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Impact of CAP on the Cash-Flow Components in Slovak Agriculture

The primary goal of the paper is to state the development of cash-flow in Slovak agriculture. The observed period covers 11 years, which offers the opportunity to analyze three separate periods: the pre-accession period 2000-2003, the old CAP from 2004-2006 and the current CAP 2007-2010. The data for individual companies - corporations - were obtained from The Research Institute of Agricultural and Food Economics (RIAFE) for the period 2000 – 2010. The research has shown that entering EU and adopting Common agricultural policy had a positive impact on the cash flow from operating activities. We also did identify lower investments (CF from investing activities) since 2009. One of the reasons for that can be the impact of the financial and economic crisis. The impact on net cash flow was a higher volatility.

Introduction

Factors, which hobbles current agricultural development in Slovakia are a lack of money and distorted financial flows. For liquidity analysis and management of agricultural organization is invaluable overview of cash flow. When the cash flow is creating a major task is to analyze and explore factors that affect the financial stability of the company. Cash flow overview is used as an information source of incomes and expenditures of the agricultural corporation, not only for his leadership, but also for external partners.

Serenčéš, P., Tóth, M., Čierna, Z., Rábek, T. (2010) characterize financing as cash relations, of which important component are financial relations arising in obtaining funds, which agricultural organization use and relate with productive use of assets associated with the formation of profit or loss and cash flows.

The concept of cash flow may have according to Gurčík, Ľ. (2004) several meanings and dimensions of time:

- in the static dimension it is the prompt supply of money which is available for corporation at that time.
- may represent the expected future net income from the planned investment (discounted by fixed discount rate), which also can be understood as a static indicator.
- in the dynamic dimension and in terms of corporate management is cash flow
  a) recap of the last movement of money or
  b) recap of the expected future movement of money.

Bajus, R. (2009) argues that in financial practice the cash flow statement is used primarily as a tool for managing liquidity and solvency measurement. It shows how the corporation obtains or uses money. It explains what caused the change in liquidity. But more important meaning has as review of future cash flows; concretely in planning for the future and the budget of cash flow.

The purpose of the cash flow statement by Siman, J., Petera, P. (2010) is:
- quantify Cash at beginning of the period
- quantify increase and decrease in cash (net cash flow) of operating, investing and financing areas of corporation
- quantify Cash at the end of the period.

The most important asset of cash flows for the financial management of the company is mainly to identify the causes of their changes. Fluency in the cash flows of the corporation is a fundamental prerequisite for their financial stability. The provision relates to the quality of planning and evaluation processes in the revenue and expenditure of cash flows over shorter time horizons, thus creating space for the smooth firm's solvency. The essence of sufficient interim liquidity is to attain the relation in which cash receipts for the specified period must be above at least equal to expenses.

Material and methods

Data were obtained from internal database of RADELA agency, which collects data for The Research Institute of Agricultural and Food Economics for the period 2000 – 2010. We worked with data extracted from the balance sheets, profit and loss statements and selected indicators for agricultural enterprises - corporations. These entities cover 80% of agricultural land in Slovakia and therefore analyzing this sample offers the possibility to describe the overall situation in Slovakia. The calculations were per hectare of agricultural land and the cash flow was analyzed on four levels. In accordance with the indirect method of Cash flow calculation we distinguish:

Cash flow from operating activities
+ Cash flow from investing activities
+ Cash flow from financing activities
= Net cash flow

The analysis on the sample of enterprises was performed in accordance with the indirect method of cash flow calculation. Descriptive statistics were used (average, upper and lower quartile and median) and the analysis was done by using the statistical software Statgraphics.

Results and discussion

The primary goal of each company in market economy is to generate profit. From the accounting point of view is the profit positive difference between revenues and cost. But even if a company generates profit it can have problems to pay the liabilities. Therefore it is also important to analyze the cash flow movements in the company. For the evaluation of cash flow we use the indirect method described above. Another reason why it is important to analyze the cash flow is that in accounting the final profit figures are relatively easy to manipulate. There are many items in an income statement that can be influenced like inventory valuation, depreciation or allowance for receivables. In agriculture, especially the inventory valuation can be used to decrease the profit with the goal influencing the tax liability.

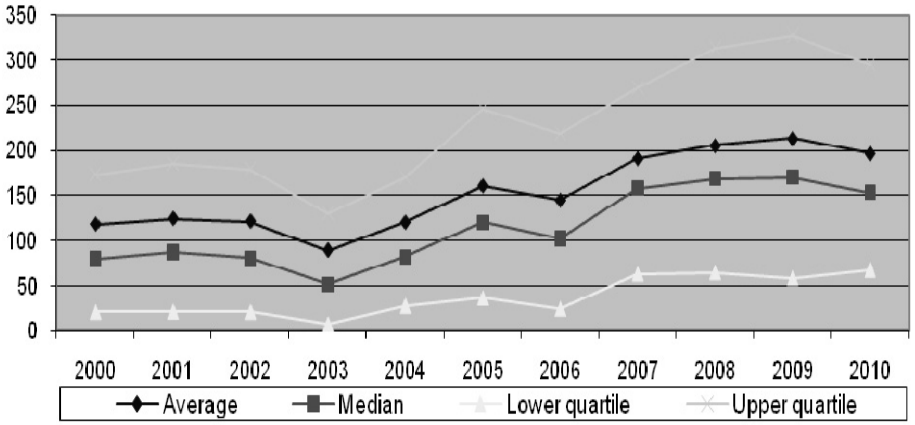
Cash flow from operating activities represents the most important area that should be evaluated in addition to the profit generated by the company. It is calculated as:

