
Support for Farmers' Cooperatives

Case Study Report Structure and Strategy of Olive Oil Cooperatives: Comparing Crete, Greece to Andalusia, Spain

Constantine Iliopoulos
Cynthia Giagnocavo
Irene Theodorakopoulou
Silvia Gerez

The 2011-2012 project „Support for Farmers’ Cooperatives (SFC)“ has been commissioned and funded by the European Commission, DG Agriculture and Rural Development.

Contract Number: 30-CE-0395921/00-42.

The SFC project is managed by Wageningen UR’s Agricultural Economics Research Institute LEI and Wageningen University. Project managers: Krijn J. Poppe and Jos Bijman.

Other members of the consortium are:

- Pellervo Economic Research PTT, Finland: Perttu Pyykkönen
- University of Helsinki, Finland: Petri Ollila
- Agricultural Economics Research Institute, Greece: Constantine Iliopoulos
- Justus Liebig University Giessen, Germany: Rainer Kühl
- Humboldt University Berlin, Germany: Konrad Hagedorn, Markus Hanisch and Renate Judis
- HIVA Katholieke Universiteit Leuven, Belgium: Caroline Gijssels
- Rotterdam School of Management, Erasmus University, The Netherlands: George Hendrikse and Tony Hak

How to cite this report:

Iliopoulos C., Giagnocavo, C., Theodorakopoulou I. and S. Gerez (2012). Case Study Report; Structure and Strategy of Olive Oil Cooperatives: Comparing Crete, Greece to Andalusia, Spain. Wageningen: Wageningen UR.

Disclaimer:

This study, financed by the European Commission, was carried out by a consortium under the management of LEI Wageningen UR. The conclusions and recommendations presented in this report are the sole responsibility of the research consortium and do not necessarily reflect the opinion of the Commission or anticipate its future policies.

Support for Farmers' Cooperatives;
Case Study Report
***Structure and Strategy of Olive Oil
Cooperatives: Comparing Crete, Greece
to Andalusia, Spain***

Constantine Iliopoulos
*Agricultural Economics and Policy Research Institute,
Greece*

Cynthia Giagnocavo
University of Almería, Spain

Irene Theodorakopoulou
*Agricultural Economics and Policy Research Institute,
Greece*

Silvia Gerez
University of Almería, Spain

November 2012

Corresponding author:

Constantine Iliopoulos
Agricultural Economics and Policy Research Institute, Greece
Terma Alkmanos Street,
GR- 115 28, Athens,
Greece
E-mail: iliopoulosC@agreri.gr

Preface and acknowledgements

In order to foster the competitiveness of the food supply chain, the European Commission is committed to promote and facilitate the restructuring and consolidation of the agricultural sector by encouraging the creation of voluntary agricultural producer organisations. To support the policy making process DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives (SFC)", in order to provide insights on successful cooperatives and producer organisations as well as on effective support measures for these organisations. These insights can be used by farmers themselves, in setting up and strengthening their collective organisation, by the European Commission, and by national and regional authorities in their effort to encourage and support the creation of agricultural producer organisations in the EU.

Within the framework of the SFC project, this case study report on the structure and strategies of olive oil cooperatives in Crete, Greece, and Andalusia, Spain, has been written. Data collection for this report has been done in the spring of 2012.

In addition to this report, the SFC project has delivered 33 other case study reports, 27 country reports, 8 sector reports, a report on cluster analysis, a report on the development of agricultural cooperatives in other OECD countries, and a final report.

The authors would like to thank the directors and managers of:

- Union of Agricultural Cooperatives of Heraclion
- Union of Agricultural Cooperatives of Ierapetra
- Union of Agricultural Cooperatives of Peza
- Agricultural Cooperative of Kritsa
- Agricultural Cooperative of Platanos
- Hojiblanca S.C.A.
- Oleoestepa S.C.A.
- Oleocampo S.C.A.
- San Isidro S.C.A.
- Nuestra Señora del Rosario S.C.A.
- Olibeas S.C.A.

for their willingness to collaborate in this project and to share information on the structure and strategy of their cooperatives.

Additionally, we would like to acknowledge the help of Dr Nikos Michelakis, technical consultant of the Association of Cretan Olive Oil Municipalities (ACOM), who gave us a clear image of the olive oil industry in Crete.

Finally, Dr. Iliopoulos and Dr. Theodorakopoulou would like to thank Dr. Angelos Lontakis and Mrs. Mimika Angelopoulou MSc, both at the Agricultural Economics Research Institute, Athens, Greece, for providing excellent research assistance.

In relation to the Spanish and Andalusian olive oil sector, we would like to particularly thank D. Rafael Sánchez de Puerta, head of the olive oil section of Cooperativas Agroalimentarias; D. Jerónimo Molina of FAECA; D. Andrés Montero García, head of Cooperative Development, Ministry of Agriculture, Food and Environment; D. Esteban Carnero from Hojiblanca S.C.A., and Dña María Cuadrado and D. Jesús Cuadrado of Desarrolla Consultores, Almería.

Table of contents

1. Introduction.....	10
1.1 Objective and research questions	10
1.2 Analytical framework.....	10
1.3 Method of data collection	11
1.4 Structure of the report.....	11
2. Olive Oil Cooperatives in Andalusia, Spain.....	12
2.1 Introduction	12
2.2 Facts and Figures	12
2.2.1. First-Tier Cooperatives:.....	15
2.2.2. Second-Tier Cooperatives:.....	16
2.3 Strategy and Structure.....	19
2.4 Relevant Support Measures.....	22
2.5 Hypothesis Testing.....	25
2.6 Policy Issues	26
2.7 Andalusia Conclusions.....	27
3. Olive Oil Cooperatives in Crete, Greece.....	29
3.1 Introduction	29
3.2 Facts and Figures	29
3.2.1 First-tier cooperatives.....	30
3.2.2 Second-tier cooperatives.....	30
3.3 Strategy and structure	32
3.4 Relevant support measures.....	34
3.5 Hypothesis testing.....	35
3.6 Policy Issues	37
3.7 Crete Conclusions	37
4. Comparative Analysis.....	38
4.1 Similarities.....	38
4.2 Differences.....	40
4.3 Comparative Hypothesis Testing	40
4.4 Comparison of Policy Issues.....	41
5. Discussion.....	42
6. Conclusions	44
References.....	45
Appendix A-Fact and Figures on Cooperatives.....	52
Appendix B-Financial Data on Cooperatives	57
Appendix B1- Selected Cooperatives in Andalusia.....	57

Appendix B2- Selected Cooperatives in Crete	59
Appendix C- Legislation and Policy Review-Andalusia.....	61
Appendix D- New Andalusian Olive Grove Law and Reactions by Sector	66

1. Introduction

1.1 Objective and research questions

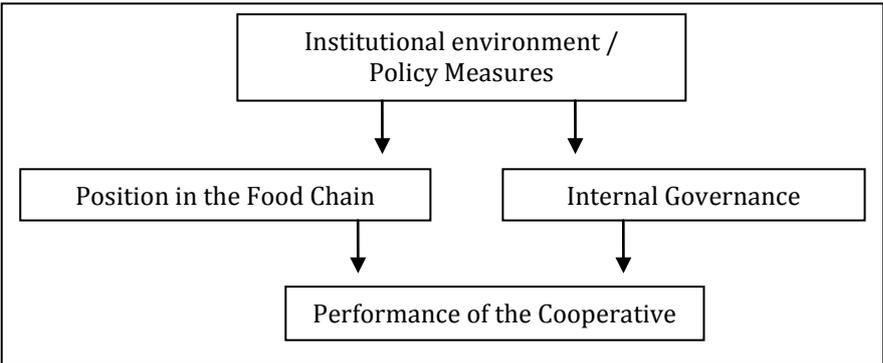
The imbalances in bargaining power between the contracting parties in the food supply chain have drawn much attention, also from policy makers. The European Commission is committed to facilitate the restructuring of the sector by encouraging the creation of voluntary agricultural producer organisations. DG Agriculture and Rural Development has launched a large study, “Support for Farmers' Cooperatives”, that will provide the background knowledge that will help farmers organise themselves in cooperatives as a tool to consolidate their market orientation and so generate a solid market income. In the framework of this study, this report focuses on the interaction between cooperative structure and the strategies adopted by selected olive oil cooperatives in Crete, Greece and Andalusia, Spain. These two regions are significant olive oil producers. The olive oil cooperatives based in these two regions were chosen due to their structural, ownership, and governance characteristics, as well as their diverse marketing strategies, which enable us to address a number of key issues.

The central issue addressed is whether structure (e.g., first versus second tier cooperatives, collaboration between cooperatives or between cooperatives and IOFs in the sector, etc.) has had a significant impact on the strategy adopted by the case cooperatives and, consequently, their success/failure and the coordination of the olive oil supply chain. Particularly, research for this comparative case study has been guided by the following research questions. First, how does farmer-led forward integration affect cooperative’s ability to provide their members with significant benefits? Second, does the achievement of social objectives constrain cooperatives’ ability to excel in terms of economic performance and thus survive in the long run? Third, how successful are federated structures in achieving the goals of their members? Fourth, should public policies treat different types of cooperatives differently based on their ability to increase/stabilise farmers’ income? Fifth, should public policies facilitate cooperatives in achieving a balance between economic and social goals and, if yes, in which ways? Sixth, which public support measures (local, regional, national and/or European) have an impact on the development and success/failure of the case cooperatives?

1.2 Analytical framework

There are at least three main factors that determine the success of cooperatives in current food chains. These factors relate to (a) position in the food supply chain, (b) internal governance, and (c) the institutional environment. The position of the cooperative in the food supply chain refers to the competitiveness of the cooperative vis-à-vis its customers, such as processors, wholesalers and retailers. The internal governance refers to its decision-making processes, the role of the different governing bodies, and the allocation of control rights to the management (and the agency problems that goes with delegation of decision rights). The institutional environment refers to the social, cultural, political and legal context in which the cooperative is operating, and which may have a supporting or constraining effect on the performance of the cooperative. Those three factors constitute the three building blocks of the analytical framework applied in this study (Figure 1).

Figure 1. The core concepts of the study and their interrelatedness



1.3 Method of data collection

The case study is based on multiple data sources. First of all, secondary data was used such as academic literature, country reports of the Support for Farmers’ Cooperatives project, popular press and electronic media, various archives and other sources of information.

Additional information has been collected through personal interviews with various cooperative stakeholders. For this particular study, board members and managers of selected olive oil cooperatives from Crete, Greece, and Andalusia, Spain, have been interviewed, as well as other stakeholders such as the Association of Cretan Olive Oil Producing Municipalities. Standard techniques and approaches used in case study research were used in order to maximise reliability and avoid biases.

1.4 Structure of the report

Chapters 2 and 3 of this report are aimed to provide a full picture of respectively the Cretan and Andalusian olive oil sectors, as well as a description of the selected cooperatives under study. The sectors and cooperatives will then be compared to each other in chapter 4. Chapter 5 provides a reflection on the results of this comparative case study while chapter 5 concludes the report.

2. Olive Oil Cooperatives in Andalusia, Spain

2.1 Introduction

The region of Andalusia is the autonomous community with the largest area of olive groves, representing 60% of the national total and 30% of the EU total in 2010. In terms of production Andalusia produced 5,440,276 tn of olives, 84% of the Spanish total.

The information used to address the hypotheses and policy questions has been obtained through: 1) questionnaires and interviews with representatives from the chosen cooperatives, Cooperativas Agroalimentarias, FAECA (Federation of Andalusian Agricultural Cooperatives) the Ministry of Agriculture, Food and Environment, experts from both the sector and from academia; 2) Statistical information from the Ministry of Agriculture, Food and Environment, Cooperativas Agroalimentarias, SABI, Alimarket, the Regional Government of Andalusia, the Registry of Cooperatives of Andalusia, the Olive Oil Agency, the Agricultural Census and other sources as noted herein and 3) Public Information and Literature, legislation and policies and comments thereon.

2.2 Facts and Figures

Spain is the largest producer and exporter of olive oil in the world, with the largest area destined for olive cultivation. With 2.44 million ha and a production of 1,390,500 tn, olive oil is one of the principle sectors in the Spanish agro food system, not only in economic, but also in social terms.

Figure 2. Selected Cooperatives in Provinces of Andalusia



Cooperatives generate 70% of the Spanish production of olive oil. Approximately 360,000 farmers are growers and they bring their olives to 1,738 olive presses, of which 1,000 are cooperatives. Of these 1,738 Spanish olive presses 821 are in Andalusia (AAO¹, 2010). In Andalucía, cooperatives represent 52.20% of olive presses and 70.44% of the production.

Within the region of Andalusia, we selected cooperatives from several important olive oil provinces so as not to be overly influenced by one particular area's local history and development. We also chose a mixture of first-tier and second-tier cooperatives to test the hypotheses comparing the efficiencies of differing organizational structures.

Olive Oil Value Chain and participation of cooperatives therein

We briefly address Spanish olive oil cooperative characteristics in the following phases in order to evaluate the importance of the cooperative in each phase: growing or production of olives;

¹ Agencia para el Aceite de Oliva

olive oil pressing or extraction; packaging; refining; elaboration of related products with olive oil inputs; marketing and distribution.²

The first phase, the growing or production of olives, often involves small olive groves, despite a growing tendency towards larger farms in the last decade, as seen in Table 1 below. In 2009 there were a total of 362,782 olive groves, with an average size of 5.46 ha. Forty-five percent of these farms were found in Andalusia, which has a medium farm size of 7.78 ha, an increase from 5.66 ten years ago.

Association in the production phase is almost non-existent, thus the reduced farm size makes both reducing production costs and modernizing farms difficult (Senise, 2003; Parras, 2005). This fact, together with the seasonal nature of sales and the perishable nature of the product, has resulted in farmers cooperating through cooperatives to process their production.

Table 1. Number of farms, area and average size of farms in olive oil sector.

	1999			2009		
	Number of farms	Total area (Ha)	Average size of farms (ha)	Number of farms	Total area (Ha)	Average size of farms (ha)
Andalusia	231,09	1,308,133	5.66	160,262	1,246,441.82	7.78
Castilla – La Mancha	110,273	311,130	2.82	69,152	299,068.96	4.32
C. of Valencia	70,567	88,364	1.25	36,396	77,228.86	2.12
Extremadura	59,781	88,364	1.48	31,927	155,247.14	4.86
Spain	571,155	2,086,497	3.65	362,782	1,979,303.98	5.46

Source: Agriculture Census 1999 and 2009, INE

Cooperative olive oil presses represent 54.26% of total presses in Spain and 68.92% of the national olive oil production, indicating the importance of the cooperative model in the processing phase of olives (Cooperativas Agroalimentarias, 2010). The size of presses varies, although many are small or medium enterprises. The largest olive presses are responsible for the majority of total production. The small size of the sector (in relation to the size of the distribution companies) results in big disadvantages when competing and negotiating with large firms.

The oil obtained from these olive presses can be bottled or packaged directly or sold to refineries, which further refine or process such oil. Some olive oils not originally of human consumption quality can be refined. These refined oils are later blended with virgin or extra virgin oils to give some flavour and aroma, which refined oils lack. The number of refineries in Andalusia in 2009 was 14, the majority of which were non cooperative commercial enterprises. Hojiblanca in an agreement with Cargill is one cooperative which has begun to participate in this phase.

There are 585 authorized packagers, of which 90% are tied to the olive presses. The total packaged production is concentrated in only 20 plants which package 81% of the total in Andalusia and which belong to the large groups of the sector (CAP, 2010). Only three of these packagers are cooperatives, belonging to Hojiblanca, Oleoestepa and Olivar de Segura. Hojiblanca is the only cooperative in the “top 10” of sellers of packaged olive oil. Table 2 sets out the top 5 cooperatives that are sellers of both packaged and bulk olive oil.

Given the above date, one can appreciate the degree to which the production is atomised as opposed to the high concentration in the refining and packaging phases. While the production is dominated by cooperatives, the packaging and refining (where more value is realized) is not.

² The degree to which the co-operatives participate in the various phases is used to evaluate them on a scale of 1-5 in relation to vertical integration, which is a variable related to hypotheses testing. See Appendix 1.

Table 3 demonstrates that there is little difference between 2005 and 2009 in the number of companies engaged in particular activities.

Table 2 Major cooperative sellers of olive oil (bulk and packaged)(tn).

Cooperative	Production 2010 (t)
Hojiblanca	183,000
Jaencoop	43,000
Oleostepa	38,780
Tierras Altas	25,000
Olivar de Segura	19,000

Source: Alimarket, 2011

Table 3 Number of Olive Oil Companies Engaged in Particular Activities

Number of Olive Oil Companies Engaged in Activity	2005	2009
Olive presses	820	814
Extractors of olive oil by-product	37	38
Refineries	13	14
Packagers	609	585

Source: AAO, CAP (2009)

In the marketing phase, the olive oil cooperatives sell most of their oil in bulk, whether directly or through second-tier cooperatives, to the refining and/or packaging industry. In 2007 55% of exports were still bulk sales although in recent years the cooperative oil presses are increasing the sale of bottled oil. Another part of the oil is sold directly to final consumers. In sum, the generally prevalent passive non-market oriented behaviour limits the possibilities to generate added value and to increase producer profits (Torres, 2007; Ariza, 2009).

The cooperative olive oil companies have little presence in retail establishments as the large agro food distribution companies control this market. The market share of distribution brands averages 65% and in some categories reaches 83% (Cooperativas Agroalimentarias, 2010). While cooperatives have made efforts to compete with supermarket brands, the lack of unity amongst smaller cooperatives has resulted in the creation of multiple brands which have strong competition from the larger brands. As well, the program of denomination of origin strategy has not resulted in the desired recognition.³

In the past, the traditional mechanisms of intervention and guaranteed prices resulted in a disinterested approach by the olive farmers in subsequent phases of the production process. However, the current market situation and the elimination of these mechanisms have clearly produced a greater preoccupation regarding the market and the concentration of offer. (Barranco et al., 2008; Parras, 2005).

Principal problems of the olive oil cooperatives

-The small size and atomization of the olive farms, as well as multiple brands, makes it difficult to succeed given the limited access to necessary technical, material, financial and organizational resources and marketing research (FAECA, 2011a; Marban, 2005). However, according to the

³ The number of protected denominations of origin of virgin olive oils has substantially increased, reaching a mind-boggling (at least for the consumer) 31 different designations relating to 970,000 ha, 76% located in Andalusia (MARM, 2010). Perhaps lack of success is due to the fact that they are so numerous and relatively unknown and thus confusing for the consumer.

head of the olive oil section of Cooperativas Agroalimentarias, credit is not often a problem as cooperative and rural banks are usually willing lenders.

-There is an insufficient collaboration and lack of inter-sectoral relationships. The majority of cooperatives, both first and second-tier, do not enter into delivery contracts with distributors. This causes a weak negotiating position against the distribution sector, a lack of capacity and assumes a greater risk (Torres, 2000; Parras et al, 2003; Parras, 2007).

-Bulk sales continue to outweigh packaged for the sector as a whole thus resulting in less ability to take advantage of added value.

-The fact that many farmers cultivate olives as a complementary source of income influences the structure of the sector. This results in a disconnection with the production and marketing processes (Senise, 2003). 66.5% of Andalusian olive presses had an average production of less than 1,000 tn of oil, producing 22.7% of Andalusian oil. On the other extreme, 2% of olive oil presses with production superior to 5,000 tn, are responsible for 14.3% of the production (CAP, 2010)

-The inertia in the sector as a whole (not to discount the positive exceptions) and the failure of integration and consolidation strategies to have produced the desired results. While the number of cooperatives has decreased, there is still significant atomization. The administration blames "localism" and the misuse of funds by the sector (turning perhaps a blind eye to the localism of small barons in the various administrations and cooperative representative organizations). The sector points to the lack of actual, as opposed to perceived political, action and will.⁴

-falling prices and the failure of the sector to be able to effectively take action to guarantee a price that exceeds marginal costs and deal swiftly with crises situations. Storage mechanisms are useful short term solution but do not provide long term stability.⁵

In addition to the information below on the chosen cooperatives, Appendix 1 sets out further details on specific characteristics of the cooperatives, used to test the hypotheses.

2.2.1. First-Tier Cooperatives:

Olibeas

The first olive oil cooperative in the province of Huelva, was founded in 1942. In 1946 and 1962 it merged with two more area cooperatives which eventually merged into Olibeas, which unites all the producers of the area⁶. Turnover for 2011 was 5 million €.

Olibeas produces only virgin olive oil. It harvests 8 million kg of olives which results in 1.5 million litres of oil. From this production, 30% is packaged by the cooperative. The oil is sold on the national level through a home service, although the oil is principally marketed in the province of Huelva. Currently the cooperative collaborates with the University of Huelva through research agreements regarding conservation techniques (Empresarios, 2010).

⁴ In the relevant literature (academic and institutional reports etc.) going back more than 20 years we find recycled ideas: a repetitive call for the end of "localism", the need for larger co-operatives that take advantage of the value chain, a push for second-tier co-operatives and "professionalization", the latter not making a clear distinction between genuine entrepreneurship abilities and arguably less valuable standard professional qualifications.

⁵ For example, while a kilo of extra virgin oil sells for 1.83 Euros in Jaén, Spain, in Italy it sells for 2.51 Euros, in Greece for 2.15 Euros and in Tunisia for 1.88 Euros. Profitability is considered to be reached between 2.20 and 2.40 Euros per kilo-private storage limits at 1.78 Euros per kilo. While Spain's production is high (more than Greece, Italy and Tunisia combined) there is more offer than demand, the contrary of the other three countries. It is worth noting that Spain's distribution brands make up 65% while in Italy only 17% (Pastor, J., 2012).

