

Competitiveness of Economy of **Vojvodina**

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Competitiveness of Economy of **Vojvodina**

INVESTMENTS

FOREIGN TRADE

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ECONOMIC ENTITIES

SURVEY ON COMPETITIVENESS FACTORS

LEGAL FRAMEWORK OF THE AP VOJVODINA

COMPETITIVENESS OF VOJVODINA: FINDINGS AND RECOMMENDATIONS

Competitiveness of Economy of **Vojvodina**

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ECONOMIC ENTITIES

6.1 Methodological remarks

6.1.1 Conceptual-methodological explanations

The underlying goal of the study of economic entities based on the analysis of financial statements for the reference period from 2002 to 2007 is a comparative study of two groups of indicators: the first group includes gross value added, productivity, and labour costs, and the second group includes relevant indicators of profitability and capital accumulation, that is, investment potential. The first group of indicators is obtained by standard computing of gross value added to total employees ratio and is used as a measure of productivity, while the second group is obtained by computing ratio of gross wages and salaries to number of employees and is used as a measure of labour costs. Profitability indicators are the simplest possible and based on profit and loss statements of the enterprises (operating profit or loss, profit or loss from ordinary activities before taxes and net profit or loss). Investment opportunity represents attractiveness of economic sector from investors, that is, relative ranking of economic sector with respect of economic return on investment in terms of economic impacts and benefits and is measured by an indicator called investment potential/capacity or capital accumulation defined as the ratio of operating income to gross value added. More direct meaning of this term is the investment efficiency since it measures the sustainability of growth of gross value added being a portion of newly generated value exceeding labour and capital costs and as such can be accumulated for new investments.

Both groups of indicators as defined herein reflect different aspects of investment efficiency. The expected return for an investment is in correlation with the turnover velocity, i.e. the length of time it takes to convert investment into a profit, on the one side, and the achieved maximum relative efficiency, on the other side. In order to analyse the growth dynamics and range of individual indicators, the study focused on the period from 2002 to 2007 marked by the abundant capital resources and smooth privatisation process.

Gross value added has been taken as a key indicator (being, at the same time, the basis for calculation of gross domestic product). Through the analysis of value added and its growth dynamics in terms of the ownership structure, size, activity, and territorial distribution of enterprises, the contribution of the analysed sectors to economic growth, productivity, and employment and labour costs has been assessed.

Economic sectors have been defined according to the NACE Classification of Business Activities, excluding Agriculture, hunting, and forestry and water management, and Mining and quarrying. The Study encompassed only the real sector, for which the gross value added was calculated from the presented annual financial statements of enterprises, namely economic entities and entrepreneurs.

6.1.2 Definitions

6.1.2.1 Data sources

Sources of data used were financial statements for the years 2002 – 2007. For comparison exercise with respect to the territorial dimension, i.e. geographic location, the reference year is 2007 (In 2008, the global financial crisis started spreading to Serbian economy in the second half of 2009, the balance of payments of which has been highly dependent in recent years upon the inflow of capital, loans, in particular). Historical financial statements before 2007 were used to analyse general development by the form of ownership and size class of enterprises in the given macro economic conditions as well as general effects of privatisation on the country as a whole and differentiation of those effects with respect to the size of enterprises and varying performance of newly-established and privatised SMEs.

Financial statements after 2004 were prepared using IAS (International Accounting Standards) while comparison with the year 2003 was performed using the appropriate keys. Additional data were obtained by pairing the data from the Agency for Registers of Economic Entities with databases of Privatisation Agency and Statistical Business Register.

6.1.2.2 Calculation of value-added (VA)

The main indicator used to monitor economic performance is value added (VA). VA is calculated by deducting the premiums and subsidies and operating expenses reduced for wages and salaries, depreciation costs, costs of taxes and contributions and provision costs from gross margin. Operating costs decreased in this way represent the sum of the costs of other material, costs of fuel and energy (highest), costs of production services and non-material costs.

$$\mathbf{VA = (BM - PS) - (TE - (TZ + Tam + TP + TR))}$$

where:

(BM-PS)	- output;
VA	- value added;
BM	- gross margin;
PS	- premiums and subsidies;
TE	- operating costs;
TZ	- wages and salaries;
Tam	- amortisation (depreciation) costs;
TP	- costs of taxes and contributions;
TR	- provision costs;

Gross margin (BM) (i.e. gross profit rate) is the difference between the operating revenues (PP) and direct costs (DR).

$$\mathbf{BM = PP - DR}$$

Operating revenues comprise costs of goods and services sold, both domestic and foreign, revenues from premiums and subsidies, revenue from undertaking of output and merchandise, while, on the other hand, direct costs are the sum of costs of sales and material costs.

To assess the effect of subsidies, VA of the analysed group of enterprises less subsidies allocated to the given group and VA per employee shall be shown separately as the quotient between added value and the number of employees.

Other basic performance indicators to be analysed include: (a) number of employees, (b) gross wages and salaries, (c) productivity (defined as a value added per employee), (d) labour costs (defined as a ratio of gross wages and salaries of employees to gross value added).

6.1.2.3 Calculation of profitability and investment potential indicators

The following profit/loss categories were of relevance:

- 1) Operating profit/loss (PD, based on operating revenues and expenses),
- 2) Profit/loss from ordinary activities (RD, including financial revenues and expenses),
- 3) Net profit/loss (ND, including financial revenues and expenses, profit tax and others).

In addition to these, yet another measure important for the assessment of business performance is gross margin, defined under 1.2 – as a component for the calculation of gross value added.

The following relative profitability indicator ratios, i.e. indicators are calculated based on the value of profit realised for each individual enterprise:

- 1) Gross profit margin ratio: $SBM = BM/PP$;
- 2) Operating profit/loss ratio: $SPD = PD/PP$;
- 3) Profit/loss from ordinary activities ratio: $SRD = RD/PRP$, where PRP stands for income generated from ordinary activities;
- 4) Net profit/loss ratio: $SND = ND/UP$, where UP stands for total revenue (sum of income generated from ordinary activities and extraordinary income);

All indicators are expressed in percentage.

When calculating relative indicators that are of primary interest for this analysis for the groups of enterprises according to division defined below, then items under 1), 2), 3) and 4) refer to the rates of net financial income, whereby profit or loss values

are replaced with the financial income representing the difference between aggregate profit and aggregate loss.

5) Operating income to gross value added ratio:

$$\text{UPFR} = \text{PFR} / \text{VA},$$

where PFR denotes operating financial result, i.e. the difference between aggregate profit and aggregate loss.

This is an important indicator (return on capital employed or investment potential indicator) showing whether sustainable growth of gross value added (VA) (and, gross domestic product, eventually) can be maintained or capital inflow is needed – per elements of segregation as well as development perspective.

6.1.2.1 Scope of analysis

The analysis included all enterprises that presented their financial statements for the year 2007. The year 2007 has been chosen as the year preceding the year in which the economy was hit by financial crisis, and, consequently, plunged into the recession, in order to compare defined indicators by regions. The Table below shows statistics of enterprises that presented their financial statements (the so-called active enterprises):

Year	2001	2002	2003	2004	2005	2006	2007
Total enterprises and co-operatives	66,878	66,878	73,829	75,477	75,430	76,638	84,109*

* Total number of enterprises that presented their financial statements for 2007.

Co-operatives were excluded from the analysis due to the undefined ownership rights, and because of their insignificant share in the total VA (about 1%).

6.1.2.2 Classification of enterprises

The basic classification of enterprises enables their study in matrices. All the enterprises are grouped as follows:

A. According to the size, to TOTAL and:

- 1) Large (over 250 persons employed¹);
- 2) Medium-sized (from 51 to 250 persons employed);
- 3) Small (to 50 persons employed).

B. According to the form of ownership, to TOTAL² and:

- 1) Socially-owned sector;
- 2) Private sector;
- 3) Mixed sector;
- 4) State-owned (public) sector.

For the purpose of studying the effects of privatisation in Serbia as a whole and for obtaining deeper insight into the development of private sector according to the origin of business entities (privatised versus newly established, or the so-called new emerging enterprises), the classification of businesses according to their ownership has been extended by separating (based on the records kept by the Privatisation Agency) enterprises privatised in the period from 2002 to 2007, and grouping them by size to TOTAL and:

- 1) Privatised in 2002;
- 2) Privatised in 2003;
- 3) Privatised in 2004;
- 4) Privatised in 2005;
- 5) Privatised in 2006;
- 6) Privatised in 2007.

The complement of this group is the group without privatised enterprises.

¹ There are other additional criteria, concerning the capital, but their impact on the present classification is insignificant.

² Co-operative sector excluded, as its share in the VA amounted to 1.0% in 2001, 0.8% in 2002 and 2003, 1.2% in 2004, and below 1.0% in the period from 2005 to 2007.

C. According to business activity

In all the above-mentioned classifications, all enterprises have been studied as a whole, and by the type of economic activity in which they are engaged, according to NACE:

C1. Industry and mining total and by sectors:

- 1) Mining and quarrying,
- 2) Manufacturing,
- 3) Electricity, gas, and water supply,

and by studying all the areas of Manufacturing starting from Manufacture of food products and beverages, Manufacture of textile yarns and fabrics, to Manufacture of furniture and Recycling.

C2. Wholesale and retail trade total and grouped into:

- 1) Sale, maintenance and repair of motor vehicles and motorcycles; Retail sale of automotive fuels;
- 2) Wholesale trade and mediation in trade, except for trade with motor vehicles and motorcycles;
- 3) Retail trade, except for trade with motor vehicles and motorcycles; Repair of personal and household goods.

C3) Construction and other activities according to the NACE Classification

6.2 Productivity and labour costs

6.2.1 Results related to productivity and labour costs for all enterprises

6.2.1.1 Gross value added (GVA) in 2007

The total of 84.1 thousand enterprises in Serbia with 1,097.9 thousand employees presented their financial statements for 2007 – 22.0 thousand enterprises among them with 275.4 thousand employees (25.1%) were from Vojvodina. As regards the form of ownership, private sector was predominant with 77.9 thousand enterprises (in Vojvodina 20.0 thousand) and accounting for 62.5% of total employees (in Vojvodina with even higher share – 67.1%). The second place was occupied by state-owned enterprises (582, of which 162 in Vojvodina) which due to their size, accounted for 16.0% of the total number employees (in Vojvodina somewhat lower – 12.4%).

