Financial position of food industry in Vojvodina during the transition period

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Abstract: The paper analyzes the main indicators of the economic position of companies in the field of food industry in Vojvodina. The examined nine-year period coincides with the final stage of the ownership transformation in the Republic of Serbia. Given the length of the examined period, a considerable devaluation of the national currency (60.6%) and a high inflation rate (125.7%), all values are shown in Euros. The increasing business activity in the period of interest is not accompanied by the appropriate financial effects. Food industry enterprises achieved a positive financial result for most of the years in the given period, but with modest profit rates (0.15–3.18%). Net working capital covers only 42.5% in average of the base stock, indicating an unfavourable financial structure and serious liquidity problems. An unacceptably high level of indebtness has been achieved (58.1%), which significantly reduces financial results due to the high financing expense. A further increase of export, combined with the recapitalization by the owners and a partial refinancing of credits, is the way to the companies' financial recovery.

Key words: food industry, transition, balance analysis, result, financial structure

The autonomous Province of Vojvodina[1] is a region in the Republic of Serbia with favourable natural and other conditions for the development of agricultural production and the respective food industry. Rich raw material base, developed processing facilities, price competitiveness and required level of domestic and foreign demand are all indicators of a great potential for the food industry development in the AP Vojvodina.

The observed nine-year period (2001–2009) mostly overlaps the intensification and finalization of the ownership transformation process. This is clearly reflected in the reduction of the social capital share in the food industry enterprise (FIE) equities, from 62.9% (2000) to 2.3% (2009). The real transition in Serbia was delayed for a whole decade in comparison with most of other East European countries. Only after the political changes had taken place in 2000, the country showed a clear determination to join the EU. At this point, the process of economic and overall social system transformations started. Generally, the results of privatization are never in accordance with the expectations. A significant number of companies have experienced the positive impact, but there are also negative examples and serious problems (insufficient investment, volatile production, workers' dissatisfaction, bankruptcies, scandals, etc.).

During the transition, most Central and East European countries (except Hungary and Bulgaria) transferred from net exporters to being net importers of agricultural and food products. The main reasons are the slow and inefficient process of privatization, market liberalization, changes in the consumer demand, etc. (Bojnec and Hartmann 2004). The example of Poland shows that the dynamic of the privatization process represents one of the most important factors for attracting the direct foreign investment, and consequently for improving the FIEs' financial position (Walkenhorst 2001). Despite a number of difficulties, the agricultural-food chain is the only field where the country records a significant foreign trade surplus (698.9 mil. Euros in 2009; Source: Serbian Institute of Statistics). Jenicek and Krepl (2009) emphasize the connection between the foreign trade efficiency and competitiveness with a higher degree of product specialization, especially in the relatively smaller economies.

Before the crisis in the nineties, the FIEs had been very successful economic entities. They were leaders in the field of the knowledge application and modern technology implementation, possessed high-quality brands of food products and were well positioned not only in the domestic market of the former Yugoslavia, but also in the developed foreign markets. Business activity in this period was taking place in a rather

[1]According to the Constitution of the Republic of Serbia, Vojvodina is an autonomous province, with significant and clearly defined responsibilities in many fields, including agriculture.

unfavourable economic environment characterized by the domestic market shrinking and a slow access to new markets, the deficient protection against the excessive import, the technical and technological standstill, a relatively high inflation rate, the lack of the own accumulation, illiquidity, expensive capital loans, etc. (Vukoje 2007).

The question is: what is the state of the FIEs at the moment, at the end of the transition process, what are their production and financial performances, and what is to be done in order to make them become successful economic entities again? Finding answers to these questions is the main point of research efforts in this article.

MATERIAL AND METHODS

The subject of the analysis are the companies in the field of food industry and agriculture from the territory of the AP Vojvodina. The focus is primarily on food industry, while agriculture serves as a reference point for comparison. Data from the balance sheets are used, as well as the data from the cumulative balances for the nine-year period (2001–2009), collected and processed by the National Bank of Serbia (NBS) and the Serbian Business Register Agency (SBRA). Therefore, only economic organizations are included in the research, not the entrepreneurs and family farms.

Various methods of balance analysis were used in this paper, primarily parsing and comparison. The nine-year period is long enough to give the trend overview of the most important FIEs' success indicators. In addition to the time comparison, the spatial comparison of agricultural enterprises (AEs) is done as well. These are two directly related and comparable industrial branches that form the basis of the Vojvodina's agro-industry.