Profit after tax

+ depreciation
+ increase in provisions
+ decrease in accruals and prepayments
+ increase in accruals and deferred income
+ decrease in inventory
+ decrease in short term receivables
+ increase in short term payables
+ increase in short term bank loans and short term financial borrowings
= cash flow from operating activities.

The result of the analysis is in the Chart 1. It shows the improvement over the observed period. We conclude that the ability to generate cash from operating activities in agricultural enterprises was positive mainly in years 2004-2009. Year 2004 was the first year in which the Common agricultural policy (CAP) was applied in Slovakia.

Cash flow from operating activities in EUR per hectare of Agricultural land
Chart 1



Source: own calculation

The CF from operating activities doubled since the CAP was applied. We consider this as positive, because the operating part of activities generates more cash. This means improvement of the sustainability of the agricultural sector. It is a logical result of subsidies mainly in form of SAPS – direct payments that are linked to the agricultural land of the farmer.
To analyze whether there is a significant impact of CAP on the cash flow from operating activities we analyzed three separate periods: 2000-2003 – the period before entering EU, 2004-2006 –first three years of CAP in Slovakia and 2007-2010 – the new programming period of CAP. The results of the analysis are in the Table 1

Summary Statistics for Cash flow from oparating activities

Table 1

Period	Count	Average	Median	Lower quartile	Upper quartile
2000-2003	4224	113,35	73,8733	18,5009	168,839
2004-2006	3481	142,49	100,557	29,6763	207,717
2007-2010	4320	201,818	162,505	64,2779	298,991
Total	12025	153,568	108,652	31,3088	226,039

Source: own calculation

The results in the table show that there are big differences between the observed periods. This difference was confirmed by the statistical method. Therefore we can conclude that the CAP in form of subsidies per hectare had a significant impact on the ability of the agricultural sector to generate cash flow from operating activities.

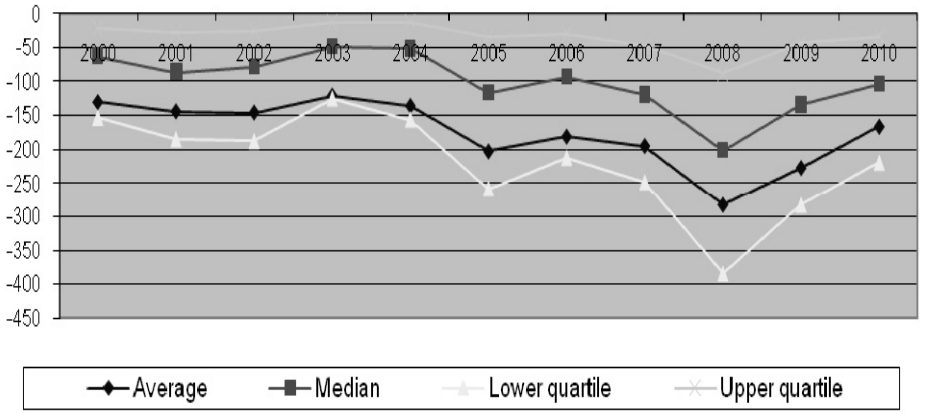
Cash flow from investing activities focuses on the investment of a company during the year. It includes the cash paid or received from the property, plant and equipment, other non-current assets and cash paid or received from financial investments. It is calculated as:

Decrease (- increase) in non-current assets
- depreciation
= Cash flow from investing activities

The development of CF from investing activities is shown in the Chart 2. It shows that since 2004 till 2008 agricultural enterprises were increasing the non-current assets, which is positive. If a company generates cash in the operating activities that is used for investments means improvement in the ability to generate cash in the future.

Cash flow from investing activities per hectare of Agricultural land

Chart 2



Source: own calculation

We also identify the decrease in the investment area in years 2009-2010. The median of cash flow from investment activities did multiply by 4 from 2004 to 2008, but it did decrease in just two years by 50%. We can conclude that the first 4 years after entering EU agricultural companies did invest more and more cash into non-current assets, but the last two years show the change in the trend. One of the reasons for this development can be the financial and economic crisis. In the time of crisis companies are not willing to invest, because of the unstable and unpredictable future.