Table 6.2.1. Gross value added 2007

	No. of enterprises Total	No. of employees				GVA at basic prices			
		Total	The share according to form of ownership, %	The share according to size, %	The share of Vojvodina in Serbia, %	Total, 000 din.	The share according to form of ownership, %	The share according to size, %	The share of Vojvodina in Serbia, %
All enterprises - total	SERBIA								
TOTAL	84,109	1,097,913	100.0	100.0	100.0	1,062,863,651	100.0	100.0	100.0
Socially-owned	2,751	93,466	8.5	100.0	100.0	36,554,598	3.4	100.0	100.0
Private property	77,867	685,913	62.5	100.0	100.0	683,718,934	64.3	100.0	100.0
Co-operative property	1,814	10,127	0.9	100.0	100.0	8,296,285	0.8	100.0	100.0
Mixed property	1,095	132,659	12.1	100.0	100.0	113,622,768	10.7	100.0	100.0
Public property (state-owned)	582	175,748	16.0	100.0	100.0	220,671,066	20.8	100.0	100.0
All enterprises - total	VOJVODINA								
TOTAL	22,001	275,395	100.0	100.0	25.1	266,981,837	100.0	100.0	25.1
Socially-owned	714	18,068	6.6	100.0	19.3	8,815,380	3.3	100.0	24.1
Private property	19,973	184,763	67.1	100.0	26.9	171,764,386	64.3	100.0	25.1
Co-operative property	771	4,996	1.8	100.0	49.3	3,780,705	1.4	100.0	45.6
Mixed property	381	33,552	12.2	100.0	25.3	21,688,696	8.1	100.0	19.1
Public property (state-owned)	162	34,016	12.4	100.0		60,932,670	22.8	100.0	27.6
All enterprises - small	SERBIA								
TOTAL	80,229	380,358	100.0	34.6	100.0	271,411,452	100.0	25.5	100.0
Socially-owned	2,364	22,277	5.9	23.8	100.0	8,196,160	3.0	22.4	100.0
Private property	75,070	331,731	87.2	48.4	100.0	246,916,687	91.0	36.1	100.0
Co-operative property	1,766	7,008	1.8	69.2	100.0	6,003,670	2.2	72.4	100.0
Mixed property	711	10,119	2.7	7.6	100.0	4,988,311	1.8	4.4	100.0
Public property (state-owned)	318	9,223	2.4	5.2	100.0	5,306,624	2.0	2.4	100.0
All enterprises - small	VOJVODINA								
TOTAL	20,881	101,222	100.0	36.8	26.6	66,264,255	100.0	24.8	24.4
Socially-owned	633	5,390	5.3	29.8	24.2	2,679,810	4.0	30.4	32.7
Private property	19,173	86,707	85.7	46.9	26.1	57,754,810	87.2	33.6	23.4
Co-operative property	743	3,314	3.3	66.3	47.3	2,485,801	3.8	65.7	41.4
Mixed property	240	3,330	3.3	9.9	32.9	1,815,217	2.7	8.4	36.4
Public property (state-owned)	92	2,481	2.5	7.3	26.9	1,528,617	2.3	2.5	28.8
All enterprises - medium-sized	SERBIA								
TOTAL	3,070	257,555	100.0	23.5	100.0	214,919,504	100.0	20.2	100.0
Socially-owned	306	28,954	11.2	31.0	100.0	11,790,215	5.5	32.3	100.0
Private property	2,271	169,277	65.7	24.7	100.0	163,720,343	76.2	23.9	100.0
Co-operative property	46	2,773	1.1	27.4	100.0	2,032,316	0.9	24.5	100.0
Mixed property	257	26,808	10.4	20.2	100.0	15,125,017	7.0	13.3	100.0
Public property (state-owned)	190	29,743	11.5	16.9	100.0	22,251,613	10.4	10.1	100.0
All enterprises - medium-sized	VOJVODINA								
TOTAL	903	77,082	100.0	28.0	29.9	60,142,375	100.0	22.5	28.0
Socially-owned	66	6,193	8.0	34.3	21.4	2,900,396	4.8	32.9	24.6
Private property	657	51,999	67.5	28.1	30.7	44,151,850	73.4	25.7	27.0
Co-operative property	27	1,656	2.1	33.1	59.7	1,270,183	2.1	33.6	62.5
Mixed property	102	10,328	13.4	30.8	38.5	5,785,014	9.6	26.7	38.2
Public property (state-owned)	51	6,906	9.0	20.3	23.2	6,034,932	10.0	9.9	27.1
All enterprises - large	SERBIA								
TOTAL	810	460,000	100.0	41.9	100.0	576,532,695	100.0	54.2	100.0
Socially-owned	81	42,235	9.2	45.2	100.0	16,568,223	2.9	45.3	100.0
Private property	526	184,905	40.2	27.0	100.0	273,081,904	47.4	39.9	100.0
Co-operative property	2	346	0.1	3.4	100.0	260,299	0.0	3.1	100.0
Mixed property	127	95,732	20.8	72.2	100.0	93,509,440	16.2	82.3	100.0
Public property (state-owned)	74	136,782	29.7	77.8	100.0	193,112,829	33.5	87.5	100.0
All enterprises - large	VOJVODINA								
TOTAL	217	97,091	100.0	35.3	21.1	140,575,207	100.0	52.7	24.4
Socially-owned	15	6,485	6.7	35.9	15.4	3,235,174	2.3	36.7	19.5
Private property	143	46,057	47.4	24.9	24.9	69,857,726	49.7	40.7	25.6
Co-operative property	1	26	0.0	0.5	7.5	24,721	0.0	0.7	9.5
Mixed property	39	19,894	20.5	59.3	20.8	14,088,465	10.0	65.0	15.1
Public property (state-owned)	19	24,629	25.4	72.4	18.0	53,369,121	38.0	87.6	27.6

From the Table above it can be seen that the situation is similar in terms of gross value added at basic prices (VA) – as the main indicator of economic activity under consideration: the share of enterprises from Vojvodina was 25.1%, as in the terms of the number of employees; with the largest proportion of private sector accounting for the highest share of gross value added both in Vojvodina and Serbia as a whole, with almost identical percentage (64.3%). However, the second ranked public enterprises considerably exceeded their share in the number of employees, particularly in Vojvodina – in Serbia 20.8%, and in Vojvodina 22.8% (but, before reaching any conclusions, the impact of state subsidies cannot be under- or over-estimated, as it partially distorts the picture favouring the public sector and its share in gross value added regardless of performance. In other words, it means that in 2007 about 3% of the total VA in Serbia, and 1.3% in Vojvodina, was redistributed in favour of public enterprises through fiscal policy measures, primarily at the expense of private sector). Yet another fact of importance is the presence of rather large number of socially-owned enterprises, as a heavy burden to the budget, representing 8.5% of the total employees (6.6% in Vojvodina) but accounting for only 3.4% (in Vojvodina 3.3%) of gross value added, despite the subsidies.

By the size-class, small enterprises were predominant in the group of enterprises, which presented their financial statements in 2007, with 80.2 thousand in Serbia (of which 20.9 thousand in Vojvodina). Their share in the total number of employees accounted for significant 34.6% (in Vojvodina 36.8%), but they contributed a considerably lower share to value added, only 25.5% (in Vojvodina 24.8%). By the form of ownership small enterprises were primarily privately owned, accounting for as much as 87.2% of the total employees (in Vojvodina 85.7%) and 91.0% of gross value added (in Vojvodina 87.2%). The sub-group of medium-sized enterprises was considerably smaller (total 3.1 thousand, of which 0.9 thousand in Vojvodina), but their share in the total employment was 23.5% (in Vojvodina 28.0%). Their contribution to gross value added was 20.2% (in Vojvodina 22.5%). As in the case of small enterprises, medium-sized enterprises were mainly privately owned, their share in the total employment was 65.7% (in Vojvodina 67.5%) and in gross value added 76.2% (in Vojvodina 73.4%), and, again as in the case of small enterprises, the share of medium-sized enterprises in other forms of ownership was insignificant. On the other hand, the number of large enterprises in Serbia totalled to 810, of which 217 in Vojvodina. Their economic performance was in inverse proportion to their number: the sub-group of large enterprises represented 41.9% of the total employees (in Vojvodina 35.3%), and 54.2% of value added (in Vojvodina 52.7%). The ownership structure of this sub-group was different in relation to small and medium-sized enterprises: although predominantly in private property, privately owned large enterprises accounted for 40.2% of the total employment in this sub-group and 47.4% of value added (in Vojvodina 47.4% and 49.7%, respectively), the share of public (state-owned) enterprises in the total number of large enterprises was significant with 29.7% in the total employment and 33.5% in value added (in Vojvodina 25.4% and 38.0%, respectively).

According to the type of activity (based on the data from integrated Tables 6.2.1.1 – 6.2.1.16. given in the statistical-tabular Annex C), the following sectors played the dominant role in generating gross value added in the group of all enterprises – group total – in Serbia: D – Manufacturing (30.2%); G – Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods (18.7%); I – Transportation, storage and communications (14.2%); K – Real estate, renting and business activities (8.6%); F – Construction (8.1%) etc. The same sectors, but ranked in different order, occupy the first five places in the small enterprise sub-group: G (31.0%); D (24.7%); K (17.3%); F (9.5%); I (7.3%). In the medium-sized enterprise sub-group, at the top of the list was sector D with 31.4%, followed by sectors G (22.3%), K (13.7%), F (10.4%) and at last A – Agriculture, hunting, forestry and water management (6.1%). In the large enterprise sub-group, sectors providing the largest contribution to gross value added were D (32.3%), followed by I (20.9%), and E – Electricity, gas and water supply (11.9%), G (11.6%) and C – Mining and quarrying (8.9%). In Vojvodina the situation was as follows: in group total, the highest share belonged to sector D (37.2%), followed by sector G with a considerably lower share (14.8%), C (11.8%), A (9.3%) and I (7.3%). In the group of small enterprises the major sectors were: G (29.3%); D (26.4%); K (12.4%); F (9.8%); and I (8.3%). The group of medium-sized enterprises saw the highest share of sectors D (34.1%), A (16.9%), G (16.0%), F (9.3%), and I (7.9%). In the group of large enterprises, the first on the list was sector D (43.5%), followed by C (21.9%), G (7.4%), A (7.1%) and I (6.6%). Focusing on the Manufacturing sector as the most important one, the following sub-sectors were distinguished within sector (D) in Serbia: 15 – Manufacture of food products and beverages, with the share of 28.1% in gross value added in the Manufacturing sector; 24 – Manufacture of chemicals and chemical products (9.8%); 26 – Manufacture of other non-metallic mineral products (6.4%); 28 – Manufacture of fabricated metal products, except machinery and equipment (6.4%); 22 – Publishing, printing and reproduction of recorded media (6.3%) etc. The following data were recorded for Vojvodina: sub-sector 15 (even 40.8%); sub-sector 24 (13.2%); sub-sector 26 (9.2%); 25 – Manufacture of rubber and plastic products (7.0%); sub-sector 28 (5.2%). In all other variants – particularly in case of small, medium-sized, or large enterprises, both in Serbia and Vojvodina – Manufacture of food products and beverages, i.e. sub-sector 15, is predominant.

6.2.1.2 Productivity according to forms of property in 2007

Measure of productivity is gross value added at basic prices per employee (VA/NI), and, hence, it would be very useful to track its growth dynamics over a certain period of time. For illustration purposes, productivity growth rates can be compared with gross wages and salaries per employee. This brings us to labour cost index defined as the ratio of **gross wages and salaries** of employees to gross value added ($LC=WS/VA$) – labour cost index increases at the rate at which the **gross wages and salaries** grow faster than gross value added, or, in other words, it increases at the rate at which the **gross wages and salaries** grow faster than productivity. However, since the focus of the present Study is on the year 2007, and the dynamics of economic developments extends beyond the framework of this analysis, from this point onward the analysis shall be focused on studying productivity levels and labour costs in the enterprises in terms of ownership structure, size class, type of activity and territory (comparison between Vojvodina and Serbia as a whole). Before that, however, the key feature relevant to Serbia from the perspective of dynamics of productivity and labour cost growth should be pointed out, namely, throughout the 2002-2007 period, the consumption grew faster than productivity. It is undeniable that, initially, productivity grew slower than gross wages and salaries per employee and even **gross wages and salaries of employees** – irrespective of the decline in employment – and labour cost index was increasing from year to year (reaching even 0.59); however, from the second half of the studied period, the rising trend was somewhat alleviated, mainly due to continuing decline in employment and hindered growth in gross wages and salaries, and not as the result of the GVA growth. A shift, so to say, from this trend started in the last year of the observation period (2007) when, as the result of stagnation in employment and faster nominal growth of gross value added in relation to gross wages and salaries, the growth of productivity in 2007 was at the rate higher by 8 percentage points than the rate of growth of gross wages and salaries per employee), while, on the other hand, labour cost index reached its minimum of 0.52.

Let us go back to 2007 and comparisons i.e. ranking of the enterprises according to territory, property structure, and size. It can be seen that all enterprises, which presented their financial statements for 2007 – group total – had more or less the same productivity level in Vojvodina (100.1%) in relation to Serbia as a whole. According to ownership structure, public (state-owned) (level 129.7%) and private (level 103.0%) enterprises in Serbia had above-average productivity, while the lowest productivity was recorded in socially-owned sector (level 40.4%). In Vojvodina, only public (state-owned) enterprises had productivity significantly above average (level 184.8%), private enterprises ranked somewhat lower, just below the average (level 95.9%); and socially-owned ranked in the lowest position, but not as low as in Serbia (level 50.3%). Hence, at a sectoral level, productivity of public (state-owned) enterprises was higher in Vojvodina than in Serbia (level 142.7%), while in private sector was slightly behind (level 93.3%).

