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COMPETITIVENESS AND IMPACT OF RURAL CO-OPERATIVES IN CRETE

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Abstract:
The role of rural cooperatives in Crete, espesially regarding the rural development issue is discussed. Attention is paid to the diversification in the sector. The results are contrasted with those of the private sector.

Keywords:
GREECE, CO-OPERATIVE ACTIVITIES, ECONOMIC COMPETITION, ECONOMIC ANALYSIS, FINANCIAL ANALYSIS, RURAL DEVELOPMENT.

This paper attempts to assess the role of the rural co-operatives of Crete in some of the agricultural markets (olive oil and wine market) of the region. One of the main effects of the co-operatives was found to be the improvement of the market performance and the promotion of social welfare values of both farmers and consumers. A necessary condition for this achievement is the competitiveness of the co-operatives.

Competitiveness can be defined as the effort of a firm to sustain or increase it's market share, through price variations, product quality improvement and the use of several marketing strategies. Competitiveness is influenced by market structure (economies of scale, barriers to entry, product diversification, product differentiation, market shares, advertising to sales ratio and market concentration), factors which in turn influence the conduct and the performance of the industry.

The estimation of their competitiveness was based on industrial organisation analysis and financial ratio analysis. Industrial organisation analysis included the estimation of the following factors: minimum efficient size of a firm in order to be effective in all technical, managerial and marketing aspects of its activity; barriers to entry, including concentration in the industry; product diversification as a strategy for a faster and stable growth; and advertising expenditure and its influence on firm's growth. Financial analysis indicated the financial conditions of the co-operatives, identifying co-operative liquidity, activity, profitability, financial structure and viability; the financial condition of the co-operatives was compared to the private firms' average financial condition in the industry.

1. Industrial Organisation Analysis

1.1. Market shares

74.9 percent of the agricultural population of Greece were members of Agricultural co-operatives in Greece in 1989, according to data from the ABG (Table 13). Membership was even higher in Crete, about 84.6 percent of the agricultural population. Although very high membership implies high market shares for the co-operatives, only 28.8 percent of agricultural production is selected, marketed or processed through agricultural co-operatives of any type, combining data from the ABG and the Ministry of Agriculture (Table 14). There was a significant increase in the co-operative's share in the period 1971-1989, which is partly explained by Greece's joining the EC in 1981, but there is still room for further increase. This divergence between membership and market shares indicates that co-operatives do not operate in the most effective way.
In wine production there were no compatible data available from the above sources. The co-operative's share in wine grapes showed an increase from 21.6 percent in 1971 to 41 percent in 1983. This increase was solely explained (statistically) by the significant positive influence of the Greek accession to the EC. This was found to apply a linear regression on co-operative shares in the above period (dependent variable) against the time variable (trend) and the Greek accession to the EC (a dummy variable with value 0 for the period 1971-1980 and 1 for the period after 1981). Using the same data sources and estimation technique, it was found that the co-operative's share in table grapes increased from 4.3 percent in 1971 to 27.5 percent in 1983, and then fell to 10.3 percent in 1989 - there was no statistically significant change in the shares for the whole period (see Tables 14 and 15).
The co-operative's share in olive oil production increased from 9.9 percent (1971) to 28.6 percent (1987) and fell to 21 percent in 1989. This increase in shares is not statistically significant.
Applying the same regression using co-operative shares in the value of gross agricultural production, it was found that there was a significant positive trend in co-operative shares and also a significant positive influence of Greek accession to the EC on them. This result was confirmed estimating the relation among the above variables in a sample of 28 important agricultural products, applying time series pooled cross section regression (error components model).
The non-significance of the above factors to the change in the co-operative's shares in olive oil and wine is an indication that they did not succeed in these products the same as in other important products. Also for the olive oil industry, Greek accession to the EC in 1981 did not improve co-operative market shares, as it did for most other agricultural products.

1.2. Economies of scale

Economies of scale is a factor influencing competition and a firm's investment policy in an industry. The Mean Efficient Size (MES), that is the optimum plant size that minimises the average production cost, is a measure of economies of scale in an industry.

Shepherd (1990) outlines three alternative methods of estimation of MES that were used in empirical studies: engineering estimate, cost studies and the survivor technique.

The survivor technique is a simple method to estimate optimum firm size, particularly useful when only limited data about firms is available, and this was applied in this work. The technique, suggested by Stigler (1958), has the following logic: firms competing in an industry, no matter what their technical characteristics, always try to operate in the most efficient capacity in order to compete with other firms. The cost function is assumed to have a U shape, with a rather long flat area in its middle; the cost function includes all the costs that the firm is facing and this is not directly related to the technology. Those firms with a smaller size than the optimum, try to expand and increase their capacity in order to be able to compete with the other firms in the industry; if they fail to do so, they will probably go out of business since larger firms will have a cost advantage. The firms whose size is over the optimum reduce their capacity in order to save costs and be able to compete with the others. Thus in a competitive industry firms tend to operate in the long term to an optimum capacity level.