Given the length of the examined period, a considerable devaluation of national currency – RSD (60.6%) and a high inflation rate (125.7%), all the values are expressed in Euros. Additionally, the official Euro exchange rate at the end of the year was used for the balance sheet, and the corresponding average annual exchange rate for the income statement (Table 1). This method enables obtaining more comparable data, creating a clearer picture about the values and trends of the most important economic parameters.

RESULTS AND DISCUSSION

The number of the FIEs in Vojvodina has increased in the examined period from 460 (2001) to 944 (2009), i.e. by 105.2% (Figure 1). Of the total number of FIEs, small-sized businesses make 83.3%, medium-sized 10.2% and large businesses only 6.5% (2009). There were between 1368 and 1653 companies engaged in the agricultural business, which represents an increase of 20.8%. Companies from both analyzed branches (agro-industry) constitute 11.4% (2009) of the total number of enterprises in Vojvodina.

The number of employees in food industry has decreased from 51 845 (2001) to 28 746 (2009), or by 44.6% (AEs*:* from 45 027 to 23 638, i.e. by 47.5%). Food industry employs 11.7% (2009) of the total number of the Vojvodina's economy employment, which along with agricultural workers makes 21.3%. It is obvious that establishment of a number of small and medium-sized enterprises cannot compensate for the reduction of employees in large companies. During the transition period, the Czech Republic, Slovakia and Hungary recorded a significant labour outflow from agriculture which, together with a satisfactory level of technical equipment, contributed to manufacturing productivity (Sarris et al. 1999).

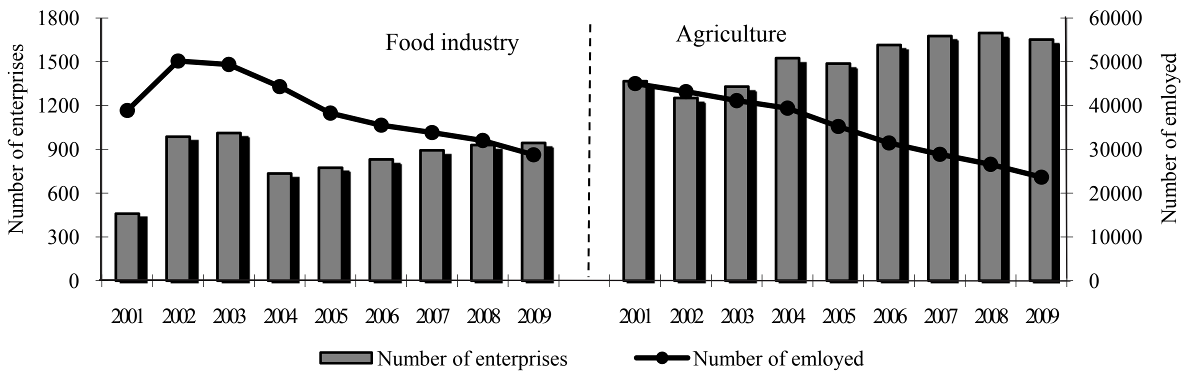

Figure 1. Number of enterprises and employed

Table 1. Assets of FIEs in Vojvodina (in 1 000 000 €)

No	Position	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Non-current assets	889	1 049	1 059	1 197	1 133	1 523	1 672	1 473	1 428
2	Current assets	689	850	1 047	1 019	968	1 317	1 600	1 669	1 652
3	Total assets (1 + 2)	1 578	1 899	2 106	2 216	2 101	2 840	3 272	3 141	3 081
4	Exchange rate of the RSD against the Euro (at the end of the year)	59.71	61.52	68.31	78.89	85.5	79.0	79.24	88.6	95.89
5	Exchange rate of the RSD against the Euro (annual average)	59.78	60.66	65.05	72.70	82.92	84.16	79.98	81.44	93.95
6	Inflation rate (in %)	38.7	14.2	7.8	13.7	17.7	6.6	11.0	8.6	6.6

Source: NBS and SBRA

The FIEs' assets are considerable, worth 3081 million Euros (Table 1) (AEs: 2 572 mil. Euros). Food industry and agriculture possess 25.8% of the total Vojvodina's economy assets. During the given period, the FIEs increased their assets by 109.7% (AE*:* by 68%).

