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Geographical Indications: The Economics of Claw-Back

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Abstract

Geographical Indications (GIs) for products (Basmati rice, Champagne sparkling wine, Antigua coffee, etc.) were regulated at the international level in 1995 (WTO TRIPS Agreement, Part II, Section 3). This paper proposes a model on the welfare effects of the so-called "claw-back" of GIs; i.e. the protection in a country (Home) of a GI of another country (Foreign), when the said GI had previously acquired generic status at Home (cf.: protection of Feta in the EU or of Champagne in Chile). The setting includes two countries (Home and Foreign); three varieties (Foreign GI-original goods, Home GI-variety goods and generics) and a continuum of heterogeneous consumers. Two regimes are analyzed: protection / no protection; in two scenarios for Foreign firms: perfect / oligopolistic competition. Only the equilibrium at Home is analyzed. Although a loss in global welfare is always expected when fewer varieties are available in a market, results suggest that industrialized Home countries, with sophisticated consumers and higher relative costs tend to lose less from protecting Foreign GIs than developing Home countries, where the opposite is true. With oligopolistic competition, GI firms become from differentiated from their closest competitor after protection (now generics), further stressing the competitive distortion; consumers with a low willingness to pay for origin and a high degree of valuation for the GI-variety are the biggest losers. Regarding firms, however, contrary to the conventional wisdom, oligopolistic competition by Foreign firms leads to less stringent conditions for Home GI-varieties to compete, and does not affect generics. In effect, if after protection Home GI-varieties can successfully differentiate themselves from Foreign GI-original goods without the (unlawful) use of the GI label (either through the development of their own GI or through proper branding) and stay competitive, the scenario of oligopolistic competition from Foreign firms is more favorable to their development than the scenario of perfect competition.

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List of Abbreviations

AO	Appellation of origin
DSU	short for Dispute Settlement Understanding (Understanding on rules and procedures governing the settlement of disputes)
EC	European Communities
ECJ	European Court of Justice
EU	European Union
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and trade
GI	Geographical indication
IPR	Intellectual Property Right
Lisbon Agreement	Lisbon Agreement for the Protection of Appellations of Origin and their International Registration
OECD	Organization for Economic Co-operation and Development
TBT Agreement	Agreement on Technical Barriers to Trade
TRIPS Agreement	Agreement on Trade-Related Aspects of Intellectual Property Rights
USTR	United States Trade Representative
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

The economics of claw-back

1 Introduction

1.1 The non-misleading trade of non-original GI-labeled goods

> In 1996, based on a survey conducted over 12,800 nationals of the European Union,[1] the European Commission concluded that the name "Feta" evoked a Greek origin among European consumers, and thus registered the name "Feta" as a protected geographical indication[2] to cover Feta cheese produced in Greece. Denmark, Germany and France contested the decision, on the basis that Feta cheese had been produced and legally marketed under the name "Feta" in their countries for a long time. The European Court of Justice concluded that the Commission had played down the extant situation in the Member States, and annulled the regulation on the basis that Feta had become the generic name of a particular type of cheese. After new evidence was submitted by the European Commission, the ECJ overturned its own previous ruling in October 2005, removing the right of any non-Greek EU producers to use the name Feta for cheese.[3]

The Feta case is illustrative of the interests at stake regarding the identification of goods through indications of geographical origin, when legal protection of the indication is sought on grounds that a given quality, reputation or other characteristic of the good is linked to its geographical origin (refer to Appendix D for a note on the international legal regime for Geographical Indications - GIs). First, there is a trend towards agricultural products differentiation that makes it urgent for users of geographical indications to obtain protection to add niche market value to their products. Second, there is the potential loss to producers that currently label their products with the said indication taken as a generic term or registered as a trademark (such as Budweiser beer in the US, or Parma in Mexico and Canada). Third, there is the consumers' right not to be misled as to the true origin of the goods they buy.

The parallel with trademarks is informative. There are cases in which terms that began as trademarks eventually became generic, naming the product, such as 'PC', 'Rollerblades' and 'Thermos'. And there is the opposite case of descriptive terms that eventually acquired secondary meaning as brands, such as 'All Bran' and 'Holiday Inn' (Landes & Posner 2003). GIs are confronted with similar issues, for the most part of the first type (a GI becoming generic), since geographical names are usually not of the

[1] Eurobarometer 41.0, Spring 1994, questions Q.6-15, p.3-6. Final Report on results mentioned in the ECJ Decision.

[2] More precisely, as a Protected Designation of Origin (PDO).

[3] Federal Republic of Germany and Kingdom of Denmark v. Commission of the European Communities, European Court of Justice, Joined Cases C-465/02 and C-466/02, 25 October 2005.

descriptive type. The determination of generic versus secondary meaning status, eventually, is the problem of the courts, which adjudicate on a case by case basis.

Under trademarks law, generic words cannot be trademarked at all. In fact; if a brand becomes a generic name, trademark protection immediately ceases (Landes & Posner 2003). Although the same standard usually applies to GIs with respect to trademarks (a generic GI can't be trademarked), the countries that are demandeurs regarding GIs would like to impede GI protection to be ceased in those territories in which GIs have become generic. The standard of protection solicited by these countries is thereby larger than that granted to trademarks currently.[4]

In this section, I follow the approach adopted by Grossman and Shapiro (1988b) in a paper on foreign counterfeiting of status goods to develop a model for the non-misleading international trade of non-original GI-labeled goods with heterogeneous consumers. The setting includes two countries and three varieties within the same product group. I analyze the impact of the protection of GIs and of the enforcement of such a protection in Home and Foreign firms and consumers, in the case of perfect and oligopolistic competition.

1.2 Literature review

1.2.1 The economics of information

A branch of the economics of information has analyzed and modeled the market failures and distortions stemming from information asymmetries between buyers and sellers, the tools available to correct these distortions and the policy implications thereof.

In his 1961 pioneering piece, Stigler shows the role of advertising and reputation in economizing on search costs and solving information asymmetries. He analyzes the "ascertainment of market price", stressing that since price dispersion is "ubiquitous, even for homogenous goods", it has to be a "manifestation of ignorance in the market". Stigler focuses on the way the gap between buyers and sellers information may be bridged through advertising, but he concludes that "reputation is a word which denotes

[4] Although under the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration of 1958 of the World Intellectual Property Organization, once an appellation of origin is protected, it cannot be deemed to have become generic as long as it maintains its protection in its country of origin.

persistence of quality, and reputation commands a price (or exacts a penalty) because it economizes on search costs" (Stigler 1961).

Nelson pioneers the concepts of search and experience goods. Similar questions lead him and Darby and Karni to classify goods into search, experience and credence goods, on the basis of how consumers obtain or are conveyed information about the product characteristics, which are assumed known to the producer (Nelson, 1970 and Darby and Karni, 1973). Akerlof shows that information asymmetries between sellers and buyers regarding quality can either cause an entire market to collapse or contract it into an adverse selection of low-quality products. He looks at the effect of uncertainty with respect to quality on the part of consumers in a market for used cars. He proves that high quality cars would be driven out of the market by "lemons", leading to an overall reduction in the average quality of the goods offered, the price of the goods, and the size of the market, an overall Pareto inefficient outcome (Akerlof 1970). In this line of reasoning, Howse and Neven argue that the most favorable case for trademarks protection is that "repeat purchases help alleviate problems of moral hazard and adverse selection" (Howse and Neven 2005).

Landes and Posner build upon Stigler's concept of search costs to develop a formal model on the economics of trademarks. They model the effect of trademarks protection on pricing, output and quality and discuss the economic impact of monopoly over words. Trademarks help reduce search costs for consumers and provide an incentive to increase quality (Landes and Posner, 1987 and 2003). Grossman and Shapiro model the non-deceptive trade of counterfeits, unbundling the status and quality aspects of trademarked goods, in an analysis that can be mimicked to the so-called "misleading requirement" regarding GIs protection (Grossman and Shapiro 1988b). Crespi and Marette analyze whether generic advertising lowers the differentiation among competing brands of the same good. They show that high-quality producers do not benefit from generic promotion when the benefits from generic advertising from increased demand are outweighed by the costs from lower product differentiation (Crespi and Marette, 2002; Crespi, 2007).

Zago and Pick (2004) consider the welfare impact of the adoption of labeling policies for agricultural commodities. They use a model of vertical differentiation, and derive the effects on equilibrium and welfare of the introduction of the regulation. The emergence of two differentiated competitive markets leaves consumers and high-quality producers better off, while low-quality producers are worse off. They also show that with

high costs and low quality differences, the total welfare impact of the regulation can be negative; in addition when high-quality producers have market power, the regulation would have a negative effect on consumers.

Moschini, Menapace and Pick (2008) assess the economics of geographical indications (GIs) within a vertical product differentiation framework. It is assumed that certification costs are needed for GIs to serve as (collective) credible quality certification devices, and production of high-quality product is endogenously determined. Their findings are that GIs can support a competitive provision of quality and lead to clear welfare gains, although they fall short of delivering the (constrained) first best. The main beneficiaries are consumers. Producers may also accrue some benefit if production of the high-quality products draws on scarce factors that they own.

1.2.2 Empirical studies

Regarding empirical studies, the focus has been on disentangling the layers of value embedded in a GI good price. A series of papers have estimated so-called hedonic price functions (Rosen 1974) for specialty agricultural products, differentiating implicit prices for quality, varieties, and regional as well as brand reputations.

To name a few, a pioneering study on wine for Australia and New Zealand, for vintages 1992 to 2000, suggests that for Australia, regional reputations in general have become increasingly significant through time, while price premia based on brand reputation have also shown to be significant (Schamel and Anderson 2003). A study on the U.S. wine industry, after correcting for variety, regional origin, and age, shows that wine price premia related to quality signals may negate regional effects, a fact that may in addition bias estimated brand values (Schamel 2003). A study for Portugal provides empirical support to the hypothesis that region of origin matters to consumers in the sectors of wine, olive oil and cheese (Santos and Ribeiro 2005). Two recent papers focus on Bordeaux wines qualities and prices (Gergaud and Ginsburgh 2008 and Ashenfelter 2008). Recent compilations of case studies include Giovanucci *et al.* (2009), Vandecandelaere *et al.* (2009), El Benni and Reviron (2009) and Reviron *et al.* (2009).

2 International trade and GIs protection

This section develops a model for the non-misleading international trade of non-original GI-labeled goods with heterogeneous consumers. The setting includes two countries (Home and Foreign), three varieties (GI-original, GI-variety, generic), two regimes (GI

taken as generic, GI protected as IPR), two scenarios for Foreign firms (fringe of competitors / monopolistic competition). Only the equilibrium at Home is considered.

2.1 Assumptions

2.1.1 Supply side

Assume two countries, Home and Foreign, and assume one product group with high substitutability and cross-price elasticities of goods within that group. Consistency in quality over time is ensured through repeat purchases. There are three types of goods; within each type, goods are perfect substitutes:

1. GI-original goods are high-quality goods produced by Foreign firms and effectively protected at Foreign as geographical indications.
2. GI-variety goods are high-quality goods produced by Home firms. They closely follow the product specifications of the GI-original good.
3. Generics are the low-quality generic version of a similar product, produced by Home firms as well.