Table 6.2.2. Productivity and labour costs 200

	Productivity				Labour cost index			
	Total, 000 din.	Accord. to form of ownership, %	Level, acc. to size, %	The share of Vojvodina in Serbia, %	Total	Accord. to form of ownership, %	Level, acc. to size, %	The share of Vojvodina in Serbia, %
All enterprises - total	SERBIA							
TOTAL	968	100.0	100.0	100.0	0.517	100.0	100.0	100.0
Socially-owned	391	40.4	100.0	100.0	1.107	214.2	100.0	100.0
Private property	997	103.0	100.0	100.0	0.462	89.4	100.0	100.0
Co-operative property	819	84.6	100.0	100.0	0.782	151.3	100.0	100.0
Mixed property	857	88.5	100.0	100.0	0.610	117.9	100.0	100.0
Public property (state-owned)	1,256	129.7	100.0	100.0	0.531	102.7	100.0	100.0
All enterprises - total	VOJVODINA							
TOTAL	969	100.0	100.0	100.1	0.498	100.0	100.0	96.4
Socially-owned	488	50.3	100.0	124.8	0.869	174.4	100.0	78.5
Private property	930	95.9	100.0	93.3	0.459	92.1	100.0	99.3
Co-operative property	757	78.1	100.0	92.4	0.684	137.2	100.0	87.4
Mixed property	646	66.7	100.0	75.5	0.773	155.2	100.0	126.8
Public property (state-owned)	1,791	184.8	100.0	142.7	0.447	89.6	100.0	84.1
All enterprises - small	SERBIA							
TOTAL	714	100.0	73.7	100.0	0.531	100.0	102.7	100.0
Socially-owned	368	51.6	94.1	100.0	1.061	199.8	95.8	100.0
Private property	744	104.3	74.7	100.0	0.491	92.6	106.3	100.0
Co-operative property	857	120.1	104.6	100.0	0.891	167.8	113.9	100.0
Mixed property	493	69.1	57.6	100.0	0.865	163.0	141.9	100.0
Public property (state-owned)	575	80.6	45.8	100.0	0.827	155.9	155.8	100.0
All enterprises - small	VOJVODINA							
TOTAL	655	100.0	67.5	91.7	0.533	100.0	106.9	100.4
Socially-owned	497	75.9	101.9	135.1	0.883	165.8	101.6	83.3
Private property	666	101.7	71.6	89.5	0.489	91.8	106.7	99.6
Co-operative property	750	114.6	99.1	87.6	0.795	149.3	116.3	89.3
Mixed property	545	83.3	84.3	110.6	0.735	138.0	95.1	85.0
Public property (state-owned)	616	94.1	34.4	107.1	0.892	167.5	199.8	107.9
All enterprises - medium	SERBIA							
TOTAL	834	100.0	86.2	100.0	0.553	100.0	106.9	100.0
Socially-owned	407	48.8	104.1	100.0	0.963	174.2	87.0	100.0
Private property	967	115.9	97.0	100.0	0.482	87.3	104.3	100.0
Co-operative property	733	87.8	89.5	100.0	0.503	91.0	64.3	100.0
Mixed property	564	67.6	65.9	100.0	0.797	144.2	130.8	100.0
Public property (state-owned)	748	89.7	59.6	100.0	0.692	125.1	130.2	100.0
All enterprises - medium	VOJVODINA							
TOTAL	780	100.0	80.5	93.5	0.555	100.0	111.5	100.5
Socially-owned	468	60.0	96.0	115.0	0.851	153.3	97.9	88.4
Private property	849	108.8	91.3	87.8	0.495	89.1	107.9	102.6
Co-operative property	767	98.3	101.4	104.7	0.472	85.0	69.0	93.8
Mixed property	560	71.8	86.7	99.3	0.781	140.6	101.0	97.9
Public property (state-owned)	874	112.0	48.8	116.8	0.657	118.3	147.1	95.0
All enterprises - large	SERBIA							
TOTAL	1,253	100.0	129.5	100.0	0.497	100.0	96.2	100.0
Socially-owned	392	31.3	100.3	100.0	1.233	248.0	111.4	100.0
Private property	1,477	117.8	148.2	100.0	0.424	85.3	91.7	100.0
Co-operative property	752	60.0	91.8	100.0	0.454	91.2	58.0	100.0
Mixed property	977	77.9	114.0	100.0	0.566	113.8	92.8	100.0
Public property (state-owned)	1,412	112.6	112.4	100.0	0.504	101.5	95.0	100.0
All enterprises - large	VOJVODINA							
TOTAL	1,448	100.0	149.3	115.5	0.458	100.0	91.8	92.0
Socially-owned	499	34.5	102.2	127.2	0.874	190.9	100.5	70.8
Private property	1,517	104.8	163.2	102.7	0.411	89.7	89.5	96.9
Co-operative property	951	65.7	125.6	126.4	0.346	75.6	50.6	76.3
Mixed property	708	48.9	109.6	72.5	0.775	169.4	100.2	137.0
Public property (state-owned)	2,167	149.7	121.0	153.5	0.410	89.6	91.8	81.3

When including the size class dimension in the analysis, the following was noticeable: labour productivity of small enterprises was at level 73.7% in relation to the average of all analysed enterprises – group total (in Vojvodina it was at level 67.5%); of medium-sized enterprises at level 86.2% (in Vojvodina 80.5%); and of large enterprises at level 129.5% (in Vojvodina 149.3%). In the group of small enterprises the highest productivity was recorded in the co-operative sector (at level 120.1% in relation to the average of small enterprises) – but the co-operative sector exhibited minimum weighted average – an above average productivity was recorded in the private sector, too (level 104.3%). Similar ranking order was in Vojvodina – co-operative sector at level 114.6%, private 101.7%. Generally speaking, productivity of small enterprises in Vojvodina was at the level of 91.7% as compared to Serbia as a whole, and of small private ones, being predominant, at the level of 89.5%. In the group of medium-sized enterprises an above-average productivity was recorded only in the private sector (level 115.9%), and in Vojvodina in public (state-owned), although with much lower weighted average (level 112.0%), and the private (level 108.8%). In general, productivity of medium-sized enterprises in Vojvodina was at the level of 93.5% in relation to Serbia, and of medium-sized private, being predominant, at the level of 87.8%. Finally, in the group of large enterprises with the highest level of productivity, an above average productivity was recorded in the private (level 117.8%) and public (state-owned) sector (level 112.6%). In Vojvodina, however, the public (state-owned) sector was at the top of the list (level 149.7%), while private sector ranked at the second place (level 104.8%). Generally speaking, productivity of large enterprises in Vojvodina was at the level of 115.5% in relation to Serbia, and of large private and public (state-owned) enterprises, being the most numerous, at 102.7% and 153.5%, respectively.

The overview of productivity by the type of activity (separately for Serbia, and for Vojvodina) shall be given at the end of next section, dealing with the employment and labour costs – as an overview of the most productive economic activities and their corresponding labour cost indices in 2007 (Annex C), firstly for group total, and then grouped per size (group of small, medium-sized and large enterprises).

6.2.1.3 Employment and labour costs in 2007

As already defined, productivity represents gross value added per employee and is expressed in thousand dinars, and labour cost index as a ratio of **gross wages and salaries of employees** to gross value added represents an indicator showing the extent to which gross value added is burdened by **labour costs**. The analysis should always take into account the trends and development of employment.

Continuing to analyse group of all enterprises which presented their financial statements for 2007 – this time according to labour costs – it can be seen that Vojvodina was in somewhat better position than Serbia in terms of labour costs than in terms of productivity due to lower share of labour costs in **gross wages and salaries** (with labour cost index at the level of 96.4% relative to the Republic average). The Table above highlights several other facts, too. With respect to ownership structure, labour costs were more favourable in Serbia, i.e. below average labour cost index was reported only in private sector (level 89.4%), with the worst situation in the socially-owned sector (level 214.2%). Public (state-owned) sector was at the top of the list (level 89.6%) in Vojvodina followed by private sector, also above the average (level 92.1%); with socially-owned enterprises in the worst position, but not as worse as in Serbia (level 174.4%). By ownership sectors (each one separately), Vojvodina was better in terms of labour costs in all, but in mixed sector.

By including size class dimension in the analysis, the following conclusions can be made: labour cost index in the small enterprises was at level 102.7% in relation to the average of all analysed enterprises – group total (in Vojvodina at level 106.9%); in medium-sized enterprises at the level of 106.9% (in Vojvodina 111.5%); and in large ones at the level of 96.2% (in Vojvodina 91.8%). It means, on the one hand, that in terms of labour costs, large enterprises were in the advantageous position, and, on the other hand, that Vojvodina was better than Serbia only in the group of large enterprises. In the group of small enterprises, the labour cost index was above the average only in the private sector (at the level of 92.6%, in Vojvodina 91.8%). Generally speaking, labour cost index of small enterprises in Vojvodina was at the level of 100.4% in relation to Serbia, and of small private enterprises, as the most numerous ones, at the level of 99.6%. In the group of medium-sized enterprises, labour cost index was above the average in private (level 87.3%) and co-operative sectors (not significant weighted average), and the same applied to Vojvodina where private sector was at the level of 89.1%. In general, labour cost index of medium-sized enterprises in Vojvodina was at the level of 100.5% in relation to Serbia, and of medium-sized private enterprises, as the most numerous ones, at the level of 102.6%. Finally, in the group of large enterprises exhibiting the lowest, i.e. the most unfavourable level of labour cost index, private sector was above the average (level 85.3%) and public (state-owned) sector around the average (level 101.5%); while in Vojvodina the public (state-owned) (level 89.6%) and private sector (level 89.7%) were almost equal. In total, labour cost index of large enterprises in Vojvodina was at the level of 92.0% in relation to Serbia, and of large private and large public (state-owned) enterprises, as the most numerous ones, at the level of 96.9% and 81.3%, respectively.

The survey of the most productive business activities and their labour cost indices in 2007 is given in Annex C, Tables 6.2.1.17 – 6.2.1.32 – for the group of all enterprises, separately for Serbia and Vojvodina: firstly for the group total, and then by size (group of small, medium-sized and large enterprises).

The survey includes twenty most productive business activities in the whole economy (in terms of property structure), within the group of all enterprises which presented financial statements for 2007 (Tables 6.2.1.17 – 6.2.1.24).

If, within the group of all enterprises, only Manufacturing sector is taken out, below average productivity can be seen over the observation period (based on data from integrated Tables 6.2.1.1 – 6.2.1.16. given in the statistical-tabular Annex C, and sector D was, in terms of productivity, at the level of 82.0% relative to the average of the entire economy– in Vojvodina, it was at the level of 92.0%). In parallel to Tables 6.2.1.17 – 6.2.1.24, focusing on the economy as a whole, i.e. all groups, the survey of the sub-sectors of Manufacturing sector holding a top-10 position (in terms of property structure) is given in Tables 6.2.1.25 – 6.2.1.32.

6.2.2 Findings on productivity and labour costs for the group of privatised enterprises

6.2.2.1 Gross value added of formerly privatised enterprises in 2007

Privatised enterprises (during the period from 2002 to 2007), the indicators for which are based on the data from 2007 financial statements, have been identified by pairing data kept in the records of the Privatisation Agency. Out of 2,077 privatised enterprises in total recorded from 2002 until the end of 2007, 1,871 enterprises with 161.7 thousand employees and generated gross value added of 104,873.2 million dinars presented their financial statements for 2007 – 617 enterprises with 46.4 thousand employees (28.7%) and generated gross value added of 29,782.6 million dinars (28.4%) from Vojvodina – and these enterprises were included in the Study. Employees from these enterprises accounted for 14.7% of the total employees in Serbia (16.8% in Vojvodina), that is, 23.6% of employees in privately owned enterprises (in Vojvodina 25.1%). Out of the total generated gross value added, privatised enterprises participated with 9.9% (in Vojvodina 11.2%), and private enterprises with 15.3% (in Vojvodina 17.3%).