In the cumulative balance sheet, there is also an item "loss above the value of equity" which in 2009 amounted to about 103.8 mil. Euros, or 3.3% of the total assets (AEs: 45.6 mil. Euros, or 1.8%)[2]. It means that, among the FIEs, there are companies that lose not only all of their own capital, but also the loan capital, then becoming insolvent. The percentage in this item was significantly higher (9–11%) in the first years of the period examined, but was mostly filtered out of the assets in the process of privatization.

A significant increase of the current assets participation in the total FIEs' assets from 43.7% (2001) to 53.6% (2009) indicates an increasing enterprise activity (AEs: from 23.7% to 44.7%). In the previous decade (1990–2000), marked by the crisis, the asset structure has dramatically changed in favour of the non-current assets. The contribution to the relative increase of the current asset share was made by the slower growth of the non-current assets due to their more realistic interpretation in balance sheets after privatization, as well as by the insufficient investment in the last two decades.

Analysis of financial result

The total income (TI) of the FIEs increased by 61.2% (AEs: by 59.9%) during the period observed. However, a large reduction of the TI of the FIEs can be noticed in the last year (by 16.9%), which is yet another confirmation of the negative impacts of the economic crisis. Food industry participates with 14.1% in making of the Vojvodina's TI economy, or 22.9% together with agriculture. Despite the significant growth, the relative share of agro-industry in the total Vojvodinian economy decreased (by 25.2% until 2009), primarily due to the faster growth of other sectors (banking, construction, services, insurance). Sevcikova (2003) points to similar tendencies in Slovakia during the transition period, stating the price disparity between inputs and outputs in these branches as one of the main causes.

An unusually high percentage of "other" (non-operating and extra) income in the TI structure (4.7% in average) is caused by the revaluation entry and applying the new accounting methods in the terms of inflation, as well as the unregulated transitional business conditions characterized by selling the non-current assets, the receivable write-offs due to debtor's illiquidity, etc.

The FIEs spent 4.4% of the TI in average covering financial expenses, but the percentage reached 6.0% (AEs: 5.8%) due to the rapid growth in the second half of the period observed. This represents quite a high financial expense load that should not exceed 4%, even in a much more favourable business environment. An average financial expense participation in the 1980–1983 period was 2.75% (Duvnjak 1988). A very high TI percentage of 5.4% in average (AE: 5.6%) goes on covering other expenses, which could be explained by the volatile business environment mentioned above.

The Vojvodina's FIEs achieved a positive net financial result in most of the years of the given period, but with modest profit rates (Table 2). In the period examined, the FIEs also made a total net profit of 139.8 mil. Euros, increasing their equities by 13.4%.

[2]For the purposes of this analysis the "loss above value of equity" was omitted from the balance sheet, showing only the net property assets, respectively net capital liabilities.

Table 2. Vojvodina's FIEs' income statement (in 1 000 000 €)

No	Position	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Operating income	1 463	1 892	1 804	2 019	1 737	2 035	2 427	2 821	2 386
2	Financial income	9	13	16	42	32	77	59	109	53
3	Non-operating income	91	115	135	92	86	95	95	103	81
4	Total income (1 + 2 + 3)	1 563	2 021	1 955	2 152	1 855	2 207	2 581	3 033	2 520
5	Operating expense	1 371	1 819	1 772	1 950	1 675	1 972	2 306	2 653	2 205
6	Financial expense	53	48	69	85	86	80	109	229	151
7	Non-operating expense	122	127	133	108	90	82	179	102	103
8	Total expense (5 + 6 + 7)	1 546	1 994	1 974	2 142	1 852	2 134	2 594	2 984	2 459
9	Gross financial result (4 – 8)	16.5	26.4	–18.8	9.8	3.5	73.0	–13.2	49.4	61.4
10	Income tax	4.58	8.08	5.47	6.66	4.13	2.81	11.51	12.89	12.19
11	Net financial result (9 – 10)	11.90	18.33	–24.22	3.19	–0.63	70.23	–24.68	36.46	49.26
12	Profit rate (11/4) × 100	0.76	0.91	–1.24	0.15	–0.03	3.18	–0.96	1.20	1.95
13	Turnover ratio of current assets	3.15	2.67	2.17	2.24	1.94	1.87	1.77	1.96	1.58

Source: Author's calculation based on NBS and SBRA data

The AEs made profit only in 2006 and 2007 with very modest profit rates of 0.22% and 2.42% respectively. The AEs lost a total of 305.5 mil. Euros, or about 22.3% of equities in the nine-year period. Of course, there are successful AEs which recorded profit in their income statements. In 2009, there were 882 of such companies with the total profit of 58.6 mil. Euros. The total loss of unsuccessful companies, however, was much greater (161.5 mil. Euros). In the years in which negative profit rates were recorded, the coefficients of cost-effectiveness (total incomes/total expenses) are, of course, less than one.