For Foreign firms, two scenarios are explored. Either they operate under perfect competition, with price equal to marginal cost and average cost (zero-profits). Or Foreign firms are N identical firms, N fixed, that operate under oligopolistic competition with Cournot Nash-equilibrium strategic pricing. Each firm takes its rivals' output levels as given, and chooses its own output level to maximize its profit. Foreign firms produce at a marginal cost of production assumed constant at c.

At Home, Foreign firms face a competitive fringe of Home firms with marginal cost pricing and zero profits (elastic supply and marginal cost equal to average cost). GI-variety goods are produced at a constant marginal cost of b, with $b < c$. Generics are produced at a marginal cost of a, with $a < b < c$.

2.1.2 Regimes

At Home, the Foreign GI is protected according to the TRIPS Agreement. Two regimes are envisaged:

- Under regime (0), Home only complies with the "non-misleading requirement", the Foreign GI is not protected as such. This implies that, following the genericity exemption (or the grand-fathering clause on genericity for wines and spirits), GI-variety producers are allowed to market their products with the Foreign GI label,

although no single Home firm can appropriate the GI as a trademark. In addition, it is assumed that consumers are not misled as to the true origin of the goods they buy (i.e. the consumer knows that French Feta is made in France).

- Under regime (1), Home protects the Foreign GI as such, and the high level of protection is granted (the one presently accorded to wines and spirits only); thereby Home firms have to stop using the GI label for their GI-variety goods. To differentiate themselves from low-quality generics, GI-variety firms have to incur an extra cost. The cost of the enforcement of protection is assumed to be completely financed by the State, and therefore does not impact the investment or production decisions of Foreign or Home firms.

2.1.3 Demand side

It is assumed that the GI label has an intrinsic value to consumers in that it lowers their search costs in finding the particular variety they like; in effect the label is assumed to reflect certain product specifications ("standard of identity" under U.S. law) that add value to GI-labeled goods (both GI-original and GI-variety goods) over generics.

Home consumers also place a value on the origin of the good, to them, "the real thing" they import is worth more than the national "copies", as it reflects a given quality, reputation or other characteristic of the good which are essentially attributable to its geographical origin, the *terroir,* and that are not necessarily replicable outside the GI region. Therefore, Home firms, if allowed to use the Foreign GI label, achieve two things: they unbundle the variety and origin aspects of the goods, and they diminish the market power of GI-original firms by competing in the same variety segment.

There are D heterogeneous consumers indexed from 0 to D for their level of sophistication in consumption. Utility is assumed to be additive. This assumption simplifies the analysis and has the desired property of allowing for cross-price substitution effects to be embedded in the utility function, reflecting on the capacity of the non-misleading GI labels to unbundle origin, from variety, and variety from genericity.[5] The

[5] I explored with an alternative specification, the popular vertical product differentiation structure of Mussa and Rosen (1978). This structure assumes a mass of heterogeneous consumers indexed by θ, a preference parameter for which a uniform distribution $G(\theta)$ is assumed in the $[0,1]$ interval. Goods are indexed by their level of quality q; p is the price of the good. The indirect utility function is given by:

$$U = \begin{cases} \theta q - p & \text{if the good is bought} \\ 0 & \text{otherwise} \end{cases}$$

more sophisticated is the consumer (the lower is his index), the higher is his utility from (and therefore his willingness to pay for) consumption of any good, variety and origin. $U[d]$ is the utility function from consumption of any of the three types, $V[d]$ is the additional utility derived from consumption of the GI variety, and $G[d]$ is the additional utility derived from consumption of the original GI product. In addition, each of these three functions is assumed to be monotonically decreasing, implying that their inverse functions exist and that individuals' demand curves do not cross.

A Foreign firm finds its market among consumers with low indexes d; while consumers with intermediate indexes will purchase Home GI-variety products and those with high indexes will opt for generics. Each consumer consumes one unit of good, or none, but no more. Total sales of GI-original goods amount to X; total sales of GI-labeled goods amount to Y; and total sales amount to Z, with $Z \leq D$. Therefore total sales of GI-variety goods are $Y - X$ and total sales of generics are $Z - Y$.

2.2 Perfect competition equilibrium

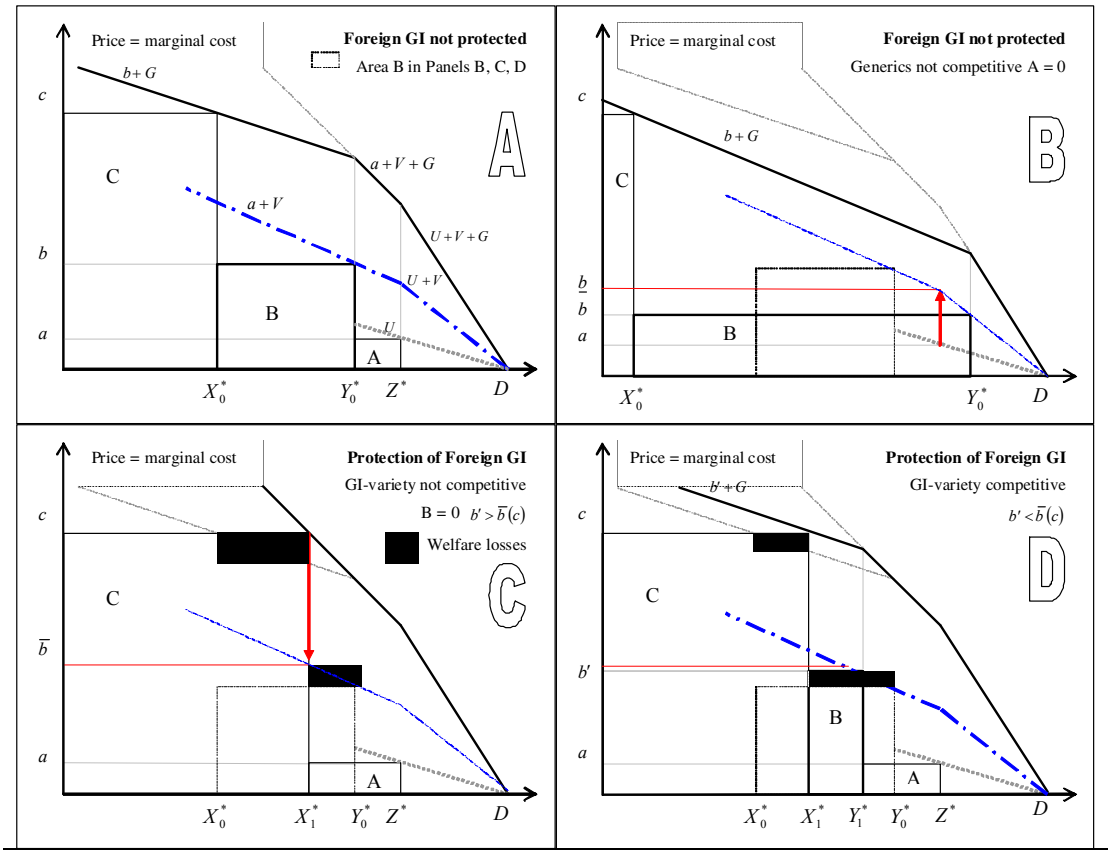
2.2.1 Regime (0): Foreign GI taken as generic

> Section 5388(c) of Title 26 of the United States Code establishes special rules regarding the use of GIs deemed semi-generic. In general, these may be used to designate wines of an origin other than that indicated by the GI if the true place of origin of the wine is disclosed, and if the wine conforms to the standard of identity, if any, for such wine. The Section includes the list of semi-generic names: Angelica, Burgundy, Claret, Chablis, Champagne, Chianti, Malaga, Marsala, Madeira, Moselle, Port, Rhine Wine or Hock, Sauterne, Haut Sauterne, Sherry and Tokay.

Under perfect competition, there is marginal cost pricing. In equilibrium, the marginal consumer of a generic must be indifferent between consuming the good and buying it at all; therefore the price of a generic must equal the valuation of consumption by the marginal consumer of a generic. Similarly, the indifference condition for GI-varieties is that the premium over the generic must equal the marginal consumer valuation of variety; and the indifference condition for GI-original goods is that the premium over the GI-variety must equal the marginal consumer valuation of origin:

This structure is less suited as marginal costs do not pin down the choices on the alternative goods.

Figure 2.1: Equilibria under perfect competition



$$(A1)\ generics-eqm\ :\ p[Z^*]=a=U[Z^*]$$
$$GI-\text{var}iety-eqm\ :\ p[Y^*]=b=a+V[Y^*]$$
$$GI-original-eqm\ :\ p[X^*]=c=b+G[X^*]$$
$$competition(X,Y,Z)\ :\ X^*<Y^*<Z^* \Leftrightarrow b>a+V[Z^*] \text{ and } c>b+G[Y^*]$$

The competition condition is necessary (and sufficient) for generic, GI-variety and GI-original sales to occur. Due to additive utilities, the price of the GI-variety does not amount to the valuations of variety and genericity of the marginal consumer $(b \neq U[Y^*]+V[Y^*])$. The price of a generic pins down the demand for the GI-variety, the slope of the demand curve for the GI-variety with positive sales of generics is lower that its slope without, it exhibits a kink at Z^*, so that demand to the right of Z^* is given by $U+V$, but demand to the left is given by $a+V$. For the same reason, the demand curve for GI-original goods exhibits kinks at both Y^* and Z^*, with flatter slopes for lower indexes, from right to left, the segments are given by $U+V+G$, $a+V+G$ and $b+G$. Panel A of Figure 2.1 shows the demand curves for the three types, with utility functions assumed to be linear for simplicity. Total sales (price times quantity) of generics, GI-variety and GI-original goods amount to areas A, B and C respectively.

Panel B of Figure 2.1 shows a scenario in which generics are not competitive and are therefore not consumed. The marginal cost for GI-variety is below the level that corresponds to the kink in demand for GI-variety (which is itself a function of the marginal cost of generics). Then, for $b < \underline{b}(a)$, consumers with high indexes are better-off consuming GI-varieties than generics. A lower b also impacts on sales of GI-original goods, as their closest competitor, from which they are differentiated only by origin, is much more competitive; area C in panel B is smaller than in panel A. The impact is lower the higher is the valuation of origin G over that of the variety V, and the less differentiated is the GI-variety from the generic good.

To facilitate comparisons under different regimes and scenarios, a dashed square corresponding to GI-variety sales under no protection/perfect competition is included in all panels of Figure 2.1, Figure 2.2 and Figure 2.3.

2.2.2 Regime (1): Foreign GI strongly protected

> Landes and Posner (2003) discuss the economic implications of a "language monopoly" over words with primary (generic, descriptive) meaning. If the producer of a brand or a GI could appropriate the generic name of the product, he would earn rents because of the added cost to his rivals of periphrasis. A regular PC (a former brand that today identifies any computer that is not an Apple), would be described as "a programmable electronic device for storing, manipulating and retrieving data" (Landes & Posner), while a Dijon mustard would be described as a "pungent and spicy mustard with a smooth, creamy texture that comes up to the nose (*qui monte au nez*)". The appropriation of generic names reduces the amount of words available to competitors to describe their products, shifting the industry supply curve up.
>
> On the other hand, giving generic status to a GI may increase the search costs of consumers who believe there are quality differences between the old products bearing the GI and the new ones. These costs have to be balanced out against the costs to those that are forbidden the use of the generic term. As Landes & Posner point out, "terminating legal protection when a trademark (or a GI) achieves generic status might be criticized as imposing a dichotomous solution to a continuous problem", since generic status is achieved gradually. But economic efficiency suggests that protection should cease when the costs of continued protection (higher search costs, periphrasis costs, deadweight loss) exceed the benefits (minimizing consumer confusion and search costs and maximizing the incentive of firms to maintain consistent product quality).

