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*The socio-economics of origin labelled products in agro-food supply chains : spatial, institutional and co-ordination aspects.*

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## **Origin labelled products, reputation, and etherogeneity of firms**

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### ***Abstract***

*Analysis of reputation through “quality premia” models enhances the ability of explanation that the reputation concept has in the case of typical products. The commonly accepted meaning of reputation as simply “notoriety” becomes inadequate, and the information mechanism it generates becomes associated with a set of (firm)product-specific investments sustained by the firms in the supply chain of the typical product. Within this framework, we can improve analysis of the process of establishment, development and exploitation of the typical product in the context of the great transformation of the agro-food system and of the growing differentiation of the firms and interpret problems caused by the processes of institutionalization of reputation by means of protection of designation of origin of the product.*

### **Introduction**

In a generic sense, the term “reputation” expresses what is generally said or believed about the abilities and/or qualities of somebody or something. In terms of commercial exchanges, reputation denotes notoriety and/or recognizability of a firm, and/or of a product produced by this firm.

Economic theory points out the role that reputation can play in the solution of certain problems that arise from information asymmetry between producer and consumer in the high quality goods markets. In this regard, literature on typical agricultural products makes reference to product reputation as a factor which can yield a price “rent” based on the time-honored tradition and excellence of the product. This, however, often requires the use of instruments of legal protection of the product name

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which “institutionalize” the reputation and the support of a suitable (individual or collective) strategy for promotion. However, in the literature on typical products, reputation remains a fuzzy concept, often because of its individual characteristics with respect to the personal reputation of the firm; these individual characteristics primarily lie in the process of its establishment and in the collective character which reputation assumes.

This paper presents a discussion on the concept of reputation applied to the case of typical products, starting from a systematization of some relevant variables determined by means of “quality-premia” models of reputation [Klein and Leffler, 1981; Shapiro, 1983]. Based on this frame of reference, the process of establishment, management and institutionalization of the reputation of a typical product will be interpreted, among other things, in order to point out the effects and difficulties of employing the instruments with which the European Union protects typical products (Protected Designation of Origin - PDO - and Protected Geographical Indication - PGI). Examination will be based, in part, on the case of Tuscan extra-virgin olive oil which, in Italy, enjoys great renown and has recently obtained the EU PGI.

## **1. Reputation and “quality premia” models (QPMs)**

The concept of reputation is widely used in the literature of economics, both in game theory [Wilson, 1985] and in analysis of markets characterized by imperfect information [Stiglitz, 1989; Tirole, 1989]. Specifically, “quality premia” models of reputation (QPMs) [Klein and Leffler, 1981; Shapiro, 1983; Allen, 1984; Rogerson, 1987] refer to the case of repeated purchases of “experience” goods (whose quality cannot be appraised before purchase, but only after consumption) in the presence of information asymmetry and where producers can choose the quality level supplied in each period<sup>1</sup>.

By reputation Shapiro [1983] means expected quality from the point of view of consumers: “individuals extrapolate past behaviour to make inferences about likely future behaviour” [Stiglitz, 1989, p.823], and price that each seller  $i$  can earn at date  $t$  for his product depends only upon his reputation at the date  $t$ :  $P_{it} = P(R_{it})$ . Reputation is the consequence of a value judgement expressed by a consumer about an entity (a firm or a product). This value judgement is formed and has an effect over time, therefore, the identity of the firm (or of the product) must be recognizable by virtue of a support system that condenses the information. Therefore, reputation is embodied in a trade-mark, in a firm’s name, or in a particular place of production.

In QPMs, consumers differ in their willingness to pay for the product and in their taste for quality; they can observe the product’s quality only after purchase and with a temporal lag  $n$ ; this information is communicated to other potential consumers, and effectiveness of this informational mechanism makes conditional the value of  $n$ . The probability that consumers cannot observe true quality of the product after use is  $\gamma$  ( $0 \leq \gamma < 1$ ).

In each period, producers who enjoy a good reputation (that is, from whom consumers expect supply of high quality goods) decide whether to offer a high quality product  $Q_h$  or a low quality product  $Q_l$  (“reputation milking”). This strategy of reputation milking allows a profit gain given the difference between the price of the high quality product  $P_h$  and the production cost of the low quality product  $C_l$  (lower than that of the high quality product  $C_h$ ), but will bring about a loss – complete or partial – of personal reputation, of the possibility of continuing to operate in the  $Q_h$  market.

The incentive to a firm to produce  $Q_h$  products, which it can benefit from an infinite number of times,

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<sup>1</sup> For application to international trade see for example Falvey [1989]; for application to labor market see for example Shapiro and Stiglitz [1984], and Milgrom and Roberts [1992].

consists of a quality premium ( $P_h - C_h$ ) whose present discounted value is higher than the benefit which can be obtained by reputation milking ( $P_h - C_l$ )<sup>2</sup>. The necessary condition in order that milking strategy is not attractive is that:  $P_h \geq C_h + [r n / (1 - \gamma)] (C_h - C_l)$ , where  $r$  is a normal rate of return, and  $n$  is the lag between the sale of the product and the adjustment of reputation on the basis of its quality<sup>3</sup>.

The size of the price premium depends on certain variables which express the importance of the information problem between producers and consumers and which can be conditioned by collective actions of the producers and by government intervention. The premium increases with the increase of  $n$ , with the increase of  $\gamma$ <sup>4</sup>, and with the increase of the difference between production costs of  $Q_h$  and of  $Q_l$ <sup>5</sup>. The frequency (wait) of transactions ( $F$ ) of the  $Q_h$  firm is also relevant: the higher the  $F$ , the greater the losses due to cheating. The  $P_h$  level must, however, be compatible with consumer value judgment of the product: the more the  $P_h$  exceeds the gross benefit associated with the  $Q_h$  product for a significant share of consumers, the greater the decrease in the number of potential consumers until complete disappearance of the market is reached.

The price premium (the difference between the price of the  $Q_h$  product and the relative  $C_h$  cost of production) represents a quasi-rent [Klein and Leffler, 1981; Milgrom and Roberts, 1992] resulting from the reputation of the firms which produce  $Q_h$  products; in essence, what in literature on typical products is called “reputation rent”.

For the firms that produce  $Q_h$  goods, reputation constitutes an intangible asset whose value is given by capitalization of future price premia. In the QPMs reputation is associated with informational investments by those firms<sup>6</sup>; high quality is insured by the firms’ fear of losing the specific capital dedicated to it. For Shapiro [1983], reputation is associated with an initial investment that the firm must sustain in order to enter the high quality market to make its own product known to consumers<sup>7</sup>. Klein and Leffler [1981], associate the value of the reputation asset with specific non-salvageable investments made by firms relating to  $Q_h$  products. The  $P_h$  level attracts new firms, but competition cannot be based on price (consumers associate low prices with  $Q_l$ ), and the dissipation of the quasi-rent assumes the form of firm-specific (high-quality product-specific) capital expenditures: brand name capital investments, non-salvageable productive assets, and advertising expenditures. These investments will see their value annulled in the case of a firm that cheats by selling a low quality product. The process of competition orients the firms toward those investments capable of providing a

<sup>2</sup> Therefore:  $[(1+r)/r] (P_h - C_h) > P_h - C_l$ .

<sup>3</sup> Entry of new firms, given certain hypotheses on entry price [Shapiro, 1983], will cause the price to tend toward:  
 $P_h = C_h + [r n / (1 - \gamma)] (C_h - C_l)$ .