Since data on firm capacities are easily available, capacity changes towards the optimum size may be observed by classifying firms in the industry according to capacity in two remote periods and by inspecting which capacity class increases its share in the industry. The MES is not estimated in the form of a single figure. Instead, a class of plant sizes is selected (expressed as shares in total capacity), indicating the possible range of MES value. Note that the results of this analysis are not sufficient for an accurate estimation of MES in an industry. They should be justified applying alternative methods of estimation, since there is no method for estimating economies of scale which can provide reliable results by itself.

Using the turnovers of the co-operatives and their competitors (private firms) as they appear in the financial statements, market shares can be estimated. The turnovers for 49 large proprietary owned firms were obtained from the ICAP directory (ICAP 1992) for the years 1988 and 1990 - unfortunately data were not available for more remote time periods. Our sample includes 21 private olive oil producing companies, 21 wine producers and in addition 7 large Cretan firms in the food industry that are the direct competitors of the co-operatives of Crete. The turnover of 16 Co-operative Unions of Crete was obtained directly from their financial statements and if not available, estimated using data from questionnaires relevant to sales.

The rating of the firms in this list (and thus their market share) varies from year to year, showing changes in the position of the firms. In order to check the MES firms are ranked according to their turnover for each year (1988 and 1990) and are grouped by their shares. The sum of the shares of the firms within a group is computed for each group. Changes in group sizes provide an indication of the MES: the group that increases its size is expected to include the most efficient firms. Since turnover for firms producing different products is used, the estimated MES is an indication of marketing efficiency rather than production efficiency. The results are summarised in Table 1.

Table 1. Grouping of 49 private firms and 16 co-operative unions by their turnover

Size	1988	1990	88-90
>10%	18.74%	19.97%	+
5-10%	22.92%	13.76%	--
2.5-5%	23.64%	27.97%	++
1-2.5%	20.81%	24.21%	++
<1%	13.90%	14.10%	+
	100.00%	100.00%	

The results, as expected, do not provide a clear indication of the minimum efficient size, since they refer to the food industry in general. It can be said that firms having size 1-5% of the sample (firms in this class having a turnover ranging between 1,434,362,000 Drs and 3,292,631,000 Drs in 1990) were more efficient, while larger firms were less efficient.

Although most of the co-operatives in the sample produce both wine and olive oil and most of the private firms produce a wide range of products, using turnover data, firms may be split into wine producing and olive oil producing ones. In the case of olive oil private firms typically produce jointly seed oil, while co-operatives produce other agricultural products. In the case of wine, private firms also import or produce other spirits and drinks while co-operatives sell grapes, sultanas. Unfortunately there were no data on the sales of specific products of private firms, so turnover (which include sales of all products) were used for the following calculations.

Table 2. Grouping, by their turnover, of 21 private firms and 15 co-operative unions that produce olive oil

Size	1,988	1,990	88-90
>15%	31.72%	31.15%	-
10-15%	11.07%	21.46%	++
5-10%	13.69%	6.21%	--
2.5-5%	15.68%	16.42%	+
1-2.5%	22.60%	20.50%	-
<1%	5.23%	4.27%	-
	100.00%	100.00%	

The significant increase in "size class" 10-15% of the sample (9,635,764,000 Drs - 9,794,078,000 Drs) was at the expense of size class 5-10% (5,618,326,000 Drs-9,635,764,000 Drs).

Table 3. Grouping of 21 wine producing private firms and 5 co-operative unions by their turnover

Size	1988	1990	88-90
>15%	0.00%	16.31%	+
10-15%	25.00%	32.70%	+
5-10%	41.09%	22.98%	+
2.5-5%	14.95%	10.37%	+
1-2.5%	16.06%	12.84%	----
<1%	2.90%	4.81%	+
	100%	100.00%	

In the wine industry there is a substantial increase in the size of the larger firms. The two firms larger than ten percent in the 1988 sample accounted for 25 percent of the sample; there were four such firms 1990, accounting for 48,6 percent of the industry. The firms, of size (turnover) larger than 6,381,553,000 Drs in 1990, were the most effective.

Table 4. Ranking of 15 olive oil producing Cretan co-operatives by olive oil sales.

	1985	1990	85-90
>15%	32.05%	33.57%	+
10-15%	38.17%	39.77%	+
5-10%	15.04%	12.29%	-
2.5-5%	8.80%	8.01%	-
<2.5%	5.94%	6.35%	+
		100.00%	
	100.00%	100.00%	

Since data on the sales of specific products were available for the co-operatives of Crete, an attempt to perform the same procedure on the production of olive oil and wine by the cooperatives of Crete is presented below.
Large olive oil producing co-operatives are more efficient, although trends are not very strong. Data are not sufficient for estimating MES.

Table 5. Ranking of 9 wine producing Cretan co-operatives by wine sales.