If the Foreign GI is protected, GI-variety sales of Home firms can not use the GI label anymore. If these firms don't incur into differentiation costs, they will be effectively banned from the market, as by assumption they are not competitive enough to compete in the generics segment of the market. If they want to compete, they have to incur a differentiation cost, which can be financed at the industry level (for example through the development of their own GI, hinging on the issue of replication) or at the firm level (through brand development). For simplicity, a fixed cost per GI-variety firm will be assumed, so that the marginal cost of production of GI-varieties increases to $b' > b$.

GI-variety sales effectively banned

In case differentiation costs are exorbitantly high, GI-variety firms are not competitive, only GI-original and generics sales occur. In that case, the indifference condition for GI-original goods is such that the premium over the generic $(c-a)$ must equal the valuation of origin and variety by the marginal consumer. The equilibrium is characterized by:

$$(C1) competition(X,-Y,Z) : X^* < Z^* \Leftrightarrow c < b' + G[Y^*] \text{ and } c > a + V[Z^*] + G[Z^*]$$
$$generics - eqm : p[Z^*] = a = U[Z^*]$$
$$GI - variety - eqm : \text{no sales}$$
$$GI - original - eqm : p[X^*] = c = a + V[X^*] + G[X^*]$$

In that case, the demand curve for GI-original sales exhibits a kink exclusively at Z^*, not at Y^* anymore. To the left of the kink, the slope of the demand curve faced by Foreign firms is steeper than under no protection, as it includes the valuation of both variety and origin. Panel C of Figure 2.1 shows that after protection, sales of GI-original and of generics both fill the void left by GI-varieties. The maximum level of marginal cost at which GI-varieties are competitive $\bar{b}(c)$ is a function of the marginal cost of GI-original goods; the Figure corresponds to the case where $b' > \bar{b}(c)$.

The fact that more consumers buy the original GI good still implies a loss of welfare, as these consumers are paying a high premia for origin, when in effect part of what they value is just the variety. These consumers would rather pay less for a GI-variety than more for a GI-original good, they just don't have the option anymore.

GI-variety sales still competitive at $b' > b$

> Attempts at the replication of successful GIs are commonplace. For example, even if any reference to the use of the "méthode champenoise" is now unlawful in Europe for sparkling wines other than Champagne (and in many other countries following TRIPS special protection to wines and spirits), it is a known and documented fact that wines all over the world use the method, most notably a couple of European Protected Appellations of Origin, such as Crémant (France), Cava (Spain), Espumante Bairrada (Portugal) and Trento (Italy) (wikipedia).

If GI-variety firms are still competitive, either because they effectively replicate the GI under a different name or because of branding, the equilibrium is the same as (A1) but with $b' > b$ instead of b. Panel D of Figure 2.1 shows that sales of generics and GI-original goods increase, while sales of GI-variety goods decrease in volume. Foreign and GI-variety sales are determined residually. If GI-variety sales are not deterred, the demand curve for GI-original goods is not steeper, it is shifted upwards, since the marginal cost that pins down the valuation for variety is higher, commanding a higher level of sales under marginal cost pricing in the protection scenario. This result is due to

Foreign firms appropriating the surplus over valuation of variety of the marginal consumer of GI-variety goods.

2.3 Oligopoly equilibrium

In this section, the same analysis is performed under the assumption of oligopolistic competition by Foreign firms in the market for GI-original products. The assumption is that N identical firms compete in that sector with Cournot pricing. Competition conditions, with the exception of the competitiveness of GI-variety goods once the Foreign GI is protected, are not essential to the analysis and are therefore omitted.

2.3.1 Regime (0): Foreign GI taken as generic

The inverse demand curves faced by Home and Foreign firms are the same than under perfect competition, and the equilibrium quantities Z^* and Y^*, corresponding to total sales and to sales of GI-labeled goods, are the same. This time however, Foreign firms maximize profits by setting marginal revenue, and not price, equal to marginal cost, based on Cournot pricing. The segment of the demand curve that is relevant for those purposes is $b+G$:

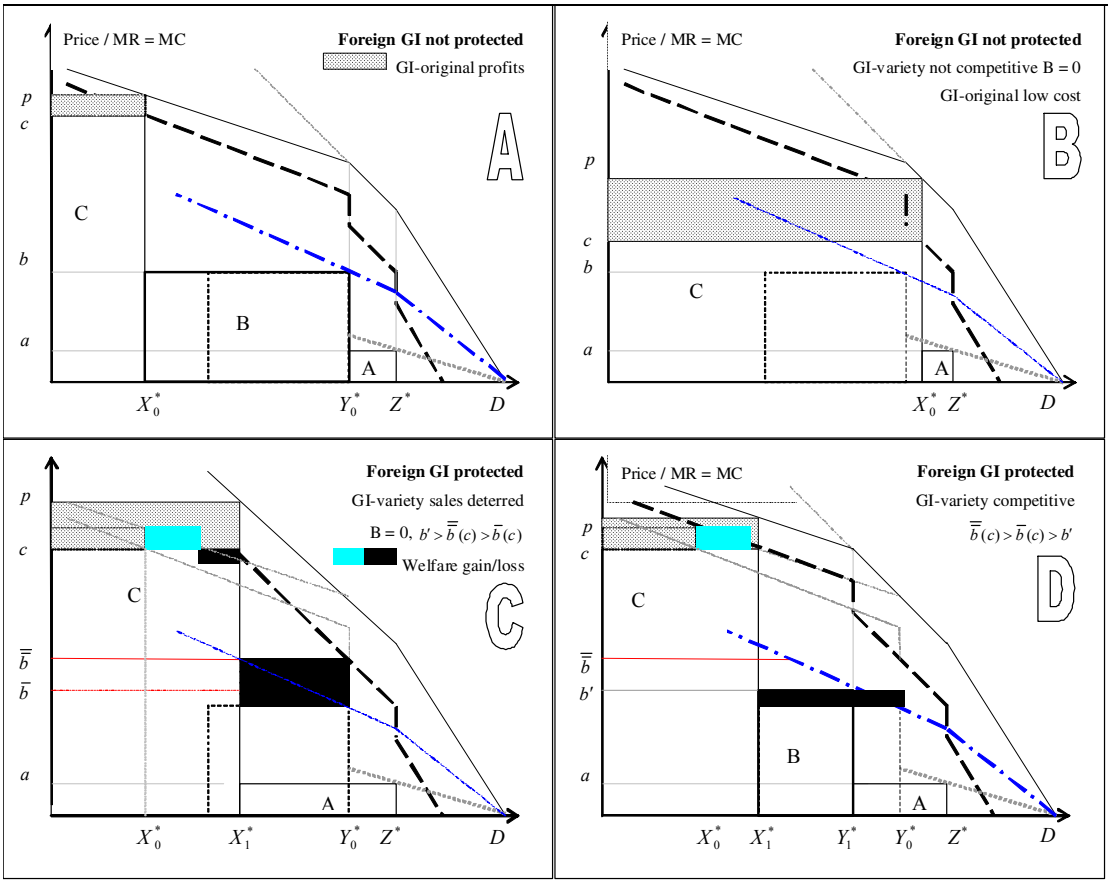
$$(A2)\ GI-original: demand\ :\ P[X]=b+G[X]$$

$$eqm\ :\ p\left[X^*\right]=c=b+G\left[X^*\right]+\frac{X^*}{N}G'$$

where G' is the negative partial derivative of G with respect to each firm's quantity. Since the demand curve faced by Foreign firms is kinked at Y^*, the marginal revenue curve is discontinuous at that point: the segment to the left of Y^* is placed above the segment to its right, because demand (average revenue) is flatter. The market-clearing price and premium for GI-original goods are determined by the demand function. Panel A of Figure 2.2 shows the demand curves (which haven't changed, plain lines) and the marginal revenue curve for Foreign firms (thick dashed).

Oligopolistic competition leads to less stringent conditions for GI-varieties to compete, and does not affect generics; only the closest competitor is affected. The distortion is entirely due to Foreign firms having some market power, but this is exercised over the origin segment of demand exclusively. GI-varieties, which do not compete in

Figure 2.2: Equilibria under oligopolistic competition by Foreign firms



that segment, see an expansion of output.[6] Consumers of GI-original goods under marginal cost pricing are worse off; either they pay a higher price for the same GI-original good, or they switch to GI-varieties as their valuation of origin is not worth the price increase under oligopolistic competition.

In addition, the interlinkage between the three types of goods implies that Foreign firms have room to expand output and threaten the equilibrium for GI-varieties, which is now determined residually from the right by the cost of generics (which pins down demand), and from the left by Foreign firms which can easily exercise their market power to reduce sales of GI-varieties. If the market power of Foreign firms were to disappear, we would be back to the situation under perfect competition with GI-variety sales reduced to area B.

Panel B of Figure 2.2 shows a scenario in which GI-varieties are not competitive because GI-original goods are low cost. That would be the effect, for example, of a

[6] If, for GI-variety producers, average cost were lower than marginal cost (ruled out by assumption to simplify the analysis, but highly probable), they would see an increase in producer surplus (profits).

productivity shock or of a State subsidy. In that case, GI-varieties are out of the market with or without protection. Protection has no effect as the upper segment of the demand curve is never reached. Sales of generics in that case are affected as well, they are lower.

