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# Value Chain Dynamics of Agri-Food Exports from Southern Mediterranean to the European Union: End-Market Perspective

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## ABSTRACT

This contribution explores the buyer side of the value chains of the main agricultural products exported from the Mediterranean Partner Countries (MPCs) to the EU, taking Spain as an explorative case study in the broader European context. It draws on the Global Value Chain (GVC) approach to provide new survey-based evidence for better profiling the opportunities and constraints for EU trade for orange, strawberry, tomato and olive oil imported from Morocco, Tunisia, Egypt and Turkey. The approach used complements inquiries using quantitative trade models usually based on aggregate sectoral level. Results show differences depending on the product and the country studied. There are in all cases multiple challenges to be solved at the origin of the value chain including better chain organization, further transparency and security, improvement in infrastructure and logistics, keeping transaction costs manageable at the same time. Consumer preferences in buyer markets when sourcing must be taken on the first place. The findings can have relevant policy implications in terms of prospective Euro-Mediterranean Partnership Agreements on agriculture and food.

*Keywords. Euro-Mediterranean agricultural trade; global value chain; end-market; trade policy.*

## 1 Introduction

Agri-food trade between the European Union (EU) and its Mediterranean Partner Countries (MPCs) in North Africa and Middle East is increasingly unbalanced in favor of the EU, revealing growing dependence of this region to EU products almost in all categories, especially commodities (wheat and other cereals, vegetable oils, dairy products, sugar) (European Commission, 2015). As for EU imports from MPCs, fruits and vegetables have the biggest portions while citrus and olive oil also are relevant imported categories. For the EU these trade relations are more sensitive from the geopolitical than from the economic viewpoint. Moreover, it is well known that socioeconomic impacts of agri-food trade with MPCs in terms of economic opportunities and welfare are largely more significant in these countries than in the EU.

Successive Association Agreements between the EU and MPCs aimed mostly at fostering trade liberalization. In the agri-food sector the underlying premise was that trade acts as a catalyst for rural development and a facilitator of economic integration in the Mediterranean region, and that increased competition resulting from the reduction of trade barriers raises product quality and export diversification to high value markets - all together should contribute to improve efficiency and productivity of agriculture in the MPCs.

Yet, even if the EU remains the main trade partner of MPCs, the impact of the liberalization process has been limited so far as it has not fulfilled many expectations of MPCs (Tudela Marco et al., 2015). Some of the reasons given relate to the fact that the agricultural sector has not been fully included in the liberalization process, due to fears within the EU of possible economic damages that could be caused to the European producers. In the meantime, it is widely argued that an intensification of the liberalization process could have adverse effects on MPCs (Mattas et al., 2015).

Traditionally the analysis of agricultural trade between the EU and MPCs has been approached according to geographical proximity and political relations between both areas. Such investigations have been tackled mostly via diverse quantitative trade models usually based on aggregate sectoral level. However, available evidence reveals difficulties in conducting comprehensive analysis of this trade with the mentioned models. Typically challenging aspects are the lack of suitable data, the heterogeneity of products and the complexity of trade regulation measures (Mili, 2008; Giovannetti and Marvasi, 2016). An alternative avenue to overcome these difficulties and complement quantitative inquiries would be the use of more qualitative approaches linked to the Global Value Chain (GVC) concept to achieve further detailed understanding of the dynamics of above-mentioned trade flows. A GVC integrates all the activities and relationships necessary to bring a product from conception to delivery to final consumers (Kaplinsky, 2000). GVC production and marketing activities can be located in many sites and countries, a process which is expanding prompted by declining transport, information and communication costs, the rapid increase in technological progress and lower political and economic barriers to trade and capital (Amador and Cabral, 2016). For MPCs the GVC analysis is an innovative instrument whose adoption could help them to enhance their productive capacity, expand trade and obtain greater benefit from their exports.

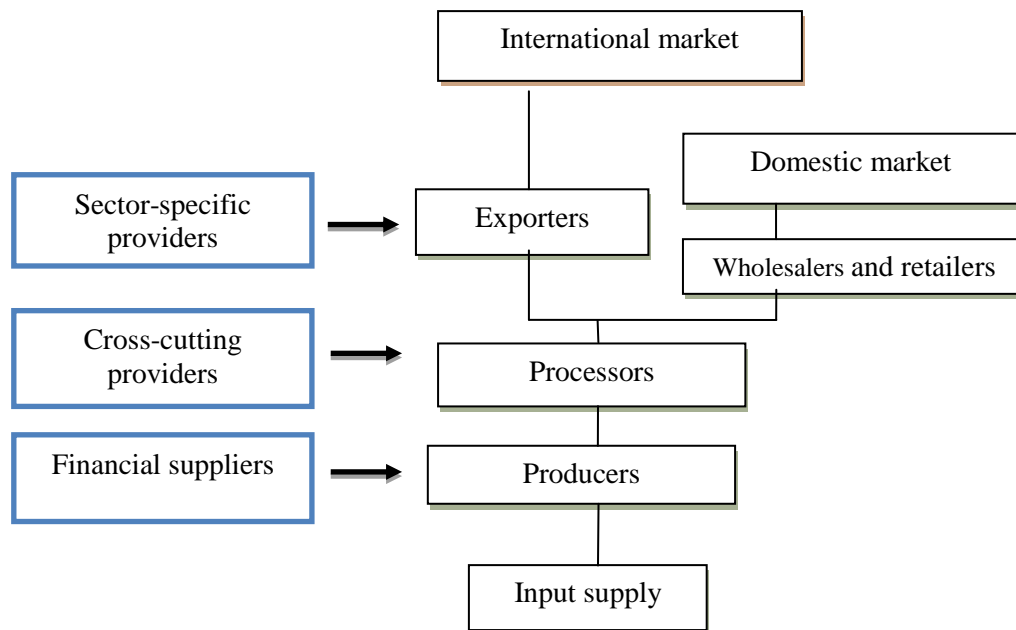
In this context, the present contribution focuses on analyzing the buyer side (end-market) of the value chains for the main agricultural products originating from MPCs in destination to the EU, taking Spain as an explorative case study for these import flows. It provides new survey-based evidence for better understanding and profiling the opportunities and constraints for these flows, and therefore deriving implications to improve the efficiency of the target value chains both in origin and in destination. It should be highlighted that to the best of our knowledge no references about the topic investigated in this study appear in the specialized literature, which makes this research probably the first attempt to analyze Euro-Mediterranean trade dynamics using the GVC approach from the buyer market perspective.

## **2 Method and data**

### **2.1 Conceptual framework**

This study uses the GVC analysis as a methodological framework which is a largely qualitative method where main focus is on consumer demand, information and value creation. This approach involves the segmentation of the different activities and interactions that occur between the production and sale of a product or service generating cost or value (Labaste and Webber, 2010). It explores physical flows of a product and the simultaneous information flows in order to achieve a better understanding of the constraints and opportunities along different chain segments (Trienekens, 2011). All chain steps aim to respond to consumer demand (Kaplinsky and Morris, 2002). The GVC principle is to identify the needs and consumer desires and consequently deliver the appropriate products, so that the process is no longer about "supply push" but "demand pull" (Fearne, 2009).

A schematic representation of the value chain structure adapted to the products analyzed in this study is presented in Figure 1. Flows of production and commercialization are indicated and supporting agents are outlined. The whole process includes a large variety of firms and activities from input suppliers such as machinery and fertilizers, to production, processing and commercialization both in the domestic and the international markets. Support services are key to value chain upgrading. They include financial services, cross-cutting services such as business consulting and legal advice, and sector-specific services like irrigation and equipment. These services can be provided by actors in the chain, or by stand-alone service providers (USAID, 2007).



