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UNCTAD/ICTSD Capacity Building Project on

Intellectual Property Rights and Sustainable Development

The Socio-Economics of Geographical Indications

A Review of Empirical Evidence from Europe

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October 2003

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Acknowledgments

The author is grateful to the UNCTAD-ICTSD project team for the help in organising research and data material. In this respect, particular thanks are to Christoph Spennemann and David Vivas. Discussions with members of the DOLPHINS research team are also gratefully acknowledged. Comments and suggestions on earlier drafts were received from Antonio Berengeur, William van Caenegem, Graham Dutfield, Sergio Escudero, Jorge Larson Guerra, Xuan Li, Christoph Spennemann, and David Vivas. These are most gratefully acknowledged. Thanks are also expressed to Niranjan Rao Calindi and Carlos Correa for sharing their unpublished research on geographical indications.

Preface

The present paper dealing with the socio-economics of geographical indications is one contribution of the joint UNCTAD-ICTSD Project on Intellectual Property Rights and Sustainable Development to the ongoing debate on the impact and relevance of intellectual property to development.

With a view to providing developing country policy makers with some concrete insight into the welfare potential of geographical indications (GIs), this study reviews the empirical evidence from European countries with respect to the socio-economic implications of the protection of GIs. To this end, the paper first provides for an overview of the economic rationale behind the protection of trademarks, which in certain respects are similar to GIs. It then turns to GIs, explaining the economic principles of their protection and their key functions of promoting rural development and protecting provenance and indigenous knowledge. In the main part of the paper, concrete examples of GIs are given to illustrate European experiences, in particular with respect to the organisation and governance of supply chains as well as the definition, promotion and marketing of GI products. In a final assessment of the economic opportunities offered by GIs, the paper concludes in a rather positive tone, highlighting however the multitude of factors that need to be mobilized to realize the potential of GIs. In this respect, intellectual property rights (IPRs) are an important, but not the only element in economically successful GIs operation.

IPRs have never been more economically and politically important or controversial than they are today. Patents, copyrights, trademarks, industrial designs, integrated circuits and geographical indications are frequently mentioned in discussions and debates on such diverse topics as public health, food security, education, trade, industrial policy, traditional knowledge, biodiversity, biotechnology, the Internet, the entertainment and media industries. In a knowledge-based economy, there is no doubt that an understanding of IPRs is indispensable to informed policy making in all areas of human development.

Intellectual Property was until recently the domain of specialists and producers of intellectual property rights. The TRIPS Agreement concluded during the Uruguay Round negotiations has signalled a major shift in this regard. The incorporation of intellectual property rights into the multilateral trading system and its relationship with a wide area of key public policy issues has elicited great concern over its pervasive role in people's lives and in society in general. Developing country members of the World Trade Organization (WTO) no longer have the policy options and flexibilities developed countries had in using IPRs to support their national development. But, TRIPS is not the end of the story. Significant new developments are taking place at the international, regional and bilateral level that build on and strengthen the minimum TRIPS standards through the progressive harmonisation of policies along standards of technologically advanced countries. The challenges ahead in designing and implementing IP-policy at the national and international levels are considerable.

Empirical evidence on the role of IP protection in promoting innovation and growth in general remains limited and inconclusive. Conflicting views also persist on the impacts of IPRs in the development prospects. Some point out that, in a modern economy, the

minimum standards laid down in TRIPS, will bring benefits to developing countries by creating the incentive structure necessary for knowledge generation and diffusion, technology transfer and private investment flows. Others stress that intellectual property, especially some of its elements, such as the patenting regime, will adversely affect the pursuit of sustainable development strategies by raising the prices of essential drugs to levels that are too high for the poor to afford; limiting the availability of educational materials for developing country school and university students; legitimising the piracy of traditional knowledge; and undermining the self-reliance of resource-poor farmers.

It is urgent, therefore, to ask the question: How can developing countries use IP tools to advance their development strategy? What are the key concerns surrounding the issues of IPR for developing countries? What are the specific difficulties they face in intellectual property negotiations? Is intellectual property directly relevant to sustainable development and to the achievement of agreed international development goals? Do they have the capacity, especially the least developed among them, to formulate their negotiating positions and become well-informed negotiating partners? These are essential questions that policy makers need to address in order to design IPR laws and policies that best meet the needs of their people and negotiate effectively in future agreements.

It is to address some of these questions that the joint UNCTAD-ICTSD Project on Intellectual Property and Sustainable Development was launched in July 2001. One central objective has been to facilitate the emergence of a critical mass of well-informed stakeholders in developing countries - including decision makers, negotiators but also the private sector and civil society - who will be able to define their own sustainable human development objectives in the field of IPRs and effectively advance them at the national and international levels.

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1. Introduction

The debate at the TRIPs Council on extending Article 23 to products other than wines and spirits – GI-extension as shorthand – has reached a stalemate with *demandeurs* and opposers repeatedly treading over the same ground. The only notable change in recent submissions to the TRIPs Council has been an acceptance by Members opposing GI-extension that there is no rational or legal basis for the hierarchy in the level of protection within the relevant section on GIs (cf. Rangnekar, 2003 for a discussion). The submissions and the debate have covered important legal terrain and also reflect the deeper interconnections that characterise multilateral trade negotiations. Thus, concessions in certain areas, say agriculture, are at stake for some Members in exchange for gains in the area of GIs. However, from the discussions and submissions at the TRIPs Council it is difficult to discern if available evidence of the use and impact of GIs have been adequately reflected upon. This brief paper collates and critically reviews evidence on GIs from case studies in Europe.

The paper begins with a discussion of the economic rationale for protecting distinctive signs, viz. trademarks. This detour into trademarks is considered useful and pertinent because of the proximity and overlap between the two instruments of intellectual property protection. Economists recognise the existence of information asymmetries in the market and note that firms use distinctive signs, which embody their goodwill and reputation, as mechanisms to signal quality and thereby lower search costs for consumers. It is this function of trademarks as distinctive signs that forms the basis for their protection. Using this background, the next section begins with an analysis of the relevance of the economic theories of information and reputation in the context of GIs. Attention is also devoted to the differences between GIs and trademarks; notably the fact that GIs fall within a category of collective monopoly rights. This section also includes a discussion of two public policy interests related to GIs that correspond to wider interests of developing country *demandeurs*: the promotion of rural development and the protection of indigenous peoples' knowledge. Section 4 of the paper is devoted to an overview of selected case studies and policy issues concerning GIs in Europe. The overview begins with a presentation of how GIs, because of their public and collective dimensions, fall within a particular category of public goods, viz. club goods. We draw out the wider organisational implications of recognising GIs as club goods, particularly in terms of reorganising product supply chains. Using a number of case studies, the section also considers two key tasks confronting GI-products: defining GI-products and the promotion and marketing of GI-products.

2. Trademark Protection: The Economics of Information and Reputation

Indications of geographical origin (IGOs)[1] are the earliest type of trademark used by traders as a means to exploit local reputation through the use of distinctive signs to evoke a particular geographical origin (cf. section 3.1). This association between trademarks and IGOs suggests that a reflection on the economic rationales for protecting

[1] The WTO Secretariat (IP/C/W/253) adopts this term as a common denominator to refer to the different instruments used by member countries to indicate the geographical origin of goods, in order to avoid confusion with specific terms that are otherwise legally defined at national, regional or international level. In the EU literature that we review in Section 4 the term in use is 'origin-labelled product'. This paper adopts a similar convention of using IGOs unless a specific instrument is under consideration.

trademarks could be a useful starting point for a study on GIs. Moreover, because the economic principles underlying GI-protection is relatively uncharted in the intellectual property law and economics literature. The section begins with a discussion of the economic properties of reputation and its relationship to information asymmetries between buyers and sellers, which is followed by a discussion of the two core economic principles of trademark protection, protecting investments in building reputation and protecting the information channel role of trademarks.

2.1 The Economics of Information and Reputation

The search for information, and particularly reliable information, is a ubiquitous feature of economic life that includes the simple task of identifying a reliable and trustworthy grocer and more complex tasks like making profitable investments. As anyone's personal experience would testify, collecting reliable information to enable these economic decisions to be made is a costly and time consuming process that is also fraught with uncertainty. Individuals rely on a variety of information sources, such as previous experience, friends and family, trade journals, public advisory bureaus and advertisements, to assess the comparative trustworthiness of potential sellers.

Stigler (1961 [1970, p62]) suggests that it would be "fruitless" to explain all price dispersion on the basis of product heterogeneity (i.e. quality, add-on features, after-sales service). An alternative explanation is that some of this dispersion is a manifestation of the 'level of ignorance' in the market, the latter on account of the information asymmetries between buyers and sellers. Consequently, if price dispersions are large relative to the costs associated with information search then a buyer would find it profitable to continue searching. To state this differently, expected savings are positively related to the level of price dispersion.

It is with the above conceptualisation that economists have considered the wider implications of information asymmetries on consumer choice and firm investment decisions. Beyond the obvious search costs associated with acquiring information, there are deeper problems concerning information asymmetries between buyers and sellers (Akerlof, 1970; Nelson, 1970). Using the market for used cars as an example, where buyers suspect that a certain proportion of cars are 'lemons' (i.e. bad cars), Akerlof (1970) focuses attention on the quality-related information asymmetries between buyers and sellers. The buyer cannot observe the quality of a used car with any significant surety whereas the seller has more reliable information about it. In such a situation of information asymmetry, good and bad used cars would tend to sell at comparable prices. Dynamically, this leads to a situation where 'bad cars drive out good cars': the common price between good and bad cars presents sellers with perverse incentives motivating the withdrawal of good used cars. To expand, the seller does not receive a price mark-up for good used cars that reflect its superior quality in comparison to bad used cars. Consequently, as these cars are withdrawn from the market, equilibrium is achieved at lower levels of quality. For the result to hold it is necessary that a common price exists for both types of cars and that the seller does not differentiate between good and bad used cars. Yet, it is the case that "[A]fter owning a specific car, however, for a length of time, the car owner can form a good idea of the quality of the machine … [which] is more accurate than the original estimate [at the time of purchase]" (Akerlof, 1970, p489). This raises a number of questions. For example, are information asymmetries significantly contingent on the nature of the good? Can economic institutions ameliorate the adverse impact of information asymmetries?

Economists have classified goods on the basis of how information is accessed by and/or conveyed to consumers (Nelson, 1970; Darby and Karni, 1973[2])[3]:

- Search goods: These are goods where consumers can develop a robust notion of the quality prior to purchase through either inspection and/or research.
- Experience goods: These are goods where consumers tend to prefer to purchase them and assess quality through use and experience; the latter then guiding future choice.
- Credence goods: These are goods where neither prior inspection nor subsequent use is sufficient for developing a robust notion of quality.

Goods do not neatly fall into any one of the three categories and many might display characteristics of more than one category. For example, agro-food products are said to exhibit all three attributes (section 3.1). In addition, as individual consumers differ in their preferences a particular good could be classified differently across consumers. For example, a section of consumers might largely be concerned about the price of a bag of coffee beans rather than other product attributes. In contrast, others might also consider of equal or greater importance attributes of flavour and fragrance in comparison to price. One can also identify another group of consumers that might give equal (or greater) importance to the working conditions of the coffee growers. This difference between consumers is one of the factors behind the segmentation of markets (e.g. economy, speciality, organic, fair trade, etc.; see section 4.3) and the strategy of product differentiation by firms.

It is in this world of asymmetric information that reputation plays an important economic role – in this case through a distinctive sign like a brand – of signalling a certain level of quality that consumers learn to expect. By persistent maintenance of this minimum level of quality, reputation economises search costs for consumers. Consequently, the attempt by producers of reputable products to charge a premium price and the willingness of consumers to pay this premium (Stigler, 1961 [1970, p79]; Boccaletti, 1992[4]). Apparent in this theoretical exposition is the principle that 'price' is also used as a mechanism to signal a certain level of quality. Another aspect of reputation is that it gives "consumers a means of retaliation if the quality does not meet expectations … the consumer will then curtail future purchases" (Akerlof, 1970, p500).
What then are the implications for firms? Shapiro (1982) suggests that a firm's decision to invest in developing quality products is dynamic: the returns from (current) investments in producing high-quality products will be secured in the future following repeated purchases on account of the firm's reputation for high-quality products. The link between a firm's investments in building quality and a consumer's perceptions of reputation (i.e. their expectation of a particular standard of quality) occurs through the learning process that consumers undergo. It is when consumers learn about the

[2] M. Darby and E. Karni, 1973, 'Free competition and the optimal amount of fraud', *Journal of Law and Economics* (16), pp67-88; cited in OECD (2000).
[3] Another factor of relevance that differentiates goods is the frequency of purchase and use. Thus, as many consumer durables are infrequently purchased, research becomes an important source of acquiring information about quality while experience is an equally important factor (section 2.2).
[4] S. Boccaletti, 1992, 'Il roulo delle produzioni tipiche e delle denominazioni d'origine nella salvaguardia della competitività della produzione agro-alimentare italiana', *Atti de XXIX convegno di studi della SIDEA*, Perugia, 17-19 September; cited in OECD (2000).

reputation through past purchases, experience and other information channels[5] that it becomes economically meaningful for firm's to invest in producing high-quality (reputable) products. In this scenario, high-quality and reputable products earn a premium that is sustained even at equilibrium[6]. This premium is a necessary evil because of information asymmetries and an important mechanism of dissuading producers from short-term behaviour of compromising quality. The premium is proportional to the lags associated in consumer learning the 'true quality' of a product.