2.3.2 Regime (1): Foreign GI strongly protected

GI-variety sales effectively banned

Assuming that GI-variety goods are not competitive anymore after protection, but that generics are, the inverse demand curve faced by Foreign firms is the same as under protection/perfect competition (steeper than before protection). This time, however, with Cournot pricing, output is defined by the first order condition for profit maximization, which is that marginal revenue equal marginal cost:

$$(C2)\ GI-original: demand\ :\ P[X]=a+V[X]+G[X]$$

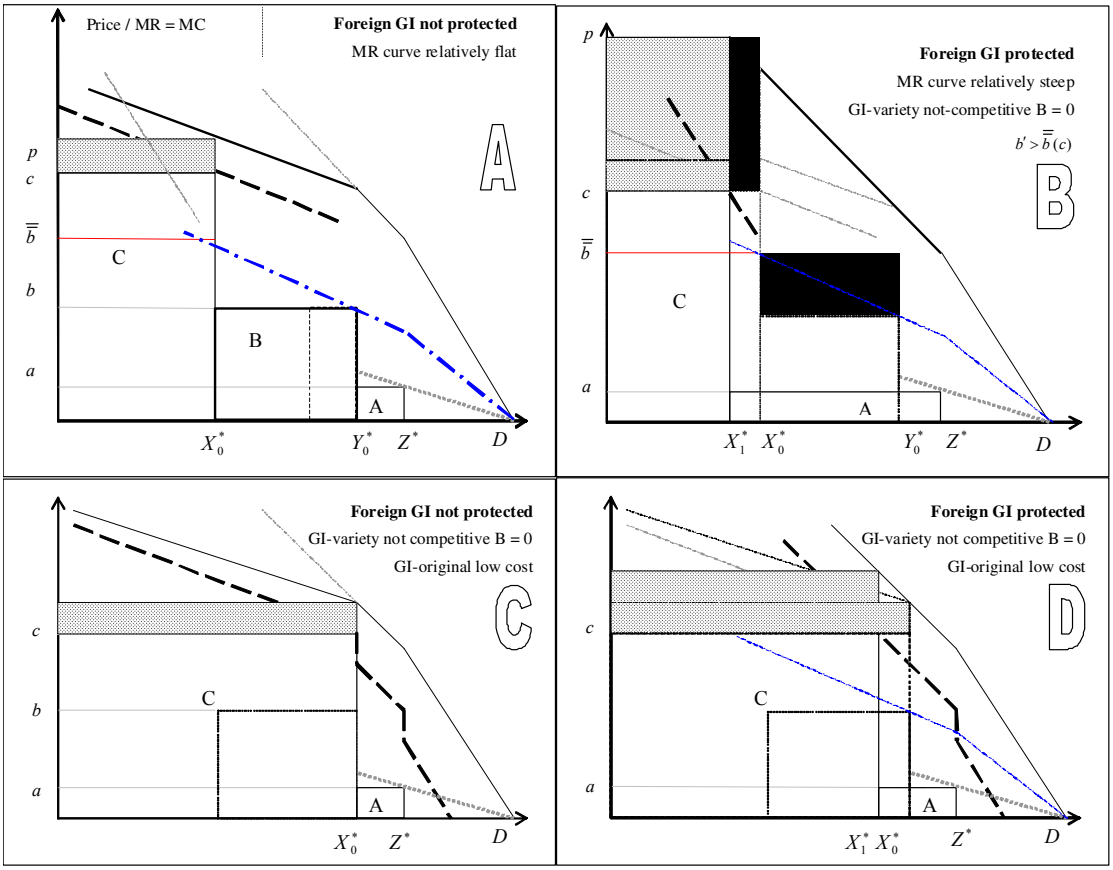
$$eqm\ :\ p\left[X^*\right]=c=a+V\left[X^*\right]+G\left[X^*\right]+\frac{X^*}{N}(V'+G')$$

where V' and G' are the negative partial derivatives of V and G with respect to each firm's quantity. The new closest competitor, generics, benefits from the distortion created by the oligopoly with higher sales at the same price a than under protection This because for a few consumers, it is not worth it to switch to the expensive GI-original, they are better off with the generic. Again consumers are worse off, a result always obtained when there are fewer varieties in a market.

The equilibrium price for Foreign products under protection is unambiguously higher than when protection is not granted, because the demand curve is steeper. However, with Cournot pricing, two results are possible for Foreign firms regarding volumes. Panel C of Figure 2.2 shows the general case under which the marginal revenue curve for a regime of protection is at the right of the marginal revenue curve under no protection, so that GI-original sales under protection are higher than under no protection.

Panels A and B of Figure 2.3 has an example with a marginal revenue curve under protection that is steeper and to the left of the marginal revenue curve under no protection, so that it is in the interest of Foreign firms to have lower sales after protection in order to increase profits. This is the reverse of the result found under perfect competition, by which sales under protection were higher than under no protection with marginal cost pricing. This distortion is due to oligopolistic competition with a more differentiated product.

Figure 2.3: Reduction of sales due to oligopolistic competition by Foreign firms



There is an intermediary situation, drawn in panels C and D of Figure 2.3, which is when some productivity shock or subsidy lowers the marginal cost for GI-varieties to a level c' that crosses the horizontal segment of the broken marginal revenue curve at Y^* in panel C. GI-variety goods are out of the market, but sales and pricing by Foreign firms differ under each regime. If the GI is not protected, sales are capped at Y^* in volume, a limit-pricing equilibrium due to the discontinuity of the marginal revenue curve (panel C). If the GI is protected, in equilibrium sales will be lower in volume, at a higher price, to the detriment of consumers, although generics supply the decrease in volume of GI-original goods (panel D).

GI-variety sales still competitive at $b' > \bar{b}$

If GI-variety firms are still competitive, the equilibrium is the same as (A2) but with $b' > b$ instead of b. The effect this time is ambiguous. Sales of generics will increase as Y^* moves to the left, but the shape of the new demand curve for Foreign (at $b' + G$) and of its corresponding marginal revenue curve might be such that it is in the interest of

Foreign firms to lower output in order to increase profits. Panel D of Figure 2.2 shows the case in which Foreign firms expand output.

3 Welfare analysis

Welfare analysis includes consumer and producer surplus (profits). Consumer surplus in Home is given by:

$$\begin{aligned} CS &= \int_0^X G[d]\,dd + \int_0^Y V[d]\,dd + \int_0^Z U[d]\,dd - C - B - A \\ &= \int_0^X G[d] + b - (\sigma + c)\,dd + \int_0^Y V[d] + a - b\,dd + \int_0^Z U[d] - a\,dd \\ where\ :\ C &= (\sigma + c)X \end{aligned}$$

Aggregate operating profits (producer surplus) of Foreign firms are based on a markup over marginal cost, so that $\Pi = \sigma X$. Profits are zero under perfect competition $(\sigma = 0)$ and positive under oligopolistic competition $(\sigma > 0)$. In case the GI is protected and GI-variety sales are deterred, consumer surplus becomes:

$$\begin{aligned} CS &= \int_0^X G[d] + V[d]\,dd + \int_0^Z U[d]\,dd - C - A \\ &= \int_0^X G[d] + V[d] + a - (\sigma + c)\,dd + \int_0^Z U[d] - a\,dd \end{aligned}$$

Aggregate welfare is the sum of Foreign profits and Home consumers surplus:

$$W = CS + \Pi$$

Two welfare effects are not taken into consideration: the welfare effect of government spending on enforcement, which implies a monetary disbursement ultimately paid by taxpayers, but which is assumed not to affect the producers and consumers of this market; and the welfare effect of the casual consumer mistaking a GI-variety for a GI-original. Derivations are detailed in the Appendix.

3.1 Perfect competition

Under perfect competition, sales of generic and GI-original goods both increase after protection and Foreign firms have zero profits. The net welfare effect of protection is given by Home consumer surplus (the arguments of the integrands are omitted):

$$X_0 < X_1 < Y_1 < Y_0 < Z; \Delta W = \Delta CS$$

$$(C1)\ Y_1 = 0\ :\ \Delta W = \int_{X_0}^{X_1} (G + b) - c\,dd - \int_{X_1}^{Y_0} (V + a) - b\,dd < 0$$

$$(D1)\ Y_1 > 0\ :\ \Delta W = \int_{X_0}^{X_1} (G + b) - c\,dd - \int_{Y_1}^{Y_0} (V + a) - b\,dd - (b' - b)(Y_1 - X_1) < 0$$

Whether GI-variety sales are deterred after protection or not, the effect in Home consumer surplus (equal to global welfare in this case) is an unambiguous loss, all terms are negative. In case sales are deterred, the two terms in C1 (drawn in panel C of Figure

2.1) correspond to the welfare losses to those who switch to GI-original goods and generics respectively. The first term is the gain from valuation of origin minus the price premium on those units, a net loss. The second term is the loss from valuation of variety minus the saving on those units, a net loss. In case GI-variety producers are still competitive, the same losses appear in D1 (panel D of Figure 2.1), in addition to a third term that corresponds to the extra cost paid on their GI-varieties by those who do not switch, a net loss.

Although a loss in global welfare is always expected when fewer varieties are available in the market, some situations arise:

1. If the valuation of variety V is relatively flat at a low level, implying that only the "real thing" is of some value to consumers (and G is either steep or flat at a high level), sales of GI-varieties would be low with or without protection, the relative efficiency of Foreign firms is what matters to limit the losses once protection is granted.
2. In contrast, if the valuation of origin G is relatively flat at a low level, and valuation of variety is high (V is steep or flat at a high level), sales of Foreign firms would be low, and protection would imply that generic sales would increase disproportionately. Again, the relative efficiency of Foreign firms is what matters.
3. This suggests altogether that industrialized countries, with sophisticated consumers (high G, low V) and higher relative costs (b and a close to c), tend to lose less from protecting foreign GIs than developing countries, which have less sophisticated consumers and lower relative costs of production.

3.2 Oligopoly

In the oligopoly case, four cases arise after protection: GI-variety sales are competitive or not, GI-original sales increase or decrease after protection. In all these cases, Foreign firms make profits and sales of generics increase:

$$\Delta\Pi = \sigma_1 X_1 - \sigma_0 X_0 > 0$$
$$X_i < Y_1 < Y_0 < Z$$

To make economic sense, it is assumed that net profits increase in both scenarios.[7] This constitutes a net transfer from Home to Foreign, the decrease in sales exacerbates the oligopoly distortion.

In case GI-original sales increase, net global welfare is formulated in identical terms to that under perfect competition, but the equilibrium quantities, and thereby the range of the integrals, differ:

$$X_0 < X_1 \leq Y_1 < Y_0 < Z$$

$$(C2)\ Y_1 = 0\ :\ \Delta W = \int_{X_0}^{X_1} (G+b) - c\ dd - \int_{X_1}^{Y_0} (V+a) - b\ dd$$

$$(D2)\ Y_1 > 0\ :\ \Delta W = \int_{X_0}^{X_1} (G+b) - c\ dd - \int_{Y_1}^{Y_0} (V+a) - b\ dd - (b'-b)(Y_1 - X_1)$$

The first term in equations C2 and D2 starts positive at X_0 and might or not become negative; implying that consumers who switch to GI-original goods might be better off depending on the parameters of the model. This is so because at X_0, $G+b>c$. Those who switch to generics after protection (second term in C2, D2) and those who stick to GI-varieties (third term in D2) have a net and unambiguous loss.

If Foreign sales decrease in volume, net global welfare is given by:

$$X_1 < X_0 \leq Y_1 < Y_0 < Z$$

$$(B3)\ Y_1 = 0\ :\ \Delta W = -\int_{X_1}^{X_0} (G+V+a) - c\ dd - \int_{X_0}^{Y_0} (V+a) - b\ dd < 0$$

$$(4)\ Y_1 > 0\ :\ \Delta W = -\int_{X_1}^{X_0} (G+b') - c\ dd - \int_{Y_1}^{Y_0} (V+a) - b\ dd - (b'-b)(Y_1 - X_0) < 0$$

The effects in Home consumer surplus and in net global welfare are unambiguous losses (proof in Appendix). The first case is drawn in panel B of Figure 2.3.

In the above equations, the first term is the valuation of origin minus the cost paid on each additional unit of GI-original good consumed at the price premium. The second term is the loss from valuation of variety to those who consumed GI-varieties and must switch to generics, minus the monetary saving on those units (a net loss). The third term is, as under perfect competition, the loss from valuation of variety to those who consumed the GI variety and switch to generics, minus the monetary saving on those units (a net loss).

Some conclusions are in sharp contrast with those found under perfect competition:

[7] Profits increase unambiguously in case sales increase, but not necessarily when they decrease, which is why it is assumed that $\sigma_0 \ll \sigma_1$ when they decrease.

