5	22.3	23.7	22.9	22.7	15.5	14.2	14.2
Koprivnica-Križevci	18.6	18.1	17.9	18.6	18.3	18.1	12.0	11.6	12.0
Bjelovar-Bilogora	23.1	22.9	21.8	21.9	21.9	21.0	17.4	16.3	16.7
Primorje-Gorski kotar	27.5	26.8	25.5	27.9	27.8	26.6	16.9	16.9	15.2
Lika-Senj	33.9	32.6	29.2	29.9	29.2	27.4	23.5	20.1	17.0
Virovitica-Podravina	24.8	24.8	25.5	22.9	23.1	23.4	17.2	16.7	17.0
Požega-Slavonia	27.2	25.8	26.3	25.1	24.5	24.8	19.7	18.9	17.9
Slavonski Brod-Posavina	32.3	31.4	31.2	28.2	27.8	27.6	23.9	22.5	22.6
Zadar	30.8	30.2	29.0	28.6	28.5	27.8	23.3	21.4	18.8
Osijek-Baranja	29.3	28.3	27.3	27.3	26.8	26.1	20.8	18.9	19.2
Šibenik-Knin	39.6	37.6	36.1	33.9	33.2	32.1	30.5	27.9	25.2
Vukovar-Sirmium	34.3	33.3	32.6	29.1	28.7	28.3	26.7	24.9	24.4
Split-Dalmatia	32.5	30.6	29.1	30.5	29.7	28.6	23.2	21.6	20.4
Istria	21.7	21.3	20.8	23.0	23.0	22.5	12.9	12.4	11.5
Dubrovnik-Neretva	28.1	26.4	25.8	26.8	26.0	25.7	18.7	18.1	16.9
Međimurje	21.2	20.8	20.0	20.9	20.8	20.1	14.1	13.2	13.3
City of Zagreb	24.3	23.6	22.1	26.9	26.8	25.3	12.6	12.1	11.2
Croatia	26.5	25.5	24.5	26.3	26.0	25.1	17.1	16.2	15.5

Source: Project CBS-EIZG, Regional GDP preliminary results.

The negative correlation between social transfers, as source of disposable income of households and the level of economic development can be seen in Figure 4.6.

Figure 1.6: The Relationship between Social Transfers and Economic Development of Croatian Counties



Source:

Table 1.29: Social Transfers Relations to Primary Income, Disposable Income and GDP by Analytical Regions, in %

Analytical regions	Social transfers/ primary income			Social transfers/ disposable income			Social transfers/GDP		
	2001	2002	2003	2001	2002	2003	2001	2002	2003
Zagreb region	23.1	22.4	21.0	25.3	25.1	23.8	13.5	12.8	11.9
Central Croatia	24.9	24.1	23.4	24.0	23.6	23.1	16.9	16.3	16.5
Adriatic North	25.7	25.0	24.0	26.2	26.1	25.1	15.7	15.2	13.9
Adriatic South	32.3	30.7	29.4	30.0	29.4	28.5	23.2	21.7	20.1
Eastern Croatia	30.1	29.2	28.8	27.1	26.8	26.4	21.9	20.4	20.4
Croatia	26.5	25.5	24.5	26.3	26.0	25.1	17.1	16.2	15.5

Source: Project CBS-EIZG, Regional GDP preliminary results.

The largest category within the social transfers is pensions. Table 4.30 shows the proportion of pensions in the total pension amount in Croatia, as well as the significance of pension income in the total disposable income of a certain county. Apart from the demographic structure, the proportion of pensions in the total disposable income depends considerably on the proportion of disabled and retired war veterans in the county's total population. Furthermore, it depends on the structural problems of certain counties influencing the lower levels of primary income (wages, mixed income, proprietor's income) which influences the proportion of pension income in the total disposable income.

Table 1.30: Pension Income Regional Distribution in Croatia

County of	Proportion of county's pensions in the total national pensions			Proportion of pension income in total disposable income		
	2001	2002	2003	2001	2002	2003

Zagreb	5.2	5.3	5.3	12.4	12.3	12.1
Krapina-Zagorje	2.6	2.6	2.6	14.2	14.4	14.4
Sisak-Moslavina	4.2	4.2	4.2	17.6	17.7	17.8
Karlovac	3.3	3.3	3.3	18.5	18.1	17.8
Varaždin	3.4	3.4	3.4	14.3	14.0	14.1
Koprivnica-Križevci	1.8	1.8	1.9	10.5	10.6	10.7
Bjelovar-Bilogora	2.1	2.2	2.2	12.5	12.7	12.5
Primorje-Gorski kotar	8.7	8.7	8.6	19.3	19.3	18.6
Lika-Senj	1.4	1.4	1.4	20.2	19.9	18.8
Virovitica-Podravina	1.5	1.4	1.5	12.5	12.8	13.3
Požega-Slavonia	1.5	1.5	1.5	14.3	14.4	14.9
Slavonski Brod-Posavina	3.0	3.0	3.0	15.7	16.1	16.3
Zadar	3.5	3.5	3.6	18.0	18.1	18.0
Osijek-Baranja	6.6	6.6	6.6	16.2	16.4	16.2
Šibenik-Knin	2.8	2.8	2.8	20.7	20.4	20.0
Vukovar-Sirmium	4.0	4.0	4.0	17.8	17.9	17.9
Split-Dalmatia	10.6	10.5	10.4	19.0	18.9	18.4
Istria	5.0	5.1	5.0	15.5	15.5	15.2
Dubrovnik-Neretva	2.7	2.7	2.7	16.6	16.5	16.6
Međimurje	1.5	1.5	1.5	10.9	11.2	10.9
City of Zagreb	24.6	24.6	24.4	18.4	18.4	17.5
Croatia	100.0	100.0	100.0	16.6	16.6	16.3

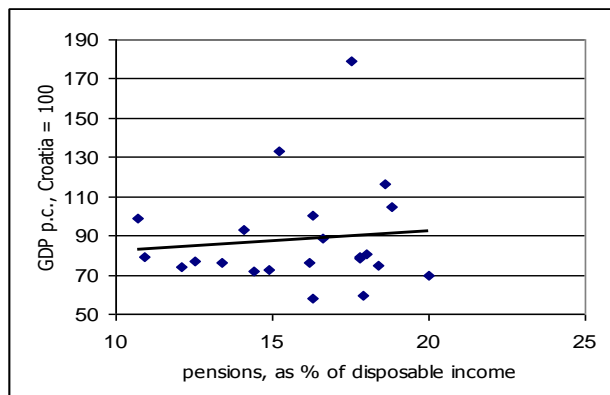
Source: Project CBS-EIZG, Regional GDP preliminary results.

As evident, the lowest proportion of pensions in the total disposable income has been recorded in Counties of Koprivnica-Križevci (10.7 percent in 2003), Međimurje (10.9 percent) and Zagreb (12.1 percent). On the other hand, the proportion of pension in the total disposable income of the household income sector is the highest in Counties of Šibenik-Knin (20.0 percent) and Lika-Senj (18.8 percent).

