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Ph.D. Thesis

The income analyses of some agricultural enterprises from the territory east of the river Tisza

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1. INTRODUCTION AND AIMS

In Hungary agriculture has had a significant role for centuries. Its role is very important not only in the national economy but also in the preservation of rural life-style and in overcoming social difficulties. In its conformation the favourable natural and ecological circumstances had a major role.

There has been a process of change in agriculture since the mid 80's. The size of production has decreased in a large measure, the number of the labours has showed a regressive tendency and the gradual pinch of sale opportunities drastically limited the export opportunities and the internal markets as well. The fall of profit was combined with increasing capital deficit which resulted in the further degradation of technological level. In order to insure competitiveness investment into buildings and machines is necessary. At the end of the 90's the radical change in the structure of ownership made the situation of agriculture more difficult. After the political changes there was a major altering in Hungarian economy, therefore the owner approach became general instead of federal plans.

The major aim was to give cooperative ownership into private hand. Some people who handled agriculture as a life career got one part of the cooperative property, the other part got into the hand of the retired or outsiders. As a result a major contrast evolved in the utilization of profit. The number of the owners increased drastically in parallel with the notable decrease of land size. The basic difficulty is that the tools, land utilization and the ownership of the field were separated. These processes resulted the consumption of production bases and a general uncertainty.

On the long term the European Union could be the solution for the struggling Hungarian agriculture. Agricultural enterprises have to develop the circumstances which make them able to cope with in the decreasing competitiveness in the European Union and to grab the maximum opportunities in the concurrence fight. We have to focus on those enterprises which are viable on the long term. To hold and to increase the level of own capital in the long run a profitable management is needed. In the lack of this with the consumption of the resources the security of functioning gradually becomes impossible. That is why in my opinion it is important to analyse the profitability of agricultural enterprises.

The information to create a picture about the profitability of a enterprise is guaranteed by accounting information systems. The integration ambitions of the European Union, the increase of foreign stock-exchange registry, the financial decisions, which reach across the borders made the harmonization of the national accountancies necessary. This makes the

activity and efficiency of different enterprises with different nationality comparable on the bases of uniformly accepted principles.

Taking into consideration the above mentioned facts the aims of my thesis are the following:

1. To insure the stable value and to guarantee international comparability of information that we can get from the analysed database I find it essential to overlook the accounting information system. I divide it into the following parts:
    - The drastic revision of the internationally received accountancy rules is under proceeding (along with the international accountancy standards, guide line of the accountancy in the European Union), so these cannot be left out of consideration in the Hungarian accountant regulation either. This is why it is necessary to follow these changes up to date, and to actualise the national accountancy regulation system. This is why it is important to review shortly the parameters and institutional background of the national and international accountancy information system, specially the integration ambitions of the European Union referring to the role and main differences of IAS and US GAAP.
    - After the short review of the development of the Hungarian accounting system, I intend to pay special attention to the structure and content of annual report, income statement, cash-flow. Having observed the international accounting tendencies, it is important to highlight on the main differences between the accounting law and IAS. In parallel I show the requirements of US-GAAP.
2. For the better understanding I feel it is required to shortly summarize the general situation, the ownership proportions, its role in the national economy, profitability situation, the reasons causing the lack of profit in agriculture.
3. After summarizing the role and aim of analyses, I demonstrate a few possibilities how to group of the financial indexes.
4. As the main aim I examine the asset, financial and profitability statement of enterprises from the territory beyond the river Tisza in the period of 1997-2002. As a part of it I pay attention mainly to the following things:
    - I compare the results with the data of test factories, and other data. First I analyse the data by years and I compare them, afterwards I introduce the profit and loss categories-, cash flow and index tendencies of the six years.

- My aim is to define the significant differences between the asset-, financial and profit state of the analysed organisations grouped differently (by year, enterprise form, etc).
- I examine if there is any connection between the yearly mean of the data of profit and loss categories, liquid asset change and profitability-, liquidity indexes.
- With cluster analyses – taking into consideration all the indexes together – I define the most typical group of enterprises in the examined year and the indexes which determine the classification.
- If we examine enterprises in a great number, the reasons of the change in the assets-, finical- and profit state cannot be found all the time. To follow up the consequences of the decisions I made perspicacious analyses of the two enterprises from the database.

2. THE METHOD AND THE DATABASE OF THE EXAMINATION

To execute the aims I have made independent research in the following fields. Having elaborated and classified the lectures connected to the theme I developed a database for the realization of the aims. The last period did conform that it is really difficult to get enough reliable information. Even the Central Statistical Office could not develop a suitable, detailed, annually comprehended database from the result of the activity of agricultural enterprises. Like the different scientific schools or institutions I have made my own data collection following the economic states for years.

