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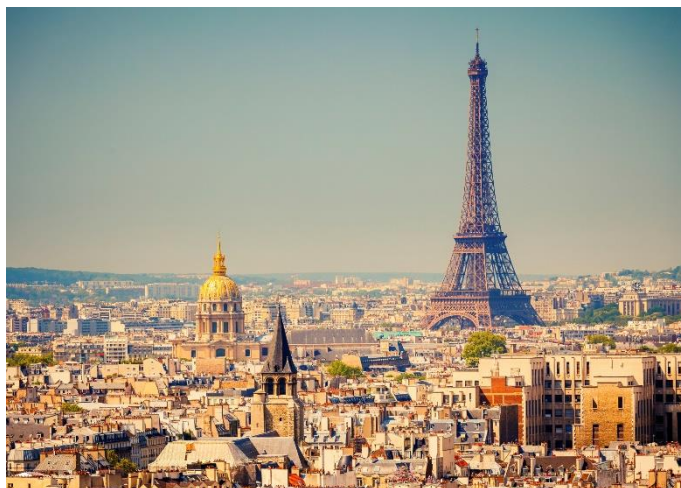
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## **The value of typical products : the case of *Prosciutto di Parma* and *Parmigiano Reggiano* cheese**

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# **The value of typical products : the case of *Prosciutto di Parma* and *Parmigiano Reggiano* cheese**

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## *Abstract*

*This note has two goals. The first one is analysing the problems related to the presence of information asymmetry on PDO/PGI marketed products and the role played by the "intermediate" institutions, i.e. Consortia, on their strategy. The second goal consists in estimating the value that consumers attach to the European and Consortia labels considering two famous PDO products, namely Parmigiano-Reggiano cheese and Prosciutto di Parma (Parma ham), and then in making considerations on the future strategies to be adopted.*

*The method to be used refers to the willingness of the consumer to pay. This method is usually used to determine the values of public goods that, as such, have no price. In this case, the WTP is justified by the fact that the PDO label can be considered a public good whose value depends on the ability to reduce the gap towards the consumer.*

*The study has been carried out considering a sample of consumers selected on the basis of income and social origin, as well as on the indications supplied by the two Consortia involved.*

*Keywords : PDO, willingness to pay, information asymmetry, intermediate institution*

## Introduction

The purposes of Reg. 2081/92 are many, all aiming at protecting the interests of all of the trade components, from manufacturers of raw materials down to consumers. To achieve these purposes, this important Regulation will use the reduction of the information asymmetry existing within the agricultural-food sector, in particular for those products that are considered typical due to their historical and cultural significance.

The assumption on which this EEC initiative is based is to guarantee the consumer that the production process reflects the real historical, cultural and organoleptic characteristics of assumedly typical products, and to protect them from possible forgeries or plagiarism. On the one side, this aims at making the consumer more aware and at allowing him to choose more safely, while, on the other side, at economically protecting manufacturers of typical products by supporting the rural areas where these foods are produced. The instrument that makes this EEC action visible to the consumer is the establishment of a collective label.

If these are the intentions and the instruments made available by the European Union in order to protect quality productions, in a time when the EU gives less and less direct support, the results will not necessarily be up to expectations, since many are the parties concerned and the "revolution" started by this regulation requires the adoption of support actions to make this policy effective enough to really increase the value of typical productions. Given the new scenario that the future has in store, the increase in the value of PDO products will actually depend on the value that the consumers give to the European label.

This paper has two objectives. Firstly, to analyse which factors may affect the consumers' and manufacturers' behaviour and therefore the success of the whole community action for the protection of two well-known PDO products (*Parmigiano Reggiano* cheese and *Parma* Ham). Secondly, to estimate, for the same products, the value that the consumers attach to the European label, in order to reflect on the strategies to be adopted in the future.

## 1. THE ROLE OF INFORMATION ASYMMETRY

The starting point to achieve an overview on the problems started by Reg. 2081/92 to the purposes of increasing the value of typical productions is to be aware of the fact that many agricultural markets are

typically characterised as imperfect markets. The reasons for this vary, but to our purposes, the factor that most affects the whole system is the high level of *information asymmetry* on the quality of marketed products. The existing literature on the subject includes plenty of analyses of information-asymmetrical markets, starting with Akerlof's (1970) works up to the researches conducted by Klein and Leffler (1981), Shapiro (1983) and Stiglitz (1987).

The picture obtained, therefore, consists in the failure of the neo-classical model, in which all the people involved (manufacturers and consumers) have at their disposal all the information required to make their choices, thus guaranteeing "excellent" resource allocation, in the respect of the existing (technological and financial) constraints. Actually, information on price, quality and other attributes should allow the best use of one's budget, by finding the product which best suits the required value for money requirements. At the same time, the consumers' ability to find products they like is for the sellers an incentive to compete and improve the quality of their supplies, since they will be sure this will be appreciated market-wide.

Stiglitz's works already emphasised the fact that the lack of symmetrical information resulted in imperfect forms of trading, with some people having at their disposal information that others did not. In this case, the subjects who have more information use it to make their choices and therefore affect market prices. It results in an endogenous, instead of an exogenous, flow of information within the market, where the only indicator available to all of the operators is the price. At this point, the question which many researchers tried to answer concerns the level of information given by prices, or better yet, to what extent prices can convey information about the real quality contents of the goods and therefore lead to effective choices.

### 1.1. Information asymmetry, shopping habits, price and quality : a brief note

As Stiglitz's studies demonstrated, the existence of information asymmetry generates a close price/quality ratio. For some types of consumers, the price becomes an indicator of the goods' quality, which builds up a factual scale of values, with a univocal price/quality ratio. It is just the existence of this information asymmetry, though, that may lead some companies to behave unfairly (moral hazard and adverse selection), since the

consumer is not given any opportunity to check beforehand if the value for money is actually consistent.

In Stiglitz's model, the consumers try to protect themselves by conducting a research on a product's quality which is not directly visible, and this research goes on until the marginal costs exceed the marginal benefits of the operation. As soon as the research becomes costly, the consumers may suspend it and decide to acquire the necessary information just by purchasing the good. The former category of goods has been defined as *search goods*, while the latter has been defined as *experience goods* (Nelson, 1970).

There is also another category of goods, which is more complex than the previous ones, and which has been defined as "*trust*" or "*credence goods*", referring to a situation in which the consumer has no opportunity of learning about the products' characteristics even after consuming them (Darby and Kami, 1973 ; Anania and Nisticò, 1999). The use of this category of goods refers to the situations in which the consumer, who is not able to judge the intrinsic qualities of a product, makes his/her choice on the basis of the manufacturer's indications. In this case, the existence of a "*credence goods*" market is necessarily subject to quality warranties from a *Third Party*, presumably in the form of regulations, which - in order to guarantee the consumer that the purchased product complies with the quality described by the manufacturer - replace the information by supplying a guarantee in which the consumers have to believe (Tirole 1988 ; Anania and Nisticò, 1999).

