Embedding Local Places in Global Spaces: Geographical Indications as a Territorial Development Strategy

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Abstract
Geographical indications (GIs) are place-based names that convey the geographical origin, as well as the cultural and historical identity, of agricultural products. GIs are unique, in that they provide a means of ensuring that control over production and sales of a product stays within a local area, but at the same time they make use of extralocal markets. Although control over GIs largely rests with local actors, GIs are nested in wider regional, national, and international networks; and the passage from local to extralocal markets introduces new costs and benefits and new relations of power into the supply chain. The degree to which GI protection spurs development and protects local environmental and cultural resources depends on the structure of the GI legislation and on the territorial context in which protection is embedded. Using a commodity-chains approach, I compare two GI production systems, tequila in Mexico and Comté cheese in France, in order to develop a theory of the factors that contribute to more sustainable, equitable GI production systems. I argue that three key differences in the design of the GI schemes help to explain the varying effects of the two cases: (1) the manner in which supply-chain actors define quality, (2) the way that the GI valorizes the terroir of the region, and (3) the strength and cohesion that the collective organizing body exhibits. Moreover, the institutional and political context in which GI supply chains “touch down” plays a critical role. Contrary to a conceptualization of GIs as compatible with a purely market-oriented model, my comparison of these two cases indicates that some level of state involvement, in order to level the playing field and empower small farmers, is a necessary, although not sufficient, precondition for successful and sustainable GIs.

On August 12, 1999, Roquefort cheese producers, led by activist farmer José Bové, dismantled a McDonald’s that was being built in the southwestern French town of Millau. The protest was in opposition to the U.S. government’s decision to impose a 100 percent import tax on certain European “luxury” goods, including Roquefort cheese, in retaliation for the European Union’s ban on hormone-treated beef. The 100 percent tariff effectively doubled the price of Roquefort cheese for U.S. consumers (Tagliabue 2003), and sales subsequently dropped, falling by more than 26 percent in 2000 (White 2001). Since their historic protest, Bové and his supporters have emerged as symbols of the antiglobalization movement, emphasizing fair trade, the right to good food, and local systems of production and consumption (Bodnár 2003). Explained Philippe Folliott, the mayor of a town in the region, “Roquefort is made from the milk of only one breed of sheep, it is made in only one place in France,
and it is made in only one special way. . . . It is the opposite of globalization. Coca-Cola you can buy anywhere in the world and it is exactly the same” (Swarson 1999:A1). By linking the production of Roquefort cheese to the history and unique environment of the region, Roquefort cheese producers framed their struggle as symbolizing the conflict between the local and the global and representing consumers’ right to choose quality, healthy food over the homogenous, mass-produced commodities associated with industrial agricultural production.

Roquefort cheese is an example of a geographical indication (GI), a place-based name that conveys the geographical origin, as well as the cultural and historical identity, of an agricultural product. We can find GIs throughout the world, in places such as France (Champagne, Roquefort cheese), Italy (Prosciutto di Parma, Parmigiano Reggiano cheese), Spain (Rioja wine, Manchego cheese), Greece (Feta cheese, Kalamata olives), India (Darjeeling tea, Basmati rice), Sri Lanka (Ceylon tea), Mexico (tequila, mezcal), Brazil (cachaça), and Colombia (Colombian coffee). A wide range of institutions and arrangements, which vary by country, protect GIs. GI promotion was one of the main foci of the 2003 reforms to the European Union (EU)’s Common Agricultural Policy (CAP), and GIs figure prominently in debates over intellectual property rights in the World Trade Organization (WTO). Many countries in Latin America and Asia have just passed or are in the process of writing legislation to protect GI products, and the Organization for an International Geographical Indications Network includes more than 2 million registered GI producers from over 30 countries.

Because GIs root production in particular places and protect the unique environmental and cultural resources that have developed over time in these places, scholars and development practitioners have framed them as a means of localizing production within the framework of globalization (Barham 2003; Bérard and Marchenay 2006; Larson 2007; Torre 2006). GIs are fundamentally tied to the notion of terroir, the idea that “the special quality of an agricultural product is determined by the character of the place from which it comes” (Gade 2004:849). In order to preserve the link to terroir, then, each GI theoretically relies on a set of specifications that define and protect the cultural practices, farmer knowledge, and local environmental resources that have interacted in the evolution of the product. GIs are a potential tool used by local actors to counter many of the negative effects of globalization (e.g., excessive price competition, “race to the bottom” in environmental standards, homogenization of local cultures and traditions), by linking production to particular (local) places, while also interacting with broader extralocal markets. The passage from local to extralocal markets...
introduces new costs and benefits and new relations of power into the supply chain (Benkahla, Boutonnet, and Fort 2005).