	1985	1990	85-90
>15%	62.02%	63.01%	+
10-15%	11.32%	10.25%	-
5-10%	22.26%	16.40%	--
2.5-5%	2.72%	7.95%	++
<2.5%	1.68%	2.39%	+
	100.00%	100.00%	

There is already high concentration in the industry, since 2 co-operative unions produce 63 percent of the co-operative wine in Crete.
The result of the above analysis is that in the wine industry the larger firms are the most efficient. There is a trend towards large-scale firms, both private and co-operative, to increase their importance and it seems that there is no room for small firms in the industry. The MES in this industry is over 6.381.553.000 Drs, far above the size of the bigger co-operatives of Crete, so Cretan co-operatives will probably have difficulty competiting in the industry.
In olive oil production, firms with a turnover of between 9,635,764,000 Drs and 9,794,078,000 Drs are more effective. This size is also very high for the co-operatives of Crete. Enlargement of size in this industry in Crete is not a very strong trend and firms of smaller size may also operate efficiently. An analysis using more complete data and remote time periods is needed before one can reach any conclusion about the MES in this industry.

1.3. Advertising

Advertising is an important aspect for the competitiveness of the co-operatives of Crete. Comparing the advertising costs of the large private firms to those of the co-operatives, it is obvious that the co-operatives spend very little on advertising. Two major agricultural products were chosen for comparison: olive oil and wine. Data were obtained from NIELSEN Hellas and they are summarised in the Tables 6 and 7.

Table 6. Advertising costs in the wine industry in Greece in 1990 (000s Drs)

	Total	Television
Co-operatives	6,738	0
Private	484,580	316,409
Industry Total	491,318	316,409

Source: NIELSEN Hellas

In the wine industry the co-operatives spend a negligible amount of money on advertising and there was no co-operative advertising on television during that year. Most of the co-operative advertising costs are those of the central co-operative union for wine (KEOSOE), although data are incomplete since they do not include local advertising, like that of the co-operatives of Crete, which was also relatively low. Co-operative advertising costs for wine are low compared to the relatively high market share they enjoy in wine production.

Table 7. Advertising expenses in the olive oil industry in Greece in 1991 (000s Drs)

	Total	Television
Co-operatives	47,355	41,622
ELAIS	146,706	144,005
Other private	232,370	209,797
Industry Total	426,431	395,424

Source: NIELSEN Hellas

In the olive oil industry co-operative advertising comes solely from the central co-operative union for olive oil (Elaiourgiki), which covers the 11 percent of the total advertising expenses in the industry. This is in contrast to the co-operative share in the industry which was about 21 percent of total sales in 1989, as described above. One characteristic of this industry is that the larger private firm (ELAIS) spent by itself 35 percent of the industry total. Advertising expenses on television took up about 93 percent of the total, with the co-operatives spending relatively less (88 percent).

In both products, if central co-operative unions were excluded from the above calculations, co-operatives would be seen to spend very little on advertising their products in comparison to their production volume. Data collected from the co-operatives of Crete confirmed this fact, since Cretan co-operatives spend only minor amounts of money, mostly on local advertising. Another characteristic of co-operative advertising is that they advertise only occasionally and in general there are no advertising campaigns over a long time period, which are expected to be more effective.

It is assumed that advertising on television is more effective, but the initial outlay before any result can be expected is very high, and this implies that the co-operative needs to be big enough to afford the cost of a campaign. With the exemption of central co-operative unions, most co-operatives are too small to use television advertising for their products.

1.4.Product Diversification

Diversification is the expanding of a firm into different product activities and refers to the number of different activities as well as to their relative size. Firms diversify (produce different products) in order to utilise their assets in a better way, to sell to different consumers or to follow their competitors. They also diversify in order to be able to transfer funds from one activity to another faster and with lower costs and also to be secure from unexpected changes in market conditions. The level of diversification is increasing generally in the food sector (Berry 1971) and this trend was also confirmed for the Greek unions for the period 1971-1985 (Oustapassidis 1992).

Since diversification refers both to the number and to the relative size of the different activities of the firm, a measure of diversification should reflect both aspects and be able to compare diversification between firms of different size and number of activities.

A proper measure for diversification, proposed by Berry (1971), is the Herfidall type diversification index:

$$DI = 1 - Si^2$$

where i = 1 .. n activities and Si is the share of the activity i in the total sales of the firm.

Two kinds of diversification are proposed: the narrow base (DI), that is the production of different but still similar products; and the wide base (DIW), that is the production of completely different products. Berry (1971) uses the SIC codes in order to classify the activities: 4-digit codes for the calculation of the narrow base diversification and 2-digit for the wide base. The diversification index takes values ranging from 0 (specialised firm) to 1 (infinite products with equal shares). By definition, DI > DIW. More details on the properties of the diversification index may be found in Berry (1971).
In the case of the co-operatives, agricultural products are classified in 13 categories for the wide base index and in 4 categories for the narrow base (Oustapassidis 1992). These categories are presented in Table 8.