Many products have been classified as "*credence goods*" and there are regulations which can supply the consumers with the necessary assurances about the quality of the purchased products. These assurances cover a wide range of high-quality foods, such as, on the one side, those related to health (food safety) and, on the other side, foods with very sophisticated quality characteristics, such as those connected to typicality, geographical origin or production procedure (organic farming). The problem raised by "*credence goods*" has been theoretically addressed by several authors, such as and most recently, Emons (1997), Bureau, Marette and Schiavina (1997) and Anania and Nisticò (1999).

The existence of experience and credence goods further testifies how the quality attributes of food products can be evaluated only after the purchase or in following a particularly serious and committed regulative

action. In other words, quality cannot be evaluated based on first-hand experience, since the latter can only reduce, not remove, uncertainty about the quality of the subsequent purchases. The consumer's basic problem concerns the level of information that he/she can obtain about the product's attributes that he/she may be interested in, while it is not necessarily in the manufacturer's interest to supply thorough information on the good, considering that he/she can exploit such a situation of uncertainty to his/her own advantage, in terms of profitability (Boccaletti, Moro 1993). This state of things results in the information asymmetry existing between shopping consumers and supplying consumers, which has significant repercussions on the behaviour of both categories.

The consumer cannot be sure that his/her needs will be fulfilled and risks that the food will not comply with his/her expectations, finally resulting in decreased overall use. This is why the consumer tries to adopt a self-defending behaviour, such as repetitive purchases, faithfulness to a label and/or shop, tendency to not take risks by buying products he/she does not know, buying expensive or reputedly high-quality products, thus somehow paying a sort of insurance premium for quality safety (Boccaletti, 1992).

In the presence of information asymmetry, therefore, one of the consumer's rational self-defending behaviours is to pay higher prices to guarantee a level of quality that he/she may find satisfactory. In fact, the price is not only an economic-numerical indicator (the financial sacrifice borne when buying), but also consists in a behavioural indication affected by at least three categories of variables : economic, social and demographic. The first variable attributes an average value significance to the price, which is the amount that can possibly be spent for a given category of goods, and which can also slightly vary as a function of quality (Emery, 1970, Monroe, 1973, Caiati, 1994). On the contrary, the social and demographic variables are those which affect the consumers' behaviour by acting on such elements as tradition, cultural level, social status, fashions and aspects related to social distinction.

Many empirical analyses conducted on food-consumers' behaviour (McConnel, 1968 ; Nelson, 1970, Zeitham, 1988) demonstrated the existence of a direct price/quality ratio, thus confirming that the price can provide the consumers with some indications on the product quality. The same authors, though, demonstra-

ted that such relationship is not universal and may markedly vary as a function in that the price may have a different significance for each consumer, the existence of supply/demand interactions and the fact that any favourable price variation will increase, not decrease, the amount of purchases. The fact remains that consumers use the price as a quality indicator based on different reasons, as in the following (Caiati, 1994) :

- The lack of information on similar products' quality characteristics or the lack of time required to obtain it ;
- The awareness that the products have different quality characteristics ;
- The belief that the prices reflect the costs incurred by the company to produce the goods ;
- The belief that the prices indicate the consistency of the market demand for the goods, supposing that the most sought-after ones are also the best quality ones ;
- the fact that the price is a synthetic indicator which makes comparisons easier, by decreasing the possibility of misjudging.

It must be remembered, however, that the function of price as a quality indicator lies within a range of acceptable prices, with a lower and upper limit, by which the product may be considered to be of a poorer quality or excessively expensive, and that the possible presence of a supplying or marketing company's label may remarkably reduce the information function of the price (Caiati, 1994).

## 1.2. Information asymmetry, supply of quality goods and label policies

The quality implications of the "value for money" relationship in the presence of information asymmetry do not only affect the consumer, but also affect the supplier. If it is true that the price reflects the production costs incurred by the manufacturers, the risk of unfair behaviour referable to "adverse selection" and "moral hazard" may well exist, since the manufacturers are the only ones who know the quality characteristics of their own products. Checking the price factor remains, however, an important factor both to defend the profits of the manufacturers who venture towards high-quality productions and to reward researches aimed at product and process innovation. Nevertheless, since profits depend on pricing, pricing must consider some crucial elements. Firstly, the need for

a range of consumers prepared to pay more to have high-quality products. Secondly, the existence of dealers who demand marketing independence and, therefore, independent pricing, since they can affect the end-consumer's choices through communication, merchandising, stock selection, etc.

For manufacturers, the information asymmetry dictates a comparison between the advantage of status-related income and the decrease in exchange turnover. In the case, then, of exogenous quality goods, such as "*credence goods*", the manufacturers of higher quality goods have a well-being loss. In this case, there is an actual need to invest in reputation to qualify products with a sufficient level of approximation (Rama, 1994). In perfect market conditions, with minimum quality standards, investing in reputation would not be necessary, while, in imperfect market conditions, it becomes necessary to adopt such individual or collective measures as to fill the information gap, prevent the occurrence of incorrect mechanisms (adverse selection and moral hazard) and acquire the trust of the customers (Shapiro, 1983). The risk that is ran, here, is in promoting a well-being loss both for the consumers, who are led to non-effective choices, such as choosing goods with lower quality than the ones they would choose if they had all the required information available (Akerlof, 1970), and for the manufacturers, who see their profits reduced due to typical "unfair competition" mechanisms.

In order to avoid the occurrence of situations that would cause social well-being loss, it is therefore necessary to implement more information, partly private and partly institutional (Shapiro, 1983 ; Boccaletti and Moro, 1993), aimed at protecting the consumers' health (by establishing hygiene criteria and health standards) as well as promoting higher market transparency by establishing minimum quality standards, enforcing labelling regulations, establishing regulations on advertising activities, acknowledging and registering labels, setting up control boards, formulation of production code rules, etc.

At the company level, the enforcement of a label policy is the main instrument to not only reduce information asymmetry on the product's quality characteristics, but also to differentiate one's products from those of the competitors', in order to obtain a competitive advantage in terms of trust of a product or label and thus making it possible to adopt a suitable value-increase policy through traditional marketing strategies.

If this "value increase" is obtained by building up the customers trust, the company must possess suitable marketing know-how, substantial financial resources and be able to bear the risk that the return obtained will not be sufficient to reward the economic and organisational costs incurred during the product value increase phase. If, then, the production is poorly differentiated, the company will risk losing substantial market shares if it is not able to subdivide the demand through suitable pricing policies. The risk is, therefore, high, and accounts, at least in part, for the limited use of this procedure among the most traditional components of the Italian agricultural-food system (Magni, 1995).

If the products' value increase makes use of decreased information asymmetry, the company must have economic or financial average that allow them to attain sufficient scale economies to cover, at minimum, the newly incurred costs with higher revenues. To this purpose, the Small and Medium-Sized Enterprises (SMEs), which characterise the structure of the Italian agricultural-food system, meet great difficulty in developing a corporate policy based on the use of a label, since they risk not succeeding in making the best use of the demand increase and therefore not succeeding in covering the costs incurred. The conclusion of these considerations is that the Small and Medium-sized Firms concentrate in extremely remunerative market niches, such as that of typical products, while the larger companies can rely on new products and on market extension policies, dealing, in particular, with a network of dealers able to guarantee the required turnover (Galizzi, 1981).