In order to create a larger database, which my aim was I collected the annual report, income analyses and complementary appendix, cash-flow statement of more and more agricultural enterprises from the territory beyond the river Tisza. As the cash-flow analyses have only been part of the report since 1997, the examined period is between 1997 and 2002. Taking into consideration the geological aspects the companies operate in the listed counties in the territory beyond the river Tisza are the folowing: Hajdú-Bihar, Szabolcs-Szatmár-Bereg, Jász-Nagykun-Szolnok, Békés és Csongrád. This detailed data can only be found in the Ministry of Justice, Firm Inquire-, and Firm Registration Department where they put the data at my disposal.

In the first year of the research I examined the database by enterprises from the territory beyond the river Tisza, and I collected only the data of agricultural enterprises.

Unfortunately in the absence of penalty the enterprises does not accede the publication commitment or they make it barely or faulty.

Because of better comparability I analysed the data of the same enterprises in every year. Because of the ceasing, windup, lack of the publication commitment the number of the enterprises decreased dramatically (in 1997 there were 120 enterprises).

To increase the database I tried to complement the missing data from the Registry Court of Hajdú-Bihar County, or directly from the enterprises of which I had the data of the previous years.

The publication of data is only possible at the end of the following year that is why I closed the database in 2002.

Because the above reasons between 1997 and 2002 I collected the annual report of 40 agricultural enterprises (agricultural basic activity, processing of agricultural products, forest husbandry, agricultural service, etc.) from the territory beyond the river Tisza. For the better

comparability I classified the examples to get homogenous groups in some aspect. In the grouping system the economical year, enterprise form, functions, etc are the basis of classification.

Table 1 contains the distribution of the enterprises by counties and enterprise form.

Table 1

The distribution of the examined enterprises by counties and enterprise form

Unit: piece, %

Name	Co-opera-tives	LTD.	Joint- stock company.	total	%
Hajdú-Bihar county	14	11	1	**26**	**65**
Békés county	5	2	-	**7**	**17,5**
Csongrád county	1	1	1	**3**	**7,5**
Jász-Nagykun-Szolnok county	1	2	-	**3**	**7,5**
Szabolcs-Szatmár-Bereg county	-	1	-	**1**	**2,5**
Total	**21**	**17**	**2**	**40**	**100**
%	**52,5**	**42,5**	**5**	**100**	

Source: own collection

Geographically 80% of the enterprises is in Hajdú-Bihar and Békés county. In the case of the enterprise form we can group the enterprises into three groups: cooperatives, limited company, limited partnership. By function 5 are (12,5%) animal breeders, 11 (27,5%) cultivate plants, 24 are (60%) mixed.

I analysed and evaluated the collected data. For a deeper analyses I concentrated on the following statistical methodical fields:

- descriptive statistics (means, ratios, standard deviation, etc.)
- mathematical-statistical analyses (correlation, cluster analyses).

For the better judgement of the enterprises I compared the means and ratios counted from my database, and the data from test factories and others from literature (tax office,AKII, etc.).

I would like to refer to the data to a target abundance (the analysed part of the agriculture).

In addition to the determination I made ANOVA and Tukey probe (**SZÉKELY és BARNA,** 2003.) to compare the means of the dissimilar organisations grouped by different aspects (economical year, enterprise form etc.) to exhibit the significant differences between the groups in case of financial, property, profit and loss condition. I adopted one way ANOVA analyses because I compared the independent samples only by one view (the used grouping relevant). In the analyses the $P< 0,05$ value was significant.

With correlation analyses I examined if there is any connection between the yearly mean of the data of profit and loss categories, liquid asset change and profitability-, liquidity indexes.

It is worth to examine the significance as well, which gives the information whether in the case of a multidimensional sample the connection is casual or not.

It brings up several problems to group the enterprise-database by ratios. To resemble the exercise by one variable – when we analyse the companies by comparing them in addition to financial ratios counted out one by one – seems to be impossible. To analyse on the basis of all the information is a rather difficult job. To bring up a few ratios causes information loss, because one efficiency level can be measured by several liquidity, profitability or involvement indexes not to talk about the complex analyses of the performance of the company.

With multivariable statistical methods it is possible to handle numerous variables, to represent inner connections, by this it is possible to observe the characteristics of the symptoms, and the system of the indexes can be analysed.