1. After protection, GI-original goods are more differentiated from their closest competitors (generics) than before protection (GI-varieties). This leads Foreign firms to potentially obtain additional rents through a **decrease** in sales after protection, further stressing the competitive distortion. Industrialized countries, with sophisticated consumers (high G), stand to lose more from this than developing countries. Net welfare is always at a loss when sales of GI-original goods decrease in volume.
2. If sales of GI-original goods increase with protection, there might be a potential global welfare gain if the valuation for variety is low, and the valuation of origin is high. Industrialized countries stand to gain from this. This is because the term $\int_{X_0}^{X_1}(G+b)-c\,dd$ might compensate for the losses to those who stick to GI-varieties or to those who switch to generics.
3. Relative efficiency in production is less critical than under perfect competition.

3.3 Enforcement

> Chile exemplifies the necessary equilibrium between redressing 'usurped' GIs and compensating for the 'claw-back' of GIs; in the case of Chile with time and trade-offs within an FTA. The Chile-EU agreements on wines and spirits include in their appendices the list of Chilean registered trademarks conflicting with the European GIs, for which protection was achieved with a phase-out period of 5 years for exports and of 12 years in the internal market. These brands include: Asti, Baden, Borgoño, Burdeos, Carmen Margaux, Cava Vergara, Champagne Grandier, Champaña Valdivieso, Champenoise Rabat, La Rioja, Viña Manquehue Oporto for wines and Cognac Juanico, Coña Col, Grappa San Remo for spirits.[8]

If Home protects the GI, but enforcement is deficient, then Foreign firms face some competition from GI-variety firms. Producers of GI-varieties internalize the risk of confiscation and of eventual fines, and end up operating at a higher marginal cost, which, by assumption, is such that the conditions for Home GI-varieties to compete are satisfied. The better the enforcement, the higher the risk of confiscation and fines, the higher the marginal cost b and the higher the equilibrium price. It is assumed that confiscated goods are destroyed. If enforcement is strengthened, only legally marketed products will prevail, as long as the competition condition is satisfied. Only the oligopoly case is considered (for the perfect competition case, σ is set to 0).

[8] Annexes V (wines) and VI (spirits) of the EU-Chile Association Agreement of 2002, with its appendices (219 and 18 pages respectively).

Alternatively, it can be assumed that Foreign firms producing the GI-variety do abide by the law, and have then to incur a cost of periphrasis in labeling, marketing and advertising their products as they are forbidden the shorthand use of the GI-label to signal their type. The effect is again an increase in marginal cost. Such a situation could derive, for instance, from an extension of the special protection of Article 23 for wines and spirits to all products, in which case the use of the GI is prevented even when the true origin is indicated or when used in translation or accompanied by expressions such as "kind", "type", "style", "imitation", or the like. This situation is analogous to the impact of protection when GI-variety sales are not deterred.

These results correspond to panel D of Figure 2.2:

$$\frac{\partial \Pi}{\partial b} = \frac{\partial \sigma}{\partial X}\frac{\partial X}{\partial b}X + \sigma\frac{\partial X}{\partial b}$$
$$\frac{\partial CS}{\partial b} = -\frac{\partial \sigma}{\partial X}\frac{\partial X}{\partial b}X - (Y - X)$$
$$\frac{\partial W}{\partial b} = \sigma\frac{\partial X}{\partial b} - (Y - X)$$

For Foreign firms, a marginal increase in enforcement implies an increase in b, a decrease in GI-labeled goods Y and a shift upward of the demand curve for GI-original goods. Provided the initial oligopoly equilibrium is stable, $\partial X / \partial b$ is positive. And an increase in sales implies a lower valuation of origin by the marginal consumer of the additional units of Foreign goods, leading to an increase in the final price of less than the change in b. The first term has the sign of $\partial \sigma / \partial X$, it is the loss/gain from all original units being priced at a new markup due to the increase in b. The second term is always positive and reflects the profits from the additional units sold.

For Home consumers, the first term is the negative of the first term in the change in Foreign profits; it constitutes a net transfer from Home to Foreign. The main loss at the margins comes from the second term, the stricter enforcement raises the price of GI-variety goods above their marginal cost of production (increase in b), an increase that applies to all units of GI-variety goods sold (the destruction of confiscated items, and/or periphrasis costs are a waste transferred to consumers in the form of a higher price).

The effect of enforcement on global welfare is ambiguous. The first term captures the welfare gain owed to the increase in Foreign sales. In this context, enforcement is pro-competitive (it offsets part of the oligopoly distortion), as supply of original GI products increases as Foreign firms respond to the upward shift in the supply curves of their competitors. The second term, however, is a social loss owed to stricter enforcement,

equal to the higher cost of GI-variety sales ($Y - X$) above their marginal cost of production.

4 Concluding remarks

This Chapter aims at evaluating the potential economic impact of the protection of a geographical indication that had acquired generic status in a given territory (in the trade jargon, this procedure is known as the claw-back of GIs). The focus is on the non-misleading international trade of GI-labeled products. Special attention is given to the competitive and welfare implications of protection by countries importing the original GI product. The paper has policy implications as it relates to current negotiations at the multilateral and bilateral levels of stronger standards of protection for particular geographical indications.

It is shown that a strong level of protection that would drive national competitors with the Foreign GI out of the market leads to a loss in global welfare, something which is always expected when fewer varieties are available in the market. Results, however, are nuanced. Under the assumption of perfect competition, industrialized Home countries, with sophisticated consumers and higher relative costs, tend to lose less from protecting Foreign GIs than developing Home countries, where the opposite is true. And when oligopolistic competition is assumed for Foreign firms, GI-original firms become from differentiated from their closest competitor (now generics), further stressing the competitive distortion; this is a scenario in which industrialized Home countries' consumers stand lose more than under perfect competition. However, developing Home countries, with a low willingness to pay for origin but with a high degree of valuation for variety, stand to be the big losers.

The case in which sales of national copies of Foreign GIs are not deterred, either due to branding, successful GI replication, or deficient enforcement is also analyzed. Interestingly, it is shown that oligopolistic competition in Foreign GI developers is actually a scenario that is more favorable to the development of Home copies than the scenario of perfect competition, with ambiguous welfare effects.

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Appendix A Welfare perfect competition

Welfare functions

The arguments of the integrands are omitted, but $G = G[d]$, $V = V[d]$ and $U = U[d]$, and the other parameters are constant.

Positive GI-variety sales:

$$\begin{aligned} CS &= \int_0^X G dd + \int_0^Y V dd + \int_0^Z U dd - C - B - A \\ &= \int_0^X G dd + \int_0^Y V dd + \int_0^Z U dd - (\sigma + c)X - b(Y - X) - a(Z - Y) \\ &= \int_0^X (G + b) - (\sigma + c) dd + \int_0^Y (V + a) - b dd + \int_0^Z U - a dd \end{aligned}$$

GI-variety sales deterred:

$$\begin{aligned} CS &= \int_0^X G + V dd + \int_0^Z U dd - C - A \\ &= \int_0^X (G + V + a) - (\sigma + c) dd + \int_0^Z U - a dd \end{aligned}$$

Perfect competition $(\sigma = 0)$

Asterisks denoting equilibrium values are omitted, but $X_i = X_i^*$, $Y = Y^*$ and $Z = Z^*$. The variables of integration (dd) are also omitted:

$$\begin{aligned} \Delta W &= \Delta CS = CS_1 - CS_0 \\ CS_0 &= \int_0^{X_0} G + b - c + \int_0^{Y_0} V + a - b + \int_0^Z U - a \end{aligned}$$

GI-variety sales deterred $(Y_1 = 0)$, panel C of Figure 2.1

$$\begin{aligned} X_0 < X_1 < Y_0 < Z \\ CS_1 = \int_0^{X_1} G + V + a - c + \int_0^Z U - a \end{aligned}$$

For Home consumer surplus, distribute the integrands into domains determined by consecutive quantities and simplify:

$$\begin{aligned} \Delta W &= -\int_0^{X_0} G + b - c + \int_0^{X_1} G + V + a - c - \int_0^{Y_0} V + a - b \\ &= \int_{X_0}^{X_1} G + V + a - c - (V + a - b) - \int_{X_1}^{Y_0} V + a - b \\ &= \int_{X_0}^{X_1} (G + b) - c - \int_{X_1}^{Y_0} (V + a) - b \end{aligned}$$

Positive GI-variety sales $(Y_1 > 0)$, panel D of Figure 2.1

$$
\begin{aligned}
& X_0 < X_1 < Y_1 < Y_0 < Z \\
& CS_1 = \int_0^{X_1} G + b' - c + \int_0^{Y_1} V + a - b' + \int_0^{Z} U - a \\
& \Delta W = -\int_0^{X_0} G + b - c + \int_0^{X_1} G + b' - c + \int_0^{Y_1} V + a - b' - \int_0^{Y_0} V + a - b \\
& \quad = \int_{X_0}^{X_1} G + b' - c + V + a - b' - \left(V + a - b\right) + \int_{X_1}^{Y_1} V + a - b' - \left(V + a - b\right) \\
& \qquad - \int_{Y_1}^{Y_0} V + a - b \\
& \quad = -\left(b' - b\right)\left(Y_1 - X_1\right) + \int_{X_0}^{X_1} \left(G + b\right) - c - \int_{Y_1}^{Y_0} \left(V + a\right) - b
\end{aligned}
$$

Appendix B Welfare oligopolistic competition

Oligopoly $(0 < \sigma_0 \leq \sigma_1)$

$$\begin{aligned}
\Delta W &= \Delta CS + \Delta \Pi \\
\Delta CS &= CS_1 - CS_0 \\
\Delta \Pi &= \sigma_1 X_1 - \sigma_0 X_0 > 0 \\
CS_0 &= \int_0^{X_0} G + b - \sigma_0 - c + \int_0^{Y_0} V + a - b + \int_0^{Z} U - a
\end{aligned}$$

Foreign sales increase

GI-variety sales deterred $(Y_1 = 0)$, panel C of Figure 2.2

$$\begin{aligned}
X_0 < X_1 < Y_0 < Z \\
CS_1 &= \int_0^{X_1} G + V + a - \sigma_1 - c + \int_0^{Z} U - a \\
\Delta CS &= -\int_0^{X_0} G + b - \sigma_0 - c + \int_0^{X_1} G + V + a - \sigma_1 - c - \int_0^{Y_0} V + a - b \\
&= \int_0^{X_0} -\left(G + b - \sigma_0 - c\right) + G + V + a - \sigma_1 - c - \left(V + a - b\right) \\
&\quad + \int_{X_0}^{X_1} G + V + a - \sigma_1 - c - \left(V + a - b\right) - \int_0^{Y_0} V + a - b \\
&= -\sigma_1 X_0 + \sigma_0 X_0 + \int_{X_0}^{X_1} \left(G + b\right) - \left(\sigma_1 + c\right) - \int_{X_1}^{Y_0} \left(V + a\right) - b \\
&= \underbrace{\sigma_0 X_0 - \sigma_1 X_1}_{-\Delta\Pi} + \int_{X_0}^{X_1} \left(G + b\right) - c - \int_{X_1}^{Y_0} \left(V + a\right) - b \\
&= -\Delta\Pi + \int_{X_0}^{X_1} \left(G + b\right) - c - \int_{X_1}^{Y_0} \left(V + a\right) - b
\end{aligned}$$

where the integrand σ_1 was taken out of the first integral.