2.2 The Economic Role of Distinctive Signs

The economic and legal rationale for the protection of trademarks is largely framed in terms of information imperfections in the market and the economic role of reputation. It is the shared view in the trademark literature that two interrelated objectives underlie the protection of trademarks: protection of the investments undertaken to develop brand names and associated reputation and safeguard the role of trademarks as information channels between buyer and seller (e.g. Landes and Posner, 1987; Economides, 1988; Grossman and Shapiro, 1988a, 1988b, Cooter and Ulen, 1997; Cornish, 1999). Interestingly, according to some practitioners (brand managers), the primary purpose of trademark protection is to enable appropriation of investments in brand name and the role of trademarks to be an information channel between buyers and sellers is a secondary function (e.g. Cratchley, 2000). However, despite this view of a primary and secondary rationale for trademark protection, the theoretical literature tends to consider the two aspects of trademark protection as interdependent. This is clearly transparent in Economides's (1988, p526) analysis,

> *In many markets, sellers have much better information as to the unobservable features of a commodity for sale than the buyers. … Unobservable features, valued by consumers, may be crucial determinants of the total value of the good. …However, if there is a way to identify the unobservable qualities, the consumer's choice becomes clear, and firms with a long horizon have an incentive to cater to a spectrum of tastes for variety and quality, even though these product features may be unobservable at the time of purchase.*

Trademarks act as mechanisms signalling a firm's reputation, thus helping consumers overcome, to some extent, the information asymmetries in the market. In this manner, trademarks are intrinsically associated with the buying and selling of products (Cornish, 1999, p619)[7]. It is this role of 'channel of information' that allows trademarks to lower search costs, protect consumers from fraud and assist in consumer decision making[8]. By

[5] In this regard, advertisements – an institution that Stigler (1961 [1970, p73]) characterises as an "immensely powerful instrument for the elimination of [market-based] ignorance" – are of paramount importance.

[6] The premium on price indicates that price is greater than marginal cost.

[7] Cornish expands this idea to link the protection of trademarks with the need to protect information, in this case information about source and quality of products, much like the rationale for protecting other intellectual property rights (e.g. patents). However, most other commentators disassociate this link between the protection of trademarks and information. For example, Maskus (2000, p48) acknowledges that trademarks are not associated with the creation of additional knowledge and hence may not produce the dynamic efficiencies of incentives for new product development.

[8] Here note that a single trademark can and is invariably used across a number of products that might fall within a category (e.g. microwaves) or a broader aggregation of products (e.g. home appliances). A variety of information channels exist to provide product-related information: advertising, product labels, consumer magazines, friends, etc. Trademarks, as a distinctive sign, help in linking these different information sources.

way of example, consider the case of experience goods that may be either frequently or infrequently purchased (Economides, 1988):

- Frequently purchased experience goods: For frequently purchased experience goods (e.g. a fizzy drink), trademarks work because consumers have sufficient memory of the previous act of consumption; the distinctive mark allows them to identify a product and link it to expected quality.
- Infrequently purchased experience goods: In the case of infrequently purchased experience goods (e.g. consumer durables like microwaves, refrigerators), a buyers uses multiple sources of information (e.g. friends, family, advertisements, labels, etc.) to generate a perception (incomplete as it might be) of the product. The trademark is a signalling device identifying a particular manufacturer's product and building an expectation of quality. Even while the consumer may not have experience with the specific product (e.g. microwave), s/he may have experience with other products within a broader category of products (e.g. home appliances). The trademark allows the consumer (and obviously the producer) to build a linkage across the aggregate category of products.

However, to achieve the economies in 'search', i.e. be an efficient information channel, a trademark must meet certain conditions: the trademark must be distinct and differentiated from previously existing trademarks and certain words cannot be protected through or used in trademarks (Box 1). Usefully for consumers the distinctness of a trademark provides them with an opportunity to 'retaliate' by changing their loyalty when the expected quality is not delivered (Akerlof, 1970, pp499-500)[9].

BOX 1: The Naming Game – Economic Principles for Trademarks

To fulfil the dual role of protecting investments in brand development and also be an information channel, the trademark must be distinct and differentiated[a]. Article 15.1 of the TRIPs Agreement has the following definition for trademarks:

Any sign, or any combination of signs, capable of distinguishing the goods or services of one undertaking from those of other undertakings, shall be capable of constituting a trademark.

Possibilities include words or combination of words such as family names (e.g. Ford, Chevrolet, Dodge), fanciful words that mean nothing (e.g. Exxon and Kodak), and also suggestive or descriptive names when they have acquired secondary meaning. Also possible are images, figures, symbols, logos, monograms and insignias. Certain symbols have become very popular trademarks and these include the golden arches of McDonalds, the Coca-Cola bottle and Gucci's stylised G. However, the emphasis is on the sign (word, phrase, symbol) being distinctive so as to enable identification of the firm's goods and services and enable the consumer to differentiate them from those of other firms and recall them. In the absence of distinctness, closely similar signs would generate unnecessary confusion and lead to considerable waste of economic resources on account of litigation. In lieu of this, the TRIPs Agreement offers trademarks a scope of protection that includes 'identical and similar signs' (Article 16). Similarly, descriptive words and words that denote a category of products (i.e. generic names like

[9] There are limits to this potential for retaliation in today's corporate world because of the diffused ownership pattern within the corporate sector.

'cars', 'microwave oven', 'airplanes', etc.) or functional features of a product (e.g. serrated blade for a steak-knife) cannot be protected as trademarks. This exception is necessary to avoid granting monopoly over a category of products and simultaneously generating a monopoly in language. However, it is quite likely that a particular product captures the 'mind of the consumer' to the extent that its trade name is used as shorthand to refer to the product. Examples include 'xeroxing' for photocopying, 'Scotch tape' for cellophane tape, and 'Hoover' for vacuum cleaners. While this is testimony to the success of the trademark owner's promotional investments, it also indicates the need for protecting a trademark from being rendered generic – as in the case of Sterling Drug Company's Aspirin trademark in the US.

[a] Article 15.1 also clarifies that distinctiveness does not have to be inherent but can be acquired through use.

Source: Landes and Posner, 1987; Cooter and Ulen, 1997.

The second economic principle underlying trademark protection relates to appropriability of investments in building reputation and maintaining quality. Firms develop brands through investments in maintaining a certain minimum level of quality that consumers come to expect and through advertising and promoting distinctive signs, names and logos that are associated with their goods and services. These investments can be considered as sunk or fixed costs that are substantially irreversible upon product launch and market entry (see Scherer and Ross, 1990 for a detailed discussion)[10]. Moreover, in many product categories the evidence suggests that a substantial promotional budget is necessary – a sort of threshold level – before information reaches the consumer. The objective of these promotional efforts is to help consumers identify and differentiate the product from the vast array of similar products in the same category. Given the unobservable characteristics of the product, the identification and differentiation of the product occurs through information captured in a brand name: "This information is not provided to the consumer in an analytic form, such as an indication of size or listing of ingredients, but rather in summary form, through a symbol which the consumer identifies with a specific combination of features. Information in an analytic form is a complement to, rather than a substitute for, trademarks" (Economides, 1988, pp526-27). Through its function of signalling certain quality standards that induce consumers to return and purchase new products that a "trademark becomes an asset of the firm, embodying its accumulated goodwill" (Grossman and Shapiro, 1988a, p60).

It is thus suggested that trademark protection acts as an incentive for firms making investments in maintaining a certain minimum level of quality. The misappropriation of trademarks through the production of counterfeit goods is said to harm firms by diluting their reputation and market power (Grossman and Shapiro, 1988a, 1988b) and

[10] Economists recognise that advertising can act as a barrier to entry into a market. For example, in oligopolist markets, intensive advertising by incumbents reinforces existing consumer preferences and substantially raises the minimum level of promotional expenditures required by potential entrants to launch a product. The barriers to entry are on account of several reasons: (a) entrants have to incur disproportionately high advertising outlays per unit of sales to win patronage, (b) economies of scale in advertising favour firms with a sizeable market presence, and (c) the absolute advertising expenditures for effective entry, i.e. a threshold level, is higher when seller concentration ratios are high (Scherer and Ross, 1990: pp430-50).

confusing consumers. Here, consider the presence of counterfeit goods in a market where consumers cannot readily observe the characteristics of the good and only learn about the quality/authenticity of the good one-period later[11]. Only when the product does not match the quality claims made by the firm does the consumer feel that either the (legitimate) firm has "shaved its quality" or that a counterfeit has been inadvertently purchased. Assuming consumer rationality, i.e. they play safe believing that a cheating firm will continue to 'shave quality', it is suggested that consumers will transfer their loyalty to another firm in the next period.

The case of 'status goods' highlights a particular instance concerning trademark protection[12]. It could easily be the case that consumers *knowingly* purchase a fake. For instance, brand-name manufacturers can effectively signal authenticity (e.g. through restricting/monitoring distribution channels, pricing policy), which through experience (some) consumers learn. Thus, some consumers consciously decide to purchase a fake. These consumers buy-in the 'snob value' associated with the status good without paying the premium price for an original. Interestingly, the deception then is not of the consumers who purchase the product, but observers "who sees the good being consumed and [are] duly (but mistakenly) impressed" (Grossman and Shapiro, 1988b, p82). In this case, counterfeiting dilutes the brand-owner's market power by expanding the market of 'status goods' while also diminishing the 'snob value' associated with the good[13]. As a result, legitimate producers are unable to offer customers the prestige associated with a small network of exclusive consumers.

The standards and principles of trademark protection have changed with time and should be considered in terms of larger epistemic changes in economic theory and legal philosophy. Equally pertinent are corresponding political changes and structural transformations in the economy. McClure (1996) draws attention to the ascendancy of Chicago School's economic theories underpinning juridical developments in the US that have since the mid-1970s enabled stronger trademark protection. He also acknowledges corresponding changes in administration in the US, such as the 1981 appointment of a Republican commissioner to the Federal Trade Commission that led to either a reversal or withdrawal of the FTC in key anti-trust cases that were pending at the time. Jurisprudence under the European Court of Justice also reveals shifts between the different principles underlying trademark protection[14]. For instance, a strengthening of trademark protection is discernible in the decisions concerning trademark exhaustion. One can also suggest that a series of decisions accord greater importance to the role of trademarks as signs of goodwill/reputation of an enterprise. Yet, the European courts tend to place the role of trademarks as indicators of origin (i.e. the enterprise) as the principle function of trademarks. These changes have also been identified in the

[11] There is also the case of non-deceptive counterfeiting that we discuss in the following paragraphs.
[12] This example is from Grossman and Shapiro (1988b), who define status goods as those "goods for which the mere use of display of a particular branded product confers prestige on their owners, apart from the utility deriving from their function" (Ibid. p82). The status or snob-value of these goods is partly on account of investments in advertising, high price, and controlled retail outlets.
[13] Grossman and Shapiro (1988b) also acknowledge that the welfare implications of stronger trademark protection, wherein counterfeiting is eliminated, are ambiguous. While there is little dispute on the benefits of eliminating counterfeiting to trademark owners, the negative impact on consumers who knowingly consume the counterfeit and to counterfeit producers raise complications. Under certain conditions and market assumptions, the negative impact might outweigh the benefits.
[14] The brief point about the European Court of Justice is based on personal communication from Christoph Spennemann (22 August 2003).

provisions for trademarks in the TRIPs Agreement[15]. For example, Article 21 (of the TRIPs Agreement) states that "the owner of a registered trademark shall have the right to assign the trademark with or without the transfer of the business to which the trademark belongs". It is suggested that this is a crucial deviation from the traditional function of trademarks as indicators of source. To explicate, this provision allows a trademark to become an independent tradeable commodity; thus enabling independent appropriation of the goodwill congealed in the trademark. Assignment of trademarks without the transfer of business could potentially undermine its function as indicator of source. In jurisdictions where use is a requirement to maintain a trademark, it remains imperative that the new user of the trademark must assure that some use in connection with the covered goods or services is made so as to avoid cancellation after the minimum prescribed period has elapsed.

3. The Protection of Geographical Indications: Economic Principles and Public Policy Issues

IGOs are increasingly being considered as an important tool in a variety of different contexts. For example, an early submission to the TRIPs Council acknowledged the "considerable potential for commercial use … [as having stimulated] awareness of the need for more efficient protection of geographical indications" (IP/C/W/204, paragraph 2). Deliberations at WIPO have reflected on the beneficial relationship between GIs and wider efforts at protecting indigenous peoples' knowledge (section 3.2). In light of these developments it is useful to explicate the economic principles underlying the protection of GIs. Using the previous section as background, the discussion begins with the suggestion that the economics rationale for GI-protection is based on information asymmetries in the market and the role of reputation in ameliorating these asymmetries. Despite these similarities between trademarks and GIs, there are important differences and we highlight them. This is followed by an analysis of two public policy issues related to GIs that correspond to wider concerns of developing country *demandeurs* at the TRIPs Council: rural development and the protection of indigenous peoples' knowledge.

3.1 Economic Principles of Geographical Indications

Distinctive signs indicating geographical origin are the earliest type of trademarks, with evidence in pre-industrial periods for a variety of products like minerals, simple manufactured goods and agricultural products (Schechter, 1925). Blakeney (2001) reports of the use of animals (panda beer), landmarks (Mt. Fuji sake), buildings (Pisa silk), heraldic signs (fleur de lys butter), and well known personalities (Napoleon brandy, Mozart chocolates) as distinctive signs indicating geographical origin whilst also conveying a certain quality or reputation. Historically, in a range of professions (e.g. carpenters, stone masons, tile manufacturers, potters, printers), the distinctive sign helped distinguish products and protect goodwill with consumers (Azmi et al., 1997). The role of goodwill protection was enhanced with the formation of guilds and their territorial control of trade in the Middle Ages. Inherent here is the basis for the shared economic rationale and legal principles between IGOs and trademarks. It thus follows that the economic rationale for protecting GIs, much like in trademarks, emerges from economic theories to do with information and reputation (OECD, 2000).

[15] The brief discussion of provisions for trademarks in the TRIPs Agreement is based on Part 2.2 of the UNCTAD/ICTSD Resource Book on TRIPS and Development (forthcoming at http://www.iprsonline.org/unctadictsd/ResourceBookIndex.htm).