I analysed the existing data by a multivariate mathematical method, cluster analyses, from these methods I used the not hieratic K-centred algorithm. The essence of it is that those has to be in a group which belong together mostly, taking into consideration the greatest number of traits.

I classified the data by years, and then I made the analyses. To determine the number of the clusters I endeavoured to have two or three clusters where several companies are beside some nearly empty clusters. Therefore I found it advantageous to create five clusters in each year. With the help of the program the F value and the significant levels could be determined. To avoid the distortional effect of it I left out the data which had higher then 0,05 significance level, and then the cluster analyses was made again. Like this the most characteristic index system can be defined by years.I have made discerning analyses of the limited companies to follow up the consequences of the decisions. During the analyses first of all I rested on the ratios counted from the database. To adjudge the efficiency based on the indexes, the data from financial statement, data queues, and key numbers have to be compared with indexes of national or foreign enterprises. On the basis of this the property, the financial and the profit statement of the company have to be evaluated. If the analyser can select between the indexes the best is to chose on a subjective bases. That is why most of the professionals criticise index analyses, although this is a necessary mean of well-founded economical decisions.

I used Microsoft Word, Microsoft Excel and SPSS for Windows 10.0 software for the classification of data, and to make the tables and figures.

3. THE MAIN ESTABLISHMENTS OF THE THESIS

3.1. THE NECESSITY OF THE HARMONISATION OF THE ACCOUNTING INFORMATION SYSTEM

The uniform national accounting regulations seem to be rather dissimilar when we pass the country borders because of the different cultural traditions, judicial and social relations.

To compare enterprises with different nationality by unitedly accepted principles and rules, it is necessary to harmonise the different national regulations. So it is needed to introduce a world wide uniform, globally used, ordered finance - accounting and report preparing standard. In harmony of this the changing of the internationally accepted accounting rules is in progress (international accounting standards, accounting guidelines of the European Union). These cannot be left out of consideration by the Hungarian accounting regulation. That is why it is essential to follow these changes up to date, to continuously actualise the national regulation.

In the international harmonisation the accounting law - in the year 2000 - got into harmony with the guidelines of the European Union and the practice of the member countries.

At the same time it is good to pay attention to the requirements of the IAS. If we consider the structure and the content of Hungarian report we can state that it is defined, it allows minimal improving possibilities, versus to the regulation of IAS, which allows statements with not so strictly defined content and form, beside a minimised content.

The ingredients of the report are similar, but the complement information is a lot more detailed.

3.2. THE GENERAL SITUATION OF AGRICULTURE

From the middle of the 80's beside the decrease of the volume of the production, the scarcity of capital, the loss of the production and the instability of sales could be observed. The drastically increasing prises of the foodstuffs cast back the native demands. The increase of the capacity of production was behind first, but in the 90's because of the lack of founds the investments to grade up did stop.

The amends were disadvantageous because of the crumble of land size, and the property of the field separated from the land utilisation and equipment properties **(SZABÓ)**.

The change of the property structure according to **SZŰCS and UDOVECZ (1998)** resulted the consumption of production fundaments, the drastic decrease of income from production, general doubtfulness, development of imminent bankrupt conditions or finally liquidation of enterprises.

The supports have a social role besides the development of production in the future. It is really adverse to use the supports to keep alive those economical organisations that are unable to improve effectiveness.

After the accession to the European Union in accordance with **KOVÁCS and UDOVECZ (2003)** the fluctuation of the prises will decrease, the system of supports will change and the competition will get sharper. To improve the competitiveness we need investments that increase the effectiveness and help to get to the market, furthermore establishments fit for action and collaboration are necessary. They think the change of the structure is urgent, where the mostly ineffective establishments have to give up their function and hand over their markets to the more effectives.

In the development of financing problems of the agricultural enterprises low-standard capital and the comparatively high claim to remove capital had a major role. Additionally profit uncertainty and the low collaboration ability had effects as well **(TAKÁCS 1999)**.

