ECONOMIC EFFICIENCY ANALYSIS OF ORGANIC CROP AND ANIMAL FARMS IN ROMANIA. COMPARATIVE EVOLUTIONS

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Abstract

The organic sector in our country, although as shown in continuous development, faces a multitude of problems: the climatic conditions of our country, characterized by periods of drought in many parts of the country, high input prices, the majority of which are imported; difficulties in identifying markets for products, reduced subsidies, standardized conditions difficult to meet, etc. The problems the sector is facing reflect in the organization of the production activity and hence the economic performance of farm production. Accordingly, the aim of this paper was to analyze on the basis of annual financial and accounting information collected in the two vegetable farms and the two animal breeding farms, their efficiency / inefficiency, and the results were compared to identify the causes of the differences obtained in the efficiency at a farm level. The results obtained reveal a higher level of return on integrated vegetable farm in a joint recovery and a high efficiency for chain integrated animal farms.

Key words: efficiency, organic crop production, organic livestock, return rates

INTRODUCTION

Many research studies regarding the organic and conventional agriculture concluded from an economic point of view that the organic farming, due to balanced crop rotation and the utilization of organic inputs, can be more efficient [4]. Actually there are many studies in this area that point out the economical differences of organic agriculture versus conventional agriculture like the following: the energy costs are lower [1]; the manual work costs rise the total cost with 20-30% [5]; the energy efficiency is higher for organic crops [6]; the lower yields need to be compensated by adequate technologies and management decisions to insure profitability [3]; etc.

In Romanian agriculture, conventional and organic farmers' efficiency is affected by many factors: the fragmentation of agricultural land and small physical dimension; outdated technology and reduced competitiveness; lack of working capital for farmers; difficulties of access to bank loans. etc. [2]. Regarding the efficiency of organic farms compared with conventional farms, this is often a much disputed subject. Due to the low yield per hectare and in many cases to higher prices of inputs, organic agriculture is often considered to be inefficient. In this context, our main purpose was to identify organic farms that can insure economic efficiency, and to point out their main characteristic and the condition in which these farms succeed to resist on the market.

MATERIALS AND METHODS

The research regarding organic farming efficiency was conducted on four organic farms: Farm A - vegetal profile - average surface of 420 ha (Tulcea County); Farm B vegetal profile - average surface of 750 ha (Călărași County); Farm C – animal breeding profile - average livestock of 50 (Suceava County); Farm D - animal breeding profile average livestock of 60 (Suceava County). At these farms' level we accomplish an economical-financial analysis based on annual financial statements from 2008-2012 periods concentrating on the main financial indicators and the main efficiency indicators [7]. We will concentrate in this paper on the efficiency

indicators. respectively: the efficient utilization of resources (assets, human resources, receivables, etc.) by reporting the 1000 RON turnover; indicators to commercial, economic and financial rates of return.

RESULTS AND DISCUSSIONS

The main organizational characteristics of vegetal farms in 2008-2012 periods:

Farm A - organic crops are located in a droughty area; has an irrigation system; productivity per hectare is similar to that of conventional agriculture; the inputs are purchased through the association; the production is sold through the association; the distribution and transport it's done by ships (Danube River).

Farm B - organic crops are located in a droughty area; has an irrigation system; productivity per hectare is lower than that that of conventional agriculture; the inputs are obtained from local distributors; the production is stored in their own silage compound; the production it's sold at the farm gate.

The main economic characteristics of vegetal farms in 2008-2012 periods:

Farm A - specialized in crop production, in 2012 had a turnover of 1.4 million RON, with 20.3% lower, compared to 2008 [8]. The farm ensures its revenue in proportion of 62.6% from the sale of production and in proportion of 26.8 % from subsidies. Of the total costs, 35.6% are raw material costs and 20.7% are external services expenses 20.7%. With regard to economic and financial efficiency, the analysis revealed the following: the farm was profitable (operational and financial results are positive); the degree of material resources use has been declining; the farm ensures the efficiency of fixed assets, receivables, human resources and total costs; the farm didn't ensure the efficiency of external services expenses; the commercial, economic and financial return rates were growing.

