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THE STRUCTURE OF THE CAPITAL AND THE PROFITABILITY OF THE AGRICULTURAL ENTERPRISE

Abstract: *This article introduces the structure of the sources of capital and the profitability of the agricultural enterprise for the years of 2003-2009. The low debt level and high equity in comparison to the foreign capital involved in the case study enterprise shows high caution in the process of conducting the economic activities. Adherence to the golden rules (of financing and balance) increases the sense of the financial stability. The adverse effect of the financial leverage in 2007-2009 and in 2006 was caused by the negative financial result. The foreign capital invested in the enterprise contributed to the better utilization of the equity in 2005 and in the years of 2007-2009.*

Key words: *debt, profitability, equity, foreign capital, financial leverage*

Introduction

The rational utilization of the enterprise's capital resources takes place with proper participation of the equity and foreign capital in the financing of the capital components. Furthermore, the degree of the utilization of the capital resources can be rated by calculating indexes of the capital-asset structure.

The factor determining growth of the enterprise is the profitability. The profitability factors make up the synthetic benchmark, used to rate the proficiency and the effectiveness of the operation in the aspect of the implementation of the enterprise's basic goals, which are profitability and growth.

The goal of this paper is presentation of the outside financing influence on the profitability of the case study agricultural enterprise in the years of 2003-2009.

Research methodology

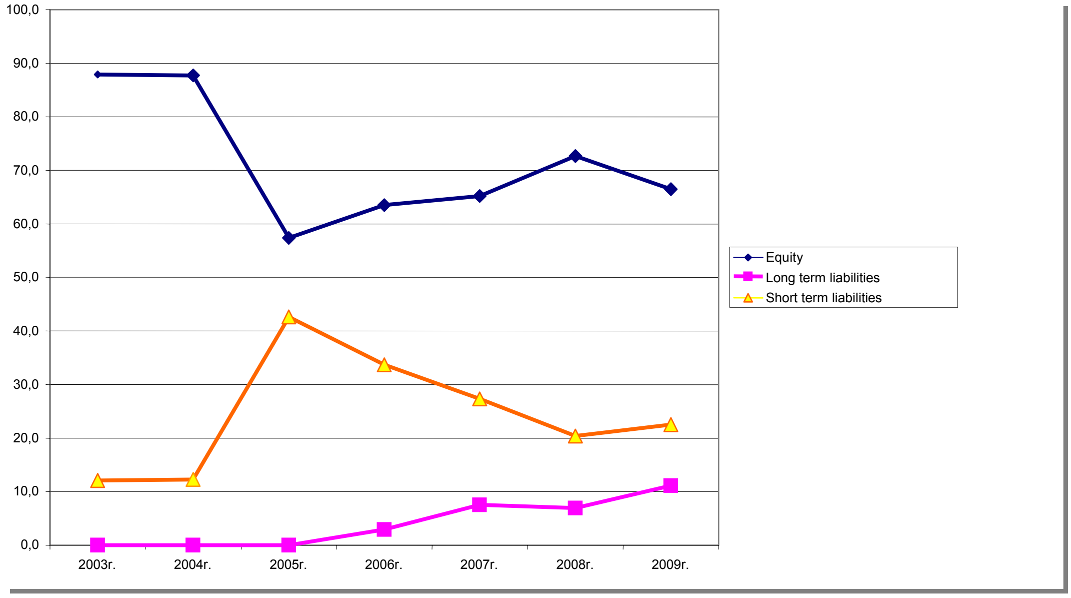
The analyses cover an agricultural enterprise using a basic accounting. The sources of data were the annual reports, mainly the balance sheet (profit and loss report). The data covers the period of 2003-2009.

For the case study subject, return on assets index (ROA) was calculated by dividing a company's annual earnings by its total assets and the return on equity index (ROE) was calculated by dividing the net profit by the company's equity. Furthermore, the influence of the financial leverage on the equity profitability was determined by dividing return on equity by the return on assets [Rice, 1993; Siudek, 2004; Waśniewski, Skoczylas, 1997, Wyszkowska, 1996].