Table *8. List of the product categories used for the classification of co-operative sales.*

Narrow base classification	Wide base classification
1.Wine 2.Canned fruits and vegetables 3.Tomato puree 4.Olive oil 5.Seed oil 6.Dried currants and sultanas	1.processed fruits-vegetables and their products
7.Fresh peaches 8.Other fresh fruits and vegetables	2. Fresh fruits and vegetables
9.Pasteurised milk 10.Milk products	3. Milk products
11.Compound feed stuffs 12.Rice 13.Miscellaneous	4. Miscellaneous

Source: Oustapassidis (1992).

Data for all the 19 co-operative unions of Crete obtained with questionnaires were used in order to calculate these indices. The results vary between co-operatives, with some unions specialised in one product (like the central union of Chania in wine) and others more diversified. For most of the unions olive oil was the main product, while wine, citrus fruits, sultanas and milk products were important for some of the co-operative unions. The average indices are presented in Table 9.

Table 9. Average diversification indices for the 19 Co-operative Unions of Crete.

	1985	1986	1987	1988	1989	1990	Average	Change per year
Narrow base	0.230	0.22	0.22	0.28	0.32	0.25	0.24	4.6%
Wide base	0.16	0.17	0.16	0.19	0.17	0.14	0.17	1.5%

Narrow base diversification increases in the period 1985-1990 by 4.6 percent per year, while in wide base by 1.5 percent per year. Averages for 1985 are very close to those of the Greek co-operatives of the same year, as calculated by Oustapassidis (1992), while estimated changes per year may be compared with those estimated for the period 1971-1985 for Greek co-operatives (Oustapassidis, 1992): 1.0 percent increase per year in narrow base and 0.5 percent in wide base.

If the larger size unions are selected, average ratios are as follows:

Table 10. Average diversification indexes of the 9 larger Co-operative Unions of Crete (in terms of total assets).

	1985	1986	1987	1988	1989	1990	Average	Change per year
Narrow base	0.29	0.28	0.31	0.42	0.4	0.36	0.31	6.8%
Wide base	0.16	0.2	0.21	0.26	0.16	0.17	0.19	0.4%

The larger Cretan co-operative unions are more diversified in similar products and they increase this kind of diversification in time; they do not diversify in completely different products more than the others and they do not change this in time.

Diversification is expected to be positively related to the growth of a firm. Berry (1971) suggests that this relation is not very strong; the fast growing firms expand mainly to closely related products while the expansion to completely different products is not very successful. Thus, firms that increase their diversification, at least on a narrow base, are expected to grow faster. Oustapassidis (1992) adds to the above the suggestion that the growth of a firm is also related to the initial diversification of the firm.

Both papers suggest a simple linear model to test for the effect of diversification on the rate of growth: the rate of growth of the firm is regressed on the change in diversification (narrow or wide base), the initial level of diversification, the total assets, the growth of the industry and the profitability. Alternative models are tested, omitting one or more of these variables. This model is estimated for the 19 co-operative unions of Crete for the period 1985-1990. The variables used here are:

DI: the initial narrow base diversification index, in this study for the year 1985.

DIW: the wide base diversification index for the year 1985.

CDI: the rate of change in DI in the period 1985-1990; it was estimated using the next regression: $\ln(DI_t) = a + bt + u_t$ where $\ln(DI_t)$ is the logarithm of the

diversification index, a is the constant term, t is the time variable (year 1985 = 1), ut is the error term and b is the CDI.

CDIW: the rate of change in DIW between 1985-1990.

G: the rate of growth of total assets (at constant prices) is the depended variable in the regression.

Ln(TA): logarithm of the 1985 total assets are used as an indication of the initial size.

P: is the average earnings (the ratio of union's net profit by total assets)

The estimated regressions are the following:

Model	CDI	CDIW	DI	DIW	TAi	P	R^2
1	-0,0152*	-0,0035		0,0202*	-0,0035*	0,0466*	0,758
2	-0,0111	-0,0051	0,0182*		-0,0045*	0,0511*	0,615

* significant at a = 0.05%

The R^2 statistics indicate a strong relation between the rate of growth of the unions and the explanatory variables.

The rate of change in the narrow base diversification, surprisingly, had a negative effect on the rate of growth of the unions, although the coefficient is not significant in all the forms of the model; thus the further increase of the diversification in similar products resulted in a slower growth of the union. The change in wide base diversification also had a negative effect but it is not significant, so it may be concluded that it had no influence on the rate of growth of the unions. Thus, further expanding in completely different products does not improve the growth of the union.

In contrast, the initial diversification had a strong positive effect, both in wide base (model 1) and in narrow base (model 2); unions who were more diversified at the beginning of the period grew faster than the others during the period studied.