Figure 2 clearly illustrates that the increased FIEs' investment in assets, mainly in current assets, follows the approximate TI growth. A significant disparity occurs in 2009, when both values dropped, particularly the TI. The increased business activity, however, is not followed by the corresponding net results of the companies. Since the FIEs' current assets grow much faster (139.8%) than the non-current assets (60.7%), the turnover ratio (TR) of current assets was reduced by about two times (Table 2). The TR reducing in agriculture is even more pronounced, adding that the average TR in the FIEs (2.15) is much higher than in the AEs (0.69).

One can notice that the negative effects of the world economic crisis did not reflect on the FIEs' net financial results. Despite a significant income reduction in 2009, the FIEs recorded the net result increase. In contrast, the AEs had cut the positive business trend from 2006 and 2007, and crossed again into the zone of loss in the last two years, especially in 2009. It is mainly the consequence of the unfavourable position of agriculture in the primary distribution, which caused the revenue overflow, especially to food industry.

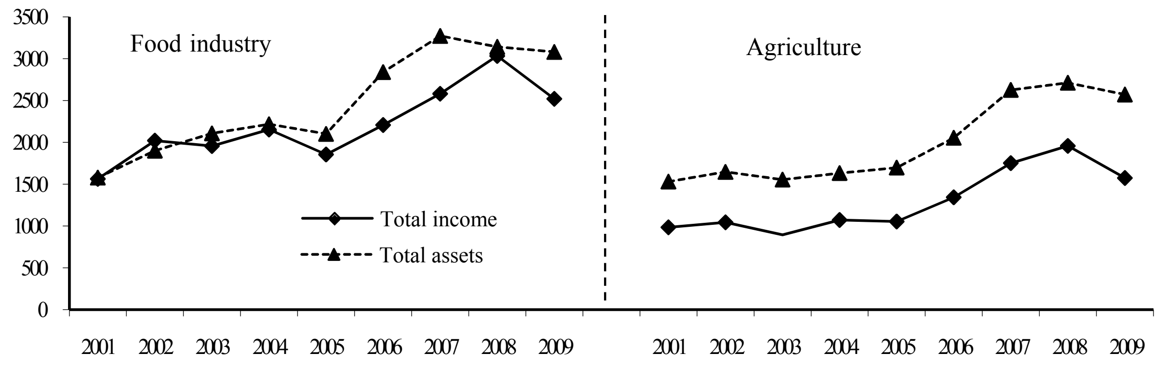

Figure 2. The total income and the total assets variations (in 1 000.000 €)

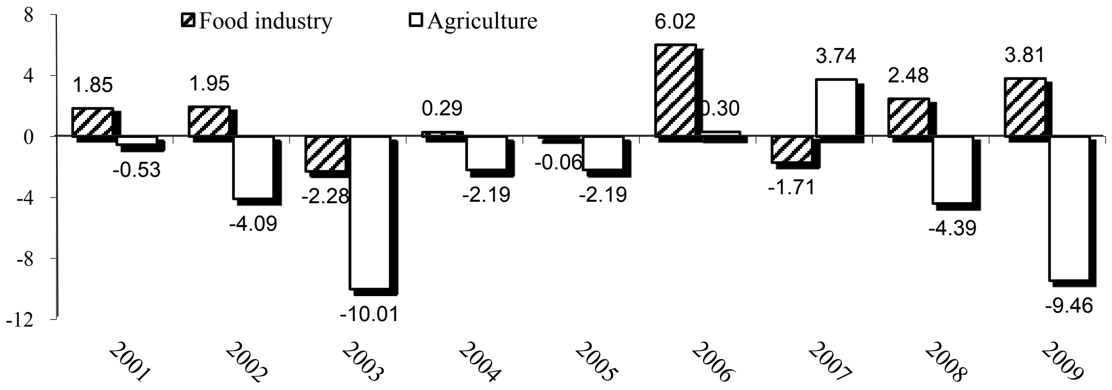

Figure 3. Profitability rates of equity (in %)

From the above, it is clear that no other significant indicators of success can be good. Profitability, as one of the most important indicators, reflects the ability of the invested capital to bring the earnings. Profitability rates of equity were calculated according to the ratio of net financial result to equity (Figure 3). Profitability rates of the total FIEs' capital (net financial result + interest expenses/total assets) varied in the range from 3.36% (2001) to 2.62% (2009). The AEs recorded negative income rates even of the total capital in the five of nine years observed.

