

Sustainable growth of the Spanish agricultural cooperatives

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Abstract:

In a market as competitive as the present, growth is one of the objectives that companies seek, insofar as it can help them to remunerate the agents who intervene in the process of generating value. However, business growth is not without problems associated to the resources needed to achieve it, and that, if they are not compatible with the financial capacity of the company, could create liquidity tensions. Thus, to improve their competitiveness, it is important that the companies adjust their real growth to the desired (sustainable) growth.

This question is applicable to the agricultural cooperatives, particularly when taking into account their peculiar characteristics. In this context, as its principal objective the present work aims to recognise the evolution in real growth in Spanish agricultural cooperatives and their degree of adaptation to the desired growth (sustainable growth). To that end an empiric study on a sample of Spanish agricultural cooperatives over a period of five years (2000-2004) was carried out. Our results indicate a certain imbalance between the rates of real and sustainable growth: although at the beginning of the period studied the rates showed an excess in real growth, in the latter years this tendency is inverted, and a slowing down in growth investments is detected. This situation could be justified by the special characteristics of this type of company, such as their mutualism, "open doors" policy, and restriction in profit sharing to their members, among others.

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1. Introduction

Agricultural cooperatives are currently an important socio-economic reality in the European Union (EU) countries, both in terms of the number of companies as well as in the employment generated or the volume of business. According to data of the General Confederation of Agricultural Co-operatives in the European Union (COGECA, 2005), around 26,000 cooperative companies exist in the EU, which employ roughly 700,000 workers and have a turnover of more than 260,000 million Euros, a figure which places them as participating in more than 50% of the production, transformation and commercialisation of agrarian products. To this situation of agricultural cooperatives within the EU, Spain accounts for some 4,175 cooperatives, which have a turnover of more than 14,000 million Euros.

The importance of agricultural cooperatives is not only quantitative, as the above figures demonstrate, but also qualitative. These organisations have a transcendental role in the development of the rural communities by generating jobs and contributing to improve the farmers' quality of life and their permanence in the villages (Julia and Mari, 2002).

The majority of the agricultural cooperatives are small companies (Julia et al., 1996; Bel, 1997; Meliá, 2003). Proof of this is that the average turnover of European cooperatives is 10 million Euros while that of their Spanish counterparts is some 3.4 million Euros (COGECA, 2005). In this sense, different authors point to this reduced size as one of the factors that limit their competitiveness (Julia et al., 1996; Meliá, 2003). Thus it is important for them to grow in order to increase their size and be able to compete in a market characterised by globalisation, rapid changes in technology and

consumer habits, as well as by the increasing concentration and negotiating power of the major retailing chains (Kamann and Strijker, 1992; Viaene and Gellynck, 1995; Buendía, 1999).

However, the specific characteristics of the agricultural cooperatives (principle of open doors, mutualistic character with a limitation on external operations with non-member agents, etc.) hinder, above all, the execution of new investments that permit their internal growth (Fulton et al., 1995; Bel, 1997; Buendía, 1999). These reasons have led the cooperatives to opt for, preferably, external growth, by means of integration processes based on fusions, acquisitions and cooperation agreements (Lerman and Parliament, 1991; Barton et al, 1993; Fulton et al., 1995; Arcas and Hernández, 2003). In this way, in the last 15 years the number of agricultural cooperatives has been falling whilst their size has been growing. This fall has been more pronounced in Spain than in the European Union as a whole, as can be seen from the information included in Table 1.

Table 1. Evolution of agricultural cooperatives in the European Union and in Spain						
Year	Number of Cooperatives	Turnover (10⁵€)	Turnov./coop (10⁶€)	% Variation Turnover/Cooperative		
				1998/1986	2003/1998	2003/1986
European Union						
1986	48,000	155,000	3.2	112.8	46.1	210.9
1998	27,390	188,230	6.9			
2003	25,036	251,360	10.0			
Spain						
1988	4,223	3,120	0.7	198.5	54.1	360.0
1998	3,968	8,750	2.2			
2003	4,175	14,190	3.4			

Source: Julia and Server (2003) and COGECA (2005). The year 1986 includes the EU of 12 states, whilst 1998 and 2003 include the EU of 15 states, except United Kingdom.