To date, most of the existing research on GIs has failed to consider the inequalities in the distribution of costs and benefits of protection, or the underlying power relations. An existing body of theoretically grounded work on GIs (e.g., Barham 2003; Renting, Marsden, and Banks 2003) has contributed to the literature on the embeddedness of local agrifood systems and the “quality turn” in agriculture. However, I argue that given the substantial political and economic resources currently being directed toward GI protection,1 we need to begin developing a theory of the factors that contribute to more environmentally sustainable and socially equitable GI production systems on the ground.

In this article, I compare two GI systems—tequila in Mexico and Comté cheese in France—in order to identify the key organizational, institutional, and cultural characteristics of effective GIs. I define efficacy, in this case, as GIs’ ability to protect local cultural and ecological resources and distribute benefits to marginalized populations. Tequila and Comté cheese are both economically significant commodities with long histories of production. However, the GI for tequila has largely failed to benefit the local population and environment in tequila’s region of origin, while the GI for Comté cheese has had very positive effects on the maintenance of the local economy and landscape. I find that three key differences in the design and organization of these GIs help to explain this variation: (1) the complexity and breadth of the quality standards that define production, (2) the way that the GI valo-

1 As noted above, the protection of GIs is a key issue in the WTO debates over agricultural trade. Although Mediterranean countries (e.g., France, Italy, and Spain) have the longest histories of GI protection, the EU has argued in the WTO debates over GI protection that GI protection schemes can be successfully implemented around the world. Interest in GIs is clearly growing among “New World” countries, spurred in large part by the strategic interest and support of the EU and its member states. As part of its initiative on “Quality Linked to Geographical Origin,” the Food and Agriculture Organization (FAO) of the United Nations sponsored case studies on GIs and developing countries, culminating in regional seminars in Morocco and Chile in 2007 and a conference in Rome in 2008. The EU-funded SINER-GI (Strengthening International Research on Geographical Indications) project (2006–2008) draws from 12 case studies of GIs in non-European countries to define a typology of GI protection efforts in different countries and to make recommendations on the impact of GI protection in varying contexts. The PROMECAFE (Programa Regional para la Protección de la Calidad del Café Viniculado a su Origen) program is a €2 billion project, funded by the Spanish government, that aims to help develop GIs for place-based coffees in Central America (El Salvador, Honduras, Guatemala, Panama, Dominican Republic, and the Caribbean). Perhaps the clearest evidence that initiatives like these have had an impact is the number of countries, particularly in Latin America and Asia, that have passed legislation recognizing and protecting place-based products. Brazil and Peru passed legislation on GIs in 1996, followed by South Korea and India in 1999, Columbia in 2000, and Chile in 2005, to name just a few.
rizes the *terroir* of the region, and (3) the strength of the collective organization and the degree to which it fosters cooperation and cohesion. These differences are tied to variation in the political economic contexts, which acts as a necessary, but not sufficient, factor in these two cases.

In the rest of this article, I first situate the concept of GIs within broader literature on embeddedness and local agrifood systems. Second, I provide an overview of this study and my methodology, which draws from and expands on the commodity-chain framework. Third, I provide a brief description of the two cases. Fourth, I outline the three factors that explain the variation in the outcomes of GI protection for these cases. Finally, I conclude by discussing the important role of each case’s territorial context.

**Territorial Embeddedness and Local Food Systems in the Age of Globalization**

In the last decade, scholars have begun to describe the emergence of an alternative food system in response to globalization and the industrial agricultural model (Goodman 2004; Murdoch, Marsden, and Banks 2000; Renting et al. 2003; van der Ploeg et al. 2000; Whatmore and Thorne 1997). Much of this literature, furthermore, relies on the idea of embeddedness to link these alternative food systems to social and environmental sustainability. Drawing on Polanyi’s (1957) concept of “embeddedness,” scholars argue that the market, instead of being the dominant and encompassing element of the economy, is also embedded in systems of social norms and institutions that channel its effects (Barham 2002). The development of socially embedded or value-laden commodity chains offers the potential to better valorize local resources and internalize the social and environmental costs of production (Raynolds 2000; van der Ploeg and Renting 2004). The literature on the localization of food systems, moreover, adds a new dimension to the analysis of embeddedness: territoriality, which is defined as “the ecological and cultural relationships that a food system has with its territorial context” (Sonnino 2007:63). By doing so, according to Sonnino, this literature largely overcomes one of the primary limitations of the conventional sociological literature on embeddedness (e.g., Burt 1992; Fligstein 2001; Ghezzi and Mingione 2007; Granovetter 1985; Nee and Ingram 1998; Uzzi 1996, 1997; Zelizer 1997)—its one-dimensional focus on social relations (e.g., trust) and lack of attention to culture and power.