The informational content of a GI includes the following three: product name, the area of geographical origin of the product and its 'given quality, reputation or other characteristics that are essentially attributable to its area of geographical origin' (cf. TRIPs Agreement, Article 22.1)[16]. Economists have classified goods into a number of different categories on the basis of how information is conveyed to and/or accessed by consumers (section 2.1). In these terms, agro-food products are said to exhibit properties of all three types:

> The market for agro-food products features goods of all three types (search, experience and credence), even if a majority are in fact experience goods. This is because consumers like to form their own opinions of attributes such as flavour, how a product stands up when cooked, cooking time and so on. Some attributes are a combination of experience and credence: examples here include the level of safety and nutritional properties. Others are necessarily credence attributes, such as the extent to which the production process is environmentally friendly or treats animals humanely (OECD, 2000, p32).

These differing aspects of a good are of varying importance to consumers. Thus, a segment of consumers might be most interested in credence attributes (e.g. environmental and labour standards), while others might give greater importance to experience attributes (e.g. flavour and cooking time). These differences between consumers relate to producers' efforts at differentiating products and manifest in the form of market segments. However, information about product-related attributes is not easily accessible; thus placing consumers in positions of relative weakness (section 2.1). While this disallows optimal consumer choice, various efforts by the government, the private and the not-for-profit sectors are directed at improving communication between producers and consumers (OECD, 2000). These include advertising, use of a variety of quality-related signs, product guarantees and certificates, information labelling, to name some. As noted in section 2, trademarks can act as signalling devices representing the firm's reputation, and through its interlinked use in other means of communication (e.g. advertising) help consumers partially overcome the information asymmetries in the market. In a much similar sense, IGOs can act as signalling devices linking a product, its particular qualities and the area of geographical origin[17].

This association between product qualities and the area of geographical origin is not arbitrary[18]. Evidence from the Lisbon Agreement is demonstrative of regional specialisation within product categories (table 1). Thus, Cuba accounts for all the protected appellations for cigarettes and the Czech Republic 93% of the appellations in beers and malt while France holds over 80% of the wine and spirit appellations. This regional specialisation within product categories is also reflected in the EU data on IGOs (cf. Annex 1). There, for example, the countries holding leading share of indications in cheese are France (28%), Italy (20%) and Greece (13%), in meat-based products it is Italy (41%) and Portugal (22%) and in beers it is Germany (80%) and the

[16] Rangnekar (2003) includes an expanded discussion of Article 22.1 of the TRIPs Agreement.
[17] Later on in this subsection we emphasise the difference between trademarks and GIs.
[18] At issue here is more than a link between a product and its place of origin, but that the distinguishing characteristics of the product derive from the human and physical area of origin. We discuss this in detail in section 4.1 noting therein the difficulties in unambiguously defining and regulating quality. Here we briefly note that protection is premised on the condition that the product – with essentially similar characteristics – cannot be produced in a different physical/human environment.

UK (20%). This geographical specialisation is equally apparent at lower levels of product aggregation (Moran, 1993b): for example despite widespread distribution (internationally and within nations) of the species *Vitis vinifera*, the major production areas are highly localised and each grape variety has its own distinctive geographic pattern.

Table 1
Distribution of Lisbon Agreement Appellations

Product	*Registrations*		*Top Holder*	
	Number	*%age*	*Country*	*%age*
Wines	470	61	France	81
Spirits	73	10	France	82
Agricultural Products	51	7	---	
Cheeses	50	7	France	74
Ornamental Products	33	4	Czech Republic	65
Tobacco & Cigarettes	33	4	Cuba*	100
Miscellaneous	25	3	---	
Mineral Water	17	2	Czech Republic	82
Beer and Malt	14	2	Czech Republic	93

Note: All percentages are rounded off.
* Only cigarettes
Source: Assembled from data in Escudero (2001)

In explaining this pattern, geographers have sought to move beyond latent environmentalism by exploring cultural and economic control of the relevant industry. Rejecting a separation of the natural from the human components of an agrarian system, the aim is to explore the methods that people have adopted to harness their natural environment[19]. Each of these countries and the regions therein, embody a reputation for producing a product with particular characteristics. It is this collective reputation (i.e. goodwill in a trademark sense) that is represented through the indication and requires protection. Thus, much like trademarks, the economic rationale for protecting GIs is based on the economics of information and reputation:

> Geographical indications are understood by consumers to denote the origin and the quality of products. Many of them have acquired valuable reputations which, if not adequately protected, may be misrepresented by dishonest commercial operators. False use of geographical indications by unauthorised parties is detrimental to consumers and legitimate producers. The former are deceived and led into believing to buy a genuine product with specific qualities and characteristics, while they in fact get a worthless imitation. The latter suffer damage because valuable business is taken away from them and the established reputation for their products is damaged (WIPO, 2002).

Implicit in the above statement are the two central legal principles within the common law tradition that enable GI-protection (UNCTAD/ICTSD, 2003; Rangnekar, 2003):

- Protection against misleading use of a protected indication – a measure aimed primarily at the consumer.

[19] The analytical category used in these analyses is *terrior*: 'the attempt to affect, influence, or control actions and interactions (of people, things, and relationships) by asserting and attempting to enforce control over a geographic area' (Sacks, 1983; quoted in Moran, 1993a).

- Protection against the dilution of an indication – a measure aimed primarily at the producer.

A useful example of how these dual legal principles exist in the case brought by the *Comite Interprofessionel du Vin de Champagne* – the consortium representing Champagne producers – to protect the geographical indication of Champagne in New Zealand. In passing judgement in favour of the Champagne producers, Judge Gault[20] noted that

> Champagne is a geographical name. When used in relation to wine the primary significance it would convey to persons who know that would be as the geographical origin of the product. If the name conveys something of the characteristics of the wine it is because those familiar with wine sold by reference to the name associate those characteristics with it. … For suppliers the attracting force in the name constitutes a part of the goodwill of their business. […] That goodwill will be damaged if someone else uses the name in relation to a product in such a manner as to deceive purchasers into believing the product has the characteristics of products normally associated with the name when it does not. The damage may give rise to a claim for 'passing off' although deceptive trading would be a more accurate designation.

Despite the shared economic rationale and legal principles, there are important differences between GIs and trademarks. At a fundamental level there is the difference in terms of what the distinctive sign is signifying (UNCTAD/ICTSD, 2003). Trademarks are distinctive signs identifying goods of an enterprise and thus not limited by any territorial link. In contrast, 'geography is at the heart' of GIs – they being distinctive signs identifying goods as originating from a particular geographical area. GIs are not limited to any particular enterprise and thus enjoyed by all enterprises within the demarcated geographical area that qualify for use of the indication. From an economic standpoint, GIs are seen as a form of collective monopoly right that erects entry barriers on producers either within or outside the relevant geographical area. In sum, GIs define who can make a particular product, where the product is to be made, and what ingredients and techniques are to be used so as to ensure 'authenticity' and 'origin'. Interestingly, this notion of 'collective monopoly right' is reflected in Judge Gault's statement in the Champagne case that we quoted earlier. Characterising GIs as collective monopoly rights brings into focus the problems of organising competing enterprises to coordinate in the collective protection of an indication (cf. section 4.1).
It is also the general principle that trademarks must not be descriptive or deceptive; thus prohibiting the inclusion of geographical terms in a trademark[21]. However, there are real and conceivable situations when geographical terms are contained in a trademark as in when no deception occurs or the use of the geographical term is entirely fanciful or when the reputation of the enterprise has endowed the geographical term with secondary meaning (Harte-Bavendamm, 2000; Blakeney, 2001). Relevant examples here include 'Thames' for stationery, 'Mont Blanc' for high quality writing equipment, to name a few. This rule does not apply to a particular category of trademarks, viz. certification marks and collective marks (WIPO, 2002, SCT/8/4) (box 2).

[20] *Wineworths Group Ltd. v. Comité Interprofessionel du Vin de Champagne*, 2 NZLR 327 [1991]; quoted in UNCTAD/ICTSD (2003). We are grateful to Christoph Spennemann for this information.
[21] Rangnekar (2003) for a brief discussion of TRIPs provisions on negotiating the relationship between trademarks and GIs.

Box 2: Certification marks and collective marks

Both these legal signs are found in common law jurisdictions and share important similarities, such as their ownership and the 'anti-use by owner' principle.
Certification marks are marks which indicate the goods or services on which they are used have specific qualities and maybe, though not necessarily, of certain geographical origin. As a general rule the owner of a certification mark does not 'use' the mark but licenses it to other enterprises and certifies that the goods or services carrying the mark are of a certain quality.

Collective marks are not easily distinguished from certification marks. These are owned by a collective body like a trade association and serve to indicate that goods or services displaying the mark are produced by an enterprise that is a member of the collective body. As membership to the association entails some qualifying standards, the collective mark is a distinctive sign conveying the said standards (i.e. quality, origin, etc.) of the trade association.

Source: OECD (2002), WIPO (2002, SCT/8/4), Vivas and Muller (2001)

The difference between trademarks and GIs emerges from the different legal traditions that are used[22]. Thus, in some countries the obligation under the TRIPs Agreement is implemented through trademark law (e.g. US) – reflecting what is considered a common law tradition. Other countries have implemented these obligations through a *sui generis* legislation for GIs (e.g. some European countries) – reflecting what is considered a Roman law tradition. Table 2 highlights important differences between GIs and these special categories of trademarks.

Table 2
Comparing GIs and Certification Marks

	Geographical Indications	Certification Marks
Objective	Protection of identification of product's origin and its link with quality and reputation	Protect the certification of a product's quality characteristics, which may – though not necessarily – include geographical origin
Ownership	Mainly a public right; most often (say, within the EU) the indication is owned by the State or parastatal institution	Mainly a private right owned by the trade association or producer group
Registration	Protection is a result of a mix of public (ex officio) and private actions	Protection is a result of private actions by the trade association
Administration	The regulating council, often a consortium representing firms in the product's supply chain, oversee administration (e.g. *Comité Interprofessionel du Vin de Champagne*)	The association of manufacturers who own the certification mark administer the mark
Inspection	An independent agency or the government undertakes inspection of compliance with standards stipulated in the indication	Owner of the certification mark oversees inspection of compliance to standards stipulated in the mark

[22] Useful discussions of different legal means with reference to country legislations are available in the WTO Secretariat's survey (IP/C/W/253), Correa (2002) for CARICOM countries and in a recent OECD study (OECD, 2002). Also useful are documents prepared under the WIPO's Standing Committee on law of trademarks, industrial designs and geographical indications.

Duration of protection	Protection begins with registration and continues until the conditions justifying protection are upheld	Protection begins with grant of mark and must be renewed periodically (usually 10 years)

Source: Based on OECD (2002); Vivas and Muller (2001)

The differences between GIs and certification marks have a wider importance in terms of the options for implementing obligations under the TRIPs Agreement (Correa, 2002).

3.2 Protecting Provenance and Promoting Rural Development

One of the guiding principles[23] and objectives of EEC 2081/92 is the protection of 'provenance' as a means of promoting rural development,

> […] whereas the promotion of products having certain characteristics could be of considerable benefit to the rural economy, in particular to less-favoured or remote areas, by improving the incomes of farmers and by retaining the rural population in these areas […]

Reflected in the preamble's statement is an understanding of the wider socio-economic implications of protecting IGOs. We have noted the regional/local level specialisation within product categories (table 1 and Annex 1). Most of these products are 'land-based' and reflect strong historical and symbolic links between place and product (Tregear et al., 1998; Bérard and Marchenay, 1996; Moran, 1993a). It is with this understanding of locating these products at the intersection of culture and geography that promotional strategies of niche marketing and product differentiation might be possible. Here, Moran's (1993a, p264) views are pertinent,

> Geographical indications are much more than the identification of a product with a place. As a type of intellectual property that is attached to territory, they are a means for the social and industrial groups with rights to them to protect and distinguish their products. Small local producers are able to use them to enhance their reputations, and to sell directly to final demand, thus competing more effectively against large corporations.

Earlier we suggested that GIs can be characterised as a type of collective monopoly right (section 3.1). This has the dual advantage of allowing the users of the indication to differentiate their product in the market whilst simultaneously the indication functions as a barrier to entry into their market segment. To be clear, the specifications articulated in the registration of the GI establish how, where and with what ingredients the product is to be made. For the class of producers (and their products) who qualify for protection, GIs provide an opportunity of capturing the 'rent' embedded in the appellation. There may be other spillovers from protecting GIs since they "act to publicise the localities and regions that they use for their names: Burgundy gives its name to one of the best known wines in the world but at the same time the region of Burgundy becomes known because of its wine" (Moran, 1993a, p266).

Produits de terrior – literally, products of local or regional land – enjoy a small, but not negligible market position when compared mass-produced agricultural foodstuffs: the share of the total foodstuffs market are 10.6% in France, 10.7% in Italy, 6.7% in Spain,

[23] The other two guiding principles are protection of businesses against free-riding on reputable indications and protection of consumers against misleading labels (Barjolle and Sylvander, 2000).

5.2% in Portugal (Bérard and Marchenay, 1996)[24]. This market segment is growing (section 4.3). Interestingly, the European Regulation (EEC 2081/92) itself is cognisant of this growing trend as reflected in the following statement from the Preamble: "… it has been observed in recent years that consumers are tending to attach greater importance to the quality of foodstuffs rather than to quantity … [generating] a growing demand for agricultural products or foodstuffs with an identifiable geographical origin". Not too dissimilar are growth in market segments that use labels like 'organic', 'fair trade' and 'ethical trade' (cf. section 4.3).