Table 6.2.3. Gross value added 200

	No. of enterprises	No. of employees			GVA at basic prices		
		Total	According to size, %	The share of Vojvodina in Serbia, %	Total, 000 dins.	According to size, %	The share of Vojvodina in Serbia, %
PRIVATISED ENTERPRISES – total	SERBIA						
TOTAL	1,871	161,731	100.0	100.0	104,873,214	100.0	100.0
PRIVATISED ENTERPRISES – total	VOJVODINA						
TOTAL	617	46,394	100.0	28.7	29,782,634	100.0	28.4
PRIVATISED ENTERPRISES – small	SERBIA						
TOTAL	1,239	24,095	14.9	100.0	9,296,700	8.9	100.0
PRIVATISED ENTERPRISES – small	VOJVODINA						
TOTAL	409	8,018	17.3	33.3	3,303,748	11.1	35.5
PRIVATISED ENTERPRISES – medium-sized	SERBIA						
TOTAL	472	57,053	35.3	100.0	27,342,941	26.1	100.0
PRIVATISED ENTERPRISES – medium-sized	VOJVODINA						
TOTAL	163	18,750	40.4	32.9	988,4026	33.2	36.1
PRIVATISED ENTERPRISES – large	SERBIA						
TOTAL	160	80,583	49.8	100.0	68,233,573	65.1	100.0
PRIVATISED ENTERPRISES – total	VOJVODINA						
TOTAL	45	19,626	42.3	24.4	16,594,860	55.7	24.3

With respect to the size class, in the group of enterprises privatised in the period from 2002 to 2007, which presented financial statements for 2007, small enterprises accounted for two-thirds of 1,239 in total (of which 409 in Vojvodina). Their share in total employment in privatised enterprises made, however, only 14.9% (in Vojvodina 17.3%), and in gross value added it made even lower, only 8.9% (in Vojvodina 11.1%). The share of medium-sized enterprises (total 472, of which 163 in Vojvodina) in total employment in privatised enterprises was 35.3% (in Vojvodina 40.4%), and in gross value added it was 26.1% (in Vojvodina 33.2%). Finally, the share of large sized enterprises (total 160, of which 45 in Vojvodina), in total employment in privatised enterprises was 49.8% (in Vojvodina 42.3%) and in gross value added it was 65.1% (in Vojvodina 55.7%).

According to the type of business activity (based on the data from the corresponding integrated Tables 6.2.2.1 – 6.2.2.16. given in the statistical-tabular Annex C), the following sectors played the dominant role in generating gross value added in the group of privatised enterprises – group total – in Serbia as a whole: D – Manufacturing (56.8%); F – Construction (17.5%); A – Agriculture, hunting, forestry and water management (7.2%); G – Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods (7.2%); I – Transportation, storage and communications (4.1%). The first five places in the sub-group of small privatised enterprise were occupied by the following sectors: D (33.4%); F (17.4%); K – Real estate, renting and business activities (13.1%); G (10.6%); A (6.4%). In the sub-group of medium-sized privatised enterprise, the ranking was as follows: D (42.9%); F (12.6%); A (12.1%); G (10.3%); I (6.0). In the large enterprise sub-group, sectors providing the largest contribution to gross value added were D (65.6%), followed by F (19.5%), G (5.5%), A (5.3%) and I (3.0%). In Vojvodina, the situation was as follows: in the group total for privatised enterprises the highest share had sector G (51.5%), followed by sectors A (23.5%), F (10.3%), G (4.7%) and J (4.4%). In the group of small enterprises the major sectors were: E (36.4%); F (19.4%); A (11.4%); K (10.8%); G (10.2%). The group of medium-sized enterprises saw the highest share of sectors D (36.0%), A (30.9%), I (9.1%), G (7.3%), and K (6.5%). In the group of large enterprises the first on the list was sector D (63.8%), followed by A (21.2%), F (11.9%), G (2.0%) and I (0.8%). Focusing on the Manufacturing sector as the most important one, the following sub-sectors were distinguished within sector (D) in Serbia: 15 – Manufacture of food products and beverages, with the share of 24.9% in gross value added in the Manufacturing sector; 26 – Manufacture of other non-metallic mineral products (19.7%); 16 – Manufacture of tobacco products (10.2%); 27 – Manufacture of basic metals (8.4%); 24 – Manufacture of chemicals and chemical products (7.8%) etc. The following data were recorded for Vojvodina: sub-sector 15 (37.2%); sub-sector 26 (32.3%); sub-sector 27 (5.8%); 28 – Manufacture of fabricated metal products, except machinery and equipment (5.1%); 25 – Manufacture of rubber and plastic products (3.6%). It appears that enterprises from the following two sub-sectors within the Manufacturing sector are predominant in Vojvodina: Manufacture of food products and beverages, and Manufacture of other non-metallic mineral products; particularly among large and medium-sized privatised enterprises.

6.2.2.2 Productivity of privatised enterprises according to size and business activity in 2007

Average productivity in Vojvodina in 2007 was around the average level reported in Serbia (99.0%), both for the group of all enterprises and the group of privatised ones (period 2002-2007). It is more important to note that productivity of privatised enterprises – as in Serbia as a whole, so in Vojvodina – was considerably lower than productivity of total enterprises (at the level of 66.9%, in Vojvodina 66.2%), or, all enterprises in private ownership (level 65.0%, in Vojvodina 69.0%). The latter is an indication of a much higher productivity in the original private sector than in its portion made up of privatised enterprises that arose during the restructuring of the **private sector** (e.g., while productivity, expressed as a gross value added per employee, in privatised enterprises was 648 thousand dinars – in Vojvodina 642 – in total private sector consisting of original private sector plus privatised enterprises it was 997 thousand dinars – in Vojvodina 930). It should be pointed out that such a level of productivity in privatised enterprises was achieved, to a greater extent, at the expense of employment.

Table 6.2.4. Productivity and labour costs 2007

	Productivity			Labour cost index		
	Total, 000 dins.	Acc. to size, %	Vojvodina and Serbia, %	Total	Acc. to size, %	Vojvodina and Serbia, %
PRIVATISED ENTERPRISES - total	SERBIA					
TOTAL	648	100.0	100.0	0.686	100.0	100.0
PRIVATISED ENTERPRISES - total	VOJVODINA					
TOTAL	642	100.0	99.0	0.691	100.0	100.8
PRIVATISED ENTERPRISES - small	SERBIA					
TOTAL	386	59.5	100.0	0.906	132.0	100.0
PRIVATISED ENTERPRISES - small	VOJVODINA					
TOTAL	412	64.2	106.8	0.881	127.4	97.3
PRIVATISED ENTERPRISES - medium-sized	SERBIA					
TOTAL	479	73.9	100.0	0.807	117.6	100.0
PRIVATISED ENTERPRISES - medium-sized	VOJVODINA					
TOTAL	527	82.1	110.0	0.754	109.1	93.5
PRIVATISED ENTERPRISES - large	SERBIA					
TOTAL	847	130.6	100.0	0.608	88.6	100.0
PRIVATISED ENTERPRISES - large	VOJVODINA					
TOTAL	846	131.7	99.9	0.616	89.1	101.4

With respect to the size class, productivity was at the highest level in large enterprises within the group of privatised enterprises (130.6% in relation to the average of all privatised enterprises, in Vojvodina 131.7%), in medium-sized enterprises productivity level was 73.9% (in Vojvodina 82.1%), and in small only 59.5% (in Vojvodina 64.2%) in relation to already low average of all privatised enterprises.

According to the type of business activity (based on data from integrated Tables 6.2.1.1 – 6.2.1.16. given in the statistical-tabular Annex C), the following sectors played the dominant role in terms of productivity in the group of privatised enterprises – group total – in Serbia: C – Mining and quarrying (level 156.8% in relation to the average of entire group); F – Construction (level 140.2%); D – Manufacturing (level 101.0%); and below average G – Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods (level 87.4%), A – Agriculture, hunting, forestry and water management (level 85.5%) etc. The first five places in the sub-group of small privatised enterprise were occupied by the following sectors: K – Real estate, renting and business activities (level 172.3% in relation to the average of sub-group); E - Electricity, gas and water supply (level 138.7%); N – Health and social work (level 124.7%); I – Transportation, storage and communications (level 121.8%); sector A (level 118.3%). In the sub-group of medium-sized privatised enterprises, the ranking was as follows: C (level 314.5%); F (level 157.8%); A (level 110.5%); G (level 104.5%); I (level 100.1%). In the large enterprise sub-group, the above average productivity was recorded only in sector F (level 138.3%); sector D had level 99.8%; and below average productivity in sectors G (90.2%), C (84.2%), A (71.0%) etc. In Vojvodina, the situation was as follows: in the group total for privatised enterprises the highest productivity level was in sector C (211.9%), followed by sectors F (126.2%), and D (106.2%), and below average productivity in sectors A (level 94.0%), N (level 93.0%) etc. In the group of small enterprises the major sectors were: I (level 149.5%); N (level 144.8%); K (137.6%); F (120.5%); A (116.6%). The group of medium-sized enterprises saw the highest

productivity in sector C (level 310.4%), followed by sectors F (135.2%), I (131.1%), A (114.5%) and H (106.7%). In the group of large enterprises the highest productivity was recorded in sector G (level 197.1%), followed by sectors F (125.4 %), D (110.2%), and below average in sectors A (73.4%) and I (33.7%). Focusing on Manufacturing sector again, as the most important one, the following sub-sectors were distinguished within sector (D) in Serbia: 16 –Manufacture of tobacco products, with the productivity level of 735.0% in relation to the average productivity level in the Manufacturing sector; 23 – Manufacture of coke, refined petroleum products and nuclear fuel (level 225.9%); 26 –Manufacture of chemicals and chemical products (level 185.5%); 15 –Manufacture of food products and beverages (level 133.9%); 24 – Manufacture of chemicals and chemical products (level 121.1%) etc. The following data were recorded for Vojvodina: sub-sector 26 (level 315.8%); sub-sector 15 (level 151.1%); sub-sector 37 – Recycling (level 143.4%); sub-sector 22 – Publishing, printing and reproduction of recorded media (level 79.4%); sub-sector 21 – Manufacture of pulp, paper, and paper products (level 72.2%).

Productivity data of privatised enterprises by size class and type of business activity will be discussed in more detail in the following chapter, together with the data without which our analysis would be incomplete – i.e. data on employment and labour costs in small, medium-sized, and large privatised enterprises engaged in highly productive economic activities.

6.2.2.3 Employment and labour costs in previously privatised enterprises in 2007

As it has been already concluded with respect to productivity of privatised enterprises, the similar conclusions can be made with regards to the labour cost index for this group, namely, that the labour cost index in Vojvodina was around the average reported for Serbia as a whole (100.8%). And, again, as in the case of productivity – both for Serbia and Vojvodina – labour cost index of privatised enterprises was more unfavourable (higher) in relation to labour cost index of all enterprises in total (at the level of 132.7%, in Vojvodina 138.8%), or all privately owned enterprises (level 148.5%, in Vojvodina 150.5%). The latter is an indication of the more favourable position of original private sector in terms of labour costs in relation to its portion made up of privatised enterprises (e.g., while labour cost index expressed as gross wages and salaries of employees to gross value added ratio made 0.686 in privatised enterprises – in Vojvodina 0.691 – it made 0.462 – in Vojvodina 0.459 – in total private sector consisting of original private sector plus privatised enterprises, meaning that the share of the burden of labour costs in gross value added was less than 50%.

With respect to size, labour cost index was at the lowest level in large enterprises (88.6% in relation to the average of all privatised enterprises, in Vojvodina 89.1%), in medium-sized enterprises at the level of 117.6% (in Vojvodina 109.1%), and in small ones at even 132.0% (in Vojvodina 127.4%) in relation to already high average level within the group of privatised enterprises. It means, on the one hand, that the most favourable situation within the group of all privatised enterprises in terms of labour costs was generally in large enterprises, and, on the other hand, that in Vojvodina medium-sized and small enterprises, not the large ones, were in advantageous position in terms of labour costs in relation to Serbia.

The survey of the most productive industries and their labour costs indices in 2007 for the group of privatised enterprises is given in the Annex C in Tables 6.2.2.17 – 6.2.2.32 – separately for Serbia, and for Vojvodina: first for group total, and then grouped per size (group of small, medium-sized and large enterprises).

The survey starts from the most productive industries in the economy holding a top-20 position within the group of privatised enterprises that presented their financial statements for 2007 (Tables 6.2.2.17 – 6.2.2.24).

If we focus on the group of privatised enterprises engaged in Manufacturing sector activities, it is clear that they were much better ranked than the group of all enterprises (based on data from integrated Tables 6.2.2.1 – 6.2.2.16. given in the statistical-tabular Annex C, privatised enterprises from sector G were at the level of 101.1% in terms of productivity in relation to the average of all privatised enterprises – in Vojvodina at the level of 106.2%). In parallel to Tables 6.2.1.17 – 6.2.1.24 focusing on the economy as a whole, i.e. all groups, Tables 6.2.1.25 – 6.2.1.32 present the survey of sub-sectors of Manufacturing sector holding a top-10 position.