However, a growing number of scholars have questioned the uncritical manner in which the alternative food-systems literature uses the
concept of embeddedness to describe the relationship between food and territory (Goodman 2004; Ilbery and Maye 2005; Sayer 2001; Sonnino 2007; Sonnino and Marsden 2006; Winter 2003). The literature still suffers from idealized notions of embeddedness and inadequate attention to power. Hinrichs (2000:301) notes that to assume that locally embedded supply chains preclude exploitative behavior and uneven power relations “conflates spatial relations with social relations.” In response to the tendencies toward generalization in much of the recent literature, Winter (2003:24) emphasizes the importance of identifying “different degrees and qualities” of embeddedness, while Goodman (2004) calls for increased attention to the powerful disembedding forces that play out in locally embedded chains.

Furthermore, as mentioned above, the production of “local” commodities is nested in wider regional, national, and international networks (Hinrichs 2003). These products are, at one level, rooted in a specific territorial context, and at the same time, hold the potential to travel to distant markets (Sonnino 2007). As described by Kirwan (2004), this tendency creates the potential for appropriation. Although the notion of embeddedness can be used to create alternative systems that value the social, environmental, and health aspects of food production, extralocal actors can also appropriate embeddedness in order to maximize their commercial profit by accessing niche markets (Kirwan 2004). Dupuis and Goodman (2005) similarly contend that “localization,” far from necessarily contributing to a more sustainable production system, can simply reinforce local elites at the expense of other actors, and, moreover, may be open to deployment in a neoliberal “glocal” logic (i.e., corporate cooptation of local food systems). They conclude by calling for a “reflexive politics of localism” that would “understand local food systems not as ‘local’ resistance against a global capitalist ‘logic,’ but as a mutually constitutive, imperfect, political process in which the local and the global make each other on an everyday basis” (369).

In short, recent scholarship on the embeddedness of markets fails to adequately theorize the power dynamics that underlie the creation and maintenance of socially, ecologically, and territorially embedded supply chains (Dupuis and Goodman 2005; Lie 1997; Sayer 2001; Sonnino and Marsden 2006). There is still a tendency to assume that certain economic forms—for instance, because they are controlled by local actors or because they involve face-to-face interactions between producers and consumers—necessarily demonstrate all of the benefits of embeddedness (Hinrichs 2000). I argue not only that embedded markets are not created spontaneously or automatically but also that the very idea that we can clearly differentiate between “embedded” and “disembedded”
markets is problematic when applying this distinction on the ground. Instead, we can think of markets as existing on a continuum of social, cultural, and ecological embeddedness, in an extension of the frameworks proposed by Hinrichs (2000) and Block (1990). Local and extralocal actors actively construct embedded markets, and decisions made over definitions of quality affect local social, cultural, economic, and ecological resources (Sonnino and Marsden 2006). Thorne (1996) introduces the term “re-embedding” to describe the *purposive* action by which individuals or communities seek to create markets or institutions that will allow them to regain some control over production and exchange processes. We need a more robust and critical analysis of the concept of embeddedness, one that considers the processes by which markets become (re-)embedded and recognizes the power relations that underlie these dynamics (Lie 1997; Sayer 2001; Sonnino 2007; Sonnino and Marsden 2006; Uzzi 1997). My comparison of two GI systems does this.

GI systems provide an ideal lens through which to critically analyze the construction of (re)embedded markets, for several reasons. First, GI protection allows products to be embedded on many different levels: social (through the collective process), economic (through the creation of value-added products), cultural (through the creation of historical and cultural ties), and ecological (through the promotion of sustainable practices). The notion of territoriality, the relationship between the GI and its place of origin, further binds all of these strands together (Sonnino 2007). Second, the establishment of a GI scheme is a process by which a very diverse constellation of (local and extralocal) actors—including farmers and processors, governmental officials, and retailers and distributors—all actively participate in the “reembedding” of a particular supply chain within a territory. Third, because GI supply chains tend to be governed by local actors but sold within extralocal markets, they provide a means of seeing how locally embedded supply chains can be appropriated by extralocal actors and what mechanisms local actors use to resist appropriation.