<sup>4</sup> The probability that consumers cannot observe true product quality after use makes conditional the applicability of QPMs. This probability depends on the characteristics relevant to definition of the “quality” of the product. Reputation mechanism is not relevant for the search characteristics, and cannot work in the case of credence characteristics which cannot be evaluated by the user, not even after purchase (in this case  $\gamma = 1$ ). This is the case of food safety and nutritional attributes [Caswell and Mojuszka, 1996; Bureau, Marette and Schiavina, 1998], and according to some authors of origin labelled products too [Bureau, Marette and Schiavina, 1998; Anania and Nisticò, 1999]. The inapplicability of the reputation mechanism to origin labelled products depends, however, on the relationship between the characteristic “origin” and other observable characteristics (for example, organoleptic characteristics) depending on the area of production or on the specific type of production process used and on consumer competence to discern the presence of such characteristics compared to those of a “standard” product.

<sup>5</sup> The  $Q_l$  quality level (and the corresponding  $C_l$  costs) can represent a level below which the consumer is unwilling to purchase a single unit of the product, but can also be a minimum level imposed by law.

<sup>6</sup> The high price level does not, therefore, necessarily result from a market power of the firms that produce it or from the presence of entry barriers.

<sup>7</sup> In its simplest form, this investment can consist of selling high quality products below their cost: “A seller who chooses to enter the high quality segment of the market must initially invest in his reputation via the production of quality merchandise. During this investment period such a seller must sell his product at less than cost: he cannot command those prices associated with high quality items until his reputation is established” [Shapiro, 1983, p.660].

high information service to the consumer and, therefore, of lowering the “effective” price paid.

## **2. Reputation and typical products**

### **2.1. Can the QPMs contribute to analysis of typical products?**

Key-ideas of QPMs of reputation can support a discussion on the origin and meaning of reputation in the case of typical products, to try giving greater solidity to this concept.

“L’origine est incontestablement un facteur de reconnaissance et vecteur de confiance auprès des consommateurs d’un côté, support de notoriété et de réputation pour les producteurs” [Casabianca and Valceschini, 1996, p.14]. The literature on typical products often indicates reputation as a factor which can make it possible to gain a “rent” resulting from specificity (tradition or excellence linked to the place of production) of the product. Reputation (understood as “notoriety” outside of the area of production) is at the base of the “value chain” of typical product [Bérard and Marchenay, 1998]: it constitutes the condition for transformation of a cultural surplus value (linked to the identity of a local product and to its “quality” recognized within the area of production) into an economic surplus value [Prost, Casabianca and De Sainte Marie, 1994], through a process which often requires formalization of the relationship between the product and the place and/or tradition and a subsequent formal attribution of a shared hallmark, with all of the problems and risks that this implies in order to divide benefits among the agents of the local system of production and to the very nature of the product [Bérard and Marchenay, 1994 e 1995; De Sainte Marie *et al.*, 1995; Bérard, 1996].

The EU Regulation n° 2081/92 recognizes reputation as a constituent component for registration of Protected Geographical Indications (PGI): the PGI can be granted to products “which possess a specific quality, reputation or other characteristics attributable to their geographical origin”.

This paper intends to ascertain whether use of the concept of reputation, understood not only as “notoriety” of the product, but also in the sense specified by the economic theory associated with QPMs, can enrich the frame of reference for analysis of some fundamental problems associated with typical products. Some studies adopt formalized approaches to deal with the topic of reputation of typical products, in most cases strictly connected with the fundamental problems of collective quality hallmarks [Coestier, 1995; Marette, Crespi, Schiavina, 1999]: these studies are generally concerned with the question of effects on market (equilibria, prices, etc.) and on welfare rather than with how these hallmarks function and are managed [Raynaud and Sauvee, 1999]. Empirical reputation literature is extremely limited, and only a small amount of empirical literature analyzes the importance of collective reputation. Landon and Smith [1997], with reference to the case of high quality French wines, measure the size of the reputation effects, and their significance relative to the role of current quality: they call attention to the very important role in consumer information sets for collective reputation variables. The price premium associated with the collective reputation variables is shown to be as large as that associated with individual firm reputation.

This work proposes reflection upon the mechanisms that give rise to the reputation of typical agricultural products, to understand the importance of reputation in their process of development and diffusion, and to interpret certain questions concerning use of EU designations of origin (PDO and PGI). This process can be understood in its entirety only in light of the broader context to which it belongs: in the case of many typical products, reputation is built up by means of a process which takes place over a long period of time, through a set of changes which are strictly linked to the more general transformations of the agro-food system and of the economic and social environment.

When considering the nature of typical products and of their production processes, it is expedient to

emphasize three specific aspects demonstrated in the literature on reputation which contribute to making the QPMs more realistic:

- in the case of multi-stage production processes, the construction and maintenance of reputation requires the collaboration of various firms positioned at different levels in the production chain<sup>8</sup>;
- diversified firms can benefit from scale and/or scope economies in the construction of reputation, which is tantamount to using firm-specific capital expenditures on large volumes of a single product or on a diversity of products [Klein and Leffler, 1981, p.636];
- existence of collective reputations [Tirole, 1996]. Often, reputation originates from the behavior of a number of agents and becomes an asset shared by a network of firms [Raynaud and Valceschini, 1998]. Therefore, the asset value of a firm's reputation can be altered not only by its own behavior (fraudulent or honest), or by actions taken by the government (for example in the case of establishment of minimum quality standards), but also by the behavior of each of the other firms participating in the network. This is surely the case of typical products; product reputation is the result of the behavior and interaction of the economic agents operating in the same area of production (agricultural producers, transformation firms, merchants, but also consumers) and is projected through tradition over a period of time [Marty, 1998]. At the same time, these agents are differentiated according to their individual characteristics, but often also according to the quality level of product supplied.

## **2.2. The case study: Tuscan extra-virgin olive oil**

In the pages that follow, an outline of the process of constitution, crisis and institutionalization of the reputation of typical products will be proposed based on case studies analyzed in literature and on the Author's direct knowledge. In particular, in the text, reference will be made to the case of Tuscan extra-virgin olive oil, a product which enjoys great, long-standing "notoriety" in Italy and which has recently obtained a Protected Geographical Indication.

The entire region of Tuscany is involved in production of olive oil, but there are areas with varying characteristics which, in the eyes of the consumer, especially local consumers, portray different images. The production process is relatively simple and is subdivided into only a few phases<sup>9</sup>, which gives rise to certain important consequences.

The quality of the oil is the direct result of the raw agricultural material (olive squeezing), without the possibility of technological "correction" interventions, except for mixing of different lots of oil. The farmers, themselves, can control all of the phases of the production process up to sale to the final consumer. Supply is, therefore, very fragmented, managed by various types of actors, both professional and non-professional (olive growers, olive mills, olive pickers, merchants, both small and industrial-sized mixing and bottling firms), and directed toward heterogeneous marketing channels (from direct sale by the olive grower to supermarket chains). The olive growers' choice of personal consumption and the advantage of marketing the product in informal local channels influence the quantity of Tuscan extra-virgin olive oil, which in many cases is of a residual nature, placed in the "normal" marketing channels.

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<sup>8</sup> Klein and Leffler [1981, pg. 633] point out the role of retail and of wholesaling, affirming that manufacturers may protect their trademarks by creating a sufficiently valuable premium stream for the retailers (i.e. exclusive territorial grants, minimum resale price, etc.).

<sup>9</sup> Olive cultivation (more than 70,000 farms); harvest of olive fruits (payment to pickers "external" to the farm or to the family of the farmer is often in kind, that is, with a certain percentage of the olive fruits or of the olive oil obtained); milling of olive fruits by mechanical extraction (approximately 400 oil mills where the olive growers often go for the "service" of olive-pressing, but not to sell the olives or the oil); preservation and any mixing and bottling; offering to the consumer.