6.3 Profitability and capital accumulation

6.3.1 Analysis of profitability and capital-investment accumulation potential for all enterprises in Serbia according to ownership structure and size for the period from 2002 to 2007 and for all enterprises in Serbia according to business activity in 2007

The development of indicators of profitability and capital accumulation per years is given in Tables 6.3.1.1-6.3.1.4 for all groups of enterprises in Serbia according to ownership structure and size. When analysing the summarised results for all enterprises per years, it can be seen that the economy started with negative rates of net financial income and operating income, but the evolution of these two most important profitability indicators was somewhat different. While the economy with the total rate of operating income entered into the positive zone in 2004 already, and this growing trend continued in the following years, the rate of net financial income entered the positive zone only in 2006, and remained in it throughout 2007, regardless of a slight decline.

From the macroeconomic viewpoint, the total operating financial growth was the result of strong economic activity, relative macroeconomic stability and privatisation process as well as faster growth of efficiency and productivity in large and some of medium-sized privatised enterprises, but with a rising inefficiency of the remaining non-privatised socially-owned and some mixed enterprises and chronic inefficiency and financial losses in the public (state-owned) sector, i.e. in the entire public sector of economy.

Economic activity was growing at an exceptionally fast pace from the second half of 2005, when – after curbing public sector salaries in 2004 (by the middle of 2004 following stabilisation of the Government and the agreement with the International Monetary Fund regarding the extension of STAND BY arrangement) – thus re-orienting the major driving force of the rising demand from the salaries onto credits, that is, commercial loans from abroad through newly developed financial sector in which, due to accelerated privatisation and arrival of foreign banks, a financial platform for faster growth of financial mediation was established, and when the National Bank attempting to slow down economic activity in order to mitigate effects of inflation and reduce external imbalance, imposed a prudent regime of restrictions on the financial sector in August 2004 with respect to new loans, but the lending and borrowing trend continued at more or less the same pace as the banks directed their clients-enterprises to direct borrowing from their mother banks (cross-border credit transfers).

In that way, the growth of economic activity remained unchanged – but, at the same time, the growth of external imbalance remained unchanged, too. That gave a push to the domestic industry, to some extent, but boosted export at the same time, giving rise to the export of consumer goods rather than of capital goods due to low receptiveness to foreign investment.

Re-industrialisation did not get into full swing, but during the accelerated growth of economic activity, i.e. demand, profitability saw a rapid increase particularly in the wholesale trade and retail trade, transport, telecommunication, and real estate activities.

When, as the result of global financial crisis, foreign banks stopped lending in 2008, the economic activity started to decline, and the lack of liquidity became the main issue of concern in foreign debt repayment. During the period under consideration, socially-owned sector was drastically reduced – from 3,885 enterprises with 473,284 employees in 2002 to 2,751 enterprises with 93,466 employees in 2007. Profitability of the remaining non-transformed socially-owned enterprises deteriorated from year to year, with the first signs of recovery in 2007, but a vast majority of socially-owned enterprises was slipping deeper into negative zone in terms of profitability.

It is clear that the remaining socially-owned enterprises have no prerequisites for positive operating performance, and a number of them have survived by receiving various forms of subsidies. These enterprises have been devastated to such an extent, that they could never find themselves in the positive financial zone even under ideal conditions. Reasons for their devastation – in addition to inherited labour cost burden due to over-employment and under investment and loss of market – lay in the managerial entrenchment “tunnelling”, that is, asset stripping during the privatisation processes. Problems of this kind and not efficient enough privatisation processes are partly the result of the status of socially-owned property, which is not adequately protected by the state, as in the case of public (state-owned) property, too.

Regarding the public (state-owned) enterprises, profitability-related issues were notable particularly in 2007, when net financial income rate deteriorated dramatically (-11.1%), falling at a pace much faster than that of operating income.

This was particularly true for large public enterprises, mostly electricity distribution enterprises, which reported an abrupt, increase of losses due to the so-called other expenses, including losses due to the sale of intangible assets, property, plant and equipment and expenses and losses due to impairment of assets. Electricity distribution sector made major allocations in 2007 in non-core activities not directly related to its core competences, namely, electricity production and distribution. This resulted with the increase of different other expenses and elevated losses in the core activity in 2007.

The final result of that transition stage in the system as important as electricity is evident from financial statements for

2008 (see Tables 6.3.1.9 to 6.3.1.24). The rate of operating income, though slightly improved in 2008, was still negative (-6.7% vs. -7.6% in 2007), whereas the rate of net financial income was considerably improved, but still significantly negative (-52.5% in 2007 vs. -11.8% in 2008). This led to the approximation of operating income and net financial income rates for the economy in Central Serbia and Belgrade in 2008. It should be noted that the problems prevailing in the Electricity, gas, and water supply sector are very complex with regards to the investment requirements, non-corporatised ownership structure, organisation-management structure, tariff disparities, and others.

Over the entire period under consideration, only private sector reported significant and positive investment potential (ratio of the operating income to gross value added), recording even upward trend up to 2007. All other forms of ownership, including public (state-owned) property, had either negative or slightly positive investment potential.

An overview of indicators of profitability and capital accumulation according to sectors and activities, ownership structure and size of all enterprises in 2007 is given in Tables 6.3.1.5-6.3.1.8. The results are interesting, allowing comparative viewing of sectors of business activity, ownership structure and size class.

It is not surprising that the rate of net financial income is slightly positive for all enterprises, since small and medium-sized enterprises are mainly privately owned. However, that rate is negative in case of large enterprises, positive in case of medium-sized (2.7%) and even more positive in case of small ones (4%).

On analysing profitability and investment potential trends in the groups of privatised enterprises (Tables 6.3.2.1.–6.3.2.4.) it is clear that contribution of “new emerging” small and medium-sized privatised enterprises to total economic performance in 2007 was not as significant as the contribution of the previously privatised SMEs which managed to survive up to 2007. This is also manifested by the total number of small and medium-sized enterprises in 2007 (about 83,000) in relation to the number of small and medium-sized enterprises privatised by 2007 (about 1,711 operating in 2007). Thus, the net financial income rate for all private enterprises (around 75,070 which presented financial statements) in 2007 amounted to 4.7%, while for all small privatised enterprises (1,239) that rate was negative and made -7.5%. The group of all medium-sized private enterprises (3,070) had a positive rate of net financial income in 2007 of about 2.7% whereas the group of “new emerging” medium-sized privatised enterprises (472) had negative rate of net financial income -1.9% in the same year.

The difference in profitability and investment potential by sectors of activity in 2007 between private small and medium-sized and “new emerging” privatised enterprises in 2007, may be attributed to different development trends between previously privatised small and medium-sized enterprises and the “new emerging” privatised small and medium-sized enterprises.

The following sectors and activities reported significantly positive profitability and capital accumulation in 2007:

- 1) Sector “Agriculture, hunting, forestry and water management”, but only in privately owned large enterprises (total 19 enterprises with 4,222 employees);
- 2) Sector “Mining and quarrying” in private ownership, total 230 enterprises with 3,170 employees, while socially-owned enterprises in this sector with somewhat larger number of employees were deep in the negative zone;
- 3) In the “Manufacturing” sector only privately owned enterprises showed a significant profitability growth in all categories, with the exception of sub-sectors Manufacture of petroleum derivatives, Manufacture of chemicals and chemical products (including pharmaceuticals) and Manufacture of rubber and plastic products, where significant decline in profitability level was recorded in the group of public (state-owned) enterprises;
- 4) Sector “Electricity, gas and water supply”, again in private ownership with a small number of employees (619 in relation to 46,987 in mainly public (state-owned) enterprises operating in the sector);
- 5) Sector “Construction” predominantly in private ownership with 4,899 mainly small-sized enterprises and accounting for 62,329 of total 86,917 employees (the total of 52 large private enterprises with 18,253 employees);
- 6) Sector “Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods” predominantly in private ownership, and only few large state-owned enterprises;
- 7) Sector “Transportation, storage and communications” predominantly in private and mixed ownership – “TELEKOM” mixed public-private property; sector “Financial intermediation”, i.e. banking, private and state ownership;
- 8) Sector “Real estate, renting, and business activities”, predominantly in private ownership;
- 9) Sector “Education” in private ownership;
- 10) Sector “Health and social work” in private ownership.

The above-mentioned data are general data for the entire Serbia and not subject to review for the territory of Vojvodina, or Belgrade and Central Serbia.

6.3.2 Comparative analysis of profitability and investment potential for all enterprises according to territory (Vojvodina, Belgrade, Central Serbia), ownership structure, size and business activity in 2007

Comparative analysis of indicators of profitability and capital accumulation according to territories in 2007, reveals that there are some general and specific differences between the groups of enterprises. Generally speaking, Belgrade and Vojvodina had more successful economic performances than Central Serbia in terms of final results, i.e. profitability indicators. Hence, the total rate of net financial income in Vojvodina was 2.1%, in Belgrade it was somewhat higher, i.e. about 2.3% while in Central Serbia it was negative, about -9%. In the same period, the rate of operating income in Vojvodina made 3.3%, in Belgrade 3.9% and in Central Serbia it was negative, i.e. -0.5% (Tables 6.3.2.5. – 6.3.2.20.). Larger discrepancies between these two rates were in Belgrade and, in particular, in Central Serbia than in Vojvodina, as the result of abrupt increase of extraordinary expenses in the sector of “Electricity, gas, and water supply”, as already mentioned above. This concerns legal entities in the electricity sector with production capacities, such as water power plants, thermal power plants and mines and district heating plants, like in Belgrade, which reported significant rise in extraordinary expenses in 2007.

What applied for the economy as a whole, however, was not relevant for the groups by size and type of activity. Resultantly, the group of small enterprises was most profitable in Belgrade, then in Vojvodina and at the end in Central Serbia. The rate of net financial income for small enterprises in Vojvodina amounted to 3.3% and of operating income to 3.7%, in Belgrade 5.5% and 5.6%, and in Central Serbia 2.3% and 3.5%, respectively. It is evident that Central Serbia was lagging behind due to poorer financial performance, while Belgrade excelled in major economic activities, e.g. Manufacturing sector, Wholesale and retail trade and Construction. Upon comparing the groups of small enterprises in terms of type of activity in Vojvodina and in Belgrade, it is evident that Manufacturing sector was more profitable in Belgrade because net financial income rate for small enterprises was 5.4% in Belgrade, and 2.9% in Vojvodina. For Wholesale and retail trade, the rate was 4.8% in Belgrade and 3.0% in Vojvodina. Yet another significant difference is found in the Construction sector, where the net financial results rate being 7.8% in Belgrade, and 6.3% in Vojvodina. Belgrade also reported somewhat higher rate of net financial income in Real estate, renting, and business activities. There was a distinctive difference in Education sector, namely, while net financial income rate for 274 educational entities (mostly privately owned) in Belgrade was 9.3%, it was negative (-3%) in Vojvodina for 256 educational entities. Such a difference cannot be easily explained, since, for instance, the state of business conditions in the given sector was more or less the same in Belgrade and in Novi Sad. Similar profitability-related results may be obtained when comparing medium-sized enterprises in Vojvodina and Belgrade. Hence, the rate of net financial income for medium-sized enterprises in Belgrade was 4.6%, in Vojvodina 2.4% and in Central Serbia about zero.

Three sectors of activity are the most important with respect to the number of employees and number of enterprises: manufacturing, trade and construction industry, with the exception of Vojvodina with a relatively high number of employees in medium-sized enterprises in the sector Agriculture, hunting, forestry, and water management (171 enterprises with about 13,651 employees). Profitability rate of the medium-sized enterprises from the Manufacturing sector was 6% in Belgrade, 0.1% in Vojvodina and 0.0% in Central Serbia. Profitability rate of medium-sized enterprises from the trade sector in Belgrade, Vojvodina, and Central Serbia was 4.8%, 3.6% and 1.8%, respectively. In the Construction sector, this rate was 8.5% in Belgrade and 5.2% in Vojvodina and Central Serbia. Medium-sized enterprises from the sector of Agriculture, hunting, forestry and water management in Vojvodina reported significant profitability rate (2.3%), while the share of this sector in the Belgrade City economy is insignificant, and in Central Serbia, despite of its rather high share, negative profitability rate (-2%) was reported.

In the groups of large enterprise, profitability largely differed according to business activity regardless of the territory. Thus, all regions exhibited negative profitability in the following sectors of activity 1) Electricity, gas and water supply and 2) Mining and quarrying, with the exception of Vojvodina where the activity of “Extraction of crude petroleum and natural gas” exhibited positive profitability rate (3%). General rate of net financial income for Mining and quarrying was -1.3% in Serbia, -23% in Central Serbia and -33% in Belgrade. Vojvodina contributed to the general rate increase by 3% in “Extraction of crude petroleum and natural gas”. Specific situation was found in the sector of “Electricity, gas and water supply” with the general rate for large enterprises with the highest employment in this sector (32,518) of about -30%; in Central Serbia of even -59.7%; in Belgrade -21.1% and in Vojvodina -13.8%. It should be noted that electricity had positive operating results in 2006, while in 2007 it suddenly slipped into negative zone as the result of transformation process in 2006.