Global welfare is the sum of profits and consumer welfare,

$$\Delta W = \int_{X_0}^{X_1} \left(G + b\right) - c - \int_{X_1}^{Y_0} \left(V + a\right) - b$$

where the difference in profits earned by Foreign firms cancel out with the equivalent loss in Home consumer surplus.

The switch to GI-original goods (first term) might have a net positive or negative welfare impact depending on the parameters of the model:

$$\Delta W_{GI-O} = \int_{X_0}^{X_1} (G+b) - c \; dd$$
$$\text{at } X_0 : c + \sigma_0 = P_0 = G + b \Rightarrow G + b - c = \sigma_0 > 0$$
$$\text{at } X_1 : c + \sigma_1 = P_1 = G + V + a \Rightarrow G + V + a - c = \sigma_1 > 0$$
$$\Rightarrow G + b - c + (V + a - b) = \sigma_1$$
$$\text{if } V + a > b + \sigma_1 \Rightarrow G + b - c > 0 \text{ at } X_1$$
$$\text{if } V + a < b + \sigma_1 \Rightarrow G + b - c < 0 \text{ at } X_1$$

At X_0, the integral starts positive, it will become negative is $V + a < b + \sigma_1$ at X_1.

Positive GI-variety sales $(Y_1 > 0)$, panel D of Figure 2.2

$$X_0 < X_1 < Y_1 < Y_0 < Z$$
$$CS_1 = \int_0^{X_1} G + b' - \sigma_1 - c + \int_0^{Y_1} V + a - b' + \int_0^{Z} U - a$$
$$\Delta CS = -\int_0^{X_0} G + b - \sigma_0 - c + \int_0^{X_1} G + b' - \sigma_1 - c + \int_0^{Y_1} V + a - b' - \int_0^{Y_0} V + a - b$$
$$= \int_0^{X_0} -(G + b - \sigma_0 - c) + G + b' - \sigma_1 - c + V + a - b' - (V + a - b)$$
$$+ \int_{X_0}^{X_1} G + b' - \sigma_1 - c + V + a - b' - (V + a - b) + \int_{X_1}^{Y_1} V + a - b' - (V + a - b)$$
$$- \int_{Y_1}^{Y_0} V + a - b$$
$$= -\Delta\Pi - (b' - b)(Y_1 - X_1) + \int_{X_0}^{X_1} (G + b) - c - \int_{Y_1}^{Y_0} (V + a) - b$$
$$\Delta W = -(b' - b)(Y_1 - X_1) + \int_{X_0}^{X_1} (G + b) - c - \int_{Y_1}^{Y_0} (V + a) - b$$

Impact of the switch to GI-original goods:

$$\Delta W_{GI-O} = \int_{X_0}^{X_1} (G+b) - c \; dd$$
$$\text{at } X_0 : c + \sigma_0 = P_0 = G + b \Rightarrow G + b - c = \sigma_0 > 0$$
$$\text{at } X_1 : c + \sigma_1 = P_1 = G + b' \Rightarrow G + b' - c = \sigma_1 > 0$$
$$\Rightarrow G + b - c + b' - b = \sigma_1$$
$$\text{if } b' > b + \sigma_1 \Rightarrow G + b - c > 0 \text{ at } X_1$$
$$\text{if } b' < b + \sigma_1 \Rightarrow G + b - c < 0 \text{ at } X_1$$

Foreign sales decrease

GI-variety sales deterred $(Y_1 = 0)$, panel B of Figure 2.3:

$$
\begin{aligned}
X_1 < X_0 < Y_0 < Z \\
CS_1 &= \int_0^{X_1} G + V + a - \sigma_1 - c + \int_0^Z U - a \\
\Delta CS &= \int_0^{X_1} G + V + a - \sigma_1 - c - \int_0^{X_0} G + b - \sigma_0 - c - \int_0^{Y_0} V + a - b \\
&= \int_0^{X_1} G + V + a - \sigma_1 - c - \left(G + b - \sigma_0 - c\right) - \left(V + a - b\right) \\
&\quad - \int_{X_1}^{X_0} G + b - \sigma_0 - c + V + a - b - \int_{X_0}^{Y_0} V + a - b \\
&= -\Delta\Pi - \int_{X_1}^{X_0} \left(G + V + a\right) - c - \int_{X_0}^{Y_0} \left(V + a\right) - b \\
\Delta W &= -\int_{X_1}^{X_0} \left(G + V + a\right) - c - \int_{X_0}^{Y_0} \left(V + a\right) - b
\end{aligned}
$$

Net welfare is unambiguously negative, because both terms are always negative:

$$
\begin{aligned}
\Delta W_{GI-O} &= -\int_{X_0}^{X_1} \left(G + V + a\right) - c \; dd \\
&\text{at } X_1 : c + \sigma_1 = P_1 = G + V + a \Rightarrow G + V + a - c = \sigma_1 > 0 \\
&\text{at } X_0 : c + \sigma_0 = P_0 = G + b \Rightarrow G + b - c = \sigma_0 > 0
\end{aligned}
$$

Positive GI-variety sales $(Y_1 > 0)$, not drawn:

$$
\begin{aligned}
X_1 < X_0 < Y_1 < Y_0 < Z \\
CS_1 &= \int_0^{X_1} G + b' - \sigma_1 - c + \int_0^{Y_1} V + a - b' + \int_0^Z U - a \\
\Delta CS &= \int_0^{X_1} G + b' - \sigma_1 - c - \int_0^{X_0} G + b - \sigma_0 - c + \int_0^{Y_1} V + a - b' - \int_0^{Y_0} V + a - b \\
&= \int_0^{X_1} G + b' - \sigma_1 - c - \left(G + b - \sigma_0 - c\right) + V + a - b' - \left(V + a - b\right) \\
&\quad + \int_{X_1}^{X_0} - \left(G + b - \sigma_0 - c\right) + V + a - b' - \left(V + a - b\right) + \int_{X_0}^{Y_1} V + a - b' - \left(V + a - b\right) \\
&\quad - \int_{Y_1}^{Y_0} V + a - b \\
&= -\Pi - \left(b' - b\right)\left(Y_1 - X_0\right) - \int_{X_1}^{X_0} \left(G + b'\right) - c - \int_{Y_1}^{Y_0} \left(V + a\right) - b \\
\Delta W &= -\left(b' - b\right)\left(Y_1 - X_0\right) - \int_{X_1}^{X_0} \left(G + b'\right) - c - \int_{Y_1}^{Y_0} \left(V + a\right) - b
\end{aligned}
$$

Net welfare is unambiguously negative, because, again, both terms are unambiguously negative.

$$
\begin{aligned}
\Delta W_{GI-O} &= -\int_{X_1}^{X_0} \left(G + b'\right) - c \; dd \\
&\text{at } X_1 : c + \sigma_1 = P_1 = G + b' \Rightarrow G + b' - c = \sigma_1 > 0 \\
&\text{at } X_0 : c + \sigma_0 = P_0 = G + b \Rightarrow G + b - c = \sigma_0 > 0 \\
&\Rightarrow G + b' - c - b' + b = \sigma_0 > 0 \\
&\Rightarrow G + b' - c = \sigma_0 + b' - b > b' - b > 0
\end{aligned}
$$

Appendix C Welfare enforcement

An increase in b affects sales of GI-labeled goods $Y[b]$, sales of GI-original goods $X[b]$ and, under oligopolistic competition, the markup $\sigma[X[b]]$. In addition:

$$U[Z]-a=0$$
$$V[Y]+a-b=0$$
$$G[X]+b-\sigma-c=0$$

Profits:

$$\Pi=\sigma X=\sigma[X[b]]X[b]$$
$$\frac{\partial\Pi}{\partial b}=\frac{\partial\sigma}{\partial X}\frac{\partial X}{\partial b}X+\sigma\frac{\partial X}{\partial b}$$

Consumer surplus:

$$CS=\int_0^X G[d]+b-\sigma-c\,dd+\int_0^Y V[d]+a-b\,dd+\int_0^Z U[d]-a\,dd$$
$$\frac{\partial CS}{\partial b}=\underbrace{\left(G[X]+b-\sigma-c\right)}_{0}\frac{\partial X}{\partial b}+\underbrace{\left(V[Y]+a-b\right)}_{0}\frac{\partial Y}{\partial b}+\left(1-\frac{\partial\sigma}{\partial X}\frac{\partial X}{\partial b}\right)X-Y$$
$$=-(Y-X)-\frac{\partial\sigma}{\partial X}\frac{\partial X}{\partial b}X$$

Global welfare:

$$\frac{\partial W}{\partial b}=\frac{\partial\Pi}{\partial b}+\frac{\partial CS}{\partial b}$$
$$=\frac{\partial\sigma}{\partial X}\frac{\partial X}{\partial b}X+\sigma\frac{\partial X}{\partial b}-(Y-X)-\frac{\partial\sigma}{\partial X}\frac{\partial X}{\partial b}X$$
$$=-(Y-X)+\sigma\frac{\partial X}{\partial b}$$

Appendix D The international legal regime for GIs

Geographical indications (GIs) constitute a category of intellectual property right (IPR) that acquired quasi universal relevance in the international trade policy debate in 1994 with its protection under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) of the World Trade Organization (WTO).[9] The term GI was coined to encompass a large variety of expressions already in use in other international treaties and national legislations, such as appellations of origin (AOs), although the term itself was given a specific definition in Article 22.1 of the TRIPS Agreement, which is the one retained in this paper:

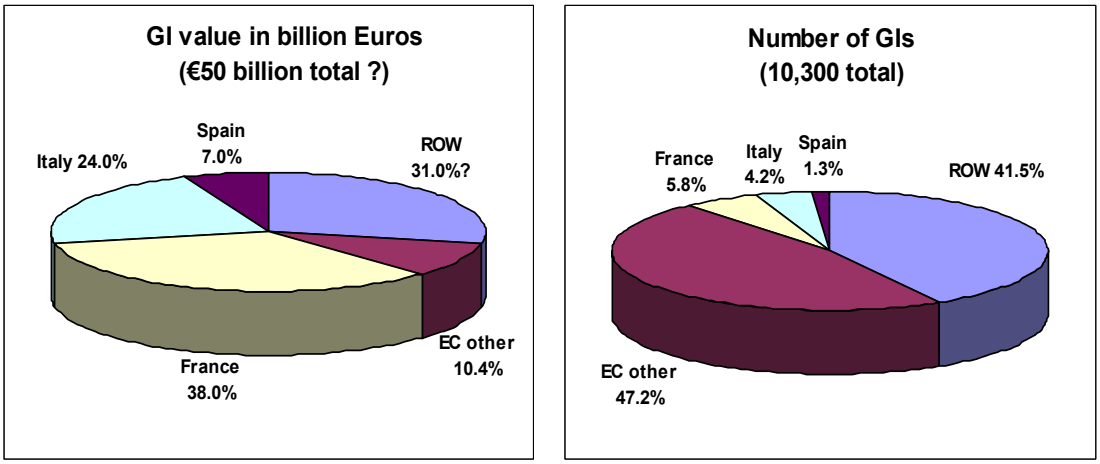
> Geographical indications are indications which identify a good as originating in the territory of a Member, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin. Article 22.1 of the TRIPS Agreement.