Farm B - specialized in crop production, in 2012 had a turnover of 2.4 million RON,

lower with 31.9% compared to 2008 [9]. The farm ensures its revenue in proportion of 54.5% from the sale of production and in proportion of 32.7 % of commodity sales. Of the total costs, only 18.5% are raw material costs, only 16.4% are external services expenses and 29.7% are commodity expenses. With regard to economic and financial efficiency, the analysis revealed the following: the farm was less profitable and its profitability was declining; the degree of use of material resources has been increasing; the farm didn't ensure the efficiency of fixed assets, receivables, human resources and total costs: the farm ensures in a small measure the efficiency of raw materials and external service expenses; the commercial, economic and financial return rates were decreasing even though the farm was very active on the market.

The comparative economic and efficiency indicators evolution on crop farms (Table 1).

Table	1:	Comparative	analysis	of	economic	and
financi	al st	atement of org	anic crop	farm	IS	

financial statem						
	Farm A	Farm	Observations			
		В				
	Revenue					
The share of revenue from the sale production in the turnover	91,8%	62,5%	Farm B completes its revenues by selling organic inputs to other producers. Farm A kept			
The share of revenue from the sale production in total revenue	62,6%	54,5%	the level of sales of goods in the period 2008-2012 almost constant.			
Share of subsidies in total revenue	26,8%	4,4%	The share of subsidies in total revenue is lower for Farm B. This is the main reason of dissatisfaction of the proprietor.			
		Costs				
Raw materials and supplies costs	35,6%	18,5%	Farm A purchases inputs by association from customers or external suppliers, ensuring higher productivity. Farm B, provides its inputs from local suppliers and within own farm. (we consider that the difference is of about 3000 lei/ha between the two companies regarding this category of expenditure).			