3.3. PROFIT ANALYSES OF THE AGRICULTURAL ENTERPRISES

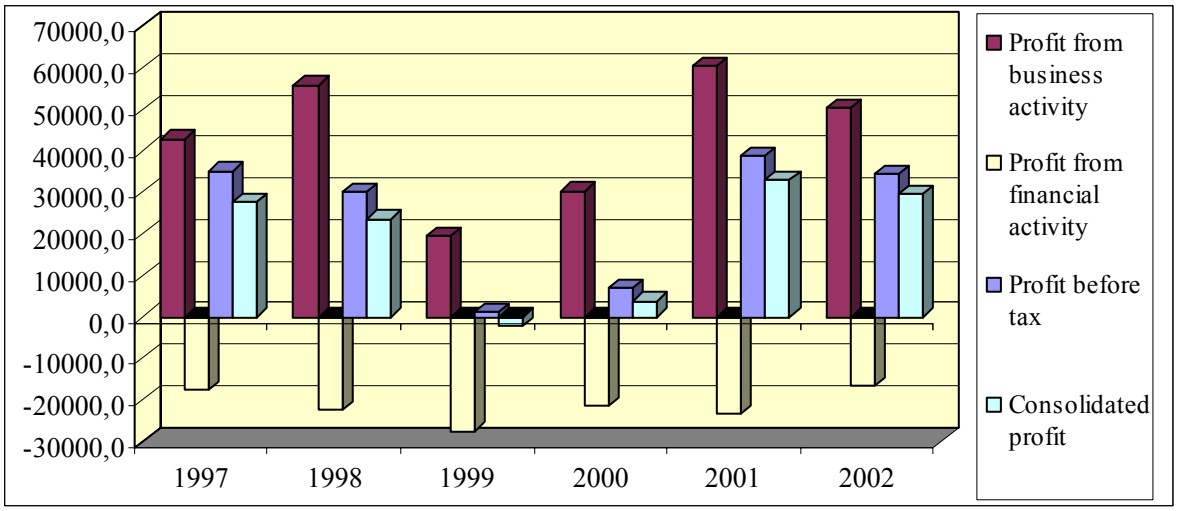
It is a general experience that the profitability of agriculture is really low in Hungary. On the bases of data from test-factories it was defined that out of the individual enterprises (individual entrepreneur) and partnerships (LTD, limited partnership,) the greatest proportion can manage effectively, even if on a low profitability level. 70-80% of these enterprises from these categories showed positive profit after tax, while in the case of the co-operatives only 35% had the same result. A little bit more then 1% of the sales revenue is used for payment of interest, which is a favourable rate compared to the nationwide average (6-10 %).

3.3.1. Components of profit

The activity of the analysed enterprises was modestly positive from 1997 till 2002, expect in 1999. The profit before tax was the highest in 2001. The changes of the main profit and loss categories can be seen at the first figure.

Figure 1.: **The components of income statement (the average of the analysed companies)**

Unit.: tousand Ft.



Source: Own calculation.

The success of a well operating enterprise is firstly determined by the business activity. In this category in the analysed period there was a different amount profit. Compared to 1997 at the beginning there was an increase (30,3%), but in 1999 a notable decrease can be seen mainly because of the extreme weather conditions (64,9%). In 2000 the growth can be explained by the close of the agricultural scissors for the first time **(KSH, 2001)**. In 2001 because of the favourable weather and realization possibilities the profit from business activity could reach the level of the previous years moreover it could exceed it. Unfortunately this tendency could not continue in 2002 and there was a decrease again. It was partly because of the unfavourable weather and because of the drop of the prises in the external markets **(KSH)**. The input of business activities increased slowly year by year.

The financial profit – in agreement with the observation of **PATAKI – REKE (2002)** – was continuously negative. The positive operating result was around 40%. The worst situation formed in 1999 and 2000.Compared to a unit of positive operating result in 1999 140%, while in 2000 70% was the measure of the financial loss.

According to **PATAKI – REKE (2002)** the continuous fall of the profit before taxes was not because of the increase of the financial loss, but because of the decrease of the operating result.

Altogether we can say that it is characteristic for all the enterprises that the major percentage of positive profit after tax stayed at the owners.

In table 2 the data of the main profit and loss categories of agricultural enterprises can be seen.

Table 2

The main profit and loss categories of the analysed agricultural enterprises

Unite: eFt.

Total	1997	1998	1999	2000	2001	2002
	On the bases of own database					
Profit before tax	35197,2	30078,3	1052,7	6961,1	38946,4	34533,8
Profit after tax	31410,6	26600,0	-432,0	5623,3	35516,4	32703,1
Consolidated profit	27586,6	23586,5	-1959,3	3887,6	33058,2	29714,8
	On the bases of APEH					
Profit before tax	22908	23848	-7997	6720	37158	No data
Profit after tax	17903	17440	-11397	2531	31311	No data
Consolidated profit	14010	7762	-15394	-2264	25878	No data

Source: Own database and the data of APEH.

Having compared my data with the data of the tax office (APEH), we can experience that a favourable consolidated profit after 2000 is typical.