### **3. Origin and constitution of the typical product**

The reputation of a typical product is based on a specificity which is not present in the other products of the same category of commodity. This specificity, by and large, is determined by factors which influence all of the firms in the area of production from cultivation and transformation (for example, characteristics of soil and climate) to consumption (for example, the need to preserve the product in adverse environmental conditions). The technological and organizational choices are shared by all of the agents, though with many variations; this molds response to technical innovation and to the evolution in consumption and maintains a certain unitary identity in the product.

In the case of Tuscan olive oil, a fundamental precondition for construction of reputation is constituted by the difficult climatic conditions and the paedologic conditions (sharply sloping hilly terrains), which have “required” the use of specific varieties of olive and of specific techniques for cultivation, harvest and pressing. The specificity of the product derives from this, but also from a “cost effect” which, along with the scarcity of the quantity placed on the market, contributes to making it a product in great demand. Local institutions (government and other local authorities, but also local groups - i.e. professional groups and associations) [Accademia dei Georgofili, 1992; Cherubini, 1992] and the characteristics of the social structures for production (in particular, the presence of share-cropping) [Pinto, 1996], have also played an important role in defining product status<sup>10</sup>.

The typical product, first developed for personal consumption, gradually becomes the object of production by specialized firms to satisfy the needs of the local population. Because of the limited trade, there is no significant competition with similar products coming from other areas: the local market is, therefore, a closed market.

The restrictedness of the market and the proximity (physical and cultural) of the producers and the consumers tend to maintain the “quality” level (understood as correspondence to a shared standard) of the product high. The (local) consumer has precise expectations concerning intrinsic characteristics of the product and is capable of judging the “quality” of the goods supplied [Casabianca and De Sainte Marie, 1998; Papa, 1998] and often even to verify directly the characteristics of the production process. In this phase, therefore, the product has characteristics of “experience” goods, and the firms know that any incorrect behavior on their part (supply of low quality products compared to the accepted standard of the local community, due to adoption of improper practices) will be identified by consumers and will be easily punishable. The attitude of cheating is also discouraged by the embeddedness of firms in a network of social relations [Raub and Weesie, 1990].

The individual “reputation” of the firms has a limited role (and value) as is demonstrated by the value of the key parameters of the QPMs. The probability  $\gamma$  that the consumer cannot observe the real quality of the product is low; the physical proximity and the restrictedness of the market make information exchange among consumers efficient (low  $n$ ) and the sales frequency expected by each vendor ( $F$ ) high; the minimum product quality acceptable  $Q_1$  (and the relative cost of production  $C_1$ ) is high.

The relevance of exogenous and social factors in determining the specificity of typical product causes reputation to assume the character of a collective asset, making it, in part, the outcome of non-intentional events. This is in contrast with the QPMs, in which reputation results exclusively from the choices of the individual firms.

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<sup>10</sup> Since the XIV century, many local institutions have regulated production, pressing and marketing activities for the oil and subsequently developed activities of research, experimentation and technical support.

#### **4. Product diffusion outside of the area of production: formation of reputation**

Technical innovation, the growth of trade and the opening of the local market have some important effects on the production systems of typical products. Once an individual identity has been established, product “notoriety” spreads outside of the area of production through diversified and sometimes accidental mechanisms. In the case of Tuscan oil, both the interest in oil of merchants from Florence and Lucca, dating back to the 16<sup>th</sup> century [Pinto, 1996], and the country-image of Tuscany (culture, countryside and history) have contributed to the hallmark of tradition and exclusiveness of the product<sup>11</sup>.

The “name” of the product, associated with the area of production, thus epitomizes a set of information on the characteristics and specificity of that product. The notoriety of the name, however, often precedes an actual knowledge of the typical product [Prost, Casabianca, De Sainte Marie, 1994]: the consumer outside of the area does not have the particulars for evaluating the true “quality” (both the differences, compared to products from other areas, and the nuances in the variations of the typical product)<sup>12</sup>.

The agents of the production and marketing systems can, therefore, foster opportunist behavior: the growth of trade makes it possible to use raw materials originating from other areas of production, and progress in technology allows products similar to the “typical” product to be obtained with “industrial” methods and much lower production costs<sup>13</sup>.

It is from this comparison between traditional and “modern” production methods that the reputation of a typical product is formed in the sense accepted by the QPMs. Rather than from the introductory offer and from information investments seen in the Shapiro model, the initial investment in reputation for a typical product (whose name was already known by many consumers outside of the area of production) derives from the fact that producers shun adoption of modern cultivation or transformation methods. Such methods would cause the product to lose specificity though permitting the firms (at least in the short term) to continue to benefit from the effects of its notoriety.

The decision not to standardize the production process and the product according to standards existing outside of the area can result from an explicit decision made to preserve the “cultural” identity of the local product (a choice encouraged by the strong social cohesion and by the “symbolism” of the product for the producers in the area), but in most cases is a limitation imposed by the particular environmental conditions of production or by the unavailability of the capital necessary to adapt the process (in this case, the alternative is to cultivate a different crop or to go out of business).

In the case of extra virgin olive oil, one of the major innovations has been mechanical harvest of the olives which allows a great reduction in production costs, but in nearly all of Tuscany, it has been impossible to implement because of the difficulty in adapting the olive-tree plantation layout: costs of manual harvest, today, exceed 50% of the retail price of oil, creating a sharp increase in the price differential with extra virgin olive oils of other origin. Moreover, manual olive harvest contributes to

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<sup>11</sup> Product/country image becomes a part of the overall package of stereotypes consumers incorporate into their individual buying behavior; in particular, consumers with no prior experience or knowledge of a product's intrinsic attributes tend to infer product information from country image instead of product attribute ratings. The structural relationship comes from the beliefs in country image towards brand attitudes [Almonte, Cardenas, Falk, Skaggs, 1996].

<sup>12</sup> The name of the product becomes a quality signal for the “external” consumer, but a neither “pertinent” nor “credible” signal, as proposed by Valceschini [1999].

<sup>13</sup> See example of Prost, Casabianca and De Sainte Marie [1994], in the case of Corsican cheeses.



preservation of the high quality of the Tuscan oil<sup>14</sup>.

Whether out of explicit choice or because of external limits, the firms sink resources into production of the typical product in the traditional manner; the more widespread the commitment to traditional methods among producers in the area of production, the greater the effectiveness of this investment in preserving the identity of the product and, therefore, the greater the collective nature of the investment which is the result of a social construction in which not only the firms, but also the consumers and the local institutions participate.

## **5. Globalization and mass market: risk of extinction of the typical product market and “privatization” of collective reputation**

### **5.1. Reputation milking strategies and risk of product extinction**

With globalization of trade and affirmation of the mass market, the information problems which begin to manifest during the phase of diffusion of the typical product reach their peak: the trade channels break down, the wait frequency of sales diminishes, the effectiveness of information exchange among consumers of the typical product reduces, and probability that consumers cannot observe true product quality after use increases greatly<sup>15</sup>.

In the terms of the QPMs, the parameter  $F$  tends to decrease, while parameters  $\gamma$  and  $n$  tend to increase. This, along with the fact that the cost of low quality product production  $C_l$  decreases because of the effects of technological innovations, increases incentives to producers and merchants to milk reputation of the typical product by cheating.