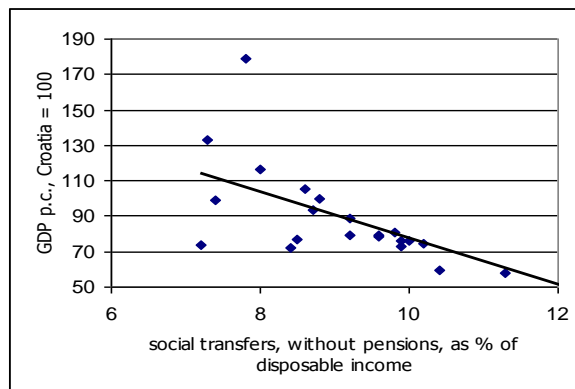
As opposed to total social transfers, pensions are positively correlated to economic development (Figure 4.7). It can be explained by the way how individual pension is determined. The amount of individual pension primarily depends on period in which contributions are paid, as well as the wage level. As the average wage was higher in the more developed regions, the pensions are also above average in the most developed regions. Figure 4.8 presents even stronger negative correlation of economic development of Croatian counties and the share of social transfers in disposable income, when pensions are excluded from social transfers.

Figure 1.7: The Relationship between Pensions and Economic Development of Croatian Counties

Figure 1.8: The Relationship between Social Transfers, without Pensions and Economic Development of Croatian Counties



Source:



Source:

Apart from the pensions and health insurance compensations, the most significant items of social transfers in Croatia are social welfare (social care allowances), unemployment benefits and child allowances. Tables 4.31 and 4.32 show the number of social welfare beneficiaries.

Table 1.31: Number of Social Welfare Beneficiaries, by counties, 2003

County of	Population	Number of social welfare beneficiaries	Proportion of social welfare beneficiaries in the total population (%)
Zagreb	316 011	3 518	1.1
Krapina-Zagorje	140 521	1 517	1.1
Sisak-Moslavina	182 838	9 079	5.0
Karlovac	139 113	6 464	4.6
Varaždin	183 214	3 551	1.9
Koprivnica-Križevci	123 169	3 299	2.7
Bjelovar-Bilogora	130 836	4 301	3.3
Primorje-Gorski kotar	305 139	3 125	1.0
Lika-Senj	52 988	1 276	2.4
Virovitica-Podravina	92 200	4 753	5.2
Požega-Slavonia	85 414	3 200	3.7
Slavonski Brod-Posavina	176 221	9 098	5.2
Zadar	165 757	4 496	2.7
Osijek-Baranja	328 803	14 454	4.4
Šibenik-Knin	113 644	12 785	11.3
Vukovar-Sirmium	202 488	7 232	3.6
Split-Dalmatia	471 017	8 200	1.7
Istria	208 627	1 336	0.6
Dubrovnik-Neretva	123 863	1 967	1.6
Međimurje	118 429	5 797	4.9
City of Zagreb	780 019	12 067	1.5
Croatia	4 440 311	121 515	2.7

Source: Ministry of Health and Social Welfare.

Table 1.32: Number of Social Welfare Beneficiaries, by Analytical Regions, 2003

Analytical regions	Population	Number of social welfare beneficiaries	Proportion of social welfare beneficiaries in the total population (%)
Zagreb region	1 096 030	15 585	1.4

Central Croatia	1 018 120	34 008	3.3
Adriatic North	566 754	5 737	1.0
Adriatic South	874 281	27 448	3.1
Eastern Croatia	885 126	38 737	4.4
Croatia	4 440 311	121 515	2.7

Source: Ministry of Health and Social Welfare.

It is visible that, according to the proportion in the total number of inhabitants, the largest number of beneficiaries is present in the County of Šibenik-Knin (11.3 percent of the population). A high proportion of population receiving benefits has also been recorded in Counties of Slavonski Brod-Posavina (5.2 percent), Virovitica-Podravina (5.2 percent), Sisak-Moslavina (5.0 percent) and Međimurje (4.9 percent).

As expected, the lowest number of social welfare beneficiaries has been recorded in the most developed counties. Hence, the smallest number of social welfare beneficiaries has been observed in the County of Istria (0.6 percent of the population), followed by the County of Primorje-Gorski kotar (1.0 percent), the City of Zagreb (1.5 percent), and the Counties of Zagreb and Krapina-Zagorje (1.1 percent). Eastern Croatia has the largest proportion of beneficiaries in total number of inhabitants (4.4 percent), while Zagreb region has the lowest (1.4 percent). The average for Croatia is 2.7 percent.

The number of beneficiaries of unemployment benefits, apart from the development levels, additionally indicates the structural problems of certain counties, faced with the problems of restructuring companies in the area and the consequent unemployment (Tables 4.33 and 4.34).

Consequently, the proportion of beneficiaries of unemployment benefits in the total population has grown significantly in 2002, but then again in 2003 came to the same level as in 2001. The highest proportion in 2003 has been recorded in Counties of Karlovac (2.08 percent of the population), Virovitica-Podravina (2.05 percent) and Dubrovnik-Neretva (1.93 percent). In 2002, except these three counties levels above 2 percent of the beneficiaries of unemployment benefits in the total population have also been recorded in Counties of Split-Dalmatia, Bjelovar-Bilogora, Slavonski Brod-Posavina, Sisak-Moslavina, Osijek-baranja and Zadar.

The lowest proportion of beneficiaries of unemployment benefit in 2003 has been noted in the City of Zagreb (1.12 percent), Counties of Požega-Slavonia, Varaždin, Zagreb and Lika-Senj. Croatian average of the proportion of beneficiaries of unemployment benefits in 2003 was 1.53 percent. Only Zagreb region was below that average (1.17 percent), while all other analytical regions were above average, with highest proportion in Eastern Croatia (1.76 percent), and Adriatic South (1.75 percent).

Table 1.33: Number of Beneficiaries of Unemployment Benefits by Counties

County of	2001	2002	2003	Proportion of total population in %		
				2001	2002	2003
Zagreb	4 236	5 050	4 147	1.34	1.60	1.31

Krapina-Zagorje	2 560	2 717	2 156	1.82	1.93	1.53
Sisak-Moslavina	3 401	3 713	2 681	1.86	2.03	1.47
Karlovac	2 707	3 422	2 899	1.95	2.46	2.08
Varaždin	2 623	2 910	2 513	1.43	1.59	1.37
Koprivnica-Križevci	1 778	2 081	1 822	1.44	1.69	1.48
Bjelovar-Bilogora	2 347	2 960	2 167	1.79	2.26	1.66
Primorje-Gorski kotar	4 936	4 858	4 446	1.62	1.59	1.46
Lika-Senj	700	912	698	1.32	1.72	1.32
Virovitica-Podravina	1 696	2 127	1 891	1.84	2.31	2.05
Požega-Slavonia	1 175	1 322	1 166	1.38	1.55	1.37
Slavonski Brod-Posavina	3 026	3 755	3 146	1.72	2.13	1.79
Zadar	2 607	3 378	2 827	1.57	2.04	1.71
Osijek-Baranja	6 279	6 987	5 904	1.91	2.12	1.80
Šibenik-Knin	1 607	1 971	1 760	1.41	1.73	1.55
Vukovar-Sirmium	2 861	3 619	3 455	1.41	1.79	1.71
Split-Dalmatia	8 604	10 295	8 320	1.83	2.19	1.77
Istria	3 061	3 376	3 020	1.47	1.62	1.45
Dubrovnik-Neretva	2 181	2 886	2 396	1.76	2.33	1.93
Međimurje	1 683	1 888	1 837	1.42	1.59	1.55
City of Zagreb	10 302	10 569	8 728	1.32	1.35	1.12
Croatia	70 370	80 796	67 979	1.58	1.82	1.53

Source: Croatian Employment Service.