**Figure 1.** Schematic representation of the agri-food value chain in MPCs (adapted from USAID, 2007).

The buyer or end markets refer to the venue where the last transactions of the value chain – before consumption - take place and determine the success of a product or service (price, quality, quantity and timeliness). In the present study, final markets are the European and / or the Spanish market. It is advisable to involve the buyers of the final market in developing and implementing strategies to improve the competitiveness of the value chain (Barber, 2008). For suppliers and producers (in this study, the MPCs) it is crucial to identify the opportunities and requirements of a target market in order to meet the demand.

The buying side is the starting point of the analysis of the value chain because it is the side that commands which characteristics a product has to have in order to succeed and which are the key factors in the development and growth of the value chain. Demand in the buying side of the value chain provides information to all other participants. The analysis of the buying side of the market focuses on confirming that there is demand and needs to a) analyze market trends, b) identify the strongest segments offering more opportunities to the value chain, c) study the market positioning: both the own position and the competitors' position and their competitive strategy, and d) undertake benchmarking evaluation so as to identify competitors and compare them according to criteria established by the most relevant buyers.

Moreover, the main purpose for investigating the buyer side of markets is to make easier the decision making process to the other participants in the chain. The information needed for decision making refers to the following factors (Brand et al., 2009):

- Context: challenges facing the domestic value chain must be taken into account.
- Channels: it is of utmost importance to understand the distribution channels and intermediaries in the final markets. This is the group with which the actors of the chain in developing countries, as MPCs, interact the most.
- Customers: understand the needs of this group in order to develop strategies that "pull" the demand and predict which are the most appropriate product attributes.
- Competitors: once customer segments have been analyzed, it is necessary to identify the companies and countries with which the chain competes for market share, in order to perform a comparative evaluation (benchmarking) and to predict the response of competitors in front of strategic moves in the markets in which they operate.

Through the analysis of the buying side of the market it is possible to identify its needs and successfully respond to the demand posed by the rest of the chain and strengthen it (García Martínez and Poole, 2004). In order to do that it is necessary to contact operators and deepen the segmentation, benchmarking and positioning. In the case of the value chain of products from the MPCs, it is an international chain in which the ultimate purchasers are in different EU countries. Industry reports and trade statistics often provide an overview of the market. It is important to understand the macro-perspective, but the buyers are who usually provide the micro-perspective, as the context and nuances of

a particular segment of the market. In an international value chain, such as value chains of food products of the MPCs extending to the EU, there may be many buyers from local agents to importers and distributors.

## 2.2 Data collection process

Primary information has been gathered in 2012 and 2013 using two complementary methods. First, a buyer survey has been conducted through a **structured questionnaire** directed to major Spanish importing and trading companies (102 companies) of orange, strawberry, tomato and olive oil sourced from Morocco, Tunisia, Egypt and Turkey. Products were selected based on their import relevance in Spain and export potential in origin, as well as on other peculiarities like re-exportation activities (transit trade) from Spain to other European and international markets. Some of the items chosen are high-value crops that can be produced and exported by the MPCs, mainly during the winter season when most European countries do not have domestic production (Muaz, 2004). In the case of Egypt, for instance, strawberry and tomato crops are those that provide higher economic returns.

The main purpose of the questionnaire is to obtain information about the procurement process and subsequent commercialization of the selected products, in order to describe the value chains in both origin and destination. Two different questionnaire models have been used: one for oranges, strawberries and tomatoes – products that in Spain have almost the same importers, and another for olive oil with different importers. The design of questionnaires has been carried out taking into account the most important aspects in the value chain from the perspective of the buyer. Both questionnaires are divided into four sections. Section 1 deals with main activities of the company and the importance of selected products in turnover. Section 2 is about re-export activities, in order to explore the extent to which Spain is a gateway to the EU for these products. Indeed, the case of Spain is special and shows important differences with other importing countries. A major difference is that for certain products (as olive oil), Spain serves as a gateway to the rest of the European market. This situation is less frequent for other products (fruits and vegetables). Section 3 refers to value for consumers: consumers' preferences determine which products are to be obtained and, therefore, the orientation of the value chain. Although no consumers have been directly surveyed, the section is intended to investigate the factors that most end users consider relevant. It is assumed that this information is transmitted to retailers and, in turn, to the wholesaler and importer. Finally, section 4 focuses on suppliers and supplies. This section is the most extensive since it includes questions on general sourcing (where from it is imported, where are the highest quality products, which countries are the best suppliers, who poses the greatest threat to these countries), as well as on each of the possible countries of origin. Specifically, data on the supplying countries (Morocco, Tunisia, Egypt and Turkey), their performance and the specific barriers hampering trade development between both regions.

Once the questionnaire has been developed, a **pilot study** over a small sample has been conducted. This study's main objective was to detect possible errors, wrongly formulated questions, inconsistencies, and check if the order of the questions is appropriate. The approximate length of the questionnaire and suggestions or possible changes regarding wording and understanding by the respondents have also been tested.

It was decided to test the questionnaire and the presentation letter both internally and externally. Both were sent to experienced researchers, knowledgeable with design and implementation of questionnaires, in order to check whether they conform to the format of the questions and scales, their relevance, the total length, etc. Afterwards the Marketing Director of a fruit and vegetable importer was requested to fulfill the questionnaire. His contribution has been very valuable as his reflections show the point of view of an expert in the subject matter. For instance, in section 3, it was noticed that importers and wholesalers have information about the preferences of retailers, but do not know "first hand" what the consumer really wants and can only guess from what the wholesaler or retailer say. In conclusion, what retailers and consumers want is quite similar, but there may be nuances. On the other hand, it must be considered that some importers, such as the ones selling counter-season or early strawberries, channel a large share of their sales through restaurants, so that the preferences of their customers are not necessarily the same as the final consumer in a grocery store. Another interesting contribution of the pilot study has been the suggestion of obtaining information also from wholesalers sitting in the "MERCAS" – Spanish network of wholesale markets. They have, in some cases, a more complete overview, and may have fewer reservations and give less biased opinions about the products and their attributes. It is possible that several of the importers are also wholesalers. These last operators would have the most complete overview of them all.

Subsequently, survey results have been supplemented by in depth, **semi-structured interviews** to 12 key experts from the academic, public and business sectors, in order to complete and deepen the analysis of

carried out through the questionnaires.\* Previous to the implementation of the questionnaires and interviews a review of the advantages and disadvantages of the tools of information collection has been done, in order to identify the most appropriate primary techniques for the analysis of the buyer markets (Table 1).

Semi-structured interviewing allowed proper coverage of specific, relevant issues through assigning each issue as much interview-time as it is necessary. It also ensured relatively easy exploration of unexpected events and attitudes. Moreover, the questions were open-ended and allowed flexible adaptation to the needs of the research according to the profile of respondents. In our case, the objective to be attained by conducting the interviews with experts is to get deeper analysis of the buyer side of the value chain, including qualitative aspects. The points covered can be summarized as follows:

- Identify target market requirements and demand conditions and verify if products imported from MPCs meet these requirements. If otherwise, identify the causes.
- Assess the strengths, weaknesses, opportunities and threats in this part of the value chain.
- To understand the causes of the problems identified at this level that may be related to other levels of the value chain and also the competitive advantage regarding further market opportunities in Europe for products from the MPCs.
- To assess the nature of the relationships and interactions between the buyer side of the chain and other links of the value chain.
- To analyze how the local industry (in the MPCs) might be helped in order to integrate successfully within the global value chain and ensure its market through possible interventions.
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**Table 1.**  
Tools for collecting information in buyer markets.