**Methods**

This research responds to Sonnino and Marsden (2006)’s statement that “if we want to understand how alternative food networks are built, shaped, and reproduced over time and space” (189), the development of these networks must be analyzed at two different, but interrelated, levels: (1) the level of the political, institutional, and regulatory context in which alternative food networks operate, and (2) the level of the local and regional context in which these alternative food networks take
shape. In order to do this, I adopt the commodity-chain approach—
taking the entire tequila and Comté commodity chains as my units of
analysis. In response to the changing spatial organization of production
and consumption under globalization, scholars cite a need for new
concepts that cross territorial boundaries, getting both below and above
the national scale (Collins 2003; Dicken 2007; Robinson 2003). As sum-
marized by Raynolds (2004), four related and largely complementary
bodies of literature fall within the commodity-studies tradition: (1) com-
modity systems analysis (Friedland 1984), which focuses on labor rela-
tions and organization along the supply chain; (2) the French filière
approach (Lauret 1983), which focuses on regulatory mechanisms
and institutions; (3) value-chain analysis (Porter 1990), which focuses
on business organization and profitability; and finally, (4) global
commodity-chain analysis, which focuses on worldwide temporal and
spatial relations and the coordination of economic activities across space
(Gereffi and Korzeniewicz 1994; Hopkins and Wallerstein 1986). Of
these four methodological frameworks, the global commodity-chains
(GCC) approach, introduced by Terrence Hopkins and Immanuel
Wallerstein (1986) and refined later by Gary Gereffi and his colleagues
(Gereffi 1996, 1999; Gereffi and Korzeniewicz 1994), has been particu-
larly influential in recent years. Most fundamentally, GCC studies aim to
understand how global industries are organized; they seek to identify
where, how, and by whom value is created and distributed along com-
modity chains (Appelbaum and Gereffi 1994).

The commodity-chain framework concentrates primarily on analyzing
the governance structures of global commodity chains—“the authority
and power relationships between firms that determine how financial,
material, and human resources are allocated and flow within a chain”
(Gereffi 1994:97).\(^2\) Strengths of the GCC approach include its explicit
focus on cross-national forms of economic organization and its ability to
theorize the relationship between different governance structures and
the associated power relations and coordination mechanisms (Bair 2008;
Dicken et al. 2001). Recent critiques suggest, however, that the
commodity-chain approach tends to underplay the importance of the
institutional framework and the territorial context in which supply
chains are embedded. Dicken et al. (2001:100) note, “Although Gereffi

\(^2\) Gereffi (1994), for instance, distinguishes between two main types of chains: producer-
driver commodity chains, in which large manufacturing firms control capital- and
technology-intensive industries (e.g., automobiles, aircraft), and buyer-driven commodity
chains (e.g., the apparel industry), which are primarily coordinated by large retailers,
brand-name retailers, and trading companies. Gibbon, Bair, and Ponte (2008) outline
three categories of supply-chain governance structures: governance as driving, governance
as coordination, and governance as normalization.
asserts that ‘state policy plays a major role in GCCs’ (1994:100), there is no doubt that he sees the real driving forces in the global economy as being located within GCCs themselves.” They call for a renewed emphasis on the territoriality of supply chains—the extent to which they are embedded in particular bounded political, institutional, and social settings (Dicken 2007; Dicken et al. 2001). Bair (2005:168) similarly cites a need for a better understanding of “how chains are articulated within and through the larger social cultural and political-economic environments in which they operate.” Friedland (2005:36) also notes that “every commodity has a distinctive history and trajectory,” shaped by a number of factors that could be considered, broadly, as territorial (e.g., state policies, consumption patterns, biological factors).

My analysis of the tequila and Comté commodity chains retains commodity-chain studies’ attention to the distribution of power and profit along supply chains, while also paying close attention to the importance of the institutional and territorial contexts in which commodity chains are situated. Moreover, my specific focus on geographical indications, which are both embedded in specific territories and part of global distribution networks, allows me to better incorporate the notion of embeddedness into the commodity-chain framework. Bair (2008:347) criticizes the embeddedness literature as “implicitly privileging . . . more local levels of analysis” and contributing to an “over-territorialized conception of embeddedness that neglects the multi-scalar dynamics of the global economy and the international dimension of contemporary economic organization” (see also Hess 2004). On the other hand, commodity-chain studies’ tendency to focus primarily on (governance) structures occludes a deep understanding of the ways that local social relations, political institutions, and environmental factors reconfigure and remake global commodity chains. This study begins to bridge these two literatures by recognizing the importance of both organizational and contextual factors and theorizing GI commodity chains as simultaneously locally embedded and globally situated.

For each of my two cases, I conducted interviews throughout the commodity chain. For the tequila case, between January and June 2006, I did 68 semistructured interviews with actors throughout the agave-tequila supply chain, including agave farmers, tequila producers and distributors, government officials, and leaders of farm associations.3 For the Comté cheese case, between February and June 2007, I did 69 semistructured interviews with supply-chain actors, including milk pro-

3 I randomly selected the agave farmers from one town in tequila’s region of origin, the town of Amatitán. I purposively selected the other interview participants to obtain a broad cross-section of the most important actors in the agave-tequila supply chain.
ducers, directors of the cheese-producing cooperatives (*fruitières*) and private cheese factories, and cheese refiners (*affineurs*). In both cases, my questions focused on the relationship between the interview participant and other actors in the supply chain, the participant’s perceptions of the organization of the supply chain and the distribution of power, and the participant’s view on the primary problems associated with the supply chain. I also asked participants to identify the primary factors that contributed to the quality of the final GI product. In addition to conducting interviews, I collected statistical data on trends in the production of the raw materials (agave, milk) and final products (tequila, Comté), as well as on the distribution of costs and profits associated with the two supply chains.