With regard to investor-oriented firms (IOFs), there is substantial literature on growth. Thus, one of the lines of investigation which has been approached recently has been to analyse to what extent the real growth of these companies corresponds to the optimum possible, a

concept known in the specialised literature as "sustainable growth" (Guisado, 1992; Maroto, 1996; Marbella, 2003). Instead, and despite growth having historically been an important issue for cooperatives, there has been little investigation of it at a theoretical and empirical level (Fulton *et al*, 1995).

In this context, the objective of the present paper is to know the evolution of real growth in agricultural cooperatives with regard to the desired growth (sustainable growth), in such a way that the investments made by these companies contribute to increasing their profitability at the same time that they ensure financial health.

The rest of the paper is structured as follows: in the second section a review of the literature on business growth is undertaken, with special reference to the case of agricultural cooperatives. The third section covers the theory of sustainable growth, while the fourth one comments the empiric studio carried out on a sample of Spanish agricultural cooperatives. Finally, the fifth section emphasises the principal conclusions of the paper.

2. Business Growth: the Case of Agricultural Cooperatives

Business growth is a dynamic process which depends on the strategy adopted by the company in its competitive environment (Guisado, 1992), on its resources and capacities (Itami and Numagami, 1992) and on the phase of the life cycle in which it finds itself (Menguzzato and Renau, 1995). This variable is, moreover, driven by the rational need for seeking profits (Penrose, 1962) and competitive advantages that are reflected in greater productivity and power in the market (Sastre, 2006), which involves an increase in size and manifests its dynamic aspects (Sanchis, 2000; Muñoz, 2002).

Furthermore, it is, together with efficiency, control and survival, one of the variables considered by a large majority of authors to be one of the economic objectives of the company (Cuervo, 1978; Bel, 1997; Buendía 1999) resulting from a process of expansion, both internal and external, which facilitates its survival and gives it a greater value (García-

Gutiérrez, 1994; Bel, 1997; Buendía, 1999). This is due to the fact that growth favours that the companies can obtain a series of advantages derived from increased sales and the dimension of the company, namely to (Sallenave, 1984; Lambín, 1987; McNamee, 1998; Muñoz, 2002):

1. Increase profits by improving negotiating power against the agents with which they interact.
2. Reduce risk due to a greater diversification into products and markets that can be carried out.
3. From the financial point of view, increase investment without needing to resort to debt.
4. Improve the company image, which, upon growing, attracts final customers, as well as suppliers and distributors as they see their activity increased.
5. Benefit diverse agents (government and workers) due to the increase in economic activity and job creation.
6. Access resources and capacities that permit them to gain a sustainable competitive advantage (qualified personal, brand image, negotiating power, etc.).

In general, the agricultural cooperatives must seek their optimum dimension, but they find themselves with difficulties due to the specific characteristics and legal restrictions that limit their internal growth. Amongst these the principle of "open doors" stands out (Fulton et al., 1995; Bel, 1997; Buendía 1999; Arcas, 1999; Sanchis, 2000) which implies that the number of members is a contingent variable with important consequences in terms of business volume of the cooperative and its decapitalization in the case of members leaving. In the same context, another no less relevant question in the case of the cooperatives, which can limit their development, is the members' desire to maximize the value of the compensation from their contributions and not the value of the company, which, united to the principle of

democratic decision making mentioned before, could contribute to the rejection on the part of the members to take the risk derived from getting into debt that growth could entail.

All the above, united to the factors like the limiting in the remuneration of the members' contributions; the mutualist character of these companies; the uncertainty in the cooperative activity due to uncontrollable factors (climatology, plagues, etc.); and the fact that new members participate on equal terms of the results of previous investments carried out, reduce the growth possibilities and the interest of the members to capitalize the cooperative. Moreover, the policy of settlement to the members according to the criteria of "*gross margins*", which many cooperatives adopt, leads them to a "*net profit zero*" and to the consequent problems of self-financing.