Tool	Description	Advantages	Disadvantages
Interviews	Structured or semi-structured interviews with potential buyers or industry experts	<ul style="list-style-type: none"> <li>- Excellent system to test research hypothesis and to know the point of view of the buyers</li> <li>- Access to qualitative information</li> <li>- Possibility for exploring and testing answers</li> </ul>	<ul style="list-style-type: none"> <li>- Expensive and time consuming</li> <li>- Interviewed subjects may be reluctant to share information and personal perceptions</li> <li>- Possibility of interviewer bias</li> <li>- Qualitative information obtained not always useful</li> </ul>
Focus groups	Meeting with a small and structured group – 5 to 20 persons – representing a target segment of the value chain	<ul style="list-style-type: none"> <li>- Excellent for testing new or abstract concepts</li> <li>- Excellent for pre-testing ideas</li> <li>- Generation of new research hypotheses</li> <li>- Explore new, unrelated issues as they arise</li> </ul>	<ul style="list-style-type: none"> <li>- Small group bias</li> <li>- Must be implemented by trained moderators</li> <li>- Information not enough to take key decisions</li> <li>- Reluctance to share personal beliefs in a group setting</li> </ul>
Surveys	Closed research instrument, designed to investigate attitudes on a product or service. It can include quantitative and qualitative information	<ul style="list-style-type: none"> <li>- Quantitative information furnishes a rigorous basis for further qualitative research</li> <li>- Information easy to tabulate and generalize from assuming large enough sample size</li> <li>- Useful for dealing with sensitive issues</li> </ul>	<ul style="list-style-type: none"> <li>- Limited possibilities to check answers, so questions must be simple</li> <li>- Difficult and /or costly to achieve statistical significance. Costs can be reduced through internet or e-mail distribution</li> </ul>
Direct observation	Observing customers in the buying process in store	<ul style="list-style-type: none"> <li>- Not costly provided customers are unaware of being observed</li> <li>- Real life data</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to ascertain motivations behind behavior</li> </ul>

Source: Adapted from USAID (2008).

\* Both the questionnaire and the interview guide used are available upon request.

### 3 Results and discussion

The quality of the responses has been evaluated taking into account widely accepted criteria in the specialized literature, as the internal consistency of the different views and perspectives provided by the respondents, which has been tested in the case of the qualitative interviews through intertextual analysis (Bonnemaizan et al., 2007). For quantitative variables, the quality of responses was evaluated taking into account an acceptable degree of dispersion. Under these parameters, the results can be considered quite satisfactory since the responses individually examined present substantial internal consistency and, where relevant, the levels of dispersion of the responses are relatively small. In practice, the responses have been of great value and yielded information on many aspects very useful to understand how flows of olive oil, fruits and vegetables from the MPCs actually behave.

#### 3.1 Olive oil buyer market survey

In order not to exclude any potentially olive oil importing company, a polling strategy matching the sample with the universe under study has been used. Surveys were sent to a total of 62 companies covering virtually the entire olive oil market in Spain. The major olive oil marketers are included within this set. Those are the ones which are more likely to import olive oil from third countries, due to the large volumes that handle both in domestic and foreign markets. The responding companies (18) are among the major olive oil trading firms in Spain, which also appear as the major importers from the MPCs. As a result, an acceptable degree of representativeness was achieved.

The information obtained from the questionnaires can be divided into four different areas, according to the survey's design: general aspects of the activity of the company, re-export activities, value of product attributes to consumers, suppliers and procurement. Egypt is not included in the survey's questions due to its very small participation in olive oil flows between the EU and the MPCs.

##### *General features of business activity of the surveyed companies*

The main activity of most of the respondent companies is the export of olive oil. Besides exporting, they produce, store and distribute olive oil. Regarding the turnover share obtained from olive oil sales, most of the respondents answered that more than 50 % of it comes from those olive oil sales. In addition, three companies have confirmed that some of their turnover comes from sales of imported olive oil, and specifically one of them said that imports cover over 75 % of its turnover.

##### *Re-export activity*

One company imports olive oil from Morocco and Portugal and then re-exports 100 % of it to the USA, Italy and Portugal. Meanwhile, another respondent stated that, besides producing in Spain, it imports Tunisian olive oil and re-exports 80 % of it to 35 countries on five continents

##### *Value of the attributes of olive oil to consumers*

Results show that price is the most important attribute for consumers especially in Spain, followed by color. The fact of choosing an olive oil based on whether it is extra virgin, is considered a rather important aspect for the consumer, although in this case there is more disagreement between companies. The same goes for the next two most important attributes for the consumer, health and diet, and above all, flavor. Although on average, companies have responded that they consider those two traits as very important, there are some others that give these two attributes only a relative importance.

There is widespread agreement that acidity is a minor feature to the consumer, which a priori is somewhat counterintuitive considering the documented preference of many consumers for low acidity in this product. Instead, there is a greater dispersion regarding smell and the packaging material. While, in average, those show up as unimportant attributes, some companies think that smell and packaging material are of paramount importance, while others state exactly the opposite. Regarding organic production and cooking performance - frying - some disagreement has also been found on how consumers value these features. In general, these two aspects are considered of lesser importance. Finally, the attributes least valued by consumers are designation of origin and, the least important of all, fair trade.

##### *Suppliers and procurement*

The degree of importance that companies attach to factors to determine their suppliers and location of olive oil sources shows that the most important trait is the quality of the product, followed by price. The quality of service offered by suppliers and their commitment turned out to be pretty important issues for respondents, although there is some dispersion in the answers.

Respondents have given little thought to issues such as production experience, the volume available, the

international certification of the provider (e.g. GlobalGap, ISO) and willingness to cooperate for the common benefit. Although there has been little agreement in these aspects. Regarding experience in post-harvest activities, there is a significant degree of disagreement among respondents. Some consider this extremely important and some others consider it not important at all. Interestingly, investment of suppliers aimed to develop the olive oil market, olive oil variety, understanding of consumer demand, innovation in primary production or innovation in post-harvest activities are considered, in general, as unimportant features.

Finally, factors such as potential impact on rural development and poverty reduction in sourcing regions, as well as experience in the packaging, do not seem to be important for companies in choosing their suppliers. This result is significant because it reflects the little interest of Spanish importers about the potential impact that their business activities may have on the countries of origin.

On the question about which is the best country regarding olive oil production, a certain bias is found. All companies surveyed operate with Spanish olive oil, thus, their response lacks objectivity. They state that Spain is the country that produces the best olive oil. Only one company disagrees somehow with the common position, stating that there are several producing countries having excellent quality olive oils, including Spain, Portugal, Italy and Tunisia. Something similar has been stated to the inquiry as to the location of the best suppliers, more focused on the human and technical factors than on the product itself. As expected, 100 % of the responses have been that the best suppliers are Spanish, again this was because the respondents are Spanish.

Another question in this area, of great interest for the study, refers to potential non-EU competitors, in the production of olive oil and success chances in the European market. In this case there has been greater diversity of views, probably because the respondents felt less involved, as was the case with the previous questions. The results (Table 2) show that the MPCs are considered as Spain's main competitors in the future, certainly because this is a product strongly rooted in the agricultural tradition of these countries. Moreover, in recent years, MPCs have made enormous efforts to boost both domestic production and foreign trade. Also, we should not forget the reference to the so-called "New World" countries (Argentina, Chile...), also possible competitors in the longer term.