General rate for the group of large enterprises was 1.3% in Vojvodina, about 0% in Belgrade and -9% in Central Serbia. Vojvodina is somewhat better primarily due to the contribution of sub-sectors of “Extraction of crude petroleum and natural gas” and “Electricity, gas, steam and hot water supply” while in manufacturing, construction, trade, and transportation Belgrade occupied the foremost place. Accordingly, in industry that rate was 5.4% for Belgrade, 0% for Vojvodina 0% and -0.7% for Central Serbia. In the Construction sector, Central Serbia ranked at the first place (7.8%) Belgrade had the highest volume of activity, but both Belgrade and Vojvodina had the rate of net financial income just above zero: Belgrade 0.6% and Vojvodina 0%. In the sector of trade, Vojvodina was top ranked in the group of large enterprises with 5.3%, while Belgrade and Central Serbia had about 2%. Yet another distinguishing feature of Vojvodina reflected in the significant share of large enterprises in

the sector of "Agriculture, hunting, forestry and water management" and high profitability at the level of net financial income of 5.8%. Belgrade occupied the second place with 2%, while the share of large enterprises in the above-mentioned sector in Central Serbia was insignificant (only one enterprise with 407 employees).

General level of capital accumulation, that is, investment potential (ratio of the operating income to gross value added) was 18.8%, in Belgrade it was 18.3%, in Central Serbia 5.8%. That huge difference between Belgrade and Vojvodina, on the one side, and Central Serbia, on the other side, was due to different position and structure in the sectors of "Extraction of crude petroleum and natural gas", "Mining and quarrying" and "Electricity supply". Capital accumulation in the sector of "Mining and quarrying" is substantially high (24.3%) thanks to "Extraction of crude petroleum and natural gas", and while coal mining and metal ore mining industries are almost extinct in Vojvodina, profitability of this sector in Central Serbia slipped deep into a negative zone (-19.8%) due to negative rates of operating income. There is also a considerable difference with regard to profitability and investment potential in the sector of "Electricity, gas, and water supply" since in the Central Serbia this sector slipped deeper into a negative zone as the result of transformation process and the adjustments of capital losses. There were also substantial differences in the most important sector, i.e. Manufacturing sector, with Belgrade on the top of the list with the level of about 25.1%, followed by Vojvodina with the level of 15.5% and Central Serbia with much lower level of about 4.4%.

The sectors with considerable positive investment potential in Vojvodina are as follows:

- 1) Agriculture, hunting, forestry and water management (7.6%);
- 2) Manufacturing (154.5%);
- 3) Construction (23.9%);
- 4) Wholesale and retail trade (35.4%);
- 5) Transportation, storage and communications (18%);
- 6) Real estate, renting, and business activities (31.8%).

Within the Manufacturing sector, the sub-sectors of importance are: Manufacture of food products and beverages (24%), Manufacture of wood and wood products (11.2%), Manufacture of other non-metallic mineral products (29.7%), Manufacture of machinery and equipment (9.5%), Manufacture of metal products, except machinery and equipment (19.9%).

6.4 Competitiveness of small and medium-sized companies in the AP Vojvodina

6.4.1 Introduction

The competitiveness of the economy, and within its framework of small and medium-sized enterprises, can be analysed based on several key indicators of financial structure and profitability of enterprises. These indicators are:

- ▶ Amount of net operating capital,
- ▶ Difference between their own and total sources of funds,
- ▶ Rate of return on total capital, and
- ▶ Rate of return on their own capital.

Net operating capital represents the difference between the operating assets of an enterprise and short-term liabilities. The existence of net operating capital indicates the ability of an enterprise to use some of its long-term resources used to finance operating capital and in this sense is a good indicator of financial structure of enterprises. Net operating capital is calculated according to the formula:

Net operating capital = Operating assets (AOP 012 from the balance sheet) – **Short-term liabilities** (AOP 116 from the balance sheet).

Another indicator of financial structure is the amount of debt that can be expressed as the difference between own and total capital of an enterprise. As this difference in absolute terms is higher, the higher is the portion of capital that the enterprise finances from long-term and short-term loans, namely external sources, i.e. the higher amount of debt of an enterprise. This indicator can be calculated according to the following formula:

The difference between own and total assets = Capital (AOP 101 of the balance sheet) - Total assets (excluding off-balance assets) or total liabilities (excluding off-balance liabilities) (AOP 024 or 122 from the balance sheet)

The return rate on total and return rate on own capital are commonly used as global indicators of profitability. To determine these rates we use the data from the balance sheet and profit and loss statement, according to the following formulas:

Return rate on total capital = Net profit / Total capital
Net profit (AOP 229 from the profit and loss statement)
Total assets (AOP 024 or 122 from the balance sheet)
Return rate on own capital = Net profit / Own capital
Own capital = Equity (AOP 101 from the balance sheet).

6.4.2 Financial structure

Table 6.4.1 summarised the basic indicators of economic performance of enterprises in Serbia, Vojvodina, Belgrade, and Central Serbia without Belgrade.

Table 6.4.1. Indicators of financial structure of enterprises in 2007 in Serbia, Vojvodina, Belgrade, and Central Serbia – Total and according to the size of enterprises amounts in thousand dinars

	Net operating capital	Net operating capital per enterprise	Difference between own and total capital	Difference between own and total capital per enterprise	Return rate on total capital	Return rate on own capital	Stopa prinosa na sopstvena sredstva
SERBIA	All enterprises	57,531,753	684	-3,896,870,025	-46,331	0.80%	1.60%
	Small enterprises	28,374,260	354	-944,063,901	-11,767	5.30%	15.50%
	Medium-sized enterprises	39,308,256	12,804	-958,703,649	-312,281	2.20%	5.00%
	Large enterprises	-10,150,763	-12,532	-1,994,102,475	-2,461,855	-1.00%	-1.70%
VOJVODINA	All enterprises	47,325,021	2,151	-937,099,463	-42,593	2.00%	4.40%
	Small enterprises	-1,730,385	-83	-257,419,957	-12,328	4.40%	13.40%
	Medium-sized enterprises	4,679,380	5,182	-229,046,930	-253,651	1.90%	3.70%
	Large enterprises	44,376,026	204,498	-450,632,576	-2,076,648	1.30%	2.60%
BELGRADE	All enterprises	7,768,160	226	-1,990,436,455	-58,012	1.70%	3.20%
	Small enterprises	26,768,406	816	-411,683,550	-12,544	7.50%	21.80%
	Medium-sized enterprises	52,602,152	45,981	-507,800,294	-443,881	4.00%	10.30%
	Large enterprises	-71,602,398	-205,754	-1,070,952,611	-3,077,450	-0.10%	-0.20%
CENTRAL SERBIA without Belgrade	All enterprises	2,438,572	88	-969,334,107	-34,872	-2.40%	-5.20%
	Small enterprises	3,336,239	126	-274,960,394	-10,365	3.00%	8.60%
	Medium-sized enterprises	-17,973,276	-17,569	-221,856,425	-216,868	-0.40%	-0.80%
	Large enterprises	17,075,609	69,696	-472,517,288	-1,928,642	-5.50%	-10.70%

Source: Calculated based on the results from balance sheets for 2007, Statistical Office of the Republic of Serbia

The data from Table 6.4.1. show that in 2007 the economy of Serbia as a whole disposed with net operating capital, which means that part of funds from long-term sources (own sources and long-term loans), after covering immobilisations (land, buildings, equipment, long-term investments, cash reserves, etc.) could be used to finance operating capital. At the same time, the highest net operating capital fund belonged to enterprises from Vojvodina - 82.26% of all net operating fund of economy of Serbia. If this data is compared with the share of enterprises in Vojvodina in the total number of enterprises in Serbia (26.16%), namely if we compare the amount of net operating capital per enterprise in Serbia (684.01 thousand) with the amount of net operating capital per enterprise in Vojvodina (2,151.04 thousand) it can be concluded that in 2007 the enterprises in Vojvodina had, on the average, 3.1 times the amount of net operating capital than enterprise in the economy of Serbia. Comparing the amount of net operating capital per enterprise from Vojvodina with net operating capital per enterprise from Belgrade and Central Serbia without Belgrade, it can be concluded that the amount of operating capital per enterprise in Vojvodina is 9.5, namely 24.5 times higher than the level of net operating capital per enterprise in Belgrade and Central Serbia, respectively. Therefore, **according to the amount of net operating capital, financial structure of enterprises in Vojvodina is much more favourable compared to financial structure of enterprises in Serbia, namely Belgrade, and in Central Serbia without Belgrade.**

More favourable financial structure of enterprises in Vojvodina, considering the amount of net operating capital is, however, the consequence of a higher amount of net operating capital available to large enterprises, while the amount of net operating capital of small and medium-sized enterprises in Vojvodina is below the average of Serbia. Thus, in 2007, large enterprises from Serbia, as well as large enterprises in Belgrade, had a negative net operating fund, while large enterprises from Vojvodina and large enterprises in Central Serbia without Belgrade disposed with net operating capital amounting to 44.3 billion dinars, namely 17 billion RSD, respectively. Opposite to that, small enterprises from Vojvodina had been missing net operating capital in the amount of 1.7 billion dinars, and medium-sized enterprises from Vojvodina disposed on the average with almost 2.5 times smaller amount of net operating capital than enterprises in Serbia (5,182 thousand dinars per enterprise, compared with 12,804 thousand per enterprise). As a whole, small and medium-sized enterprises in Vojvodina had less than 2.5 times the amount of net operating capital small and medium-sized enterprises of Serbia.

Financial structure of enterprises, according to the criterion of the amount of net operating capital, according to sectors or branches of industry is shown in Table 6.4.2. Table 6.4.2. shows data for three sectors or branches with the highest amount of net operating capital for all enterprises, as well as for enterprises by size, in particular for Serbia and Vojvodina. In each of these sectors or branches, in addition to data on the amount of net operating capital for the sector or branch, the Table also presents the highest amount of net operating capital available to enterprises in certain form of property.

Table 6.4.2. Overview of sectors or branches with the highest net operating capital amount in Serbia and in Vojvodina in 2007 – Total and according to the size of enterprises amounts in thousand dinars

SERBIA		VOJVODINA	
SECTOR or BRANCH (Total and form of property)	AMOUNT OF NET OPERATING CAPITAL	SECTOR or BRANCH (Total and form of property)	AMOUNT OF NET OPERATING CAPITAL
ALL ENTERPRISES		ALL ENTERPRISES	
51. Wholesale trade and commission trade, except of motor vehicles and motorcycles		15. Manufacture of food products and beverages	
Total	58,032,340	Total	27,458,574
Private property	35,717,059	Private property	23,066,288
K. Real estate, renting and business activities		D. Manufacturing sector	
Total	57,643,594	Total	15,909,433
Private property	62,067,512	Private property	38,672,749
D. Manufacturing sector		51. Wholesale trade and commission trade, except of motor vehicles and motorcycles	
Total	51,410,222	Total	11,879,251
Private property	133,865,272	Private property	12,217,608
SMALL ENTERPRISES		SMALL ENTERPRISES	
G. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods		G. Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	
Total	40,663,709	Total	7,109,585
Private property	46,801,014	Private property	7,959,049
51. Wholesale trade and commission trade, except of motor vehicles and motorcycles		51. Wholesale trade and commission trade, except of motor vehicles and motorcycles	
Total	35,623,926	Total	5,248,872
Private property	37,299,316	Private property	5,888,640
74. Other business activities		50. Sale, maintenance and repair of motor vehicles, and motorcycles, retail of automotive fuels	
Total	8,553,623	Total	1,515,735
Private property	9,940,870	Private property	1,395,317
MEDIUM-SIZED ENTERPRISES		MEDIUM-SIZED ENTERPRISES	
K. Real estate, renting and business activities		K. Real estate, renting and business activities	
Total	50,723,830	Total	4,745,415
Private property	49,099,762	Private property	4,778,950
70. Real estate activities		51. Wholesale trade and commission trade, except of motor vehicles and motorcycles	
Total	36,200,305	Total	4,741,047
Private property	33,575,064	Private property	4,630,431
74. Other business activities		A. Agriculture, hunting and water management	
Total	13,599,444	Total	3,512,212
Private property	15,242,237	Private property	2,828,858
LARGE ENTERPRISES		LARGE ENTERPRISES	
D. Manufacturing sector		15. Manufacture of food products and beverages	
Total	76,367,701	Total	32,020,055
Private property	102,619,669	Private property	26,266,300
15. Manufacture of food products and beverages		D. Manufacturing sector	
Total	46,770,918	Total	25,925,453
Private property	42,328,673	Private property	41,180,272
24. Manufacture of chemicals and chemical products		40. Electricity, gas, steam and hot water supply	
Total	15,125,811	Total	8,413,152
Private property	20,900,890	Public property (state-owned)	8,806,684

Source: Calculated based on the results from balance sheets for 2007, Statistical Office of the Republic of Serbia

Based on the data from Table 6.4.2. it can be concluded that the sectors of Wholesale trade and intermediation in trade, except for motor vehicles and motorcycles disposed with the largest amount of net operating capital in the set of all the enterprises in 2007 (the first place in Serbia and the third place in Vojvodina,), Manufacture of food and beverages (the first place in Vojvodina), Manufacturing sector (the third place in Serbia in, and the second place in Vojvodina) and Real estate, renting and business activities (he second place in Vojvodina).