**Description of Cases**

I selected these cases because they share many important similarities, but have affected their territories of origin in very different ways. Economically, both products are essential to maintaining the livelihoods of their local population, since both tequila and Comté cheese are produced in relatively marginal and rural areas. Moreover, both products are produced on a large scale and have very long histories of production. Despite these similarities, the effects of GI protection have been very different for the two cases; this is, in turn, related to the degree to which they are embedded in their territories. The two cases can be thought of as representing the two extremes on a continuum of embeddedness. The Comté cheese supply chain is firmly embedded in local social, cultural,
and ecological networks. However, the tequila supply chain is not socially, culturally, or ecologically embedded, and thus the GI for tequila has been largely appropriated by transnational liquor companies and failed to benefit the local population.

**Comté Cheese, a True Produit du Terroir**

Comté is a cooked and pressed cheese made with unpasteurized milk from the Montbéliarde cow, a local breed. Small farmers in the Jura Massif region in eastern France have produced cheese since at least the twelfth century, as a means of preserving milk for consumption during the harsh winters. In 1958, the French government recognized Comté cheese as a GI, and in 1963, the Interprofessional Committee for Gruyère from Comté (CIGC, according to its French acronym) was formed to regulate the Comté label and codify the rules of production. The CIGC is responsible for the creation and ongoing modification of the “decrees” that regulate production of Comté cheese. At the most basic level, the decrees define the zone of production; the current GI region includes the entire department of Jura and parts of the departments of Doubs and Ain. Although the first decree (established in 1958) did little besides define the zone of production, over time, the CIGC gradually added a strict set of rules, specifically to create obstacles to industrialization and to preserve artisanal methods and link to terroir.

Largely because of the CIGC’s efforts, concentration among farms and cheesemakers has proceeded more slowly in the Comté supply chain than in other French cheese industries (e.g., Cantal, Camembert).

Today, 3,200 dairy farmers are organized into 169 fruitières, cooperatively owned cheese producers. The cooperatively managed fruitières produce 86 percent of Comté cheese; private firms are responsible for only 14 percent of Comté cheese (Colinet et al. 2006). After receiving the milk from the dairy farmers, the fruitières make huge rounds of Comté that weigh an average of 35 kilograms (77 pounds). The large number of small fruitières accounts for the diversity in tastes and flavors that is associated with Comté cheese and highly valued by supply-chain actors. The cheese is then aged for a minimum of four months by one of 20 affineurs, or cheese ripeners.

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6 Comté is actually protected by an “appellation d’origine contrôlée”; however, to avoid confusion, I use the term geographical indications to refer to all place-named products.

7 Since the original boundaries were established in 1952, the CIGC has progressively reduced the size of the GI region.

8 Some of the most important modifications include the 1998 requirement that milk be collected within a maximum radius of 25 kilometers of the fruitière, and the requirement limiting the stocking rate to 1.3 animal units per hectare of grassland pasture (established in 1998 and modified slightly in 2006).
Because of the strict rules and commitment to artisanal production methods that characterize the supply chain, French consumers and industry leaders recognize Comté as one of the most traditional cheeses in France. In addition, in terms of its market share, it is one of the most successful. Between 1992 and 2005, Comté cheese production increased from 35,016 tons to 49,435 tons, and today, Comté cheese is the highest-volume GI cheese in France (DRAF 2006). Changes in the organization of the supply chain (e.g., an increase in the proportion of Comté sold in supermarkets) have accompanied this market growth. However, until now, these changes have not negatively impacted cheese quality, and the CIGC has succeeded in making the decrees successively stricter, as a means of preserving the traditional structure of the supply chain.

Overall, the Comté industry has had very positive effects on its region of origin. The price of Comté milk is consistently higher than the average milk price in France (Colinet et al. 2006; Gerz and Dupont 2006). Because production of Comté cheese is characterized largely by small-scale farms and cheese producers, it generates, on a per-volume basis, five times more jobs (in processing, maturing, marketing, and packing) than does production of Emmental, a similar, but generic, cheese (Gerz and Dupont 2006). Moreover, because of the jobs generated by the industry and the limits that the CIGC has imposed on concentration within the supply chain, rates of farm turnover and rural out-migration are substantially lower than in other parts of France (Gerz and Dupont 2006). Finally, the environmental impacts of the Comté supply chain have been positive. Because of the strict specifications that Comté farmers are required to meet, as well as the local dairy culture, milk production systems in Franche-Comté are more extensive than the dominant model in France (Colinet et al. 2006). In addition, because the diversity of native plant species in the cows’ diet is seen as an important contributor to the quality of Comté cheese, supply-chain actors have worked to maintain biodiversity in the region. One fruitière can have as many as 160 different prairie species (grasses, flowers, etc.) in the cows’ diet (author interviews from 2007).