In the efficiency analyses we have to consider the effect of support. In the sector in the year 1997 and 1998 the source of profit was absolutely the support.

In the case of the profit and loss categories with one way ANOVA method I found significant differences between the *years* (P<0,05) in the following cases:

- usual discount — between 1999 and 1998, 2001, 2002
- profit before taxes — between 1999 and 1997, 2001
- profit after taxes — between 1999 and 1997, 2001, 2002
- consolidated profit — between 1999 and 1997, 2001, 2002 and between 2000 and 2001.

In the case of the profit and loss categories with one way ANOWA method I found significant differences between the *organisation forms* (P<0,05) in the listed cases:

- profit from business activity — between joint-stock company and the co-operative
  between joint-stock company and LTD
- profit before taxes — between joint-stock company and the co-operative

3.3.2. The tendency of the cash-flow in the analysed period

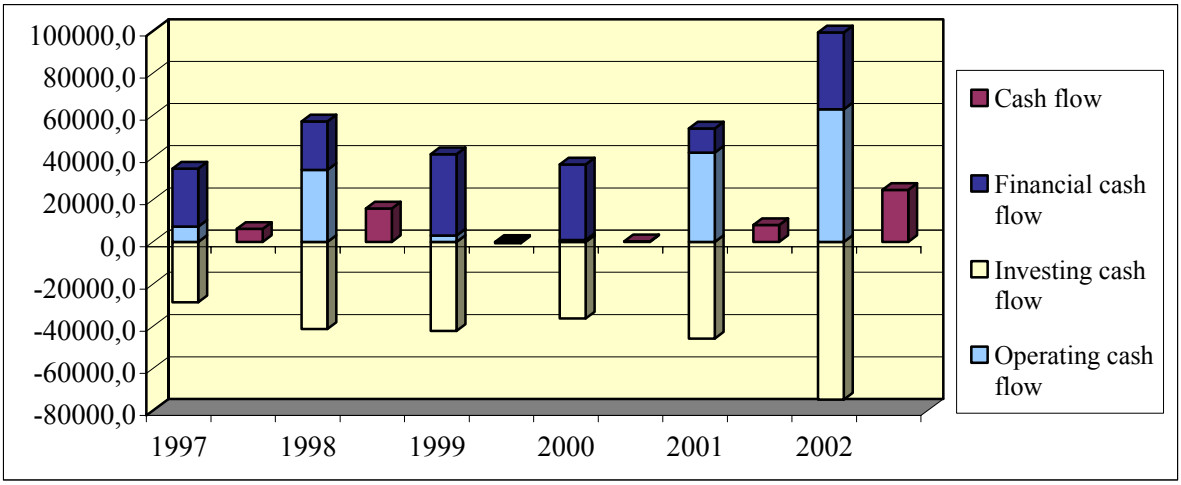
During the operation of the enterprise the aim is not only to realize profit. In long term it is necessary to cover the financial expenses by the financial incomes. The decrease of the monetary stock in sort term is not a big problem, but if it keeps for long-term it can cause the indebtedness or liquidate of the company. In the analysed period in one of the years the

monetary stock increased. The negative change of the monetary stock was coincident with the formation of the consolidated loss.

The change of the cash-flow categories can be seen between 1997 and 2002 on the figure 2 and table 3.

Figure 2.: **Development of cash-flow categories between 1997 and 2002 in the case of the analysed enterprises**

Unite: eFt.



Source: Own database.

Table 3.

Development of cash-flow categories between 1997 and 2002 in the case of the analysed enterprises

Unite: eFt.

Name	1997	1998	1999	2000	2001	2002
Operating cash flow	7171,9	34067,6	3018,5	843,2	42264,8	62869,5
Investing cash flow	-28595,2	-41287,8	-42233,9	-36399,1	-45836,4	-74699,8
Financing cash flow	27566,1	23094,6	38551,3	35831,6	11469,2	36420,8
Cash flow	6142,8	15874,4	-664,1	275,7	7897,6	24590,6

Source: Own database.

In 1999 and 2000 the operating cash-flow participated only minimally to the change of the monetary stock. In 1998 and after 2001 to insure operating became the main source to obtain invested assets. It is necessary to obtain the invested assets, the replacement of the used up assets and the development from this aspect as well. Between 1997 and 2002 the amount of money used for obtaining – instead of in 2000 - reached at least the volume of the previous year, moreover the amount spent for this purpose till the year 2002, compared to 1997 nearly tripled. It is unimaginable to operate an enterprise without credits. Generally to carry out a bigger investment in the case of agricultural enterprises often it is essential to use credit to

insure the operation. Unfortunately at the examined enterprises we can observe the tendency that the taken-up credit exceeds the amount of loan recovery and a significant part of it (65-95%) has to be used for the payment of instalment and interest. The amount of the received credit is in inverse ratio with the change of the monetary stock of usual activity. The better is the economical situation, the bigger the operating cash-flow is, the bigger part of the credits can be used to cover the loan of previously received credits, and interest. From the view of the examined companies the better years were: 1998., 2001. and 2002.