The practices for milking the reputation are quite varied: in the case of Tuscan olive oil, they range from simply abandoning traditional practices in order to keep production costs down to truly fraudulent behavior, such as sale of oil of other origin as Tuscan oil. Such practices even involve large firms which, since the 1980s, have been acquiring Tuscan oil-bottling firms, thus obtaining indication on the label (or in other forms of advertising) of well-known Tuscan places of production (such as Lucca, Florence, the hills in Chianti, but generally the Tuscan countryside), but nearly always applied to oils of other origin (and of cost very much lower than that of Tuscan oil)<sup>16</sup>.

In light of this situation, the quality premium of a typical product must increase to keep producers from cutting quality and milking their reputation (and the collective product reputation); this fact causes an increase in the value of the reputation asset for the firms that have already affirmed their own image with consumers. However, the risk of disappearance of the typical product from the market, and its relegation to local growers personal consumption, becomes real. This risk arises not only from the fact that the price differential between high quality and low quality products can cause a great reduction in the number of potential consumers, but also from the fact that for certain categories of consumer some of the relevant characteristics of the product (concentrated in the “name” and

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<sup>14</sup> The harvesting machine does not permit early harvest - a factor which contributes to the distinctiveness of Tuscan oil - because of the difficulty of detaching the fruit from the plant.

<sup>15</sup> The phenomena are also seen in the internal market of the area of production, where even the traditional consumer distances himself from the context of production and loses part of his knowledge of the product [Belletti and Marescotti, 1998].

<sup>16</sup> These practices have had legal implications and pose an important question: for production deriving directly from agriculture such as extra virgin olive oil, should the use of “geographical name” be linked to local agricultural practices, or, instead can it be connected to the know-how associated with the ability to select and mix oils of various origin? For example, the EU Regulation n° 2815/98 has introduced the possibility of indicating the Country of origin of olive oils on the label, establishing that the origin of the product be that where the oil mill that works the olives is located.

origin of the product) can become “credence” characteristics ( $\gamma=1$ ), causing failure of the reputation mechanism (the opportunist practices of the firms would no longer be recognizable and, thus, punishable by consumers)<sup>17</sup>.

## 5.2. Dissipation of quasi-rent and consumer guarantee

In the globalization and mass market phase, to continue its commercial existence the “original” typical product must grant to the consumer new forms of guarantee which uphold the notoriety of its name. This is connected to dissipation mechanism of the quasi-rent mentioned by Klein and Leffler [1981] (paragraph 1): the high quality product price premium (great difference between prices and costs of production) is “covered” by a set of (firm)product-specific capital expenditures sustained by the firms whose value must balance the value of the reputation capital. The competitive mechanism develops as a function of the effectiveness of the information function to consumers that each firm manages to achieve through those sunk costs.

For olive-growing firms and for oil mills, the non-salvageable productive assets, in the form of equipment (for cultivation and transformation) traditional or located in difficult areas, assume a great importance: in essence, the high price of the product allows the very high production costs to be covered and, therefore, to remunerate resources ordinarily non-remunerable. In general, sunk production capitals can accomplish not only the function of supply of production services, but they can supply quality-assuring services, too [Klein and Leffler, 1981]. For olive-growing firms and for oil mills, the problem, however, is to manage “to communicate” to the consumer the nature of the guarantee of these investments [Papa, 1998]<sup>18</sup>.

Brand name capital investments possess a notable information potential; the competitive mechanism will reward those firms that concentrate on assets with high service value to consumers so as to lower the effective price paid (quality assuring price minus services yielded by brand name capital investments). A certain number of olive farms and oil mills have made brand name investments concentrated primarily on direct farm sales or, in any case, on short trade channels<sup>19</sup>, and are thus able to enhance each information function of the non-salvageable productive assets. The typology of brand name investments in long trade channels is much more complex, primarily because of the interaction between typical product reputation and reputation of the brands of the big bottling firms or of the big supermarket chains that have, within their own range of offerings, a Tuscan oil sold under their own label.

Beyond the possible deceitful practices, the big bottling firms and the supermarket chains have displayed a growing interest in typical products, since they can raise the company reputation within an increasingly more difficult competitive context. The big companies can achieve scale or scope economies related to brand name capital investments (paragraph 2), generating “umbrella” mechanisms of reputation: to increase the frequency of sales (both of a single product and of products that share the same reputation), the price premium can be more limited<sup>20</sup>.

The effects on typical products of the interest of big companies are complex and ambivalent. On the

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<sup>17</sup> However, there is generally a sharp increase in confusion of the consumer, who can find extra virgin olive oils called Tuscan at very different prices on the same shelf (more than six times the lowest price).

<sup>18</sup> The difficulty of making those investments visible and comprehensible to consumers is connected to the restrictedness of the volume of production, in addition to exogenous factors (for example, impossibility to exploit the tourist flow).

<sup>19</sup> For example “typical” or equipped points of sale, sampling rooms, (relatively) specialized human resources, traditional equipment for transformation and cultivation.

<sup>20</sup> At the same time, a high (wait) frequency of transactions can make the loss of reputation greater in the case of cheating [Milgrom and Roberts, 1992].

one hand, supermarket chains and big bottling firms activate a “cascade” mechanism of reputation<sup>21</sup>, reducing the “credence” nature that origin would assume for the final consumer and, therefore, supporting the persistence of a typical product market. On the other hand, the need to standardize and adapt the typical product to the taste of the average consumer, but most importantly, the trivialization and/or the strategic use of “name” and of reputation of the typical product (with respect to the positive effect on “mass” products) [Dupuy and Thoenig, 1991], can have serious effects on the very identity of the product.

Even the voluntary forms of guarantee of origin and of authenticity of the production process, both at the company and the collective level, constitute forms of dissipation of quasi-rent; they require special bureaucratic structures and intangible investments for hallmark promotion<sup>22</sup>.

### **5.3. Differentiation of firms and “privatization” of collective reputation**

The competition mechanism that develops in terms of efficiency/effectiveness of reputation-related investments (firm-specific/product-specific capital investments) leads to an increasing differentiation among the firms within the supply chain of the typical product. Important consequences result from this differentiation both for the status of the typical product and for the allocation of benefits that result from collective reputation:

- Heterogeneity of methods of exploitation of the typical product. Commercial survival of typical product is achieved not only through persistence of local traditional consumers (true guarantors of product “originality”) [Casabianca and De Sainte Marie, 1998], but also thanks to innovative forms of sale in the direct or short trade channel and to the “cascade” reputation mechanism activated by big firms. This can cause an increasing heterogeneity of “types” of the typical product as well as of prices.
- Exclusion from the consumer market of the typical product of inadequately capitalized firms which do not manage to generate the resources necessary to achieve brand name capital investments. Many olive-growing firms and oil mills concentrate on personal consumption or on low value added sales (non-bottled product to local consumers or wholesalers), while the “niche” channels remain the domain of the larger and more structured firms that often couple the sale of olive oil with that of high quality wine<sup>23</sup>. The umbrella mechanisms of reputation give a competitive advantage in the long marketing channel to the big, diversified bottling firms (whose name brand is already known on the market).
- Vertical conflict. The firms that develop brand-name capital expenditures, and in particular bottling firms that assume “control” of reputation, can adopt behavior aimed at exploitation of the quasi-rent of non-salvageable productive assets of the firms upstream in the supply chain [Klein, Crawford and Alchian, 1978]. Associative forms (primarily cooperatives), then, tend to develop the control of supply of the typical product; their role, however, in the case of Tuscan oil is limited by the priority given by the olive-growing firms to personal consumption and to direct sales (which generally guarantees high prices), which makes conveyance of oil to cooperative olive mills extremely variable. Because of this, the associative forms that have commercial function have developed primarily in the more “isolated” areas where direct sale is more difficult.
- Supplanting the function of the “name” of the typical product by means of brand name investments. The big bottling firms and supermarket chains couple their own brand to the name

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<sup>21</sup> These big companies are interested in verifying the real characteristics of the typical product, to safeguard their own reputations with their clientele and, for this purpose, use instruments not available to the final consumer (for example, chemical analysis or forms of direct control on the production firms).