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$\begin{array}{c c c c c c c } \hline Profit(f) & Profit(f$	Year production Value added Gross operating surplus The result of the	+ + + -	+	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however	
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$\begin{tabular}{ c c c c } \hline F valuation of F results $$h$ as made its mark on $$F$ arm $$B$, which $$demonstrates $$a$ actual $$financial $$inability $$for $$t$ indig future work.$$$financial $$inability $$for $$t$ indig future work.$$$ turnover (I_{CA})$$ $$I_{CA} > I_Q_f$$ $$I_{CA} < I_Q_f$$ $$Farm A has a tendency $$for stock formation but in $$decrease just as $$Farm B, but $$Farm B manages to $$production (I_Q_f)$$ $$I_{CA} > I_Q_f$$ $$I_{CA} < I_Q_f$$ $$Both $$companies $$have $$hoth $$companies $$have $$has a tendency $$for stock formation but in $$decrease just as $$Farm B, but $$Farm B manages to $$make better production.$$$ $$production (I_Q_f)$$ $$I_{Qe} > I_Q_f$$ $$I_{Qe} > I_Q_f$$ $$Both $$companies $$have $$hocked the assets under $$form of $$stocks, and also $$an $$ increase $$ in domestic $$consumption.$$$ $$$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing	+ + + + + + + +	+	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain	
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$\begin{array}{ c c c c c } \hline Production (I_{Of}) \\ \hline Dynamics index \\ - commodity \\ production (I_{Of}) \\ \hline Dynamics index \\ - commodity \\ production (I_{Of}) \\ \hline Dynamics index \\ - commodity \\ production (I_{Of}) \\ \hline Dynamics index \\ - commodity \\ production (I_{Of}) \\ \hline Dynamics index \\ - vera production (I_{Of}) \\ \hline Dynamics index \\ - year production \\ \hline Dynamics index \\ \hline Dynamics index \\ - year production \\ \hline Dynami$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing	+ + + + + +	+	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use	
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$\begin{array}{ c c c c c }\hline & I \\ \hline \hline & I \\ \hline & I \\ \hline \hline & I \\ \hline & I \\ \hline & I \\ \hline & I \\ \hline \hline & I \\ \hline & I \\ \hline \hline \hline & I \\ \hline \hline & I \\ \hline \hline \hline & I \\ \hline \hline \hline & I \\ \hline \hline \hline \hline & I \\ \hline \hline \hline \hline & I \\ \hline \hline$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing	+ + + + + +	+	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which	
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$ \begin{array}{c} \mbox{Dynamics index} \\ -\mbox{turnover}\left(I_{CA}\right) \\ \mbox{Dynamics index} \\ -\mbox{commodity} \\ \mbox{production}\left(I_{Qf}\right) \\ \end{array} \begin{array}{c} I_{CA} > I_{Qf} \\ \mbox{L}_{CA} < I_{Qf} \\ \mbox{L}_{CA} < I_{Qf} \\ \mbox{lumbhar}_{A} \\ \mbox{turnover}_{A} \\ turno$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing	+ + + + + +	+	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for	
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$\begin{array}{c c} production (I_{Of}) \\ \hline \\ Dynamics index \\ - commodity \\ production (I_{Qf}) \\ \hline \\ Dynamics index \\ - year production \end{array} + \begin{array}{c} I_{Qe} > I_{Qf} \\ I_{Qe} > I_{Qf} \\ \hline \\ I_{Qe} > I_{Qf} \end{array} + \begin{array}{c} Both \ companies \ have \\ blocked \ the \ assets \ under \\ form \ of \ stocks, \ and \ also \\ an \ increase \ in \ domestic \\ consumption. \end{array}$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA})	+ + + + +	+ + - - -	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. rrcial performances Farm A has a tendency for stock formation but in	
$ \begin{array}{c c} \hline Dynamics index \\ - commodity \\ production (I_{Qf}) \\ \hline Dynamics index \\ - year production \end{array} I_{Qe} > I_{Qf} I_{Qe} > I_{Qf} \begin{array}{c} Both companies have \\ blocked the \; assets \; under \\ form \; of \; stocks, \; and \; also \\ an \; increase \; in \; domestic \\ consumption. \end{array} $	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index	+ + + + +	+ + - - -	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. recial performances Farm A has a tendency for stock formation but in decrease just as Farm B,	
$\begin{array}{c} \mbox{- commodity} \\ \mbox{production} (I_{Q_f}) \\ \mbox{Dynamics index} \\ \mbox{- year production} \end{array} \hspace{0.5cm} I_{Q_e} \!$	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index - commodity	+ + + + +	+ + - - -	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. recial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to	
$ \begin{array}{c} \begin{array}{c} \mbox{production}\left(I_{O_{f}}\right) \\ \mbox{Dynamics index} \\ \mbox{- year production} \end{array} \right _{I_{Qe}} > I_{Q_{f}} \\ \end{array} \begin{array}{c} I_{Qe} > I_{Qf} \\ \mbox{top} \end{array} \begin{array}{c} \mbox{form of stocks, and also} \\ \mbox{an increase in domestic} \\ \mbox{consumption.} \end{array} $	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index - commodity production (I _{QI})	+ + + + +	+ + - - -	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. ercial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to make better production.	
Dynamics index $I_{Qe} > I_{Qf}$ $I_{Qe} > I_{Qf}$ an increase in domestic- year production- consumption.	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index - commodity production (I _{Qt}) Dynamics index	+ + + + +	+ + - - -	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. rcial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to make better production. Both companies have	
- year production consumption.	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index -commodity production (I _{QI}) Dynamics index - commodity	+ + + + + I _{CA} > I _{Qf}	+ - - ICA < IQf	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. recial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to make better production. Both companies have blocked the assets under	
	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Dynamics index - turnover (I _{CA}) Dynamics index - commodity production (I _{Qr}) Dynamics index - commodity production (I _{Qr})	+ + + + + I _{CA} > I _{Qf}	+ - - ICA < IQf	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. rcial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to make better production. Both companies have blocked the assets under form of stocks, and also	
(I _{Oe})	Year production Value added Gross operating surplus The result of the operation Year result (net profit) Self-financing capacity Evaluation Dynamics index - turnover (I _{CA}) Dynamics index - commodity production (I _{Qt}) Dynamics index	+ + + + + I _{CA} > I _{Qf}	+ - - ICA < IQf	k (SIG) Farm B, as mentioned before, had difficulty in valuing goods, but managed to maintain a positive trade margin. Both companies fail to provide more value than the value of goods and services from third parties, and a very high production year, however EBE is negative, which indicates that the companies did not obtain availabilities from operating activities. However, the inefficiency of costs use has made its mark on Farm B, which demonstrates an actual financial inability for funding future work. rcial performances Farm A has a tendency for stock formation but in decrease just as Farm B, but Farm B manages to make better production. Both companies have blocked the assets under form of stocks, and also an increase in domestic	