3.3 Protecting Indigenous Knowledge

GIs are being increasingly considered as part of a wider policy measure aimed at protecting and rewarding indigenous peoples' knowledge. Notable in this respect are observations of WIPO's intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore that some forms of IPRs cover the content of knowledge, others a specific expression and others a distinctive sign or symbol (WIPO/GRTKF/IC/5/12). Thus, the very real possibility of a product being protected by these complementary, though overlapping, instruments of intellectual property. By way of example, consider handicrafts: the technical content may be protected as a technical idea, while the cultural value as form of expression and its distinctive characteristics through marks or indications (WIPO/GRTKF/IC/5/7). One important finding of the Committee's 'Review of existing intellectual property protection of traditional knowledge' was that while many countries considered few intellectual property instruments as suitable for protecting traditional knowledge some looked favourably at GIs (WIPO/GRTKF/IC/3/7).

In recognising the positive aspects of GIs for the protection of indigenous peoples' knowledge, Downes and Laird (1999) draw attention to the general conflicts between contemporary intellectual property right systems and customary law and traditional cultural property rights[25]. Even while indigenous communities may hold concepts similar to 'property rights', the 'informal innovation system' of communities and the cultural exchange systems that are part of the communities raise deeper conflicts between the norms, practices and economics of contemporary IPRs and the cultural rights and customary practices of indigenous communities (Dutfield, 2000; Downes and Laird, 1999). GIs as an instrument of intellectual property protection have specific features, which in contrast to other IPRs, are considered relatively more amenable to the customary practices of indigenous communities:

- Knowledge remains in the public domain: As no institution (firm or individual) exercises exclusive monopoly control over the knowledge/information embedded in the protected indication (or the good), it remains in the public domain. As such, fears of the commodification of traditional knowledge on account of GIs are not entirely valid. Protection involves the codification of well-established practices into rules that become part of public knowledge (Bérard and Marchenay, 1996; Moran, 1993a). However, as the knowledge embedded in the good is not protected, apprehensions concerning the misappropriation of traditional knowledge remain (see Dutfield, 2000, p70). Yet, it is also the case

[24] The data is from a 1991 European Commission study; one expects these shares to have since increased.
[25] Of relevance in this regard, according to Downes and Laird (1999), are the following declarations and statements: Kari-Oca Declaration of 1992, Indigenous Peoples' Earth Charter of 1992 and the Matataatua Declaration of 1993 among others.

that the codified rules do not disclose the entirety of local (indigenous) knowledge associated with the product and its production process.

- Rights are (potentially) held in perpetuity: The particular indication is protected as long as the good-place-quality link is maintained and the indication not rendered generic. Many indigenous communities consider their knowledge as a heritage to be protected for the lifetime of their culture (Downes and Laird, 1999). In recognising this element of compatibility, it is also useful to be aware that the codes of practices associated with a GI can evolve and change with time[26]. No doubt, this raises fundamental questions concerning core features of a 'traditional' practice/product and the extent of permissible change (Bérard and Marchenay, 1996, pp240-42).

- The scope of protection is consistent with cultural and traditional rights: To begin with, GIs are a collective right that is open to all producers in the region that observe the specified codes and produce in the demarcated geographical region (Bérard and Marchenay, 1996; Moran, 1993a). The 'holders' of a GI do not have the right to assign the indication, which is provided to holders of trademarks (Article 20, TRIPs Agreement) and patents (Article 28[2], TRIPs Agreement). Closely following this, the good-place link underlying GI-protection automatically prohibits the transfer of the indication to producers outside the demarcated region[27]. Nor can the indication be used on 'similar' goods originating from outside the designated geographical area. In effect, the result of protection is to limit the class and/or location of people who may use the protected indication.

In addition to the above, GIs are considered to be free of the many adverse socio-economic results of corporate control and accumulation of IPRs rights that occur with patents and copyrights (Downes and Laird, 1999). The rights available under GIs are not in any way comparable to the "unconditional right of a patent holder" (Ibid.). While it is true that any one community or association cannot acquire control over a number of indications in a style akin to the strategic use of patents, evidence of country-level concentration in the distribution of indications by product category exists (cf. table 1 and annex 1). Moreover, viewed from an economists' perspective, indications are a form of collective monopoly right that erect entry barriers for producers wishing to enter a market (cf. section 3.1). Finally, it is important to recognise that GIs do not protect the knowledge embodied within the good and/or the associated production process (cf. Dutfield, 2000). Consequently, as noted earlier, GI protection is no guarantee against the misappropriation of traditional knowledge and other strategies to protect traditional knowledge must be adopted. Yet, GIs remain meaningful in enabling "people to translate their long-standing, collective, and patrimonial knowledge into livelihood and income" (Bérard and Marchenay, 1996, p240).

[26] EEC 2081/92 makes specific provisions for revisions to the product specifications and codes of practices (Article 9).

[27] Downes and Laird (1999) draw attention to an exception to this principle by referring to Moran's (1993a) observation of the licensing of the indication *Bleu de Bresse* to cheese producers in other countries. However, this evidence is mistaken: according to French authorities the indication is neither protected nor registered under the relevant legislation (www.francefromage.com; accessed 24 May, 2002).

4. The Socio-Economics of Geographical Indications – Evidence and Experience in Europe

The registration of GI-products[28] is predominantly a case of (re)organisation and governance of supply chains. These two themes – (re)organisation and governance – reflect the dual requirements for GI-protection: *coherence* in terms of the distinguishing characteristics between the products produced by different firms and *authenticity* in that the production process is consistent with the agreed codes. As will be clear through the following exposition, GI-products are the result of long-standing practices and thus significantly pre-exist the passage of the Regulation EEC 2081/92 through which they seek registration[29]. In seeking protection, the relevant interested parties must specify the distinguishing characteristics of the product, its production process, and details concerning its link to its area of geographical origin, among other factors (box 6). In this manner, registration entails some re-organisation of the product's existing supply chain, thus generating new economic opportunities for some while also creating problems for others. Paralleling the earlier characterisation of GIs as a type of collective monopoly characterisation of GIs (cf. section 3.1), here we explicate the point through the notion of 'club goods'. The latter reflects the widely articulated view that GIs are foremost a 'collective process of value creation' (Barjolle and Sylvander, 2000). Recognising this allows us to draw out important implications, supported by empirical evidence, of the organisational dimension of collective action with respect to (re)organising and governing of GI-product supply chains.

The analysis begins with an exposition of the notion of club goods, which is followed by a discussion of the implications of characterising GIs as a club good. After this follows a focussed discussion of two key organisational tasks at different stages of the products' supply chain: (a) articulating the product specifications of a GI-product and (b) the marketing and distribution of the GI-product.

4.1 GIs as Club Goods: Organisation and Governance of Supply Chains

From a variety of theoretical perspectives it has been suggested that GIs, and the reputation embedded in them, are a collective good (see Moran, 1993a; Arfini, 2000; Belletti, 2000) or as Thiedig and Sylvander (2000) contend a club good. To qualify as a club good, GIs must exhibit specific properties; in particular the benefits of displaying the indication requires meeting certain conditions (excludability) and that allowing an additional agent to enjoy the benefits of the indication involves zero marginal costs (nonrivalrous) (see box 3).

BOX 3
A TYPOLOGY OF GOODS: PUBLIC, PRIVATE AND CLUB GOODS

Early work mainly in public finance differentiated goods into two groups, public and private,

[28] Under EEC 2081/92 there are two categories: protected designations of origin (PDOs) and protected geographical indications (PGIs) (cf. section 4.2). The preferred analytical term in European research is origin-labelled products (see http://www.origin-food.org). To maintain consistency in the paper we use the term 'GI-products' to refer collectively to PDO and PGI products, unless the need for differentiating between them is necessary.

[29] To be correct, as certain Member states had provisions for the legal protection of geographical indications prior to Regulation EEC 2081/92, the Regulation sought to introduce in some Member states IGOs whilst simultaneously harmonising the provisions across the EC. In fact, the initial 500+ names protected under the Regulation were already protected under various national laws.

based on two key properties – excludability and rivalry (Samuelson, 1954, 1955).

- Excludability: This reflects the possibilities of, and ease in, excluding an individual from enjoying the benefits of a good. A non-excludable good means that everyone can enjoy and/or access the good without payment.
- Rivalry: This relates to the distribution of benefits between consumers of the good and whether an individual's consumption of the good rivals similar consumption by other individuals. In economic terms, a good is non-rivalrous if it involves zero marginal cost in providing the benefits to an additional individual.

A (pure) private good is one which is excludable and rivalrous: "a piece of cake, once consumed, cannot be enjoyed by others" whereas a pure public good, such as peace, is the polar opposite in that "all citizens of a country can enjoy it; and its enjoyment by, say, rural populations does not distract [sic] from its benefits for urban populations" (Kaul, 1999, pp3-4). However, these are polar opposites and most goods exist somewhere along the continuum between them. In some instances, while the immediate benefits of consumption are private (e.g. a healthy diet), there are benefits that spillover into wider society. Impure public goods have been analytically separated into two categories:

- Club or Toll Goods: These are largely nonrivalrous in consumption but excludable; thus being a local public good for those who have paid the toll and/or enjoy membership of the club.
- Common Pool Resources: These are largely rivalrous in consumption but nonexcludable. This category is most popularly exemplified by the example of common pasture land; though, the use of this example has been criticised.
-

Political theorists have developed the notion of 'clubs' as a "voluntary group of individuals who derive mutual benefit from sharing one or more the following: production costs, the membership characteristics or a good characterised by excludable benefits" (Cornes and Sandler, 1996). The four categories are presented below:

	Rivalrous	*Nonrivalrous*
Excludable	**Private goods** Personal computer Cake, bread	**Toll or club goods, networks** Leisure clubs Silicon valley Day-care centres
Nonexcludable	**Common-pool resources** Public libraries Geostationary orbits	**Pure public good** Sunset and (some) scenic spots Some global commons (e.g. the ozone layer)

Note: Public goods encompass the three shaded boxes.

To elucidate the point: (a) the specifications defining the GI are the conditions that must be met to allow a producer to use an indication (excludability) and (b) allowing for the use of the indication by an additional producer does not involve significant additional costs (non-rivalry). It is also useful to note that the reputation embedded in the indication is collectively on account of and simultaneously accrues to the geographical region identified in the indication. The symbiotic relationship between region and indication has been recognised: the region endows the indication with reputation, while the reputation of the indication popularises the region of origin (e.g. Moran, 1993a; section 3.2). It is quite unlikely that a single firm would have mobilised its resources to develop and promote the indication; though there have been instances of a single firm adopting the role of social leader in reorganising the supply chain.
Consequently, as GIs are club goods, they confront the problem of provision of public goods on account of:

- Free-riding: Individuals are often tempted, for a variety of reasons, to not reveal their genuine preferences – particularly since benefits are nonrivalrous. This sends incorrect signals to suppliers; thus, the market is undersupplied and resource allocation suboptimal.
- Prisoner's dilemma: This describes a situation where lack of information or other factors impedes cooperative action between different agents (prisoners). Consequently, each agent acting on limited information make decisions that are suboptimal when compared to an outcome based on cooperative action.

The fact that GIs confront these two types of problems is evident. For example, as will be elaborated in section 4.3 below, a firm might be tempted to under-report its interest in promotional expenditures for the protected product with the hope that it may *free-ride* on the promotion expenditures undertaken by others or by the consortia. It is also the case that maintaining the distinguishing characteristics of the product, i.e. ensuring compliance with the production codes, requires that all firms throughout the supply chain behave properly. This raises the *Prisoner's dilemma* wherein opportunistic behaviour on the part of a single firm can jeopardise the reputation of the indication. It thus comes as little surprise that in the face of market failures and problems of collective action the engagement of public or quasi-public institutions is highly recommended (e.g. Barjolle and Sylvander, 2000, 2000; Albisu, 2002; Sylvander, 2002)[30].

Supply chains for GI products are distinguished from those of other products on account of the fundamental requirement for the product, irrespective of its origin in terms of manufacturing unit, to exhibit the distinguishing characteristic, quality or reputation that is considered to be essentially attributable to its area of geographical origin (cf. box 6). Stated differently, a range of firms that are legally and economically distinct units produce the very same product (Chappuis and Sans, 2000). It is possible for a manufacturing unit or a group of firms to attempt to differentiate their products – which are otherwise rather similar – from those of other firms in the supply chain[31]. However, the uniqueness of GI product supply chains goes deeper than this. Plainly stated, the entire supply chain right down to raw materials and, if relevant, the land used for cultivation is implicated in the product specifications and indication. It follows from this that supply chains of different manufacturing unit's producing the same GI-product must exhibit similar features based on the collectively established codes of practice. This occurs within and across the product's supply chain: (a) firms vertically integrated in the supply chain observe the relevant codes to produce the GI-product and (b) firms

[30] The reason for our lack of surprise is on account of the general unanimity around state intervention favouring the provision of public goods either directly or through other means (e.g. property rights, fiscal incentives, subsidies, etc.). No doubt, each of these mechanisms has its supporters and detractors.

[31] Also relevant is the possibility of producing a range of products that imitate the protected product; thus free-riding on the indication's reputation. Naturally, any such product will not be able to use the indication per se; but the skilful – and non-infringing – use of imagery, text, and other distinctive signs might help its marketing. For example, West Country Farmhouse Cheddar is a PDO cheese where a key specification is manual cheddaring and a nine-month period of ripening period (Chappuis and Sans, 2000). However, firms tend to sell some cheese before the nine months of ripening (Wilson, 1997; Chappuis and Sans, 2000). While cheese that is not ripened for nine months cannot use the protected indication, a variety of marketing strategies seek to exploit its close association with the protected product. Elsewhere we report of similar strategies of product differentiation around a protected indication that have been adopted by Mezcal producers from Mexico (box 11).

located at the same stage across the supply chain observe identical codes of practice in producing the intermediate product (cf. Albisu, 2002).