The initial size of the unions, expressed with the logarithm of the total assets, was negatively related to the rate of growth; the bigger the initial size of the union, the slower its growth in size. Average earnings, that is an index of profitability and thus of the availability of internal funds, had the expected strong positive effect on the growth of the union; unions that make higher profits grow faster.

The main implication of the above results is that co-operative unions that expanded into different activities, grew slower. This result (the negative CDI coefficient) may be explained from the fact that diversification increased fast in the period 1979-1985 (Oustapassidis 1992) and reached a high level, compared with the small size of most of the unions. Thus a further expansion into different products may alter a co-operative's growth. In spite of this fact, unions on average increased further their expansion in similar products, although they decreased in completely different products.

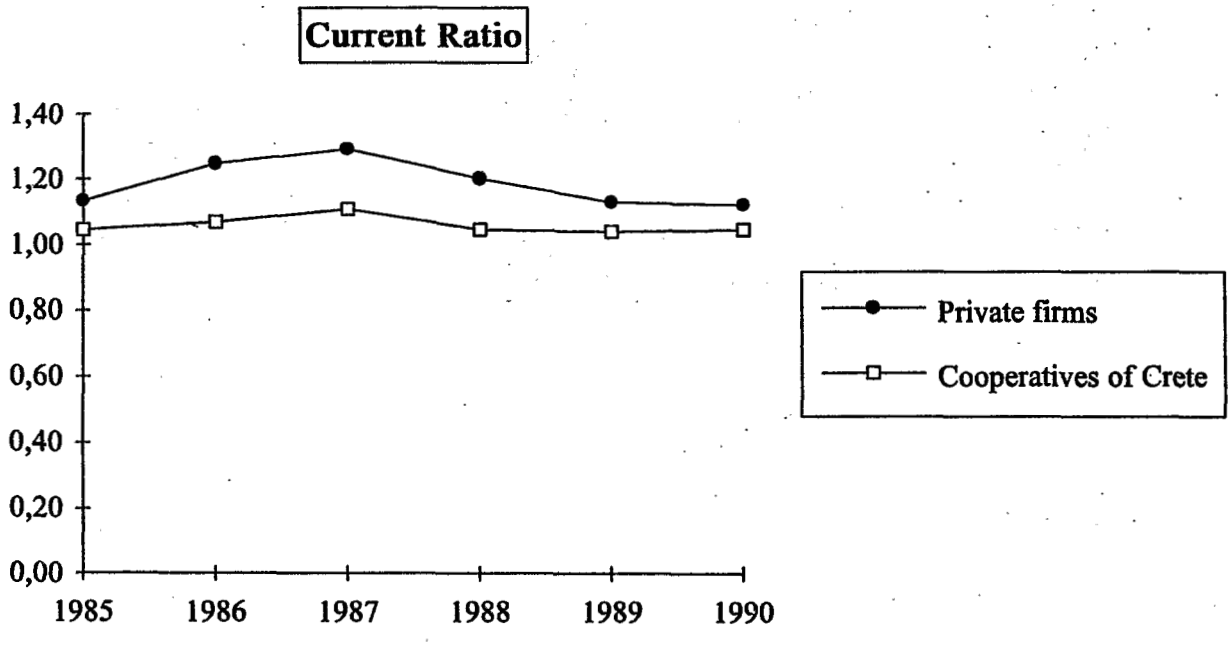
2. Financial Ratio Analysis

Financial analysis includes the calculation of several ratios, using data from financial statements for the most important firms in an industry over a time period. Calculated indices may be compared to industry averages. In this work financial ratios were calculated for 16 of the co-operative unions of Crete in the period 1985-1990, using financial statements and data obtained with questionnaires. The averages for the co-operatives are compared to the averages for the competing private firms. These averages were calculated using data from the ICAP directory of Greek industry, choosing the 21 larger olive oil producing firms and the 21 larger wine producers in Greece and also 7 large Cretan firms producing agricultural products. In this paper only averages are presented and the emphasis is in presenting the differences between co-operatives and private firms in the food industry.

2.1. Liquidity

Current ratio and Acid-test ratio show that co-operatives of Crete do not face any liquidity problem, since they have high ratios, very close to the average for competing private firms.