Table 1.34: Number of Beneficiaries of Unemployment Benefits by Analytical Regions

Analytical regions	2001	2002	2003	Proportion of total population in %		
				2001	2002	2003
Zagreb region	14 538	15 619	12 875	1.33	1.43	1.17
Central Croatia	17 099	19 691	16 075	1.68	1.93	1.58
Adriatic North	8 697	9 146	8 164	1.53	1.61	1.44
Adriatic South	14 999	18 530	15 303	1.72	2.12	1.75
Eastern Croatia	15 037	17 810	15 562	1.70	2.01	1.76
Croatia	70 370	80 796	67 979	1.58	1.82	1.53

Source: Croatian Employment Service.

A significant category of government social transfers relates to child allowance. However, this category correlates more significantly with the demographic characteristics, rather than development level. On the basis of the data from Tables 4.35 and 4.36, it is clear that the highest proportion of child allowance in the total Croatian child allowance amount has been provided in Eastern Croatia (28.0 percent), while the smallest proportion of child allowance has been recorded in Adriatic North (7.7 percent). The county with the highest share of child allowance is the County of Split-Dalmatia (11.9 percent in 2002), and the smallest share is recorded in the County of Lika-Senj (1.1 percent).

Table 1.35: Child Allowance, by counties, 2001-2003

County of	in HRK			structure, in %		
	2001	2002	2003	2001	2002	2003
Zagreb	143 965 208	101 998 569	95 437 563	6.0	6.1	5.9
Krapina-Zagorje	74 231 490	55 295 196	51 899 654	3.1	3.3	3.2
Sisak-Moslavina	101 198 122	71 824 648	69 970 009	4.2	4.3	4.3
Karlovac	66 339 838	44 167 597	41 265 683	2.7	2.6	2.6
Varaždin	104 989 622	75 650 531	71 451 482	4.3	4.5	4.4
Koprivnica-Križevci	72 375 928	54 448 343	53 441 480	3.0	3.2	3.3
Bjelovar-Bilogora	83 303 955	64 677 047	62 833 740	3.4	3.9	3.9
Primorje-Gorski kotar	100 076 650	67 353 594	62 212 662	4.1	4.0	3.9
Lika-Senj	26 245 348	17 720 786	16 887 273	1.1	1.1	1.0
Virovitica-Podravina	63 873 625	49 303 532	49 099 047	2.6	2.9	3.0
Požega-Slavonia	65 944 945	46 315 726	44 833 073	2.7	2.8	2.8
Slavonski Brod-Posavina	142 731 863	101 863 007	100 529 838	5.9	6.1	6.2
Zadar	96 735 939	67 761 166	64 800 471	4.0	4.0	4.0
Osijek-Baranja	225 715 452	155 987 161	149 824 176	9.3	9.3	9.3
Šibenik-Knin	71 050 325	49 106 011	47 363 124	2.9	2.9	2.9
Vukovar-Sirmium	144 465 304	107 585 457	106 417 957	6.0	6.4	6.6
Split-Dalmatia	302 789 050	199 827 242	196 315 922	12.5	11.9	12.2
Istria	67 717 663	48 211 912	45 001 534	2.8	2.9	2.8
Dubrovnik-Neretva	81 552 933	51 253 878	49 514 309	3.4	3.1	3.1
Međimurje	72 267 614	55 060 947	53 135 887	3.0	3.3	3.3
City of Zagreb	307 300 937	193 774 020	179 365 169	12.7	11.5	11.1
Croatia	2 414 871 812	1 679 186 373	1 611 600 053	100.0	100.0	100.0

Source: Croatian Institute for Pension Insurance – HZMO.

Table 1.36: Child Allowance, by Analytical Regions, 2001-2003

Analytical regions	in HRK			structure, in %		
	2001	2002	2003	2001	2002	2003
Zagreb region	451 266 145	295 772 589	274 802 731	18.7	17.6	17.1
Central Croatia	574 706 570	421 124 310	403 997 935	23.8	25.1	25.1
Adriatic North	194 039 661	133 286 293	124 101 469	8.0	7.9	7.7
Adriatic South	552 128 246	367 948 297	357 993 827	22.9	21.9	22.2
Eastern Croatia	642 731 190	461 054 884	450 704 091	26.6	27.5	28.0
Croatia	2 414 871 812	1 679 186 373	1 611 600 053	100.0	100.0	100.0

Source: Croatian Institute for Pension Insurance – HZMO.

As conclusion, Table 4.37 presents correlation coefficients between social transfers and the level of economic development in terms of both, GDP p.c., as well as gross disposable income per capita in period 2001-2003. According to expectations social transfers are negatively correlated with development variables, meaning that more developed counties have a lower share of social transfers in GDP (GDI). Coefficients are negative and significant at 5 percent significance level for all presented types of social transfer except pensions. Those results confirm the hypothesis that income redistribution process significantly reduces the inequality in welfare of Croatian counties, but the impact of various types of transfers is different. Transfers in the scope of obligatory social security system are not significantly correlated with development level of individual county.

Table 1.37: The Correlation Coefficients between Social Transfer Variables and the Level of Economic Development

Variable	GDP p.c.	GDI p.c.
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Total social transfers	-0.17	-0.23
Pensions	0.08	0.05
Social transfers without pensions	-0.61*	-0.73*
Unemployment benefits	-0.67*	-0.73*
Social welfare benefits	-0.56*	-0.64*
Child allowances	-0.62*	-0.72*

Note: * 5 percent significance level.

Source: Author's calculations.

APPENDIX A3.I: GDP IN CROATIA BY COUNTIES IN PERIOD 2001-2003

Table A3.1. Gross domestic product in current prices, 2001

Counties	GDP, mil. kn	GDP, mil. EUR	GDP, mil. USD	Structure. in %	GDP p.c.			Index
					kn	EUR	USD	Croatia = 100)
Croatia	165 639	22 177	19 863	100.0	37 309	4 995	4 474	100.0
Zagreb	7 863	1 053	943	4.7	25 334	3 392	3 038	67.9
Krapina-Zagorje	4 194	561	503	2.5	29 485	3 948	3 536	79.0
Sisak-Moslavina	5 997	803	719	3.6	32 375	4 335	3 882	86.8
Karlovac	4 486	601	538	2.7	31 693	4 243	3 801	84.9
Varaždin	6 553	877	786	4.0	35 490	4 752	4 256	95.1
Koprivnica-Križevci	4 801	643	576	2.9	38 598	5 168	4 629	103.5
Bjelovar-Bilogora	3 893	521	467	2.4	29 304	3 923	3 514	78.5
Primorje-Gorski kotar	13 399	1 794	1 607	8.1	43 853	5 871	5 259	117.5
Lika-Senj	1 606	215	192	1.0	29 934	4 008	3 590	80.2
Virovitica-Podravina	2 783	373	334	1.7	29 834	3 994	3 578	80.0
Požega-Slavonia	2 367	317	284	1.4	27 567	3 691	3 306	73.9
Slavonski Brod-Posavina	4 026	539	483	2.4	22 768	3 048	2 730	61.0
Zadar	4 372	585	524	2.6	26 899	3 601	3 226	72.1
Osijek-Baranja	9 565	1 280	1 147	5.8	28 955	3 877	3 472	77.6
Šibenik-Knin	2 687	360	322	1.6	23 747	3 179	2 848	63.6
Vukovar-Sirmium	4 434	594	532	2.7	21 648	2 898	2 596	58.0
Split-Dalmatia	13 146	1 760	1 576	7.9	28 272	3 785	3 390	75.8
Istria	10 368	1 388	1 243	6.3	50 174	6 718	6 017	134.5
Dubrovnik-Neretva	4 142	555	497	2.5	33 642	4 504	4 034	90.2
Međimurje	3 673	492	440	2.2	31 010	4 152	3 719	83.1
City of Zagreb	51 284	6 866	6 150	31.0	65 820	8 812	7 893	176.4

Table A3.2. Gross Domestic Product in Current Prices, 2002.