For the purpose of analyzing basic causes of unsuccessful business, it is essential to parse the gross financial result first in order to determine which incomes it is derived from. Since the FIEs are not primarily involved in financial borrowing and lending activities, it is expected for the result arising from the financial income to be negative, to a reasonable extent of course (Table 3). In all the years analyzed, the FIEs made profit from the ratio between the operating income and the operating expenses. The only exception was the year 2003 when there was a negative result recorded from the operating activities. This result is an important indicator of the balance efficiency, particularly in the volatile transition business environment, when other revenues and expenditures show large variations.

However, the AEs recorded a business loss through six out of nine years, as a negative result derived from the operating activities in all years.

The result of non-operating activities shows a great variability and in certain years, it had a significant effect on the FIEs results, especially in 2007. The role of these results was even more important for the AEs. By 2007, it had had very high positive values and thus contributed significantly to alleviating the negative results.

Productivity coefficient in the FIEs recorded a slight decline from €11.4 of operating income/€1 of labour costs (2001) to €10.58 (2009) (AEs: from €10.21 to €9.83). Given that net salaries are still quite low (about €305), it implies that there are no significant reserves to improve the business results. During the 2000–2006 period, a decrease of labour costs in food industry was recorded in the Czech Republic as well as a higher degree of labour productivity. Due to a higher labour productivity, there are good opportunities of improving the food industry competitiveness (Puticova and Mezera 2008).

It is obvious that high financial expenses (regular interest and penalty rates, negative exchange rate differences, etc.) had a constant and significant effect on reducing the financial results in the agro-industry companies. This further indicates a high debt level

Table 3. Structure of the FIEs' financial result (in 1 000 000 €)

No	Position	2001	2002	2003	2004	2005	2006	2007	2008	2009
1	Result from operating activity	91.7	73.0	32.6	69.3	61.7	63.2	121.7	168.4	181.4
2	Result from financial activity	−44.3	−34.7	−53.6	−42.9	−54.1	−2.5	−50.6	−120.4	−98.0
3	Result from operating and financial activities (1 + 2)	47.4	38.3	−21.0	26.4	7.6	60.6	71.1	48.0	83.4
4	Result from non-operating activity	−30.9	−11.9	2.2	−16.5	−4.1	12.4	−84.3	1.4	−22.0
5	Gross financial result (3 + 4)	16.5	26.4	−18.8	9.8	3.5	73.0	−13.2	49.4	61.4

Source: Author's calculation based on the NBS and SBRA data

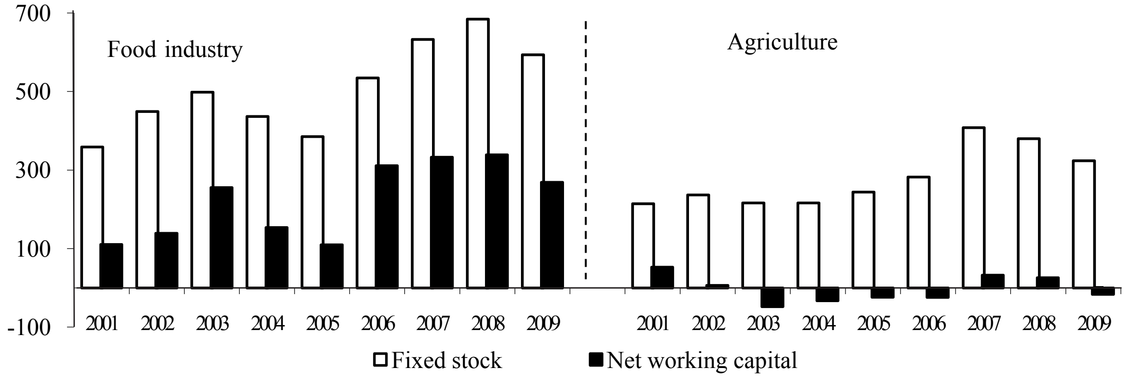

Figure 4. Coverage of the fixed stock of the net working capital (in 1 000.000 €)

and unfavourable loan terms that will be discussed in more detail in the next chapter. The problem with the AEs is much more serious and complex, because the ratio between the operating income and the operating expenses is unfavourable as well. Comparing the Czech Republic agriculture in the EU pre-accession year (2003) with 2006, due to the increasing of farms' financial support by 60%, positive terms of trade were recorded even continuing the decrease of the Gross Agriculture Output (Doucha and Foltyn 2008).