In an agricultural-food system characterised by the existence of SMEs, as it is in Italy, where the latter are considered as a permanent life-style and not simply as a transient phase towards larger financial sizes, it is essential that suitable communication instruments be implemented to increase their products' value and to be competitive. Problems rise when these companies do not have any independent economic or organisational resources available, and, above all, any label that may be well-known and easily recognisable to a wide range of consumers. The solution, in this case, consists in the establishment of Consortia-like structures that may represent all of the Small and Medium-sized Enterprises existing in the sector of a certain product and carry on with all the initiatives that would be excessively expensive or demanding for one single firm to under-

take. Let us mention, among these, the enforcement of production code rules and the use of collective labels.

### 1.3. Information asymmetry and collective labels

It is important to remember that the role played by a collective label is different from and wider than the one played by a corporate name, since the element underlying the identification and differentiation of the products are the characteristics and qualities established by the manufacturing firms as a whole and therefore by the Consortia. In other words, a collective label guarantees compliance with the rules established by the manufacturers, very often defined within the production code rules. In this case, then, a collective label becomes stronger than a corporate name, and is more appreciated by the consumer since the promised quality is made explicit and the sanctions established against unfair behaviour represents an element of protection and quality guarantee.

It must be said that collective labels consist of various trade types, such as :

- Origin label, indicating provenance from given geographical areas ;
- Raw material labels, indicating the presence of a given raw material as the element characterising product quality ;
- Process labels, implying the use of specific production processes ;
- Association labels, indicating that the members belong to the same industrial, trade or co-operative association and that the goods have been produced or marketed in compliance with the rules established by these associations ;
- Quality labels, guaranteeing the existence of specific product attributes, thanks to controls conducted by public or private boards, in any case, by external parties which are not label users.

However, it must be recognised that it is quite difficult to draw a neat line of demarcation among the different categories of labels proposed in the classification. In some cases, actually, the quality label may partly or totally correspond to the origin, association or process label. The fact remains that a firm will derive a double advantage from complying with production code rules and from using the corresponding label, (Boccaletti, 1992) since :

- The competitive environment where the manufacturers work is limited to certified products only ;
- The member firm automatically acquires a reputation, determined by the fact it sells a product with well-defined quality characteristics that can be conveyed to the consumer through the particular label and name conferred upon it.

Information asymmetry can, therefore, be overcome through collective labels as an expression of public or private boards, which, based on specific regulations, can guarantee the consumers on the intrinsic and/or extrinsic quality of the purchased goods by average of controls conducted on the product quality, processing methods or, as with such "*credence goods*" as in typical products, compliance with production code rules.

At this point, it is clear that for the information asymmetry to decrease and guarantee that the market works properly, implementing private initiatives is not enough : public actions are also needed. The action of a public board, as a subject defining and/or controlling food quality, seems to be justified by the fact that some important quality elements affecting buying decisions take on the form of *public goods*. A public board would, therefore, represent the *Third Party* involved, with the objective to re-distribute the benefits related to the use of the public asset and guarantee the proper functioning of the market (Magni and Driussi, 1998 ; Vastola, 1994). In other words, the institutional activity tries to act as a balancing force among different trade operators, by promoting competitiveness among companies and customer's satisfaction, by promoting a more effective expenditure allocation while respecting the consumer's needs.

The growing importance attached to the quality factor, while enriching and complicating the companies' life and making the consumers more aware of certain problems, nevertheless, has outlined a new role for the public boards, which had to adapt to the slow changes occurring both in consumption styles and in the development of agricultural policies, more and more oriented to the satisfaction of consumers' quality needs. An example of this comes from the European Union, which, through Reg. 2081/92 and Reg. 2082/92 (on PDO and PGI, respectively) and specificity certificates, expressly provided farmers (or manufacturers) with the opportunity of using a label to indicate the product's quality. More specifically, the objectives which the European regulations aim at achieving using a label

identifying typical products are many and can be summarised as follows :

- Standardisation of agricultural-food regulations within a quality context ;
- Attempt to prevent the loss of production and food traditions which are part of the European cultural heritage ; this may also become a factor to revive some rural economies ;
- Manufacturers' protection, by guaranteeing them the recognition of quality typicality ;
- Consumers' protection, by offering them a chance to choose based on the feeling of reliability on the control actions conducted by public boards.

It is clear that the existence of collective labels summarising the whole of the regulations suited to protect manufacturers and consumers actually is an institutional barrier in which those companies unable to fulfil the required quality standards or which would have to bear extremely high costs to achieve them could possibly be driven out of the market.

To summarise the picture so far outlined for the reduction of information asymmetry between manufacturers and consumers of food products with assumedly high-quality contents, the most effective policy to be developed by Small and Medium-sized Firms is to provide consumers with the highest level of protection and assurance about the intrinsic and extrinsic qualities that may fulfil the consumers' needs, both for "*experience goods*" and "*credence goods*". At the same time, for the same purposes, the European Union also recognises, as well as protects, the production trend underlying typical products, products with geographical indication and specificity certificate.

## 2. THE ROLE OF INTERMEDIATE INSTITUTIONS

At this stage, it must be considered that, in some cases, the initiatives aimed at informing the consumers and protecting the manufacturers originated much earlier than the enforcement of European regulations. These initiatives brought to the establishment of real "*Consortia*", specifically born to guarantee the enforcement of production code rules and, therefore, prevent manufacturers from behaving unfairly, as well as, to control the goods' quality before placing the goods on the market.



These sorts of Consortia, which in Italy have contributed to the success of so many agricultural-food products now recognised as typical - just think of the role played by the *Consorzio Formaggio Parmigiano Reggiano* and by the *Consorzio Prosciutto di Parma* -, may be considered as "intermediate institutions". According to the theoretical approach provided by the well-being economy, the latter are considered as co-ordination institutions that can reduce market use costs (transaction costs), while promoting conveyance of information to all the parties involved, reducing their level of uncertainty and, in other words, contributing to prevent the occurrence of situations that may involve market failure (Coase, 1937 ; Williamson, 1985).

For a long time, economic theories have addressed the effects and spreading of market failures and the ongoing debate about the self-adjustment abilities of competitive mechanisms is far from concluded. It cannot be denied, however, that institutional adjustment instruments aimed at containing the effects of market failures have been implemented in all market economies and that market operations, as we normally see them, are not only the result of simple supply/demand interactions, but also of direct and indirect actions developed by a large number of institutional agents (Giacomini and Arrighetti, 1999).

In short, the analysis of trade operations has led to new methodological approaches that can better interpret the phenomena observed (Giacomini and Arrighetti, 1999). The first approach, typical of economic sociology, tends to configure the market as a network of social relationships, with a complex of inter-related networks and actions (Baker, 1990) affected by the institutional, organisational and cultural context in which the economic transactions are concluded (Fligstein and Brantley, 1992). In other words, the assumption developed is that the choices made by trade operators or those working within a sector are affected not only by *official institutional* subjects (anti-trust boards, courts, banks, etc.), but also by the presence of *unofficial institutions* (regulations, agreements, reciprocities among the economic subjects involved) (North, 1990). It is the latter that, by reducing decision-making and transaction costs, increase the level of transaction certainty, by increasing recourse to the market and, therefore, avoiding recourse to organisations. In addition to this approach, there is another scheme of interpretation, which, though close to the previous one, is based on collective goods, either tangible or intangible (Hardin, 1982), goods. The

latter, though not being direct transaction subjects, are however to be considered as part of the transaction relationship system, both because they are often considered as transaction subjects, and because they control contract relationships, thus making it possible to limit market recourse costs (Arrighetti and Seravalli, 1998).