Table 2.  
Third countries with greatest potential to compete with Spanish olive oil (ranking).

Competitive potential	Country
1	Morocco
2	Tunisia
3	Turkey
4	Argentina
5	Chile
6	USA
7	Australia

The final part of this section focuses on the results obtained on the suppliers of olive oil from Morocco, Tunisia and Turkey. Only one company has claimed to have imported olive oil regularly during the last three years, particularly from Tunisia.

The next question asks how would the respondent judge olive oil supplies from Morocco, Tunisia and Turkey compared to his best supplier, taking into account a set of characteristics. The characteristics considered of the suppliers are the same as in the question of the degree of importance that companies attach to certain factors when determining suppliers of olive oil and their location.

The surveyed companies believe that, taking price in consideration (price/quality) Moroccan suppliers are as good as their best suppliers – Spanish in this case. Tunisian suppliers offer prices that are almost as good as the Moroccans. In the case of Tunisia, there is more disagreement about how companies consider certain characteristics of local providers compared with the best suppliers. Some consider that the volume available and the quality of service provided by Tunisian suppliers of olive oil are almost as good as their best sources. Others Spanish importers countered that the Tunisian sources are far from being as reliable. Also in the case of Tunisian suppliers there is some dispersion with respect to the consideration of other factors, although not as pronounced as the above mentioned ones; these are volume and quality of service. The surveyed companies believe the Tunisian suppliers are far or very far from being as good as their best suppliers.

The question of specific barriers to trade also is of great interest for this study because it affects directly those participants involved in the value chain in origin. Based on the responses of firms (Table 3), both



traders and other institutions and organizations involved in international trade of olive oil, can find in the comments of Spanish importing companies accurate guidelines for the development of their business. The main barriers perceived in the case of Morocco are the restrictive policy of the EU (even though EU olive oil imports from this country currently are fully liberalized), the poor organization of the value chain along its first steps and high transaction costs in origin. For Tunisia, there are fewer barriers to trade. The most frequently mentioned one is the restrictive policy of the EU. Regarding Turkey, surveys show more references to poor organization of the value chain in origin regarding trade aspects, and strong competition from other exporting countries.

In addition to the above-mentioned findings, in-depth interviews have yielded interesting results. The olive oil imports from MPCs are volatile both through inward processing and tariff quota systems. This is due to changing production and prices in Spain and worldwide. Another strong reason is the availability of different oil grades. Ease working with some providers has also been mentioned. The general belief regarding this question is positive. On the one hand, it is considered that preferential agreements are a useful mechanism for regulating the industry in Spain. On the other hand, it has been stated that if such agreements were extended, imports could increase. For importers commercial advantages exist if increases mean quantity, reliability, safety and competitive price. Community trade legislation appears as the main barrier. MFN (Most Favored Nation) tariffs for importing olive oil from third countries are very high, making commercial transactions unfeasible. The only options for traders are the inward processing system (imports that take advantage from duty-free access provided they are re-exported in equivalent quantity to extra-EU countries) and the use of preferential quotas. But those systems have limitations due to the terms of the agreements.

**Table 3.**  
Specific barriers to trade in olive oil.

	Morocco	Tunisia	Turkey
Restrictive EU trade policies	X	X	X
Poor organization of the first stages of the value chain	X	X	X
Strong competition from other exporting countries	X	-	X
Lack of adjustment in supply and demand schedules	-	-	-
Euro Exchange-rate	-	-	-
High logistical costs (transportation, maintenance)	X	X	X
High transaction costs	X	X	X

X: relevant, - : not relevant.

Besides, an excellent relationship between Spanish importers and foreign suppliers has been established. Even some cases of implantation of Spanish companies in supplying countries have been registered. Spanish importers have no influence in determining what is produced and product characteristics. The variables that affect trade are export availability, supplier reliability, logistics, quality and price. The shipments' schedule and quantities exchanged are related to business opportunities.

It is mentioned that in some MPCs producers are geographically widely dispersed and limited quantities of oil are available for sale. Insecurity and poor logistics have negative influence on business opportunities. In some cases, produce sourced in these countries may have problems with the parameters required by the EU. The longer the chain is more are the needs for organization, transparency and security. The main ways to purchase olive oil from these countries are using regular or occasional contracts with local producers, and through intermediaries or agents, both local and international. The most important limitations in the infrastructure of value chains in those countries are the above mentioned (transport, communications, etc.), and also availability and reliability of supplies regarding their quality, quantity and competitive prices. If present levels of production and consumption in the EU are maintained, there will not be much room for imports. Although it is believed that whenever there is a comparative advantage in origin, Imports would be an appealing option. It is noted that certain qualities can find niche markets in the EU.

It is worth noting that in the Spanish case, the flow of imports is closely correlated to prices in the domestic market (Spanish price largely determines world price). Higher volumes flow into the internal market when prices are high, being that situation attractive to both exporters from the MPCs and to national importers. High prices can offset logistic costs (transportation, maintenance) and transaction costs (information, coordination, control). When prices are low, it is not possible to cover importation costs and trade flows stop.

### 3.2 Fruit and vegetable buyer market survey

Questionnaires were sent out to the major companies marketing and potentially importing fruits and vegetables into Spain. Most recipients were companies operating simultaneously with oranges, strawberries and tomatoes. Forty companies were asked to fill the survey. Contacting and obtaining responses was done in the same way as in the olive oil study. Six valid responses to the questionnaire were obtained from the main importers of fruits and vegetables sourced from MPCs. Useful information was obtained also through informal discussions with number of stakeholders.

The information sought is dispersed and not easy to get, because:

- Spain is basically the main European exporter of fruit and vegetables. This idea, although partly refuted by major import figures, has become part of an image of the industry, very useful when looking for public support. Operators do not want to tarnish it, and react with extreme discretion when required information on this point.
- Traders consider these details as confidential and critical to their business, thus being reluctant to give them.
- Product purchased - and even produced - by Spanish agents in third countries move or not across Spain. In that last case the produce, despite being an essential element for maintaining the system - even for the maintenance of Spanish production - falls outside the perception of statistics.
- The importation of fresh produce from non-EU countries is matter of major trade disputes, social and power clashes, so the parties involved – even some of the surveyed companies - have biased visions of the problems. In any case, the information gathered has proved very useful in studying the Spanish market for imports of fruits and vegetables from the Southern Mediterranean countries, because it has been obtained from key players in the sourcing and marketing process for these products. The Spanish network of wholesale markets holds an important market share for these products - about 60% of total fruit and vegetable sales (Mercasa, 2011). Specifically, the fruit and vegetable market in Madrid is the largest in Spain and performs 25% of the overall trade of these products. It is also one of the major markets in Europe and the world, in quantity and turnover, second only to Rungis market in Paris, who ranks as the largest wholesale market of fruits and vegetables in Europe. Moreover, among the most traded products are oranges and tomatoes, both on the focus of the present study.

The information handled is basically qualitative and is of great interest for better understanding these product flows between Spain and MPCs. The companies surveyed are working or have worked with Moroccan tomato. They maintain that Morocco is the country outside the EU with the greatest potential to compete in the European market. Further, traders emphasize the strong competition capabilities of EU member states like The Netherlands and Belgium.