In short, although the advantages of growth are beyond doubt, however this is not always recommendable since it absorbs resources and requires funds to finance investments. In this way, if these demands are not compatible with the financial capacity for growth of companies according to aspects such as how the cash flow is generated, the self-financing policy or the financial structure, can generate liquidity tensions (Muñoz, 2002). In this sense in order to try to solve the problems derived from a possible uncontrolled growth, the concept of sustainable growth constitutes an important tool for business management.

3. Sustainable growth

Growth can influence the financial, productive and commercial structure of the company (Sastre, 2006). From a financial optic, the increase in activity, reflected in the volume of sales, entails a greater need for financing, either own or external, whilst from the point of view of productive processes it implies an increase in the quantity of production means available (acquisition of additional productive factors), or an increment in their quality (improvements due to technological changes) or, also a mix of both courses of action. In a strictly commercial

focus, growth supposes variations in the development of the product-market in which the company operates.

To control the effects of the financial, commercial and production decisions, the sustainable growth rate of a company is defined as being that "in which they can increase their sales without a loss in financial resources" (Higgins, 2004), which implies that the growth in itself is not a variable to maximize, but more that one must obtain its optimization in order to protect the financial stability of the company, ensuring in time that the funds invested in business growth are profitable.

In this sense, following Higgins (2004), the growth rate in sales would be limited by the variation in own funds, which can be mathematically expressed in the following terms:

$$S = \frac{\Delta E}{E_i} \quad (1)$$

where (E_i) represents the initial book value of equity at the beginning of the period.

Supposing that the company does not carry out an capital increase at all and assuming that (d) symbolizes the ratio payout, in the fraction shown in (1) the numerator (ΔE) can be a subrogate of profits after tax (NPAT) deducting the ratio payout (d) applied. Thus, the previous formulation can be expressed as follows:¹

$$S = \frac{NPAT(1-d)}{E_i} = ROE_i(1-d) \quad (2)$$

¹ The ROE (return on equity) measures the profitability obtained by the shareholders of the funds invested in the company.

Remembering that the ROE² is related to the profit margin ratio, turnover to net assets ratio and capital structure ratio, the formula shown in (2) can be transformed again into the following mathematic expression:

$$S = \frac{NPAT}{T} * (1 - d) * \frac{T}{NA} * \frac{NA}{E_i} \quad (3)$$

where,

NPAT = net profit after tax

T = turnover

NA = net assets

E= opening book value of equity

d= payout ratio

The formulation shown in (3) makes it clear that the sustainable growth ratio (S) is a function with four factors, that is to say: i) profit margin ratio; ii) payout ratio; iii) turnover to net assets ratio, and iv) capital structure ratio. Thus, the first and third factors show the growth of the company resulting from its productive operations, while the two remaining factors (second and fourth) determine the behaviour of the financial policies of the company.

4. Research design and results

In the current study, we have decided to investigate the relationship between the real and sustainable growth of Spanish agricultural cooperatives. Data selected for this study comes from the financial statements sheets of a sample of 94 Spanish agricultural cooperatives (GNAE: 513;), which were obtained from the database *Sistema de Análisis de Balances Ibéricos (SABI)* for five seasons from 2000 to 2004. The year ending 31st December 2004 was selected because it provides the most recent and complete data regarding the study carried out.

² Normally in financial analyses the ROE is expressed as a percentage of the net final. However, using the value of the net final in the equation (16) we would take an incorrect value for the sustainable growth ratio.

Table 2 shows the descriptive statistics summary to know the dimensions of the selected sample by taking into account the turnover and total assets of the cooperatives.