In the sub-group of small enterprises, the sector of Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods has the largest amount of net operating capital in Serbia and in Vojvodina, while the sector of Wholesale trade and intermediation in trade, other than trade with motor vehicles and motorcycles is at the second place according to the amount of net operating capital. The third place in Serbia belongs to Other business activities, and in Vojvodina to Sale, maintenance and repair of motor vehicles and motorcycles; retail of automotive fuels. Based on the above, we can conclude that the largest amount of net operating capital in the sub-group of small enterprises in Serbia and in Vojvodina belongs mainly to trading activities.

According to the amount of net operating capital in the sub-group of medium-sized enterprises, the first place belongs to the sector of Real estate, renting and business activities, both in Serbia and in Vojvodina, while elsewhere in Serbia, the sector of Real estate, renting and business activities is at the second place and in Vojvodina it is the sector of Wholesale trade and intermediation in trade, except for trade with motor vehicles and motorcycles. Other business activities in Serbia, i.e. the sector of Agriculture, hunting, forestry, and water management in Vojvodina are at the third place in the sub-group of medium-sized enterprises according to the amount of net operating capital.

Manufacturing sector and within it that sector the Manufacture of food and beverages take the first, and second place according to the amount of net operating capital in Serbia, and the second and first place in Vojvodina, respectively. The third place according to this criterion in Serbia belongs to the sector of Manufacture of chemicals and chemical products, and in Vojvodina to the sector of Electricity, gas, steam, and hot water supply.

As it can be seen from the data in Table 6.4.2. the best financial structure according to the amount of net operating capital in all these sectors and branches can be found in privately owned enterprises and in more than a half the cases, these enterprises dispose with a larger amount of net operating capital compared to sectors or branches they belong to. The only exception is the sector of Electricity, gas, steam, and hot water supply in which only socially and state owned enterprises operate and in which the state-owned enterprises have a higher amount of net operating capital compared to the branch as a whole.

The fact that privately owned enterprises dispose with a higher amount of net operating capital compared to the amount of net operating capital that sectors, i.e. branches they operate within dispose with, means that in those sector or branches the enterprises in other forms of ownership have a negative net operating capital fund, and that they have to finance a part of their immobilisation from short-term resources. When we add to this the fact that almost half of the sectors or branches of the economy of Serbia and Vojvodina have a negative net operating capital fund we acquire a more complete picture of the extent up to which the financial structure of enterprises in Serbia and Vojvodina is disturbed.

Another important indicator of the financial structure of enterprises is the amount of debt that can be expressed as the difference between own and total assets of an enterprise, or as the difference between the amount of capital of an enterprise and the total liabilities or total assets of an enterprise (excluding off-balance assets or liabilities). Higher amount of difference in absolute terms between own and total assets indicates that most of the enterprise's capital is financed from credit/loan sources (long-term and short-term), namely that the amount of indebtedness of an enterprise is higher. Based on the data from Table 6.4.1. it can be concluded that the amount of indebtedness of the economy of Vojvodina is lower than the indebtedness of economy of Belgrade and Central Serbia without Belgrade, so that credit sources of financing of enterprises from Vojvodina participate in the total borrowing of economy of Serbia with 24.05% and economy of Belgrade and Central Serbia without Belgrade with 51.08% and 24.87%, respectively. Comparing the share of credit sources of enterprises from Vojvodina in loans of the total economy of Serbia with the share of enterprises from Vojvodina in the total number of enterprises in Serbia (26.16%) it can be concluded that the amount of indebtedness per enterprise is slightly lower in Vojvodina than the average for the economy as a whole. More specifically, the average indebtedness per enterprise in Vojvodina is 42,593 thousand dinars, while the indebtedness per enterprise in Serbia makes 46,331 thousand dinars. The indebtedness of enterprises from Vojvodina is lower in relation to enterprises in Belgrade (58,012 thousand) and is only higher than the indebtedness of enterprises in Central Serbia without Belgrade (34,872 thousand dinars per enterprise).

When we compare the amount of debt of enterprises in Vojvodina and in Serbia, on the one hand, with the amount of net operating capital per enterprise in Vojvodina and in Serbia, on the other hand, we can conclude that enterprises in Vojvodina have a better structure of credit sources. Namely, a significantly higher amount of net operating capital per enterprise in Vojvodina in relation to these funds per enterprise in Serbia, on the one hand, and a lower amount of debt per enterprise in Vojvodina in relation to enterprises in Serbia, on the other hand, which indicates to a higher share of own capital and long-term loans in the structure of financing of Vojvodina enterprises and less short-term loans of these enterprises. Analysing by the size of enterprises, the same conclusion can be derived for a sub-group of large enterprises. Opposite to that, the amount of indebtedness of small enterprises in Vojvodina is higher than of small enterprises in Serbia, which along with the fact that small enterprises in Vojvodina have negative net operating capital fund indicates to a high share of short-term loans in

financing of these enterprises. A similar conclusion applies to medium-sized enterprises. Namely, medium-sized enterprises from Vojvodina are somewhat more indebted than medium-sized enterprises from Serbia and they dispose on the average with almost 2.5 times smaller amount of net operating capital compared to medium-sized enterprises in Serbia, suggesting lower share of their own and long-term sources in the structure of their financing and higher share of short-term loans in financing of these enterprises. As a whole, the sector of small and medium-sized enterprises in Vojvodina is about 18% less indebted than the sector of small and medium-sized enterprises in Serbia. However, since small and medium-sized enterprises in Vojvodina have 2.5 times smaller amount of net operating capital, short-term loans have a higher share in the structure of borrowed sources of these enterprises compared to their share in the structure of borrowed sources of financing of enterprises from Serbia. And if it is common that, due to the risk aversion of banks, short-term loans dominate in lending to SMEs, an increased share of short-term loans in financing of small and medium-sized enterprises in Vojvodina in relation to Serbia points to the need for economic policy measures to encourage long-term loans to this sector, either through affecting the credit risk reduction in this sector (e.g. by issuing guarantees to small and medium-sized enterprises) or through allocating a part of the funds earmarked for the development funds into the sector of small and medium-sized enterprises.

The amount of debt per sectors or branches is presented in Table 6.4.3. Table 6.4.3. presents data for three sectors or branches with the highest amount of indebtedness per enterprise for all enterprises, as well as for enterprises in size, in particular for Serbia and Vojvodina. In each of these sectors or branches in addition to data on the amount of indebtedness of the sector or branch there are also the highest amounts of indebtedness of enterprises in certain form of property.

Table 6.4.3. Overview of sectors of branches with the highest indebtedness in Serbia and in Vojvodina in 2007 – Total and according to the size of enterprises Amounts in thousand dinars

SERBIA		VOJVODINA	
SECTOR or BRANCH (Total and form of property)	AMOUNT OF INDEBTEDNESS PER ENTERPRISE	SECTOR or BRANCH (Total and form of property)	AMOUNT OF INDEBTEDNESS PER ENTERPRISE
ALL ENTERPRISES		ALL ENTERPRISES	
11. Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying		11. Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying	
Total	-16,482,342	Total	-32,961,328
Public property (state-owned)	-65,922,465	Public property (state-owned)	-65,922,465
10. Mining of coal and lignite; extraction of peat		C. Mining and quarrying	
Total	-2,166,932	Total	-1,899,790
Public property (state-owned)	-16,158,400	Public property (state-owned)	-33,053,470
40. Electricity, gas, steam and hot water supply		16. Manufacture of tobacco products	
Total	-1,430,140	Total	-729,492
Public property (state-owned)	-3,461,693	Public property (state-owned)	-889,673
SMALL ENTERPRISES		SMALL ENTERPRISES	
70. Real estate activities		27. Manufacture of basic metals	
Total	-43,088	Total	-43,868
Private property	-43,702	Socially owned	-520,815
13. Mining of metal ores		65. Financial intermediation, except insurance and pension funding	
Total	-36,731	Total	-34,661
Socially owned	-159,505	Private property	-34,661
65. Financial intermediation, except insurance and pension funding		26. Manufacture of other non-metallic mineral products	
Total	-29,101	Total	-28,742
Public property (state-owned)	-315,63	Private property	-70,315
MEDIUM-SIZED ENTERPRISES		MEDIUM-SIZED ENTERPRISES	
64. Post and telecommunications		16. Manufacture of tobacco products	
Total	-4,862,045	Total	-1,448,379
Private property	-4,862,045	Private property	-2,647,810
65. Financial intermediation, except insurance and pension funding		72. Computer and related activities	
Total	-2,989,655	Total	-811,851
Private property	-3,664,312	Public property (state-owned)	-2,302,011
J. Financial intermediation		34. Manufacture of motor vehicles, trailers and semi-trailers	
Total	-2,006,183	Total	-600,507
Private property	-2,937,175	Mixed property	-1,681,002
LARGE ENTERPRISES		LARGE ENTERPRISES	
11. Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying		C. Mining and quarrying	
Total	-65,922,465	Total	-65,922,465
Public property (state-owned)	-65,922,465	Public property (state-owned)	-65,922,465
62. Air transport		21. Manufacture of pulp, paper and paper products	
Total	-20,141,139	Total	-6,517,743
Public property (state-owned)	-20,141,139	Socially owned	-12,275,551
64. Post and telecommunications		I. Transportation, storage and communications	
Total	-16,871,137	Total	-5,220,975
Mixed property	-99,539,433	Public property (state-owned)	-9,492,105

Source: Results from balance sheets for 2007, Statistical Office of the Republic of Serbia

Based on the data from Table 6.4.3. it can be concluded that in 2007, the sectors or branches in Serbia and Vojvodina with the highest debt Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying, and that the second and third place according to the amount of debt in Serbia belonged to Mining of coal and lignite; extraction of peat, and Electricity, gas, steam and hot water supply, while in Vojvodina they belonged to Mining and quarrying and Manufacture of tobacco products. In all these sectors or branches, the amounts of debt of public (state-owned) enterprises were higher than the amount of debt per enterprise of the whole sector or branch in which they operate.

According to the amount of indebtedness in the sub-group of small enterprises, the sectors of Real estate activities and Mining of metal ores occupy the first and second place in Serbia, while in Vojvodina the first and second place according to that criterion belongs to the sectors of Manufacture of basic metals and Financial intermediation, except insurance and pension funding, respectively. The third place according to the amount of indebtedness per enterprise in Serbia belongs to the sector of Financial intermediation, except insurance and pension funding, and in Vojvodina to the sector of Manufacture of other non-metallic minerals. In the sub-group of small enterprises in Serbia and Vojvodina, the highest amount of indebtedness is recorded in socially-owned and public (state-owned) enterprises. Thus, for example, in the sector of Financial intermediation, except insurance and pension funding, the socially-owned enterprises from Serbia have more than 10 times higher amount of loans than the average for enterprises in the branch to which they belong, while in the sector of Manufacture of basic metals, socially-owned enterprises in Vojvodina have almost 12 times higher amount of loans than the average for their branch.