Feta cheese, Champagne, Pisco, Darjeeling tea, Basmati rice, Parma ham are examples of well-known GIs. The subject of this thesis, however, is not GIs *per se*; it is rather the international legal regime for GIs established under the TRIPS Agreement and its legal predecessors. The models presented fit into the 'economics of law' literature. Since intellectual property protection is territorial, it is interesting to contrast regimes and analyze the impact of specific legal provisions, with no previous judgment as to the soundness of these provisions. The models are kept as tractable, coherent and main-stream as possible and are fully related to well-known bodies of economic theory to ease understanding and referencing. Also, the questions addressed in the interpretation of results were chosen based on their relevance in the policy debate and multilateral negotiations. This paper has no empirical work, although case studies and examples are used to illustrate the points made.

This introduction gives some figures regarding GIs and goes into some length into reviewing the international legal framework for the protection of GIs. The remainder of the paper is divided in two Chapters, each Chapter with its own literature review. Chapter 1 develops an analytic framework that borrows from club goods theory to model

[9] The TRIPS Agreement is part of the single undertaking negotiated during the Uruguay Round of multilateral negotiations which created the WTO in 1994; as such, it has to date 153 signatories.

Figure 0.1: Disparities in value of GIs



the GI as an asset shared by a club of firms. In the classical taxonomy of goods developed by Paul A. Samuelson in 1954, club goods are defined as excludable and non-rival (although congestible) goods, as opposed to private goods (excludable and rival), common goods (non-excludable but rival) and pure public goods (non-excludable, non-rival). The focus of the Chapter is on the within-club organizational challenges and economic interactions given the legal protection of a GI following the TRIPS requirements. The international aspect of the economics of GIs is developed in Chapter 2, with a focus on the economics of "claw-back", the procedure by which a foreign GI that had previously acquired generic status in a country starts being recognized and protected in that country.

Figures

Estimates on GI value added and exports are neither comprehensive nor consistent, however some figures from different sources were recently compiled showing great disparities in value (Giovanucci *et al.* 2009). Roughly, while France, Italy and Spain account for close to 10% of registered GIs, they account for close to 70% of GIs total value worldwide. The number of protected GIs in the world is put at more than 10,300, 90% of which originate in the 30 OECD countries, with a "trade value" of close to US$ 50 billion (€36.7 billion at the current exchange rate, probably meaning exports).

This estimate is definitely conservative since the European Commission has evaluated the combined value generated by its three main GI countries, France, Italy and

Spain to be €34.5 billion in 2002 (European Commission 2003),[10] and GIs in seven other EU countries generated and added value of about €5.2 billion (Giovanucci *et al.* 2009). In addition, the European Communities represent more than half the total number of protected GIs, with 6,021 registered GIs (of which 5,200 for wines and spirits). In spirits alone, of the €5.4 billion of EU exports, €3.5 billion pertain to GI-labeled spirits (Giovanucci *et al.* 2009). Figure 0.1 shows the disparities in value with an estimated worldwide value of GI products put (rather arbitrarily) at €50 billion.

Legal protection at the international level

Back in 1883, the Paris Convention on the Protection of Intellectual Property singled out, in its first article, the "indications of source or appellations of origin" as objects of protection. But these concepts were not defined, and the treaty provided for remedies only against the **false** use of indications of source (AOs are not mentioned again). The Madrid Agreement for the Repression of False or Deceptive Indications of Source of Goods of 1891, which consists of only 6 articles, is the first treaty to (1) prevent the **deceptive** use of indications of source, (2) include a **genericity** exception, and (3) set a special regime for wines; the last two embodied in article 4 which reads:

> The courts of each country shall decide what appellations, on account of their generic character, do not fall within the provisions of this Agreement, regional appellations concerning the source of products of the vine being, however, excluded from the reservation specified by this Article.

The same year, the Madrid Agreement Concerning the International Registration of Marks was signed, which has been used since by many countries for the protection of GIs as collective, certification or guarantee trademarks. Interestingly, after World War I, France, probably fearing that Germany might want to supply the world of Champagne after the region around Reims had been badly damaged, included an article in the Treaty of Versailles providing for the "respect" of legal, administrative and judicial decisions regarding "appellations for wine or spirits", this was indeed the second time that wines (and spirits) were given special attention. [11]

[10] The European Commission reports that France's 593 GIs generate €19 billion Euro of value (€16 billion for 466 wines and spirits GIs) and constitute the lifeline of 138,000 agricultural outfits. Similarly, Italy's 420 GIs generate a value of €12 billion euro (€5 billion for 300 wines & spirits GIs) and give employment to more than 300,000 citizens. In Spain, 123 GI products generate some €3.5 billion of income (€2.8 billion for wines and spirits), more than €1 billion going into exports.

[11] Hint by Stephen Clarke, 1000 Years of Annoying the French, Bantam Press, March 2010.

> Germany undertakes on condition that reciprocity is accorded in these matters to respect any law, or any administrative or judicial decision given in conformity with such law, in force in any Allied or Associated State and duly communicated to her by the proper authorities, defining or regulating the right to any regional appellation in respect of wine or spirits produced in the State to which the region belongs, or the conditions under which the use of any such appellation may be permitted; and the importation, exportation, manufacture, distribution, sale or offering for sale of products or articles bearing regional appellations inconsistent with such law or order shall be prohibited by the German Government. Article 275 of the Treaty of Versailles of 28 June 1919.

Building on these early milestones, the appellation of origin was given a strong level of protection in 1958 under the Lisbon Agreement. However this Agreement only entered into force in 1966 and has had a limited coverage. Geographical indications were given (virtually) universal attention and protection only in 1995 with the signature of the TRIPS Agreement. These agreements are presented in detail next. The section concludes with a brief note on the different regimes of protection existing at the national level, which, being closely tied to legal traditions, differ greatly across the globe.

WIPO's Lisbon Agreement: limited coverage and membership

The most well-known type of GI is the appellation of origin (AO), which has been protected since 1958 by the Lisbon Agreement and is defined as follows:

> Appellations of origin are the geographical name of a country, region, locality, which serves to designate a product originating therein, the quality and characteristics of which are due exclusively or essentially to the geographical environment, including natural and human factors. Article 2 of the Lisbon Agreement. [12]

The Lisbon Agreement counts 26 Members (5 additional signatories have pending ratifications). Its first signatories, back in 1966, were Cuba, France, Haiti, Israel, Mexico and Portugal. Figure 0.2 shows a moderate increase of membership over time (with a 15-year period of stagnation from 1978 to 1993). The Agreement covers 817 protected AOs, of which 508 belong to France, representing 62% of the total (down from 81% in 1966).[13] Nine countries haven't registered a single AO.[14]

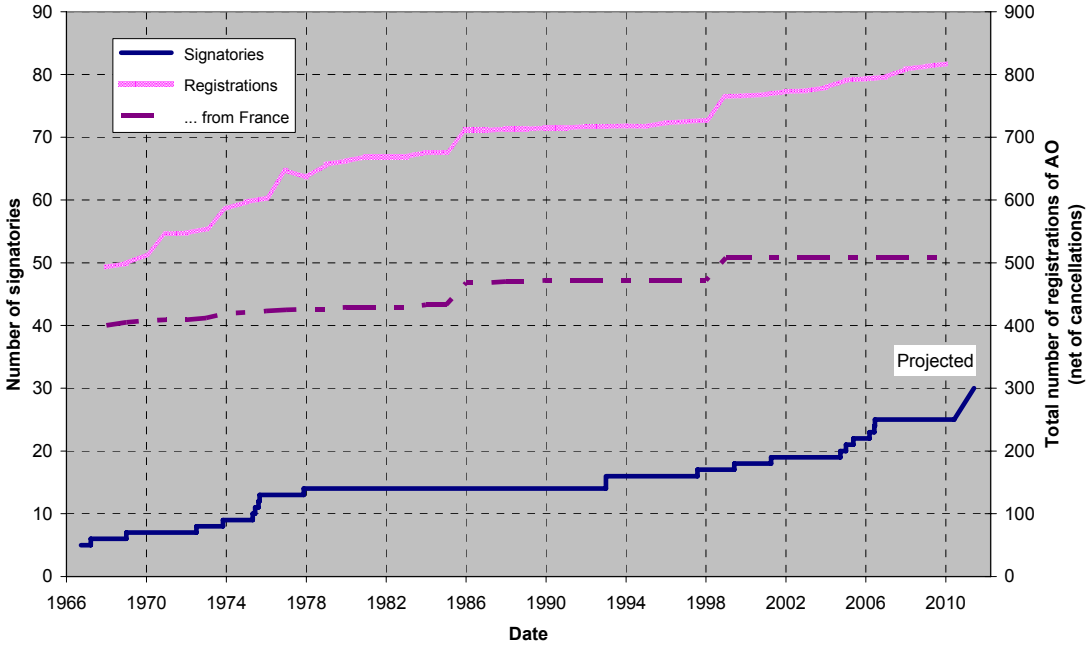
> Roughly two thirds of registrations correspond to wine, followed by spirits, cheese, tobacco, mineral water and beer and malt. Registrations show a pattern of specialization of certain countries in particular sectors (Escudero 2001); AOs in wine, spirits and cheese are led by France, all registrations for tobacco are from Cuba, and the Czech Republic specializes in

[12] The Lisbon Agreement for the Protection of Appellations of Origin and their International Registration was signed in 1958 and entered into force in 1966. It is open to signatories to the Paris Convention for the Protection of Industrial Property of 1883; both are treaties ruled by the World Intellectual Property Organization (WIPO).

[13] Correlative registration numbers go up to 891 due to 74 cancellations over time, of which 56 by France in 2001.

[14] Burkina Faso, Congo, Costa Rica, Gabon, Haiti, Iran, Nicaragua, Serbia, Togo. In addition, Israel and Moldova have one registered AO each.

Figure 0.2: Lisbon Agreement membership and registrations



mineral water and beer and malt. Examples of AOs covered by the Lisbon Agreement are: Porto, Cognac, Pilsen, Champagne, Bordeaux, Tequila, Habano cigar, Jerez, and in general all the French Appellations d'Origine Contrôlée. Non-food products have also been registered, such as the Talavera handcraft (Mexico), the Cholet cloth (France) and Bohemia glass (Czech Republic) (WIPO 2009).

Although the Lisbon Agreement has a rather limited coverage, it grants in many respects a stronger level of protection than that accorded under TRIPS. Its most relevant feature is the creation of a registry of AOs with protection in the territories of all signatory members, a feature that proponents of an increased level of protection for GIs would like to import to the WTO.

WTO's TRIPS two-tier standard of protection for GIs

Broadly, GIs are protected under the TRIPS Agreement on grounds of consumer and goodwill protection. There are however two standards of protection, a minimum level applies to all goods and evolves around the so-called "no-misleading requirement", while wines and spirits benefit of an additional level of protection. The Doha Round divides those countries that favor the extension of the additional protection to all products to those who favor the *statu quo*.