⁶ Information from Olibeas' website: <http://www.olibeas.com>

Nuestra Señora del Rosario

Nuestra Señora del Rosario was created in 1977 in the town of Algodonales. It has 810 members and presses an average of 6 million kg of conventional olives and 400,000 kg of ecological olives. 60% of its production is destined for packaged oil for export and 40% is sold bulk to the Hojiblanca Groups SCA (cooperative company) under an agreement for packaging. Turnover for 2011 was 3 million €. In addition to its agricultural and processing activity it offers its members various services.

San Isidro

Founded in 1958 in Granada with 24 members and a harvest of 1 million kg of olives, San Isidro has grown to include 950+ members with an average harvest of 30 million kg of olives and 6.5 million kg of olive oil. The area of olive groves totals 7,800 ha. Turnover for 2011 was 20 million €. They also market other production such as asparagus and grains, with 160 ha and 300-500 ha, respectively.

The cooperative packages only Extra Virgin Olive Oil, selling the oil that does not qualify as “extra” as bulk oil to other packagers which have a lesser quality range. It has its own marketing department and sell to large supermarkets and wholesalers as well as their own store and website.

Quality, sustainability and respect for the environment are considered key points in the cooperative’s strategy. It has obtained certification of the “Andalusian Quality” and the “Integrated Production” logo for all products which are commercialised under the brand “Loxa”. It has directly packaged its own olive oil for the past four harvests and has a market niche of about a million kg of olive oil, exporting to other countries such as Korea and Canada. 80% of production is destined for national market and the rest export (Aguilera, 2010). The overall objective of the cooperative is to market member production at the most favourable conditions, with the intent to sell products directly to the consumer so that the value added in the supply chain remains at origin (Cooperativas Agro-alimentarias, 2008).

2.2.2. Second-Tier Cooperatives:

Hojiblanca

Hojiblanca is the largest olive oil cooperative in Spain and is considered to be the most innovative. In 2011 its turnover was 400 million €. Founded in 1987, Hojiblanca S. Coop. has 93 cooperatives from various autonomous communities in its olive oil section. This capacity to overcome territorial barriers (i.e. different autonomous regions and thus different cooperative laws) to create larger and more powerful operators is unequalled in the Spanish olive oil sector and is of particular importance given the list of weaknesses and identification of problems identified above.

Oleícola Hojiblanca S.A. is a non cooperative company partly owned by Hojiblanca S. Coop, which markets all the packaged oil and olives. Through Oleomalaga, Hojiblanca participates in the marketing of wines (Tierras de Molina S.A.). Coragro S.L. a limited company is an insurance broker in which Hojiblanca has an ownership interest. It also has a 50% interest in Mercaóleo S.L. a limited company owned with Cargill (see below).

The process of concentration is still in progress at Hojiblanca, evidenced by the fact that in the last 2011/2012 harvest alone six new cooperatives in the table olives sector were added as well as 2 new cooperatives in the olive oil section. In addition to the inclusion of new members, Hojiblanca has commercial agreements with numerous cooperatives to commercialize its olive oil. The overall strategy of Hojiblanca is to double its size in the next 4-5 years, with the hopes of realising commercial, financial, supply, etc. synergies. As a model it looks to the large diversified

Spanish agro-alimentary companies and powerful European cooperatives with the power to establish price, as well as the large multinationals in the sector (Martínez, 2011b).

Strategic agreements with other groups

Hojiblanca has numerous strategic agreements and alliances with other oil groups, both cooperative and non-cooperative. For example, Mercaóleo was set up as a packager dedicated to the production of supermarket brands and participated in by both Hojiblanca and the powerful Cargill (an international producer and marketer of food, agricultural, financial and industrial products and services) which has an important seed oil presence (Martínez, 2011c). Hojiblanca supplies the olive oil while Cargill brings to the table its knowledge of the supermarket brand sector and the distribution chain. Hojiblanca not only accessed the supermarket brand market but also began the production of new products such as refined oil (Martínez, 2011d). In 2011 there was an alliance between Hojiblanca and the Deóleo group, which is the major marketer of oil in Spain, through Hojiblanca's purchase of an interest in the olive company Acyco, which was owned by Deóleo. The agreement provides for Hojiblanca to produce the Deóleo range (10 year contract) and for the commercial collaboration outside of Spain with the result of opening up Deóleo's significant distribution network (Martínez, 2011e). On October 18, 2012, Hojiblanca and Deóleo entered into an agreement in which Deóleo acquired the trademark "Hojiblanca" and Hojiblanca's industrial plant in Antequera (Málaga). Payment by Deóleo was in the form of newly issued shares of Deóleo. As a result, Hojiblanca will have a 9.63% ownership share of Deóleo, thus being an important shareholder of the non-cooperative company.

Collaboration with non-member cooperatives is also sought to increase the quantity of production for distribution, taking advantage of the marketing structure of the company. In 2009 more than 30 cooperatives reached an agreement with Hojiblanca to jointly market their olive oil. They have the status of "collaborating members" with the objective of obtaining a better price (Alimarket, 2009). In addition, Hojiblanca has reached agreements with Spanish olive oil cooperatives to create common brands for them which it then markets. As an example, this was the case with the livestock cooperative Copaga in Catalonia which then allowed for the creation of a new packaging plant giving Hojiblanca a greater presence in the Catalonia region (FAECA, 2011b).

Hojiblanca has four sections: table olives (made up of 22 first-tier cooperatives which a production of 65,474 tn in 2011, of which 95% were marketed outside of Spain); Olive oil; Supply (in 2006 Hojiblanca merged with two supply cooperatives, Agromálaga and Agrocórdoba); and livestock (in 2011 Hojiblanca merged with the second-tier livestock cooperative Agropecuaria del Sur dedicated to the marketing of pork, thus diversifying its business and converting into the market leader in Andalusia with 10% national market share for white pork. (FAECA, 2011b).

Marketing Strategy

The commercial strategy of Hojiblanca is based on the potential of foreign markets, attention to distribution and exports and the continued attempt to maintain better prices through bottling/packaging strategy (Martínez, 2011f) In 2011 the cooperative increased its total packaged volume by 17%. This format, which has a higher value than bulk, has been for the most part propelled by foreign markets, given the more difficult conditions of the national market (Martínez, 2011a).

The principle destinations of packaged oil are Mexico and Japan, into which 4 and 3.7 million litres, respectively, were exported in 2011. Brazil, the United States, China and India are also new markets, as are England and France. For exports to England, France and Brazil, Hojiblanca uses a partnership system, which involves collaborators and the setting up of infrastructure by such collaborators at destination (Martínez, 2011g). Mercaóleo, which commenced in 2009, provides a complementary marketing channel, and is dedicated only to supermarket brands,

marketing 15 million litres (virgin and refined). 60% of these sales are exports, destined for such supermarkets as Auchan in France, Lidl in Germany and 40% for national markets in Carrefour, Día and Eroski. However, the largest part of business continues to be bulk sales, of which a third is exported. In the 2010/2011 harvest it sold 173,000 tn of olive oil. Of revenues of 310 million€ for 2011, 100€ were obtained outside of Spain (Martínez, 2011g).

Another project of the cooperative is the implementation of a network of supply stores in each of its member cooperatives. In this manner, the member cooperatives have a similar commercial strategy to sell to their own members (FAECA, 2010).

Oleoestepa

The 16 cooperatives which make up the second-tier Oleoestepa represent all the cooperatives in the county of Estepa as well as one of a neighbouring county. 4,000 members work an area of 50,000 ha. Turnover for 2011 was 71 million €. Oleoestepa puts a high emphasis on quality and has a rigorous internal compliance plan. As a result of such quality control the brand has a certified quality certificate and its production belongs to a denomination of origin (Estepa). On the business, side, technical, management and administration services are available to members (FAECA, 2006).

In 2008 Oleoestepa signed a collaboration agreement to supply olive oil to Sovena, a leader in marketing supermarket brands and the supplier to Mercadona. This agreement was the result of a client-supplier agreement in place since 2002. The agreement also provides that the brands “Oleoestepa” and “Estepa Virgen” are introduced into certain international markets where both companies carry out business (Alimarket, 2008). Business software has also been developed for cooperative members, including traceability systems, as well as integrated management systems. Its export department is fundamental in the search for new markets.

Oleocampo

Oleocampo, constituted in 1995 by three cooperative of Torredelcampo, currently has 1,962 members. It is among the 30 principal marketers of olive oil in Spain. Turnover for 2011 was 14 million €. A significant part of the member olive groves are made up of groves with more than 100 years, but there have also been incorporations of innovative technologies through newer plantings with increased density and irrigation systems.⁷ In total, there is 7,438 ha, the majority not irrigated.

The average pressing per harvest is 25 million kg of olives, employing 21 permanent workers and more than 70 temporary workers at harvest time. Bulk oil (9.46 tn in 2010) is channelled through Interóleo Picual Jaén, S.A., a non cooperative company in which it has an interest (see discussion of Interóleo Picual Jaén, S.A. below), while the packaged oil division had sales of 4.2 million € in 2011.

The percentage of packaged oil that is sold under its brand in relation to total production has increased with successive harvests and currently represents 20%. 25% of such amount is for export. Emphasizing South America, it has a subsidiary in Uruguay, Oleocampo Américas (Antelo, 2011).

It carries out industrial processing, marketing and sales of its products and olive by-products from its member cooperatives. It provides extensive services to its members and has recently created an R+D+I department in which it is developing project to strengthen renewable energy. In 2011 it patented, together with a technological company Torrematic, a self-propelling machine for the harvest of olives in traditional olive groves (extensive areas) and with difficult

⁷ Information from Oleocampo's website: <http://www.oleocampo.es/>

access (Alcuza, 2011). In the middle of 2011 it added a cosmetics line containing olive oil under the name “Oleodermo”. In December of 2011 it began direct sales through its website.

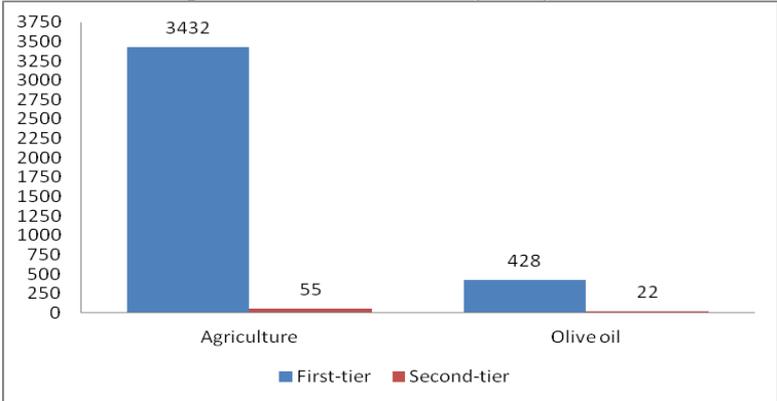
2.3 Strategy and Structure

Above, we have set out the characteristics and problems of the olive oil cooperatives. The main strategies that olive oil cooperatives adopt to address these structural issues are set out below. Growth strategy in Spain has been carried out by the integration of cooperatives, generally in the form of second tier cooperatives. This concentration to counter atomisation has been argued to have been dictated by the necessity to increase foreign market presence, improve business strategy and the management of resources. In Andalusia this process, although timid, has begun, reflected in the decrease in the total number and also an increase the number of large olive oil cooperatives.

Initially first-tier cooperatives were promoted in Spain, beginning with the Cooperative Law of 1942, which were overseen by provincial unions, characterized by “localism” and poorly adapted for the market (olive oil cooperatives are some of the oldest in Spain). From the 1970s, onwards, second tier cooperatives began to emerge and they developed more so during the 1990s. The regulation of second-tier cooperatives commenced in 1971 (Decree 2396/1971) (Montero, 1991 and 1999) and was further elaborated under the Spanish cooperative law of 1999, which also regulated mergers and the formation of groups. In the last 20 years, Andalusia has gone from having 15 second-tier olive oil cooperatives to 22, the number currently found in the Cooperative Registry. If one looks at Table 4 below, the incidence of second tier olive oil cooperatives is high as against that of agriculture in general⁸.

Recently, various forms of aid have promoted integration (including mergers and creation of second-tier cooperatives-see Appendix 3). These measures have had limited impact and experts within the olive oil sector are sceptical about future success. The head of the olive oil section of the Andalusian cooperative federation points to the obstruction of the general managers and boards of smaller cooperatives as a key stumbling block and this is a point of view widely shared by experts and sector actors.

Table 4. First and second tier cooperatives in Andalusia (2012)



Source: Registry of Cooperatives from Andalusia

To the extent that some form of integration is inevitable, Meliá (2003) points out that of all the formulas for integration possible, Spanish cooperatives choose second-tier cooperatives due to the existence of a traditional resistance to mergers, since the latter require a greater degree of commitment and loss of distinct entities. Since dominant relationships were not found to exist

⁸ Curiously, if we look to the overall figures for second-tier co-operatives in all sectors in the period from 1999 to 2009 in Andalusia there has been a decline of second-tier co-operatives, going from 85 in 1999 to 65 in 2009. However, of the 65 in 2009, 43 were in the agricultural sector (Puentes Poyato et al, 2010).

and since decisions were taken by consensus, the second-tier structure permitted the cooperatives to determine which level of implication they wished (Puentes, Velasco y Hernández, 2010). As well second-tier was seen to offer a cost effective form of growth not requiring infrastructure (Vargas, 1993). A trait of second-tier cooperatives is the possibility to have access to supply contracts with distribution companies. (Senise, 2003; Langreo, 2010).

According to studies (Puentes Poyato et al. 2010; Senise and Parras, 2003; Fransi, 2007) the results of the second-tier cooperatives present an unequal picture of the success of actual integration. For a certain number of cooperatives, this integration has not resulted in any gains from a commercial point of view, suggesting that either there has not been a real concentration of supply or that the common marketing actions have been very limited. However, there have been other success stories where second tier cooperatives are making significant advances in common marketing strategies using their own brand, common marketing of product and the increase in the sale of packaged product. According to a study (although somewhat dated) carried out on these cooperatives, approximately 50% of the second-tier cooperatives are not following a common strategy, some 25% of such cooperatives are carrying out activities in a very limited fashion and only 25% are following an effective, joint marketing strategy (Senise and Parras, 2003). Second-tier cooperatives which had their origins in joint commercialisation had better results than those that came into being due to the obtaining of subsidies (Senise, 2003).

It should be noted however that of the top 5 olive oil cooperatives in Spain, all of them are second-tier cooperatives.

When addressing structure and strategy, one has to acknowledge that in addition to its economic importance, the olive oil sector greatly influences the territories in which they are situated from the point of view of the rural community/local development, environmental stewardship and the regional culture (Torres, 2000). It may be rather simplistic to speak of “localisms” when in fact, a community is simply trying to direct its own future and maintain the viability of its olive oil farming. For example, in the case of the cooperative Oleocampo, where the member olive farms have trees that are more than 100 years old, are un-irrigated and on difficult land, a business strategy which includes a geographically differentiated, local first-tier cooperative that invests in R+D+I, exports and complementary products may be logical. Organoleptic qualities in olive oil are generally much higher in oil that comes from old olive groves and thus such oils have the potential, often unrealized, to be sold as high end products.

In Spain most olive grove plantings are “traditional”, representing 72% of the total area, as opposed to “intensive”, “super-intensive” or in “bush/hedge” form. Many farmers with traditional plantings are not full time farmers and have other income. In Andalusia traditional plantings have an average of only 130.3 trees per ha, compared to “intensive” farms which have 200 to 550 trees per ha and “super intensive” farms which have 2000 trees per ha. Traditional olive plantings take advantage of poor soils and/or inclined lands and the low need for water and efficiently utilise lands that otherwise would not be productive. New techniques introduced in the 1990s helped to increase productivity (Lanzas Molina et al., 2009). But it is only in the last 10 years that Spanish producers have planted new intensive groves based on designs and structures and with sophisticated irrigation techniques meant to substantially increase production. Cooperative businesses must be structured so as to meet the varying methods of production. For this reason, there is a variety of strategic measures adopted by the cooperatives including cost leadership (reducing costs in harvesting and through vertical integration, for example), differentiation (ecological and extra virgin, denomination of origin, quality seals, etc.) and niche markets (e.g. expanding exports for ecological product, entering into collaborations, etc.). All cooperatives sell both bulk and bottled oil, thus requiring different strategies in differing degrees. For first-tier cooperatives with geographical ties (e.g. they are the only

cooperative for the whole of a rural area) a niche market may be pursued for ecological, quality extra virgin or denomination of origin.

In response to the increase in Spanish olive oil production, Spanish domestic consumption is unlikely to increase significantly although it appears that world markets are capable of absorbing production. Exports already represent 60% of sales and Spain is now ahead of Italy as the principal world exporter and it is increasingly consolidating its leading market position in many countries (Cooperativas Agroalimentarias, 2011).

In light of this, exports are a key strategy to avoid the excess of production on the national markets and to counteract falling prices. Andalucía represents 68% of such exports, having declined slightly from 72% since 2004 due to increasing production and export activity in other autonomous regions. A more concerted effort on the part of olive oil cooperatives, large or small is required to obtain a bigger presence in international markets (Lanzas and Moral, 2010). In general (although not in our case studies), a certain passive behaviour exists in relation to exportation where in many occasions it is the result of foreign demand, rather than a conscious export strategy (Moral and Lanzas 2007 and 2009). Efforts such as Interóleo (see below) are an important development in counteracting falling prices and increasing bargaining power particularly with respect to bulk exports.

For this study Hojiblanca exemplifies the variety of strategies that can be taken given the identified issues and problems within the sector. In addition to an aggressive growth strategy and both vertical and horizontal integration, they also have pursued innovative strategies with respect to marketing, collaboration with both other cooperatives and IOFs and organizational structure. Oleocampo represents a successful and growing cooperative within the most famous and productive olive oil region of Andalusia, Jaén, which is considered to have a “cluster” of olive oil cooperatives. It has diversified into other product lines such as cosmetics. Oleoestepa from Seville is also an innovative second-tier company pursuing strategies with a focus on quality and sustainability.

For first-tier cooperatives, we see that the cooperatives have attempted to maximize value for their members through a chosen path or niche, whether that is initiating a bottling program for all of their production, producing ecological oil, obtaining integrated production certification, obtaining a denomination of origin for all their members, etc. Shorter, more direct supply chains are also pursued.

In all cases, we can see that the chosen cooperatives are striving to package more of their own oil, thus counteracting still prevalent high bulk sales, control more of the supply chain process and stress quality. Increasing exports is, in most cases, a crucial strategy to survive falling national prices.

If we analyse the accounts of the chosen cooperatives (see Appendix 2a) we observe a certain stability in turnover, except for Hojiblanca and Ntra. Señora del Rosario, which show increasing turnover in the last five years. The various cooperatives have explained that given price variations of olive oil, increased sales have not been reflected in turnover. In addition, there has been a continued investment by the cooperatives which can be seen in the increasing value of total assets. This growth has been accompanied by the use of more outside financing thus resulting in a relatively higher amount of debt in the majority of cases. In terms of equity, although it is decreasing in some instances, it is positive in all cases, and in the case of Hojiblanca, Ntra. Señora del Rosario and Oleocampo it has doubled.

2.4 Relevant Support Measures

In 2011 Spain received almost 1,000 million € in European aid to olive groves, 80% of the cases which are in relation to the Single Payment. According to the MARM⁹ EU subsidies have totalled 6,852 million €, which represents 30.4% of agricultural income. Amongst the six Spanish regions that receive the higher European aid, five of these regions have an important olive oil sector. Andalusia is the autonomous community with most support from Brussels, approximately 30% of the national total. Within Andalucía, the province that receives the most European aid is Jaén, with 466.5 million € due to its potent olive production. Almost 90% of the aid received by the farmers of Jaen is related to the olive oil Single Payment. During 2011 4,500 million € were obtained under the Single Payment, decoupled from production. According to the cooperatives under study, measures related to modernization and improvement of installations under CAP were unanimously cited as very important, with payments under CAP being described as “essential”.

Table 5. Amount of CAP Support in the Olive Oil Sector in Andalusia and Spain

Year	Andalusia		Spain	
	Amount €	N. beneficiaries	Amount €	N. beneficiaries
2000	809,529,848.91	220,742	974,024,431.80	489,692
2001	735,361,232.46	226,606	1,029,566,385.77	518,327
2002	851,945,272.15	230,777	1,009,925,516.99	484,133
2003	842,275,542.30	231,822	1,038,739,819.87	513,482
2004	824,818,613.63	228,736	1,021.169.102,87	474,048
2005	836,141,583.15	236,140	1,028,134,331.79	500,987
2006	808,552,592.37	231,182	983,056,087.40	477,577
2007	75,334,784.10	174,419	109,698,664.21	314,411
2008	67,504,171.06	174,330	99,723,559.03	299,992
2009	64,295,850.94	169,896	96,143,994.45	290,318
2010	71,830,386.30	163,874	104,473,010.88	281,868
2011	462,363.27	451	557,810.43	818
Total	5,988,052,240.64	2,288,975	7,495,212,715.49	4,645,653

Source: Feoga

Table 6. CAP Support in the Olive Oil Sector by type of Support Measure in Andalusia and Spain.