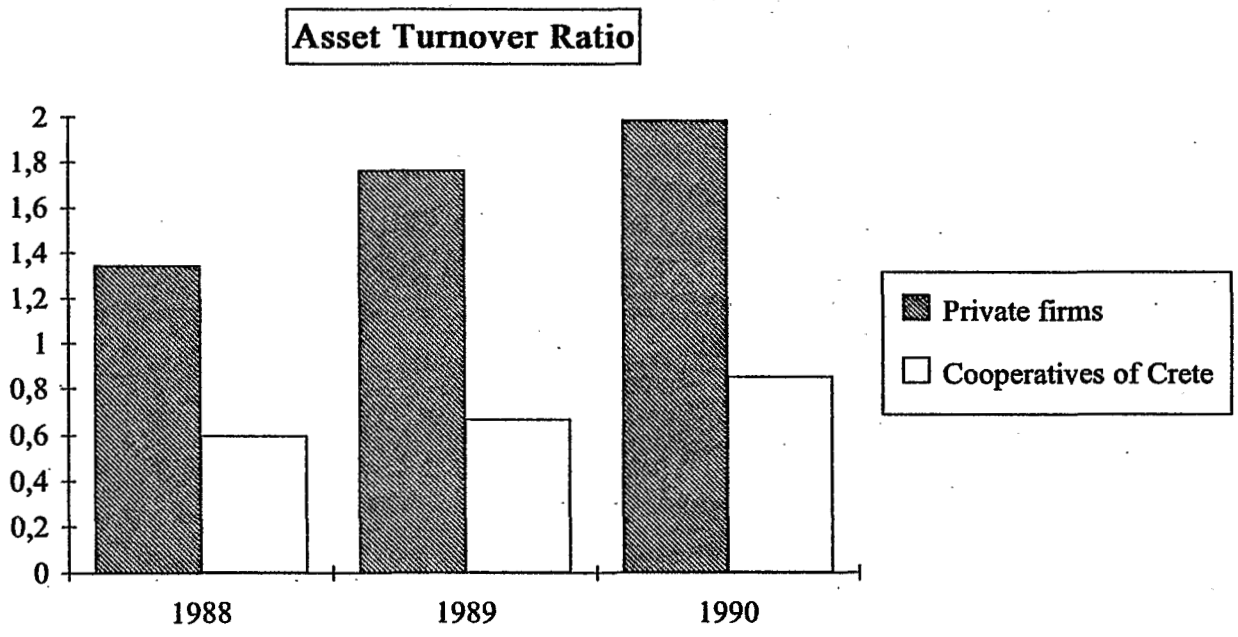
(Fig 1)



2.2. Activity

The asset turnover ratio, that is the ratio of total sales (turnover) to total assets, is different for the co-operatives compared to the competing private firms in the industry. Co-operative sales are lower than expected or total assets are higher (due to high invested capital, inventories or cash) or both. It seems that low sales value is the main reason for this difference; co-operatives do not use their capital intensively and their sales are lower. This is a result of the fact that co-operative unions are capital intensive, focusing their attention on manufacturing agricultural products and not on marketing activities; their competitors on the other hand, increasingly focus on marketing their products, sometimes purchasing semi-finished products from the co-operatives or importing a wide range of products. This strategy results in higher profit margins and higher share of the market.

(Fig 2)