Based on the balance relations golden rule of financing and golden rule of balance were created.

ëResearch results

The average cropland area of the case study enterprise in the analyzed period was approximately 4,400 ha. The largest income was from the sale of crops (approx. 58%). The animal products income came mainly from the animal farming, where the milk sales generated about 36% of the income.



Source: own research

Fig. 1. Structure of the sources of capital of the case study agricultural enterprise in 2003-2009

Within the researched period the value of the tangible assets increased threefold and reached the level of 34.6 mln zl on Dec. 31, 2009. The share of the fixed tangible assets in the total assets grew from about 36% (in 2003) to about 60% (in 2009). This relatively low share of fixed assets in total capital shows the companies' flexibility in the process of adjusting to the market changes.[†]/

The sources of financing shown in figure 1 inform of who supplied the company with the essential resources and under what conditions. The own capital was the essential part of the liabilities.

Short term liabilities, mainly supplies and services payable within 12 months dominated over the long term liabilities. Seasonal lack of the liquidity is the main reason behind accessing foreign capital in the form of short term liabilities. Most often the company applied for the credit to purchase fertilizer. The short term liabilities share in the capital structure gradually shrank from 42.6% (2005) to 22.5% (2009), but the long term liabilities slowly increased. Maintaining the correct structure of capital is essential, because the increasing cost of short term liabilities may lead to the increased cost of the capital. The company may face a problem within a short period of time, with fulfilling it's obligations towards the short term liabilities

Table 1. Indexes of liabilities of agricultural enterprise in years 2003-2009

Itemization	Year						
	2003	2004	2005	2006	2007	2008	2009
Total debt index (%) [‡]	12,1	12,3	42,6	36,6	34,8	27,3	33,5
Equity debt index (%)[§]	13,7	14,0	74,2	57,7	53,4	37,7	50,6
Equity share in the financing of the capital index (%)[**]	87,9	87,7	57,4	63,4	65,2	72,4	66,3
Relation of the long term liabilities to total liabilities index (%)[††]	0	0	0	7,9	21,7	25,4	33,0
Golden rule of financing (pts)[‡‡]	7,28	7,15	1,35	1,73	1,87	2,65	1,98
Golden rule of balance (pts)[§§]	1,15	1,13	1,60	0,99	1,04	1,36	1,29

Source: own research

The important role in the assessment of the capital is the share of the equity in the financing of the fixed assets of the company. In the case study enterprise the fixed assets were covered by the fixed capital, meaning equity and the long term liabilities. The "golden rule of balance" was observed. That rule states that fixed components of the assets should be financed with the equity (Davies 1993).

The indexes of financial support, shown in Table 1 characterize the degree of financial involvement of the outside sources in the enterprise. The indexes of the financing structure consider total liability of the company, combining own and foreign capitals in the value of the balance sheet (Jerzemowska and others 2006).

The indebtedness level of the analyzed enterprise may be considered low, and it was changing in the range from 12.1% to 42.6%. As the norm, the value of the general indebtedness index in the range of 57-67% is accepted (Jakubczak, 2008). Analyzed enterprise showed the highest index of the equity debt in 2005 and the lowest in 2003[***].

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[1] In 92 agricultural companies analyzed by Wyszkowska (1996) fixed assets share in total assets was at the level of 79-82%

[2] Total debt index (total liabilities/total assets x 100%)

[3] Equity debt index (total liabilities/total assets x 100%)

[4] Equity share in the financing of the capital index (equity/assets x 100%)

[5] Relation of the long term liabilities to total liabilities index (long term liabilities/total liabilities x 100%)

[6] Golden rule of financing (equity/foreign capital)

[7] Golden rule of balance (fixed capital/fixed assets)

[***] Desired value of the ratio of the foreign capital to the equity is 1:2 (Jerzemowska and oth., 2006)

The case study agricultural enterprise adhered to the golden rule of financing, because the foreign capital was totally covered by the equity. High level of the equity in comparison with the foreign capital involved shows strong basis of the analyzed company and gives the feeling of the financial security. The equity share above 50% is considered as high (Siudek, 2004). To high value of the index means high risk of the enterprise. The relation of the equity to the foreign capital should be equal or higher than 1 (Bednarski, Waśniewski, 1996). Those proportions are an act of choice, implemented with accordance to the rule that states, that the company should borrow as much, as it is possible to reach the highest profit from the increased debt, but without crossing the line of loosing the fluency, which may lead to bankruptcy.