Counties	GDP, mil. kn	GDP, mil. EUR	GDP, mil. USD	Structure, in %	GDP p.c.			Index Croatia = 100)
					kn	EUR	USD	
Croatia	181 231	24 468	23 047	100.0	40 814	5 510	5 190	100.0
Zagreb	9 839	1 328	1 251	5.4	31 456	4 247	4 000	77.1
Krapina-Zagorje	4 305	581	548	2.4	30 453	4 112	3 873	74.6
Sisak-Moslavina	6 097	823	775	3.4	33 127	4 472	4 213	81.2
Karlovac	4 895	661	623	2.7	34 873	4 708	4 435	85.4
Varaždin	7 371	995	937	4.1	40 051	5 407	5 093	98.1
Koprivnica- Križevci	5 146	695	654	2.8	41 577	5 613	5 287	101.9
Bjelovar- Bilogora	4 296	580	546	2.4	32 564	4 397	4 141	79.8
Primorje-Gorski kotar	14 021	1 893	1 783	7.7	45 903	6 197	5 837	112.5
Lika-Senj	1 974	267	251	1.1	37 116	5 011	4 720	90.9
Virovitica- Podravina	2 955	399	376	1.6	31 873	4 303	4 053	78.1
Požega-Slavonia	2 490	336	317	1.4	29 041	3 921	3 693	71.2
Slavonski Brod- Posavina	4 332	585	551	2.4	24 521	3 311	3 118	60.1
Zadar	4 916	664	625	2.7	29 958	4 045	3 810	73.4
Osijek-Baranja	10 777	1 455	1 371	5.9	32 675	4 411	4 155	80.1
Šibenik-Knin	3 043	411	387	1.7	26 839	3 624	3 413	65.8
Vukovar- Sirmium	4 847	655	616	2.7	23 797	3 213	3 026	58.3
Split-Dalmatia	14 350	1 937	1 825	7.9	30 636	4 136	3 896	75.1
Istria	11 481	1 550	1 460	6.3	55 335	7 471	7 037	135.6
Dubrovnik- Neretva	4 379	591	557	2.4	35 429	4 783	4 505	86.8
Međimurje	4 107	554	522	2.3	34 650	4 678	4 406	84.9
City of Zagreb	55 610	7 508	7 072	30.7	71 355	9 634	9 074	174.8

Table A3.3. Gross domestic product in current prices, 2003.

Counties	GDP, mil. kn	GDP, mil. EUR	GDP, mil. USD	Structure, in %	GDP p.c.			Index Croatia = 100)
					kn	EUR	USD	
Croatia	198 422	26 235	29 609	100.0	44 689	5 909	6 669	100.0
Zagreb	10 480	1 386	1 564	5.3	33 165	4 385	4 949	74.2
Krapina-Zagorje	4 556	602	680	2.3	32 427	4 287	4 839	72.6
Sisak-Moslavina	6 290	832	938	3.2	34 409	4 549	5 135	77.0
Karlovac	4 831	639	721	2.4	34 730	4 592	5 183	77.7
Varaždin	7 709	1 019	1 150	3.9	42 080	5 564	6 279	94.2
Koprivnica- Križevci	5 275	697	787	2.6	42 817	5 661	6 389	95.8
Bjelovar- Bilogora	4 367	577	652	2.2	33 387	4 414	4 982	74.7
Primorje-Gorski kotar	16 100	2 129	2 402	8.1	52 770	6 977	7 874	118.1
Lika-Senj	2 449	324	365	1.2	46 208	6 109	6 895	103.4
Virovitica- Podravina	3 105	411	463	1.5	33 677	4 453	5 025	75.4
Požega-Slavonia	2 754	364	411	1.4	32 248	4 264	4 812	72.2
Slavonski Brod- Posavina	4 528	599	676	2.3	25 698	3 398	3 835	57.5
Zadar	5 936	785	886	3.0	35 802	4 734	5 342	80.1
Osijek-Baranja	11 059	1 462	1 650	5.6	33 634	4 447	5 019	75.3
Šibenik-Knin	3 536	468	528	1.8	31 127	4 115	4 645	69.7
Vukovar- Sirmium	5 203	688	776	2.6	25 694	3 397	3 834	57.5
Split-Dalmatia	15 839	2 094	2 364	8.0	33 628	4 446	5 018	75.3
Istria	12 814	1 694	1 912	6.5	61 429	8 122	9 167	137.5
Dubrovnik- Neretva	4 896	647	731	2.5	39 516	5 225	5 897	88.4
Međimurje	4 241	561	633	2.1	35 819	4 736	5 345	80.2
City of Zagreb	62 454	8 257	9 320	31.5	80 069	10 586	11 948	179.2

Table A3.4. Sectoral Structure of GDP, 2001, by counties

Counties	A, B	C, D, E	F	G	H	I	J, K	L, M, N, O	TOTAL
Croatia	9.5	25.7	5.2	12.1	3.6	10.5	10.6	22.8	100.0
Zagreb	16.6	27.1	4.8	20.0	2.1	10.0	5.8	13.6	100.0
Krapina-Zagorje	13.6	29.3	4.8	13.8	2.5	9.5	4.9	21.6	100.0
Sisak-Moslavina	12.7	36.2	5.5	6.6	1.6	10.5	6.4	20.4	100.0
Karlovac	9.8	25.4	19.3	6.9	3.2	8.2	5.6	21.5	100.0
Varaždin	12.8	35.2	4.8	10.1	1.9	7.5	6.8	21.0	100.0
Koprivnica-Križevci	22.7	36.0	3.5	10.0	1.6	6.7	5.1	14.4	100.0
Bjelovar-Bilogora	29.6	20.8	5.3	6.4	2.1	8.0	6.6	21.2	100.0
Primorje-Gorski kotar	2.5	26.8	5.4	11.0	8.1	14.9	10.3	21.0	100.0
Lika-Senj	20.8	18.1	10.6	4.1	4.9	11.4	4.2	26.0	100.0
Virovitica-Podravina	30.9	22.7	3.2	13.4	1.2	6.2	4.3	18.0	100.0
Požega-Slavonia	24.1	17.4	4.7	12.0	1.5	8.0	4.5	27.8	100.0
Slavonski Brod-Posavina	20.6	23.4	5.3	8.6	1.2	9.8	6.7	24.4	100.0
Zadar	11.6	14.3	7.2	10.6	5.4	12.3	10.6	27.9	100.0
Osijek-Baranja	21.4	19.2	5.3	10.6	1.6	9.1	8.5	24.3	100.0
Šibenik-Knin	9.5	13.8	5.8	11.4	5.2	13.3	9.0	32.0	100.0
Vukovar-Sirmium	30.8	10.9	8.4	11.2	1.3	7.8	4.7	24.8	100.0
Split-Dalmatia	4.6	23.5	4.9	12.6	4.4	12.1	11.4	26.4	100.0
Istria	5.6	29.4	5.6	10.0	12.7	9.2	9.6	17.8	100.0
Dubrovnik-Neretva	9.0	12.5	4.5	7.2	9.0	18.2	11.8	27.9	100.0
Međimurje	17.6	35.9	5.9	7.5	1.4	7.0	7.7	16.9	100.0
City of Zagreb	0.5	27.1	3.6	15.1	2.0	10.7	16.2	25.0	100.0