Type of Support	2010	2011	2010	2011
	ANDALUSÍA	SPAIN	ANDALUSÍA	SPAIN
Production	45,829.05	113,388.42	-740.9	5,052.61
Private Storage	7,317,382.66	7,562,750.34	0.00	0.00
Olive Groves	64,467,174.59	96,796,872.12	418,789.66	508,443.92
Improving Quality of Olive Oil	0,00	0,00	44,313.90	44,313.90
Total	71,830,386.30	104,473,010.88	462,363.27	557,810.43

Source: Feoga

The activation of private warehousing measures is also argued to be an important policy measure in relation to attempts to control prices, although in actual practice it is not clear that it functions well (data not available above for 2011). There are varying opinions in the cooperative sector on the utility of private storage schemes. The confederation and federation of cooperatives are in favour of using such available measures as a method of stabilising prices. This issue is dealt with, in more depth, in the “Support for Farmers’ Cooperatives; Country Report Spain” (Giagnocavo, C., C. Vargas-Vasserot, 2012) but it is worth noting that warehousing needs to be carried out alongside other strategies such as the concentration of offer and other commercialization arrangements (e.g. CECASA and Interóleo, below). Whether such private commercialization efforts are hindered or encouraged by policy is another matter.

⁹ Ministry of Environment, Rural Areas and Fisheries

A case in point is CECASA (Spanish Company for the Marketing of Oil-Compañía Española de Comercialización de Aceite) which was promoted by FAECA (Andalusian Federation of Cooperatives) and created in 2000 to privately regulate the market and to avoid olive oil price crises. It united 250 cooperatives and olive oil presses in Andalusia, Extremadura and Castilla-La Mancha, representing 60% of national olive oil production. However, its activity was paralyzed in 2002 by the Competition Tribunal. After a long period of litigation in 2010 CECASA once again began to operate and intervene in the market. In 2010 there was a favorable finding of the Supreme Court, which followed a pronouncement of the European Union Court of Justice that CECASA did not violate the European competition laws given its private financing and composition. The court recognized CECASA as an instrument for crisis management and as a method to guarantee consumer supply (Martinez, 2010).

Another important private development is Interóleo Picual Jaén, S. A. ("Interóleo") a non-cooperative company group created in 2009 and dedicated to the commercialisation of olive oil (Europe Press, 2009) It is made up of 23 olive press entities, both cooperative and non-cooperative and groups together 17,000 farmers. In 2011 the commercialized volume reached 50,000 tons, with a turnover of 90 million Euros (Lopera, 2012). 60% of virgin olive oil is exported, above all to Italy, France and Portugal.

It should be noted that Interóleo is dedicated exclusively to the sale of unpackaged bulk oil provided by its members. Its objective is to facilitate sector concentration to increase member income regarding bulk oil and to optimize decision-making. It acts as a sales center to commercialise olive oil and as a buying centre to reduce the cost of services and supplies. It also offers training services to members.

There is a distinction in the treatment of cooperative and non-cooperative members. All cooperative members are obligated to market their bulk oil through Interóleo and the oil is marketed in a unified system (i.e. all together, without distinguishing source). The members are not obligated to market their oil which they themselves bottle/package or which is of designated origin (Denominación de Origen). In the case of non-cooperative oil presses, the decision to use Interóleo to market product is taken by the member.

While legislation exists at the Andalusian and state level, for primary and secondary integration and mergers, these measures in and of themselves do not guarantee success, absent a solid business case for such initiatives. However, integration support is useful for those cooperatives with a strong business reason who do seek this method of growth and expansion. See for example, in Andalusia Order 12, June 9, 2009 which subsidises the participation in the social capital of the existing second or higher level cooperative up to a maximum quantity of 100,000 € per beneficiary entity and Order 20, April 2010 which provides subsidies for merger and pre-merger expenses up to a maximum total of 20,000 €. More recently, the Spanish state resolution of April 19, 2011 encourages integration at the state level (see Appendix 3 for details of abovementioned laws and resolutions).

Regional measures that support modernization, innovation, export and internationalization (EXTENDA) were regarded as important, although they are not specific to cooperatives (See Appendix 3 for various measures). The many regional cooperative laws have some positive aspects in that they attempt to closely track the necessities of the region. This however is a problem for market organisation, as each regional government wants the spotlight. As a result the brand "made in Spain" is not sold or leveraged nor are generic national programs carried out. This reduces competitiveness and makes internationalisation difficult.

Tax incentives available under regional cooperative legislation were also mentioned as being important, particularly for the larger cooperatives.

In Spain, with the agreement of the olive producer sector, it was decided to not retain funds to finance programs pursuant to EC Regulation 1782/2003 and EC Regulation 867/2008 (improve quality of production). However, MARM (Ministry of Agriculture, Rural Areas and Marine) considered it crucial to maintain a program which fought against the olive fly, such that they qualified the measure as a public utility. This permitted the Spanish administration to finance this extremely successful measure. The quality of oil and table olives are directly affected, and improved by this program.

According to Salazar Ordóñez (2011) the initial valuations of FEADER by the agricultural sector in Spain has been positive in several aspects. The interest in social issues in rural territories has been one way of to legitimate rural activity that has lost relevance in past decades (Moyano, 2006). Gallardo (2005) maintains that FEADER funds have complemented the sectoral and territorial focus and have consolidated the LEADER approach, thus providing a more adequate response to the new social demands of rural areas.

However, the integration of the different aspects of FEADER with agrarian interests has not been particularly smooth. Moyano (2006) has maintained that farmers and their organisations view FEADER as a method of moving funds from the first to the second pillar, which negatively affects actions designed to improve and modernize farm operations. Important resources which should have been focused on agricultural activities have been used for certain environmental programs which in the opinion of farmers, should never have been included in such FEADER program. Consequently there is a real concern that there are not sufficient funds to carry out all of the objectives and that such diverse objectives themselves complicate strategic activities and a coherent plan.

From the perspective of a high level Ministry representative, sufficient lines of aid already exist but the problem lies in how this aid has been distributed and how the cooperatives have used such aid during periods of growth and relative prosperity. Incentives have not been adequately directed or utilised well. Current policies have not been able to address the fact that farmers are more preoccupied with production than marketing and have not been able to avoid the atomisation and dispersion of production.

The “Interprofesional del Aceite de Oliva Español” (“Interprofessional”) has also played an influential role in unifying different sector agents. It is a non-profit organisation, established in 2002 and recognised by the Ministry of Agriculture in 2003, regulated by the Agro-alimentary Interprofessional Organisations. Its objective is to increase competitiveness, promote national and international consumption and promote R+D+I in relation to production and processing techniques.

On the part of the producers it includes the association of young farmers (ASAJA), the Union of Small Farmers and Livestock Keepers (UPA), Cooperativas Agroalimentarias and the Coordinator of the Agricultural Organisations of Farmers and Livestock Keepers (COAG). With respect to processing and packaging, it contains Infaoliva (presses), Anierac (packaging) and Asoliva (exports). The Interprofessional unites over 90% of the sector. In order to sufficiently fund itself, in 2008 it established fees for the various agents implicated in its activities. Until these obligatory contributions were put in place, lack of funds proved a hindrance in carrying out its activities effectively (Antelo, 2008).

Lastly, with respect to the new Olive Oil Grove law of Andalusia and the new Andalusian Cooperatives Legislation, it is too early to say whether these measures will have any positive or negative impact. (See Appendix 4 and Appendix 3, respectively).

2.5 Hypothesis Testing

Appendix A1 sets out characteristics of the cooperatives studied and also notes on how variables and independent variables were measured.

H1: A higher degree of vertical integration of cooperatives in a sector is positively associated with higher producer income.

This hypothesis was supported on a general level within Andalusia (and Spain) and also supported with respect to the cooperatives under study (with clarifications-see notes to Appendix 1). In general, olive oil cooperatives have a low degree of vertical integration, overwhelming selling their oil in bulk. With respect to the overall vertical integration of the cooperatives in Andalusia taking into account their involvement in the various stages of production and marketing, backward to input procurement and forward to the final consumer, the vertical integration is lower than in the selected case studies. The cooperatives under study which manage to package and market a higher percentage of their oil are more successful and provide higher producer income.

H2: The cooperative as an integrated processor develops better products and promotes them so effectively as to increase market demand.

This hypothesis is not supported by the evidence available on Andalusian cooperatives in general as they only represent a very small percentage of processors and packagers, most of which are IOFs. On the contrary, olive oil cooperatives dominate production and bulk sales continues to be the norm. However, advancements are being made in this area (particularly regarding the cooperatives under study) with improvements in industrial installations and with a focus on marketing strategies. Hojiblanca's agreements with 30 other cooperatives and also its direct interest in a marketing company serve as examples.

H3: Agricultural cooperatives that are successfully involved in selling final, consumer products, have a higher chance of adopting innovative ownership, governance, and capital acquisition methods.

This hypothesis is partially supported; depending on whether the cooperatives are large or niche cooperatives and as well, if they are first or second-tier. With respect to Hojiblanca, we can say that they are the most innovative of the cooperatives in this sector in Spain. Other second-tier cooperatives also have some innovations, but first-tier cooperatives are not very innovative in terms of ownership, governance or capital acquisition (which is not to suggest that they are not innovative in other ways, i.e. technology, marketing, etc.) and yet they are improving on their final, consumer sales.

H4: Agricultural cooperatives which collaborate with other cooperatives or IOFs do better, in terms of economic performance and services provided to their members.

The data gathered for this case study seem to provide support for this hypothesis. Hojiblanca stands out as a successful example of collaboration between cooperatives and IOFs and offers the most services, of which marketing is one of the most important.

H5: Agricultural cooperatives which focus primarily on achieving social goals do worse, in terms of economic performance, than cooperatives which focus primarily on achieving economic goals.

Incoherent hypotheses for Spanish and Andalusian cooperatives, where providing members with economic benefits is considered a social goal.

None of the cooperatives have made a distinction as to social goals—as they do not distinguish between economic and social goals. Hojiblanca has specifically noted that the social goals are advanced when economic goals are advanced, thus social goals (whether directly or indirectly) are met when cooperatives can obtain the best prices and lower costs for their producers. This

should not be confused with saying that economic benefits should first be pursued and thereafter social goals may be met, as in analysing an IOF. The head of Cooperativas Agroalimentarias olive oil section has noted that except for rare circumstances, there is no definition of social goals apart from the economic goals of maximising value for members.

However, some first-tier cooperatives have specifically mentioned their commitment to the environment (San Isidro). For first-tier cooperatives which have a strong connection to a rural area, it is implicit that there is a relationship with the community in providing employment and also in preserving towns (i.e. their economic viability) and lands (prevention of erosion, for example). For producers of ecological oils or high quality oil with integrated production or quality qualifications, sustainability and environmental issues are important.

It is true that there are competing interests between environmental sustainability and pressures to increase production and profitability. The result of this is that traditional olive groves, which are more environmentally sustainable, are less profitable. If they disappear in favour of intensive plantings, this will have an environmental impact.

H6: the federated cooperative structure (more than one tier) is less efficient than the centralized one (one tier structure; farmers are directly members to the cooperative).

Not Supported. All of the top 5 cooperative olive oil producers by both turnover and production in Spain are second tier cooperatives, with Hojiblanca being the significant leader. This fact does not prove that second-tier cooperatives are necessarily more efficient than first-tier cooperatives, as the chosen structure may be reliant on other factors. Our results suggest that efficiency is not necessarily related to first or second-tier structure. (See Appendix 1b for notes on efficiency calculations).

2.6 Policy Issues

- **Should public policies treat different types of cooperatives differently based on their ability to increase/stabilise farmers' income?**

In the opinion of the head of the olive oil sector of the Confederation of Agricultural Cooperatives there should be significant support for mergers into larger cooperatives or integration of cooperatives into second-tier cooperatives that market their total production. In addition, for cooperatives with a sufficient dimension, support for industrialisation (which already exists under CAP), marketing and creation and strengthening of brand projects should be supported but limited to cooperatives of a specified size and count on a greater percentage of subsidies depending on the size of the cooperative. (This cannot be said to be an opinion that is held throughout the sector, nor is it necessarily supported by the evidence in this case study with respect to brands and a size threshold in order to receive support.) In particular research into the creation of marketing structures for the internationalisation of products should be supported.

A somewhat different perspective is given by the sector leader, Hojiblanca, which opined that the emphasis should be on supporting serious, viable and consolidated projects and not necessarily the a priori encouragement of growth and creation of new cooperative groups (that is, without looking at their merits). This conclusion is consistent with the results of the case study, the opinion of the authors and also the academic literature.

A one-size-fits-all approach is too simplistic to deal with Andalusia's olive oil sector. In some instances, a first tier cooperative whose membership includes all of region's producers is more desirable than the formation of a second-tier group. Other forms of collaboration and agreements are possible in order to affect economies of scale, marketing and internationalisation, as we have shown in our limited case study analysis.

As well, producers of organic oil or artisanal extra virgin oils have different markets and different necessities than a producer that makes refined oils, for example. While packaging a higher percentage of production, better marketing, professional management and internationalisation are key for all olive oil cooperatives, it is not clear that second-tier cooperatives are the necessary answer. Inter-cooperative cooperation may equally serve such purpose and through a more organic process, thus ensuring success. Spain has gone through formal concentration processes and yet the actual collaboration has proved to be quite low in some of these processes, as noted above in the analysis of the sector.

Public policies must also recognise the environmental and local development role played by cooperatives that serve part-time, small scale farmers, to whom an increase in income is not the ultimate goal (whose “benefits” have more to do with social capital.)

The recent Olive Grove Law attempts to deal with the differences in types of olive oil farms, i.e. traditional and non-traditional, and hence, by extension, different types of cooperatives. (A summary and non-official translation has been done by the authors and included in Appendix 4) Whether it will do so effectively is yet to be seen.

With respect to Competition law, a Ministry expert opines that the Defence of Competition law is not an obstacle at the level of the cooperative-growth is not limited. It is, however, seen to be a serious obstacle at the level of sector organisations such as inter-professional bodies and producer organisations, making it impossible to take measures to manage the market, improve quality and dispose of product in situations of crises of prices, even when prices are below the cost of production for long periods of time. Olive oil cooperatives expressed the opinion that since the agricultural sector is the weakest rung of the supply chain EU competition law should provide exceptions, particularly in light of the actual and overwhelming imbalance of economic and bargaining power.

- **Should public policies facilitate cooperatives in achieving a balance between economic and social goals and, if yes, in which ways?**

From the perspective of a representative of the olive oil section of Cooperativas Agroalimentarias, an important social objective is to create employment opportunities in rural communities, which can be achieved through the business development of cooperatives.

For the most part this policy question was not accepted by sector representatives in the way that it has been formulated given that in order to facilitate social goals it is necessary to progress economically. That said, the new Olive Grove Law attempts to deal with this dichotomy.

Given that these cooperatives exist within the larger agro alimentary sector, any attempt to inadvertently impose higher requirements or obligations for compliance with social goals would be detrimental (for example, the “cut off” for cooperatives which exceed the SME size limit). However, recognising that cooperatives, by virtue of the way in which they distribute wealth and function as democratic institutions, are inherently fulfilling social goals would be a valuable development, and public policies should value such distinction when differentiating between cooperative and shareholder owned companies.

- **Which public support measures (local, regional, national and/or European) have an impact on the development and success/failure of the case cooperatives?**

See “Relevant Support Measures” above.

2.7 Andalusia Conclusions

Olive oil cooperatives in Andalusia have historically played a crucial role in supporting their farmer-members and the rural communities in which the olive groves are present. However, as a general rule, there are persistent problems that impede their ability to stabilise and increase the

income of their member-patrons. These factors include, but are not limited to: 1) lack of vertical integration and participation in and efficient coordination of the supply chain, with a high concentration in the production stage, where bulk sales continue to outweigh packaged; 2) atomization of the olive farms, making it difficult to succeed given the limited access to necessary technical, material, financial and organizational resources and marketing research; 3) insufficient collaboration and lack of inter-sectoral relationships; 5) regional agricultural cooperative laws and other relevant policies that have historically failed to provide a coherent national policy framework for the sector designed to achieve long-term sustainability in a highly competitive international environment; and 6) inertia in the sector as a whole, with lack of effective, strategic leadership where the administration blames “localism” and the misuse of funds by the sector and the cooperatives point to the lack of actual, as opposed to perceived, political action and will.

The olive oil cooperatives chosen for this study are positive examples which display a variety of possible successful strategies in response to noted sector problems. As for the problems suffered by the sector as a whole, there is ample evidence in the academic literature and trade and sector articles and press that are a reminder of negative characteristics and outstanding challenges of olive oil cooperatives.

3. Olive Oil Cooperatives in Crete, Greece

3.1 Introduction

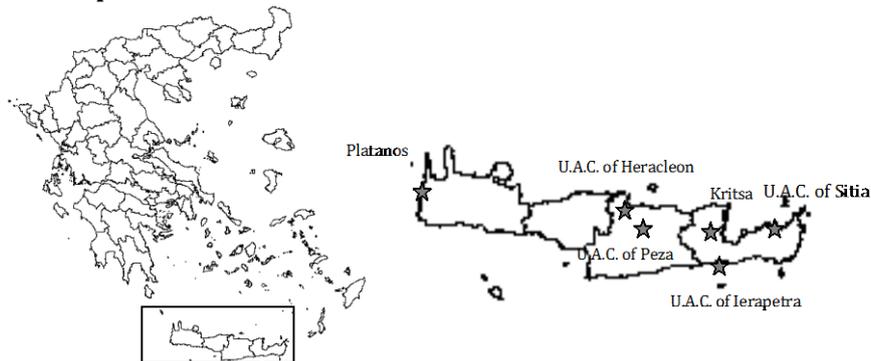
We focus on olive oil cooperatives in the region of Crete because the island produces a major part of Greece's olive oil (39.4%). The particular cooperatives were selected based on their structural and other characteristics that enable us to address the research hypotheses and policy issues focused upon in this report.

In order to gather all required information, we visited six cooperatives and interviewed their chief executive officers, and selected board members as well as farmer-members. We also collected statistical information from the Ministry for Agricultural Development and Food, as well as numerous academic and popular press articles and sector reports.

3.2 Facts and Figures

Cultivation of olive trees in Greece has been carried out for thousands of years. Olive oil and olives not only represent a basic element of local nutrition but also an important component of Greek culture. This is highlighted by the fact that olive oil consumption in Greece is extremely high compared to the global average (about 155,000 tn in 2009/10). According to the data provided by the National Bank of Greece in 2011, Greece has the largest per capita consumption of olive oil in the world, with over 16 litres per capita per year. Italy comes next with a per capita consumption of 14 litres per year.

Figure 3. Selected Cooperatives in Crete



Greece is the third largest oil producer (after Spain and Italy) with an output of around 225,000 tn in 2009/2010, which corresponds to € 800 million (0.3% of Greek GDP, compared to 0.2% and 0.1% of the contribution of olive oil industry to the Spanish and Italian GDP respectively) (National Bank, 2011). Moreover, olive oil is an important part of the Greek agricultural economy as it covers 11% of the total value of agricultural production (versus 2% in Europe). The significance of the olive oil sector is even higher for certain areas of the country, where the olive cultivation is the major source of income (Galanos, 2010).

The value of domestic olive oil (wholesale prices) over the same period is estimated at € 320 million, of which € 135-140 million refers to packaged product (ICAP, 2011). The total area cultivated with olives was 4,402,780 ha in 2007, representing only 2.0% of the total cultivating area in Europe Union. The huge number of holdings (about 854,120) gives an average of 5.1 ha per holding, a figure which is one of the smallest among the EU countries (Galanos, 2010). A special characteristic of the olive oil industry is its strong geographic concentration, since most of the oil production takes place in Crete (39.4%), Peloponnese (32.1%), Central Greece- Evia (8.8%) and the Ionian Islands (7%) (period 2000-2006 average production) (ICAP, 2011).

In Crete, 65% (234,992 ha) of the farm land represents olive cultivation with at least 35 million trees. Although about 90% of the olive oil production is extra virgin olive oil of excellent quality and great reputation, it has a very small market share. According to the data provided by the Association of Cretan Olive Municipalities (A.C.O.M.), 90% of the produced olive oil is exported. Approximately, 90% of the export quantity is sold in bulk to Italian companies. The remaining 10% is exported directly from cooperatives or IOFs in several other countries.

The most important variety cultivated in Crete is Koroneiki. Additionally, ten Cretan olive oils are protected by European law on the basis of Designation of Origin (P.D.O.) and Geographical Indication (P.G.I.) regimes and labelling.

In Crete, numerous private enterprises engaged in the production and packaging of olive oil. According to data provided by local Chambers of Commerce, 525 enterprises (both cooperatives and IOFs) are active in the production, standardization and marketing of olive oil (263 are located in the Prefecture of Heraclion, 137 in Chania, 90 in Rethymnon and 35 in Lassithi).

The following Cretan olive oil cooperatives were selected for this case study:

3.2.1 First-tier cooperatives

The Agricultural Cooperative of Kritsa

The Agricultural Cooperative of Kritsa was established in 1927 and currently has over 892 members. The cooperative's olive oil factory was constructed in 1937. The basic activities of the cooperative are processing of olives and standardization of olive oil. On average, the cooperative produces 450,000 kg of olive oil per year, all of which is rated as extra virgin olive oil with acidity of less than 0.3.

The Agricultural Cooperative of Kritsa has recently collaborated with GAEA (end of 2008), an internationally known IOF that sells and produces high-quality Greek agricultural products. They jointly developed a new legal entity named "Kritsa-GAEA" (49.9% of shares are owned by the agricultural cooperative of Kritsa and 50.1% by Gaea). This was the first time a Greek olive oil cooperative collaborated with an IOF. Using the distribution network of GAEA, "Kritsa-GAEA" is able to further develop its marketing presence in export markets. Seventy percent of the cooperative's olive oil is exported in several countries but primarily to the UK, the US and Germany. It is also sold in all Greek airports and, according to a recent agreement it will be used by chefs in Disneyland.

The Agricultural Cooperative of Platanos

The first-tier cooperative of Platanos was founded in 1948. Currently it has 1,000 farmer-members and produces about 1,500 tn of olive oil per year. Fifty percent of its production is sold in convenient five-litre packages while it also markets extra virgin olive oil under the brand name "Falasarni". The packaged oil is sold at the national level through a home service and mainly in the city of Thessaloniki. In addition to its agricultural and processing activities, the cooperative supplies its members with agricultural inputs as well as administration and advising services.