As for oranges, being the surveyed importer companies sourcing their products from the Southern Hemisphere, they agree about the high potential of South Africa as a provider of counter-season oranges. The traders believe that strong competition from other exporting countries should also be considered. Such as American countries (Peru, Ecuador, Brazil), or others offering counter-season fruit (Argentina, South Africa, Uruguay), which prices are very attractive to the importer because they have the produce in a moment when Spanish domestic supply is absent. Strawberry production in the north of Europe (Netherlands, Belgium) does not coincide in time with the Spanish production. Covering a similar schedule, Poland has in recent years greatly increased both its production and intra-EU shipments.

Regarding consumer value of certain traits, the degree of agreement on the importance of physical attributes of the product is to be highlighted. In the case of oranges, consumers agree on the importance of a juicy, sweet-acid balanced product with an adequate size and free of skin spots and other defects. Other factors like the quantity in each package and the materials used are quite important. Price is also an essential factor for consumers, while organic production and country of origin are not key traits at the time of purchase.

In tomatoes, the importance of physical attributes such as freshness, color, variety, size and smooth skin are the most important for the consumer. Buyers also highlight the factors associated with packaging, shelf life, and sanitary guarantee. The country of origin is more interesting in the case of oranges. Organic production does not appear to be an important factor.

As for the importance that companies attach to certain factors when choosing the country of origin and suppliers of products, a high degree of consensus has been found. Companies granted a high degree of importance to price, volume available, the quality of the product and the service, commitment of suppliers with the buying company and international certification of the supplier. There is also consensus that such factors as the variety of products, experience and degree of innovation in production, post-

harvest and packaging, as well as in understanding the demands of consumers are less important. Factors such as the impact on rural development at source and reducing poverty in local communities are not considered essential when working with suppliers from third countries. Table 4 summarizes the main barriers and constraints to exports of fresh produce from MPCs to the EU. These barriers and constraints largely derive from importers' preferences usually imposed to exporters who in many cases cannot cope with them.

**Table 4.**  
Factors searched in MPC suppliers by Spanish fresh produce importers (relative importance).

High	Moderate	Low
Price	Variety of products	Rural development in origin
Quantity available	Experience	Poverty reduction in origin
Quality	Innovation	Sustainability
Service, commitment	Post-harvest, packaging	--
Standards, certification	Consumer preferences	--

In the case of Moroccan tomato suppliers, when importers were asked how they would compare them with respect to their best provider, the assessment is far from positive. This reflects the fact that Moroccan actors need to improve their production procedures, handling and marketing of tomato.

The specific barriers that impede sourcing in the countries studied are diverse. First of all, the companies believe that there is poor organization of the value chain in origin, affecting negatively the import activity and calling into question the choice to work with these countries. It does not happen generally at the production stage, where procedures are becoming more modern including the use of higher quality seeds, pesticides and more rational management. It is in the subsequent stages of the value chain at source where the biggest problems show up.

The respondents indicate that improper maintenance of the cold chain is the main problem in the logistics of the value chain. The level of investment in cold storage and vehicles furnished with the appropriate degree of cooling is in many cases insufficient. Especially sensitive perishables such as tomatoes and strawberries, in many cases, arrive at their destinations in very poor condition, with the consequent economic loss caused when discarding an important fraction of the goods. For example, some people interviewed have reported cases in which trucks with Moroccan strawberry have arrived in poor condition, making them virtually impossible to market domestically, let alone to re-export them.

Events like this discourage trade relations with these suppliers, with loss of confidence and motivation to work with them. But what is worse is that there is a "contagion" effect relative to other suppliers. The bad reputation created by isolated incidents has a potential negative impact on trade relations with other suppliers. Importers and wholesalers even more, are wary to work with products from certain sources, in this case Morocco. But they have also been negative cases in other countries. Items like oranges, Valencia Late variety, have arrived occasionally from Egypt in very poor conditions due to lack of cold. Since then, the company decided not to continue working with Egyptian suppliers.

Another specific barrier to imports from the MPCs is related to supply and demand schedules. There is a clear mismatch between the dates, since the production of MPCs coincides with the Spanish production, especially with the Canary Islands and Almeria, which are the main tomato growers and exporters. There are also overlaps – but to a lesser extent – in the dates of production of oranges and strawberries. This makes unattractive for Spanish importers to buy from foreign suppliers. Spanish demand and even much of the European consumption are covered by domestic sources.

In the case of Spain, these barriers to trade, and mainly the abundant domestic supply, account for the relatively little interest in imported tomatoes, and also in imported oranges and strawberries, both from

Morocco and other Southern Mediterranean countries. Spanish importers are not compensated due to customs duties, high transaction and logistical costs (transport, maintenance) that involve bringing these products, which coincide precisely with the national cropping season.

High logistical costs are often mentioned as a barrier when deciding to import fruits and vegetables from these countries. Although the tariff quotas are designed to avoid imports matching the productions of Northern Europe (Netherlands, Belgium), there are some months (April/May) that the Spanish early production is protected from the Moroccan competition. In those months, EU-quotas are much lower compared to previous months. The French market absorbs more than 90 % of EU imports of Moroccan tomatoes. More than 80 % of those imports fall between October and March. 86 % of French imports are made via the market of Saint Charles, located in the French town of Perpignan. The months of highest trading intensity for the French domestic market are December, January, February and March.

Another barrier that has been identified is that often the suppliers from MPCs demand advanced payments for the proceeds. The main reasons to demand payment in advance are lack of trust in the client and/or lack of liquidity. Lack of confidence is common in unusual transactions, when a long term relationship between importers and suppliers does not exist. And the lack of liquidity may be because the suppliers themselves, especially if small sized, ask to be paid at the time, even in cash. If the supplier recognizes that he/she needs liquidity, rather than paying him/her up front, it could be possible to negotiate a prompt payment on the arrival of the products. This demand for prepayment from the suppliers of the Southern Mediterranean countries can be an entry barrier to new importers, which in some opinions is not entirely negative, because according to them, that would prevent the product or even the origin is "spoiled" with too many importers. In long term relationships, prepayment is not as common. If advance payments are made in small percentages in occasions, it is to help suppliers avoid liquidity bottlenecks.

Spanish tomato imports are not quantitatively very important, because intensive production in Spain supplies the domestic market and the rest of the EU. Imports from Morocco are to cover shortages and take place either through central purchasing of large retailers who need extra supplies at peak times, or by certain Spanish companies operating in Morocco.

Morocco provides an average 35 % of Spanish imports of tomatoes, equivalent to less than 3% of the tomatoes consumed in Spain. The rest of foreign tomato comes mostly from Portugal, The Netherlands and Belgium. At the level of wholesale markets, the volume of tomatoes from Morocco does not exceed 0.5 % of total sales volume. As a consequence, its direct impact on the domestic market is low. In some years, presence of tomatoes from Turkey and Egypt have been reported, but in very small volumes and sporadically. Since 2007 there has been almost no presence of tomatoes from these countries in the Spanish market. In the case of Turkey, despite enjoying a customs union with the EU, horticultural products (and agricultural trade in general) are not included because it is considered a sensitive industry by certain member states (Spain and The Netherlands). Preferential agreement with Morocco provokes trade diversion to this country. In addition, the main destinations of Turkish tomato exports within the EU are Romania and Bulgaria (75 %), followed by Austria, Hungary, Poland and Greece, given the geographical proximity, which considerably lowers transportation costs.

Therefore, it can be stated that the Turkish tomato does not have a significant presence in the Spanish or French markets, markets supplied mainly with Spanish and Moroccan produce. However, there is a consensus among experts of the tomato sector, who believe that Turkey still has enormous potential as producer and that progress in the negotiations for accession to the EU may lead to important changes in the current EU tomato market.