The second approach suggests that the goods may be divided into *universal collective* goods (codes and laws, national infrastructures, etc.) and *selective collective* goods (concerning categories of subjects or specific territorial areas). The former are the result of the central boards' activities (States and national governments and supranational boards), the latter of intermediate institutions (local government structures, non-temporary Consortia and co-operative associations, local agencies, etc) (Giacomini and Arrighetti, 1999).

The market approach as a social structure and the collective goods approach obviously show some connection to each other, the most important of which lies in the fact that they both can influence the effectiveness of competitive mechanisms of variables that are often neglected by traditional, such as institutional and cultural, factors (in the former case), and the availability of intangible and tangible collective goods (in the latter case). The role played by local institutions in the development of certain areas has just started to become relevant, but is nevertheless well documented by some empirical works (Arrighetti and Serravalli, 1998), which show how the geography of intermediate institutions already contains some distinctive elements of economic growth, as recorded in some Italian areas.

In the case of the Italian agricultural-food market, some relevant examples both of intermediate institutions (such as the Consortia) and selective collective goods (that is, production code rules, typicality or origin marks and relevant control procedures) can be found, to support many food products which have been previously defined as "*credence goods*", such as, for example, typical products.

### 2.1. A relevant example of intermediate institutions

A rather significant example of intermediate institutions working in the field of typical products is the *Consorzio del Formaggio Parmigiano Reggiano* (CFPR) and the *Consorzio del Prosciutto di Parma* (CPP). The former

was born on the manufacturers' initiative in 1934<sup>1</sup> as a volunteer Consortia and has since played, and still plays, a fundamental role in the development of the sector, by making *Parmigiano Reggiano* cheese better known through the use of the Consortia label itself. Its protective action was recognised in 1955 by the Presidential Decree dated May 30<sup>th</sup> which acknowledged the "Designation of Origin" (DO) for the *Parmigiano Reggiano* cheese and defined its "area of origin", standards, control and protection average<sup>2</sup>. The *Consorzio Prosciutto di Parma* was born, rather, on April 18<sup>th</sup>, 1963, on the initiative of 23 ham-curing firms that founded the volunteer "Typical Parma Ham Manufacturers' Association"<sup>3</sup>. The Volunteer Consortia was subsequently recognised by the Italian Law through the N.L. dated July 4<sup>th</sup>, 1970, no. 506<sup>4</sup>, which was enforced 8 years later, when the M.D. dated July 3<sup>rd</sup>, 1978, was issued. In 1990, in order to adapt the regulations to the developing production system, a new law for the protection of the *Prosciutto di Parma* designation (NL February 13<sup>th</sup>, 1993) was passed. In this case as well, the 1993 law was followed by the compliance regulations approved by the M.D. dated February 15<sup>th</sup> 1993, no. 253, replacing that of 1978<sup>5</sup>.

By virtue of such powers, both Consortia have always managed public functions *erga omnes*, in spite of them being private boards. Besides managing and protecting a "collective" label, they co-operated in launching two products that, due to their intrinsic characteristics, may be considered unique, while ensuring their geographical origin, production technique and quality, and, therefore, acting as consumers' "guarantors".

At an institutional level, the novelty lies in the fact that both *Parmigiano Reggiano* and *Prosciutto di Parma*, under the corresponding Consortia, had already submitted to production code rules and to a Designation of Controlled Origin label, and have been recognised as PDO products, in compliance with Reg. 2081/92. As previously illustrated, though, the action so far carried out by the corresponding Consortia has actually pursued the same objectives as have now been assigned to the PDO. The actions that both Consortia have implemented on all (national and international) markets to increase the product value represent a contribution to the development of the rural world, and mountain fringe areas in particular, where milk and dairy production and pork leg processing are among the few activities that can still keep agriculture locally rooted.

The results of a recent poll on a random sample of 325 consumers divided into a per capita income yielded an extremely significant measure of how much the consumers rely on the two Consortia' labels. Actually, as much as 75% of the interviewed consumers saw these boards as the organisms that could best guarantee the purchased products (Table 1). It is not a coincidence that, in Italy, as well as in other EU countries, the Origin Designation productions are guaranteed by a control system developed in co-operation with the Consortia, which, by virtue of the Community provisions, are now thoroughly re-examining their own situations. The matter is very delicate, since the Consortia are trying to defend their economic and political status, as well as the reputation and prestige gained over the years. It is perfectly normal to wonder if the surplus value accompanying typical products should be attributed to the European labels, or rather to the Consortia actions, which have made their designations and labels successful over the years.

### 3. THE ECONOMIC VALUE OF TYPICAL PRODUCTIONS

At this stage, for the purposes of the research objective - establishing the value of typical productions - it is perfectly normal to wonder how the consumers behave towards the Consortia' label and towards the EU label for the PDO / PGI productions that already benefit from unrivalled fame in Italy and abroad. In other words, what is the weight of the Consortia label on the paid price? Again, does the EU's PDO label value to the typical products or, rather, does it reduce it?

#### 3.1. A short methodological note

To answer these questions, the consumers' opinion about the labels being able to guarantee the quality of typical products, obtained through their willingness to pay, is not only important, but would also become an instrument to determine the value of related collective (Consortia and EU) labels.

More concretely, methodologies were utilised to measure the explicit value of the goods that can increase (or decrease) the consumers' level of usage. These methodologies are best applied when the goods that can improve an individual's use do not have an explicit market price, such as public goods, for instance. In this case, the willingness to pay to improve one's well-being level (or to be rewarded for its reduction) is a

relevant indicator of the consumer's behaviour, which can summarise his/her sensitivity towards a given good as a function of his/her budget constraints.

The goods that can guarantee an improvement in the consumers' usage, by the same standard as public goods, include by right *selective collective goods* (such as typicality labels) which are part of *credence goods*, since they reduce the information asymmetry by ensuring the consumers about the intrinsic and extrinsic quality of the purchased good. The use of these goods, which is not explicit and shows certain subjectivity, can be measured just by using the Willingness To Pay (WTP).

It is worth underlining that being a public asset, as associated to Consortia' or Typicality labels, applies both to manufacturers and consumers. It is obvious that no manufacturer who accepts to enforce production code rules may be driven out of the market and use the collective label and that using a label does not reduce the competing companies' utility. At the same time, no consumer willing to pay for the use of that good may be left out and his/her consumption will not reduce other consumers' usage.