Analysis of financial structure

The financial structure evaluation was carried out according to the net working capital (NWC) and indebtness. NWC is a part of the long-term financial resources (equity and non-current liabilities) used for the current asset financing. It is calculated as the difference between the long-term financing sources and the non-current assets. Comparing the NWC with the base stock reveals an unfavourable FIEs' financial structure. The NWC covers between 30.9% (2001) and 45.3% (2009) of the base stock (Figure 4). The rest is financed from the short-term sources, indicating serious problems of the FIEs with the liquidity maintenance. The trend of this ratio deterioration can also be noticed, considering that the highest level of coverage was recorded in 2006 (58.2%).

In agriculture, the situation is far worse considering that in the six out of the nine years observed, the NWC was even negative. The main reason for the deformation of the AEs' financial structure should be found in the perennial business with losses, which lead to the own equity "melting".

The duration of the reproduction period, the accentuated seasonal character of production and sales, the demands of crop rotation, as well as other reasons caused a relatively high level of the average inventories in agriculture, as well as their high degree of variability (seasonality) within a year. Therefore, it is of great importance to the AEs to ensure the NWC stability, to such an extent that it allows financing the most part of the base stock. The characteristics of agriculture directly affect the inventory trends in food industry as well, being its raw material base. The FIEs are forced to buy large quantities of raw material that is used for processing throughout the year. Consequently, this results in a relatively high level of inventories.

For agro-industrial companies, especially the agricultural ones, it is unlikely for their base stock to be fully financed from the long-term sources, especially in the period of the increased business activity. Domestic companies did not manage to achieve this "ideal" even on the most favourable conditions. During the 1981–1983 period, the average base stock coverage by the NWC was 17.3% (Duvnjak 1988).

From the liquidity point of view, it is a much more favourable situation when the shortage of the long-term sources is compensated by the short-term credits instead of using the so-called spontaneous financial sources (suppliers and other prompt obligations). It would be a considerable relief for the agro-industrial companies to be able to compensate for the lacking long-term sources in favour of short-term credits with the appropriate interest rate of up to 4%. Unfortunately, domestic companies are forced to pay 3–4 times higher price for the short-term loans.

The indebtedness estimate is based on the ownership structure of financial resources (liabilities). In addition to the traditional financing rules, which require the ratio between the own and borrowed resources to be 1 : 1, it is also necessary to evaluate other factors, above all the nature of business activities. In agriculture, due to the low value of the turnover ratio and accumulation, it is desirable to make a shift in favour of own financial resources to at least 55: 45%.

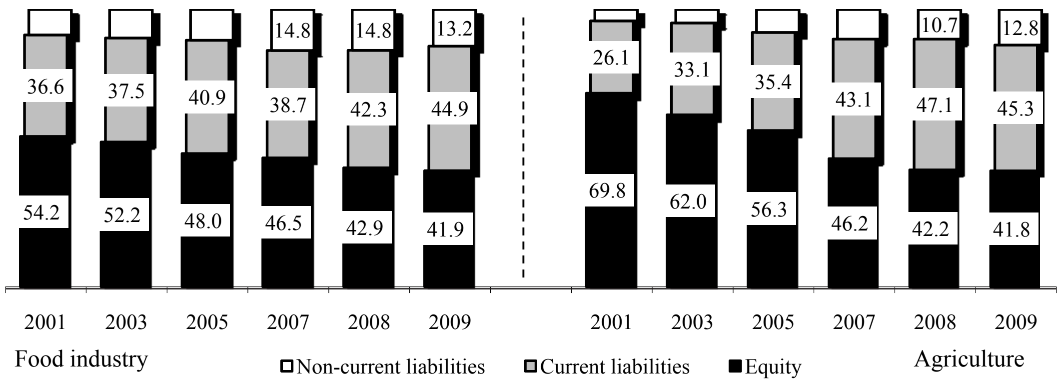

Figure 5. Indebtedness of food industry and agriculture in Vojvodina (in %)