Tequila, Mexico’s National Spirit

Deeply rooted in Mexican identity and considered to be Mexico’s national drink (Gaytán 2008), tequila is made by fermenting and distilling the roasted heart of the blue agave plant (*Agave tequilana Weber*). Production of “agave liquor” (essentially modern-day tequila) originated in the Amatitán-Tequila Valley in Jalisco, Mexico, in the mid-1500s.
The Mexican government established the GI\(^9\) for tequila in 1974 and is the legal owner of the GI. Since 1993, the Tequila Regulatory Council (CRT, according to its Spanish acronym), a private organization, is responsible for managing the supply chain. The GI defines tequila as made from at least 51 percent Weber blue agave\(^{10}\) grown within the boundaries delimited by the federal government. The GI region includes all of the state of Jalisco, plus parts of Guanajuato, Michoacán, Nayarit, and Tamaulipas. The GI protects two basic types of tequila: tequila that is made from 100 percent blue agave, and tequila that is made from 51 percent blue agave and 49 percent alcohol from other sugars (generally sugar cane), known as tequila mixto.\(^{11}\) Moreover, there are four age categories for tequila: blanco or joven (aged less than two months), reposado (aged at least two months), añejo (aged at least one year), and extra añejo (aged at least three years).

Today, three main groups form the tequila industry: the agave farmers, the tequila distilleries, and the bottlers and distributors. The tequila companies increasingly rely on contract arrangements with the agave farmers to ensure their supply of agave, and some firms have started to rent the smallholders’ land and grow the agave themselves. The National Chamber of the Tequila Industry (CNIT, according to its Spanish acronym) estimates that in 2006, 12,000 farmers, 11,200 agricultural day laborers, and 3,400 field workers (employed by the tequila companies) produced agave (Cámara Nacional [CNIT] 2006). After the agave is harvested, the distilleries roast and press the heart of the plant to obtain the juices, and then ferment and distill the juices to produce tequila. Currently, 124 firms are registered to produce tequila (Consejo Regulador [CRT] 2008a, 2008b). The third group of actors, the tequila bottlers and distributors, are based in both Mexico and the United States.

\(^9\) In Mexico, tequila is protected under a “denominación de origen” (denomination of origin). However, in this article, I use the term geographical indications to describe all place-named products.

\(^{10}\) The minimum proportion of agave required to produce tequila has decreased over the last 50 years. In 1949, the first official norm for tequila was established. It required tequila to be made with 100 percent Weber blue agave. However, since then, because of times in which the supply of agave in the GI region was insufficient to meet the demand for tequila, the tequila companies successfully appealed to the Mexican government to change the norms regulating the production of tequila. In 1964, the government established a new norm: tequila had to be made out of a minimum of 70 percent blue agave sugars; and in 1970, the government reduced the minimum proportion of agave sugars required to produce tequila to 51 percent.

\(^{11}\) Tequila made from 100 percent blue agave, which is of higher quality and sells for a higher price, must by law be bottled within the GI region. However, tequila mixto, which comprises the bulk of tequila exports to the United States, is often sold in bulk and bottled outside of Mexico, to save on transportation costs.
In recent years, the market for tequila has grown substantially, more than doubling between 1995 and 2005 and reaching 210 million liters in 2005 (CNIT 2005). Unfortunately, however, supply-chain actors were unable to successfully coordinate the supply of agave with the demand for tequila. Cycles of surplus and shortage of agave have threatened to undermine the industry throughout its history. Beginning in 2004, after the worst agave shortage in recent history, the agave market entered a period of surplus. It became increasingly difficult for independent agave farmers to sell their agave, and the price dropped to near or below the estimated costs of production (Macías Macías and Valenzuela Zapata 2007). Furthermore, the tequila industry is highly concentrated and formerly Mexican-owned firms are establishing partnerships with or being bought out by multinational liquor firms (e.g., Bacardi, Brown-Forman, Diageo) (Casas 2006, Macías Macías and Valenzuela Zapata 2007). This means that international interests increasingly influence the politics and production norms of the tequila industry, despite its reputation of being uniquely representative of Mexican history and culture.