Among the theoretical and empirical instruments developed for the economic assessment of public goods and services using the willingness to pay, the *Contingent Valuation Method* (CVM) certainly is one of the most common. The vast literature on the sector, mainly produced in the United States (Mitchell and Carson, 1989), has been recently widened to include applications developed in Europe (Navrud 1992 ; Navrud and Prukner, 1997) as well as in Italy (Arfini, 1997 ; Bishop and Romano, 1998). In addition, if, at first, the public goods considered were environmental, a recent line of studies (Mora Zanetti, 1999) used the CVM to estimate the value of public goods as a function of the hygiene and health of some categories of foods.

The CVM essentially consists in interviewing a sample number of consumers / users who are presented with detailed information about a basic scenario and one hypothetical variation to it. That is, they are asked how much they would be willing to pay (WTP) to obtain a benefit, which is represented in the foreseeable scenario. According to the hypothesis, the average user, represented by the average consumer, would express a WTP for the improvement. The objective of the CVM is to obtain demand prices, that is, evaluations similar to

those one would obtain if there were a real market for the good at issue. The hypothetical market should be as close as possible to a real market, for instance the interviewee should be familiar with the question asked. The researcher proposes the minimum demand price and the interviewee expresses if he/she is willing to pay for it or not, otherwise, the price is increased up to the limit price that the user states he/she would be willing to pay<sup>6</sup>.

### 3.2. Description of the sample

The tool, which the CVM method resorts to, is submitting a questionnaire to a sample number of consumers. In this case, as previously mentioned, the questionnaire was submitted to a random sample of 325 consumers in various regions of Italy.

In order to guarantee high-quality replies, the sample was composed of consumers who were sensitive to food quality issues and had medium-to-high informative and cultural levels. For this reason, the questionnaires were sent to a random list of Italian consumers' associations' members (*ADICONSUM, Movimento Consumatori, Unione Nazionale Consumatori and Lega Consumatori*).

This resulted in a sample in which 58% were women (Table 2a), where the division by age showed that 45% of the sample was 25 to 44 years old (Table 2.a) and where the interviewees' education level was to be considered as medium-high, since more than 86% of the sample number possessed a senior high school diploma or a university degree (Table 2b). In order to make sure that the consumers' intentions complied with their spending potentials, each answer was divided by the size of the family to which each consumer belonged and by their per capita income (Table 2c). More precisely, four family groups (singles, small, medium and large) and four per capita income classes (up to 12 million Italian lire, from 12 to 24 million Italian lire, from 24 to 40 million Italian lire, over 40 million Italian lire) were identified. The latter factor is to be considered decisive for the application of the WTP, since it is most directly related to the consumers' spending potential based on the consumers' budget constraints. The sample of interviewees, though not statistically representative, was composed in such a way as to try to minimise abnormal behaviours.

### 3.3. General assessment

Our survey started with an analysis of consumers' buying habits related to eight major categories of food products : pasta, cheese, grating cheese (including *Parmigiano Reggiano* cheese), wine, oil, beef, chicken and dressed pork products (including *Parma* ham). In particular, for each category identified, the consumers were asked to indicate which factor they believed was most important when shopping and made to express one preference only per product category. They could choose between the presence of the manufacturer's name, the presence of a label (for instance, the supermarket brand), the presence of a label certifying authenticity (for instance, biological/ organic farming)<sup>7</sup>, the presence of a label certifying typicality (for instance, the Consortia's label or the PDO/PGI label) and price.

Based on the first answers obtained, the indications about the role of the label and price when choosing the food products showed that :

- The presence of the manufacturer's brand is of fundamental importance when shopping for pasta (77.81%), it is important when shopping for dressed pork products (32.2 %), wine (30.82%) and oil (28.06%), while it is comparatively important when shopping for grating cheese (18.91%) and ordinary cheese (18.24%) and chicken (13.24%), and is irrelevant for beef (6%) ;
- The presence of a label (such as the supermarket brand) is unimportant for all the product categories, except for beef (15.3%) and chicken (13.5%), where it comes second as a choice factor ;
- The presence of a label certifying genuinity is of fundamental importance for beef (60.5%) and chicken (54.7%), while it comes third as a choice factor for wine, even if very distant from the first place (22.26%) ; - the presence of a label typicality comes first as a choice factor for grating cheese (45.5%), wines (38%) and oil (36.1%), it comes second for ordinary cheese (33.2%), it comes third for dressed pork products (27.4%), while it is unimportant for chicken, beef and pasta ;
- Price is important, above all, for oil (28.06%), is the third choice factor for chicken (12.5%), beef (total 9.36%) and pasta (total 8.13%), while it is unimportant for the other categories.

It is important, however, to underline that, among the major factors considered for *Parmigiano Reggiano* cheese and *Parma* ham, those of typicality and authenticity came out as decisive in affecting consumers' choices, and it is not a coincidence that both factors are guaranteed by relevant Consortia (Table 3).

To introduce the specific analysis on the two typical products chosen as the subjects of the survey, it was decided to question the consumers about the reasons that led them to buy a typical product. The information collected (Table 4) showed that the most common reason for the purchase (41.8%) was due to the connection between these products and local food traditions, while 23.22% of the interviewees were of the idea that these products were authentic. The reason for the lower value attached to authenticity as a reason for buying typical products is due to the fact that the consumers always consider a typical product as an authentic one. The latter acquires, then, the meaning of an unaltered product, produced in an artisan manner and, therefore, authentic.

### 3.4. Evaluating *Parmigiano Reggiano* cheese and *Parma* ham

To introduce the issue of consumers' buying habits in the case of *Parmigiano Reggiano* cheese and *Parma* ham, besides asking the consumers information on their buying habits (quantity, place and product size), a survey was conducted on the relationship between the consumer and the labels, first of all the manufacturer's label. To develop this aspect, the interviewees were asked if they looked for the label of the firm producing or marketing a typical product when shopping. It was quite surprising to find out that, for *Parmigiano Reggiano* cheese, only 29% of the consumers consistently looked for a private label, while 33.8% of them, instead, never cared about it being there (Table 5). The role of the corporate brand was even less important for *Parma* ham ; actually, only 22.7% of the consumers stated that they always looked for it, while 34.77% never looked for it. These data sounded quite unusual, considering that 72% and 78% of the consumers could not remember the name of the firm producing or marketing *Parmigiano Reggiano* cheese or *Parma* ham.

The results obtained, then, showed that little attention was paid to the private label of the firm producing or marketing the two typical products at issue, a behaviour that looked more marked as the per capita income increased.

If, as it seems, the consumers do not pay particular attention to a specific corporate label, what label affects their behaviour, then, when they shop for these two famous products? We have already seen that Consortia play an important role in reassuring consumers about purchased products quality (Table 1). This aspect was further confirmed by the fact that, for *Parmigiano Reggiano* cheese, as much as 75% of the interviewed consumers (67% for *Parma* ham) looked for the Consortia label when shopping (Table 6). Based on the data observed, it can be stated that these two typical products have become famous thanks to the value-increasing and protective activities carried out by their corresponding Consortia, since the consumers consider these associations' labels as synonymous with quality and, therefore, look for them when shopping.

At this point, it is possible to try to quantify, also in economic terms, the value attached by the consumers to the two collective labels, as an expression of their relevant Consortia, using the Contingent Valuation Method (CVM) to measure the WTP for the quality guarantee offered by such marks.