BOX 4

Supply Chains and Governance Structures

Supply chains are product specific and distinguished by factors like the strongly demarcated stages of production, the governance structures, the type of firms and nature of competition at each stage and the length of the supply chain. Some examples from the range of protected cheeses are given below:

	Fontina	**Noord Hollandse Edammer**	**West Country Farmhouse Cheddar**	**Comte**
Producers	1700	540	>20	3400
Governance Structures	VI: + HF: +++ SM: 0	VI: 0 HF: +++ SM: 0	VI: +++ HF: ++ SM: 0	VI: 0 HF: +++ SM: 0
Cheese-makers	38	1	20	200
Governance Structures	VI: + HF: +++ SM: 0	VI: 0 HF: +++ SM: 0	VI: +++ HF: + SM: 0	VI: + HF: +++ SM: 0
Ripeners	9 (with 1=80%)	10	23	20
Governance Structures	VI: +++ HF: 0 SM: +	VI: +++ HF: 0 SM: 0	VI: 0 HF: ++ SM: ++	VI: ++ HF: + SM: +
Wholesalers	Approx. 250			
Governance Structures	VI: 0 HF: 0 SM: +	VI: 0 HF: 0 SM: +++	VI: 0 HF: 0 SM: +++	VI: n/a HF: n/a SM: n/a
Retailers				
Details of Indication	PDO cheese produced in Aosta Valley in the northern Italy; semi-hard cheese with three month ripening period	PDO cheese from northern part of the Netherlands	PDO cheese from the SW part of England; a hard cheese produced with manual cheddaring and marketed at nine months (mature) – the latter only receives PDO	PDO cheese from French Departments of Jura and Doubs; a hard cheese processed from raw milk and ripened for a minimum of four months.

Notes: The numbers report the number of firms at a particular stage of the supply chain. The importance of a particular governance structure is indicated by '+' – with more +s indicating a stronger factor and '0' indicating its absence.
Abbreviations: VI = vertical integration; HF = hybrid form; SM = spot market
Source: Chappuis and Sans (2000)

Evidence from the supply chain of different protected cheeses highlights the variety in supply chains and the governance structures that organise the transfer of intermediate products between stages of the supply chain (Box 4). Thus, for example, the Comte supply chain is marked by the presence of a relatively large number of firms at the different stages of the supply chain with limited vertical integration across the production stages. In contrast, the West Country Farmhouse Cheddar supply chain exhibits high levels of production concentration – just about 20 firms produce 22000 tons of cheese – and strong integration between the production stages – most cheese-makers have their own herd and part-ripen the cheese.

Clearly, a variety of organisational and governance issues have to be resolved to achieve coherence within and across the supply chain. The collective action problem faced in the case of GIs is pronounced in that firms need to organise themselves with a fine balance between cooperation and competition (Chappuis and Sans, 2000; Albisu, 2002). Unlike other supply chains, in the case of GIs the embedded firms must necessarily cooperate to ensure the success of their collective reputation/indication; however, these firms also compete with each other. To be clear, the competition occurs between firms at identical stages on the supply chain (e.g. one ripener versus another) and as well as between firms at contiguous stages of the supply chain (e.g. a dairy versus a ripener). No doubt, this 'fine balance' is unique and contingent on sectoral, cultural, spatial and temporal factors; there being no *a priori* basis for predicting the balance or the organisational form that takes shape.

Here we draw attention to two specific, though interrelated, problems that are faced in the process of reorganising and governing GI-product supply chains: distribution of economic returns and trust. Both these problems arise on account of the fact that these products and their respective supply chains pre-exist registration and legal protection, processes that aim to recollectivise cultural values and transform them into economic value (cf. section 3.2 and 3.3). Questions of redistribution and trust emerge because of the potential for modifying the supply chain and changes in economic value.

One can safely assume that firms within a supply chain are differentially endowed in terms of economic power either on account of their particular location on the supply chain or for simple economic reasons (e.g. size, liquidity, etc.). Consequently, firms with superior bargaining positions may be tempted to appropriate a disproportionate share of the economic value generated from securing GI-protection. By way of example, consider the fact that the higher price received by GI buffalo mozzarella cheese (*Mozzarella di Bufala Campana*) in comparison to other buffalo mozzarella cheese has not translated into a higher price for breeders and dairies producing buffalo milk for the PDO mozzarella in comparison to the price for non-PDO buffalo milk (de Rosa et al., 2000). Thus, the main beneficiaries of GI-protection were the cheese manufacturers. Disparaging as this may be, firms may attempt to vertically integrate (upstream or downstream, as the case may be) as a means to internalise transaction costs and improve their bargaining position. This strategy is borne out in the efforts at reorganising the Parmigiano-Reggiano supply chain (de Roest, 2000; Arfini and Mora Zanetti, 1998).

Here we focus on the relationship between cheese dairies and wholesalers-ripeners. Cheese dairies tend to face a constrained liquidity situation that gets most pronounced around the time of sale of partially ripened cheese. The constrained situation is on account of financial demands by their member farmers that are compounded by limited space for in-house ripening. In contrast, wholesalers-ripeners have a relatively superior bargaining position as they tend to largely decide when to purchase consignments, whom to purchase from, etc. In addition, ripening – a key stage in the production process – requires physical space and financial capital – resources that they tend to possess. This differential in bargaining positions is deepened by the fact that there are many more cheese dairies in comparison to wholesalers and ripeners. Consequently, some dairies have integrated into the ripening stage to improve their relative bargaining position. Yet, the following statistics clearly indicate that wholesaler-ripeners have maintained their position:

- Wholesalers-ripeners purchase almost 90% of cheese produced by non-integrated dairies. Some 23% of the dairies have integrated into ripening; however, dedicated wholesalers-ripeners take up 70% of their output.
- Most cheese dairies (76%) contact only a single ripener and for the most part (77%) the entire stock is sold to a single ripener. In addition, 72% of the dairies have not changed their sales outlet from the single ripener.

In explaining this phenomenon, de Roest (2000, p277) makes an important point in terms of trust-building,

> … the stability of the relationship with few purchasers ensures that they have both a secure and steady outlet for their production. … Sales stability over time to a few purchasers guarantees a high level of reliability in the commercial relationship and payment conditions are respected. All this contributes to the reduction of transaction costs.

This is an interesting example where the adverse bargaining position between dairies and wholesaler-ripeners is compensated by a stable sales transaction. Evidently, while there may be latent economies to gain by dairies integrating into ripening it seems that the long-standing relationship between dairies and ripeners engenders stability and trust – that elusive 'commodity' (cf. box 5) – to the transaction.

BOX 5: The socio-economics of trust

Economists recognise trust as a complex commodity that cannot be traded in a market. In simple terms, 'trust' is non-purchasable: if it had a price and could be bought and sold it would automatically be useless (Arrow, 1971)[a]. Trust is built through a gradual, iterative process that must overcome the opportunistic behaviour of individuals compounded who face communication problems like the Prisoner's Dilemma. This requires significant deployment of time and cost (Lundvall, 1988, 1993). Individuals, and for that matter institutions, carefully select their transactions and develop a variety of organisational/contractual solutions and governance structures to economise transaction costs (Williamson, 1985). Since trust building takes time and involves costs, it is also the case that the governance structures erected tend to become enduring. The costs and time deployed breeds inertia in agents/institutions; thus somewhat locking-in existing governance structures.

Trust is a non-purchasable commodity that requires significant deployment of time and resources to build (Box 5). The implications of this characterisation of trust and the role of intermediaries in building trust are borne out in the experience of agents involved in the Teruel Ham supply chain (Chappuis and Sans, 2000, pp61-62). Up until 1995, despite high demand for the end product, pig availability for slaughterhouses and ripeners remained a problem. Pig producers remained hesitant in producing pig for the PDO for two reasons: (a) higher production costs and (b) unreliable returns. Pigs for the PDO must be older than 8 months and have a live-weight between 115 and 130 kilos; thus making them fatter, older and more costly than normal pigs. Moreover, there are few, if any, alternatives for these pigs as their carcass is too fat for the fresh meat market. To remedy the situation, in 1996 the *Consejo Regulador* (the inter-professional body managing the denomination) adopted two strategies. It initiated a process of annual meetings between the different parties in the supply chain to improve

information flows, dissolve misunderstandings and promote coordination. Further, it developed a sample contract between fatteners and slaughterhouses as a mechanism to stabilise pig availability for slaughter. The contract establishes a minimum price, the volume and approximate delivery times. Importantly, the regional government indemnifies credit on account of the contract. Through this dual strategy the *Consejo Regulador* has been able to make headway in bringing coherence to the supply chain and building trust between the different firms/individuals involved in the supply chain.
All of this places a premium on cooperation and coordination between manufacturing units horizontally or vertically integrated in the product's supply chain to achieve *coherence* and *authenticity*. Given the fine balance between cooperation and competition there is a need for an independent and representative body to mediate between firms. Not surprisingly, "the birth of an OLP [origin labelled product] supply chain needs a lot of energy in order to encourage the actors to change their present commercial relationships and distribution channels" (Albisu, 2002, p14). There are a number of specific tasks to be completed while reorganising supply chains and these include agreeing codes of practice and defining the GI-product, developing certification schemes and methods of governance, formulating written and/or unwritten contracts to mediate the transfer of intermediate goods within the supply chain, managing production at various stages of the supply chain, promoting and protecting the product, among others. In the following two subsections we analysis process of defining the GI-product and marketing and promoting the product.

4.2 Differentiating Products: The Task of Defining GI-Products

Apart from the very obvious regulatory requirement of EEC 2081/92 for detailed product specifications that define the GI-product (Article 4, cf. box 6), specifications have serious implications for the entire supply chain and its commercial success. To begin with, using the metaphor of club goods, the codes provide conditions to be satisfied for inclusion into and, by corollary, exclusion from the GI club. Further, as all stages of production and every firm is implicated in the codes, commercial success is substantially contingent on the effectiveness of the codes in differentiating the product. This reflects the role of the indication in ameliorating product-quality related information asymmetries between consumers and producers (cf. section 3.1). Naturally, for commercial success other related factors are also relevant, such as the explicit and implicit costs arising from the codes and certification, to name one. The subsection elaborates on these issues.

To begin with, Regulation EEC 2081/92 conceives of two categories of IGOs (Article 2):

- Protected Designations of Origin as names of a region, a specific place or, in exceptional cases, a country, used to describe an agricultural product or a foodstuff where particular quality or characteristics are essentially due to a particular geographical environment with its inherent natural and human factors and the production, processing and preparation takes place in the defined geographical area.
- Protected Geographical Indications as names of a region, a specific place or, in exceptional cases, a country, used to describe an agricultural product or a foodstuff where a specific quality, reputation or other characteristic is attributable to that geographical area of origin and where production and/or processing and/or preparation takes place in the defined geographical area.

As noted earlier (section 4.1), through Article 5 the regulation requires a 'group' to apply to register a product for protection under one of the two categories. This clearly places the problems of collective action at the forefront. The essential criterion for protection is laid out in Article 4, which spells out requirements for a detailed specification of the product (Box 6).

BOX 6: Regulation EEC 2081/92 – Article 4

1.To be eligible to use a protected designation of origin (PDO) or a protected geographical indication (PGI) an agricultural product or foodstuff must comply with a specification.

2. The product specification shall include at least:

(a) the name of the agricultural product or foodstuffs, including the designation of origin or the geographical indication;

(b) a description of the agricultural product or foodstuff including the raw materials, if appropriate, and principal physical, chemical, microbiological and/or organoleptic characteristics of the product or the foodstuff;

(c) the definition of the geographical area and, if appropriate, details indicating compliance with the requirements in Article 2 (4);

(d) evidence that the agricultural product or the foodstuff originates in the geographical area, within the meaning of Article 2 (2) (a) or (b), whichever is applicable;

(e) a description of the method of obtaining the agricultural product or foodstuff and, if appropriate, the authentic and unvarying local methods;

(f) the details bearing out the link with the geographical environment or the geographical origin within the meaning of Article 2 (2) (a) or (b), whichever is applicable;

(g) details of the inspection structures provided for in Article 10;

(h) the specific labelling details relating to the indication PDO or PGI, whichever is applicable, or the equivalent traditional national indications;

(i) any requirements laid down by Community and/or national provisions.

Much like trademarks, GIs are closely associated with the marketing of products. However, while trademarks identify the manufacturing unit, GIs identify the geographical area of origin of the product. Furthermore, while the trademark is a distinctive sign signalling the expectation of a certain level of quality – the brand's reputation – GIs are similarly endowed with a reputational element on account of the product's specific characteristics and quality that are essentially attributable to the physical and human elements in its area of origin. At issue here is more than a link between a product and its place of origin, but that the distinguishing characteristics of the product derive from the human and physical area of origin. The former, that is using

an indication to link a product to its area of geographical origin, per se is not problematic. It is the triple connection between product, place of origin and quality that is more difficult to unambiguously define since there are significant socio-cultural dimensions to it (Moran, 1993a, pp266-67; Bérard and Marchenay, 1996, pp238-39). Not dissimilar is the view of research teams analysing the European legislation. For example, the Final Report of the FAIR project (Barjolle and Sylvander, 2000) as well as the currently on-going DOLPHINS project (Sylvander, 2002) note that protection of geographical names only requires institutional mechanism ensuring effective legal protection, whereas the inclusion of 'quality' necessitates a technical definition of production method, product specifications and consumer understanding of these factors. With quality in the equation, the regulatory system must necessarily resolve the question that the product concerned – with essentially similar characteristics – cannot be produced in a different physical/human environment (Moran, 1993a; Bérard and Marchenay, 1996). Here, Moran (1993a, 1993b) draws attention to the somewhat unresolved scientific debate concerning the assumptions underlying the wine appellation system. Particularly disputed is the key assumption of an inverse relationship between yield and quality of grapes. In more recent times some enterprising wine-makers have come up against the established and staid classification systems of French wines. For example, MacDonogh (2003) reports of a *de facto* wine classification system in the Bordeaux region based on plaudits from media critics and influential restaurateurs that is reflected in the price of a bottle.