	Farm A	Farm B	Observations
$I_{CA} / \ I_{Qf}$	<1	<1	Delivery rate is lower than the rate of production, but faster for Farm B.
I_{Qf} / I_{Qe}	<1	<1	Production completion rate is lower than the rate of total volume of activity, but faster from Farm A.
Resource 1	tilization :	assessment	during 2008-2012
Profit from 1000 Lei fixed assets	1	Ļ	Farm A: efficiency Farm B: inefficiency
Stock rotation speed	↓	↑	Farm A: inefficiency Farm B: efficiency
Average time for recovery of claims	î	Ļ	Farm A: inefficiency Farm B: efficiency
Work productivity	↑	Ļ	Farm A: efficiency Farm B: inefficiency
Total costs for 1000 Lei from operating revenue	↓	Ţ	Farm A: efficiency Farm B: inefficiency
Costs with raw materials and consumables for 1000 Lei in operating revenue	Ļ	Ļ	Farm A: efficiency Farm B: efficiency
External services costs for 1000 Lei in operating revenue	Ť	Ļ	Farm A: inefficiency Farm B: efficiency
	on of retu	rn rates du	ring 2008-2012
Trade margin rate	\downarrow	\downarrow	As appreciated by the heads of farms
Gross operating margin rate	↓	\downarrow	commercial, economic and financial profitability
Net operating margin rate	↑	Ļ	has decreased in the analysis period. Only
Margin rate on value added	\downarrow	\downarrow	Farm A managed to ensure a surplus reported
Economic profitability rate	↑	↓	profit and equity in ne assets.
Gross margin rate of accumulation	↓	↓	This proves the inefficiency of the operating activity in
Rotation coefficient of capital	Ļ	Ļ	relation to turnover, asset in which were invested and capital used.
Gross economic active return	\downarrow	Ļ	
Net financial return	Ť	\downarrow	
Financial return before tax	Ť	Ļ	
Profit rate	2,8% - 2008 27,4% - 2012	11,6% - 2008 6,7% - 2012	

Source: own evaluation based on annual financial statements

The main organizational characteristics of animal breeding farms in 2008-2012 periods:

Farm C – land cultivated with forage; productivity is similar to that of conventional agriculture; human resources requirements are

small (one employee and day workers); production is stored in their own cooling tanks; the production is sold at farm gate to the milk factory (LaDorna).

workers and family members); production is stored in their own cooling tanks; the production is sold at farm gate to the milk factory (LaDorna) and 1% is kept for family consumption.