Before applying the CVM, though, it must be remembered that, for the typical products herein examined, the consumer selling price already included the value of the Consortia label. In order to break up this price into its components and extrapolate the value given to it by the consumers, instead of starting with a minimum price and increasing it in exchange for the inclusion of the Consortia label, we started with a current market price and asked what percentage reduction of the price could be accepted lacking such label; the reduction represented the economic value we were looking for.

First, the consumers were asked if they were willing to pay the same price lacking the relevant Consortia labels. To this question, 88.9% of the consumers said no for *Parmigiano Reggiano* cheese and 86.4% said no for *Parma* ham. Later on, those who had answered "no" were asked to tell which was the maximum price, with respect to those indicated, they would be willing to pay for each one of the two typical products examined lacking the relevant Consortia label.

As far as *Parmigiano Reggiano* cheese was concerned (Table 7), the price most often chosen by the consumers in all the income classes (27.69 % of the sample) was the one associated to the highest percent reduction

(-30% equal to 19,600 £/Kg), while the highest price (26,600 £/Kg) was the least frequently chosen. Based on these data, we calculated the amount that each income class was willing to pay (Table 8). These values were consistent with and properly represented by the overall value of 22,014 £/Kg, which, in conclusion, was the maximum price that the interviewees were, on average, willing to pay for *Parmigiano Reggiano* cheese lacking the Consortia label, therefore suggesting a 21.38% reduction compared to the initially proposed price of 28,000 £/Kg. Since the price reduction that the consumers demanded related to the lack of the Consortia label, it seemed that such reduction (equal to 5,986 £/Kg) actually corresponded to the economic unit value of the label at issue. The same procedure was applied to *Parma* ham (Tables 7, 8), which allowed us to find out that the maximum price paid, on average, by the interviewees to buy this product lacking the Consortia label was 39,031 £/Kg: in this case, a 21.94% reduction compared to the indicated price of 50,000 £/Kg led us to assign such label a unit value of 10,969 £/Kg.

### 3.5. Evaluating the PDO labels

To probe further into the relationship between the consumers and PDO labels, we asked the interviewees if they were aware that there was a label promoted by the European Union to protect typical food products and their quality. The answers provided showed that only 41.8% knew about the PDO labels, while only 37.8% stated they had heard about them and 17.8% did not know them at all. A worrying situation emerged from these data: how can a consumer be willing to pay a premium price for strengthening quality control, if he/she does not know or knows very little about the label which guarantees such improvement? The situation, then, is even more unbearable, considering the European PDO labels have to compete, in the consumers' minds and age-long experience, with the Consortia labels which, as previously shown, meet great success and favour with the consumers. After asking if the PDO labels could replace the Consortia labels as guarantors of typical food products' quality, only 13.5% were found to rely completely on Community recognition, while 21.2% of the interviewees answered a loud "no" and 60% of the interviewees were torn, stating they only partly relied on European labels.

After acknowledging the first "defeat" of the PDO labels against the Consortia labels, we tried to determine the

value of the European label, using once again the CVM technique since this label can also be compared to a public good. We asked, therefore, for the consumers to tell which price, in their opinion, would best indicate the economic value of *Parmigiano Reggiano* cheese and *Parma* ham, if these products were sold without the Consortia labels, but with the EU's PDO labels only.

Using the previously illustrated procedure, we calculated the average price that the consumers were willing to pay according to their WTP for each of the two typical products, if these were guaranteed by the PDO label only. The results of this question (Table 9) showed an overall average value of 24,039 £/Kg for *Parmigiano Reggiano* cheese. The difference between this price and the current price of 28,000 £/Kg is the average loss of value that *Parmigiano Reggiano* cheese would derive from being guaranteed by the PDO label only ; such loss amounts to 3,961 £/Kg, that is, approximately 14.15%.

Thanks to the information obtained, it is now possible to determine the economic value of the PDO label. If the maximum average price that the consumers are willing to pay for *Parmigiano Reggiano* cheese without a Consortia label is 22,014 £/Kg - indicating the limit between ordinary *Parmigiano Reggiano* cheese and the typical product guaranteed by the Consortia -, the maximum average price that the consumers are willing to pay for *Parmigiano Reggiano* cheese guaranteed by the PDO label is only 24,039 £/Kg. Since the product is not differentiated below 22,014 £/Kg, the difference between 24,039 £/Kg and 22,014 £/Kg, that is, 2,025 £/Kg, can be considered as the value of *Parmigiano Reggiano* cheese PDO label, equal to 7.23% of the indicated price of 28,000 £/Kg.

The opinion that emerges from these values cannot be mistaken (Fig. 1). The Consortia label "beats" the PDO label in guaranteeing *Parmigiano Reggiano* cheese quality (5,986 £/Kg vs. 2,025 £/Kg) and, with the latter label only, the average loss of value would be approximately 3,961 £/Kg compared to the current average value of 28,000 £/Kg.

The same kind of analysis was subsequently conducted for *Parma* ham. The results were found to be very similar to the previous ones, in comparative terms (Table 9 ; Fig. 21). Actually, the average price paid for ham guaranteed by the PDO label only was 42,772

£/Kg, from which we argued a loss of value of 7.228 £/Kg compared to the indicated price, that is, 14.46%, while the PDO label's value amounted to 3,741 £/kg.

## CONCLUSION

Our survey concludes here, while the PDO labels still have a long way to go, as instruments to guarantee typical food products quality in the consumers' interest. Actually, these labels established by the European Union to better guarantee and protect the consumers in their shopping, by decreasing the information asymmetry that characterises their situations, have the serious disadvantage to be poorly known by all parties for whom they have been established.

The most serious problem that seems to arise here can be summarised as follows : the PDO label can improve consumers' protection, since it obliges the manufacturers to have the control for the compliance of the typical product with the production code rules carried out by a *Third Party*, in order to neatly separate the controller from the controlled. Most of our PDO typical products showed, instead, such a mixed role, since the control was carried out by the respective Consortia which now find it hard to adapt to new legal prescriptions.

The common feeling is that, if the consumers are not aware of these facts, they cannot understand the value and function of the European labels. Therefore, the latter are judged as useless and unnecessary, since there are already the Consortia labels, which they have come to trust over the years **instead**.

It seems, therefore, necessary, above all, to promote better consumers' awareness on the nature, operations and role of PDO labels, even in opposition to Consortia labels. This action, though, must be effected very cautiously, since many consumers might expectedly remain loyal to the "traditional image" of the Consortia. Actually, a Consortia recalls the idea of products which remain close to the consumer, which are produced through traditional age-old techniques, without using the technological innovations that often frighten the consumers. In short, in the consumers' opinion, the idea of typicality and authenticity originates from the direct connection existing between those who produce and those who take care of the product, to bring it to their tables in the manner that best complies with quality.

The most serious risk of the policy started by the European Union to protect typical products' quality is to diminish the role and the importance of the Consortia, thus weakening the fabric of Small- and Medium-Sized Firms on which the production of our PDO products is based. If this should happen, then, it would be the larger

companies, which possess a strong corporate name, to take advantage of the situation, while the consumers could become estranged from typical products, thus endangering the socio-economic fabric of entire rural areas.