In the case of cash-flow statement there were significant differences ($P<0.05$) in the following cases.

Analysed by years:

- operating cash-flow between 2002 and 1999.

By organisation forms:

- operating and financial cash-flow between Joint-stock company and co-operative
- investment cash-flow: between all the companies form.

3.3.3. The change of profitability

The profitability in relation with the own- and total capital can be followed by the data of test companies and APEH in the table 4.

Table 4:

The typical data of profit statement of the analysed agricultural enterprises

Unite: %.

Megnevezés	1997	1998	1999	2000	2001	2002
	On the bases of own calculation					
Return on sale (ROS)	9,3	3,8	-3,7	-1,0	6,3	4,8
Retun on assets (ROA)	7,8	2,8	-3,0	0,3	7,9	3,3
Return on equity (ROE)	12,7	-17,8	-7,1	0,7	10,3	4,8
Sustainable growth rate (GSU)	10,3	-19,1	-7,6	-0,1	9,0	4,2
	On the bases of APEH data					
Return on sale (ROS)	3,5	3,2	-1,1	0,8	n.a.	n.a.
Retun on assets (ROA)	3,2	2,9	-0,9	0,7	n.a.	n.a.
Return on equity (ROE)	5,6	5,4	-1,8	1,5	n.a.	n.a.
	On the bases of test compnie's data					
Return on sale (ROS)	n.a.	2,1	-1,8	-0,03	3,5	3,4
Retun on assets (ROA)	n.a.	7,0	3,2	4,25	7,4	6,2
Return on equity (ROE)	n.a.	3,8	-3,1	-0,05	6,4	5,5

Source: Own database and the data of APEH.

If we compare the own data with the other databases – despite the own capital – a similar tendency can be observed. Compared with the data of the test company, it is a favourable process that the profitability of own capital exceeds the profitability of total capital, as on the one hand the value of own capital increases and on the other hand the yield of the own capital exceeds the cost of foreign capital.

I used one way ANOWA with Tukey-probe to establish the significant differences between the multiple dimensioned samples of the same variable. In the analyses the significant level was $P<0,05$.

I found significant differences between the years in the case of the profitability indexes:

- assets proportional financial rate of return : between 1999 and 1997, 1998, 2001
  between 2000 and 1997, 2001

I could not find significant differences in the case of the company forms.

3.3.4. The analyses of the financial statement

For a successful operation it is not enough to guarantee profitability, but their solvent must be kept as well. If only one of these is completed, sooner or later the company will go broke. This was proved by **REKE (1997)** based on the annual report of trans-Danubian agricultural enterprises.

The short term liability compared to the current ratio reduced by the assets developed well. In the case of the analysed database till 2000 there was a weak decrease and afterwards increase can be observed. The data of the test companies showing a little bit decreasing tendency and they stay on an acceptable level.

Determined by one way ANOVA on the significant level $P< 0,05$ there were no significant differences between the years, but there was significant difference between the data of cooperatives and joint stock companies in the case of liquidity indexes.

3.3.5. The analyses of property statement

In the case of the analysed enterprises the proportion and value of invested assets increased in the examined period. The value of the current assets from the year of 2000 increased in a lower degree than in the cases of invested assets, so the proportion of them decreased.

In 2001 the classification of breeding animals did change, as they got between tangible assets. This had a major effect, which intensified the previous process. It was typical in the

case of agricultural enterprises that the current assets had a higher proportion than in other sectors. That can be explained by the accounting method. With the new classification system this tendency significantly decreased.

3.3.6. Analyses of the correlation between profitability and the change of liquidity assets

I examined the strength of the connection with correlation analyses between the yearly mean of some profit and loss categories, profitability indexes and the change of the liquidity assets.

I would highlight on the following facts. We can find dissimilar strength of connection between the different main cash flow classes. Between the investing- and financing-, and between the investing- and operating cash flow there is a medium strength of connection, this confirms the importance of credits, to provide invested assets, and the change of the liquid assets coming from operating. It is interesting, that between the operating- and financing cash flow there were no significant connection, in contrast with the expectation. The profit before tax was statutorily correlating with all those indexes, which is directly or indirectly the factor of it. This insures the connection between the profitability indexes and the operating cash flow. The analysed liquidity indexes were only in connection with return on sale (ROS), and return on assets (ROA).