3.2.2 Second-tier cooperatives

The Union of Agricultural Cooperatives of Heraclion (AGRUNION)

Established in 1927, AGRUNION is one of the largest second-tier agricultural cooperatives in Greece, owned by 169 first-tier cooperatives that represent over 47,500 farmer-members. Their product portfolio includes olive oil, wines, vinegar and table grapes, which are sold both in Greek and foreign markets.

The AGRUNION markets olive oil under the brand name "KNOSSOS". It runs an agricultural supplies store and a supermarket. Moreover, it provides administrative support to their farmer-members, technically oriented advisory services as well as insurance services. AGRUNION maintains a well organized sales network through which it distributes its products to many countries (e.g., Germany, the United Kingdom, the United States, South Korea, Finland, Austria, and Japan).

The cooperative handles an annual total production of about 10,000 tn, 30% of which is packaged and sold by the AGRUNION. Currently the AGRUNION handles 70% of table grapes, 40% of wine, and 50% of the olive oil produced in the prefecture of Heraclion.

The Union of Agricultural Cooperatives of Peza

Founded in 1933, the Union of Agricultural Cooperatives of Peza (Peza) is owned by 20 first-tier cooperatives, which represent approximately 3,000 farmer-members and 6,000 ha of land cultivated with olives (nearly 1,100,000 olive trees). The basic products of the Union are the wine and the olive oil. The average production of olive oil is 5,000 tn per year.

The olive oil produced in the Peza area is recognized as Protected Designation of Origin (PDO). The cooperative standardizes and distributes the PDO Extra Virgin Olive Oil "Peza". It has been recognized worldwide and has won many awards in international exhibitions and gastronomic events. In addition to the aforementioned services, Peza provides insurance services as well as technical and administrative support to farmer-members. Peza union possesses two olive oil mills that produce 1,500 tn of olive oil, a laboratory for quality control, a traditional soap factory, olive oil containers of 6,500 tones and standardization facilities for olive oil.

Peza maintains a well organized sales network through its own retail outlets, the «Mediterranean Diet» retail chain, and various other supermarket chains. Through a network of local dealers in foreign countries, Peza exports to many countries, such as Austria, Germany, United Kingdom, France, China, Dubai, and Lebanon.

An olive oil producer organization representing 4,500 farmer-members has also been formed by members of Peza.

The Union of Agricultural Cooperatives of Sitia

This second-tier cooperative was established in 1933 and today is owned by 42 cooperatives that represent 8,718 farmer-members. It produces about 25,000 tn of olive oil per year, which it distributes to the Greek and international markets either in bulk or as branded. The olive oil produced in the province of Sitia belongs almost 100% in the extra virgin category while it is also recognized by the European Union as a PDO food item. The cooperative has repeatedly won quality award in international exhibitions and fairs.

The cooperative's facilities have a storage capacity of 5,000 tn and a bottling capacity of 10,000 kg per day. Its activities also include the supply of agricultural inputs and technical support to its members. Its export department plays a crucial role in the search for new markets. Increasing exports is a crucial strategy to survive given the falling national prices. Currently the cooperative participates in a three-year program to promote olive oil in third countries (Russia, Ukraine and China) under the Commission Regulation (EC) No 3/2008 and Commission Regulation (EC) No 501/2008.

The Union of Agricultural Cooperatives of Ierapetra

The second-tier agricultural cooperative of Ierapetra was formed in 1932. It is owned by 23 first-tier cooperatives, which are owned by 5,700 farmer-members. The cooperative markets, on average, 3,500 tn of olive oil per year, all of which is sold in bulk.

During the past months, the cooperatives were experiencing severe financial difficulties. As a result, it could not repay a bank loan invested in constructing new facilities for the cooperative's supermarket. A few days ago the cooperative entered an agreement with a consumer-owned supermarket chain (i.e., INKA Supermarkets). According to Mr. Panakomichelakis, chairman of the board of the UAC of Ierapetra: "It's a 12-year contract term. We signed the agreement only after INKA accepted the condition set by us, that is, to secure the jobs of all 25 employees who are working at the supermarket. We also agreed that the INKA-run supermarket will give priority to buying locally produced agricultural products but we have observed a huge gap between producer and consumer price to the benefit of the latter¹⁰.

3.3 Strategy and structure

According to Porter (1990), an entrepreneurial organisation, positions itself in an industry in which it operates by maximizing its strengths and minimizing its weaknesses. To do that, the organisation chooses a set of strategies that best fits its goals and business purposes. Porter has identified three generic strategies: cost leadership, differentiation and focus. Cost leadership refers to the strategic choice where price/cost becomes the organisation's source of competitive advantage. The cost leadership strategy usually targets a broad market and can be achieved by adapting vertical integration decisions, avoiding some costs altogether, gaining access to lower cost materials etc.

The differentiation strategy calls for the development of a product that has some unique characteristics and attributes allowing the producer to ask for a premium price. The production of a unique product is often associated with extra costs and the premium price may partly compensate for these costs. There is also the risk that customers may not adequately value the product and in some cases, the market must be created through increased efforts in promotion and advertising activities.

The focus strategy refers to a niche market and all efforts are directed towards acquiring as large a market share as possible in this narrow segment of the market. This strategy usually requires a high degree of customer loyalty and carries the risk of a relatively low bargaining power with suppliers—mainly due to lower production volumes—and changes in the target segments.

In many cases, companies pursue a combination of the above-mentioned strategies. Although Porter argues that when combined, these strategies do not lead to a competitive advantage, other scholars support the view that a firm has to adapt its strategies to the ever-changing and dynamic market conditions (see for example Bowman 2008; Kim et al, 2004). It is important, however, to follow market developments closely and have a set of strategies available at any time to tailor the firm's strengths to the market.

According to industry experts, more than 90% of the olive oil produced in Crete, is classified as extra virgin, and ten Cretan olive oils have been accredited a PDO or PGI status. Agricultural cooperatives in Crete hold a market share of 10% in the Greek olive oil market (ICAP, 2011)¹¹. However almost 80% of the olive oil produced in the region is sold in bulk to wholesalers and retailers either within Greece or-most commonly- Italy. The informed reader would notice that the product uniqueness and quality attributes call for a differentiation strategy. Vertical integration could add value and the final, branded product could be offered at a premium price. Instead, olive oil cooperatives in Crete market their products through auctions and strive for achieving a "fair" producer price that barely covers expenses. Traditionally, olive oil cooperatives followed a defensive strategy of collecting their members' production and waiting

¹⁰ Interview for Radio Lassithi 92.3 FM at 14-12-2011, available at: <http://radiolasithi.gr>

¹¹ Two IOFs hold more than 55% of the market share in the standardised olive oil market, followed by two co-operatives from Crete (who together hold more than 10%), one co-operative from the island of Lesbos (3%) and one from the Laconia prefecture (1,5%). It is, therefore, worth noting, that two co-operatives from Crete are among the top-five companies of the sector.

for a buyer, rather than seeking high-end segments of the market for their products. Interviews with board members and chairmen of the board, conducted for the purpose of this study, provide an insightful and revealing look at the reasons of why this happens: “Commercialization has been the Achilles’ heel for almost all of the cooperatives in the sector”, a board member stated, and continued: “ ...over recent years, many olive oil cooperatives in Crete have invested in commercialization, however most of the olive oil is still sold in bulk and middlemen receive most of the added value.” The strategies developed by the Cretan olive oil cooperatives in recent years have been orientated towards capturing value downstream the supply chain by, for example, differentiation through PDO or PGI accreditations. However, the effectiveness of the geographical indications scheme to enhance product commercialization has been questioned by many, including the European Court of Auditors (ECA, 2011). Other strategies adopted by olive oil cooperatives in Crete include forming partnerships with IOFs or other cooperatives, both within Crete (e.g., the Agricultural Cooperative of Kritsa entered a joint venture agreement with GAEA, S.A.) or even with international partners (four federated, second-tier agricultural cooperatives from Crete-Peza, Sitia, Mylopotamos, Mirambellos-formed a partnership for the advancement of quality and the development of olive oil traceability with the Consorzio Nazionale degli Olivicoltori of Italy).

However, the strategies developed by the Cretan olive oil cooperatives in recent years have not yet yielded a considerable economic benefit for their farmer- members. The sector suffers from the effects of falling prices and the strategies followed so far have not been able to counterbalance the impact of this effect on producer income. In addition, as becomes evident after studying the cooperatives’ financial statements, the majority of the cooperatives examined are heavily indebted since investments are entirely financed by bank loans instead of member capital.

The question that arises then is the following: which of the structural characteristics of the olive oil cooperatives in Crete affect their strategic planning and the effectiveness of the strategies adopted? First, all cooperatives involved in the Crete case study suffer from low capitalization. The low levels of risk capital invested by members is attributed to the cooperatives’ adoption of a traditional ownership structure that provides no incentives to members, as well as to the small average size of the olive-tree farms in Crete. As a result, members do not have enough assets to invest in their cooperative, or are provided with no incentives to contribute significant amounts of equity capital to backup cooperative investments (Cook and Iliopoulos, 2000; Iliopoulos and Cook, 1999). The resulting insider free rider, horizon, and portfolio problems significantly constrain these cooperatives’ ability to attract risk capital from their members.

Second, in the interviews with the cooperative representatives, one rationale for the formation of second-tier cooperatives surfaced as the most important. Second-tier cooperatives have access to resources not available to small, first-tier cooperatives and handle a much larger quantity of olive oil. As a result they have a much higher chance of increasing their market share than their cooperative-members. Fundamentally, second-tier cooperatives are created to realize the common interests of their members who remain independent but share a value system positive towards cooperation (Søgaard, 1994). However, in the case of the olive oil cooperatives in Crete, many of the member cooperatives have no actual transaction with the second-tier cooperative. In many cases the first-tier cooperatives have no business activity at all and they exist only to serve the opportunistic behaviour of some of the local cooperative leaders (Iliopoulos and Valentinov, 2012).

Third, it is often the case that some of the member cooperatives have their own milling plants and compete directly with the second-tier cooperative in the same market. The fact that too many facilities serving the same purpose operate in the same area, instead of a few large ones creates significant inefficiencies. Localism and prevailing social norms and habits (such as

political confrontation) have been influencing the business decisions of farmers and created opportunistic behaviour of cooperative members among each other (Williamson, 2004).

Fourth, the lack of member commitment observed in the olive oil cooperatives of Crete, can be attributed to two factors: first, the low member investment in the first-tier cooperative and second the distance developed between producer members and the second-tier organisation, since the governance bodies of the second-tier cooperative are formed by representatives. In most of the cases the second-tier organisations do not have an overriding value system to unite individual members and create a positive attitude towards entrepreneurial collective action. Lack of member commitment leads to individualism and short-sighted decisions by farmer-members who avoid long-term investments.

3.4 Relevant support measures

The olive oil cooperatives of Crete have been benefited by several laws and regulations, implemented as part of either national or EU policy schemes. During the last twenty years, these measures have supported the olive oil cooperatives of Crete along several dimensions. They have provided funds to build or modernise olive oil mills, and invest in new facilities and equipment (e.g., modern olive oil containers and bottling facilities). Some of these measures have aimed at achieving improvements in the productivity of olive orchards (e.g., control of diseases and plant enemies, especially the olive fly, modernisation of olive cultivation, more efficient water management, and adoption of environmentally friendly production practices). Finally, olive oil cooperatives have been benefited from Commission Regulation (EC) No 3/2008 and Commission Regulation (EC) No 501/2008 (as amended by Commission Regulation (EC) No1085/2011) for carrying out promotion activities in order to position themselves in the global market.

Most of the above funding opportunities were provided by European Union's Programmes and Initiatives: LEADER-I, LEADER-II, LEADER+ and the supporting measures for the olive oil sector's operators' organizations such as the Commission Regulation (EC) No 1334/2002, the Commission Regulation (EC) No 2080/2005 and the Commission Regulation (EC) No 867/2008. The latter supporting measures have significantly benefited the olive oil sector. Over the period 2009-2012, the olive oil cooperatives in Crete have received over 7 million €, 25.6% of the available budget for materialising the operators' organisations work programmes. Additionally, several national programmes and especially the national development laws, an umbrella financing instrument covering all private investments in Greece and in all sectors of the economy, have supported several first and second-tier cooperatives in Crete¹². Funding provided under these schemes may cover up to 50% of the investment.

The abovementioned support measures provided the financial leverage to first- and second-tier olive oil cooperatives of Crete to improve their economic situation and competitive positioning in world markets. However, the efficiency of these policies is highly debated during recent years. It is well known that many funds have been invested in projects with dim economic prospects that, at the end, recorded more losses than profits for olive oil cooperatives and their members. Support measures for the construction and modernisation of olive oil mills is a highlighting example. Access to funds has not always been coupled with rational strategic planning. As a result, more than 200 olive mills operate in Crete alone, some of which operate well below optimal capacity.

¹² The purposes of this law is to promote economic growth in Greece by introducing investment aid schemes to improve entrepreneurship, technological development, the competitiveness of enterprises and regional cohesion and promote green economy, the efficient function of existing infrastructures and the deployment of the country's human resources. The aid is provided in accordance with Commission Regulation (EC) No 800/2008 of 6 August 2008.

It is equally important to mention the existing relationships between some cooperative leaders and political parties, as a result of which some organisations have received support in excess of what rational decision making would dictate. As a result, members of other Cretan olive oil cooperatives have little incentive to adopt a self-financed development strategy. Unfortunately it seems that similar problems are faced by most Greek agricultural cooperatives.

Yet, the problem lies not with support measures but rather with existing control and monitoring mechanisms. There are, indeed, many cooperatives that have made good use of the aforementioned measures, managed to improve their economic status and expanded their business to both the national and global market of olive oil.

Cooperative legislation is an important component of the legal environment facing olive oil cooperative in Crete. After many decades of inefficient experimentation, Law 2810/2000 has provided Greek agricultural cooperatives with a flexible institutional framework. According to this legislation, agricultural cooperatives are allowed to adopt the organisational structure that best fits their particular needs. Unfortunately, most cooperatives (including olive oil cooperatives) chose to adopt a generic version of bylaws that failed to benefit from the flexibility afforded by the law.

Currently, Greek agricultural cooperatives are under restructuring due to the implementation of a new cooperative law. According to this law, existing second-tier cooperatives will become either first-tier cooperatives or cooperatively-owned corporations. A full assessment of the impact of the recent law on the structure and strategy of Cretan olive oil cooperatives will only be feasible in the future.

3.5 Hypothesis testing

This section uses information gathered to provide insights as to whether the hypotheses stated in the beginning of this report are accepted or not, and discuss relevant policy issues informed by this case study.

Agricultural Cooperatives and Vertical Integration

H1: A higher degree of vertical integration of cooperatives in a sector is positively associated with higher producer income.

The case of Cretan olive oil cooperatives does not provide enough support for this hypothesis. While vertical integration has definitely helped these cooperatives to distribute several important benefits to their members, the research conducted in this project suggests that much more is needed. By comparing the group of the case cooperatives to their international counterparts, the importance of aligning ownership structure to pursued strategy becomes apparent. In order to stabilise and improve producers' income, olive oil cooperatives need to invest significant amounts of money into proactive, capital-intensive marketing strategies. Yet, such strategies can be adopted only by cooperatives adopting appropriate ownership, governance, and organizational structures.

H2: The cooperative as an integrated processor develops better products and promotes them so effectively as to increase market demand.

This hypothesis is not supported by the evidence available on Cretan olive oil cooperatives. The olive oil cooperatives of Crete diachronically suffer from low prices and difficulty to match supply to demand. However, quality of the final product (i.e. olive oil) has been dramatically improved ever since cooperatives have invested in building and improving their own processing facilities.

While several important attempts have been made in recent years, the olive oil industry's structure and the spatial and socioeconomic characteristics of farming in Crete, among other factors, have prevented olive oil cooperatives from efficiently promoting olive oil products so as to increase market demand.

H3: Agricultural cooperatives that are successfully involved in selling final, consumer products, have a higher chance of adopting innovative ownership, governance, and capital acquisition methods.

This hypothesis is neither accepted nor rejected by all available evidence. Cretan olive oil cooperatives market a small part of their olive oil as branded. Most, though, adopt traditional ownership, governance, and ownership structures. Therefore, in their case it is unclear whether a direct link between successful marketing of olive oil and organisational design exists. The Kritsa case however, where 100% of the olive oil sold is standardized (they do not sell bulk at all) provides some supporting evidence for this hypothesis. It is the sole case where a cooperative has entered a venture with an IOF in an attempt to acquire capital and ensure markets for the final products.

H4: Agricultural cooperatives which collaborate with other cooperatives or IOFs do better, in terms of economic performance and services provided to their members.

This data gathered for this case study seem to provide support for this hypothesis. The Agricultural Cooperative of Kritsa stands out as a successful example of collaboration between cooperatives and IOFs. The cooperative's members have access to professional marketing services not previously offered to them.

Economic versus Social Goals

H5: Agricultural cooperatives which focus primarily on achieving social goals do worse, in terms of economic performance, than cooperatives which focus primarily on achieving economic goals.

The olive oil cooperatives of Crete, like any other cooperative, were formed to protect and add value to the farm assets of their farmer-members. Achieving this goal was seen as a means to improving the social well-being of farmers, too. During the 1980's, however, the predominant attitude of both policy makers and local cooperative leaders turned cooperatives into tools of social policy. For example, in numerous instances the government forced olive oil cooperatives to pay a price higher than the market one on the unrealised promise that it will cover the difference. As a result, olive oil cooperatives accumulated huge losses and subsequently experienced a lack of credibility for the cooperative business form. In this way cooperatives learned in the hard way that a sound economic performance is a prerequisite for survival and generation of collective goods (e.g., rural development, creation of local jobs, environmental stewardship, etc.)

Despite currently focusing primarily on achieving economic objectives, most of the studied Cretan olive oil cooperatives are still faced with severe economic problems. According to the information and data collected for this report, but also based on the extant literature, these problems have been caused by inefficient government intervention (e.g., a repeatedly changing institutional environment), lack of relevant local leadership, adoption of ineffective governance and ownership structures, and, simply, a series of poor decisions. Therefore, it is not focus on social goals that have put severe economic pressure on Cretan olive oil cooperatives. Rather, one could safely argue that cooperatives which do not focus primarily on achieving sound economic results to the benefit of their members are doomed to fail achieving social goals, too.

Second tier cooperatives

H6: The federated cooperative structure (more than one tiers) is less efficient than the centralized one (one tier structure; farmers are directly members to the cooperative).

This hypothesis is supported by all available evidence. Some second-tier olive oil cooperatives have already been liquidated. Most face harsh financial problems while all have not been able to

become major players in the national or international olive oil supply chains and thus affect the basic rules of the market. In most cases, farmers have bypassed their first-tier cooperatives and patronize directly the second-tier cooperatives. In other cases a local, first-tier cooperative has grown so much that it competes directly with one or more of the second-tier olive oil cooperatives. Unfortunately, none of these strategies seem to have benefited olive oil producers in the region.

3.6 Policy Issues

- **Should public policies treat different types of cooperatives differently based on their ability to increase/stabilise farmers' income?**

Most of the interviewed cooperative leaders would argue in favour of such a differentiation. Yet, most of these leaders would also argue that their cooperative has done whatever was feasible to protect and stabilise their members' income while falling olive oil prices are seen as an exogenous shock that they could not influence. Further, most cooperative leaders and farmer-members insist that the lack of a centrally coordinated national policy for the olive oil sector is the major source of problems for the industry. However, even if the EU or the national government initiated a discussion on whether public policies should treat different types of cooperatives differently based on their ability to increase/stabilise farmers' income, farmers and cooperative leaders would very probably resist that change.

- **Should public policies facilitate cooperatives in achieving a balance between economic and social goals and, if yes, in which ways?**

The information gathered suggests that while public policies should facilitate cooperatives in achieving a balance between social and economic goals, cooperatives that do not set as their top priority to serve the economic needs of their members by implementing sound business management techniques are doomed to fail. However, this case study does not provide a clue on how should public policies facilitate cooperatives to achieve a balance between social and economic goals. Some experts have proposed that policy makers should use some form of social accounting that takes into account positive externalities created by cooperatives, such as rural development, creation of jobs, etc. In this way, cooperatives would be given credit for these positive externalities in the same way IOFs are provided with various incentives to build their plants in less-developed regions.

- **Which public support measures (local, regional, national and/or European) have an impact on the development and success/failure of the case cooperatives?**

This issue is addressed in the section on relevant support measures.

3.7 Crete Conclusions

Olive oil cooperatives on the island of Crete have historically played a crucial role in supporting their farmer-members in many ways. However, due to a combination of factors, today they are faced with severe challenges that constrain their ability to stabilise and increase the income of their member-patrons. These factors include, but are not limited to: 1) a traditional ownership structure that does not provide cooperative stakeholders with incentives to capitalize and govern their organisation efficiently; 2) efficiency-robbing government intervention; 3) lack of cooperative leadership with a realistic, long-term vision for the olive oil industry; 4) structural characteristics of the olive oil industry, including a large number of very small farms, each divided in several isolated land parcels; 5) national agricultural and other relevant policies that have historically failed to provide a coherent policy framework for the sector designed to achieve long-term sustainability in a highly competitive international environment; and 6) adoption of an obsolete federated structure that prevents further vertical integration and more efficient coordination along the olive oil supply chain.