The Regulation adopts a "production management approach, where quality is intended as a standard set of characteristics which can be measured, observed and certified" (Segale et al. 1998, p367). But does this resolve the link to quality? 'Quality' remains a highly contest, socially constructed and ambivalent notion. Ilbery and Kneafsey (1999) identify four points worthy of consideration in terms of agro-food quality. First, all actors, despite their varying perceptions concerning quality, within the supply chain are implicated in the production and maintenance of quality. Second, as quality is socially constructed, it is contingent on socio-cultural, political and economic interests that influence the production/consumption of the product. Third, as quality is negotiated it could temporally change under the influence of powerful actors within the supply chain. Finally, quality is constructed by labelling practices like Regulation EEC 2981/92. It follows from this that 'origin' is one element within a wider set of factors that influence perceptions of quality. However, the notion of 'origin' itself has mixed connotations that could include 'produced in one's own region' or 'regional speciality' (Tregear, 2002). Aspects of this complicated notion of quality are present in the legal battle concerning Parma ham that pitted Consorzio del Prosciutto di Parma – the Consortium representing Parma ham producers – against Asda – a UK grocery chain that is owned by Walmart.

Box 7
Who will slice Parma ham? The European Court of Justice's Decision

The Consorzio del Prosciutto di Parma, set up on 18 April 1963 by 23 producers of Parma ham, represents over 200 Parma ham producers. Through various Italian laws and decrees it is entrusted with supervising the production and marketing of Parma ham and monitoring compliance with the product specifications. On 14 November 1997, the Consorzio initiated proceedings in the UK against Asda and Hygrade. Hygrade imports boned and unsliced Parma ham from an Italian company, Cesare Fiorucci SpA, which it then industrially slices and packs for delivery to Asda – the latter selling the packets with the following descriptions:

- On the front: 'ASDA A taste of Italy PARMA HAM Genuine Italian Parma Ham'.
- On the back: 'PARMA HAM All authentic Asda continental meats are made by traditional methods to guarantee their authentic flavour and quality' and 'Produced in Italy, packed in the UK for Asda Stores Limited'.
-

The proceedings sought to make Asda and Hygrade cease their activities on the grounds that they were contrary to the rules applicable to Parma ham. The case eventually came up for hearing before the House of Lords, who decided to stay the proceedings and refer it to the European Court of Justice as it required interpretation of various Council Regulations in addition to EEC 2081/92.

Among the issues raised in this case, two merit our specific attention:

- Should Regulation EEC 2081/92 be interpreted as precluding the use of a PDO from being conditional on operations such as the slicing and packaging of the product taking place in the region of production?
- Does imposing such a condition on the use of the PDO 'Prosciutto di Parma' constitute a measure having equivalent effect to a quantitative restriction on exports within the meaning of Article 29 EC?
-

As a preliminary point, the court observed that the specification for Parma ham expressly mentions the requirement of slicing and packaging the product in the region of production for ham marketed in slices. In this respect, Asda, Hygrade and the UK government submitted that the requirement for slicing and packaging to take place in the region of production is disproportionate. In particular, as Italian law also allows Parma ham to be exported whole or cut up and to be sliced in front of the consumer in another Member State, it is unreasonable for there to be prohibitions on the same slicing process outside the region of production when it does not take place in front of the consumer. Spain, in its submission, referred to the *Rioja* case to establish that the purpose of a designation of origin is to guarantee that the product comes from a specified area and displays certain characteristics. In the case of Parma ham, which is largely traded in sliced form, the slicing of the ham is a particularly important step in its processing.

The Consorzio argued that slicing and packing are important steps of the production process that also permits the producer to "control one of the ways in which the product appears on the market … [so as to] safeguard the quality and authenticity of the product, and consequently the reputation of the PDO". Importantly, the court observed that "the applicable rules protect those entitled to use them against improper use of those designations by third parties seeking to profit from the reputation which they have acquired. They are intended to guarantee that the product bearing them comes from a specified geographical area and displays certain particular characteristics. … For consumers, the link between the reputation of the producers and the quality of the products also depends on his being assured that products sold under the designation of origin are authentic". The specifications for a PDO (or PGI, for that matter) establish the codes to be met within the indicated region of production, which for third parties should be considered as a negative obligation – breach of which may give rise to civil or even criminal penalties.

On the issue of quantitative restrictions, Asda, Hygrade and the UK government submitted that application of PDO rules have the direct or indirect effect of restricting trade. In the sense, the requirements restrict export patterns of ham eligible for the PDO label. The Consorzio, with supporting statements from the Italian and Spanish governments and the Commission, accepted that the impact of PDO specifications might be equivalent to quantitative restrictions. However, they contend that this was justified since the essential objective is "to preserve the reputation of the designation by guaranteeing, in addition to the authenticity of the product, the maintenance of its qualities and characteristics". In its ruling the Court adopted a similar argument by noting that restrictions on exports are justified on the grounds of protecting industrial and commercial property.

Source: Case C-108/01, Consorzio del Prosciutto di Parma & Salumificio S. Rita SpA / Asda Stores Ltd & Hygrade Foods Ltd, ECR, 2003 (20 May 2003). Available at http://curia.eu.int/; Press and Information Division of the European Court of Justice, 2003, Judgments of the Court of Justice in Cases C-469/00 and C-108/01 - The Court Confirms the Extent of Protection Conferred by Community Legislation on Grana Padano Cheese and Parma Ham, Press Release No. 42/03, available at http://europa.eu.int/cj/en/actu/communiques/cp03/aff/cp0342en.htm

On the question of 'defining a GI-product' and the link to quality, the Parma ham case is instructive for a number of reasons. It clarifies that the product specifications (i.e. mode of production) are at the foundation of differentiating the product (typicity of the product) from others within the same category. The typicity of the product generates the expectations of a certain level of quality, i.e. reputation, from products bearing the indication. Inherent in this is an important duality:

- The specifications articulate the obligations that must be complied with by all users of the indications – thus; every member of the 'GI club' will have to comply with the specifications.
- The specifications also mark out the rights to be protected against third parties, a negative obligation, breach of which could result in remedies being sought.

Clearly, product specifications are fundamental in strategies of valorising typical products as they form the basis for 'club membership' – the barrier to entry into the niche market. Apart from illustrating the role of a coordinating body representing different interests implicated in the supply chain, the case is also a window into the culturally differentiated perceptions about quality. For Asda and the UK government the slicing and packing of Parma ham is a trivial stage in its production. British media coverage of the case also reflects this perception. For example, the comment in the *Guardian* (21 May 2003) went as follows: "Food snobbery appeared to triumph over common sense yesterday when the European court of justice ruled that Parma ham is not the real thing if it is sliced and packaged in the UK". An Asda spokesperson, quoted in the *Telegraph* (21 May 2003), itself felt that too much is being made out of the slicing of ham: "No one doubts that Scotch beef remains Scottish if sliced in Southampton, Jersey potatoes are still Jerseys when boiled in Blackpool, Cheddar's still Cheddar if grated in Gretna".

Questions of quality and its link to geographical origin will continue to rise in the future. However, it is useful to recognise that the registration system of Regulation EEC 2081/92 is not an automatic procedure. Much like other instruments of IPRs, there is an evaluation system and there are refusals. For example, the 1997 PDO application for Tuscan extra-virgin olive oil (henceforth, olive oil) – a product that has well-established renown locally and outside its region of production – was rejected on the dual grounds of procedural errors and a weakness in the link between product and area of geographical origin (Belletti, 2000)[32]. A particular factor in the rejection was the heterogeneity in quality on account of existing features of the supply chain, such as the mixing of farm lots at the pressing stage and the sale of unbottled oil. Consequently, the decision to seek a PGI instead, which was granted in February 1998.

[32] Organisation of olive growers in certain sub-geographical areas with greater local prestige and certain groups of bottlers opposed the application for protection of 'Tuscan' are subsequently lobbying for PDOs based on provincial names so as to capture the reputational capital associated with the Province's name.

The brief experience with this PGI is instructive in highlighting the relationship between codes, emerging marketing opportunities and the structural socio-economics of the firms in the supply chain[33]. The production process of olive oil is relatively simple and involves few stages: harvesting of olive fruit, milling of the olive fruits by mechanical extraction, preservation, mixing and bottling of the oil and sale to consumers. Harvesting of the fruit is a key, though costly stage involving manual harvesting – dictated by the traditional layout of the cultivation and the requirement for ripe olive fruits to be picked. Harvesting can account for almost 50% of retail price. Despite the use of pressing mills, farmers have succeeded in maintaining control over quality and supply. Two main marketing channels exist for the final product: the direct (short) channel and the long channel of mass and niche markets. The former is constituted by 'traditional, local consumers' who mainly buy unbottled olive oil directly, say from a farm or other outlet. This market segment was the dominant channel up to the early 1990s. However, a secondary channel, the long and niche market, has since emerged that reflects the growing significance of the reputational capital of the label 'Tuscany'. Of note here is the differing economics of reputation: in the short channel with direct sales there is little value in the reputational capital of the 'Tuscany' label. At issue is the response of the firms within the supply chain to the registration of 'Tuscany' as a PGI and the opportunities arising from the long market channel.

- Exclusion effect: Oil placed on the market with the 'Tuscan' label has sharply declined, reflecting in great measure the exclusion effect of club membership. However, there has been some 'self-exclusion' mainly by small producers. Small producers with lot sizes under 900kg account for fewer than 2% of the certified production while large producers (lot sizes in excess of 10,000kg) account for more than 77% of the certified production. The self-exclusion reflects a lack of interest (mainly selling in the direct channel) or incapacity to access certification (explicit/implicit costs)[34].
- Standardisation and price differential: Despite the fall in volume of 'Tuscan' labelled olive oil, or rather because of this fall, a price differential has developed in the market which favours 'Tuscan' labelled olive oil. Tuscan olive oil bearing the certification of origin has quickly become the reference point in the market, particularly in the context of long market channels. This makes it the benchmark for minimum quality, leading to price differentiation with non-certified oil receiving a lower price.

Underlying the above transformations are trends suggesting that areas of relatively lower (local) renown have accounted for most of the certification. For example, 85% of the certified olive oil originates in the provinces of Grosseto, Livorno and Pistoia rather than Lucca, Florence and the hills of Chianti. It is also suggested that large firms, in particular bottling companies who have acquired Tuscan oil-bottling companies, have been able to deploy the necessary investments to 'milk the reputational capital' of the indication. This has been achieved through a variety of transformations that include the following: more effective standardisation of the product (in this case bottled olive oil), superior access to long market channels, linking of the Tuscan indication with corporate brand, and benefits of economies of scale. In this respect, Belletti (2000) concludes that the initial results from Tuscany suggests a recollectivisation of cultural values that

[33] The case study is based on Belletti and Marescotti (1998) and Belletti (2000).
[34] The costs include implicit costs associated reorganisation and monitoring of the supply chain and explicit cost of the application/certification process (approx. 300 euros).

appear to have been largely appropriated by those areas that did not have (real) renown outside of Tuscany and vertical reallocation to some extent in favour of bottling companies.

The case studies here highlight a range of issues relating to defining GI-products when viewed through the frame of product differentiation strategies, i.e. when the aim is to differentiate the GI-product from other standard products that exist in the same product market. In this manner, the definition of the GI-product demarcates a niche market, entry into which is only available to products meeting the regulated product specifications.

4.3 Segmented Markets: The Promotion and Marketing of GI-products

One of the presumptions grounding Regulation EEC 2081/92 is that consumers are interested in knowing about the origin of products:

> *Whereas in view of the wide variety of products marketed and of the abundance of information concerning them provided, consumers must, in order to be able to make the best choice, be given clear and succinct information regarding the origin of the product;*

This statement could take comfort in the Commission's survey of 16,000 consumers across 16 western European countries that verified this interest in origin and indicated that consumers are more interested in 'tradition' over 'mass-produced' food items (CEC, 1996). This is corroborated by the DOLPHINS project, though with a note of caution in that the base from which this interest is being expressed varies across the EU (Tregear, 2002). Empirical research using hedonic price technique found that consumer's willingness to pay for GI-products, in this instance Galician Veal in Spain, is strongly correlated to quality (Loureiro and McCluskey, 2000). In other words, GI-products that are recognised by consumers earn a price premium if quality promises are delivered; thus suggesting that interest in 'origin' is part of wider trend of changing consumption patterns. In this respect, notice is taken of the development of a variety of socially-constructed quality criterions that include concerns about animal welfare, concern for the environment and biodiversity loss, fair and ethical trading, local and rural development to name some (Marsden, 1998; Tregear et al., 1998; Wilson and Fearne, 2000; Tregear, 2002)[35]. In terms of market size these segments might be termed niche. For example, the global organic market has grown from US$10bn (1997) to US$17.5bn (2000) and accounts for between 1 and 3% of the total global food market (Millstone and Lang, 2003). This sector, which is growing at over 20% per annum, is characterised by high demand that is clearly outstripping supply. The European fair trade market is estimated to be worth over €260mn (EFTA, 2001). Market shares for the three main products – coffee, tea and bananas – vary across Europe; however those with significant shares are: bananas – 15% in Switzerland and 2% in Norway; coffee – 3.3% in Luxembourg and 3% in Switzerland; and tea – 4% in Switzerland and 2.5% in Germany. Interestingly, in some instances the organic market overlaps with the fair trade segment when products combine the two qualities, such as with 'fair trade, organic coffee' (box 9).

[35] These market segments are part of wider transformations in the agro-food industrial complex and are discussed later on in this section.