3.3.7. The classification of the indexes with cluster analyses

I defined the most characteristic index system for the given year taking into consideration all the indexes. I classified the available data by years and afterwards I analysed them. Having created the clusters I took into consideration that there has to be at least two or three determining group with several enterprises beside the nearly empty clusters. That is why I created 5 clusters in every year. The results can be seen in table 5. With the help of this the economical situation of the companies can be compared in the given area in practice as well.

On the basis of the experiences it can be stated that the analysed enterprises principally differ in the profitability statement, while the value of their liquidity and debt is mostly around the average. 60% of the companies have better profitability situation than the average. The majority of the examined enterprises operate well, have acceptable liquidity, which can be the main reason of the previous tendency. The germ of the vertical connection system can be observed.

Table 5.:

The final cluster centroids, average, standard deviation and CV% of some indexes between 1997-2002 in the case of the analysed enterprises

Unit: %.

Name	Number of clusters	1	2	3	4	5	Average	St.dev.	CV%
1997	Number of enterprises	1	3	29	6	1			
Return on sale (ROS)							9,3	12,1	76,5
Retun on assets		0,0	5,2	**9,7**	6,4	-22,4	7,8	10,5	74,6
Return on equity (ROE)		-0,1	7,5	**15,7**	9,9	-30,9	12,7	16,1	78,9
Sustainable growth rate (GSU)		-2,1	6,7	**12,8**	9,0	-30,9	10,3	13,9	74,0
Short term liquidity I.							3,9	3,4	117,2
Liquidity quick rate							1,5	1,6	96,3
Solidity of capital		43,8	72,8	**63,1**	57,4	-72,4	59,1	28,3	208,9
Margine of invested assets		91,2	170,6	**153,6**	140,3	-182,6	142,9	74,4	192,2
1998	**Number of enterprises**	**6**	**1**	**1**	**2**	**30**	**Average**	**St.dev.**	**CV%**
Return on sale (ROS)		2,2	-27,9	-2,9	-6,9	**6,1**	3,8	9,0	42,3
Retun on assets		1,9	-36,6	-2,0	-11,9	**5,4**	2,8	9,7	29,0
Return on equity (ROE)		1,4	-809,3	-2,5	-96,7	**9,5**	-17,8	132,3	-13,5
Sustainable growth rate (GSU)		1,1	-809,3	-2,5	-96,7	**7,8**	-19,1	132,0	-14,5
Short term liquidity I.							3,0	1,9	160,7
Liquidity quick rate							1,3	1,2	111,6
Solidity of capital		67,3	4,5	81,2	39,7	**59,2**	58,6	20,4	287,7
Margine of invested assets		189,9	12,8	188,6	56,9	**153,9**	151,8	63,6	238,8
1999	**Number of enterprises**	**2**	**1**	**24**	**12**	**1**	**Average**	**St.dev.**	**CV%**
Return on sale (ROS)		-8,2	-45,6	**2,1**	-10,8	-4,7	-3,7	13,1	-28,0
Retun on assets		-10,2	-22,4	**0,6**	-7,3	-3,6	-3,0	10,2	-29,2
Return on equity (ROE)							-7,1	28,9	-24,6
Sustainable growth rate (GSU)							-7,6	28,5	-26,9
Short term liquidity I.							2,6	1,8	150,0
Liquidity quick rate							1,1	0,9	115,9
Solidity of capital							55,6	23,3	238,9
Margine of invested assets							136,6	69,6	196,1
2000	**Number of enterprises**	**27**	**1**	**1**	**10**	**1**	**Average**	**St.dev.**	**CV%**
Return on sale (ROS)		**4,6**	-1,5	-4,1	-16,1	0,5	-1,0	14,2	-7,3
Retun on assets		**4,5**	-3,5	-3,0	-10,5	0,4	0,3	9,3	3,0
Return on equity (ROE)		**9,0**	-8,1	-4,1	-20,1	0,5	0,7	19,5	3,7
Sustainable growth rate (GSU)		**7,9**	-8,1	-4,1	-20,4	0,5	-0,1	18,9	-0,3
Short term liquidity I.							2,5	1,9	129,9
Liquidity quick rate							1,1	1,3	80,9
Solidity of capital							57,1	17,5	326,4
Margine of invested assets							137,8	70,5	195,5
2001	**Number of enterprises**	**1**	**23**	**7**	**8**	**1**	**Average**	**St.dev.**	**CV%**
Return on sale (ROS)		-4,4	**11,8**	0,8	-4,0	12,7	6,3	11,9	53,3
Retun on assets		-5,2	**12,2**	1,0	1,5	19,4	7,9	9,1	86,1
Return on equity (ROE)		-8,6	**19,0**	1,9	-7,6	31,4	10,3	22,6	45,6
Sustainable growth rate (GSU)		-8,6	**16,9**	1,7	-8,1	31,4	9,0	22,3	40,3
Short term liquidity I.							2,8	2,9	95,1
Liquidity quick rate							1,4	2,2	63,3
Solidity of capital							62,2	17,6	353,4
Margine of invested assets							153,0	110,2	138,8
2002	**Number of enterprises**	**1**	**5**	**24**	**9**	**1**	**Average**	**St.dev.**	**CV%**
Return on sale (ROS)							4,8	18,2	26,5
Retun on assets		-3,1	-11,3	**8,5**	-1,6	0,8	3,3	11,3	28,7
Return on equity (ROE)		-6,3	-19,6	**13,0**	-1,6	0,9	4,8	17,4	27,8
Sustainable growth rate (GSU)		-6,3	-19,6	**12,2**	-2,2	0,8	4,2	17,0	25,0
Short term liquidity I.							2,7	2,1	128,5
Liquidity quick rate							1,4	1,5	96,1
Solidity of capital							64,6	16,4	393,4
Margine of invested assets							154,8	87,6	176,7