The FIEs' indebtedness rate shows constant growth tendencies from 45.8% to 58.1% (Figure 5) (AE: from 30.2% to 58.2%). If we take into account other relevant factors: the relatively favourable organic composition of capital 43.5% (AE: 50.3%), the high inflation (average rate of 13.9%), the poor values of rentability and liquidity indicators, it could be said that the FIEs reached an unacceptably high indebtedness level. Although all the values were re-calculated into euro, the inflation factor cannot be ignored because the cumulative inflation increase of 125.7% in the given period was much higher than Euro exchange rate increase (60.6%).

It is a particularly unfavourable circumstance that 69.9% of the total FIEs' liabilities (2009) are current liabilities, and therefore the short-term debt rate reached 44.9% (AE: 45.3%).

Bearing in mind that all the indicators of the AEs' indebtedness are significantly worse than those of the FIEs' and so is the nature of their business activity, there is no doubt that agriculture reached a critical point of indebtedness. The AEs' indebtedness level in 1989 was 26.5% (Rodic and Vukelic 1990), and in 1990, it was 36.8% (Bukvic 1990). The research in 192 Hungarian agricultural companies shows that the indebtedness rate in the period 2002–2006 did not exceed 50% (Herczeg 2009).

In order to maintain the liquidity level, the companies are forced to take new loans, usually under more unfavourable terms and conditions. As a result, indebtedness, short-term in particular, grows, which further deteriorates the financial structure, reduces the NWC and increased the financing expenditures. Over the time, solvency became compromised as well, which was indicated by the drastic reduction of the FIEs' solvency ratio in the given period, from 2.44 to 1.44 (AE: from 3.6 to 1.73). The increasing indebtedness level was largely caused by the high cost of capital and other unfavourable debt terms. In the given period, the effective interest rates of commercial banks ranged from 8% to 12% for short-term loans indexed in Euros, and from 13–18% in national currency. Some companies, mainly those in better creditworthiness, loaned at much lower interest rates from the foreign capital markets. Partially, due to the lower interest rates, some companies also opted for the Euro indexed credits in the domestic market which, together with the weakening of the national currency, caused additional financing expenses and a further increase of the indebtedness level.

In the privatization process, an opportunity was missed to force the new owners to improve and maintain the financial structure of a company by the means of equity investments. Instead, the issued obligation of re-investment without restrictions regarding the origin of the capital caused the degradation of the financial structure, especially indebtedness (Rankovic 2007).

CONCLUSION

Agro-industrial companies of Vojvodina, particularly the agricultural ones, have serious problems in the field of profitability and financial structure. These problems are interrelated and intertwined. Companies can hardly get out of the zone of loss without reducing their indebtedness level and financing expenses. On the other hand, it is difficult to straighten out ownership and maturity structure of financing, if the negative financial result is recorded. According to the previous analytical considerations, it is possible to single out three main directions for improvement: (1) export increase, (2) reduction of financing expenditure and indebtedness, and (3) price parity improvement for agricultural companies.

The Republic of Serbia has large market surpluses of agricultural and food products as well as a considerable potential for their increase. The precondition is the further growth of export, but on conditions which will be much more profitable for companies in this field. Therefore, a strong support of the Government is required, especially in terms of export stimulation, subsiding and favouring of production financing, meeting the quality standard, the national currency exchange rate, etc. In the recent years, the Government has made some efforts in this direction, within its relatively modest possibilities, but the needs of the local/domestic agro-economy are much higher.

The best way of the direct financial structure straightening out is the recapitalization by the current and/or new (co-)owners. One of the ways of state support in the current situation is, together with the banking sector, to ensure providing the funds from the domestic and/or foreign sources for the favourable refinancing of credits (the most expensive ones), while the short-term loans are partially being converted into the long-term ones.

The unfavourable price parity in agriculture is the key factor of the agricultural business non-profitability. By certain measures of agricultural policy, the state should work more actively on changing this situation, primarily through a higher amount of subsidies, partly purchasing the market surpluses from the state buffer stock to prevent prices from greater fluctuations, preventing monopoly, etc.

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Arrived on 30th July 2010

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