Another implicit assumption underlying the regulation concerns the nature and level of awareness of origin-labels amongst consumers. For these labels to fulfil their role in ameliorating the inherent information asymmetries between consumers and producers concerning product characteristics (origin, quality, etc.), it must be the case that consumers recognise and understand the labels. To this end, DG VI (DG Agriculture) launched a communication campaign – Products with a history – between June 1996-March 1998, costing 8.8 million euros to (1) encourage *producers* to adopt protection system, (2) heighten awareness amongst *distributors* so that they take note of these products, and (3) inform the 373Mn European *consumers* (see Barjolle and Sylvander, 2000 for a critical analysis). Studies suggest that despite the growing interest in 'origin-labelled' products, awareness of official labelling schemes is lagging and there are striking national differences across the EU (Tregear et al., 1998; Ilbery and Kneafsey, 1999; Barjolle and Sylvander, 2000; Tregear, 2002): higher awareness in France, Italy, Portugal and Luxembourg compared to UK, Sweden and Denmark. It is also the case that consumers use a variety of indicators to build their perceptions about 'origin' beyond the PDO/PGI label. In a novel research exercise that used a mix of focus groups and other qualitative techniques in the UK, Tregear and colleagues (2002) conclude that there is "basic harmony" between consumers and regulators on what constitutes GI-products. However, the difference in consumer awareness across Europe fits well into a differentiation between those countries with an experience in protecting GIs and those without this experience. Awareness of and dependence on pre-existing GI-labels, in particular those of consortiums representing firms in the supply chain is a striking reality from many case studies. In this respect the evidence from the Parma region is notable not only in confirming the importance of intermediate institutions but also illustrative of the trust invested by consumers in collective labels (Box 8).

Box 8
Consumer Trust and Consortium Labels

	Parmigiano-Reggiano Cheese			Parma Ham		
	1	2	3	1	2	3
Consumers looking for Consortia label (%)	75.8	19.6	4.5	66.9	24.9	8.2
Consumers looking for firm brand (%)	29.5	33.2	33.9	22.8	39.7	34.8

Both consortiums have a long history of regulating aspects of their relevant supply chain; the Parmigiano-Reggiano Consortia being established in 1934 and the one for Parma ham in 1963. Through various Italian regulations the consortia have become the public face for the producers they represent.

The evidence from a survey demonstrates that consumers predominantly tend to always look for the consortium's label when purchasing the product; in fact, a very small segment never looks for this collective label. In contrast, a small proportion of consumers look for a private label. Not reported in the table is evidence that many consumers (>70%) could not remember the name of the firm producing the product.
Note: 1 = always; 2 = sometimes; 3 = never

Source: Arfini, 2000.

This raises a critical policy question: what do supranational origin-labels (i.e. PDO and PGI) add to pre-existing national schemes? Arfini (2000) concludes that the PDO/PGI labels have a long way to go in fulfilling their role of conveying origin, quality and authenticity and engendering trust amongst consumers. This adjustment process is

reflective of the problems associated with reordering existing behavioural patterns and building new trusting relationships (Box 5). Other commentators adopt a similar line of argument but hinge it on the culturally differentiated notions of origin, quality and product specificity (Barjolle and Sylvander, 2000, p40). This brings us back to previously noted evidence of cultural (qua national) variations in the awareness of origin labels. Yet, the evidence can be seen in different terms. Here, researchers suggest that consumers have varying mechanisms to assess and infer origin and origin-related characteristics. Here we quote from Tregear et al. (1998, p392),

> *… consumer perceptions of regionality are tied closely to perceived authenticity. More specifically, official designation of a food as regional may not be sufficient to convey authentic regionality to consumers: consumers also appear to infer regionality from, for example, a product's physical attributes, place of purchase or consumption and communicated heritage. Marketing techniques are critical therefore in conveying authenticity and enhancing the attractiveness of regional foods. The success of policy measures such as EU 2081/92 or regional food promotion schemes may therefore hinge upon careful consideration and implementation of wider marketing techniques for regional foods.*

This brings up the second theme concerning markets and distribution. Recalling earlier discussion (section 3), implicit in Tregear et al.'s recommendation is the idea that the commoditisation of local culture as a means towards the valorisation requires effective marketing strategies. Such a strategy requires the use of a variety of cultural markers of local images, traditional symbols and other signifiers of nostalgia to build an association for the consumer between origin-labels and the product. Ilbery and Kneafsey (2000b) identify a range of symbols used by UK-based regional and speciality agro-food producers. This is a particularly old marketing strategy where distinctive signs were used to evoke a particular association between a product and expected quality. As noted earlier, IGOs are amongst the earliest form of trademarks (section 3.1). In line with this approach to marketing GI-products are references to the other marketing and promotional strategies that build on the product differentiation and origin features of these products. For example, choice of final outlets is crucial and here Albisu (2002) draws out examples of boutique shops and popular agro-tourism locations. Interestingly, agro-tourism could easily fit into the wider EU strategy of multifunctionality and draw on the experience of wine and cheese producers in France. A common feature across these strategies is the lower transaction costs involved in local and proximate markets and the greater opportunity for producers to maintain control over the promotion/display of the product. Examples of the use and effectiveness of these strategies include Parma ham and Parmigiano Reggiano cheese (Arfini, 2000), Tuscan extra-virgin olive oil (Belletti, 2000), UK regional and speciality foods (Ilbery and Kneafsey, 1999, 2000a), French bakeries (Lassaut and Sylvander, 1998) and Galician Veal in Spain (Loureiro and McCluskey, 2000) to name some examples.

Discussion of GI-products entering distant and international markets requires some familiarity with literature on agro-food industrial regimes[36]. Here the concept of *food regimes* is used to conceptualise the stability and change in the implicit/explicit rules governing international relations and commodity/capital flows in the production,

[36] See Friedmann (1993), Raynolds et al. (1993), McMichael (1994) and Goodman and Watts (1997) on which this paragraph is based, unless indicated otherwise.

distribution and consumption of agro-food products. This literature recognises a dominant Fordist food regime revolving around mass-produced and standardised food items where a handful of firms at one end of the supply chain are able to exercise disproportionate economic power in regulating globally dispersed food items. In processed agro-food items this economic power manifests in the techno-economic efforts to substitute for raw materials and reconstitute rural products by industrially processed substitutes. A widely noted example in the literature is the development of sweeteners like HFCS. In the case of fresh fruits and vegetables a more flexible regime exists where firms attempt to constantly move between different production locations to source and provide for elite consumption in the North; thus ensuring what Millstone and Lang (2003) christen a permanent dietary summer. Inherent in these processes are attempts to delocalise products through a process of standardisation and homogenisation that would allow its production at other, less costly locations[37]. No doubt, this also weakens the territorial and land-based associations for particular agro-food products in the consumer's mind. Countering these trends are growing reconfigurations of institutions, producers, intermediaries and consumers that seek to safeguard niche markets. It is in these segments that novel socially-constructed quality criterions have proliferated. These networks hold the potential for the commercialisation of GI-products – even for deeply embedded and historically entrenched supply chains where a high level of genericisation has probably occurred (box 9).

Box 9
'Single-Origin' Coffees and Teas

Value distribution across supply chains of many internationally traded commodities are highly skewed in favour of post farm-gate operators. The plain economic power of operators (processors, manufacturing firms and retailers) is accentuated by the institutional and developmental hurdles in developing countries. This is borne out by a look at coffee.

Many developing countries are highly dependent on the export earnings from coffee. For Ethiopia, coffee accounts for 50% of its export earnings, while in Burundi the figure is almost 80% and in Rwanda it is over 30%. Even in countries not acutely dependent on coffee, there are rural communities where coffee accounts significantly for their livelihood. Notable here are the states of Oaxaca, Chiapas and Veracruz in Mexico, parts of Brazil and the Southern states of India where over 3 million workers are dependent on the coffee industry. In recent years the international trade in coffee has experienced structural transformations, such as lagging demand, stock build up and the entry of low-grade coffee from Vietnam and Brazil, and a breakdown of the International Coffee Agreement that managed price. In addition, the brand power of big roasting companies (e.g. Kraft, Nestle, Proctor & Gamble, Sara Lee) and the introduction of 'own-brand' labels by retailers – the gatekeepers to consumers – has aggravated the distribution of value across the supply chain. 'Own-brand' label coffee in Europe accounts for 15% of the market. The condition of coffee producers is evident in the following statistics:

- Ten years ago, producers earned about 1/3 of the coffee market that was valued at $30bn; now they receive less than $6bn of export earnings from a market that has more than doubled.
- Currently, a coffee farmer receives 1% or less of the price of a cup of coffee sold in a café. Their share of the value of a coffee pack from a supermarket is 6%.
-

In response a variety of strategies have been mounted, which include fair trade and brand development. Included in the latter are attempts to develop speciality coffees of

[37] Of relevance here is the use of a GI in translated form with delocalising terms (e.g. 'like', 'kind', 'type') – as permitted under Article 22 of the TRIPs Agreement. This could over a period of time render the indicator generic.

which single-origin coffees are a type. This effort at using IGOs to identify and differentiate coffee is an attempt at addressing problems of truth labelling in the coffee and tea trade and promoting greater integrity in the supply chain. For example, it is reported that 50mn pounds of Antiguan coffee is traded internationally, whereas Antigua produces only 6mn pounds. In the case of Darjeeling tea the corresponding figures are 40,000 tonnes and 10,000 tonnes. Some examples of these strategies are noted here:

- *Jamaican Blue Mountain:* This has been registered as a certification mark in the US in 1986. The coffee is produced in legally defined area and is processed by four mills. Coffee with this appellation is said to earn one of the highest premiums, reported at US$14.50 per kg in comparison to benchmark prices for Colombian mild.
- *100% Kona Coffee:* This is a certification mark registered in the US by the Department of Agriculture of the state of Hawaii.
- *Juan Valdez and Café de Colombia:* The Federacion Nacional de Cafeteros, a non-profit association representing Colombia's coffee farmers, has programmes directed at maintaining quality standards for coffee exports. This was achieved through the designation of 86 'Designated Coffee-Growing Regions'. The Federacion was one of the first groups to launch an international campaign that focussed on single-origin coffee (100% Colombia coffee), which it did through developing the brands of 'Juan Valdez' and Café de Colombia.
- *Association of Genuine Antiguan Coffee Producers:* The Association is (or, probably has) developing the 'Genuine Antigua' mark as means of identifying and distinguishing single-origin coffee. Using the French wine appellation system as a template the aim is to develop a coffee classification system using various paedoclimatic variables.

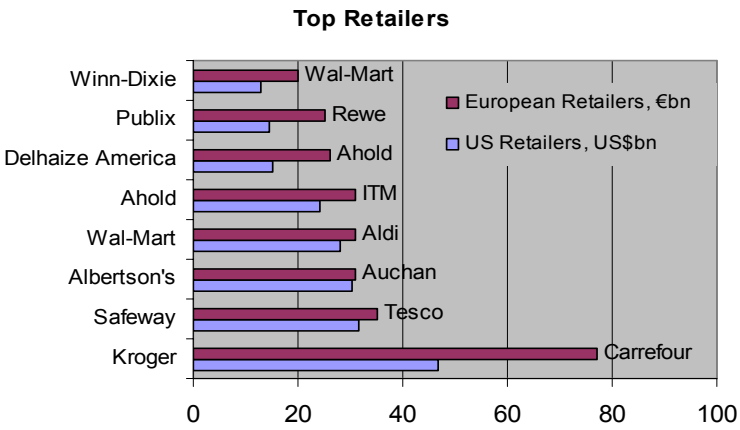
In the case of international trade in tea, the recent activities of the Tea Board of India to protect the 'Champagne of tea', Darjeeling, are notable given its importance as an export earner (70% of the produce being exported). The Tea Board has sought and/or registered a certification trademark for Darjeeling and logo (consisting of the word Darjeeling along side a representation of an Indian woman holding tea leaves) in various jurisdictions – including India, which is a prerequisite for using the provisions in the TRIPS Agreement. In effect, the certification mark and/or the logo will only be available for use on teas that are either pure unblended Darjeeling tea or tea blends where all of the teas originate in Darjeeling – clearly admixtures of Darjeeling with other teas cannot use the certification mark. In addition, the Tea Board has acquired the services of a Belgian watchdog company "Compumark" to detect the use of the word "Darjeeling" on tea in international markets.

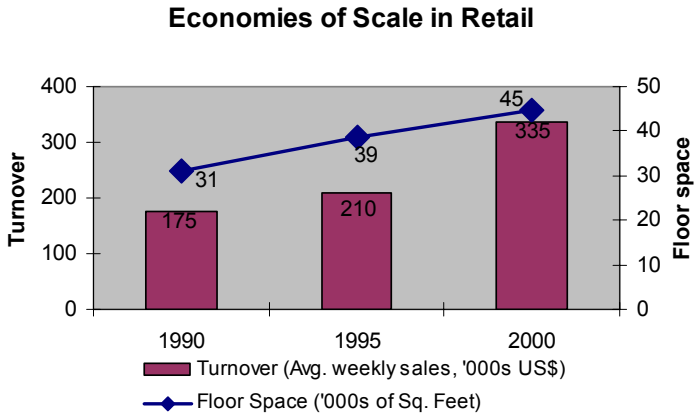
Source: Various media sources; Calindi, 2003; European Fair Trade Association www.eftafairtrade.org; OXFAM www.oxfam.org.uk; 2002; Tea Board of India www.teaindia.org

Producers of GI-products have to contend with the economic power of various intermediaries to reach the market that includes processors, distributors and finally retailers – the gatekeepers to consumers. Processors, according to Millstone and Lang (2003), have increasingly penetrating supply chains to substantially control most aspects of the production process, often making the primary producer significantly dependent on them. In the case of coffee and tea, a handful of processing companies control and very large part of global trade (box 9). In general terms, more problematic is the position occupied by a handful of retail companies – the real gatekeepers to consumers. (box 10).

Box 10
Retail Power: The Real Gatekeepers to Consumers

Retail companies have grown significantly in real terms (floor space and sales), giving them scale and scope economy advantages in comparison to other firms in the supply chain. Their dominance is also reflected in segments like organic and fair trade. However, there are significant variations between countries. For example in the UK, 74% of organics are purchased from retail stores and only 15% from specialised shops. Comparable figures in France are 38% and 46%.
A very European feature is the launch of own-brand products by retailers, which accounts for 45% of food sales.