4. Comparative Analysis

4.1 Similarities

- **The weak positioning of olive oil cooperatives in the olive oil supply chain vis-à-vis their IOF competitors.**

In both regions olive oil cooperatives are generally not efficient in capturing rents and value from the olive oil supply chain. Decision-making within the supply chain as well as coordination and planning is performed mainly by large retailers, distributors and processors who position themselves so as to appropriate as much value as possible downstream in the supply chain. The evidence analyzed in this report suggests two explanations for this phenomenon: first, supply chains operate under a system of organizational interdependencies, which are responsible for the most substantial part of rent creation in the system. Olive oil cooperatives, with a few exceptions, are reluctant to seek collaborations and enter into relations with other players in the supply chain, either cooperatives or IOFs. As a result, they remain autonomous but isolated and thus cannot benefit from the knowledge and information diversity of a value-generating supply chain.

Second, the weak positioning of cooperatives in the olive oil supply chain may be associated with inefficient intra-cooperative coordination initiatives. The lack of a cooperative mentality, exemplified by the opportunistic behaviour of some members in many cooperatives, inhibits the formation of reciprocal interdependencies among farmers and therefore, joint decision-making and problem solving activities.

- **Small bargaining power with distributors and retailers**

The weak positioning in the supply chain results in the reduced bargaining power of cooperatives when negotiating with distributors and retailers. Fragmentation of supply (many small first-tier and several second-tier cooperatives) increases the bargaining power of buyers who are able to impose pressure on margins and volumes. Cooperatives provide the aggregation of supply necessary to increase the bargaining power of farmer-members and extract better margins in the olive oil supply chain. However, as a general rule, both Andalusian and Cretan olive oil cooperatives seem unable to fulfil their ultimate role, i.e., to capture significant rents along the olive oil supply chain and deliver them to their members. Andalusian cooperatives have not significantly moved beyond the production, pressing role and still sell most oil in bulk to other entities which realise value. As discussed in detail in the case study of Cretan cooperatives, ownership and property rights allocation issues inherent in traditional cooperative structures are partially accountable for these shortcomings. Further, governmental intervention in the form of inefficient national policies (e.g., cooperative legislation) has resulted in persisting financial problems and, in several cases, in the demise of cooperative firms.

- **Non-market oriented behaviour**

Market orientation as manifested through the market-oriented behaviour of an organization includes the generation of information about potential markets and the development of appropriate responses to this information (Cadogan, J.W. et al., 2003). Market-oriented behaviour refers to both domestic and export markets and an organization may exhibit varying degrees of market orientation in these. The findings of the cases in Andalusia and Crete support the need for a higher degree of market-oriented behaviour for the cooperatives in the sector. The olive oil produced in these two areas, has strong exporting potential and exports are identified by country experts as one important source of income for farmers. Nevertheless, the vast majority of olive-oil cooperatives in both regions have not been very successful in entering high-value foreign markets. The case study cooperatives in Andalusia represent exceptions to this rule. The lack of market orientation should be seen as part of a broader issue, that is, the absence of an integrated competitive strategy of cooperatives in the sector. The cases studied in Andalusia and Crete provide evidence for the role of strategic planning in achieving economic performance. Product quality and market demand and availability are prerequisites but not sufficient elements for successful market penetration. For example, almost all of the olive oil

produced in the area of Crete is categorized as extra virgin. The low acidity rating of the extra virgin olive oils in the region provides them with a quality advantage over competitors. Andalusia as well has consistently high quality oil due in part to its traditional, un-irrigated olive groves. However, cooperatives sell most of their produce in bulk, and have not succeeded in capitalizing this strong competitive advantage. Their inability to identify new market opportunities and match the cooperatives capabilities with changing customer needs and, more importantly, with the ever changing institutional and environmental conditions, have resulted in a few unsuccessful marketing attempts.

- **Multiple cooperative brands and PDO appellations weaken the cooperative's positioning in the food chain.**

In Crete, efforts to create a common PDO appellation that covers the whole region (the island of Crete) have been largely unsuccessful. Localism, cultural idiosyncrasies, and leadership opportunism were among the most important reasons identified as responsible for this outcome. The Andalusian cases also show that the plethora of PDO appellations and multiple brands create marketing disadvantages. One of the goals of the PDO policy was to support high quality agricultural products and thus enhance farmers' income across Europe. Yet, as the two cases suggest, a large number of PDO olive oil within the same region may lead to high fragmentation of supply and thus lower bargaining power on the part of producers.

- **Bulk sales outweigh packaged sales in both cases.**

As a result of this strategy, olive oil cooperatives are unable to take advantage of the generated added value, which is distributed among the other members of the olive oil supply chain. The cooperatives which are able to generate a demand for packaged oil or reach agreements to do so, are more successful. The institutional environment has been in both cases ineffective.

In Spain, while there have been significant supportive policies (as detailed above) the sector points to the inertia and lack of political will and strategic planning on the part of the administration. Spain's multiple levels of administration and their consequent competencies are also not helpful in this regard as it inhibits a cohesive and coherent plan for the sector. Support measures have not always been adequately monitored by the administrations to ensure effective and efficient use of funds. The administration points to the misuse or unwise use of such funds by the sector. The same holds true in Greece. Furthermore, in Greece the sector experiences the outcomes of efficiency-robbing government intervention at multiple levels. For example, continuous changes in cooperative legislation have allowed political parties to transform cooperatives into vote-creating mechanisms, turning a blind eye to misuse of funds and sustaining cooperatives that have become obsolete only to serve the purposes of local cooperative leaders and politicians.

- **Quality of cooperative management and leadership**

Functioning and efficient management and leadership is central to the success of every organization. In agricultural cooperatives the Board of Directors is responsible for the long-term future of the cooperative. While many cooperatives have long mastered the challenges of growing an exceptional product, the transformation from farmer to agricultural entrepreneur has yet to occur. Many cooperatives have unpaid members on their board and some have a paid general manager to look after the day-to-day operations but there is a need for the professionalization of management that can identify successful, competitive and innovative strategies. Local capabilities need to be harnessed and leveraged in an international context in a manner that is beneficial for the cooperative as a whole, and not solely for certain members. In the case of Crete board member nominations are based on criteria other than their qualifications, as voting is influenced by localism, by the degree of lobbying activities a person undertakes with local, regional or the national government and political parties.

4.2 Differences

- **Success of Second-Tier Cooperatives**

Second-tier olive oil cooperatives in Crete are much less successful than their Andalusian counterparts. Numerous studies, cited herein in Section 2, “Strategy and Structure”, have shown the various rational for the choice of the second-tier structure in Andalusia by first-tier olive oil cooperatives as opposed to mergers. The historical organization of olive oil producers in federated cooperatives (i.e., path dependency) might also explain part of this phenomenon. However, while the largest olive oil cooperatives are second-tier, this does not imply that all second-tier cooperatives are efficient; as mentioned herein, second-tier cooperatives that were formed due to commercial reasons as opposed to obtaining subsidies proved to be the most effective. What is evident in Andalusia is that olive oil cooperatives (whether first or second-tier, whether large or small) which have a solid business strategy and are capable of adapting to market realities are successful. Management is a key factor as is the availability of finance, usually through rural credit cooperatives which have historically taken a pro-active role.

The high fragmentation of Cretan second-tier olive oil cooperatives, on the other hand, has caused serious problems to these organizations. Currently they are facing harsh financial problems and are in the process of liquidation. Further, in several cases the federated structure has become obsolete and, consequently, farmers bypass their local cooperatives to patronize second-tier cooperatives directly. In other cases a local, first-tier cooperative has grown so much that it competes directly with one or more of the second-tier olive oil cooperatives.

The reported difference suggests that while structure is important, other factors are also crucial in determining the success or failure of second-tier agricultural cooperatives.

- **Degree of Vertical Integration**

Cretan olive oil cooperatives are characterized by a higher degree of vertical integration than their Andalusian counterparts. However, the adoption of this strategy is not translated in solid economic performance. Factors such as limited access to distribution channels and a low degree of market orientation might have caused this negative performance. The case study evidence has also revealed that the institutional environment in which such integration takes place matters. In the case of Crete, strong government intervention in cooperatives has had a tremendously negative impact on performance. In other words, while the adoption of a vertical integration strategy is necessary in order to maximise the value captured along the olive oil supply chain, much more is needed for success.

- **Presence of Large Olive Oil Cooperatives-Leadership and Management Benchmarking**

In Andalusia both first and second-tier cooperatives have managed to reach a much larger size than in Crete. For example, Hojiblanca has a turnover of 400 million € and Oleoestepa 71 million €, while in Crete the largest cooperatives had turnovers of 21.7 million € and 17.9 million €. First-tier cooperatives in Andalusia such as San Isidro have a turnover of 20 million € while the first-tier cooperatives of Crete are less than 1 million. The presence of successful cooperative market leaders creates a source of “best practices” for the cooperative sector, affording management and strategic expertise as well as influence over policy.

- **Financing**

Collaboration with both IOFs and other cooperatives as well as innovative governance structures has allowed successful Andalusian cooperatives to deal with traditional problems with funding, lack of investment and short term horizons on the part of the members in a more effective manner. The presence of rural cooperative credit banks have also been instrumental in their development.

4.3 Comparative Hypothesis Testing

The following table compares the findings of hypothesis testing in the cases of Andalusian and Cretan olive oil cooperatives.

Table 7. Comparison of Hypothesis Testing Results

H1: A higher degree of vertical integration of cooperatives in a sector is positively associated with higher producer income		
Crete	Supported	Even though the degree of vertical integration is positively associated with higher producer income, there are several structural and strategic characteristics that affect cooperatives' success.
Andalusia	Supported	
H2: The cooperative as an integrated processor develops better products and promotes them so effectively as to increase market demand		
Crete	Not Supported	Cooperatives suffer from low prices and difficulty to much supply with demand. Moreover, while they handle most of local production, they have not been able to gain significantly from processing and branding activities.
Andalusia	Not Supported	
H3: Agricultural cooperatives that are successfully involved in selling final, consumer products, have a higher chance of adopting innovative ownership, governance, and capital acquisition methods		
Crete	Ambiguous Support*	*Generally, Cretan cooperatives adopt traditional ownership structures and sell a low percentage of their olive oil as branded. **The Hojiblanca case supports this hypothesis. On the other hand, while some first-tier cooperatives have adopted less innovative structures than their second-tier counterparts, they innovate in other ways and are increasing their sales of branded products.
Andalusia	Partially Supported**	
H4: Agricultural cooperatives which collaborate with other cooperatives or IOFs do better, in terms of economic performance and services provided to their members		
Crete	Supported	Some examples in both cases support this hypothesis (Hojiblanca, Oleoestepa, Oleocampo, Olibeas, Ntra.Sra. Del Rosarios, and Kritsa).
Andalusia	Supported	
H5: Agricultural cooperatives which focus primarily on achieving social goals do worse, in terms of economic performance, than cooperatives which focus primarily on achieving economic goals		
Crete	Supported	In Crete, cooperatives that do not focus on achieving primarily economic goals are doomed to fail. In Andalusia, economic and social goals within a cooperative are not seen as divisible and thus the hypothesis was seen as nonsensical. By virtue of providing economic benefit for members, a social goal is achieved.
Andalusia	Formation of Hypothesis rejected	
H6: The federated cooperative structure (more than one tier) is less efficient than the centralized one (one tier structure; farmers are directly members to the cooperative)		
Crete	Supported	In Crete, many second-tier cooperatives have been liquidated or, in essence, operate as first-tier. In Andalusia, on the other hand, only second-tier cooperatives enter the top-list of olive oil cooperatives.
Andalusia	Not Supported	

4.4 Comparison of Policy Issues

The following table provides a comparative summary of the discussion of relevant policy issues in the case of Andalusian and Cretan olive oil cooperatives.

Table 8. Comparison of Policy Issues

PI 1: Should public policies treat different types of cooperatives differently based on their ability to increase/stabilise farmers' income?		
Crete	Yes	The approach: "One size fits for all" is too simplistic.
Andalusia	Yes	
PI 2: Should public policies facilitate cooperatives in achieving a balance between economic and social goals and, if yes, in which ways?		
Crete	No	Cooperatives should focus on pursuing economic goals. When such goals are achieved cooperatives provide various social benefits to their members and their communities.*Recognition of economic value of local development and environmental contributions of cooperatives as positive externalities should be considered/accounted for in policies.
Andalusia	No*	
PI 3: Which public support measures (local, regional, national and/or European) have an impact on the development and success/failure of the case cooperatives?		
Crete	n/a	See the section on relevant support measures
Andalusia	n/a	

5. Discussion

The results and analysis of all available evidence thus far have highlighted several points that deserve further discussion. While in certain areas, including Crete, the second-tier structure appears to represent a transitional organisational form it has proven to be successful in Andalusia olive oil cooperatives. In Crete this structure has not functioned well and the federated model seems to be obsolete. In any event, whether first or second-tier, it is clear that cooperatives must adopt market-oriented strategies and consolidate, whether through mergers, federated structures or contractual arrangements.

1. In order to adopt differentiation and niche market strategies, reach high-end markets and thus receive a higher percentage of the generated value, regions which can produce exceptional product (such as traditional old olive groves) must adopt marketing and promotion strategies that are capital intensive. In light of this, the structure they adopt should provide members and other stakeholders with strong incentives to finance the cooperative adequately. In the case of Andalusia, cooperative finance and credit sections within the cooperatives have proven to be very effective financing techniques, one which allows optimum knowledge of both the sector and the members and allows careful financial monitoring. The fact that Crete olive oil cooperatives did not have this type of financing available may be responsible not only for the lack of risk capital but also for the absence of adequate financial controls and the failure to scale up and take advantage of more business opportunities.
2. The above point leads us to a relevant issue for olive oil cooperatives, that is, how cooperatives obtain risk capital in order to finance export and growth strategies. Innovative ownership, governance structures and financing techniques, already present in some olive oil cooperatives and in other European cooperatives in general should be investigated for their applicability to this sector. In this case study Hojiblanca illustrates some of the solutions that may be put in place to overcome capital constraints, whether through collaboration with IOFs or with other cooperatives or through the setting up of marketing subsidiaries, joint ventures, etc. Various European cooperative laws allow for different classes of investors and more information on the success or failure of such investments and investor relationships would be valuable for the sector.
3. To the extent that traditional olive groves add value in terms of environmental and local development areas, positive externalities should be taken into account by policy makers and accounted for accordingly. This can create tensions between the fact that the cooperative sector must also function from an efficient business point of view. The Andalusian Olive Grove Law has initiated this kind of recognition, but at the moment, without further regulations it is difficult to know how this will be implemented.
4. Access to export markets is instrumental in enabling the survival of the European olive oil sector. Given that production exceeds consumption by a significant amount, entering export markets is the only feasible strategy for producers and their cooperatives. However this has led to a situation in which both Andalusia and Crete are exporting high quality oil in bulk, thus not taking advantage of the value product quality in the supply chain. More efficient methods of strengthening public policies that support producers and their cooperatives to reach international markets with non-bulk product is necessary.
5. Further research is needed on why incentives provided to olive oil cooperatives in both cases examined have not resulted in significant merger or integration activity. Despite the

apparent need for consolidation, very few cooperatives in Crete have merged and the process in Andalusia (merger or federated), although in process, is slower than expected. Understanding the underlying causes of this outcome would allow policy makers to design more efficient policies.

6. Similarly, understanding the successful processes of cooperative integration and mergers in order to provide a “best practices” for cooperative growth would be useful for the sector. The concentration of people is always more difficult than the concentration of capital, and this is particularly true for cooperative structures. Facilitating exchanges between cooperative managers across Europe would be useful, in concert with research centres and universities, as well as policy makers. IOFs have this type of network through business schools, case study data bases and sophisticated business practice dissemination channels. This is an area in which cooperative business needs more support, although it is acknowledged that confederations, inter-professional groups, APOs and other cooperative institutions try to fill the gap, there needs to be a more consolidated, systematic and pan-European approach.

Particular mention should be given to encouraging and facilitating collaboration, joint ventures and other contractual relationships to counteract localism and to create synergies, in light of the fact that this study has shown that cooperatives which do collaborate perform better. To the extent that competition laws may make these processes more difficult, more research needs to be done in order to address this obstacle for cooperatives, particularly for those areas where second-tier or contractual relationships are the preferred organisational method.

7. Looking to internal practices, the role of cooperative leadership and management in building and operating successful cooperative organisations cannot be overemphasised. The history of olive oil cooperatives in both Andalusia and Crete demonstrates the impact that a visionary and highly efficient group of cooperative leaders may have on the future of a cooperative. According to academic literature and observation of the cooperative sector, the professionalization and capacity building of cooperative leaders is necessary in order to guarantee success in:

- identifying and implementing adequate financial, corporate and competitive strategies and aligning the cooperative structure and member interest accordingly,
- implementing quality, information and technology management systems,
- representing groups of farmers with highly heterogeneous interests, and
- managing human resources, which includes the recruitment of highly qualified managers and the monitoring of the same, as well as efficient management of employees to ensure quality and productivity.

Given that European cooperatives play an important role in the coordination of the olive oil supply chain, measures that support professionalization and capacity building of such cooperative managers and directors should be further re-enforced.

6. Conclusions

The European Union is the largest producer of olive oil in the world where Mediterranean Member States having the highest share in international olive oil markets. At times agricultural cooperatives have been very successful in achieving several goals not only for their members but for their wider communities. In some circumstances they have failed miserably either as a result of mismanagement, poor public policy and regulation and/or external forces. As a general rule, public policies and, particularly EU support measures have been instrumental in facilitating such cooperatives' survival, expansion and growth.

Currently, olive oil cooperatives are facing significant challenges due to the ever changing conditions in international markets and fierce competition from highly efficient and consolidated IOF competitors. These developments have forced cooperative leaders and members, as well as policy makers, to deal with a number of pressing issues. Among the current challenges of olive oil cooperatives, we note five priorities:

1. Increasing market orientation in order to capture significant value along the olive oil supply chain.
2. Aligning financial, corporate, competitive and marketing strategies with adopted governance structures and ownership arrangements.
3. Securing access to risk capital, while at the same time fostering collaborations and inter-sector relationships, in order to finance and implement growth and expansion into international markets.
4. Improving control over the supply of olive oil through further consolidation and coordination (whether through mergers, federated entities, collaborations or other contractual methods) and through the empowerment of private inter-professional and sector representatives.
5. Educating efficient, professional and well-informed cooperative managers and directors.
6. Creating the necessary opportunities for knowledge creation and exchange for the cooperative members and managers, policy makers and researchers to avoid knowledge silos. Cooperative business knowledge remains localised and needs to advance to compete with IOF business practices.

Policy makers, on the other hand, should focus on making policy more efficient, stable and streamlined, taking into account the, sometimes conflicting, outcomes resulting from the interaction of EU, national, and regional policies. Further, other public policies, in addition to support measures, may be needed in order to facilitate and ensure the positive coordinating externalities imposed by cooperatives on all stakeholders of olive oil supply chains.

In sum, olive oil cooperatives are an efficient means to achieve numerous private and public goals. There is evidence that some cooperatives have successfully managed to adapt to the global market, harnessing the strengths and capacities of their local economies. Yet, at the end of the day, they are businesses and thus support measures should be designed to assist in building collective entrepreneurial capacity, in whatever form is most adequate for the circumstances, in order to meet the complexities, difficulties and challenges in building sustainable, yet globally competitive cooperative businesses.

References

- Agencia para el Aceite de Oliva (2010). El cultivo de olivo en España [on line] <http://aao.mapa.es>
- Agencia tributaria española (2011). Estadísticas de comercio exterior [on line] <http://www.agenciatributaria.es/AEAT.internet/Inicio.shtml>
- Agrotipos (2012). Came the first transaction after the agreement Greece and Italy Cooperatives for olive oil quality and traceability [in Greek] [on line] <http://www.Agrotipos.gr/index.asp?mod=articles&id=3079>
- Aguilera, Y. (2010). La cooperativa San Isidro de Loja recibe ayuda para su mejora ambiental. *El ideal* [on line] <http://www.ideal.es/granada/v/20101201/provincia/cooperativa-isidro-loja-recibe-20101201.html>
- Alcuza (2011). Oleocampo vende el 25% de sus aceites de oliva envasados en el Mercado exterior [on line] http://www.revistaalcuza.com/REVISTA/articulos/GestionNoticias_741_ALCUZA.asp
- Alimarket (2008). Sovena y Oleoestepa formalizan un acuerdo de colaboración. *Alimarket* [on line] <http://www.alimarket.es/noticia/m11168020/SOVENA-Y-OLEOESTEPA-FORMALIZAN-UN-ACUERDO-DE-COLABORACION>
- Alimarket (2009). Una treintena de cooperativas se alían con Hojiblanca para comercializar aceite [on line] <http://www.alimarket.es/noticia/m11182033/Una-treintena-de-cooperativas-se-alian-con-Hojiblanca-para-comercializar-aceite>
- Alimarket (2011a). Principales centrales de compras de frutas y hortalizas [on line] http://www.alimarket.es/media/images/20111006/detalle_art/75898/19382_high.pdf
- Alimarket (2011b). Principales cuotas de mercado por operadores en el sector de distribución minorista con base alimentaria en 2010 [on line] http://www.alimarket.es/media/images/20111006/detalle_art/73311/18707_high.pdf
- Alimarket (2011c). Aceites: El olivo se juega fuera su futuro. 02/06/2011.
- Antelo, A. (2008). La interprofesional del aceite de oliva, en marcha, *Alimarket* [on line] <http://www.alimarket.es/noticia/mr217025/LA-INTERPROFESIONAL-DEL-ACEITE-DE-OLIVA-EN-MARCHA>
- Antelo, A.B. (2011). Woleocampo pone en marcha su tienda online. *Alimarket* [on line] <http://www.alimarket.es/noticia/80872/Oleocampo--tambien-en-la-web>
- Ariza, C. (2009). Análisis de la comercialización de aceite de oliva en Andalucía, campaña 2008-09. en *Informe Anual del sector Agrario en Andalucía 2009* (Analistas Económicos de Andalucía).
- Asaja Andalucía (2010). Dictamen sobre el Anteproyecto de Ley del Olivar [on line] <http://www.asajamalaga.com/index.php?c=1&p=170&n=155>
- Asaja Jaen (2011a). ASAJA muestra un rotundo rechazo al Consejo Andaluz del Olivar [on line] <http://www.asajajaen.es/?q=node/330>

Asaja Jaen (2011b). La ley no resuelve ninguno de los graves problemas que padece hoy el olivar andaluz [on line] <http://www.asajajaen.es/?q=node/246>

Asaja Sevilla (2011). "La ley no resuelve ninguno de los graves problemas que padece hoy el olivar andaluz [on line] <http://www.asajasev.es/index.php?q=node/1269>

Barranco, D., Fernández-Escobar, R. and L. Rallo (2008). El cultivo del olivo. Ediciones Mundi-Prensa. Madrid, pp. 779-846.