In the sub-group of medium-sized enterprises, the highest amount of indebtedness per enterprise in Serbia is recorded in the sectors of Post and telecommunications, and Financial intermediation, except insurance and pension funding, while in Vojvodina it is recorded in the sectors of Manufacture of tobacco products, Computer and related activities and Manufacture of motor vehicles, trailers and semi-trailers. Just as in the sub-group of small enterprises, the highest amount of indebtedness in Vojvodina is registered in public (state-owned) enterprises (Computer and related activities) and enterprises mixed property (Manufacture of motor vehicles, trailers, and semi-trailers). The exception to the rule that privately owned enterprises are less indebted than enterprises in other forms of property is the sector of Manufacture of tobacco products in Vojvodina.

Based on the data from Table 6.4.3. it can conclude that the highest rate of indebtedness in the sub-group of large enterprises in Serbia is registered in the following sectors: Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction; Air transport and Post and telecommunications, while in Vojvodina it is registered in the sectors of Mining and quarrying and Transportation, storage and communications, as well as Manufacture of pulp, paper and paper products.

6.4.3 Profitability

Profitability represents a company's ability to generate revenues, i.e. efficiency of use of the investment funds. It represents the company's ability to realise the highest possible profit with the invested resources. The most complete global expressions of profitability are return rate on total capital and return rate on company's own capital.

Based on the data from Table 6.4.1. it can be concluded that **Vojvodina economy, measured by the return rate on total capital and return rate on company's own capital, is the most profitable segment of economy of Serbia.** According to both indicators, the enterprises from Vojvodina are more cost-effective (profitable) than enterprises from Serbia, as well as enterprises from Belgrade, while enterprises in Central Serbia without Belgrade as a whole operated in a non-profitable way. At the same time, the profitability of enterprises from Vojvodina measured by the return rate on total capital is 2.5 times higher than profitability of enterprises from Serbia and 1.2 times higher than profitability of enterprises from Belgrade. Measured by the return rate on company's own capital, economy of Vojvodina is 2.8 times more profitable than economy of Serbia, and 1.4 times from economy of Belgrade. Bearing in mind the fact that the indebtedness of enterprises in Vojvodina is lower than indebtedness of enterprises in Serbia by about 8%, and the fact that this difference is smaller than the differences in rates of return on total and own capital between Serbia and Vojvodina, it can be concluded that **enterprises from Vojvodina use funds from the credit sources more efficiently than enterprises in Serbia.** This fact suggests the conclusion that measures of economic policies that would lead to re-allocation of credit funds towards Vojvodina enterprises may affect the increase in profitability of the economy of Serbia and Vojvodina. **On the basis of all the above-mentioned statements, it can be concluded that profitability of use of their own funds, as well as the profitability of use of funds from credit sources is higher in Vojvodina than in Serbia.**

Analysed by size, in the economy of Serbia and in all its segments (Vojvodina, Belgrade and Central Serbia without Belgrade) small enterprises are the most profitable according to the rate of return on own funds and the rate of return on total capital, followed by medium-sized enterprises, while large enterprises are the least profitable. However, unlike the group of all enterprises, **the sub-group of small enterprises and medium-sized enterprises in Vojvodina achieved lower rates of return on total and own capital in 2007 compared to sub-groups of small and medium-sized enterprises in Serbia and Belgrade, while they achieved higher profitability according to both indices only in relation to Central Serbia without Belgrade.** The previously noted unfavourable financial structure of small and medium-sized enterprises from Vojvodina is an important cause of lower profitability of these enterprises in relation to profitability of small and medium-sized enterprises in Serbia.

The highest profitability in the sub-group of large enterprises was achieved by enterprises from Vojvodina and this is the only sub-group of large enterprises that operated profitably under both indicators, since large enterprises in Belgrade, Central Serbia without Belgrade and Serbia as a whole achieved negative rate of return on total and own capital, namely they recorded net losses in business activities.

The overview of sectors or branches with highest rates of return on total and own assets for Serbia and Vojvodina, especially for the group of all enterprises and sub-groups of enterprises by size is given in Table 6.4.4. In addition to the data on the level of profitability for the sector or branch in each of these sectors or branches, the Table also shows the highest profitability in some form of property.

Table 6.4.4. Overview of sectors or branches with the highest return rates on total capital and return rate on own capital in Serbia and Vojvodina in 2007 – Total and according to the size of enterprises

SERBIA				VOJVODINA			
SECTOR or BRANCH (Total and form of property)	RETURN RATE ON TOTAL CAPITAL	SECTOR or BRANCH (Total and form of property)	RETURN RATE ON OWN CAPITAL	SECTOR or BRANCH (Total and form of property)	RETURN RATE ON TOTAL CAPITAL	SECTOR or BRANCH (Total and form of property)	RETURN RATE ON OWN CAPITAL
ALL ENTERPRISES		ALL ENTERPRISES		SVA PREDUZEĆA		SVA PREDUZEĆA	
67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation	
Total	28%	Total	46%	Total	48%	Total	67%
Public property (state owned)	56%	Public property (state owned)	58%	Private property	48%	Private property	67%
72. Computer and related activities		30. Manufacture of office machinery and computers		L. Public administration and defence; compulsory social security		30. Manufacture of office machinery and computers	
Total	12%	Total	35%	Total	22%	Total	58%
Mixed property	54%	Private property	37%	Private property	185%	Private property	58%
30. Manufacture of office machinery and computers		30. Manufacture of office machinery and computers		30. Manufacture of office machinery and computers		L. Public administration and defence; compulsory social security	
Total	12%	Total	35%	Total	18%	Total	54%
Co-operative property	16%	Co-operative property	38%	Private property	18%	Private property	51%
SMALL ENTERPRISES		SMALL ENTERPRISES		SMALL ENTERPRISES		SMALL ENTERPRISES	
67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation	
Total	26%	Total	52%	Total	95%	Total	140%
Private property	26%	Private property	52%	Private property	95%	Private property	140%
23. Manufacture of coke, refined petroleum products and nuclear fuel		23. Manufacture of coke, refined petroleum products and nuclear fuel		J. Financial intermediation		J. Financial intermediation	
Total	15%	Total	37%	Total	42%	Total	112%
Public property (state owned)	22%	Public property (state owned)	67%	Private property	43%	Private property	112%
J. Financial intermediation		74. Other business activities		72. Computer and related activities		30. Manufacture of office machinery and computers	
Total	14%	Total	36%	Total	27%	Total	56%
Public property (state owned)	17%	Private property	38%	Mixed property	106%	Private property	56%
MEDIUM-SIZED ENTERPRISES		MEDIUM-SIZED ENTERPRISES		MEDIUM-SIZED ENTERPRISES		MEDIUM-SIZED ENTERPRISES	
62. Air transport		62. Air transport		M. Education		M. Education	
Total	40%	Total	91%	Total	29%	Total	115%
Private property	40%	Private property	91%	Private property	29%	Private property	115%
67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		67. Activities auxiliary to financial intermediation		65. Financial mediation, except for insurance and pension funds	
Total	32%	Total	38%	Total	15%	Total	77%
Public property (state owned)	57%	Public property (state owned)	59%	Private property	15%	Private property	77%
72. Computer and related activities		72. Computer and related activities		J. Financial intermediation		30. Manufacture of office machinery and computers	
Total	11%	Total	35%	Total	15%	Total	63%
Private property	16%	Private property	37%	Private property	15%	Private property	63%
LARGE ENTERPRISES		LARGE ENTERPRISES		LARGE ENTERPRISES		LARGE ENTERPRISES	
30. Manufacture of office machinery and computers		72. Computer and related activities		25. Manufacture of rubber and plastic products		51. Wholesale trade and commission trade, except of motor vehicles and motorcycles	
Total	14%	Total	99%	Total	19%	Total	54%
Private property	14%	Private property	99%	Private property	19%	Private property	54%
72. Computer and related activities		30. Manufacture of office machinery and computers		33. Manufacture of medical, precision and optical instruments, watches and clocks		K. Real estate, renting and business activities	
Total	13,60%	Total	49%	Total	15%	Total	35%
Private property	13,60%	Private property	49%	Private property	15%	Private property	39%
32. Manufacture of radio, television and communication equipment and apparatus		37. Recycling		K. Real estate, renting and business activities		74. Other business activities	
Total	13,30%	Total	34%	Total	15%	Total	35%
Private property	13,30%	Private property	34%	Private property	17%	Private property	39%

Source: Results from balance sheets for 2007, Statistical Office of the Republic of Serbia

As can be seen from the data in Table 6.4.4., the highest profitability in Serbia and Vojvodina in 2007 was achieved by enterprises in the sector of Activities auxiliary to financial intermediation. The rates of return on total capital and rates of return on their own capital in this sector in Serbia are 28% and 46% respectively, while the rates in Vojvodina are 48% and 67%, respectively. Public (state-owned) enterprises were the most profitable in this sector in Serbia (rates of return on total and own assets were 56% and 58%, respectively), while in Vojvodina the most profitable were privately owned enterprises (rates of return on total and own capital were 48% and 67% respectively). The second and third place according to the rate of return on total assets in Serbia belongs to the sectors of Computer and related activities (12%, and enterprises in mixed property 54%), Manufacture of office machinery and computers (12%), respectively; while in Vojvodina these positions are occupied by the sectors of Public administration and defence, compulsory social security (22%, and privately owned enterprises even 185%), and Manufacture of office machinery and computers (18%). According to the rate of return on own capital the second place in Serbia belongs to the sector of Manufacture of office machinery and computers (35%), while in Vojvodina the second and third place belongs to the sectors of Manufacture of office machinery and computers (58%) and Public administration, defence and compulsory social security (54%).

As in the group of all enterprises, in the sub-group of small enterprises, the highest profitability in Serbia and Vojvodina in 2007 according to the rates of return on total and own capital was achieved in the sector of Activities auxiliary to financial intermediation. However, contrary to economy of Serbia, where there is no significant difference in profitability between all enterprises and small enterprises, small enterprises in Vojvodina are significantly more profitable according to the rate of return on total capital (95%) and rate of return on own capital (140%) compared to the average in the sector they operate (48% and 67%, respectively). The second place according to the rate of return on total capital (15%) and own capital (37%) in Serbia belongs to the sector of Manufacture of coke, refined petroleum products and nuclear fuel, and in Vojvodina to the sector of Financial intermediation (42% of rate of return on total capital and 112% of rate return on own capital).

In Serbia, the highest profitability for both of the observed rates in the sub-group of medium-sized enterprises was achieved by enterprises in the sector of Air transport (the rate of return of 40% on total and 91% on own capital), and in Vojvodina by enterprises (organisations) in the sector of Education (rate of return of 29% on total and 115% on own capital). Activities auxiliary to financial intermediation take the second place in Serbia according to the rate of return on total capital (32%) and own capital (38%), and in Vojvodina according to the rate of return on total capital (15%), while this position is occupied by enterprises operating in the sector of Financial intermediation, except insurance and pension funding according to the return rate on own capital (77%). The third place in Serbia for both of the observed rates belongs to enterprises in the sector of Computer and related activities, and in Vojvodina the third place according to the rate of return on total capital belongs to enterprises operating in the sector of Financial intermediation (15%), and according to the rate of return on own capital this place belongs to enterprises in the sector of Manufacture of office machinery and computers (63%).

In the sub-group of large enterprises in Serbia the most profitable sectors are Manufacture of office machinery and computers, which is the first according to the rate of return on total capital (14%) and second according to the rate of return on own capital (49%) and Computer and related activities, which is the first according to the rate of return on own capital (99%) and second according to the rate of return on total capital (13.6%). The third place in Serbia according to the rate of return on total capital (13.3%) belongs to enterprises operating in the sector of Manufacture of radio, television and communication equipment and apparatus, and according to the rate of return on their own capital (34%), it belongs to enterprises operating in the sector of Recycling. In Vojvodina, the most profitable according to the rate of return on total capital (19%) are the enterprises operating in the sector of Manufacture of rubber and plastic products, and according to the rate of return on own capital (54%) it belongs to enterprises operating in the sector of Wholesale trade and commission trade, except of motor vehicles and motorcycles. Enterprises operating in the sector of Real estate, renting and business activities occupy the third place according to the rate of return on total capital (15%), and according to the rate of return on own capital (35%) they occupy the second place. According to the rate of return on total capital (15%) the second place in Vojvodina is occupied by enterprises operating in the sector of Manufacture of medical, precision and optical instruments, watches and clocks, and according to the rate of return on own capital (35%) the third place is occupied by enterprises operating in the sector of Other business activities.