The minimum level of protection

The stated aim of the TRIPS Agreement is to reduce distortions to international trade, to promote an effective protection and enforcement of all categories of IPRs, and to

promote technological innovation and transfer. In substance, the Agreement applies to all IPR categories, and GIs in particular, the traditional GATT/WTO clauses of non-discrimination (national treatment and most-favored-nation treatment) and includes detailed obligations regarding enforcement within WTO Members' territories (in aspects such as judicial review, indemnification, provisional measures and criminal procedures). However, it is left to members to apply border measures regarding GIs.[15]

In addition, a series of provisions apply specifically to GIs under Section 3 of Part II of the TRIPS Agreement, aimed at preventing the use of a GI "in a manner which misleads the public as to the geographical origin of the good" (the "no-misleading requirement") or "which constitutes an act of unfair competition". The protection extends to the invalidation of the registration of a trademark which contains or consists of a GI if (and only if) it is misleading. These provisions apply against deceptive indications (i.e. indications that being literally true, falsely represent that the goods originate in another territory). Importantly, a GI must be protected in its country of origin and not have fallen into disuse to have the right to be protected abroad.

> The requirement that the GI be protected at the national level does not apply to trademarks. And it is not a minor issue, particularly for firms in developing countries that witness with some frustration the use of their main traditional names by foreign producers in foreign and national markets and that nonetheless can do little about it for lack of protection within their own territories. One example, in Chile, are the producers of the Azapa olive ("aceituna de Azapa", from the Azapa Valley), who have unsuccessfully tried to prevent producers in Bolivia and Peru to use the Azapa indication, one reason being the lack of legal domestic protection for the said indication in Chile in the first place.

There is also an exception for those GIs that are reputed to have become generic terms, such as Moutarde de Dijon or Cheddar cheese, or Camembert, for which only Camembert de Normandie is protected as an AO in France (Giovanucci *et al.* 2009).[16] In addition a 'grand-fathering clause' prevents the invalidation of trademarks identical or similar to a GI when the trademark has been acquired in good faith before 1994, or before the GI is protected in its country of origin.

> One example is Parma, which has been trademarked in both Mexico and Canada, preventing Parma ham Italian producers to market their products with the Parma GI, and an estimated loss of €3 million per year in Canada alone (European Commission 2003).

[15] The adoption of measures at the border is mandatory regarding infringements to trademarks and copyrights (against counterfeits and pirated goods respectively).

[16] On the genericity issue, the protection of the Lisbon Agreement is broader: once an AO is protected, it cannot be deemed to have become generic as long as it maintains its protection in its country of origin.

Additional protection for wines and spirits

There is an additional level of protection for GIs for wines and spirits. First, there is no "misleading requirement". Second, the use of a GI is prevented even when the true origin is indicated or the GI is used in translation or accompanied by expressions such as "kind", "type", "style", "imitation" or the like (Article 23).

Some exceptions (for homonymous GIs for example) and additional obligations apply (Article 24). In particular, the genericity exception applies to those GIs that are identical to the customary name of a grape variety (such as Montepulciano). And there are is a second 'grand-fathering clause' which allows the continuous use of a protected GI for wines or spirits by those who can prove a prior use (before 1984, or in good faith before 1994).

Finally, WTO Members may not refuse, if requested, to conduct negotiations of international agreements aimed at increasing the protection of individual GIs for wines and spirits.

Policy debate at the WTO: 'usurpation' versus 'confiscation'

At the World Trade Organization, a few countries expressed their willingness to renegotiate the Section relative to GIs of the TRIPS Agreement under the Doha Round; eventually the subject was not retained.[17] There is however a so-called 'built-in agenda' of negotiations aimed at establishing a multilateral system of notification and registration of GIs for wines, 'built-in' in the sense that negotiations of this register were mandated in Article 23.4 of the TRIPS Agreement. Since no deadlines were set and since negotiations have systematically failed to conclude, they are now part of the Doha Round of multilateral negotiations. The Doha mandate on GIs includes two issues: the creation of the multilateral register for wines *and spirits*; and the extension of the higher level of protection granted under Article 23 beyond wines and spirits.[18]

[17] The current situation regarding negotiations is detailed in the WTO website, TRIPS: Geographical Indications, Background and the current situation, version of February 2010:
http://www.wto.org/english/tratop_e/trips_e/gi_background_e.htm#wines_spirits
Refer also to WTO documents TN/IP/W/7, TN/IP/W/8, TN/IP/W/12, WT/GC/W/546, TN/C/W/25, TN/C/W/50 and revisions thereby.

[18] The built-in agenda of Article 23.4 refers only to wines. The extension of the mandate to include spirits was highly resented at the beginning as it affected the balance of benefits struck during the Uruguay Round; it is less controversial these days since the Doha Round presents opportunities for trade-offs in other areas under negotiation. I am grateful to Sergio Escudero for pointing out this aspect.

Succinctly, current discussions at the WTO oppose two groups of countries. On one side, the friends of GIs favor a strong level of protection (no misleading requirement and no generic exemption), the establishment of a global registry of GIs and the extension of the special protection for wines and spirits to all products. Their main point is to argue against the 'usurpation' of their geographical indications by New World producers.[19]

> The EU has the strongest position, defined in a proposal dated June 2005 (TN/IP/W/11). The EU calls for the TRIPS Agreement to be amended by adding an annex to Article 23.4 requesting that the registration of a GI would establish a 'rebuttable presumption' that the term is to be protected by all Members, except in a country that makes a reservation 'on permitted grounds' (such as genericity) within a specified period (for example, 18 months). It also favors the extension of the higher protection of GIs for wines and spirits to all products.

Their opponents favor the *statu quo*. These countries are satisfied with the current level of protection and would favor a decision by the TRIPS Council to set up a voluntary system where notified GIs would be registered in a database. The governments participating in the system would have to consult the database when taking decisions on protection in their own countries. Non-participating members would be 'encouraged' but 'not obliged' to consult the database. They also counter the 'usurpation' argument by recalling that European colonial rule and immigration led GIs to be adopted and popularized as generic terms outside Europe. They argue that current users of European GIs outside Europe would be 'confiscated' of the value of their investments if a monopoly over the GI label were to be imposed.[20]

> David Spencer (2003), former Ambassador of Australia to the WTO, has argued that "enhancing GI protection in the way some WTO Members have proposed would: erode, rather than strengthen, competition; lead to rent-seeking at the expense of the consumer; add costs to producers and governments; do nothing to open up markets; not guarantee more sales or higher returns for developing countries; undermine the cultural heritage of those countries in the Americas, Oceania and Africa which were based on immigration; not guarantee that developing countries could protect the terms they would like to protect". WIPO/GEO/SFO/03/25 of 15 July 2003.

[19] The Friends of GIs include: Bulgaria, the European Union, Guinea, India, Jamaica, Kenya, Madagascar, Mauritius, Morocco, Pakistan, Romania, Sri Lanka, Switzerland, Thailand, Tunisia and Turkey.

[20] At Doha, this position is represented in a "joint proposal" submitted in 2005 and revised in 2008 (TN/IP/W/10/Rev.2), which was sponsored by Argentina, Australia, Canada, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Japan, Korea, Mexico, New Zealand, Nicaragua, Paraguay, Chinese Taipei, South Africa and the United States.

Bilateral Agreements: main tools for an effective protection

Several bilateral agreements on GIs have been negotiated based on the TRIPS clause that mandates negotiations on GIs for wines and spirits when requested by a WTO Member; although most prevalently under the umbrella of Free Trade Agreements (FTAs), which facilitate trade-offs in other sectors in the course of the negotiations.

> Regarding wines and spirits alone, the European Commission has concluded agreements with Albania, Australia, Bosnia-Herzegovina, Canada, Chile, Croatia, Macedonia, Mexico, Montenegro, South Africa, Switzerland and the United States.[21] It is essentially through these bilateral agreements that the EU has been able to ensure the protection of its GIs where these were exploited as generic terms, notwithstanding the grand-fathering clauses and the genericity exemptions. In the trade jargon, this practice has been labelled the "claw-back" of GIs.

Since most GIs are agricultural products, agriculture-based economies could be inclined to advocate for a strong international protection of GIs, although it does not seem to be the case, mainly due to the use of GIs as generic terms. It is worth noticing, however, that some developed countries have become demandeurs in this area, especially those few countries that have GIs with some international recognition (Escudero 2001). These demands are often channeled through bilateral negotiations, a fact that could signal a perception of potential imbalance in the eventual outcome of multilateral negotiations.

Protection at the national level

I refer to (Blakeney n.a.) and (OECD 2000) for a detailed description of national systems of protection of geographical indications. What is relevant for the purposes of this paper is that the TRIPS Agreement does not specify the legal means to protect GIs; it is left to each member to decide what those means are. Members usually provide protection to GIs by means of (i) laws focusing on business practices; (ii) trademark law; (iii) special or *sui generis* protection. In particular, a few countries protect GIs under collective, certification or guarantee mark regimes (such as the United States), or under common law action of 'passing off' (Escudero 2001).

A determinant feature common to most national regimes, however, is that the registration of a GI as a trademark is usually not allowed, either explicitly by law or through jurisprudence. This does not necessarily imply that the GI is recognized a

[21] The list of Bilateral agreements in wine and spirits negotiated by the European Commission appears in the following website: http: //ec.europa.eu/agriculture/markets/wine/third/index_en.htm.

protection as such, as in most cases, the registration of a GI as a trademark is refused on grounds that the GI has become a generic term. In any case, the impact of national GI regimes is not guaranteed; the markets often require some maturity for a GI to create value.

> Chile established a national system of appellations of origin for wines by means of Decree Nº 464 of 1995 of the Ministry of Agriculture.[22] Until recently, however, the impact of this Decree was rather limited, since trademarks and grape varieties (not GIs) tended to prevail at the consumer level. This has been steadily changing as a few GIs have acquired an increasingly good reputation. For example, the success of the Casablanca Valley wineries in marketing their wines, particularly their Chardonnay and Sauvignon Blanc, led the wine producers and grape farmers to organize themselves into an Association in 2001.[23]

Last but not least, there is a developmental issue which is linked to legal traditions. While the current international framework of protection is in harmony with the European tradition of protection of geographical names (such as the French 'Appellations d'Origine Contrôlée'), it has proved less suited to protect indications that originated in a particular locality but that are not geographical names properly, although nothing in the TRIPS Agreement states that a GI has to be a geographical 'name' (contrary to the Lisbon Agreement). For instance, Greece and India have found it difficult to counter arguments of genericity regarding terms such as Feta cheese, Basmati rice and Darjeeling tea. The European Commission had to go all the way to the European Court of Justice against its own Member countries to establish the exclusivity of Greece over the use of the name Feta.

On the socioeconomic and developmental aspects of GIs, I refer to Rangnekar (2003a), the OECD (2000), Marette (2005) and Giovanucci et al. (2009). All these papers include their own extensive literature reviews. These papers take stock of the major theories that have been or may be applied to the topic, and review the major models developed in related issues, particularly trademarks. The main topics involve information asymmetries and market failure; product differentiation and competitive advantage; market access and market segmentation; competition policy (oligopolies) and state aid; and rents and social welfare.

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[22] The only other product that has been granted a similar level of protection in Chile is Pisco, the national eau-de-vie made of grape, protected by D.F.L. N ° 181 of 16 May 1931.

[23] The Asociación de Empresarios Vitivinícolas del Valle de Casablanca was created in June 2001 and regroups the Casablanca producers of grapes and of wine (http: //www.casablancavalley.cl/).