Barrio O.S., Ruiz, F.J.T., Rosa, M.P. and E.M.M. Armenteros (2008). Factores inductores de un comportamiento medioambientalmente sostenible: el caso de las cooperativas oleícolas giennenses. *Revista CIRIEC*, 61, 157-177.

Bijman, J. (2002). *Essays on Agricultural Cooperatives. Governance Structure in Fruit and Vegetable Chains*. Erasmus Research Institute of Management (ERIM). Rotterdam, Erasmus University Rotterdam.

Bijman, J. (2005). Network and hierarchy in Dutch cooperatives: a critical analysis. *International Journal of Cooperative Management*, 2, 16-24.

Bowman, C. (2008). Generic strategies: a substitute for thinking? *The Ashridge Journal*, Spring, 6-11

Cadogan, J.W., Cui, C.C. and E.K.Y. Li (2003). Export market-oriented behavior and export performance: The moderating roles of competitive intensity and technological turbulence. *International Marketing Review*, 20 (5). pp. 493 – 513.

CAP (2009). Documento de reflexión Ley del Olivar [on line] <http://www.infaoliva.es/documentos/documentos/Documento%20de%20Reflexion%20Ley%20del%20Olivar%20Industrias.pdf>

CAP (2010). Estudio de la cadena de valor y formación de precios del aceite de oliva. Junta de Andalucía, Sevilla [on line] http://www.juntadeandalucia.es/agriculturaypesca/portal/export/sites/default/comun/galerias/galeriaDescargas/cap/servicio-estadisticas/Estudios-e-informes/agricultura/olivar/Cadena_de_valor_aceite_de_oliva_Version_Web_21_01_2010.pdf

COAG Andalucía (2011). COAG Andalucía pide a la consejería que agilice el Plan Director del Olivar [on line] http://www.coagandalucia.com/comunicacion_d.shtml?idboletin=2002&idseccion=11207&idarticulo=90532

Cook, M.L., and C. Iliopoulos (2000). Ill-defined Property Rights in Collective Action: The Case of US Agricultural Cooperatives. in C. Ménard, ed. *Institutions, Contracts, and Organizations*. Northampton, MA: Edward Elgar Publishing Ltd., pp. 335–348.

Cooperativas Agro-alimentarias (2008). La cooperativa San Isidro de Loja cumple 50 años. *Cooperativas Agroalimentarias* [on line] http://www.agro-alimentarias.coop/1/1_4_1.php?id=MTIy

Cooperativas Agroalimentarias (2010). Estimación de la cooperativa de aceite de olive en España. Balance de campañas de comercialización.

Cooperativas Agroalimentarias (2011). Balance del aceite de oliva 2011 [on line] <http://www.agro-alimentarias.coop/ficheros/doc/03503.pdf>

Empresarios (2010). Apostamos por la innovación continua para ofrecer a los clientes aceite virgen extra de gran calidad [on line] <http://www.periodicoempresarios.com/especial-huelva/311.html>

Europe Press (2009). Interoleo Picual Jaén S.L. ultima el proceso para ser la primera central de venta de aceite de la provincia. Europapress [on line] <http://www.europapress.es/nacional/noticia-interoleo-picual-jaen-sl-ultima-proceso-ser-primera-central-venta-aceite-provincia-20090114140633.html>

European Court of Auditors (2011). Do the Design and Management of the geographical indication scheme allow it to be effective? publications Office of the European Union, Luxembourg, [on line] <http://www.eca.europa.eu>.

FAECA (2006). Óleoestepa, la apuesta fuerte en producción integrada. *Tierras Cooperativas. Revista de la Federación Andaluza de Empresas Cooperativas Agrarias*, 42, pp 8-9.

FAECA (2011a). El olivar en la encrucijada: Liderazgo mundial vs crisis de precios.

FAECA (2011b). Hojiblanca entra en Cataluña. *Tierra Cooperativa. Revista de la Federación Andaluza de Empresas Cooperativas Agrarias*, 65, 8 [on line] <http://www.faeca.es/images/stories/pdf/Tierra%20Cooperativa%2065.pdf>

FAECA (2011c). Avanzando en la integración. *Tierra Cooperativa. Revista de la Federación Andaluza de Empresas Cooperativas Agrarias*, 69, p.16 [on line] <http://www.faeca.es/images/stories/pdf/Tierra%20Cooperativa%2069.pdf>

FAECA (2010). Hojiblanca trabaja en ‘decoop’, una red de establecimientos para ofrecer mayor y mejor servicio a sus socios. *Tierra Cooperativa. Revista de la Federación Andaluza de Empresas Cooperativas Agrarias*, 61, p 16 [on line] <http://www.faeca.es/images/stories/pdf/Tierra%20Cooperativa%2061.pdf>

FAECA Granada (2011a). FAECA Granada apoya la Ley del Olivar por su contribución al mantenimiento y desarrollo del sector olivarero [on line] <http://www.faecagranada.com/Publico/Faeca.php?A=0020010000000200000000000000>

FAECA Granada (2011b). FAECA Granada apoya la ley del olivar por su contribución al mantenimiento y desarrollo del sector olivarero. *Granada Cooperativa*, 1, p. 8 [on line] <http://www.faecagranada.com/Archivos/GC0001.pdf>

Fransi, E.C., Salla, Y.M. and F.M.I. Vlandly (2007). La gestión de las cooperativas agrarias: tipificación de las cooperativas del sector oleícola de Catalunya. *Revista CIRIEC*, 59, 203- 226

Fajardo García, G. (2005). Intercooperación e integración cooperativa en la legislación española. in *Cooperativismo Agrario y Desarrollo Rural (Congreso Internacional, 25 aniversario CEGEA)* (Directors: J. F. Juliá, E. Meliá, R. J. Server). Valencia, Editorial UPV, pp. 601-619.

Fulton, M., and B. Hueth (eds). (2009). *Cooperative Conversions, Failures and Restructurings: Case Studies and Lessons from U.S. and Canadian Agriculture*. University of Saskatchewan, Canada: Centre for the Study of Cooperatives / University of Wisconsin, USA: Center for Cooperatives [on line] http://www.kis.usask.ca/COOPBOOK/CoopConversions_Book_Sep09.pdf

Galanos, G., and G. Manasis (2010). Analysis of Competitiveness of Greek's Olive Oil Sector Using Porter's Diamond Model" *Research Journal of International Studies* [on line] http://www.eurojournals.com/rjis_16_04.pdf

Gallardo, R. (2005). Reflexiones sobre la futura política de desarrollo rural europea. *Revista Tierra Sur*, nº 18: 23-25.

Giagnocavo, C., C. Vargas-Vasserot (2012). Support for Farmers' Cooperatives; Country Report Spain. Wageningen: Wageningen UR.

ICAP (2009). Sectoral study of table olives. Athens, Greece [in Greek].

ICAP (2011). Olive Oil and Pomace Oil: A Brief Industry Analysis. Athens, Greece [in Greek].

Iliopoulos, C., and M. L. Cook (1999). The Internal Organization of the Cooperative Firm: An Extension of a New Institutional Digest. *Journal of Cooperatives*, 14: 77-86.

Iliopoulos, C., and V. Valentinov. (2012). Opportunism in Agricultural Cooperatives in Greece. *Outlook on Agriculture*, 41(1): 15-19.

Kim, E., D-II Nam, and J.L. Stimpert (2004). The applicability of Porter's Generic Strategies in the Digital Age: Assumptions, Conjectures and Suggestions. *Journal of Management* 30(5): 569-589.

Lanzas Molina, J.R. and E. Morales Pajares (2009). La exportación de aceite de oliva virgen en Andalucía: Dinámica y factores determinantes. *Revista de Estudios Regionales* 86: 45-70, 35

Lanzas, J.R and E.Moral (2010). Mercados estratégicos para la promoción del aceite de oliva virgen español. *Revista de Estudios Empresariales, Segunda época*, 1, 85-102.

Lanzas, J.R y Moral, E. (2007). Dinámica exportadora en el sector oleícola andaluz. Identificación de mercados primarios. *Analistas Económicos de Andalucía*, Málaga.

Lopera, M. (2012). Interóleo genera 50 millones de kilos de aceite con 23 socios El Ideal [on line] <http://www.ideal.es/jaen/20091021/jaen/interoleo-genera-millones-kilos-20091021.html>

Manassaki, E., and Marinou, A. (2011). Sectoral study of olive oil. Unpublished MS thesis in Technological Educational Institute of Crete, Greece [in Greek] [on line] www.nefeli.lib.teicrete.gr/browse/sdo/.../Manassaki_Marinou2011.pdf.

Marban, R. (2005). Principales estrategias de gestión de la calidad desarrolladas por las almazaras cooperativas amparadas en la Denominación de Origen Montes de Toledo. *Revista Ciriec*, nº 51, pp 185-209.

MARM (2010). Estudio de la cadena de valor y formación de precios en el sector del aceite de oliva.

Martínez, H. (2010). Cecasa prepara el inicio de actividad, tras el fallo del Supremo. *Alimarket* [on line] <http://www.alimarket.es/noticia/29724/Cecasa-prepara-el-inicio-de-actividad--tras-el-fallo-del-Supremo>

Martínez, H. (2011a). Hojiblanca arranca la campaña con dos cooperativas más. *Alimarket*, [on line] <http://www.alimarket.es/noticia/80985/Hojiblanca-arranca-la-campana-con-dos-socios-mas>

- Martínez, H. (2011b.). Hojiblanca se fusiona con la ganadera Agropecuaria del Sur. *Alimarket*, [on line] <http://www.alimarket.es/noticia/74739/Hojiblanca-da-el-salto-a-la-ganaderia>
- Martínez, H. (2011c). Hojiblanca impulse el aceite embotellado y sus ventas a retail. *Alimarket*, [on line] <http://www.alimarket.es/noticia/81824/Hojiblanca-se-embotella>
- Martínez, H. (2011d). Mercaóleo vende ya en tres grandes cadenas de España. *Alimarket*, [on line] <http://www.alimarket.es/noticia/58249/Mercaoleo-va-haciendo-mercado>
- Martínez, H. (2011e). Hojiblanca compra la aceitunera Acyco a Deóleo". *Alimarket*, [on line] <http://www.alimarket.es/noticia/68789/Hojiblanca-compra-Acyco-a-Deoleo>
- Martínez, H. (2011f). Hojiblanca arranca la campaña con dos cooperativas más. *Alimarket*, [on line] <http://www.alimarket.es/noticia/80985/Hojiblanca-arranca-la-campana-con-dos-socios-mas>
- Martínez, H. (2011g). Hojiblanca impulse el aceite embotellado y sus ventas a retail". *Alimarket* [on line] <http://www.alimarket.es/noticia/81824/Hojiblanca-se-embotella>
<http://www.alimarket.es/noticia/81824/Hojiblanca-se-embotella>
- Meliá Martí, E. (2003). Cooperativas de segundo grado versus fusión. Ventajas e inconvenientes" in *Integración empresarial, cooperativas y economía social: Posibilidades, ventajas e inconvenientes*, II Coloquio Ibérico de cooperativismo y economía social, Valencia 13 y 14 de marzo, Universitat de Valencia.
- Montero, A. (1991). Cooperativismo agrario de segundo grado. Ministerio de Agricultura, Pesca y Alimentación.
- Montero García, A. (1999). *"El cooperativismo agroalimentario y formas de integración*. Ministerio de Agricultura, Pesa y Alimentación, Madrid.
- Moral, E. and Lanzas, J.R. (2009). La exportación de aceites de oliva virgen en Andalucía: dinámica y factores determinantes. *Revista de estudios regionales*, 86, 45-70.
- Moyano, E. (2006). Nuevas orientaciones de la política europea de desarrollo rural. A propósito del nuevo Reglamento de desarrollo rural. VI Coloquio of the Spanish Association of Agrarian Economy/Portugese Society of Rural Studies, El papel de las regiones en las economías rurales. Huelva (Spain), 23-24 of February.
- National Bank of Greece (2011). Promoting quality through oil collection and standardization [in Greek] [on line] <http://www.nbg.gr>
- Nourse, E. G. (1992). The Economic Philosophy of Cooperation. *American Economic Review*, 12(4). 577-597.
- Oscae (2011). Macromagnitudes del cooperativismo agroalimentario español [on line] <http://www.agro-alimentarias.coop/ficheros/doc/03580.pdf>
- Paravantes, E. (2011). Nikos Zachariadis, Agricultural Cooperative of Kritsa. *The Olive Oil Times*, [on line] <http://www.oliveoiltimes.com/features/nikos-zachariadis-agricultural-cooperative-kritsa/11624>

Parras, M. (2005). La necesaria transformación del sector oleícola: de la orientación a la producción a la orientación de marketing. En *La cultura del olivo: ecología, economía, sociedad* Ed Anta, J., Palacios, J. y Guerrero, F., Universidad de Jaén, Jaén.

Parras, M. (2007). La economía oleícola en el período 1986-2005: hechos y retos. I congreso de la Cultura del Olivo, pp 341-366.

Parras, M. et al (2003). Comercialización de aceites de oliva y concentración de la oferta: estado de la cuestión. *Boletín del Instituto de Estudios Giennenses*, 185, 355-372.

Pastor, J. (2012). Los aceites españoles, más baratos que los tunecinos. *El Ideal* [on line] <http://www.ideal.es/jaen/v/20120124/jaen/aceites-espanoles-baratos-italianos20120124.html>

PIRAEUS BANK (2011). Sectoral study of olive oil. Athens, Greece [in Greek]

Porter, M.E. (1996). What is Strategy?. *Harvard Business Review*, November-December 1996 pp.61-78.

Puentes Poyatos, R., Velasco Gámez, M^a del Mar, V.G. and Juan, V.H. (2010) Las sociedades cooperativas de segundo grado como instrumento de cooperación entre cooperativas: Aspectos económicos y organizativos. *Revista de Estudios Empresariales*. Segunda época, 1, pp 103-128.

Salazar Ordóñez, M. (2011) La Demanda social por la agricultura: contraste de preferencias y Política Agraria Común. CES, Junta de Andalucía, Sevilla.

Segovia, C., and Sánchez, M. (2010). "Towards an appropriate comprehension of innovation sources in agrifood cooperatives". *Economía Agraria y Recursos Naturales*, 1(10):123-134.

Senise, O. and y Parras, M. (2003). Estructura de mercado, integración cooperativa y comercialización en el sector oleícola español. *Revista REVESCO*, 81, pp 101-120.

Senise, O. (2003). La orientación al mercado en el sector oleícola andaluz. Un análisis a partir de las cooperativas de segundo y ulterior grado. *Analistas económicos de Andalucía*, Málaga.

Sexton, R. J., and J. Iskow. (1988). *Factors Critical to the Success or Failure of Emerging Agricultural Cooperative's*. Giannini Foundation Information Series No. 88-3, University of California-Davis, Department of Agricultural and Resource Economics.

Søgaard, V. (1994). Power-dependence relations in federative organizations. *Annals in Public and Cooperative Economy*, 65, 103-125.

Staatz, J. M. (1987). Farmers' Incentives to Take Collective Action via Cooperatives: A Transaction Costs Approach. in J. S. Royer (ed.). *Cooperative Theory: New Approaches*, pp. 87-107, ACS Service Report Number 18. Washington, DC, USA, USDA.

Staatz, J.M. (1989). *Farmer Cooperative Theory: Recent Developments*. ACS Research Report Number 84, Washington, DC, USDA.

Torres Ruiz, F.J., Senise Barrio, O. Mozas Moral, A. Parras Rosa, M. Y Murgado Armenteros, E. (2000). La comercialización de los aceites de oliva en Andalucía: la situación de las cooperativas, *Analistas Económicos de Andalucía*, Sevilla.

Torres, F.J. (2007). Las almazaras y el marketing de los aceites de oliva". En *Informe Anual del Sector Agrario en Andalucía 2007*, Analistas Económicos de Andalucía, Málaga.

Williamson, O. E. (1985). *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*. New York, Free Press.

Williamson, O.E. (2002). The Theory of the Firm as Governance Structure: from choice to contract". *Journal of Economic Perspectives*, 16(3). 171-195

Websites

Agricultural Cooperative of Kritsa: <http://www.kritsacoop.gr/en>

Agricultural Cooperative of Platanos: <http://www.platanoscoop.gr/#>

Association of Cretan Olive Municipalities (ACOM): <http://www.sedik.gr/en/>

Center of Enhancement and Promotion of Crete Olive: <http://www.nagref-cha.gr/kapek/site/0engframes.htm>

Cretan Olive oil Network: <http://www.cretan-oliveoil.gr/en/index.html>

Institute of Olive Tree and Subtropical Plants:
<http://www.nagref-cha.gr/endocs/ociviculture.htm>

Union of Agricultural Cooperatives of Heraclion: <http://www.agrunion.gr/>

Union of Agricultural Cooperatives of Peza: <http://www.pezaunion.gr/>

Union of Agricultural Cooperatives of Sitia: <http://www.sitiacoop.gr/en/>

Appendix A-Fact and Figures on Cooperatives

Table A1- Facts and Figures on Cooperatives-Andalusia, Spain

Cooperative	Hojiblanca	Oleoestepa	Oleocampo	Olibeas	San Isidro	Ntra. Sra. Del Rosario
Year founded	1979	1986	1994	1942	1958	1977
Tier	Second-tier	Second-tier	Second-tier	First-tier	First-tier	First-tier
Structure	Holding	Holding	Holding	Co-op	Co-op	Co-op
Turnover 2011 (Million)	400	71	14	5	20	3
N of members	142 co-ops 35,000 members	16 co-ops 4,000 members	3 co-ops 1,962 members	1,000 members (600 active members)	980 members	810 members
Area (ha)	400.000	50.000 (15000 traditional)	7.438	3.000 (2700 traditional)	7.800 (6300 traditional)	2.700 (2646 traditional)
Production (t)	205.000,00	25.000,00	6.000	1.500	6.500	n/a
Bulk	66%	80%	80%	70%	n/a	40% ¹
Packaged	34%	20%	20%	30%	n/a	60%
Production share	14.74%	1.79%	0.43%	0.11%	0.46%	n/a
Market share	15%	3%	n/a	n/a	n/a	n/a
Market share of packaged	4%	n/a	n/a	n/a	n/a	n/a
Activities	-Production - Packaging - Marketing and distribution: whole sale and retail - Refining	-Production -Packaging -Marketing and distribution: whole sale and retail	-Production - Packaging - Marketing and distribution: whole sale and retail - Olive oil inputs (cosmetics)	-Production - Packaging - Marketing and distribution: whole sale and retail	- Production - Packaging - Marketing and distribution: whole sale and retail	- Production - Packaging - Marketing and distribution: whole sale and retail
Vertical integration score ² 1=low and 5=high	4.5	3.8	3.8	3.5	n/a	3.8
Member services	- Counselling - Technical assistance - Insurance - Supplies	- Counselling - Technical assistance	- Counselling - Technical assistance - Bank services (own Credit Section)	- Gas oil - Supplies - Technical courses through FAECA	- Gas oil - Supplies	-Counselling - Technical assistance - Insurance - Bank services (not credit section) sección de crédito - Mobile telephony - Supplies
Brands	Cordoliva Deltaoliva Hojiblanca Olivabella Sabor D'Abans Torcaoliva	De profundis Egregio Estepa virgen Maestro Oleario Oleoestepa	Esencia del sur Alta selección Oleodermo Torre Sur Fruto del sur Oleocampo Legado del sur Olivar centenario	Olibeas	Loxa Sierra de Loja	Algodoliva
Producer income	n/a	XXX€/l ³ (2011)	0,3-0,5-0,6 €/kg(2011- from webpage)	XXX €/kg(2011)	XXX-XXX €/kg (2010)	XXX €/kg (2011)
Payment to members/turnover 2010 ⁴	83%	96%	83%	83%	80%	85%
Focus on social goals	Social goals met when cooperatives obtain best prices and lower costs	Marketing and distribution of member's production	n/a	Obtain the best prices for their producers	Commitment to the environment Market member production at the most favourable conditions	Obtain the best prices for their producers

Collaboration with other cooperatives or IOFs	Agreement with 30 cooperatives to market jointly their olive oil. Agreements with Spanish cooperatives to create common brands (with Copaga giving Hojiblanca a greater presence in the Catalonia region).	Collaboration agreement in 2008 to supply olive oil to Sovena, leader in marketing supermarket brands and a supplier to Mercadona.	In 2011 it patented a machine to harvest together with a technological company. It channels its bulk oil through Interóleo Picual Jaén, S.A., in which it has an ownership interest.	Permanent agreements with distribution	n/a	Agreement with Hojiblanca
Successfully selling final, consumer products	34% packaged oil 4% market share of packaged oil	20% packaged oil market share n/a	20% packaged oil market share n/a	30% packaged oil market share n/a	n/a	100% packaged ¹ market share n/a
Innovative ownership, governance and capital acquisition methods	Interest in Mercóleo (joint venture with Cargill) Alliance with Deóleo group, major marketer of oil in Spain. Owns Oleícola Hojiblanca S.A. wich markets packaged oil and olives. Interest in Oleomalaga for the marketing of wines Interest in Coragro S.L. (insurance broker)	Controlling interest in Oleoestepa France	Marketing subsidiary in Uruguay. Interest in Interóleo Picual Jaen, S.A	-	-	-
Innovation scale- 1=low, 5=high; national average 2.0	4.8	3	3.8	2.5	2.5	2.5

¹ 60% of its production is destined for packaged oil for export and 40% is sold bulk to the Hojiblanca Groups SCA under an agreement for packaging.