The main economic characteristics of animal breeding farms in 2008-2012 periods:

Farm C - specialized in milk production, had in 2012 a turnover of 1.5 million RON, higher with 37.9% compared to 2008 [10]. The farm ensures its revenue in proportion of 84.9% from the sale of production and in proportion of 15.1 % from subsidies. The main expenses were with raw materials (75.4%), human resources (10.1%) and with external services (6.3%). The farm was profitable in the analyzed period, except for 2011, and ensured a high degree of use of all material resources. Also the farm ensured the efficient use of fixed assets, stocks, receivables, human resources and costs. Also. its commercial. economic and financial return rates were increasing.

Farm D - specialized in milk production, had in 2012 a turnover of 0.44 million RON. lower in the entire period with 40-50% compared to 2008 [11]. The farm ensures its revenue in proportion of 95.2% from the sale of production and in proportion of 4.8% from subsidies. The main expenses were materials (24.1%).with raw human resources (29.4%) and with external services (21.9%). The farm was slightly profitable in the analyzed period, ensuring the use of material resources until 2011. The farm didn't ensure the efficient use of fixed assets, stocks, receivables, human resources and raw material costs. Also the commercial, economic and financial return rates were low.

The comparative economic and efficiency indicators evolution on animal breeding farms (Table 2): **Farm D** – land cultivated with forage; productivity is lower to that of conventional agriculture; human resources requirements are higher (four employees, a veterinarian, day Table 2: Comparative analysis of economic and financial statement of organic animal breeding farms

inancial statement o	f organic	anımal	
	Farm	Farm	Observations
	C	D	
The share of revenue	Reve 87,5%	98,7%	The companies
from the sale	87,570	90,770	leverage almost the
production in the			entire production to
turnover			the LaDorna milk
			factory.
The share of revenue	84,9%	95,2%	
from the sale			
production in total			
revenue Share of subsidies in	14,1%	1,24%	Subsidies share is
total revenue	14,170	1,2470	higher for Farm C, it
total levellae			having fewer
			livestock.
	Co	sts	1
Raw materials and	75,4%	24,1%	Farm C acquires the
supplies costs			majority of inputs,
			organic feed being
			bought from a
			supplier located 100
			km away. Farm D has greater capacity
			to insure fodder,
			owning more
			organically certified
			land.
Costs with external	6,3%	21,9%	Farm D has a higher
services			share of costs to
			third parties, owning
			more land that
			requires
Energy and water	1,02%	0	technological works. This type of costs
costs	1,0270	0	have a low share in
			total.
Personnel costs	10,1%	29,4%	Farm D has more
			employees and
			laborers annually (4
			permanent
			employees, 1
			veterinarian, about 20 laborers).
	Pro	fit	20 10001018).
Net profit	184140	812	Farm C operates
			with only one
			employee and family
			members, obtaining
			a higher productivity
			per animal, ensuring
			its high profitability,
			especially with
Eff.	otivonoss	f work (especially with subsidies.
	ctiveness	of work (S	especially with subsidies. SIG)
Effe Trading margin	ctiveness	of work (S	especially with subsidies. SIG) Sales of goods is an
	ectiveness (o f work (\$ 0	especially with subsidies. SIG)
			especially with subsidies. SIG) Sales of goods is an ancillary activity,
			especially with subsidies. SIG) Sales of goods is an ancillary activity, with little
Trading margin			especially with subsidies. SIG) Sales of goods is an ancillary activity, with little importance to ensure
	+	0	especially with subsidies. SIG) Sales of goods is an ancillary activity, with little importance to ensure farm income.
Trading margin Year production	+	0	especially with subsidies. SIG) Sales of goods is an ancillary activity, with little importance to ensure farm income. Both livestock farms