Source: Millstone and Lang, 2003

Literature within the DOLPHINS project recognises these factors by drawing attention to problems of penetrating external and distant markets. Of particular importance in this respect, the project notes, is the launch by retailers of 'umbrella brands' – what we have earlier referred to 'own-brands'. These retailer brands provide an opportunity for GI-products to reach markets that are more distant without investing the significant costs required to launch and advertise the product. However, Albisu (2002) also reminds us that retailers' own-brand also pose a number of threats. For example, the most-possibly higher demands for product standardisation might threaten the distinctiveness of the GI-product. It is also the case that the retailer's brand could very well displace the GI-label as being the means for identifying and distinguishing the product or guaranteeing a level of quality. While this may be part of the marketing strategy of GI-producers, it is necessary to adopt a more diverse market penetration strategy. The population of consumers can be differentiated and segmented into a number of categories based on indicators like socio-economic factors, geographical location, sex, age, profession, etc. Clearly the average consumer is a figment of imagination and there are no typical consumers – this is easily borne out of the discussion on quality (section 4.2). Thus, it is imperative that marketing and distribution of the product attempts to tap into as wide a range of possible factors through the use of the indication, other distinctive signs, packaging, marketing outlets, etc. A possible manifestation of this strategy is to generate a range of differentiated products that fall within[38] the scope of the same GI-indication. This product portfolio would consist of rather similar products that are

[38] It may be the case that some products fall outside the limits of the indication's product specifications.

differentiate by price and other product-quality dimensions; thus potentially appealing to a wider range of consumers. An illustrative example of this is that of Mezcal from Mexico, where apart from the two products that are protected there is a range of other product categories (e.g. blends, single distillations, etc.) that have been developed (cf. box 11). Certain products (e.g. spirits, teas, coffees, cheese) might lend themselves easily to this strategy because of the scope available within product specifications.

Box 11
Distilling product differentiation: The Case of Mezcal

Mezcal is a distillation from the leaves of the maguey plant of the Agavaceae family. While there are over 100 species, the most commonly used plants for Mezcal are the maguey espadin (sword), tepestate (horizontal), larga (long) and sometimes a larger variety of maguey azul. The maguey tobala – a rare and wild species – is said to make one of the finest and most expensive Mezcals. There are two main differences between Mezcal and Tequila. Tequila is a distillation of only the blue agave (maguey) plant, the *agave tequilana weber azul*, whereas Mezcal can be distilled from a number of different agaves. The distillation process in Tequila is that of steaming, whereas in Mezcal it is through slow baking in underground pits; thus getting its smoky and earthy fragrance and flavour.

The main production area is the state of Oaxaco, though it is also produced in the states of Zacatecas, San Luis Potosí, Guerrero y Durango. Producers from these states have, with the assistance of various government institutions, formed the Mezcal Regulation Council to coordinate and organise the spirits production and promotion. In June 1997 the passage of order NOM-070-SCFI-1994 Mezcal received protection that denominates two types of Mezcal (see below) – all of which must be bottled in Mexico. In addition, producers have developed brand and product differentiation strategies to widen the portfolio of Mezcal products and reach a wider market. Thus, there are blends, single distillations, distillations from a single species – to name a few. The table below presents a sample of this range with a reference to the range of Scotch whisky products. The first two are protected by the order while the others are differentiated products.

The Scotch Reference Point	Mezcal Product Differentiation	Description
Pure malt whisky	100% Agave Mezcal	Type I Mezcal – Distilled from juices that contain sugars only from agaves; hence 100% Agave.
Scotch whisky	Mexican Mezcal	Type II Mezcal – Distilled from a mix that contains 80% of agave sugars and 20% of non-agave sugars.
Blended malts	Blended Mezcal	Made with Mezcal of different agaves and possibly blended from different distilleries.
Single malts	Single Mezcal	Made from Mezcal from a single distillery; sometimes from a single distillation batch.
Speyside single malt	Mezcal Papalote de Guerrero	A Mezcal from a specific Agave (Papalote) and specific region (Guerrero).

Source: Jorge Larson Guerra, personal communication, 21 August 2003; Mezcal Regulation Council (www.oaxaca.gob.mx)

In light of the problems in achieving market penetration, it is not surprising to see the following conclusion,

> *… marketing of many OLPs [Origin Labelled Products] is often one of the weakest links in the chain. Many firms belonging to an OLP supply chain tend to be more product oriented than market oriented. Pride of the product and loyalty to the traditional production techniques may generate highly valuable product qualities, but it is definitely not a guarantee for a sound and successful sales strategy (Albisu, 2002, p9).*

As part of the same project, i.e. DOLPHINS, Tregear (2002) makes the following recommendations for a marketing and distribution strategy for GI-products:

- Product strategies: Tangible features of the products are more or less fixed by product specifications; consequently producers might focus on transforming symbolic and service features of the product. While considering product identities, it is useful to ensure that other brand identities – GI-label, individual firm or retailer's label, EU-label – are consistent with each other.
- Communication strategies: GI-producers should consider building a series of message campaigns that highlight the link between their products and local development, the environment, etc. It is necessary to develop a separate communication pack for distant consumers where other symbolic images and links are exploited.
- Pricing strategies: A willingness to pay a premium for GI-products have been indicated in many studies; however the extent of the premium would vary with the product and the consumer's experience with the product.
- Distribution strategies: Evidence suggests that GI-producers will have to adopt different distribution channels in different countries. Thus, selling through retailers and supermarkets in countries with highly concentrated supply chains (e.g. UK) and using local markets, direct selling and specialised outlets in places where they dominate (e.g. Italy, parts of France).

Some of these strategies are present in the examples that have been noted in this document; however they remain an important reference point to consider for the successful commercialisation of GI-products.

5. Conclusion

The paper used recent and growing interest in GIs as the context to conduct an economic analysis of issues related to GIs. At one level the interest, such as in the GI-extension debate at the TRIPs Council, concerns the possible use of GIs as a market promotion mechanism. The other key interest of relevance corresponds to the possible use of GIs, with other policy measures, to protect and reward the holders of indigenous knowledge. The evidence and analysis presented in this paper consider these favourably; however the empirical evidence remains mixed and limited. Here we summarise some of the key themes and findings of our research.

The paper began with a brief discussion of the economic rationale for trademark protection, which is mainly framed in terms of information asymmetries and the need to protect investments in building reputation. The economics of information literature recognise the systemic information asymmetries between consumers and buyers that disadvantage consumers from making optimal consumption decisions. Moreover, these asymmetries are more pronounced with respect to quality- and credence-related aspects of a good. Firms respond to this problem by investing in building reputation, i.e. maintaining a certain minimum level of quality, advertising, product labelling and providing guarantees, etc. Distinctive signs, such as trademarks, play an important economic role in interlinking these different informational resources and also in lowering search costs for consumers. Hence, the need to protect distinctive signs so as to maintain the incentive to invest in building reputation, i.e. maintaining a minimum level of quality, and ensure that consumers are not misled by the deceptive use of distinctive signs.

IGOs are amongst the oldest category of distinctive signs; thus they also confront the economic problems associated with information asymmetries and reputation. In fact, in section 3.1 we concluded that, much like trademarks, the economic rationale for protecting IGOs is to be found in economic theories concerning information and reputation. Using the case of agro-food products, we note that significant information asymmetries exist between consumers and producers with respect to the quality- and credence-related aspects. We also found basis for 'collective reputation' in the evidence of regional and local level specialisation within product categories (cf. table 1, annex 1). In this regard, we drew attention to a court ruling in New Zealand on a case brought by the *Comite Interprofessionel du Vin de Champagne* to protect the geographical denomination of Champagne. However, despite the shared economic rationale and legal principles there are significant differences between GIs and trademarks (table 2). For example, our analysis presents GIs as a type of collective monopoly right. These differences, we note, are important factors for consideration when implementing TRIPs obligation and when organising strategies to commercialise a GI-product.

Section 3 also reviewed two central public policy concerns related to GIs: rural development and the protection of indigenous peoples' knowledge. In both respects we expressed a positive and favourable relationship – though with some caution. GIs can be part of a wider strategy to capture the 'rent' embedded in an appellation; however, evidence reviewed in section 4 remains mixed. While section 4 presents pertinent success stories, the cases are equally reflective of the confluence of a number of different factors. The relationship between GIs and efforts at protecting indigenous peoples' knowledge is promising because of the compatibility between the nature of the rights and the forms of cultural exchange that characterise these societies. However, caution is expressed in that GIs do not protect 'knowledge' per se. Thus, other mechanisms need to be used and here we referred to recent deliberations within WIPO's Intergovernmental Committee that recognise the real possibility of complementary intellectual property instruments being used to protect a product, an associated expression and the embedded knowledge.

Section 4 began by presenting GIs as an example of a special category of public goods, viz. club goods, because of its properties of excludability and nonrivalry. This characterisation proved useful in highlighting the problems faced in reorganising GI-product supply chains and allows an appreciation of the unanimous recommendation in the relevant literature for public or quasi-public intervention. Such intervention is required because GI-protection entails reorganisation of pre-existing supply chains that might, apart from redistributing economic value (e.g. the buffalo mozzarella cheese), threaten existing (trustworthy) relationships (e.g. Parmigiano-Reggiano). Moreover, success is substantially contingent on the cooperation of firms that otherwise compete with each other. The Teurel Ham case illustrates the role of the consortium in bringing together different interests and resolving problems within the supply chain.

A key organisational task for the supply chain is to define the GI-product. Our analysis presents this task as central to the efforts aimed at product differentiation and segmenting markets. Apart from product specifications, the definition of a GI-product must establish that the distinguishing characteristics of the product are essentially attributable to the human and physical area of origin. A brief discussion of the Parma ham case highlights these issues. At one level it signals the importance of a detailed

product specification, which in this particular case included the slicing and packaging of the product for ham that is marketed in slices. To be clear, the specifications establish the conditions for entry into the market segment that it fosters. The case is also illustrative of the culturally differentiated notions of 'quality'; thus leading us to conclude that similar cases will arise in the future. The analysis also reviewed other problems to be confronted in defining GI-products. For example, in the case of Tuscan extra-virgin olive oil the lack of coherence across the supply chain raised initial problems of standardisation that led to the rejection of the PDO application. However, on receiving PGI status and reorganising the supply chain, Tuscan extra-virgin olive oil enjoys a price premium and has become benchmark for other oils that do not enjoy the benefits of a protected label.

The general conclusion regarding promotion and marketing of GI-products is that this is the weakest link in the supply chain. A variety of factors can be identified: problems of market penetration, the economics of launching products, the multiplicity of labels and mixed notions of quality, and the threatening presence of substitutes and similar products. Here, we emphasise the fact that consumers' perceptions of 'origin', 'authenticity' and 'quality' are culturally disparate and differentiated. Consequently, it is important for producers to tap into traditional marketing strategies to convey these factors and enhance the distinctiveness and attractiveness of their products. Evidence of product differentiation strategies by producers of Mezcal in Mexico is encouraging. With respect to the dual problem of market penetration and threat from substitutes, we drew attention to new configurations of institutions, producers, distributors, retailers and consumers that seek to safeguard specific niche segments, e.g. organic, and fair trade. Here, the evidence reported of single-origin coffees is particularly encouraging.

It is clear from the range of case studies and from the policy deliberations that GIs are promising. The mixed results that we have highlighted – as well as the successful case studies – are also testimony to the wide range of factors to be mobilised for success. The process of codifying existing practices and reorganising supply chains is requires the patience and commitment of institution/trust building. Intellectual property protection through GIs is an important element in this process; while necessary it is clearly not sufficient for ensuring success.

Annex I: Indications of Geographical Origin Protected in the EU

Protected Designations of Origin and Protected Geographical Indications in EU (2003)

													Total
Belgium	1	2	0	0	0	1	0	0	0	0	0	0	**4**
Denmark	2	0	0	0	0	0	0	1	0	0	0	0	**3**
Germany	4	5	3	2	0	1	0	2	4	12	31	0	**64**
Greece	20	0	0	1	1	24	10	22	1	0	0	4	**83**
Spain	16	9	7	0	1	9	0	22	3	0	0	1	**68**
France	41	4	48	1	4	6	3	17	1	0	4	2	**131**
Ireland	1	1	0	1	0	0	0	0	0	0	0	0	**3**
Italy	30	26	2	0	0	27	2	33	3	0	0	3	**126**
The Netherlands	4	0	0	0	0	0	0	1	0	0	0	0	**5**
Luxemburg	0	1	1	0	1	1	0	0	0	0	0	0	**4**
Austria	6	2	0	0	0	1	0	3	0	0	0	0	**12**
Portugal	12	14	25	0	9	5	1	19	0	0	0	0	**85**
Sweden	1	0	0	0	0	0	0	0	1	0	0	0	**2**
Finland	0	0	0	0	0	0	0	1	0	0	0	0	**1**
UK	11	0	7	1	1	0	0	1	0	3	3	0	**27**
													0
Total	**149**	**64**	**93**	**6**	**17**	**75**	**16**	**122**	**13**	**15**	**38**	**10**	**618**

A = Cheese; B =Meat-based products; C = Fresh meat (and offal); D = Fresh fish, molluscs and crustaceans and products derived therefrom; E = Other products of animal origin (eggs, honey, milk products excluding butter, etc.); F = Oils and fats / Olive oils; G = Table olives; H = Fruit, vegetables and cereals; I = Bread, pastry, cakes, confectionery, biscuits and other baker's wares; J = Beer; K = Other drinks; L = Non-food products and others

Source: Authors calculations from data available at http://europa.eu.int/comm/agriculture/foodqual/quali1_en.htm; all symbols from EU website

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