<sup>22</sup> Since the 1980s in Tuscany, voluntary consortia have been operating to guarantee origin of extra-virgin olive oil.

<sup>23</sup> However, there has been development of some experiences of cooperation among the firms in restricted geographical areas who, following the example of the “wine routes” [Gatti and Incerti, 1998], have achieved synergy of the investments of the single firms (agricultural, agritouristic, olive mills, etc.) and bring about collective investments, with the help also of the EU rural development policy.

“Tuscan”. The local firms (both olive-growing and bottling) in many cases aim at promoting the more limited geographical denominations that exalt the areas of production with a high image on the local market, in order to escape from the generalization and the confusion of the name “Tuscan” [Tosi, 1998].

The process of differentiation in the mass market phase has a fundamental consequence: collective reputation is, in part, substituted by the individual reputation of the firms and the benefits of the “name” of the typical product are continuously less shared among the agents of the local system of production [Barjolle *et al.*, 1998].

## **6. Institutionalization of reputation: regulation of origin labelling through PDO and PGI**

### **6.1. Effects of institutionalization**

Agricultural products having a geographical name have several public characteristics, and this requires an intervention of (public and/or social and/or private) institutions [Barjolle *et al.*, 1998]. The instruments of institutional guarantee can deeply modify the situation created in the phase of globalization [Sylvander, 1995a, 1995b]. Registration of a PDO or PGI (Reg.2081/92) permits protection of the name of the typical product from incorrect practices on the basis of a definition of the area of production and of certain characteristics particular to the production process and/or to the product (PDO/PGI Specification). Protection of the “name” of the place of origin guarantees not only provenance of the product (place of manufacture), but also guarantees ties to particular agro-climatic conditions, production practices and “savoir-faire”, therefore, ties to “terroir” [Valceschini, 1999].

The firms operating in the supply chain of typical products are very heterogeneous, not only for the stage of production in which they operate, but also for the type of (firm) product-specific capital that they have developed and that conditions their access capacity to the channels and different modes of exploitation of the reputation of the product<sup>24</sup>. This heterogeneity of the firms, along with that of the quality of the typical product makes institutionalization an extremely complex process, generating conflicts and bargaining between the interests of the firms and the institutions involved which overflow into the definition of the PDO/PGI Specification [De Sainte Marie *et al.*, 1995]. In outline, literature on typical products presents various categories of the effects of institutionalization:

- effects of exclusion, connected to the limitation of the possibility to benefit from the product name and from the “origin rent” (reputation quality premium) associated with it [Perrier-Cornet and Sylvander, 1999]. The exclusion does not apply only to fraudulent or otherwise incorrect firms, but also to firms potentially in conformity with the denomination, but not interested or not able to comply with the control system of the PDO/PGI Specification. Thus the salable quantity with origin label is reduced.
- effects on the product. The nature of the product undergoes a fundamental transformation: the characteristic immediately recognizable by the consumer, the origin, is transformed by experience (or credence) to a search attribute. The non-expert (who does not possess all the elements to evaluate the product tradition) consumer’s process of choice becomes simplified: the indication “PDO” or “PGI” on the product supplies the guarantee of “authenticity” of the typical product, and that can have an effect of “market creation”. The label of origin, however, does not eliminate the differences in the qualities of the product above the minimum quality established by the PDO/PGI Specification.
- effects of interdependence. Creation of a collective hallmark can reduce perception of quality

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<sup>24</sup> See examples: of Carbone [1997] in the case of Chianti Classico wine; of Rossi and Rovai [1998] in the case of Garfagnana spelt; of Arfini [1999] in the case of Parmigiano Reggiano cheese.

differences by the consumer and increase the interdependence of the firms that use it, thus, incentivating opportunist practices<sup>25</sup> [Carbone, 1996; Raynaud and Valceschini, 1998; Perrier-Cornet and Sylvander, 1999; Raynaud and Sauvée, 1999]. In the case in which the “name” of the typical product already enjoys a great notoriety, this interdependence is, however, already strongly present even before recognition of the PDO/PGI. The price premium that the consumer will recognize in products of quality greater than the minimum established by the PDO/PGI Specification depends on the importance that the consumer attributes to the origin label with respect to the other characteristics of typical products, and from his ability to evaluate after consumption (“non-credence” characteristics).

- effects of standardization. The PDO/PGI Specification represents a form investment (“investissement de forme”) [Eymard-Duvernay, 1986], which not only functions as a minimum quality standard but also as a standard of compatibility and of reference in transactions between firms [Foray, 1993]. The standard fixed by PDO/PGI Specification permits all firms to reduce costs of information acquisition and to limit moral hazard situations, thus contributing to a rise in innovation capacity (not so much product innovation, but market and channel innovation). Then, institutionalization can favor insertion of the typical product in modern trade channels and at the same time reduce the importance of routine dealings (and the trust that result from them) as a form of guarantee for transactions [Eymard-Duvernay, 1986].
- effects of creation of notoriety. For products that are not yet known outside of the area of production, the PDO/PGI can become an important marketing lever for increasing the value of the product, considering, also, the growing sensitivity of consumers (and of the world of distribution) to guarantees of production methods [Lassaut, 1998].
- effects of producer cohesion. The agreement on PDO/PGI Specification among the actors of the production system can promote the preparation of collective strategies and joint ventures by the producers involved [Letablier and Delfosse, 1995; Casabianca and De Sainte Marie, 1998] often as a form of reaction to the problems generated by the evolution of the competitive context dominated by the large agri-industrial firms [De Sainte Marie *et al.*, 1995; Rossi and Rovai, 1998].

## **6.2. Institutionalization and QPMs**

The reputation “quality premia” approach points out further effects of institutionalization (which can be attributed, in part, to the effects of interdependence). Registration of the PDO/PGI hallmark reduces the information problem in the protected product market, and this gives rise to important economic and asset effects on the firms that had affirmed their personal reputations supporting it through product-specific investments.

In terms of QPMs, EU registration of a typical product that already has its own reputation reduces probability that consumers cannot observe true quality ( $\gamma$ ) in terms of product origin, to the point of eliminating it completely in the case of total reliability of the control system. Furthermore, product origin becomes a search characteristic, and at the same time, there is a rise in the minimum quality which can be placed on the market with the origin label up to the level of the characteristics defined in the PDO/PGI Specification ( $Q_{\text{hmin}}$ ); thus, the relative production costs increase ( $C_{\text{hmin}}$ ). From the decrease in  $\gamma$  and the increase in  $C_{\text{hmin}}$  a generalized reduction in the price premium for products covered by the EU indication of origin occurs.

The reputation (information) price premium for products of  $Q_{\text{hmin}}$  quality decreases to the point of canceling out, and the  $Q_{\text{hmin}}$  price level results from the play of market forces.  $Q_{\text{hmin}}$  can, however, benefit from a decrease in supply of the origin labelled product resulting from the effect of market exclusion of deceptive products; this benefit, however, becomes available to all firms that conform to

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<sup>25</sup> The less the importance the consumer attributes to the identity of the individual firms with respect to the origin label, the greater the effect this behavior will have on the collective reputation.

the PDO/PGI Specification.