Table 1. Descriptive Statistics (in thousands €)			
Period		Turnover	Total Assets
2000	Mean	14,624	6,737
	St. dev.	34,450	13,475
	Maxim.	279,022	104,594
	Minim.	194	83
2001	Mean	16,721	7,428
	St. dev.	40,257	15,829
	Maxim.	333,670	126,995
	Minim.	237	90
2002	Mean	17,034	8,196
	St. dev.	43,195	16,493
	Maxim.	379,739	125,672
	Minim.	247	95
2003	Mean	18,050	9,037
	St. dev.	46,472	17,652
	Maxim.	414,362	129,767
	Minim.	350	104
2004	Mean	18,655	9,412
	St. dev.	50,440	19,492
	Maxim.	454,504	154,991
	Minim.	271	111

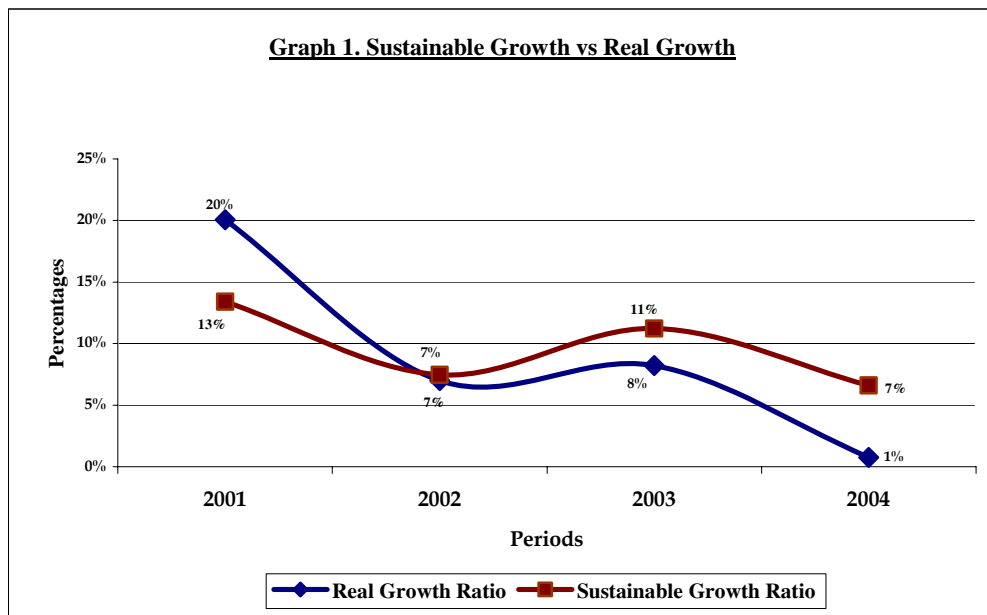
The real growth ratio (G) was calculated as the annual percentage increase in turnover (T) for each of the years under analysis (4). In addition, following the procedure of Higgins (1977, 2004), the sustainable growth ratio (S) was obtained (see section 3)³.

$$R = \frac{\Delta T}{T_{t-1}} \quad (4)$$

³ Calculating the sustainable growth ratio (S) a payout ratio = 0 has been considered, because it was not possible to obtain information on the cooperatives earning rates.

Generally it is assumed that growth implies an increase in profits and market share. However, growth is not always good for a company, and firms should therefore always make sure that the real growth ratio is close to the sustainable growth ratio; otherwise, a higher value for the real growth ratio with respect to the sustainable growth ratio signifies problems with liquidity; in the opposite case, a cash surplus would be produced (Higgins, 2004).

Graph 1 shows the results, in mean values, where we can see that both the real and sustainable growth ratios decrease over the seasons compared⁴.



Thus, it is observed that the levels of real growth, measured on the basis of variations in sales figures, have suffered an abrupt fall of practically -19 %, although in the year 2001 the income showed an increase of some 20%, in 2004 it only reached a figure of 1%. Analysing this situation by yearly periods, the greatest fall corresponds to 2002, with a drop in turnover of some 13 %, with an upturn in the following year (2003) of 1%, and then again falling significantly in 2004 (-7 %) to reach the mentioned rate of 1% in the final year of the present study.

⁴ Based on the five years, it only being possible to compare four years.

The sustainable growth rate -calculated from the Higgins model (2004)- showed a tendency similar to that of real growth, although in this case the falls are less abrupt, yet finally this variable accumulates a decrease of -6% in the time period evaluated.