**Table 1 : Control boards which make the consumers feel safer (as % and absolute values)**

Control Boards	Per capita gross yearly income class				Total	
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More than 40 ML	Relative values	Absolute values
<b>Public board</b>	9.43%	10.09%	17.92%	13.21%	13.1%	43
Private	1.89%	6.42%	5.66%	3.77%	5.0%	17
Private + Public board	5.66%	7.34%	6.60%	7.55%	6.8%	23
Consortia	83.02%	76.15%	69.81%	75.47%	75.1%	242
<b>Total</b>	100%	100%	100%	100%	100%	325

**Table 2 : Sample composition**

**Table 2a : Sample composition by Age and Sex**

**Table 2b : Sample composition by Education and Sex**

Age range	Sex		Total	
	Females	Males	Absolute values	Relative values
Up to 25 yr.	40	26	66	20.4
From 26 to 44 yr.	85	61	146	44.9
From 45 to 60 yr.	61	33	94	28.9
More than 60 yr.	5	14	19	5.8
<b>Total</b>	<b>191</b>	<b>134</b>	<b>325</b>	<b>100</b>
<b>Relative values</b>	<b>58.8</b>	<b>58.8</b>	<b>100</b>	

Education	Sex		Total	
	Females	Males	Absolute values	Relative values
Primary school	7	3	10	3.1
Junior high school	17	15	32	9.9
Senior high school	75	54	129	39.9
University	92	62	154	47.1
<b>Total</b>	<b>190</b>	<b>133</b>	<b>325</b>	<b>100</b>
<b>Relative values</b>	<b>58.8</b>	<b>58.8</b>	<b>100</b>	

**Table 2c : Sample composition by family size and per capita income class**

Age range	Per capita gross yearly income class				Total	
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More then 40 ML	Absolute values	Relative values
Large	9	10	9	2	30	9.2
Medium	21	45	25	13	104	32.0
Small	17	55	59	27	158	48.6
Single	7	0	13	13	33	10.2
<b>Total</b>	<b>54</b>	<b>110</b>	<b>106</b>	<b>55</b>	<b>325</b>	<b>100</b>
<b>Relative values</b>	<b>16.6</b>	<b>33.8</b>	<b>32.6</b>	<b>16.9</b>	<b>100</b>	

**Table 3 : Impact of label and price on buying habits (as %)**

	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More then 40 ML	
<i>Parmigiano Reggiano</i>					
Presence of manufacturer's brand	21.15	22.43	13.86	19.23	18.91
Presence of supermarket brand	3.85	1.87	1.98	1.92	2.24
Presence of label certifying authenticity*					
Presence of label certifying typicality	45.77	67.29	71.19	71.16	<b>70.51</b>
Price	19.23	8.41	2.97	7.69	8.33
<i>Parma ham</i>					
Presence of manufacturer's brand	33.33	26.42	36.00	35.85	32.26
Presence of supermarket brand	3.92	1.89	1.00	1.89	1.94
Presence of label certifying authenticity*					
Presence of label certifying typicality	54.91	64.16	58.00	52.83	<b>58.61</b>
Price	7.84	7.55	5.00	9.43	7.10

\* There is no authenticity label for Parmigiano Reggiano and Prosciutto di Parma.

**Table 4 : Customers' reasons for buying typical products (as %)**

Reasons for buying	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More then 40 ML	
They are more natural	22.22	26.36	21.70	20.75	<b>23.22</b>
They taste better	14.81	20.00	18.87	24.53	19.50
To add something different to our meals	12.96	9.09	3.77	9.43	8.05
To eat something different	11.11	7.27	7.55	3.77	7.43
Because they reflect local food traditions	38.89	37.27	48.11	41.51	<b>41.80</b>
Total	100	100	100	100	100



**Table 5 : Consumers looking for corporate brands when shopping for *Parmigiano Reggiano* cheese and *Parma* ham (as %)**

	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More than 40 ML	
<i>Parmigiano Reggiano cheese</i>					
<b>Always</b>	42.59	30.00	24.53	25.45	29.54
<b>Sometimes</b>	31.48	37.27	32.08	29.09	33.23
<b>Never</b>	25.93	31.82	36.79	40.00	33.85
No answer	1.85	0.91	6.60	5.45	3.38
<i>Parma ham</i>					
<b>Always</b>	27.78	23.64	20.75	20.00	22.77
<b>Sometimes</b>	40.74	40.00	39.62	38.18	39.69
<b>Never</b>	29.63	34.55	35.85	38.18	34.77
No answer	1.85	0.91	3.77	3.64	2.77

**Table 6 : Consumers looking for Consortia labels when shopping for *Parmigiano Reggiano* cheese and *Parma* ham (as %)**

	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More than 40 ML	
<i>Parmigiano Reggiano cheese</i>					
<b>Always</b>	64.81	76.85	86.00	65.38	75.80
<b>Sometimes</b>	27.78	16.67	11.00	34.62	19.75
<b>Never</b>	7.41	6.48	3.00	0.00	4.46
<i>Parma ham</i>					
<b>Always</b>	57.69	69.44	76.92	50.94	66.88
<b>Sometimes</b>	32.69	23.15	17.31	35.85	24.92
<b>Never</b>	9.62	7.41	5.77	13.21	8.20

**Table 7 : Consumers divided by willingness to pay for *Parmigiano Reggiano* cheese and ham lacking Consortia label**

Price	Per capita gross yearly income class				Total	
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More than 40 ML	Absolute values	Relative values
<i>Hard cheese</i>						
26,600 £/Kg (-5)	5	7	6	5	23	7.08
25,200 £/Kg (-10)	6	6	9	3	24	7.38
23,800 £/Kg (-15)	1	16	11	7	35	10.77
22,400 £/Kg (-20)	11	12	13	4	40	12.31
21,000 £/Kg (-25)	6	17	13	6	42	12.92
19,600 £/Kg (-30)	17	33	24	16	90	27.69
No answer	8	19	30	14	71	21.85
Total	54	110	106	55	325	100
<i>Ham</i>						
47,500 £/Kg (-5)	6	4	7	5	22	6.77
45,000 £/Kg (-10)	4	6	8	4	22	6.77
42,500 £/Kg (-15)	2	10	9	5	26	8.00
40,000 £/Kg (-20)	12	16	9	5	42	12.92
37,500 £/Kg (-25)	4	18	9	4	35	10.77
35,000 £/Kg (-30)	17	34	31	16	98	30.15
No answer	9	22	33	16	80	24.62
Total	54	110	106	55	325	100