² Whether a cooperative (or group of co-ops) are significantly involved in each or most of the stages along the vertical supply chain.

³ Price per kg of olive oil

⁴ This information is not completely compatible as in the case of Hojiblanca, Oleocampo and San Isidro the accounts specify payments to members but in the other cooperative accounts, we only have a figure for "supplies" which would be mainly payments to members. It would also include smaller amounts such payments for containers and packaging.

Notes on how Dependent and Independent Variables were measured:

Dependent Variable-Producer Income

Producer Income amounts were only sporadically available from the cooperatives and in some cases were not given at all. To measure this variable we used cooperative accounts from 2006 to 2011 and calculated total payments to members as a percentage of turnover as an approximate replacement. See Appendix A-“payment to members/turnover”. There was not complete compatibility amongst cooperatives accounts as certain cooperatives distinguished payments to members and other specified payments to “suppliers”, the latter being for the most part payments to members.

Independent Variable-Degree of Vertical Integration

We measured the degree of vertical integration on a scale of 1-5, with 5 representing the highest vertical integration. Vertical integration was considered to be whether a cooperative (or group of co-ops) was significantly involved in each or most of the stages along the vertical supply chain. We considered the activities of the cooperatives and the percentage of packaged product sold to final consumers.

Dependent Variable-Market share of high quality segment by the cooperative

As a substitute measure for market share of the “high quality segment” we have used data relating to packaged oils vs. bulk oil.

Dependent Variable-innovative ownership, governance, and capital acquisition methods

We have used a scale from 1-5 to measure this variable,

Independent Variable-successfully selling final, consumer products

We have measured this variable according to percentage of packaged vs. bulk sales.

Table A2 - Facts and figures on the selected cooperatives-Crete

Cooperative	U.A.C. of Heraclion (AGRUNION)	U.A.C. of Peza	U.A.C. of Sitia	U.A.C. of Ierapetra	Agricultural Cooperative of Kritsa	Agricultural Cooperative of Platanos
Year founded	1927	1933	1933	1932	1927	1948
Tier	2nd tier	2nd tier	2nd tier	2nd tier	1st tier	1st tier
Structure	Holding	Holding	Holding	Holding	Coop	Coop
Turnover 2009 or 2010 (Mill euro)	52.3 (2009)	21.7 (2009)	27.9 (30/6/2009)	6.5 (30/6/2009)	0.4 (2010)	n/a
N of members	169 co-ops 47,500 farmer-members	20 co-ops 3,000 farmer-members	42 co-ops 8,718 farmer-members	23 co-ops 5,700 farmer-members	892 farmer-members	1,000 farmer-members
Area (ha)	n/a	6,000 h of olive crops	n/a	n/a	n/a	800 h of olive crops
Production (t)	10,000	5,000	6,000	3,000 - 3,500	450	1,500
Bulk	70%	50%	50%	100%	0%	50%
Packaged	30%	50%	50%	0%	100%	50%
Production share	4.44%	2.22%	2.67%	1.56%	0.20%	0.67%
Market share of packaged	n/a	n/a	n/a	n/a	n/a	n/a
Activities	Production Packaging Storing Marketing and distribution: whole sale and retail	Production Packaging Marketing and distribution: whole sale and retail Standardization facilities for olive oil Laboratory for quality control Traditional soap factory	Production Packaging Marketing and distribution: whole sale and retail Supplies	Production Packaging Storing Marketing and distribution: whole sale and retail Supplies Workshop facilities Soil laboratory Super market	Production Packaging Supplies Marketing and distribution: whole sale and retail	Production Packaging Supplies Marketing and distribution: whole sale and retail
Vertical integration score*	n/a	n/a	n/a	n/a	n/a	n/a
Member services	Counselling Technical assistance Insurance Storage of olive oil	Counselling Technical assistance Storage of olive oil	Counselling Technical assistance Storage of olive oil	Counselling Technical assistance Storage of olive oil	Counselling Technical assistance Storage of olive oil	Counselling Technical assistance Storage of olive oil Training
Brands	Knossos Knossos Bio Knossos Pure 0,3 Zeroplus Kritiko Konaki	Nesos Peza 0,5 Peza Liquid Gold 24 Elaia Enosis (Union) Elaioparagogoi Agarathos Monastery Green Gold (Bio)	0,3 Sitia Sitia Koroneiki		Kritsa 0.3 Kritsa - Gaea	Falasarini
Producer income	n/a	n/a	n/a	n/a	n/a	n/a
Payment to members/turnover 2010	n/a	n/a	n/a	n/a	n/a	n/a
Focus on social goals	Insure a stable income	Insure a stable income	Insure a stable income	Insure a stable income	Insure a stable income	Insure a stable income
Collaboration with other cooperatives or IOFs		Collaboration between Greek agricultural cooperatives from Crete (Peza, Mylopotamos, Mirambellos, Sitia) and the Consorzio Nazionale degli Olivicoltori di Italy. They formed a partnership for the advancement of quality and the development	Collaboration with the Union of Agricultural Cooperatives of Kavala, and other three Union of Agricultural Cooperatives in Ukraine.		Collaboration with Gaea - an internationally-known private company which sells and produces quality Greek agricultural products and jointly developed a new legal entity the "Kritsa-Gaea".	

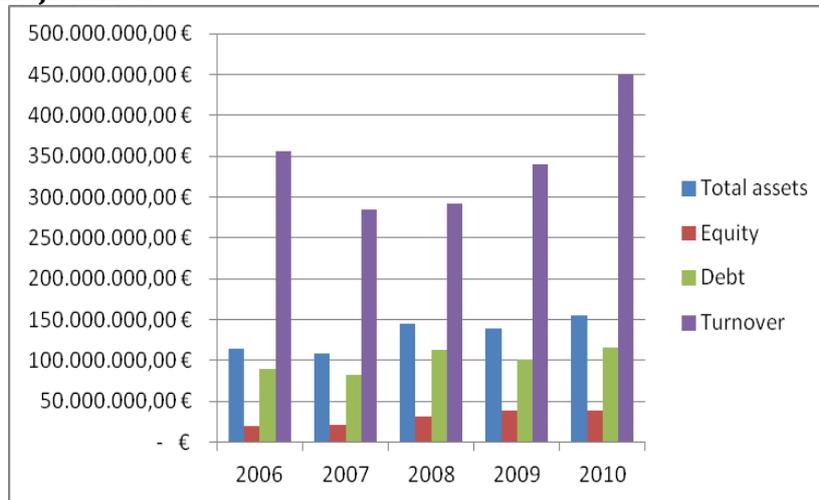
		of olive oil traceability.				
Successfully selling final, consumer products	30% packaged oil	50% packaged oil 5% market share of packaged oil	50% packaged oil		100% packaged oil	50% packaged oil
Innovative ownership, governance and capital acquisition methods	Well organized sales network, through which their products are shipped to the rest of Greece via its branches operating in Athens and Thessaloniki and through their dealers. AGRUNION exports to many countries through local dealers.	Peza maintains a well organized sales network through their shops «Mediterranean Diet» and other supermarket brands. Peza, exports to many countries such as Austria, Germany, the United Kingdom, France, China, Dubai, Libanon, etc., through local dealers.	Well organized sales network, through which its products are shipped to the rest of Greece. Also, exports to many countries such as the United Kingdom, the United States, Finland, etc..	100% of the production is in bulk and sold by the cooperative on the national level.	Well organized sales network through the new company "Kritsa-Gaea". Now 70% of the olive oil from Kritsa is being exported to countries all over the world such as the UK, US and Germany. It is sold in all Greek airports, and it will even be used in the kitchens at Disneyland.	The oil is sold on the national level through a home service, mainly in the city of Thessaloniki.
Innovation scale*	n/a	n/a	n/a	n/a	n/a	n/a

*: Not available (n/a)

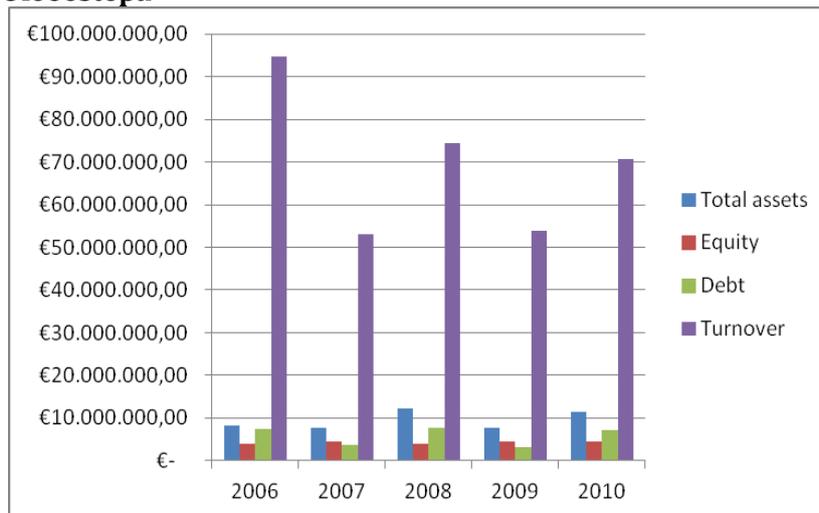
Appendix B-Financial Data on Cooperatives