Upon comparing the differences year by year between both growth rates (real and sustainable) it can be stated that only in the year 2001 was there a real growth rate greater than that for sustainable growth (2001: R = 20%; S=13%), which reveals that the cooperatives analyzed had carried out investments beyond the resources available. This would give rise to the existence of liquidity tensions for a possible excess of debt. However, in the following year (2002) the rates tend to practically match each other with a simultaneous growth level of 7%, which indicates that the growth policy of these companies was coherent, from a financial point of view, with the investments carried out in expansion. However, in the final two years (2003 and 2004) a certain contraction in the potential optimum growth is observed since the situation of the sustainable growth rate above that of real growth shows the existence of resources that could have been dedicated to intensifying the growth of these companies in a controlled manner.

5. Conclusions

In a market as competitive as the current one, the survival of the company depends, on the one hand, on achieving stable growth in the income and, on the other, in obtaining sufficient profit to remunerate all the agents that intervene in the process of generating added value. In this context, the cooperatives are not above such conditioning factors, and for that reason they ought to consider reaching their optimum (sustainable) dimension based on both internal and external growth, with the role that the administration can play, in terms of adequate legal regulation, being of vital importance (Sanchis, 2002). However, growth is not without problems, since this must be induced by the evolution in demand, with a rhythm of development compatible with its financing and control capacity (Sallenave, 1984).

As measures to encourage the internal growth rate, the Spanish Cooperatives Law 27/1999, of 16 July, introduced a series of instruments with the objective of favouring attracting resources to facilitate the expansion of the cooperatives. These include the creation of different classes of sections within the cooperative (supply, services, commercialization, industrialization, etc.) and the creation of integral polyvalent cooperatives, whose object is to fulfil the purpose of two or more classes of cooperatives unifying them into just one. Both measures permit growth through diversification.

Other instruments are the instauration of mixed cooperatives in which members with exclusive or preferential voting rights depending on the capital contributed; the incorporation of worker members and collaborators whose contributions increment the equity capital of the cooperative, and the possibility of utilizing different financial instruments (obligatory income and/or periodic quotas, emission of obligations, emission of special participations).

In order to confirm the evolution of growth in agricultural cooperatives, a question to date scarcely investigated, a field study was carried out on a sample of 94 Spanish agricultural cooperatives over a time span of 5 years (2000-2004). Our findings make it clear that the levels of real and sustainable growth (Higgins; 2004) presented a line of decreasing tendency (Graph 1: real growth = -19 points; sustainable growth = -6 points), although in the case of sustainable growth the falls are less pronounced. However, comparing both growth rates it can be seen that if at the beginning of the period the real growth rate fits the optimum sought, in the last years it can be observed that the sustainable growth rate exceeds that of real growth. This indicates that the cooperatives appear to have rejected a greater level of growth, despite having sufficient financial resources to undertake it, a fact that could be influenced by some of the reasons previously indicated with regard to the special nature of this type of company.

The study of sustainable growth in the cooperatives can be a good management tool which permits these companies to adjust their size to the operative optimum, which without doubt suggests the need to carry out future investigations in order to know in greater depth the causality relations of the said variable with others used in business management, such as efficiency, productivity, etc.

6. References

- Arcas, N. (1999). *El marketing de las cooperativas agrarias. Claves para la competitividad de la empresa agraria*. Ciriéc-España. Valencia.
- Arcas N. & Hernández M (2003). "Co-ordination and performance of Spanish second-level agricultural co-operatives: The impact of relationship characteristics", *European Review of Agricultural Economics*, 30,4,487-507.
- Barton, DG.; Schroeder, TC. & Featherstone, AM. (1993). "Evaluating the feasibility of local cooperative consolidations: A case study". *Agribusiness*, 9 (3), 281-294.
- Bel, P. (1997). *Las cooperativas agrarias en España*. Ciriéc-España. Valencia.
- Buendía, I. (1999). *Z-a integración comercial de las sociedades cooperativas*. Colección Estudios, Madrid.
- Cuervo, A. (1978). Estudio sobre los objetivos de la empresa. En Cuervo, A.; Ortigueira, M. y Suárez, AS. *Lecturas de introducción a la economía de la empresa*. Pirámide. Madrid, 171-178.
- Fulton, ME.; Fulton, JR.; Clark, JS. & Parliament, C. (1995). "Cooperative growth: Is it constrained?". *Agribusiness*, 11 (3), 245-261.