As for Egypt, this country devotes its tomato exports mainly to the market of Saudi Arabia. Regarding its European sales, Egypt has focused on northern countries such as The Netherlands, which for logistical reasons and price are more attractive than Spain for them.

Regarding the presence of oranges from the MPCs in the Spanish market, only the presence of Moroccan oranges is noticeable, although its volume has declined in the last decade following Spanish production increase. Part of this decline is also due to the fact that Moroccan exporters are focusing on exporting clementines, higher-value fruits and whose potential market is more viable, and other markets like Russia. Imports from Morocco represent only an average of 2.5% of total imports.

The main attraction of Moroccan oranges is the price, but for many Spanish operators there are not enough sanitary guarantees and quality is, in many cases, not high. Moreover and as previously mentioned, the malfunction of the value chain at the source runs against incentives to work with suppliers from the MPCs. Not only due to post-harvest handling but also to big cultural differences in the way of doing business. One of the recurrent comments is about a different conception of "time". Many importers

do not work more often with products from these countries by the lack of reliability in terms of delivery times, as there have been situations when the products have not arrived on the agreed dates, with consequent damage to the marketing activities of their businesses. Also worth noting is that some of the blame for the delays lies with the complex customs processes in some countries. The presence of other products originating in the MPCs is more common on the Spanish markets. Moroccan products that are handled more frequently are green beans, 'padron' type peppers, and onions.

Primary questionnaire information has been complemented through semi-structured in-depth interviews. The informants have been the Spanish Federation of Associations of Producers and Exporters of Fruits, Vegetables, Flowers and Live Plants (FEPEX), the interprofessional organization of fruit and vegetables growers and traders from Andalusia (Hortyfruta), the Coordinator of Organizations of Farmers and Cattle Raisers (COAG) in Murcia, and the Ministry of Agriculture, Food and Environment (Magrama). All these organizations and institutions have been interviewed at high levels.

It should be emphasized that FEPEX and Hortyfruta, representing the voice of horticultural enterprises in Spain, protect the interests of their members, i.e. growers of Spanish fruit and vegetables. It is important to consider this fact when evaluating their response, taking into account that a large share of the Spanish horticultural sector believes that EU imports of fruits and vegetables from MPCs compete strongly with the Spanish production and exports, enjoying unfair advantages.

Results obtained through in-depth interviews stress the fact that the main driver of imports from MPCs is low prices, brought about in turn by the preferential trade agreements. While trade agreements play a key role, it should also be noticed that exports from MPCs are determined by production capacity, and this in turn depends on the availability of water, land and suitable climate. Entry barriers to the Spanish and other EU markets are the same, because it is a single market. It is emphasized that although the main barrier are entry prices, a widely extended opinion is that those dispositions are not very effective, since they are, very often, not respected. Sanitary barriers are also not considered as relevant.

Improved food security, prevention of occupational hazards, improved hygiene practices (mandatory HACCP), traceability, are obvious strengths of Spanish horticultural companies. Some of these strengths can be considered in occasions weaknesses regarding competition of the MPCs. Another weakness is the difficulty of access to other markets (Asia, North America) due to the existence of phytosanitary and bureaucratic barriers.

As for citrus, good management and adjustment of supply to demanded varieties are clear strengths of Spanish citrus companies. The weaknesses are the high costs of production and harvesting. Moreover, mechanized harvest of fruits for the fresh market is not viable because it affects quality and requires new planting systems.

Vegetables endure fewer legal requirements in relation to marketing standards. EU growers must comply with Regulation (EC) 1221/2008 establishing minimum quality requirements. However, production in the MPCs is governed by voluntary standards established by the CODEX and the United Nations (International ECE/UN). Citrus do not suffer such constraints. Poor chain organization and poor time management are major drawbacks. More specifically, lack of market intelligence, information, and balance of bargaining power are mentioned.

The most common sourcing method in the case of vegetables is commission contracts. A relative relocation of production to those countries has been noticed. In the case of citrus, there is a relationship between brokering and international contacts. Another possibility is investment in projects in these countries.

It is considered that the most important limitation in terms of infrastructure is the transportation cost involved. It is thought that the main limitation of the infrastructure of the value chain in these countries is that sales systems based on commission do not ensure profitable prices. And finally, it is believed that the limitations are linked to the overall conditions in these countries and not only in the chain.

It is generally noted that exports of MPCs do not have any positive impact on sustainability in origin. On the contrary, it is argued that these exports promote unsustainable loss of scarce resources (water). Moreover, wages are low and the holdings are mostly held by very few large companies, not by small farmers.

Elaborating on this point, it can be established that the well-known dual structure of agriculture in these countries, where only a fraction of farm businesses have the volume and technical capacity to meet the requirements of quantity and quality of the product requested by the importers, would prevent the benefits of this activity to be extended to the majority of the population. This possibility, suggested by one of the experts consulted, has a logical basis. Once excluded from the exporting circle small and very

small units, the only way that the value generated through exports reaches a significant number of people are salaries, and those are remarkably low by European standards.

However it is a known fact that, at the macroeconomic level, the GDP growth in low-income countries (those having less than US\$ 20,000/capita/year) correlates with improved rates of overall quality of life. From that levels upwards, a continued improvement of these indicators correlate more closely with income distribution. The countries under study are below that limit, so a simple increase of the GDP should have positive effects for large parts of the population (trickle-down effect).<sup>†</sup>

Further analysis was performed for exporting regions of Morocco by Santiago Alcalde (2011). The findings of this study show that between 1984 and 2001, the largest agricultural export region (Sus-Massa-Draa) has achieved the second highest reduction in poverty among Moroccan regions, and the second exporting region (Tadla Azilal), also achieved significant progress. The picture is not so clear in exporting regions of lesser importance like Garb-Chrarda-Beni-Hassan or Marrakech-Tensift-Al Hauz. The results are also masked by the percentages of urban population and internal and external migration rates. But in general, those results indicate that a strong export performance has improved overall living conditions in rural areas.

There is consensus that the future of imports from MPCs is uncertain due to the lack of sustainability, as the current growth is based on environmental and social dumping. In citrus, it is stressed that in times of crisis, the price factor plays in favor of imports, and also that there will be increases in production and exports, especially from Egypt and Turkey. On the other hand, the evolution of exports have much to do with the development of these countries, because if the sociopolitical situation moves in favor of sharing wealth and progressive democratization, then attention has to be paid to the development of the internal market.

In addition, subsequent in-depth interviews have yielded complementary results as summarized below:

#### *Comparative advantages*

In Northern Africa and other southeastern Mediterranean countries the absolute and relative cost of production factors are different from the European costs. In many occasions this results in lower production costs, since the factors that are required by agricultural activities are not under the tension generated by alternative activities there. In particular the abundant unskilled labor is not required by other sectors in an imperative way. This is a comparative advantage with respect to European operators that in cases is delated by higher imported input costs and transport costs.

#### *Transportation and logistics*

Fruit and vegetables are relatively homogeneous products - except qualitative differences that any modern agriculture can certify. Regardless of these developments and of trade barriers mentioned above, the logistical advantages emerge as a decisive factor in the ability to compete. Thus, the geographical position of Morocco helps to establish this country as a preferred supplier to Spain and France. While Turkey and Egypt, the other two major exporters under study, direct their exports to Russia, Eastern Europe and the Middle East, respectively. The advantages of maritime and rail systems for the delivery of this kind of loads have been repeatedly pointed out, advantages which result in lower prices on arrival. However, it must be taken into account that the realization of those benefits is not immediate, and both rail corridors as "sea highways" require significant investment and organizational and institutional efforts.