Table A3.5. Sectoral structure of GDP, 2002., by counties

Counties	A, B	C, D, E	F	G	H	I	J, K	L, M, N, O	TOTAL
Croatia	9.1	24.2	5.6	13.6	3.8	10.3	11.5	22.0	100.0
Zagreb	15.6	31.7	5.1	18.6	2.8	8.5	5.6	12.0	100.0
Krapina-Zagorje	13.6	29.8	7.5	9.8	2.8	9.6	5.8	21.0	100.0
Sisak-Moslavina	12.5	32.1	5.5	8.2	2.9	11.9	6.0	20.9	100.0
Karlovac	10.7	22.7	20.1	7.6	4.3	8.4	6.4	19.8	100.0
Varaždin	12.4	32.1	6.5	12.8	2.5	7.1	6.8	19.7	100.0
Koprivnica-Križevci	23.1	35.7	3.5	10.4	1.7	5.8	5.5	14.2	100.0
Bjelovar-Bilogora	29.0	19.0	4.6	9.2	3.1	8.5	7.4	19.2	100.0
Primorje-Gorski kotar	2.5	21.8	6.5	13.1	7.9	14.9	12.0	21.5	100.0
Lika-Senj	17.7	20.8	12.6	7.0	5.2	9.6	4.4	22.7	100.0
Virovitica-Podravina	29.9	20.4	4.1	15.2	1.9	5.8	4.9	17.8	100.0
Požega-Slavonia	23.0	23.4	4.6	8.7	1.9	7.3	5.0	26.0	100.0
Slavonski Brod-Posavina	19.4	19.0	5.9	12.1	1.8	10.0	7.3	24.5	100.0
Zadar	10.8	11.8	9.5	13.1	6.2	11.1	10.9	26.6	100.0
Osijek-Baranja	19.7	17.9	5.0	13.9	1.9	9.4	8.9	23.2	100.0
Šibenik-Knin	8.9	18.4	6.7	10.6	5.3	12.8	9.2	28.1	100.0
Vukovar-Sirmium	27.9	12.9	7.6	10.7	2.3	9.3	4.6	24.6	100.0
Split-Dalmatia	4.1	21.3	5.7	14.2	4.6	12.8	11.4	26.0	100.0
Istria	5.4	32.9	6.1	10.0	11.2	6.3	10.8	17.3	100.0
Dubrovnik-Neretva	9.1	11.8	5.1	8.0	7.2	18.0	13.9	27.0	100.0
Međimurje	16.2	35.5	6.7	9.0	2.2	6.0	8.8	15.6	100.0
City of Zagreb	0.4	24.0	3.3	17.2	2.1	10.8	18.0	24.1	100.0

Table A3.6. Sectoral structure of GDP, 2003., by counties

Counties	A, B	C, D, E	F	G	H	I	J, K	L, M, N, O	TOTAL
Croatia	7.4	24.0	6.6	14.5	4.0	10.1	12.7	20.8	100.0
Zagreb	12.8	32.7	6.0	18.0	3.1	8.7	6.1	12.6	100.0
Krapina-Zagorje	11.2	31.1	6.7	11.1	3.0	10.2	6.3	20.5	100.0
Sisak-Moslavina	10.7	28.9	5.9	10.2	3.1	13.1	6.4	21.8	100.0
Karlovac	9.6	28.1	10.8	9.4	5.1	9.1	7.3	20.7	100.0
Varaždin	10.3	29.0	9.5	12.9	2.5	7.2	8.4	20.0	100.0
Koprivnica-Križevci	19.7	34.7	4.3	12.3	2.0	5.9	6.8	14.2	100.0
Bjelovar-Bilogora	25.0	19.7	5.9	9.8	3.4	7.4	9.0	19.7	100.0
Primorje-Gorski kotar	2.0	22.1	8.2	13.3	7.5	14.4	12.5	20.0	100.0
Lika-Senj	12.6	18.1	25.9	5.6	4.7	10.1	3.9	19.1	100.0
Virovitica-Podravina	25.0	24.3	4.5	16.7	1.9	5.5	5.3	16.8	100.0
Požega-Slavonia	18.4	23.8	6.2	11.3	2.8	6.9	5.5	25.1	100.0
Slavonski Brod-Posavina	16.3	20.7	6.8	12.4	2.5	10.2	7.6	23.5	100.0
Zadar	8.0	13.3	14.3	12.9	6.8	10.6	10.7	23.4	100.0
Osijek-Baranja	17.0	18.1	5.6	15.2	2.0	9.3	10.3	22.5	100.0
Šibenik-Knin	6.7	16.9	10.5	11.5	5.3	12.3	10.0	26.9	100.0
Vukovar-Sirmium	22.9	16.3	8.6	11.9	2.5	9.6	4.9	23.4	100.0
Split-Dalmatia	3.4	17.5	7.5	16.3	4.8	13.2	12.8	24.4	100.0
Istria	4.7	30.2	7.1	11.0	11.5	6.9	12.2	16.4	100.0
Dubrovnik-Neretva	7.1	10.8	7.3	9.6	8.1	17.7	14.5	25.0	100.0
Međimurje	13.6	35.8	7.3	9.3	2.3	6.4	9.2	16.1	100.0
City of Zagreb	0.4	24.5	3.9	17.8	2.0	9.7	19.8	22.0	100.0

**APPENDIX B3. GROSS DISPOSABLE INCOME OF HOUSEHOLD SECTOR IN CROATIA BY COUNTIES
IN PERIOD 2001-2003**

Table B3.1: Primary, Secondary and Total Gross Disposable Income of Household Sector in Croatia in 2001, by counties in millions of kunas

Counties	Primary income	Secondary income	Total disposable income	Structure, as % of total income	Structure, as % of county disposable income		
					Primary income	Secondary income	Total disposable income
Croatia	107 294	681	107 975	100	99.4	0.6	100.0
Zagreb	8 056	-477	7 579	7.0	106.3	-6.3	100.0
Krapina-Zagorje	3 164	63	3 227	3.0	98.1	1.9	100.0
Sisak-Moslavina	3 938	339	4 278	4.0	92.1	7.9	100.0
Karlovac	2 999	213	3 211	3.0	93.4	6.6	100.0
Varaždin	4 259	32	4 291	4.0	99.3	0.7	100.0
Koprivnica-Križevci	3 110	1	3 111	2.9	100.0	0.0	100.0
Bjelovar-Bilogora	2 924	159	3 082	2.9	94.9	5.1	100.0
Primorje-Gorski kotar	8 246	-125	8 121	7.5	101.5	-1.5	100.0
Lika-Senj	1 115	149	1 263	1.2	88.2	11.8	100.0
Virovitica-Podravina	1 927	159	2 086	1.9	92.4	7.6	100.0
Požega-Slavonia	1 712	140	1 851	1.7	92.4	7.6	100.0
Slavonski Brod-Posavina	2 976	439	3 415	3.2	87.1	12.9	100.0
Zadar	3 305	248	3 552	3.3	93.0	7.0	100.0
Osijek-Baranja	6 790	500	7 290	6.8	93.1	6.9	100.0
Šibenik-Knin	2 069	349	2 418	2.2	85.6	14.4	100.0
Vukovar-Sirmium	3 446	617	4 063	3.8	84.8	15.2	100.0
Split-Dalmatia	9 362	604	9 966	9.2	93.9	6.1	100.0
Istria	6 155	-353	5 803	5.4	106.1	-6.1	100.0
Dubrovnik-Neretva	2 751	131	2 882	2.7	95.5	4.5	100.0
Međimurje	2 442	42	2 484	2.3	98.3	1.7	100.0
City of Zagreb	26 551	-2 548	24 002	22.2	110.6	-10.6	100.0

Table B3.2. Primary, secondary and total gross disposable income of household sector in Croatia in 2002, by counties in millions of kunas