Appendix B1- Selected Cooperatives in Andalusia

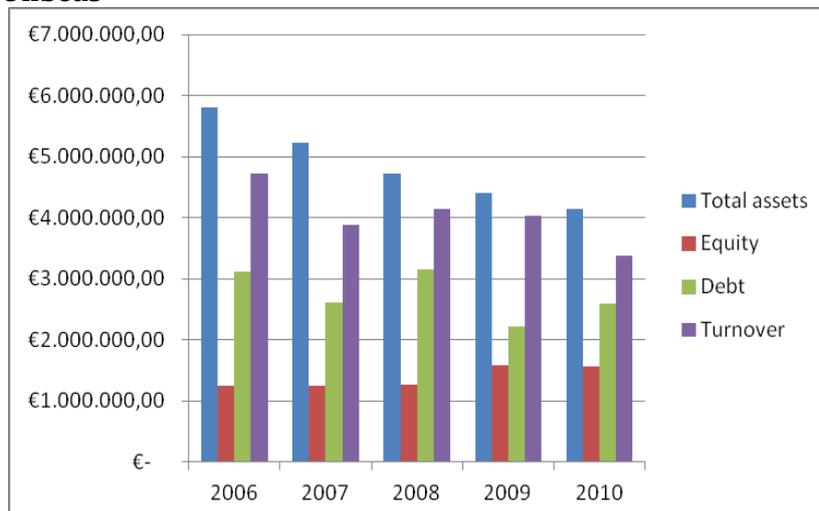
Hojiblanca



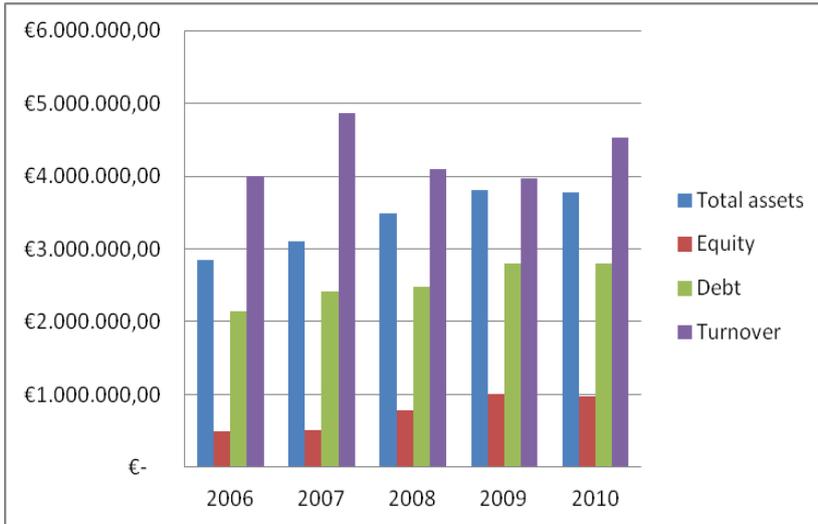
Oleoestepa



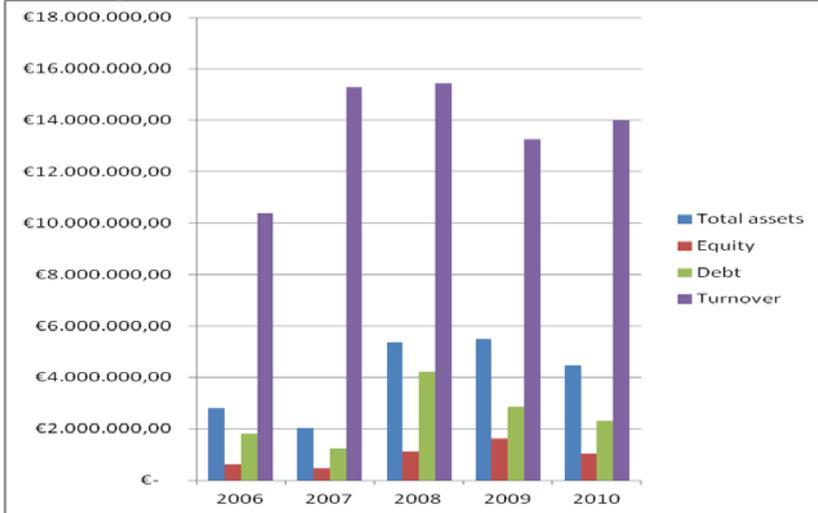
Olibeas



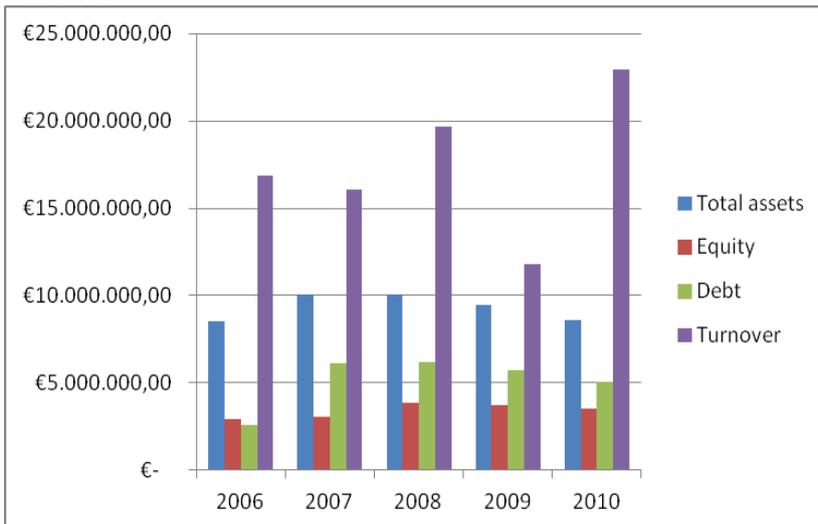
Ntra. Sra. Del Rosario



Oleocampo

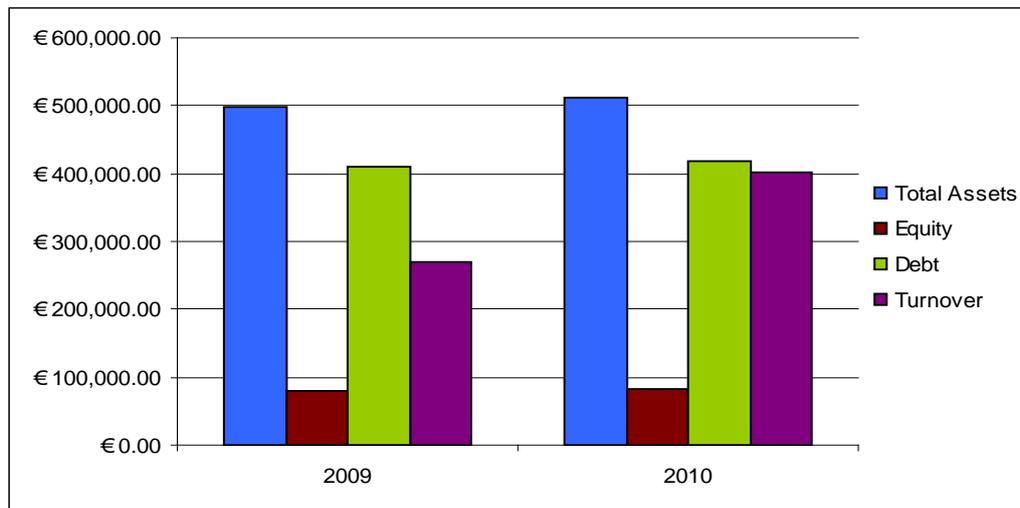


San Isidro

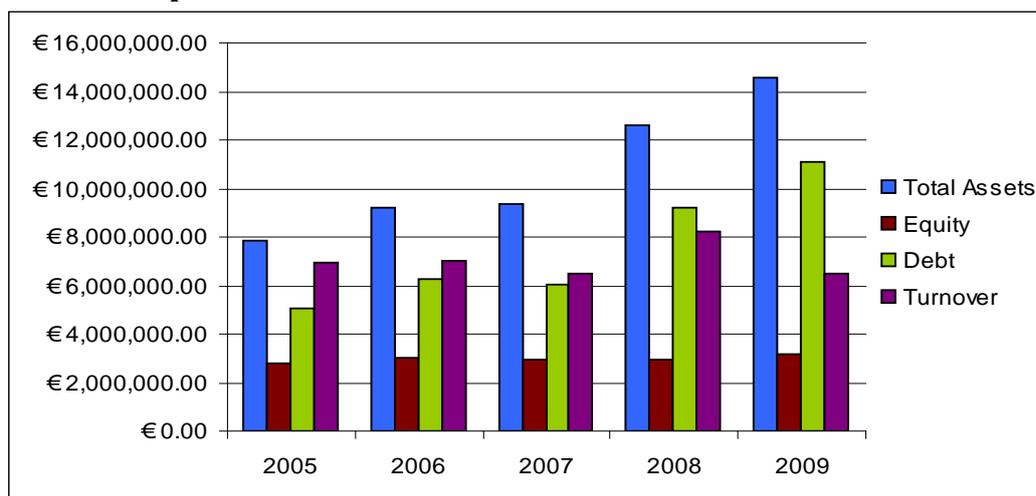


Appendix B2- Selected Cooperatives in Crete

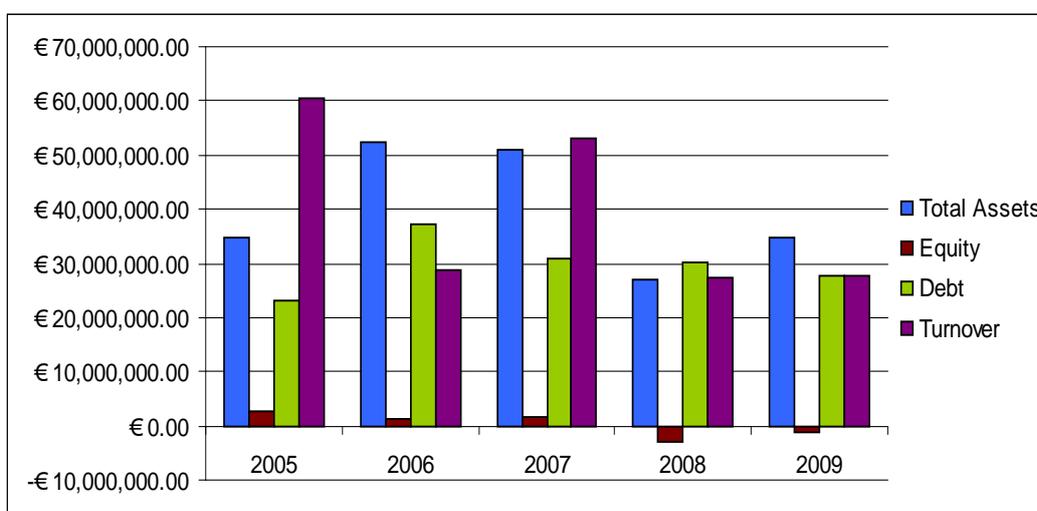
Agricultural Cooperative of Kritsa



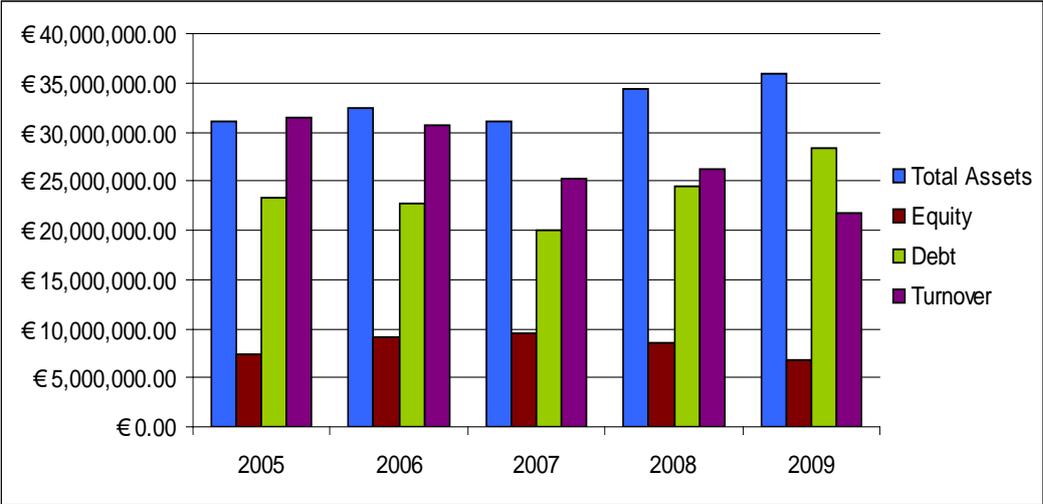
U.A.C. of Ierapetra



U.A.C. of Siteia



U.A.C. of Peza



Appendix C- Legislation and Policy Review-Andalusia¹³

Policy Measure Name	Policy Measure Type	Regulatory Objective	Policy target	Expert comment on effects on development of the cooperative
LAW 14/2011, of December 23, Andalusian Cooperative Societies.	1. Mandate. Cooperative legislation	2. Attainment of equity or social goals	1. Specific to cooperatives	<ul style="list-style-type: none"> -Applicable to cooperative societies which carry out their principle cooperative activity in Andalusia. -the objective of this new law is to allow for greater competitiveness for cooperatives and to provide legal and economic-financing instruments which will be at the disposition of the cooperatives that are compatible with the nature of the cooperative movement. <ul style="list-style-type: none"> - Elimination of numerous bureaucratic hurdles -The law allows more freedom for the cooperatives to craft their own bylaws <ul style="list-style-type: none"> - There is a new figure of capitalist member or investor. - Voluntary establishment of plural votes. - Free assignment of capital contributions to third persons. - Greater liberty in the distribution of benefits. - Reduction of the limitations of dealings with third parties and the strengthening of mergers through the simplification of procedures.
Law 5/2011, October 6 Of the Andalusian Olive Groves (Ley de Olivar de Andalucía)	1. Mandate. Legislation	1. Correction of market or regulatory failures 2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural sector)	<p>Establishment of a legal framework for the maintenance and improvement of the cultivation of olive in Andalusia, sustainable development and the promotion of quality and of its products.</p> <p style="text-align: center;">*SEE DETAILED DESCRIPTION BELOW</p>
Sustainable Development of the Rural Environment Law 45/2007, 13 December	2. Inducements Economic incentives 3. Capacity Building	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	<ul style="list-style-type: none"> -This law sets out actions to promote agriculture which is compatible with sustainable rural development, giving preferential treatment to agricultural professionals and priority to titleholders of farm lands. In addition, it promotes the adoption of measures by Public Administrations focused on economic diversification, support for the creation of businesses, self employment and cooperative employment. -Prioritises activities carried out by associative entities.
Law 38/1994, 30 December, regulating Agricultural Interprofessional Organisations	1. Mandate. Incorporation law	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-Applicable to the agricultural inter-professional organisations at the national level or a level superior to that of an autonomous community. The object of the law is to regulate the recognition of such entities and bestow a private legal identity and the powers that is inherent in such status, such as the agreements into which they enter.
Royal Decree 705/1997, 16 May, approving Regulation of Law 38/1994 of 30 December, regulating Agro Alimentary Interprofessional Organisations, as modified by Law 13/1996, 30 December, of tax, administrative and social order measures.	1. Mandate. Legislation	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-This Regulation advances significantly Law 28/1994 of 30 December, regulating Interprofessional Organisations.
Royal Decree 395/2007, 23 March,	3. Capacity	2. Attainment of equity	3. Applicable to	-Objective is to regulate the distinct training initiatives that make up professional

¹³ (UPDATED from National Study)

regulating subsystems for professional training for employment.	Building	or social goals	business in general	employment training, its system of operating and financing as well as organisational structure and participating institutions.
Resolution 27 March, 2009, of the General Directorate of Industry and Alimentary Markets, providing for the publication of the Agreement of the Council of Ministers, establishing measures to promote innovation in agrarian and agro alimentary businesses.	3. Capacity Building	1. Correction of market or regulatory failures 2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-The agreement establishes measures to promote innovation in agrarian and agro alimentary businesses through interest incentives of the credit lines of the National Institute of Official Credit known as "ICO" such as ICO-PYME 2009-for small and medium enterprises, ICO-Crecimiento Empresarial 2009-for business growth, ICO-Emprendedores 2009-for entrepreneurs and ICO-Internacionalización 2009 del Instituto de Crédito Oficial-for internationalization, ICO-Liquidez (Liquidity) 2011, and others.
Royal Decree 457/2010, of 16 of April, regulating the concession of subsidies for the renewal of the national industrial area of agricultural machinery.	2. Inducement. Financial and other incentives 3. Capacity Building	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-Objective to promote the renewal of a national industrial area of tractors and agricultural machines to improve work conditions, achieve better energy efficiency and have a lower environmental impact. Amongst other who can be beneficiaries: agricultural cooperatives, CUMAs, agricultural worker cooperatives and SATs
Resolution of 19 April, 2011, of the Secretary of State of Rural and Water Environments providing for the publication for 2011 the convocation of aid destined to promote the integration of cooperatives at the state level	2. Inducement. Economic incentives	1. Correction of market or regulatory failures 2. Attainment of equity or social goals	1. Specific to cooperatives	-Establishes the convocation of competitions for subsidies for 2011 in relation to the promotion of cooperative integration at the state level, provided for in Order APA/180/2008. Amongst the evaluation criteria for awarding the subsidy: the fusion of two or more entities, having as a principle objective innovation in production processes, have as a principle objective innovation in commercialization processes, fostering the participation of women, being a cooperative society of worker association with agrarian activity, being a second level cooperative, etc.
Plan of Initiation for Foreign Marketing (PIPE)	2. Inducement. Financial and other incentives 3. Capacity Building	2. Attainment of equity or social goals	3. Applicable to Business in general	-The Plan for the Initiation of Foreign Marketing (PIPE) is the first program on a national level aimed especially at Spanish SMEs that seek commercial development through exports.
Financing Program for Social Economy businesses (ENISA-National Innovation Company)	2. Inducement. Financial and other incentives	2. Attainment of equity or social goals	1. Specific to cooperatives (and other social economic enterprises)	-Beneficiaries of this financing can include cooperatives and labour societies which are SMEs according to EU definitions. The financing assumes a participative loan (period of amortizations of 9 years, interest rate in function of the results of the beneficiary with a minimum and maximum, without guarantees, etc.
ICEX-ICO Agreement-Financial Support for exporters through the (official state line of credit) ICO-LIQUIDEZ 2011	2. Inducement. Financial and other incentives 3. Capacity Building	1. Correction of market or regulatory failures. 2. Attainment of equity or social goals	3. Applicable to Business in general	-ICEX has entered into a collaboration agreement with ICO, the official state credit institute, creating a section of Financial Support for the Exporting sector through the line of credit "ICO-LIQUIDEZ 2011".
Order of 30 January 2008, regulating the measures of support for the realisation of preliminary studies for integration of and cooperation between agro alimentary businesses with the goal of concentration of offer, within the framework of the Rural Development Plan of Andalusia 2007 to 2013, and the provision for convocations for the year 2008 (Andalusia)	3. Capacity Building 2. Inducement. Financial and other incentives	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-This program is available for the realisation of preliminary viability studies for the creation and development of commercial structures that integrate existing companies through mergers or cooperation in relation to investment projects for the modernisation, amplification, transfer, equipping and/or reforming of existing commercial establishment to accommodate the new commercial structure. -Micro-businesses and agro alimentary SMEs of Andalusia which demonstrate their intention to constitute a commercial structure of cooperation or integration amongst themselves to achieve the same end may be eligible applicants under the program.

Order 9 December 2008, establishing the regulatory bases for a Program of Incentives for the Promotion of Innovation and Business Development in Andalusia and the holding of a convocation for the same for the years 2008-2013	3. Capacity Building 2. Inducement. Economic incentives	2. Attainment of equity or social goals	3. Applicable to business in general	-Promotion of innovation and business development, in particular in the creation of businesses and their modernisation, the competitiveness of cooperatives, research and development and business innovation.
Decree 335/2009, 22 September, regulating the Ordering of Professional Training for Employment in Andalusia.	3. Capacity Building	2. Attainment of equity or social goals	3. Applicable to business in general	-Objective is the regulation of Professional Training for Employment in Andalusia and its functioning and financing.
Order of 9 June 2009, for the establishment of the regulatory bases for the concession of aid for the primary integration of agrarian associative entities into Andalusian agricultural cooperatives of a higher level, and the providing for related convocations for 2009 (Andalusia)	3. Capacity Building 2. Inducement. Financial and other incentives	2. Attainment of equity or social goals	1. Specific to cooperatives	-This Order establishes the regulatory bases to concede aid for the primary integration of agricultural associative entities in already consolidated superior level Andalusian agricultural cooperative societies: Provided that commercialization of the products which are subject to such integration are amongst its activities. The legal forms of potential beneficiaries are: a) Andalusian agricultural cooperative society b) SATs with its legal place of businesses in Andalusia (which meet certain conditions). -The expenses of the agricultural associative entity for the participation in the social capital of the existing second or higher level cooperative may be subsidized. The maximum quantity of such aid is limited to 100,000 Euros per beneficiary entity.
Order 12 June, 2009, establishing the regulatory bases for the concession of aid for the fusion of agricultural cooperatives and the constitution of second level (or higher) agricultural cooperatives, and providing for related convocations for 2009 (Andalusia)	2. Inducement. Financial and other incentives 3. Capacity Building	2. Attainment of equity or social goals	1. Specific to cooperatives	-This Order establishes the regulatory bases to concede aid in the creation of entities which are a result of merger projects of agrarian cooperatives and the constitution of second level or higher agrarian cooperatives. The legal form of the possible beneficiaries must be: a) Andalusian agrarian cooperative society, b) second level Andalusian agrarian cooperative society, c) SATs with its legal place of business in Andalusia (which meet certain conditions), d) cooperative societies and SATs with industrial establishments inscribed (registered) in Andalusia. -The following may be subsidized: pre-merger expenses assumed by the entities that merged; pre-constitution expenses of a second level cooperative assumed by the entities that participated in its constitution; etc. -The maximum quantity of such aid is 20,000 Euros divided between the number of businesses that participated in each merger process or constitution.
Order 29, June 2009, for the establishment of the regulatory bases for a program of support for innovation and the development of the social economy, and the provisions for related convocations for 2009 until 2013 (Andalusia)	3. Capacity Building 2. Inducement. Financial and other incentives	2. Attainment of equity or social goals	1. Specific to cooperatives (and other social economic enterprises)	-Provision of measures directed at encouraging the development of an innovative, competitive, entrepreneurial social economy in the framework of the Andalusian productive social/cultural fabric and in its own economic and social principles and values. -The following entities which comply with the relevant conditions may be beneficiaries: Confederations of the Social Economy and Federation of the Social Economy, Foundations, Cooperative Societies and Worker Societies. The possible lines are: diffusion, promotion and innovation in the social economy, professional development and development of associationism.
Order 31 July 2009, establishing the regulatory basis for the concession of subsidies for the modernization of agrarian exploitations in the framework of the Program for Rural Development of Andalusia 2007-2013.	3. Capacity Building 2. Inducement. Economic incentives	1. Correction of market or regulatory failures 2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-The object of this aid is to establish non-refundable incentives for the modernization of agricultural exploitations which are owned, amongst others, by cooperatives or by SATs.
Order 20 April 2010, establishing the	3. Capacity	2. Attainment of equity	1. Specific to	-The object of this aid is the promotion of integration activities of cooperatives of the

regulatory bases for the concession of aid to support the increase of size and dimension of agro industrial cooperatives, to promote business cooperation, integration, mergers and strategic alliances and fostering the constitution of second and higher level associative entities (Andalusia)	Building 2. Inducement. Economic incentives	or social goals	cooperatives (and other social economic enterprises)	agro industrial sector, especially directed at promoting concentration projects through the constitution and consolidation of second or higher level cooperatives.
Order 26 July 2010, establishing the regulatory bases for the concession of subsidies for the transformation and commercialization of agricultural products in the framework of the Program for Rural Development of Andalusia 2007-2012 and the convocation of the same for 2010	3. Capacity Building 2. Inducement. Economic incentives	2. Attainment of equity or social goals	3. Applicable to business in general (specific to agricultural)	-Agricultural companies dedicated to the transformation and commercialisation of agricultural products for investments directed at increasing added value of products and acquiring innovative and environmentally friendly technologies.
Program of the Andalusian Agency for Foreign Promotion (EXTENDA - Regional Government of Andalusia)	3. Capacity Building	2. Attainment of equity or social goals	3. Applicable to business in general	-EXTENDA offers a wide range of programs and services with the objective of increasing the number of Andalusian companies in the process of internationalisation, improving the international position of Andalusian companies that are already active in such process and increasing the foreign Andalusian investment
Execution Regulation (EU) February 9, 2012, for the opening of tenders in relation to aid for private storage of olive oil.	2. Inducement. Economic incentives	1. Correction of market or regulatory failures	3. Applicable to business in general (specific to agricultural)	Aid for private storage of olive oil in order to address falling prices of olive oil.
Execution Regulation (EU) N° 29/2012, 13 January, 2012, re: marketing of olive oil	1. Mandate. Legislation 3. Capacity Building		3. Applicable to business in general (specific to agricultural sector)	Establishment of marketing regulations for retail sales re olive oil and refined oil.
Order of November 16, 2011, establishing regulatory base for the concession of subsidies for the improvement of management of by-products of olive milling and other organic by-products from agro industry..	3. Capacity Building 2. Inducement. Economic incentives		3. Applicable to business in general (specific to agricultural)	Modification of Order of 10 July 2007 regarding same subject matter.
Orden ARM/2933/2011, October 26 for the extension of the agreement between the Spanish Olive Oil Interprofessional entity with the sector and the fixing of economic funding.	3. Capacity Building		3. Applicable to business in general (specific to agricultural sector)	Approval of the extension of the interprofessional agreement, which is to promote, improve information and research into olive oil.
Regulation 1023/2011 (EC), October 14 aid for private storage of olive oil	2. Inducement. Economic incentives	1. Correction of market or regulatory failures	3. Applicable to business in general (specific to agricultural)	Aid for private storage due to low prices
Regulation (EU) 61/2011, Jan. 24, 2011, modifying Regulation (CEE) 2568/91 re: characteristics of olive oil and refined			3. Applicable to business in general (specific to	Modification to prior regulation (CEE) n° 2568/91.

oil and the methods of analysis			agricultural sector)	
Commission Regulation (EC) n° 826/2008 August 20 2008	2. Inducement. Economic incentives	1. Correction of market or regulatory failures	3. Applicable to business in general (specific to agric sector)	Establishing private olive oil regime.
Council Regulation (EC) n° 865/2004 April 29, 2004, establishing CMO regarding olive oil and table olives. Modifying Regulation no 827/68	2. Inducement. Economic incentives		3. Applicable to business in general (specific to agricultural sector)	Establishing CMO of olive oil and table olives
CMO ÚNICA 1234/2007 replacing prior (EC) n° 865/2004	1. Mandate. Legislation		3. Applicable to business in general (specific to agricultural)	Creation of common market regulation organising agricultural markets re certain agricultural products.

Appendix D- New Andalusian Olive Grove Law and Reactions by Sector

(Summary and Non official translation of terms and content by C. Giagnocavo)

The objective of this regional, sector specific law is to regulate and promote the development of the olive oil sector in Andalusia, improving its competitiveness. It has ended up being a “framework” law, sparse as it is regarding detailed substantive content. It is however of interest in that it was meant to address the “ills” of the olive oil sector in Andalusia, the majority of which is cooperative. A central feature of the law is the distinction between different types of olive farms and their corresponding characteristics. It is also of note that it has received mixed reactions (see “Reaction of the Sector”). Following is a summary of the main provisions of the law:

Sustainable Management Instruments:

Director of Olive Grove Plan

The law provides for a Director of Olive Grove Plan which is to be drawn up by the regional minister of agriculture and approved by a governing board, pursuant to a report by the Andalusia Olive Grove Council. These processes require hearings of sector representatives.

The Plan is supposed to provide for the determination of olive grove territory; typology of traditional olive grove areas; and the characterisation and diagnosis of the Andalusian olive oil sector.

Various strategies must also be carried out relating to contracts between the regional ministry of agriculture and olive grove owners with respect to sustainable rural development. The Plan will also define strategies to improve the sector and the remuneration of the farmers.

Rural Territory Zone Contracts

The law provides for contracts between the regional ministry of agriculture and olive grove owners to develop sustainable rural areas, with the aim to orientate future productive, economic, social and environmental functions. These contracts have not yet been developed.

Territorial Production Contracts

These are contracts between the administration and owners to achieve a more efficient, competitive, sustainable and quality production. These types of contracts have not been developed.

Information systems and decision-making support

A system is to be created which provides accessible information about olive grove territories and the production, processing, marketing and consumer sectors which will allow the establishment of quality, sustainability and efficiency indicators and orientate the taking of public and private decisions. To achieve this all the actors of the sector are to provide required information.

Andalusian Olive Counsel

The Andalusian Olive Council will act at the advisory entity in maintaining and improving the cultivation of olive in Andalusia. Its functions will be advising public administrations as well as informing the Plan Director. It will be constituted by

representatives of public administrations, business organizations, unions, professional agricultural organizations, federations of agricultural cooperatives and other sector representatives as well as recognized specialists.

Measures for the Promotion of Olive Groves

The Andalusian administration is to re-equilibrate public administration aid in order to maintain income.

Traditional Olive Groves

The maintenance, modernization and restructuring of the traditional olive to improve productivity will be promoted.

Olive Groves with natural disadvantages

The Andalusian administration will give preference to traditional olive groves in zones with natural disadvantages so that such farms maintain economic viability, promoting actions directed at economic diversification in the interest of maintaining cultivations, preserving environmental and social sustainability and avoiding destruction of such territories.

Equality

Proactive measures may be taken to favour women in the olive sector to overcome and avoid gender discrimination.

Restructuring of the cultivation of olives

Incentives will be given for improving traditional olive groves and to facilitate actions that achieve more efficient dimension and management of olive groves.

Diversification of Activities

Complementary activities will be promoted on olive farms so as to increase non agricultural income of olive growers.

Support for ecological and integrated production

There will be a priority application of measures for ecological and integrated production farms, with the promotion of sustainable management of natural resources, particularly water and soil.

Research

Promotion of research and development, innovation, training and the introduction of new technologies in the olive sector will be supported.

Processing, Promotion and Marketing of Olive Products.

Specific aid will be included for improving olive press technology, processing of table olives, energy efficiency and the use of by-products.

Promotion of quality certification for productive processes and products as well as traceability systems and protected denominations of origin will be provided for in the law.

Market Orientation, concentration of offer and the improvement of the supply chain will also be promoted.

Measures for Coordination and Organisational Strengthening of the Sector and its Value Chain

Promotion of cooperation actions and the association of distinct agents that intervene in the production and commercial system that determine the value chain of both table olives and olive oil. As well, the promotion of integration processes of first-tier cooperatives into larger dimensions that will improve market position and that join together to market their products.

The Andalusian administration will support the olive sector through distinct associative entities, both in production and marketing. It will promote mergers, integrations and the absorption between first, second and ulterior tier cooperatives, as well as all types of companies taking action to favour the concentration of offer in the sector.

Reactions of the Sector

During its drafting, the Regional Ministry of Agriculture met with both cooperative and farmer professional associations, which criticized the lack of content and also the absence of a budget with which to develop and carry out the law.

Amongst other deficiencies the lack of solutions for profitability and the deficiencies in the supply chain in the formation of prices, which is where the productive sector and the processing sector lack mechanisms to self regulate against the large concentration of distributors (ASAJA ANDALUCÍA, 2010).

The union ASAJA has also expressed its reservations concerning the asymmetric distribution of the aid established by the law and that will result in a diversion of funds between distinct olive oil counties to others and that will result in a reduction of public aid to certain olive farmers (ASAJA SEVILLA, 2011). This is a controversial aspect in spite of the fact that associations like FAECA consider it to be positive, guaranteeing public aid to those olive farmers who need it the most.

Another critique of this future law Project is the future composition of the Andalusian Olive Council, provided for in the law, and who principal functions will be advising public administrations. In principle, the sector will be represented by 8 out of 30 members, that is, barely 26% representation. Amongst these members will be included agricultural organizations, cooperatives, olive presses, packagers, extractor of olive oil by-products and table olive industries, leaving the rest of the Council to be filled with organizations outside of the sector (ASAJA JAENA, 2011).

The law was rejected in the Parliament, where both the Popular Party (centre right) and the United Left party presented amendments to the whole law and by the Consultive Council of Andalusia which rejected the drafting of 15 out of 39 articles, pointing out that many of them appeared to void of content (ASAJA JAEN, 2011b).

However, other associations such as FAECA supported the new Olive Oil law for its contribution to the development of the olive sector. It viewed as positive the structural measures contemplated to improve productivity of traditional olive groves, measures directed at modernization and activities in support of the concentration of offer (FAECA GRANADA, 2011a).

Agricultural associations such as COAG requested that the regional ministry put into place the Plan such that the measures could be put into force as soon as possible (COAG ANDALUCÍA, 2011). It also pointed to the fact that since one of the greatest challenges was the low price of olive oil, supposedly caused by the atomization of the sector, the support for concentration in the sector was welcome (FAECA GRANADA, 2011b).