Source: Own calculation

3.3.8. Analyses of own financing capability of agricultural enterprises by deep interview

To the more accurate following of the consequences of decisions I made a thorough analyses of two limited companies, Kasz-Coop LTD and Hungaro-Pig LTD. During the selection of the enterprises I made an effort to analyse companies which do not have similar basic activities, long-term plans, realized developments and are many-sided.

Kasz-Coop LTD deals with plant cultivation and diary cattle breeding, while the Hungaro-Pig LTD deals only with swine breeding.

In the analyses of the property statement I observed that the value of invested assets and current assets both increased, in the proportion the invested assets got into preponderance, because of the investments and the refer of the breeding animals stayed between tangible assets. The capital fullness developed in a similar way at Kasz-Coop LTD as in the test companies, and the own result in the case of Hungaro-Pig LTD was rather critical for a few years, nearly 30%.

After 2000 in the case of both companies the liquidity was acceptable just like at the test enterprises.

Between 1997 and 2002 in a different degree, but both of the enterprises were profitable. The different profit and loss categories participated differently in the result.

Among the profitability indexes beside sales revenue-, assets-, and own capital proportional profitability I analysed the sustainable growth rate. The volume of the indexes in the case of the analysed companies was higher than in the data of test enterprises and APEH, but the tendencies were the same.

The examined companies because of the revenues, number of the employees, and the volume of the gross sum off the balance sheet are among the larger enterprises. As a conclusion it can be said that larger agricultural enterprises with the concentration of the sources, namely with the farming on a larger territory, the more effective utilisation of the support opportunities and means of production, with good professional decisions have a better opportunity to join the competition of the market.

After reducing the scarcity of capital it is necessary to develop the activities from production to sale which can guarantee the good quality and fulfil the needs of the customer and increase profit. This can be achieved by the vertical co-operation of economical organisations working at different stages of production. With its lack the producer has to pay the multiple profit of the trader.

NEW AND NOVEL RESULTS

1. In accordance with the comparative analyses of the Hungarian and the international regulations furthermore the rules of the European Union I ascertained that the Hungarian accounting regulation satisfies the guidance of the European Union and it is in harmony with the international standards.
2. In the case of the analysed enterprises the low level of the profit before tax- some cases it was negative - was caused by the loss of financial transactions. This comes from the interests on credits taken up because of the scarcity of capital.
3. In spite of the fluctuating and low profitability in the case of the analysed enterprises the investing temper is unbroken, which is proved by the increasing tendency of the investing cash flow.
4. From 1997 till 2002 the yield of own capitol of the analysed 40 enterprises had a low or negative value. Only in 1997 and 2001 was it more than 10%, but it is still significantly behind the profitability of other capital-intensive sectors of national economy.
5. The profitability indexes of the analysed 40 enterprises show unfavourable values, but the results of cluster analyses give reasons for optimism, because 60 percent of the companies had better profitability indexes than the mean.

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