#### *Seasonality*

The seasonality of production - and consequently trade - is an inherent characteristic of the agricultural industry. In the case of oranges, in September a three pronged problem arises in the Spanish market: a) the presence of counter-seasonal produce from the Southern Hemisphere, which is still coming under the MFN clause, i.e. with low tariffs that will rise only from 15 October onwards; b) the market entry of the new Spanish harvest (climentines) and c) the presence, actual or potential, of a certain contingent of orange from North Africa. This last contingent can reach the cupboards under favorable conditions according to the Mediterranean Agreements, and those quantities could increase in the future. It should be noted that there is a claim from the Spanish industry demanding to advance the seasonal increase in tariff protection from 3% to 16% "ad valorem" from October 15<sup>th</sup> presently to September 15<sup>th</sup>. This clearly indicates the industry's concern about competition of imported produce, and the efficacy of these protection mechanisms. This advancement of date for the enforcement of protection mechanisms does not include, however, the produce from MPCs that are subject of the present study.

<sup>†</sup> Average GDP/inhabitant, measured by purchasing power parity for Morocco was US\$ 4 800/year, for Egypt US\$6 200/year and for Tunisia US\$9 500 in 2010 ([www.indexmundi.com](http://www.indexmundi.com)).

### *Competition in European markets*

Competition with fresh produce from MPCs takes place in the target markets of Europe, where imports are able to displace the Spanish product, and not within the Spanish domestic market itself. The trade has to deal with a single market. Besides the logistical determinants discussed in previous sections, it is obvious that the North African product can have price advantages. The root of these advantages is familiar: lower wages, lower standards - especially in the aspect of the use of pesticides, almost nonexistent environmental requirements. The high demands placed on European pesticide manufacturers in order to authorize the sale of these products determines that the big chemical companies have no interest in marketing the products whose active ingredient is not in their exclusive possession. These are precisely the cheaper, generic agrochemicals that can be found in the markets of third countries. The lower social security standards also make labor cheaper. Labor use is strongly reflected in the costs of horticultural products and olive oil, because their cropping and recollection require a large number of working hours.

Spanish companies in price disadvantage can compensate on the basis of good management, which is reflected in timely delivery and produce traits tailored to customer requirements and in a good adaptation of the varieties demanded. Meanwhile the great European food retailers balance their ever-present demands of prices to the risks arising from poor management (lack of punctuality of deliveries, for example), diversifying its sources of supply. In this sense, the entry of the imported product is made on site, close to the consumption areas, generally at the level of distribution platforms belonging to retail chains.

The Moroccan export sector, using Spanish technology, does not have usually difficulties in achieving quality standards similar to the European ones. Another matter is that those levels could sometime become mainstream in a country with a dual production structure.

### *Socio-economic consequences of trade movements*

The structural duality of agriculture of the countries studied and in Morocco in particular has been mentioned as a reason to believe that the export activity, which involved only companies of a certain size and good technological development, is not capable of generating noteworthy economic improvements for a majority of the population. While this consideration may be accurate, some studies put that seemingly evident conclusion into question.

## **4 Conclusions and implications for policy and practice**

This contribution provides valuable insights into the structure and dynamics of value chains of selected food products sourced from MPCs with destination to Spain and by extension other European countries. The primary information obtained through surveys and in-depth interviews can be considered new, representative and relevant to the problem investigated. The approach used has been efficient in fulfilling the research objectives. It also complements quantitative trade studies and contributes to overcome part of their weaknesses.

The findings show some differences depending on the product and the country studied. In the case of olive oil, the Spanish market is an attractive destination for producers from Morocco, Tunisia and, to a lesser extent Turkey. Production level and prices in Spain largely explain import levels of olive oil from these countries. Besides, taking into account the volatility in world food prices, sudden changes in trend are also possible. Moreover, many entrenched relationships between Spanish companies and producers, suppliers and brokers from Morocco and Tunisia exist, either under the form of regular or casual contracts. These relationships can continue and expand while Spanish companies place themselves as world leaders on the olive oil trade. This leadership would result in an acceleration of the international expansion of Spanish companies in third countries, seeking supplies of olive oil at competitive prices to help in enhancing their business position worldwide.

Regarding fruits and vegetables, the quantities imported are relatively small and are channeled through the centralized purchasing systems of large retailers (especially those of French origin who buy in the market of Perpignan) and Spanish companies with investments in third countries. Both types of import cover occasional shortfalls. In any case, it is difficult for tomatoes, oranges and strawberries from Morocco, Tunisia, Egypt and Turkey to find a significant market window in the Spanish market. A different issue is the potential in other fruit and vegetable markets within the EU, where produce from the MPCs and other Mediterranean countries are gaining presence.

Large retailers control most of olive oil and fruit and vegetable trade, with some differences between both types of products. The rise of olive oil distribution brands and the use of this product as a low-priced

product to attract shoppers are changing substantially the trading landscape of the sector. These facts have to be taken into account by producers and exporters of MPCs when planning their business strategies and models. In the case of fruits and vegetables, consumers' buying habits, who are increasingly looking for convenience, have also contributed to the increase in market share of large retailers. A challenge here is to attract consumers to the store using the good image of the fresh produce section, making great efforts to provide quality and variety at moderate prices.

The challenges to be solved at the origin of the value chain are of central importance to be able to grow in the buyer markets. Value chain management in the MPCs studied needs further organization, transparency and security, keeping transaction costs low at the same time. Improvement in infrastructure and logistics is also needed in order to avoid obstacles in the flow of products along the chain. These improvements include transport and communication networks, power supply, storage facilities and uninterrupted cold chain.

Knowledge about customers is necessary to lay out strategies aiming at developing demand. Account on the preferences of consumers when buying must be taken on the first place. Shoppers consider very important price and physical attributes. In oranges, sweet-acid flavor, juiciness, good color and size, and skin free of blemishes are of utmost importance. In tomatoes, desired traits are freshness, color, variety, size, smooth skin, and sanitary certifications. Other important factors are quantity and packaging material. In olive oil, the most important attributes for consumers are price, color and extra virgin type. The fact that the price is most important for Spanish consumers may explain in part why the retail uses olive oil as a product to appeal to shoppers. From the point of view of the MPCs growers, the importers are the customers. These also have their preferences for the attributes of supplied products. In the case of fruits and vegetables price, volume available, and international certification are of central importance. Regarding olive oil suppliers, product quality and price are core characteristics. For both types of products the quality of service offered by suppliers is of central importance.

It is essential to have a thorough knowledge of potential competitors in order to benchmarking them and make predictions. For Spanish operators, the main competitors for tomatoes are Morocco, The Netherlands and Belgium. For oranges, main competitors are Egypt, Morocco and Turkey, and South Africa in counter-season. In the case of olive oil, main competitors include Southern Mediterranean countries being Tunisia and Turkey the most relevant.

The relevance of the Partnership Agreements including tariff quotas has to be noticed. In the case of olive oil, larger tariff quotas would encourage imports of olive oil from MPCs. Regarding public infrastructure, as mentioned earlier, there are major improvements in transport networks and telecommunications, logistics (cold chain maintenance, power and storage). Besides, the organization of the value chain in supplying regions should improve.