However, quality differences (and differences in production cost) above the  $Q_{hmin}$  remain<sup>26</sup>, reaching a product level of excellence ( $Q_{hmax}$ ). The quality differentials  $Q_h > Q_{hmin}$  are of an “experience” nature for the consumer: the information problem persists for them and there is the possibility that the firms belonging to the PDO/PGI will initiate deceitful practices [Carbone, 1996]. The mechanisms of individual reputation, therefore, maintain their relevance [Boccaletti, 1994]. The quality variation interval for the product ( $Q_{hmax} - Q_{hmin}$ ), however undergoes a decrease with respect to the situation preceding institutionalization ( $Q_{hmax} - Q_i$ ): thus, even the firms that achieve  $Q_h > Q_{hmin}$  suffer a decrease in the price premium<sup>27</sup>.

Thus, regulation of origin labelling caused by the PDO/PGI brings about a generalized reduction in the role of individual reputation of the firms which can legitimately use the origin label, and causes a loss of value of the product-specific capital they have invested in the process of dissipation of the quasi-rent [Falvey, 1989; Sckokai, Moro and Boccaletti, 1992]. Opposition of producers who have established their reputations on  $Q_h > Q_{hmin}$  level results from, among other things, the fact that improving consumer information makes it easier for new entrants to establish their own reputations [Shapiro, 1983], and allows even previously excluded firms to operate in the typical product market.

The amount of the decrease in reputation capital developed by the individual firms depends on the type of (firm)product-specific investments made. Normally, the non-salvageable productive assets keep their value, while brand name capital investments are more susceptible to loss of effectiveness in the new information context, especially in the case where they are not also relative to other products (reputation umbrella) and when they are not strictly tied to very specific marketing strategies (for example to “niche” channels).

The entity of the effects of institutionalization on the price premium depends, in large part, on the choices made during definition of the PDO/PGI Specification, particularly regarding selectivity of  $Q_{hmin}$  product characteristics and regarding the quality of the control system. The selection of minimum quality ( $Q_{hmin}$ ) results from the trade off between effects of decrease of individual reputation capital (resulting from the ensuing increase in  $C_{hmin}$ ) and exclusion effects. The effectiveness of the control mechanisms and sanctions of the PDO/PGI Specification (which gives rise to the effective exclusion from use of the origin label on non “authentic” products) [Anania and Nisticò, 1999] instead, reduces the value of  $\gamma$  (the probability that consumers are not able to evaluate true quality)<sup>28</sup>.

The motivation for various attitudes of firms and of sub-areas of production with which diverse “quality” levels of the product are associated therefore can be explained within the framework of QPMs.

### **6.3. Conflict on institutionalization of the reputation of Tuscan oil**

The road to institutionalization of Tuscan extra virgin olive oil has been extremely long and complex in spite of a longstanding consensus within the area of production for the need to protect the product name. In 1994 on the initiative of the majority of olive growers in Tuscany, and with the support of

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<sup>26</sup> For example, due to different techniques used, to different production attitudes of the sub-areas protected by the PDO/PGI, etc.

<sup>27</sup> The decrease in the price premium becomes more conspicuous because of the increase in production costs of all products conforming to the PDO/PGI Specification caused by certification costs, both direct (rights paid to the certification board, analysis costs, etc.) and occult (for example administrative charges).

<sup>28</sup> Performance of information campaigns aimed at improving consumer awareness of the meaning of the label of the Denomination (or Indication) of origin has a similar effect.

the regional Administration (which had expressed a negative opinion on the PDO requests for more limited areas of production) an application for registration of a unified regional PDO was presented according to the simplified procedure prescribed by Reg. 2081/92; the proposed PDO Specification also established eight “Supplementary geographical indications” relating to sub-areas of production, that producers could indicate on the label next to the name “Tuscany”. Opposition on the part of organizations of olive-growers in the areas of greatest prestige and by some elements of the bottling industry took the form of lobbying at the Italian and EU institutions and of legal initiatives.

In 1997 the EU Commission refused to grant the PDO to Tuscan oil, declaring - in addition to procedural errors - a weakness in the bond between product and geographical environment and the lack of uniformity of the oils of the different areas of Tuscany; the possibility of PGI recognition was proposed<sup>29</sup>. In February 1998 the EU registered the PGI “Tuscan Oil” on the basis of the same Specification that had been proposed for the PDO and, therefore, with the same guarantee of a PDO of the origin of the product (all phases of the production process, including bottling, must take place in Tuscany), but gives rise to penalization in terms of image<sup>30</sup>. The transformation of the request from PDO to PGI represented a compromise solution between the need to protect the name “Tuscan” and the request to protect the reputations of more restricted areas of production through local PDOs.

#### **6.4. The first effects of the Tuscan oil PGI**

The Tuscan oil PGI has been in effect since 1<sup>st</sup> November 1998. In spite of the briefness of this period, certain tendencies have emerged, from which it is possible to draw initial indications on results in terms of diffusion, actual use and market trend; we will present these considerations taking up the points touched upon in this paragraph<sup>31</sup>.

- Exclusion effects. The oil placed on the market with the “Tuscan” label has sharply decreased, causing, according to the firms interviewed, a greater clarity in the relationship between local producers and large bottling firms, due, among other things, to the requirement to bottle the product in Tuscany. Important exclusion effects, however, have occurred, even within the area of production, resulting, not so much from the minimum quality level required by the PGI Specification as from the self-exclusion of many producers fearing the effects of interdependence arising from the collective denomination, or concentrating on personal consumption or direct farm sale of non-bottled oil (Tables 1 and 2). An exclusion effect is also caused by the difficulty to access the certification of origin for small lots (Table 3), arising from the fixed cost of certification, both implicit<sup>32</sup> and explicit<sup>33</sup>, and by the requirement, imposed on the subject who requests the certificate, to bottle the product. This fact has no effect on trade channels dedicated to direct sales, but penalizes the firms (especially agricultural firms and small oil mills) that operate in semi-short niche channels (for example, restaurants and specialty shops). On the whole, the quantity of olive oil labelled with PGI was equal to 4,700 quintals, 3% of the average total production in Tuscany (Table 2).

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<sup>29</sup> In 1997 the Italian Government had granted Tuscan oil the Controlled Denomination of Origin (DOC) in accordance with Regulation EU n° 535/97, which was annulled a few months later following an appeal presented to the Italian legal authority by a Farmers Association.

<sup>30</sup> All other requests for EU protection of national oils (over 20) resulted, instead, in receipt of a PDO.

<sup>31</sup> The following considerations are based on the results of previous research [Belletti, 1996 and 1998; Belletti and Marescotti, 1998], on data supplied by the “Consorzio di Tutela dell’Olio Toscano” and on interviews with operators in the supply chain. In addition to the “Consorzio di Tutela”, we would especially like to thank the cooperatives OLMA e Montalbano, Carapelli Firenze spa, ASSOPROL - Associazione olivicoltori della Provincia Firenze.

<sup>32</sup> For example reorganization costs, administrative fees for documentation of the productive process performed.

<sup>33</sup> The cost of the certification procedure has a fixed component ( $\cong$  300 Euros), due to documental verification and chemical analysis which can only be recovered completely only for lots greater than 9 quintals.

- Effects on the product. The difficulty of certifying small lots can cause a loss of character in the product sold with origin label; in order to reach lots of adequate certification size, it is often necessary to mix oil coming not only from different farms, but also from different areas of Tuscany. This fact causes the very low request for the PGI by the small olive growers (Table 4), and for the labelling with “Supplementary geographical indications” (0.3% of the product certified). Moreover, the long period of time necessary for the bureaucracy of granting of the origin label makes retail sale of the product nearly impossible before Christmas, the period in which the market is particularly active.