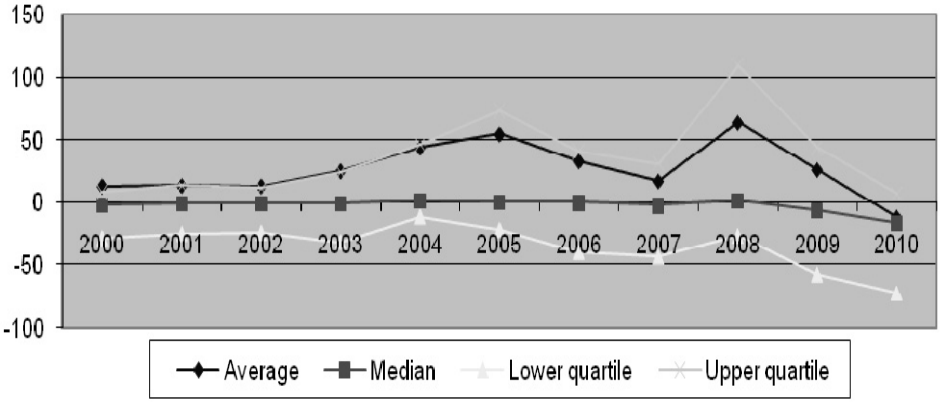
Cash flow from financial activities focuses on the financial cash in- and out-flows of the company. It includes the proceeds from increase of equity, long-term borrowings and long term liabilities. It is calculated as:

Increase in long-term liabilities
+ increase in long-term bank loans
+ decrease in long term receivables
+ increase in equity
- profit after tax
= cash flow from financial activities

Chart 3 shows the development of the CF from financial activities over the observed period. We can identify based on the median value of CF from financial activities a stable development. The average value from 2008-2010 is linked to the CF from investment activities. One of the effects of the crisis is unwillingness of investors to make long term investments or to invest with lower liquidity. Therefore the banks prefer short term bank loans, amount of long-term liabilities is decreasing and the owner is not increasing equity.

Cash flow from financial activities in EUR per hectare of Agricultural land

Chart 3



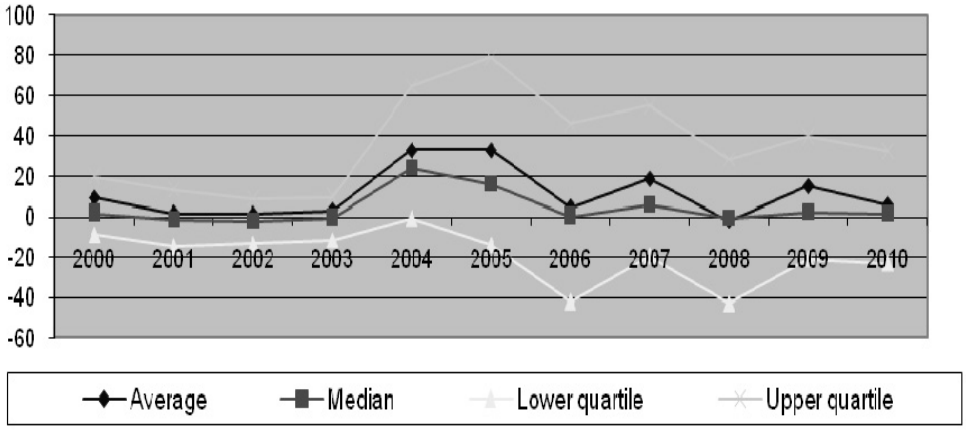
Source: own calculation

Net cash flow is the sum of CF from operating activities, investment activities and financial activities. As the Chart 4 shows, the main impact of the CAP is the increasing

volatility in Net cash flow. It means, that the CAP did have a huge positive impact on 25% of the companies (upper quartile), the impact on 25% of the companies was negative (lower quartile). The average impact was positive in 2004 and 2005, but after that period the positive affect expires.

Net cash flow in EUR per hectare of Agricultural land

Chart 4



Source: own calculation

Conclusion

Based on the analysis of agricultural enterprises in Slovakia over the period 2000-2010 we can conclude that entering EU and adopting CAP had a positive impact on the Cash flow from operating activities. As the summary table 2 shows although the CF from operating activities did increase, the total or net cash flow did not record any change except for years 2004 and 2005.

Summary statistics for Cash flow in EUR/ hectare of agricultural land (median) Table 2

Year	Number of companies	Operating activities	Investment activities	Financial activities	Net CF
2000	1041	80	-63	-2	2
2001	1042	87	-86	-1	-2
2002	1065	81	-79	-1	-2
2003	1076	52	-49	-1	0
2004	1123	82	-52	1	24
2005	1194	121	-117	1	16
2006	1164	102	-94	0	0
2007	1150	158	-120	-2	6
2008	1084	169	-201	1	-1
2009	1097	170	-135	-6	2
2010	989	154	-104	-16	2

Source: own calculation

The cash generated in the operating area was used for investments. We also can identify a change since 2008. One of the reasons for lower investments in 2009 and 2010 can by the financial crisis. The further research should be focused on the relation between profit, cash flow from operating activities and subsidies in agriculture.

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