	Farm C	Farm D	Observations
The result of the operation	+	+	parties, as well as high production
Year result (net profit)	÷	+	year. Positive EBE reveals that the farms have availability from operating activities, especially since the factory's daily delivery and fast payment.
Self-financing capacity	+	+	
	sults and o	ommerci	al performances
Dynamics index - turnover (I _{CA}) Dynamics index – commodity production (I _{Qf})	$\begin{array}{c} I_{CA} > \\ I_{Qf} \end{array}$	$I_{CA} < I_{Qf}$	Farm C shows an increase in inventories, unlike Farm D who succeeds to make better production.
Dynamics index - commodity production (I _{Qt}) Dynamics index - year production (I _{Qe})	$I_{Qe}\!\!< I_{Qf}$	$\begin{array}{c} I_{Qe} > \\ I_{Qf} \end{array}$	Farm C shows a reduction in the consumption share of third parties. Farm D show blocked assets under the form of stocks, but also an increase in domestic consumption.
I _{CA} / I _{Qf}	>1	<1	For Farm D the delivery rate is lower than the production rate and this reversed for Farm C.
I_{Qf} / I_{Qe}	>1	<1	For Farm D the production completion rate is lower than the rate of the total volume of activity and this is reversed for Farm C.
Resource utiliz	ation asses	sment du	
Profit from 1000 Lei fixed assets	ſ	\downarrow	Farm C: efficiency Farm D: inefficiency
Stock rotation speed	\downarrow	1	Farm C: inefficiency Farm D: efficiency
Average time for recovery of claims	ſ	↓	Farm C: efficiency Farm D: inefficiency
Work productivity	↑	ſ	Farm C: efficiency Farm D: efficiency
Total costs for 1000 Lei from operating revenue	\downarrow	↓	Farm C: efficiency Farm D: efficiency
Costs with raw materials and consumables for 1000 Lei in operating revenue	Ļ	Î	Farm C: efficiency Farm D: inefficiency
External services costs for 1000 Lei in operating revenue	Ļ	Ţ	Farm C: efficiency Farm D: inefficiency
Evolution of	f return ra	tes durin	g 2008-2012
ryvonnin m	-	↓	As the manager of
Trade margin rate			
Trade margin rate Gross operating	ſ	1	Farm C had stated, the commercial.
Trade margin rate	↑ ↑	↑ ↑	

	Farm C	Farm D	Observations
Economic profitability rate	¢	Ļ	winning a Measure 112 Project which
Gross margin rate of accumulation	¢	Ť	allowed it to invest no additional cost.
Rotation coefficient of capital	Ŷ	Ļ	Farm D though
Gross economic active return	Ŷ	Ť	shows a decrease in market activity, as
Net financial return	↑	\downarrow	well as a lower
Financial return before tax	Ť	Ļ	economic and financial return. This is due to the investments made in recent years in construction and animals, the farm having a policy of expansion.
Profit rate	0,4% - 2009 13,6% - 2012	1,9% - 2008 4,0% - 2012	

Source: own evaluation based on annual financial statements

CONCLUSIONS

The comparative analysis of the efficiency of large organic crop farms, taken into study, shows that the overall work is cost effective for the farm integrated into the associative system, while the company operating by itself on the market managed to stay profitable only in the agricultural years with favorable climatic conditions.

The economic crisis, lack of productivity, problems in selling goods, increased costs, reduced subsidies, etc. adversely affected Farm B (750 ha), there were years when the profit rate fell below 1%. Farm B (420 HA) without getting a great return in the period analyzed, thanks to distribution through the association of the inputs used and the productivity achieved, managed to get a rising rate of profit that came to 27 4% in 2012. The company's strategy to invest in quality inputs, more labor (which reduces work time), seed production, etc. gives better stability on the market.

Farm C (20 cows and 20 young cattle) has been very profitable in the period under review, with an increasing profit rate (13.6% in 2012). The company invested through Structural Funds, but having a lack in overall technical infrastructure for livestock. Increased investment and business expansion in the absence of structural funds financing affected the results obtained by Farm D (57 cows), with an economic and financial return and a lower profit rate of up to 4%.

The integration of these two farms in the LaDorna Factory structure of milk collection, plus subsidies for being located in a disadvantaged area and access to green fodder base, leads us to say that the two farms fail to remain active on the milk market in the analyzed area.

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