- Effects of interdependence. While the direct farm sale market has not yet been subject to repercussions of the application of the PGI, data on long trade channels confirms that differences in prices are levelling out among the Tuscan oils of the sub-areas of greatest notoriety compared to those of the other areas (for example, the area of Florence compared to that of Grosseto: figure 1). The defense mechanism employed by producers of the high notoriety areas<sup>34</sup> has been a non-adhesion to the PGI: in these areas, the number of registered olive trees compared to the total existing trees is very low, even excluding the small producers (who, because of the marketing channels taken, are not interested in the PGI) (Table 1). The same phenomenon is demonstrated by the origin of the oil that has obtained the PGI origin label, 85% of which originates in the Provinces with the lowest notoriety (Grosseto, Livorno and Pistoia) (Table 2).

- Effects of standardization. Already with the national Controlled Denomination of Origin (existing between July and December 1997), Tuscan oil with the certification of origin became the reference standard for transactions in the long marketing channel causing prices of the non-certified product to fall (approximated in figure 1 by minimum price), and the price of the certified product to increase (maximum price in figure 1).

The possibility of referring to a standard of certified origin has had the important effect of creating a market in the long trade channel due, especially, to the sharp rise in interest on the part of big bottling firms and large distribution chains, even from abroad.

Because of the PGI, relations between Tuscan producers and the firms outside of the area undergo a fundamental transformation: the frequency of transactions and trust lose importance<sup>35</sup>, with the advantage of capability of supplying growing levels of product service such as consistent quantity and quality from one year to the next and performing third party bottling services (since bottling must take place in the area of production).

In addition to the problems already presented in paragraph 5, the increase in demand for the product with origin label and in the alternative market opportunities can incentivate producers towards a qualitative decline in the product and, thus, to adopt practices of cheating [Milgrom and Roberts, 1992]. Cheating in this case does not concern the real origin of the oil, but the quality decline of the PGI labelled oil supplied to the big buyers; it can become convenient, though still respecting the PGI Specification, to aim at use of more modern and less costly production techniques, even if they do not correspond to the “original spirit” of the product. In some cases, the big buyers could find it convenient to stay in the game, since they are interested (especially if they operate in markets where knowledge of the product is rare) in offering a high profile product for their own reputation purposes, but at a low price.

The use of the PGI label has interested a rather limited number of large bottling firms, and especially cooperative olive mills (Table 4). The cooperative olive mills become an important link within the supply chain: on the one hand they have allowed exploitation of the benefits of the PGI, even to small producers who would not have been able to request certification on their own (even with the intense activity of bureaucratic-administrative assistance), on the other, they have performed bottling services

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<sup>34</sup> In particular, the provinces of Lucca, Florence, Siena and the areas of Chianti and of Seggiano, where requests for new PDOs have been presented (or are currently in the process of preparation); but also the towns which are famous as producers of high quality oil and have developed a good agritourism and tourist flow.

<sup>35</sup> In the past, the bottling firms which were more attentive to quality were, themselves, able to guarantee the authenticity of Tuscan oil with incentives of repeated purchases or long-term contracts.



for big industrial firms and big supermarket chains, permitting Tuscan oil to penetrate new markets, both national and foreign.

- Loss of value of the “(firm)product-specific reputation capital”. As we have seen (paragraph 6.2), the negative effects of institutionalization on individual reputation capital of the firms depends on the type of (firm)product-specific capital developed. The potential importance of that investment varies in function of the various market channels and segments and of the characteristics of the consumers (also in terms of product “awareness”) with which they are concerned.

*Direct sales to consumers in the area of production:* in light of consumer expectations in this channel [Belletti and Marescotti, 1996 e 1998], sales are based on individual reputation and PGI does not play an important role. In this channel reputation capital developed by the firms maintains its functional value.

*Long “mass market” channel* (national and foreign supermarket chains): in this channel, the PGI has now become the standard, and is a necessary and sufficient element (along with the capabilities of organizational interactions of the suppliers – individual and associated – with buyers) for guaranteeing access to firms. The product-specific capital dedicated by the firms to this trade channel (particularly brand name investments), therefore, undergoes more consistent loss of value. The more specialized were the investments, the greater the loss. At the same time, because of the PGI, the small local firms can reduce the competitive disadvantage from which they suffered with respect to the big bottling firms.

*Long “niche market” channel:* here, the PGI is a necessary, but nearly always insufficient element: institutional reputation (origin label) must be accompanied by the individual reputation of the vendor. Adhesion to the PGI, thus, in most cases, becomes an added cost for the firms that request it.

In contrast, concession of the PGI for Tuscan oil has brought about neither the effect of creating notoriety (already largely established) nor an *extensive* effect of cohesion among producers, instead aggravating conflicts between various areas of production within Tuscany; in this context, the Consortium for Protection of Tuscan Oil (voluntary consortium for the protection of image and production quality of the PGI Tuscan oil) has not, for the moment, managed to achieve a real promotional strategy. The PGI has, in essence, developed the ability of the actors of the local production system to define common goals and to implement relevant coordination strategies to reach these goals: the set of actors involved in PGI Tuscan oil is of an “absence of common policies except for the minimal PGI agreement” type [Barjolle, Chappuis and Sylvander, 1998]; it has, however, promoted a process of aggregation of the olive growers around those cooperative olive mills that are most capable of enhancing the value of the product.

In spite of this, there is much empirical evidence to indicate that the PGI has contributed to a re-collectivization of reputation capital tied to the area of origin of the typical product, to the advantage both of the typology of firm and of the areas of production that had been excluded in the phase of affirmation of the mass market (paragraph 5.3).

Territorial reallocation of benefits to the advantage of those areas which did not have an affirmed notoriety outside of Tuscany but where- because of the paedologic conditions and because of lively entrepreneurial activities – more modern production techniques can be introduced, has caused a vociferous reaction by the “historical” areas of production. This reaction has led to numerous requests for the PDO (already being examined by the EU or still in the study phase) concerning limited areas of Tuscany. The effects of this proliferation of denominations must be evaluated both in terms of impact on consumers and of real effectiveness, in light of the presence of a trade-off between the selectivity of the PGI Specification (in terms of restriction of the area of production and/or excellence of the characteristics of the product) and reaching the minimum quantity economically necessary to access use of the denomination.

Another fundamental aspect is vertical reallocation of benefits of origin rent among the operators in

the various phases of the supply chain. The PGI seems to be able to reduce the hegemony of the large firms in access to the long marketing channels, a hegemony able to permit exploitation of reputation quasi-rent primarily by subjects who are outside of the local system of production. To guarantee re-appropriation of the added value in the area of production, the requirement to bottle the product in the area of production is not sufficient, particularly in perspective; an increasingly more important role will have to be played by the local organizations for supply, in terms of services as well, especially through strengthening of the cooperative system.

A further key question, especially in the mid to long term is the ability to keep the quality “control” of the product, understood to mean fidelity (though not in a static sense) to the “original” product, within the area of production. In this sense, revision of the PGI Tuscan olive oil Specification, currently in the proposal stage (which calls for lowering the  $Q_{\text{min}}$  constraints through modifications such as simplification of control procedures, elimination of indication of the year of production, elimination of “Supplementary geographical indications”) will have to be given serious thought.

### **Concluding remarks**

Analysis by means of “quality premia” models permits us to go beyond the understanding of reputation simply as “notoriety”, associating it to a set of (firm)product-specific investments sustained by the firms in the supply chain of a typical product. The reputation of a typical product originated in the choices, representing a collective asset, shared by the firms of the local system of production. With increase of the complexity of the production and marketing systems and product exploitation resulting from transformations in the agro-industrial system, and with the worsening of information problems between producers and consumers, the importance of reputation increases, but at the same time, the risk of disappearance of the typical product from the market becomes real.