García-Gutiérrez, C. (1994). "La concentración económico-empresarial (los conglomerados) de sociedades cooperativas". En Monzón Campos, J.L., *Las empresas públicas, sociales y cooperativas en la nueva Europa*. Ciriec-España. Valencia.

General Confederation of Agricultural Co-operatives in the European Union (COGECA), 2005, "Agricultural cooperatives in Europe. Issues and trends". Available online at <http://www.copa-cogeca.be>. Download Available on line at <http://www.copa-cogeca.be>. Download December 1, 2006.

Guisado, M. (1992). "Crecimiento, rentabilidad y estrategia". *Economía Industrial*, mayo-junio, 161-174.

Higgins, R.C. (1977), How much growth can a firm afford?. *Financial Management*, 6, 7-16.

Higgins, R.C. (2004). *Analysis for financial management*. McGraw-Hill. Madrid.

Itami, H. & Numagami, T. (1992). "Dynamic interaction between strategy and technology". *Strategic Management Journal*, 13,119-135.

Julián JF. & Maris (2002). "Farm cooperatives and the social economy: the case of Spain". *Journal of Rural Cooperation*, 30, 2,119-133.

Julia & Server R J.. (2003). "Social economy companies in the Spanish agricultural sector: Delimitation and situation in the context of the European Union", *Annals of Public and Cooperative Economics*, 74, 3, 465-488.

- Julia, J. F.; Server, R. & Fernández, M, (1996). Las cooperativas agrarias. En Barea Tejero, J. B. Y Monzón Campos, JL., *Informe sobre la situación de las cooperativas y las sociedades laborales en España*. Ciriéc-España. Valencia,
- Kamann, DJ.K. & Strijker, D. (1992). "Mechanisms of coordination in the Dutch horticultural complex". *European Review of Agricultural Economics*, 19, 393-416.
- Lambín, JJ. (1987). *Marketing estratégico*. McGraw Hill. Madrid.
- Lerman Z. & Parliament C, 1991. "Size and industry effects in the performance of agricultural cooperatives". *European Review of Agricultural Economics*, 6, 1, 15-29.
- Ley 27/1999, de 16 de Julio, de cooperativas. BOE 17/07/1999.
- McNamee, PB. (1998). "Strategic market Planning: A blueprint for success". Wiley Series in Practical Strategy. Wiley.
- Marbella F. (2003). "Crecimiento sostenible en las entidades financieras españolas (1995-2000). Documento presentado en el III Congreso ACEDE. Salamanca (España).
- Maroto JA. (1996). "Estructura financiera y crecimiento de las pymes". *Economía Industrial*, 310,29-40.

- Meliá, E. (2003). "La integración cooperativa. Cooperativas de segundo grado versus procesos de fusión". En Chaves, R.; Fajardo, G. y Namorado, R. *Integración Empresarial Cooperativa*. Ciriéc-España. Valencia.
- Menguzzato, M. & Renal, H.J. (1995). *La dirección estratégica: un enfoque innovador del management*. Ariel, Barcelona.
- Muñoz, RM^a. (2002). "Las sociedades anónimas laborales como parte de la economía social: estudio empírico de su competitividad en relación con las sociedades limitadas y las sociedades anónimas". *VIII Jornadas de Investigadores en Economía Social y Cooperativa*. Tenerife.
- Penrose, E. (1962). *The Theory of the Growth of the Firm*. New York: Oxford University Press.
- Sanchís, JR. (2000). *Dirección estratégica de empresas cooperativas*. Promolibro: Valencia.
- Sastre, FL. (2006). "La empresa es su resultado - El beneficio editorial y la contabilidad del conocimiento", *Tesis doctoral* accesible a texto completo en <http://www.eumed.net/tesis/2006/flsp/>
- Sallenave, J.P. (1984). *Dirección general et strategie d'entreprise*. Les Editions d'Organisation, París.
- Viaene, J. & Gellynck, X. (1995). "Structure, conduct and performance of the European food sector". *European Review of Agricultural Economics*, 22 (3): 282-295.