Counties	Primary income	Secondary income	Total disposable income	Structure, as % of total income	Structure, as % of county disposable income		
					Primary income	Secondary income	Total disposable income
Croatia	115 146	-1 840	113 306	100	101.6	-1.6	100.0
Zagreb	8 766	-687	8 079	7.1	108.5	-8.5	100.0
Krapina-Zagorje	3 350	5	3 355	3.0	99.8	0.2	100.0
Sisak-Moslavina	4 204	273	4 477	4.0	93.9	6.1	100.0
Karlovac	3 314	142	3 456	3.1	95.9	4.1	100.0
Varaždin	4 651	-81	4 570	4.0	101.8	-1.8	100.0
Koprivnica-Križevci	3 294	-35	3 259	2.9	101.1	-1.1	100.0
Bjelovar-Bilogora	3 070	138	3 207	2.8	95.7	4.3	100.0
Primorje-Gorski kotar	8 848	-315	8 533	7.5	103.7	-3.7	100.0
Lika-Senj	1 216	141	1 357	1.2	89.6	10.4	100.0
Virovitica-Podravina	1 983	149	2 132	1.9	93.0	7.0	100.0
Požega-Slavonia	1 819	99	1 918	1.7	94.8	5.2	100.0
Slavonski Brod-Posavina	3 102	401	3 502	3.1	88.6	11.4	100.0
Zadar	3 485	204	3 690	3.3	94.5	5.5	100.0
Osijek-Baranja	7 183	389	7 572	6.7	94.9	5.1	100.0
Šibenik-Knin	2 255	302	2 557	2.3	88.2	11.8	100.0
Vukovar-Sirmium	3 634	583	4 216	3.7	86.2	13.8	100.0
Split-Dalmatia	10 144	291	10 435	9.2	97.2	2.8	100.0
Istria	6 666	-500	6 166	5.4	108.1	-8.1	100.0
Dubrovnik-Neretva	2 996	44	3 041	2.7	98.5	1.5	100.0
Međimurje	2 601	-3	2 597	2.3	100.1	-0.1	100.0
City of Zagreb	28 566	-3 380	25 186	22.2	113.4	-13.4	100.0

Table B3.3. Primary, secondary and total gross disposable income of household sector in Croatia in 2003, by counties in millions of kunas

Counties	Primary income	Secondary income	Total disposable income	Structure, as % of total income	Structure, as % of county disposable income		
					Primary income	Secondary income	Total disposable income
Croatia	125 190	-2 971	122 220	100	102.4	-2.4	100.0
Zagreb	9 611	-832	8 779	7.2	109.5	-9.5	100.0
Krapina-Zagorje	3 563	-18	3 546	2.9	100.5	-0.5	100.0
Sisak-Moslavina	4 459	292	4 751	3.9	93.8	6.2	100.0
Karlovac	3 572	115	3 687	3.0	96.9	3.1	100.0
Varaždin	4 914	-105	4 809	3.9	102.2	-2.2	100.0
Koprivnica-Križevci	3 524	-40	3 484	2.9	101.1	-1.1	100.0
Bjelovar-Bilogora	3 342	127	3 468	2.8	96.4	3.6	100.0
Primorje-Gorski kotar	9 611	-392	9 219	7.5	104.2	-4.2	100.0
Lika-Senj	1 428	94	1 522	1.2	93.8	6.2	100.0
Virovitica-Podravina	2 072	187	2 258	1.8	91.7	8.3	100.0
Požega-Slavonia	1 871	115	1 986	1.6	94.2	5.8	100.0
Slavonski Brod-Posavina	3 283	427	3 710	3.0	88.5	11.5	100.0
Zadar	3 848	170	4 018	3.3	95.8	4.2	100.0
Osijek-Baranja	7 753	364	8 117	6.6	95.5	4.5	100.0
Šibenik-Knin	2 469	311	2 779	2.3	88.8	11.2	100.0
Vukovar-Sirmium	3 893	588	4 480	3.7	86.9	13.1	100.0
Split-Dalmatia	11 103	199	11 302	9.2	98.2	1.8	100.0
Istria	7 093	-523	6 570	5.4	108.0	-8.0	100.0
Dubrovnik-Neretva	3 220	1	3 221	2.6	100.0	0.0	100.0
Međimurje	2 829	-19	2 810	2.3	100.7	-0.7	100.0
City of Zagreb	31 733	-4 030	27 703	22.7	114.5	-14.5	100.0

Table B3.4. Structure of primary income of household sector in Croatia in 2001, by counties in millions of kunas

Counties	Gross wages and salaries*	Mixed income **	Other primary income***	Total primary income	Structure, as % of county primary income		
					Gross W&S	Mixed income	Other primary income
Croatia	83 708	17 053	6 533	107 294	78.0	15.9	6.1
Zagreb	6 304	1 450	302	8 056	78.3	18.0	3.7
Krapina-Zagorje	2 291	723	149	3 164	72.4	22.9	4.7
Sisak-Moslavina	2 997	701	241	3 938	76.1	17.8	6.1
Karlovac	2 366	458	176	2 999	78.9	15.3	5.9
Varaždin	3 209	801	249	4 259	75.3	18.8	5.8
Koprivnica-Križevci	1 983	916	211	3 110	63.8	29.4	6.8
Bjelovar-Bilogora	1 835	921	167	2 924	62.8	31.5	5.7
Primorje-Gorski kotar	6 818	854	574	8 246	82.7	10.4	7.0
Lika-Senj	784	265	66	1 115	70.3	23.7	5.9
Virovitica-Podravina	1 231	580	116	1 927	63.9	30.1	6.0
Požega-Slavonia	1 205	414	93	1 712	70.4	24.2	5.4
Slavonski Brod-Posavina	2 049	776	150	2 976	68.9	26.1	5.0
Zadar	2 512	611	181	3 305	76.0	18.5	5.5
Osijek-Baranja	5 243	1 149	398	6 790	77.2	16.9	5.9
Šibenik-Knin	1 626	337	106	2 069	78.6	16.3	5.1
Vukovar-Sirmium	2 291	996	159	3 446	66.5	28.9	4.6
Split-Dalmatia	7 709	1 199	453	9 362	82.3	12.8	4.8
Istria	4 736	963	456	6 155	76.9	15.7	7.4
Dubrovnik-Neretva	2 127	464	160	2 751	77.3	16.9	5.8
Međimurje	1 708	576	159	2 442	69.9	23.6	6.5
City of Zagreb	22 684	1 899	1 968	26 551	85.4	7.2	7.4

*Gross wages and salaries includes social contribution and taxes on personal income

** Mixed income presents income from unincorporated enterprises in the ownership of households (craftsman and agricultural producers)

***Other primary incomes includes property income and imputed dwelling rents

Table B3.5. Structure of primary income of household sector in Croatia in 2002, by counties in millions of kunas