The case of tequila provides an example of a GI that is not being managed in a way that effectively promotes sustainable rural development. The rapid expansion of the tequila market over the last 15 years was driven by a shift in control and ownership of the major tequila companies to multinational liquor companies and accompanied by the concentration, industrialization, and standardization of tequila production. The large distilleries and multinational liquor companies capture most of the value-added associated with the industry; the growth of the tequila market has not substantially benefited the agave farmers or rural population.12 Although the tequila industry is an important source of employment and income in its region of origin, changing production relations foster the marginalization of the small agave farmers. The tequila companies are increasingly producing their own agave, cutting the independent agave farmers out of the supply chain altogether. Finally, the tequila industry contributes to environmental degradation in tequila’s region of origin (Valenzuela Zapata 2005). Partly in response to the requirements outlined by the tequila companies, traditional agave

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12 A study by the State Council for Science and Technology of Jalisco (COECYTJAL, according to its Spanish acronym) found that of the total value-added generated by the tequila industry in 1999 ($5,756 million pesos), just 8 percent accrued to the agave farmers, while 63 percent and 29 percent were associated with the production and commercialization/distribution of tequila, respectively.
cultivation techniques are being replaced by a more mechanized, chemically intensive production system, which in turn contributes to groundwater pollution, soil erosion, and loss of biodiversity (Bowen and Valenzuela Zapata 2009; Valenzuela Zapata 2005).

**Explaining Impacts: Differences in GI Design**

Both Comté and tequila are central to the identities and economic survival of their regions, and both have been very successful in terms of market growth, especially recently. However, in the Comté case, local actors have retained control over the organization of production and the governance of the supply chain, while in the tequila case, extralocal actors have captured most of the benefits of protection. What are the factors that help explain these varying outcomes? I identified three key differences in the design of the two GIs.

**Constructing Quality: Labels and Definitions**

GIs can be viewed as a specific type of quality label. As many scholars note, the creation and enforcement of quality standards is highly politicized (Guthman 2004, 2007; Renard 2005), in that the concept of “quality” is socially constructed by networks of actors who “seek, for various reasons, to interpret, represent, and regulate quality in particular ways” (Ilbery and Kneafsey 2000; Marsden and Arce 1995; Winter 2003). Struggles over definitions shape market access and the distribution of profits, privileging certain actors while excluding others (Guthman 2007; Renard 2005; Valceschini and Nicolas 1995). Tracing negotiations over quality in the Comté and tequila supply chains provides a lens through which to examine the mechanisms that have helped ensure equity within GI chains and the specific tools that marginalized groups have used to retain power and protect local resources.

In the Comté case, a collective valorization of diversity and terroir permeates the supply chain and provides a frame around which the local actors have organized. One of the defining characteristics of the Comté supply chain is the fact that actors from all stages of the chain (farmers, fromagers, affineurs) share an understanding of quality as shaped by a complex array of factors such as the terroir of the region, artisanal cheese production techniques, and traditional farmer practices. Most fundamentally, all actors see the specificity of the milk and the milk’s ability to “translate” the terroir of the region as important components of cheese quality. As one affineur explained,
When we are working with raw milk, we give the milk the right to express its entire life, until the moment that it becomes cheese. We do not intervene in order to steer it into a specific taste. Instead of having guaranteed regularity, something that is constant, by working with raw milk, we know that our cheeses have higher quality, that we have something that is sublime. (author interviews, 2007)

Most supply-chain actors see the diversity of Comté cheese as its most important strength. There is a widespread belief that factors such as climate, altitude, and native grass species—which are incorporated into the pasture-based diet of the cows—influence the properties of the milk, determining the taste and organoleptic properties of the cheese. Most also consider the *savoir-faire* of the farmers and maintenance of traditional production practices at all stages of the chain to be essential aspects of the quality of Comté cheese. The Comté chain has modernized in recent years, but the CIGC has periodically modified the specifications to ensure that the production process retains its historical ties and heritage.¹³

The emphasis on diversity and complexity within the Comté supply chain serves at least two strategic functions. First, small farmers and *affineurs* use the discourse on quality and diversity to resist cooptation by extralocal actors and ensure the industry’s long-term sustainability. For example, the CIGC has implemented rules in order to limit concentration among the farms and *fruitières*. These norms are justified as maintaining the quality and diversity of Comté cheese, since the presence of a large number of small *fruitières* helps to ensure a link between the taste of the cheese and its particular location of production. The rules also, however, help local actors maintain their position within the supply chain vis-à-vis powerful extralocal actors, primarily by making it more difficult to achieve the economies of scale that are needed for the efficient production of industrial-style cheese. Second, the belief that quality permeates all stages of the supply chain reinforces each actor’s common interest in working together to promote quality. The linkages between quality, place, and taste are maintained at all levels of the supply chain—by the traditional practices of the farmers, by the artisanal production methods of the *fromagers*, and by the techniques of the *affineurs*, who allow the *terroir* to “express itself” to the consumer. In this way, the definitions of quality employed in the Comté industry contribute to a sense of cooperation and trust among actors.