The relevance of collective reputation capital linked to the product “name”, however, decreases to the advantage of individual reputation capital that each firm develops, the differentiation between firms involved in the supply chain increases, and vertical conflicts for appropriation of the quasi-rent associated to non-salvageable productive investments also increase: the benefits of the “name” of the typical product are continuously less shared among the operators of the local system of production. Within this context, institutionalization of reputation by means of PDO and PGI cause important effects on the reputation capital developed by the individual firms, differentiated in terms of the type of (firm)product-specific investments realized by each.

Analysis of the case of Tuscan extra-virgin olive oil demonstrates how the PGI has contributed to a re-collectivization of the reputation capital bound to the area of origin, in terms of both territorial and vertical reallocation of the rent that results from it, causing sharp conflicts within the Tuscany but also possible repercussions on the nature of the product.

**Table 1: Incidence of the number of PGI registered olive trees on the total number of olive trees**

Province	Total producers		Big producers (+)		"Tourist" towns (++)	
	Trees IGP	% of total trees	Trees IGP	% of total trees	Total producers	Big Producers
Massa	47,941	17%	31,943	54%	5%	19%
Lucca	78,682	8%	58,853	17%	2%	5%
Pistoia	425,126	36%	362,464	44%	22%	28%
Firenze	1,069,323	24%	927,486	26%	16%	17%
Livorno	302,172	44%	247,387	49%	47%	50%
Pisa	271,055	20%	195,658	21%	23%	24%
Arezzo	354,688	16%	318,177	26%	8%	14%
Siena	421,235	26%	283,833	24%	20%	16%
Grosseto	859,356	47%	614,037	62%	28%	32%
Total Toscana	3,829,578	26%	3,039,838	32%	19%	22%
of which:						
PDO Seggiano (*)	34,452	25%	20,057	29%		
PDO Chianti (**)	240,238	18%	217,800	19%		

(+) Producers with at least 400 olive trees (approximately 500 kg of oil, based on average regional yield values) are considered "large".

(++) "Tourist" towns: towns particularly famous for their production of oil, or with a high agri-touristic flow.

(\*) Request in progress: calculated towns included in toto in the PGI.

(\*\*) Request awaiting EU approval.

Source: elaboration on data by Agecontrol and Consorzio di Tutela dell'Olio Toscano

**Table 2: Olive oil production in Tuscany and PGI labelled production by Province of origin**

Province	Olive oil production in Tuscany (*) (quintals)					PGI labelled oil (+)		PGI labelled of total production
	small producers	big producers	big in %	total	total in %	quintals	in %	
Massa	1,787	397	0%	2,184	1%	0	0%	0%
Lucca	6,033	3,088	3%	9,121	6%	12	0%	0%
Pistoia	5,005	9,719	10%	14,723	9%	639	14%	4%
Firenze	9,740	39,182	39%	48,922	31%	313	7%	1%
Livorno	3,190	8,233	8%	11,422	7%	1,150	25%	10%
Pisa	5,052	9,346	9%	14,398	9%	27	1%	0%
Arezzo	8,747	9,466	9%	18,213	12%	0	0%	0%
Siena	4,999	9,440	9%	14,439	9%	392	8%	3%
Grosseto	11,016	12,052	12%	23,068	15%	2,131	46%	9%
Tot. Toscana	55,569	100,922	100%	156,491	100%	4,665	100%	3%

(\*) Production resulting from EU farm subsidies, average of the harvests 1996 and 1997.

(+) PGI labelled oil from 1.10.98 to 10.7.1999.

Source: elaboration on data by Agecontrol and Consorzio di Tutela dell'Olio Toscano

**Table 3: Tuscan PGI labelled oil lots by lot size (+)**

Lot size (quintals)	N° of lots	Quintals	%
0 - 900	10	55	1.2%
901-10,000	31	980	21.0%
oltre 10,000	12	3,629	77.8%
TOTAL	53	4,665	100.0%

(+) PGI labelled oil from 1.10.98 to 10.7.1999.

Source: elaboration on data by Consorzio di Tutela dell'Olio Toscano

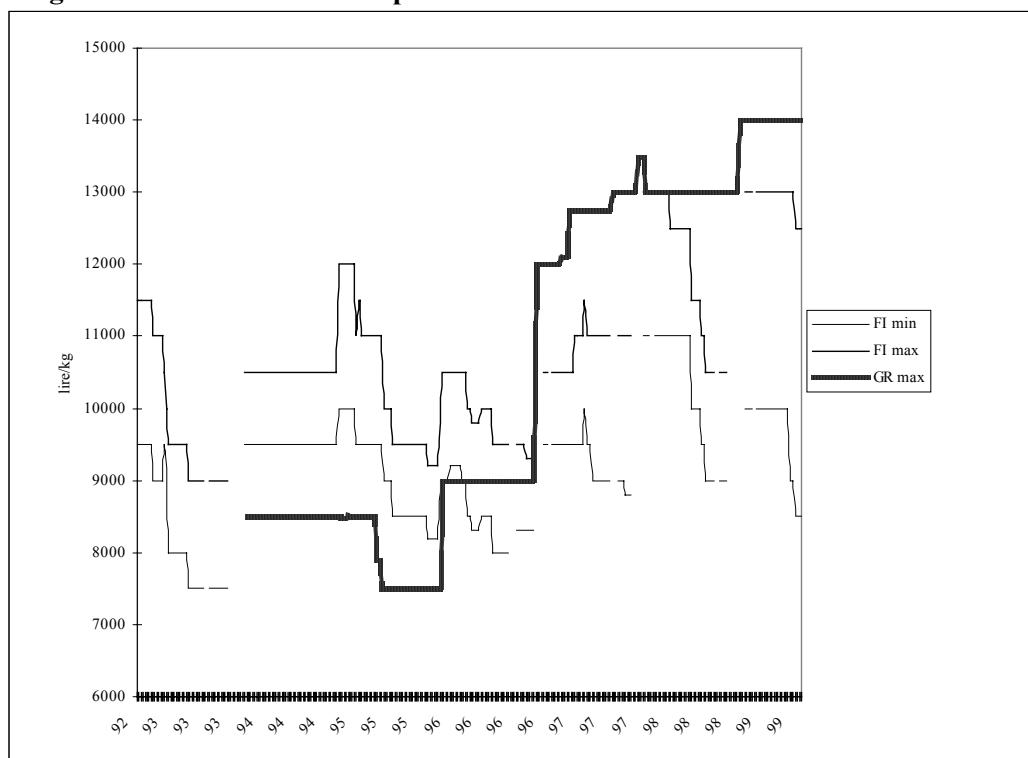
**Table 4: Tuscan PGI labelled oil by type of requester (+)**

Type of requester	Quintals	%	Share 1 <sup>st</sup> firm	Share 2 <sup>nd</sup> firm
Wholesalers	0	0%	0%	0%
Bottling firms	919	20%	68%	19%
Cooperative olive mills	3,064	66%	56%	40%
Olive mills (not coop.)	313	7%	66%	12%
Farms	369	8%	41%	25%
Total	4,665	100%	37%	26%

(+) PGI labelled oil from 1.10.98 to 10.7.1999.

Source: elaboration on data by Consorzio di Tutela dell'Olio Toscano

**Figure 1: Trend in wholesale prices for local oil lots from Florence and Grosseto**



Source: elaboration on data by Camere di Commercio, Industria e Agricoltura di Firenze e di Grosseto

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