Counties	Gross wages and salaries*	Mixed income **	Other primary income***	Total primary income	Structure, as % of county primary income		
					Gross W&S	Mixed income	Other primary income
Croatia	90 125	18 076	6 945	115 146	78.3	15.7	6.0
Zagreb	6 784	1 609	372	8 766	77.4	18.4	4.2
Krapina-Zagorje	2 466	739	145	3 350	73.6	22.1	4.3
Sisak-Moslavina	3 230	728	246	4 204	76.8	17.3	5.8
Karlovac	2 609	515	190	3 314	78.7	15.5	5.7
Varaždin	3 505	877	269	4 651	75.4	18.9	5.8
Koprivnica-Križevci	2 103	966	225	3 294	63.8	29.3	6.8
Bjelovar-Bilogora	1 944	946	180	3 070	63.3	30.8	5.9
Primorje-Gorski kotar	7 330	931	586	8 848	82.9	10.5	6.6
Lika-Senj	851	285	80	1 216	70.0	23.4	6.6
Virovitica-Podravina	1 273	592	118	1 983	64.2	29.8	6.0
Požega-Slavonia	1 310	415	93	1 819	72.0	22.8	5.1
Slavonski Brod-Posavina	2 149	798	155	3 102	69.3	25.7	5.0
Zadar	2 675	613	197	3 485	76.8	17.6	5.7
Osijek-Baranja	5 550	1 196	437	7 183	77.3	16.7	6.1
Šibenik-Knin	1 774	367	114	2 255	78.7	16.3	5.0
Vukovar-Sirmium	2 454	1 011	169	3 634	67.5	27.8	4.7
Split-Dalmatia	8 394	1 280	471	10 144	82.7	12.6	4.6
Istria	5 161	1 028	476	6 666	77.4	15.4	7.1
Dubrovnik-Neretva	2 340	494	163	2 996	78.1	16.5	5.4
Međimurje	1 867	564	170	2 601	71.8	21.7	6.5
City of Zagreb	24 357	2 121	2 088	28 566	85.3	7.4	7.3

*Gross wages and salaries includes social contribution and taxes on personal income

** Mixed income presents income from unincorporated enterprises in the ownership of households (craftsman and agricultural producers)

***Other primary incomes includes property income and imputed dwelling rents

Table B3.6. Structure of primary income of household sector in Croatia in 2003, by counties in millions of kunas

Counties	Gross wages and salaries*	Mixed income **	Other primary income***	Total primary income	Structure, as % of county primary income		
					Gross W&S	Mixed income	Other primary income
Croatia	99 433	18 434	7 324	125 190	79.4	14.7	5.8
Zagreb	7 613	1 622	376	9 611	79.2	16.9	3.9
Krapina-Zagorje	2 705	704	155	3 563	75.9	19.7	4.3
Sisak-Moslavina	3 423	791	245	4 459	76.8	17.7	5.5
Karlovac	2 841	552	179	3 572	79.6	15.4	5.0
Varaždin	3 817	824	273	4 914	77.7	16.8	5.6
Koprivnica-Križevci	2 296	1 000	228	3 524	65.2	28.4	6.5
Bjelovar-Bilogora	2 126	1 031	184	3 342	63.6	30.9	5.5
Primorje-Gorski kotar	8 018	956	636	9 611	83.4	10.0	6.6
Lika-Senj	1 046	288	94	1 428	73.3	20.2	6.6
Virovitica-Podravina	1 322	624	125	2 072	63.8	30.1	6.0
Požega-Slavonia	1 380	389	102	1 871	73.7	20.8	5.5
Slavonski Brod-Posavina	2 320	803	161	3 283	70.6	24.5	4.9
Zadar	3 032	591	226	3 848	78.8	15.4	5.9
Osijek-Baranja	5 984	1 327	441	7 753	77.2	17.1	5.7
Šibenik-Knin	1 932	406	130	2 469	78.3	16.5	5.3
Vukovar-Sirmium	2 651	1 057	185	3 893	68.1	27.2	4.7
Split-Dalmatia	9 357	1 246	499	11 103	84.3	11.2	4.5
Istria	5 582	1 004	507	7 093	78.7	14.2	7.2
Dubrovnik-Neretva	2 573	472	175	3 220	79.9	14.7	5.4
Međimurje	2 064	593	172	2 829	73.0	20.9	6.1
City of Zagreb	27 349	2 153	2 231	31 733	86.2	6.8	7.0

*Gross wages and salaries includes social contribution and taxes on personal income

** Mixed income presents income from unincorporated enterprises in the ownership of households (craftsman and agricultural producers)

***Other primary incomes includes property income and imputed dwelling rents

Table B3.7. Sources of secondary income of household sector in Croatia in 2001, by counties in millions of kunas

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	17 990	1 593	981	731	2 415	12 013	35 723
Zagreb	944	117	41	44	144	767	2 056
Krapina-Zagorje	459	44	25	27	74	359	987
Sisak-Moslavina	753	58	57	35	101	504	1 508
Karlovac	596	46	44	28	66	388	1 168
Varaždin	613	61	43	27	105	473	1 322
Koprivnica-Križevci	328	38	26	18	72	301	783
Bjelovar-Bilogora	387	35	35	24	83	331	895
Primorje-Gorski kotar	1 567	130	45	51	100	878	2 771
Lika-Senj	255	15	12	7	26	151	466
Virovitica-Podravina	261	24	33	18	64	233	632
Požega-Slavonia	264	23	23	12	66	218	607
Slavonski Brod-Posavina	537	40	52	31	143	451	1 253
Zadar	639	47	40	27	97	436	1 286
Osijek-Baranja	1 181	100	89	65	226	874	2 535
Šibenik-Knin	500	31	65	17	71	322	1 006
Vukovar-Sirmium	723	44	45	30	144	533	1 520
Split-Dalmatia	1 899	147	104	89	303	1 270	3 812
Istria	900	90	27	32	68	562	1 679
Dubrovnik-Neretva	480	41	21	23	82	331	977
Međimurje	272	33	39	17	72	281	714
City of Zagreb	4 432	430	117	107	307	2 352	7 745

*Includes net transfers from abroad

Table B3.8. Sources of secondary income of household sector in Croatia in 2002, by counties in millions of kunas

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	18 858	2 023	1 131	866	1 679	12 682	37 239
Zagreb	991	152	47	54	102	818	2 164
Krapina-Zagorje	482	55	29	29	55	378	1 028
Sisak-Moslavina	791	72	66	40	72	530	1 571
Karlovac	625	59	51	37	44	409	1 224
Varaždin	639	79	49	31	76	497	1 372
Koprivnica-Križevci	345	47	30	22	54	317	816
Bjelovar-Bilogora	406	44	40	32	65	348	935
Primorje-Gorski kotar	1 647	164	52	52	67	930	2 913
Lika-Senj	270	19	14	10	18	159	490
Virovitica-Podravina	273	29	38	23	49	245	656
Požega-Slavonia	277	29	26	14	46	229	621
Slavonski Brod-Posavina	563	48	60	40	102	472	1 286
Zadar	669	60	46	36	68	463	1 343
Osijek-Baranja	1 239	125	102	75	156	917	2 614
Šibenik-Knin	523	40	75	21	49	340	1 048
Vukovar-Sirmium	756	55	52	39	108	559	1 568
Split-Dalmatia	1 973	188	120	110	200	1 338	3 929
Istria	954	116	31	36	48	600	1 785
Dubrovnik-Neretva	502	53	24	31	51	349	1 010
Međimurje	290	42	45	20	55	298	750
City of Zagreb	4 642	547	135	113	194	2 487	8 117

*Includes net transfers from abroad

Table B3.9. Sources of secondary income of household sector in Croatia in 2003, by counties in millions of kunas