The foreign capital consisted mainly of the short term liabilities, like supplies and services. The long term liabilities share gradually increased starting with 7,9% in 2006 to 33% in 2009. The company obtained long term loans to purchase fixed assets and to modernize the buildings.

Table 2. Profitability of the analyzed agricultural enterprise (points)

Index	Year						
	2003	2004	2005	2006	2007	2008	2009
Profitability of total capital	-0,19	-0,10	0,17	-0,03	0,04	0,01	0,02
Equity profitability	-0,21	-0,12	0,29	-0,05	0,06	0,01	0,03
Financial leverage effectivenss	1,14	1,14	1,74	1,58	1,53	1,38	1,51

Source: own research

Profitability of the enterprise is the result of combination of the capital and the activities leading to the appropriate usage of the capital. The profitability indexes become the expression of the income generating power of the company. The equity and the foreign capital participate in the financing of the enterprises. The cost of each element of the capital differs. That is why two different basic indexes are used in the assessment of the profitability of the enterprise: the equity profitability index and the total capital profitability index (Tab. 2). The equity profitability describes the rate of return on the capital involved by the owner in the agricultural enterprise. The level of this index may show significant involvement of the foreign capital or running the company with the dominating share of the own capital (equity). The case study enterprise generated the highest profit in 2005 and that was 0.29 zl per every 1 zl of the equity (tab. 2).

The profitability of the total capital informs about the rate of return on the assets. This index is useful when we compare different companies. In practice, this is the most often used measure of the profitability of the capital involved in the agricultural enterprise. The data shown in Table 2 indicates the fluctuations of the profitability indexes' values. The highest values were observed in 2005 and the lowest in 2003, 2004 and 2006 (Tab. 2).

Within those years the company incurred losses and the efficiency of the utilization of the assets decreased[†††]. The invested foreign capital allowed for a better utilization of the equity in the remaining years. When Poland joined the European Union, prices of milk went up, what caused the increase in the net profit of the enterprise. The highest level of the financial leverage index was observed in 2005 (Tab.2). In that year the equity indebtedness of the company was the highest and, at the same time the golden rule of financing index was the lowest. That situation confirms the contradiction between the golden rule of financing and the profitability of the invested capital.

When the debt is incurred the financial leverage starts to function. Higher debt causes higher return on investment with the right conditions. When we stipulate that the value increase accomplished by the certain component of the assets, is higher than the interest paid on the loan, the financial leverage will lead to the higher return on the equity invested.

Summary

1.In the case study enterprise equity dominated in the structure of the capital

2.In the case study enterprise the golden rule of financing was obeyed (foreign capital was covered by the equity), as well as the golden rule of balance (fixed assets was financed by the fixed capital)

3.The agricultural enterprise was able to the best extend use the financial leverage in 2005. The involvement of the foreign capital in the financing structure was the highest. In the remaining years the financial leverage effect could have been increased by a more courageous use of the outside financing sources.

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[†††] The financial leverage effect may be positive or negative. The positive effect means increase of the profitability of the equity, where the negative effect means decrease in the profitability of the equity. The neutral effect is observed when the financial leverage effectiveness index equals 1.

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Summary

The low debt level and high equity in comparison to the foreign capital involved in the case study enterprise shows high caution in the process of conducting the economic activities. Adherence to the golden rules (of financing and balance) increases the sense of the financial stability. The foreign capital invested in the enterprise contributed to the better utilization of the equity in 2005 and in the years of 2007-2009.

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