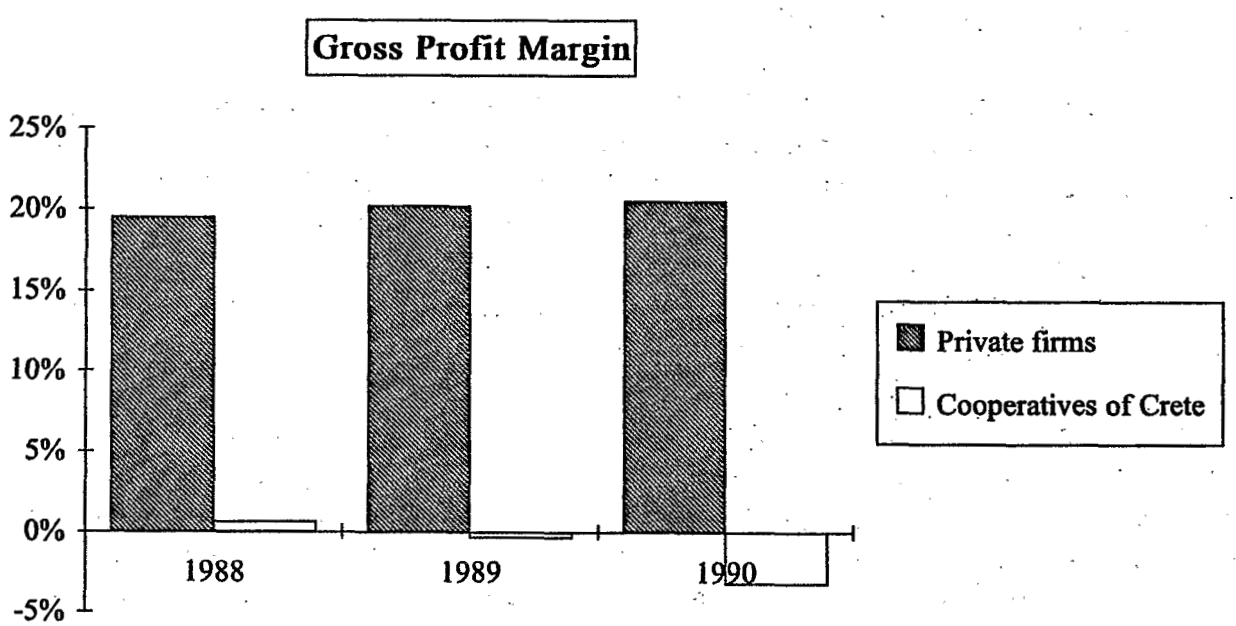


2.3. Profitability

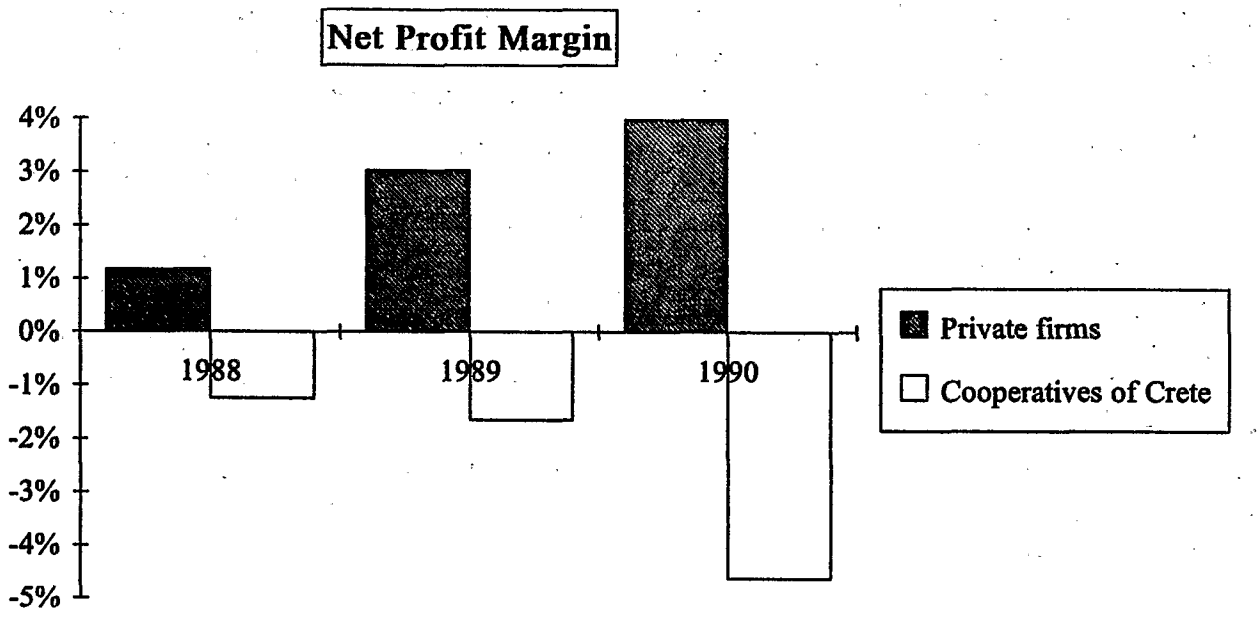
Most of the co-operative unions of Crete had losses in the period 1985-1990, some of them extremely high. The net profit margin, the percentage of net profit on total sales (turnover), is increasingly negative for the co-operatives while it is increasingly positive

for the private firms. This could either be the result of an increase in the cost of the products sold or an increase in operating costs.
In order to explain the above result, gross profit margin was calculated, where gross profit is defined as the difference between sales and the cost of the products sold. For the private firms gross profit margin is constant, around 20 percent, and the increase in net profits is explained by reductions in operating costs. For the co-operative unions, although the calculation of gross profit was difficult from financial statements, the gross profit margin was very low, close to zero and decreasing, having a negative value in 1990. This shows that co-operatives either have higher production costs or they buy their raw materials at high prices or they sell at very low prices. The latter may be the result of their decreasing market power. Anyway, the very low or negative profit margin is a disappointing result, and co-operatives should reduce their production costs as soon as possible, probably reducing their investment in machinery, minimising stock volume and focusing on a marketing strategy that will achieve higher prices for their sales. Co-operatives should develop vertically, and include marketing as a major activity of their business.

(Fig 3)



(Fig 4)