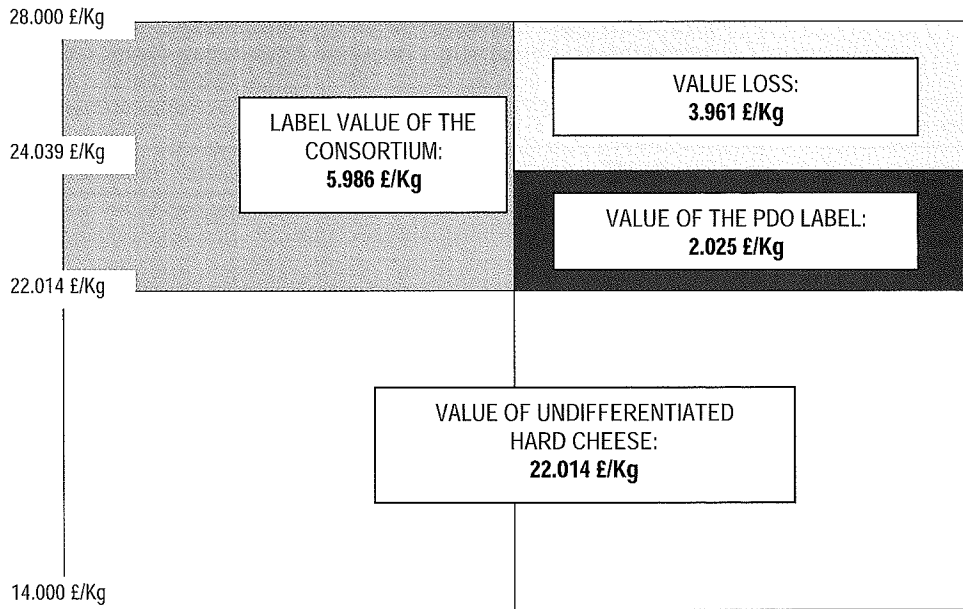
**Table 8 : Mean prices paid by the consumers according to the WTP and mean unit value of *Parmigiano Reggiano* and *Prosciutto di Parma* Consortia labels (£/kg)**

	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More then 40 ML	
<i>Parmigiano Reggiano cheese</i>					
WTP-based price	22,035	21,877	22,142	22,059	22,014
Consortia label's mean unit value	5,965	6,123	5,858	5,941	5,986
<i>Parma ham</i>					
WTP-based price	39,444	38,523	39,144	39,487	39,031
Consortia label's mean unit value	10,556	11,477	10,856	10,513	10,969

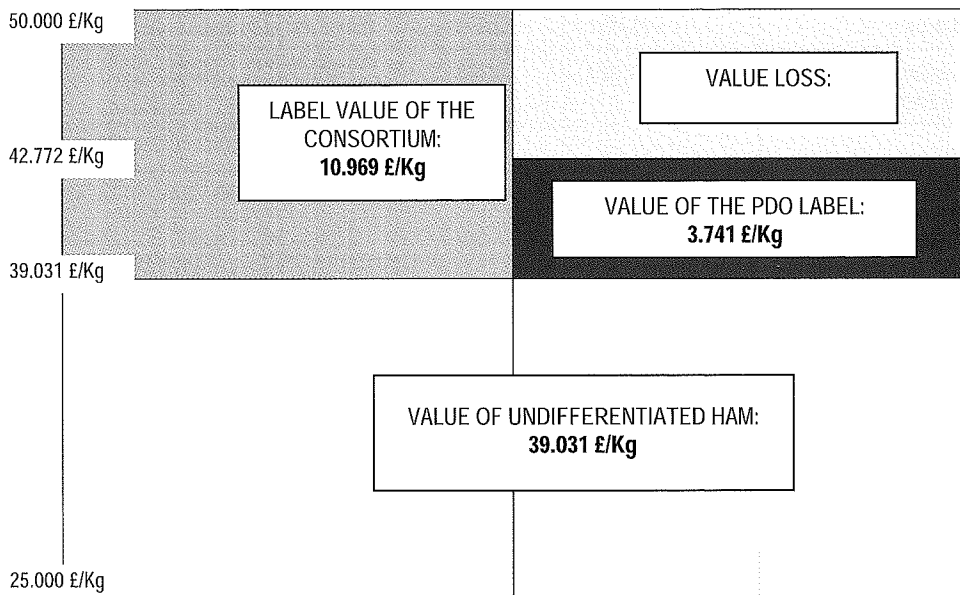
**Table 9 : Mean prices paid by the consumers according to the WTP and loss of value of *Parmigiano Reggiano* cheese and *Parma* ham guaranteed by the PDO label only (£/Kg)**

	Per capita gross yearly income class				Total
	From 0 to 12 ML	From 13 to 24 ML	From 25 to 40 ML	More then 40 ML	
<i>Parmigiano Reggiano cheese</i>					
WTP-based price	23,831	23,653	24,591	24,023	24,039
Loss of unit value compared to current price (28,000 £/kg)	4,169	4,347	3,409	3,977	3,961
<i>Parma ham</i>					
WTP-based price	42,167	42,101	43,661	43,125	42,772
Loss of unit value compared to current price (50,000 £/kg)	7,833	7,899	6,339	6,875	7,228

**Figure 1 : Value of *Parmigiano Reggiano* cheese PDO label compared to the relevant Consortia label's value**



**Figure 2 : Value of *Parma* ham PDO label compared to the relevant Consortia label's value**



## NOTES

- <sup>1</sup> Since 1994 the CFPR by-laws have extended the participation in the Consortium also to companies which mainly cure or sell Parmesan cheese within the production area.
- <sup>2</sup> The purposes of the CFPR (as defined by art. 3 of the by-laws) include "active supervision of Parmigiano Reggiano production and marketing, as well as use of its denomination and consortium's labels and marks" ... ; "in order to prevent and repress any misuse or improper use that can be detrimental to the reputation and image of the product and to the interests and rights of the Consortium as well as of its members". In accordance with such purpose, the Inter-department Decree dated June 17th 1957 entrusted the CFPR with the monitoring and control of the protected production's quality and with the affixing of marks laid down by the production code of rules established by the Consortium itself. Actually, the by-laws state that: «the branding and affixing of marks on cheese, the feeding of the cows producing the milk to be used for Parmigiano Reggiano and the purposes of cheese production be governed by special regulations established by the board of directors and approved by the general meeting of directors».
- <sup>3</sup> The volunteer Consortium aimed at obtaining legal recognition ; at defending, distinguishing and guaranteeing ham production and marketing according to the regulations established by the Consortium's by-laws ; at protecting *Prosciutto di Parma's* name, above all by watching that no Consortium member or third party arbitrarily use the Consortium's name or label, and that no misuse or counterfeiting take place that could mislead the consumer about its quality and origin.
- <sup>4</sup> The law dated July 4th 1970 no. 506 establishes «The regulations concerning the protection of *Parma* ham Denomination of Origin».
- <sup>5</sup> The M.D. dated February 15th 1993 basically consists in the actual code of rules concerning *Parma* ham production according to Italian regulations, which the CCP then took inspiration from in drawing up the production code of rules enclosed with the registration application for DOP recognition according to Reg. 2081/92.
- <sup>6</sup> The debate on the reliability of the estimated values obtained is, however, very intense. Actually, this methodology, especially the level of response distortion, have often been criticised. A critical in-depth investigation on the subject is included in Bishop and Romano (1998) and Scarpa (1998) to which the reader may refer. We will not dwell any longer upon the subject as we trust this methodology completely.
- <sup>7</sup> The presence of a freshness label was ascertained for beef, chicken and wine only.

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