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	19 919	2 039	1 225	836	1 612	13 534	39 163
Zagreb	1 062	156	51	51	95	883	2 298
Krapina-Zagorje	510	55	31	27	52	401	1 075
Sisak-Moslavina	845	70	71	33	70	564	1 652
Karlovac	655	58	55	36	41	432	1 277
Varaždin	680	78	53	31	71	530	1 444
Koprivnica-Križevci	372	47	32	22	53	339	866
Bjelovar-Bilogora	432	44	43	27	63	370	979
Primorje-Gorski kotar	1 712	165	56	55	62	987	3 036
Lika-Senj	287	21	15	9	17	170	518
Virovitica-Podravina	301	27	41	23	49	263	705
Požega-Slavonia	296	28	28	14	45	244	656
Slavonski Brod-Posavina	603	47	65	39	101	505	1 360
Zadar	722	62	50	35	65	501	1 434
Osijek-Baranja	1 315	122	111	73	150	977	2 747
Šibenik-Knin	555	40	81	22	47	364	1 108
Vukovar-Sirmium	801	54	56	42	106	596	1 656
Split-Dalmatia	2 080	193	130	102	196	1 432	4 133
Istria	1 001	115	34	37	45	641	1 873
Dubrovnik-Neretva	535	53	26	29	50	373	1 066
Međimurje	306	42	49	23	53	319	791
City of Zagreb	4 851	562	146	107	179	2 643	8 488

*Includes net transfers from abroad

Table B3.10. Sources of secondary income of household sector in Croatia in 2001, by counties, as % of total disposable income

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	16.7	1.5	0.9	0.7	2.2	11.1	33.1
Zagreb	12.5	1.5	0.5	0.6	1.9	10.1	27.1
Krapina-Zagorje	14.2	1.3	0.8	0.8	2.3	11.1	30.6
Sisak-Moslavina	17.6	1.3	1.3	0.8	2.4	11.8	35.3
Karlovac	18.6	1.4	1.4	0.9	2.1	12.1	36.4
Varaždin	14.3	1.4	1.0	0.6	2.4	11.0	30.8
Koprivnica-Križevci	10.5	1.2	0.8	0.6	2.3	9.7	25.2
Bjelovar-Bilogora	12.5	1.1	1.1	0.8	2.7	10.7	29.0
Primorje-Gorski kotar	19.3	1.6	0.6	0.6	1.2	10.8	34.1
Lika-Senj	20.2	1.2	1.0	0.6	2.1	11.9	36.9
Virovitica-Podravina	12.5	1.1	1.6	0.8	3.1	11.2	30.3
Požega-Slavonia	14.3	1.3	1.2	0.7	3.6	11.8	32.8
Slavonski Brod-Posavina	15.7	1.2	1.5	0.9	4.2	13.2	36.7
Zadar	18.0	1.3	1.1	0.8	2.7	12.3	36.2
Osijek-Baranja	16.2	1.4	1.2	0.9	3.1	12.0	34.8
Šibenik-Knin	20.7	1.3	2.7	0.7	2.9	13.3	41.6
Vukovar-Sirmium	17.8	1.1	1.1	0.7	3.6	13.1	37.4
Split-Dalmatia	19.1	1.5	1.0	0.9	3.0	12.7	38.2
Istria	15.5	1.6	0.5	0.5	1.2	9.7	28.9
Dubrovnik-Neretva	16.7	1.4	0.7	0.8	2.8	11.5	33.9
Međimurje	10.9	1.3	1.6	0.7	2.9	11.3	28.8
City of Zagreb	18.5	1.8	0.5	0.4	1.3	9.8	32.3

*Includes net transfers from abroad

Table B3.11. Sources of secondary income of household sector in Croatia in 2002, by counties, as % of total disposable income

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	16.6	1.8	1.0	0.8	1.5	11.2	32.9
Zagreb	12.3	1.9	0.6	0.7	1.3	10.1	26.8
Krapina-Zagorje	14.4	1.6	0.9	0.9	1.6	11.3	30.7
Sisak-Moslavina	17.7	1.6	1.5	0.9	1.6	11.8	35.1
Karlovac	18.1	1.7	1.5	1.1	1.3	11.8	35.4
Varaždin	14.0	1.7	1.1	0.7	1.7	10.9	30.0
Koprivnica-Križevci	10.6	1.4	0.9	0.7	1.7	9.7	25.0
Bjelovar-Bilogora	12.7	1.4	1.2	1.0	2.0	10.9	29.1
Primorje-Gorski kotar	19.3	1.9	0.6	0.6	0.8	10.9	34.1
Lika-Senj	19.9	1.4	1.0	0.7	1.3	11.7	36.1
Virovitica-Podravina	12.8	1.3	1.8	1.1	2.3	11.5	30.8
Požega-Slavonia	14.4	1.5	1.4	0.7	2.4	11.9	32.4
Slavonski Brod-Posavina	16.1	1.4	1.7	1.1	2.9	13.5	36.7
Zadar	18.1	1.6	1.2	1.0	1.8	12.6	36.4
Osijek-Baranja	16.4	1.6	1.4	1.0	2.1	12.1	34.5
Šibenik-Knin	20.4	1.6	2.9	0.8	1.9	13.3	41.0
Vukovar-Sirmium	17.9	1.3	1.2	0.9	2.6	13.2	37.2
Split-Dalmatia	18.9	1.8	1.1	1.1	1.9	12.8	37.7
Istria	15.5	1.9	0.5	0.6	0.8	9.7	29.0
Dubrovnik-Neretva	16.5	1.7	0.8	1.0	1.7	11.5	33.2
Međimurje	11.2	1.6	1.7	0.8	2.1	11.5	28.9
City of Zagreb	18.4	2.2	0.5	0.4	0.8	9.9	32.2

*Includes net transfers from abroad

Table B3.12. Sources of secondary income of household sector in Croatia in 2003, by counties, as % of total disposable income

Counties	Pensions	Health insurance	Social welfare	Unemploy. benefits	Child allowances	Other social and various transfers*	Total sources of secondary income
Croatia	16.3	1.7	1.0	0.7	1.3	11.1	32.0
Zagreb	12.1	1.8	0.6	0.6	1.1	10.1	26.2
Krapina-Zagorje	14.4	1.6	0.9	0.7	1.5	11.3	30.3
Sisak-Moslavina	17.8	1.5	1.5	0.7	1.5	11.9	34.8
Karlovac	17.8	1.6	1.5	1.0	1.1	11.7	34.6
Varaždin	14.1	1.6	1.1	0.6	1.5	11.0	30.0
Koprivnica-Križevci	10.7	1.3	0.9	0.6	1.5	9.7	24.8
Bjelovar-Bilogora	12.5	1.3	1.2	0.8	1.8	10.7	28.2
Primorje-Gorski kotar	18.6	1.8	0.6	0.6	0.7	10.7	32.9
Lika-Senj	18.8	1.4	1.0	0.6	1.1	11.2	34.1
Virovitica-Podravina	13.3	1.2	1.8	1.0	2.2	11.7	31.2
Požega-Slavonia	14.9	1.4	1.4	0.7	2.3	12.3	33.0
Slavonski Brod-Posavina	16.3	1.3	1.8	1.0	2.7	13.6	36.6
Zadar	18.0	1.5	1.2	0.9	1.6	12.5	35.7
Osijek-Baranja	16.2	1.5	1.4	0.9	1.8	12.0	33.8
Šibenik-Knin	20.0	1.4	2.9	0.8	1.7	13.1	39.9
Vukovar-Sirmium	17.9	1.2	1.3	0.9	2.4	13.3	37.0
Split-Dalmatia	18.4	1.7	1.1	0.9	1.7	12.7	36.6
Istria	15.2	1.8	0.5	0.6	0.7	9.8	28.5
Dubrovnik-Neretva	16.6	1.6	0.8	0.9	1.5	11.6	33.1
Međimurje	10.9	1.5	1.7	0.8	1.9	11.4	28.2
City of Zagreb	17.5	2.0	0.5	0.4	0.6	9.5	30.6

*Includes net transfers from abroad