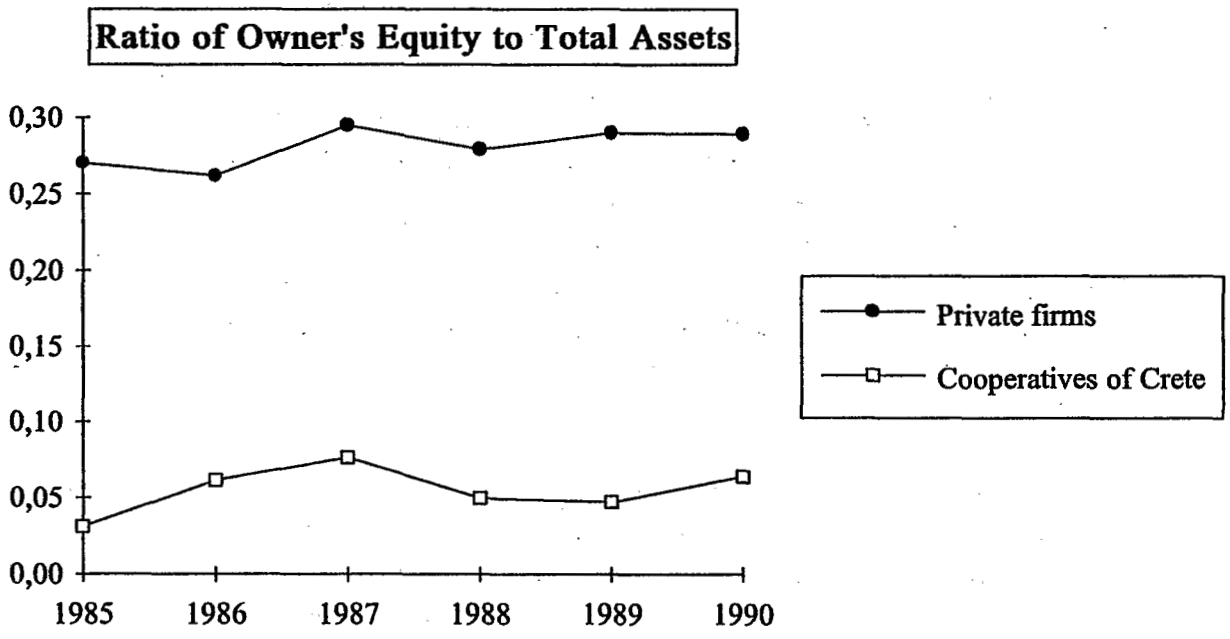


2.4. Financial structure and viability

A very important characteristic in the structure of private firms is the relation between owner's capital and the invested capital. A low value of owner's capital, although it may be profitable, includes a high risk for the firm and its creditors if the firm has losses, since the owners have to cover the losses. For the co-operatives, the low level of owner's capital is connected to the high level of credit capital. The high cost for repaying the co-operative debt can only be covered by the profits of the co-operative and when there are losses it may be impossible to cover these expenses from owner's capital.

Owner's capital was around 25 percent of total assets for the private firms and only about 5 percent for the co-operatives. This is a result of the very low (subsidised) interest rates for credit capital in the past. Now, cost of credit capital is the same for both co-operatives and private firms (Mouzoun 1991), so co-operatives should increase their equity capital in order to secure the repayment of old loans and improve their profitability, since credit capital is relatively expensive and competing private firms have now a cost advantage. Also having their own capital can provide the co-operatives with independence from their creditors.

Fig 5.



3. Conclusions

The above results show that:

- Co-operatives must increase their size and advertising costs to exploit the existing economies of scale and be able to compete with private firms. Mergers between cooperatives or closer cooperation between existing cooperatives, probably through the establishment of cooperative owned firms responsible for marketing of cooperative products, are measures that will help in achieving this objective.
- Co-operatives must apply strategies (e.g. product differentiation) similar to those applied by the investor owned firms and improve their financial capital structure. Equity capital must be increased as soon as possible in order to retain the independence of cooperatives from credit banks and goverment intervention.
- An attempt should be made to establish close relationships between farmers and co-operatives and to improve the quality of co-operative management. Reduction in the cost of production is the most urgent problem that needs a solution.

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Table 12. Co-operative Market Shares in Greece (in the total value of agricultural production, 1971-1989)

1971	7.50%	1978	9.90%	1985	24.90%
1972	7.90%	1979	10.00%	1986	24.39%
1973	7.10%	1980	10.00%	1987	25.03%
1974	7.00%	1981	13.80%	1988	23.33%
1975	7.50%	1982	16.90%	1989	28.78%
1976	7.70%	1983	20.40%		
1977	10.20%	1984	23.80%		

Source: Ministry of Agriculture and Agricultural Bank of Greece

Table 13. Co-operative Organisations in Greece in 1989

	Greece	Crete
Central Unions	7	2
Unions of Agricultural Co-operatives	124	17
Agricultural Co-operatives	7.14	700
Farmers Members of Co-operatives	783.28	84.61
% of the Agricultural Population	74,9%	84,6%

Source: Ministry of Agriculture and Agricultural Bank of Greece

Table 14. Co-operative shares in the production of some agricultural products (in the volume of production, 1971-1989, selected years)

Products	1971	1975	1979	1983	1987	1988	1989
Wine Grapes	21.6%	19.8%	22.8%	41.0%			
Table Grapes	4.3%	4.3%	4.5%	27.5%	25.7%	16.7%	10.3%
Table Olives	6.9%	5.2%	14.3%	24.0%	38.3%	26.1%	17.9%
Olive Oil	9.9%	11.7%	11.3%	28.6%	28.9%	25.6%	21.0%

Source: National Statistical Office and ABG