Support structures (associations, export organizations) exist in the MPCs under study, but their work also should reach the primary stages of the value chain, especially where grower's organizations are relevant and where economies of scale could be enhanced. Moreover, in the case of olive oil, compliance with quality standards should be improved. To this end, technical training and certification organizations would be helpful.

In general, the relatively poor organization of the value chain in the MPCs adversely affects foreign trade activity. An upgrading of the chain processes, such as improving the cold chain or reducing waiting times at customs could boost trade flows. A successful example is the upgrading in the quality of certain products imported from the MPCs, such as olive oil and tomatoes. With regard to poverty reduction and rural development in origin, the chain should improve functionally so that the value is distributed more equitably and rationally along the chain, starting at the source.

Chain governance tries to explain the dynamics of power, learning and leadership throughout the value chains studied. In the case of olive oil, as Spanish firms have a position of world leadership, cases of balanced governance and even cases of hierarchical relationship where the buying company owns the supplier in origin through vertical integration are not infrequent. As for market power relationships and risk-benefit distribution, the value chains studied are clearly driven by the buyer. In the case of fruits and vegetables the driver is mainly the retail industry. Regarding the olive oil trade, large retailers are increasingly concentrating market power, although here the Spanish processing companies still endure the battle. Examples of a chain dominated by producers exist and profit sharing would probably be fairer, but for such a situation to happen the product should be highly differentiated (such as olive oils organically produced or having a defined geographical origin).

As in any value chain, cooperation is to be improved within the studied chains, starting by working for common understanding of customer demands by suppliers of MPCs. In addition, greater interest in



achieving more positive impact on poverty reduction and rural development in origin should be shown. In the case of fruits and vegetables, where strong competition between Spain and the MPCs exist, increased cooperation could help to regulate the European market so as not to oversupply the market and make prices plunge. Also in connection with cooperation, sharing information on areas cultivated, yields, prices, etc. could help in making predictions and better calculating each season's parameters.

Finally, it should be noted that a difficulty faced in this study has been obtaining responses from certain contacted fruit and vegetable companies. This is due to the very nature of the sector in Spain. It is all about fresh produce where in general production periods in Spain and in MPCs overlap. There is a fierce competition for market share in export markets. Most of the Spanish sector does not approve trade agreements between the EU and MPCs in agriculture, arguing that opening the European market for fruits and vegetables to these countries harms the interests of Spanish producers and exporters. Many of the arguments, especially in reference to Moroccan tomatoes, are based on the presumption of social dumping in origin and of the use of plant protection, quality control and residue regulations that are less stringent than those required from European producers. Moreover, there are allegations of breaches of minimal import prices and of the agreed import quotas. These statements cause rejection of trade agreements and allegations of unfair competition, despite the objective fact that fruits and vegetables from MPCs have not a big share in Spain. In addition, the approval in 2012 by the European institutions of the new Partnership Agreement between the EU and Morocco allowing greater, reciprocal trade liberalization in many food products including fruits and vegetables has reinforced these attitudes in several production and trade organizations. This high sensitivity in the Spanish sector partly explains why many companies are reluctant to comment on the imports from competitors, even if they have business contacts with these countries.

Regarding future research, similar assessments of the situation in EU countries that are exclusively importers and consumers of agri-food products originating from MPCs (UK, Germany, for instance) would be very insightful. Moreover, collection of more primary information from the retail business could be useful as part of imports from MPCs is made through retailers' purchasing organizations and platforms. Another interesting line for future research would be to extend the analysis to Euro-Mediterranean trade flows of other products that may have significant presence in the Spanish and other European markets like peppers and beans from Morocco or nuts and hazelnuts from Turkey. Methodologically, due to the very nature of EU-MPC trade and geo-political relations it would be judicious to pay closer attention in tackling potential discrepancies between operators' perceptions and actual facts.

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## References

- Amador, J., Cabral, S. (2016). Global Value Chains: A Survey of Drivers and Measures. *Journal of Economic Surveys*, **30** (2): 278-301.
- Barber, T. (2008). Engaging End-Market Buyers in Value Chain Development. Briefing Paper. USAID.
- Bonnemaizan, A., Cova, B., and Louyot, M-C. (2007). Relationship Marketing in 2015: A Delphi approach. *European Management Journal*, **25** (1): 50-59.
- Brand, M., Donahue, N., and Henning, R. (2009). Value Chain End-Market Research Toolkit. Washington DC, OTF Group and Eco Ventures International.
- European Commission (2015). Agri-Food Trade Statistical Factsheet: European Union – Mediterranean Basin Countries. Brussels, DG Agriculture and Rural Development.
- Fearne, A. (2009). Sustainable Food and Wine Value Chains. South Australia, Adelaide Thinkers in Residence, Department of Premier and Cabinet.
- García Martínez, M., and Poole, N. (2004). The development of private fresh produce safety standards: implications for developing Mediterranean exporting countries. *Food Policy*, **29** (3): 229-255.
- Giovannetti, G., Marvasi, E. (2016). Food exporters in global value chains: Evidence from Italy. *Food Policy*, **59** (February): 110-125.

- Kaplinsky, R. (2000). Spreading the gains from globalisation: What can be learned from value chain analysis? *Journal of Development Studies*, **37** (2): 117-146.
- Kaplinsky, R., Morris, M. (2002). A Handbook for Value Chain Research. Ottawa, IDRC.
- Labaste, P., Webber, C. M. (2010). Building Competitiveness in Africa's Agriculture: A guide to Value Chain concepts and applications. Washington DC, The World Bank.
- Mercasa (2011). Alimentación en España 2011. Madrid.
- Mattas, K., Galanopoulos, K., and Bourakis, G. (2015). Agriculture and the Evolution of Agricultural Policies in the Mediterranean Partner Countries: Putting a Retrospective Overview in Context with Future Prospects. In Petit, M., Montaigne, E., El Hadad, F., Garcia Alvarez-Coque, J.M., Mattas, K., Mili, S. (Eds.), Sustainable Agricultural Development. Challenges and Approaches in Southern and Eastern Mediterranean Countries. Heidelberg, Springer: 145-169.
- Mili, S. (2008). Agricultural Liberalisation and Euro-Mediterranean Cooperation Agenda. *New Medit*, **7** (3): 2-3.
- Muaz, S. (2004). The Impact of Euro- Mediterranean Partnership on the Agricultural Sectors of Jordan, Palestine, Syria, Lebanon and Egypt: The Case of Horticultural Exports to EU Markets. Paris, Forum Euro-Mediterranean des Instituts Economiques.
- Santiago Alcalde, J.J. (2011). Efecto de los acuerdos comerciales agrícolas entre Marruecos y la UE sobre la población marroquí. Almería (Spain), Fundación Cajamar.
- Trienekens, J.H. (2011). Agricultural Value Chains in Developing Countries: A Framework for Analysis. *International Food and Agribusiness Management Review*, **14** (2): 51-82.
- Tudela Marco, L., Garcia Alvarez-Coque, J.M., and Martinez Gomez, V. (2015). Issues in Trade Liberalisation in Southern and Eastern Mediterranean Countries. In Petit, M., Montaigne, E., El Hadad, F., Garcia Alvarez-Coque, J.M., Mattas, K., Mili, S. (Eds.), Sustainable Agricultural Development. Challenges and Approaches in Southern and Eastern Mediterranean Countries. Heidelberg, Springer: 171-196.
- USAID (2007). The Value Chain Framework. USAID Briefing Paper.
- USAID (2008). End-market Research Toolkit. Upgrading Value Chain Competitiveness with Informed Choice. USAID Publication.