¹³ For example, the specifications require that the milk be heated in copper vats, because of the belief that the properties of the copper are, to some small degree, manifest in the flavors present in the cheese and milk.
In the tequila industry, to the contrary, competing understandings of quality are a divisive wedge between the agave farmers and the tequila companies. The directors and technical managers of the tequila companies frame their discussions of quality in very technical terms, emphasizing measurable quality parameters (e.g., age of the agave, percentage of sugars in the agave, amount of ethanol in the tequila) and quality control (in order to ensure that each tequila brand had a distinct, unvarying taste profile). For example, the owner of a mid-sized tequila company explained, “The two most important factors [contributing to the quality of tequila] are to use raw materials [agave] that are at their optimum at the time of harvest, and to have a controlled production process, which includes the water that is used to make the tequila” (author interviews, 2006). The most interesting aspect of this narrative is the emphasis on controlling the production process. This is linked to the formation of the CRT; the CRT has contributed to a culture of quality within the industry that emphasizes traceability, consistency, and enforceability. However, this narrow focus precludes a more complex conceptualization of quality that could incorporate farmer knowledge, traditional methods, and the link to terroir.

Although the tequila production norms include very specific parameters for measuring the quality of the final product (i.e., maximum levels of ethanol and aldehyde, alcohol content, specific ingredients that can or cannot be added), the norms that regulate the tequila production process are surprisingly open. Thus, the complex notion of quality is reduced to principles that are easily measurable and certifiable and that serve to protect powerful supply-chain actors. The norms have evolved in ways that actually reduce the specificity of tequila—for example, by lowering the minimum required proportion of agave. Furthermore, unlike in the Comté supply chain, where the CIGC has explicitly defined and tightened production standards in order to preserve the traditional character of the production process, because of a lack of rules protecting the specificity of the process and the final product, the tequila production process is becoming increasingly industrialized. For example, the agave is now commonly cooked in steel autoclave ovens, because they are faster and more efficient, despite the fact that many people believe that cooking the agave in the traditional wood-burning ovens had a positive effect on the taste.

Importantly, this technical definition of quality dominates not because it is shared by all supply-chain actors, but because the most powerful actors (the tequila distilleries and multinational liquor companies) find it strategically useful. At the same time, they have almost completely ignored the agave farmers’ perspective on quality. The agave
farmers demonstrate a detailed understanding of the way that a number of factors, including soil properties, climatic conditions, farmer practices, agricultural inputs, and the plant itself, influence the quality of agave and tequila. One farmer and agricultural day laborer explained:

[The quality of the tequila] depends on the quality of the agave. An agave that is grown in red soil [tierra colorada]—the red soil is the good soil. That is what produces the best tequila, because the agave is very sweet, very flavorful. And the agave needs to be mature. Because when you use immature agave [agave tierno], it does not produce tequila—the tequila is neither flavorful nor fragrant. (author interviews, 2006)

Some of the farmers that I talked to had been cultivating agave for 30 years or more, and most of them came from several generations of agave producers. The traditional knowledge of these farmers is an important part of tequila culture and quality. However, because the directors of the tequila companies do not attribute any of the specificity of tequila to the traditional agave cultivation practices (e.g., intercropping agave with corn or beans, manual pruning of the agave to prevent pest infestation), they are largely unconcerned by the shift in control from the local smallholders to the tequila companies. The tequila firms’ primary concern is to guarantee a more stable supply of agave, not to guarantee the authenticity of the agave production process or the quality of the agave. The agave-tequila industry and the norms that govern production are thus evolving in a direction that does not value the contributions of the agave farmer or the traditional practices that historically defined tequila. Moreover, the refusal on the part of other supply-chain actors to recognize the agaveros’ contributions in the official norms and standards that regulate the industry is an explicit strategy to exclude the farmers and to consolidate tequila companies’ control.

The Taste of Place: Terroir

Terroir is linked to the unique biophysical properties of particular places—for example, native plant species and soil types—and GI schemes that privilege terroir can be designed to protect these resources, which are seen as essential to the specificity of the product (Bérard and Marchenay 2006; Bureau and Valceschini 2003). Terroir is also associated, however, with the cultural practices that have maintained these biological resources over several generations (and in some cases, hundreds of years). Bérard et al. (2005) assert that terroir is a spatial and ecological concept that links the actors, their histories, their social organization,
their activities, and their agricultural practices. In other words, although the French word *terroir* is literally translated as “terrain, soil, land, ground, or earth,” the cultural concept of *terroir*, as it relates to food and wine, is understood as the product of interacting natural and human factors. Based on my comparison of the different ways that actors in the tequila and Comté supply chains understand *terroir*, I argue that the most sustainable and equitable GI schemes privilege both the cultural and biophysical aspects of *terroir*. Perhaps most important, *terroir* can be a source of power for farmers—who, through their practices, are responsible for maintaining the link between the ecological properties of a specific locale and the taste or quality of agricultural products.

Legislation in both Mexico and France explicitly requires that GI products demonstrate a link to *terroir*, by protecting the geographical name of a place (country, region, or locality), the quality and characteristics of which are due exclusively to the geographical environment, including natural and human factors. Although both the Mexican and French GI laws require proof of the link between quality and *terroir*, in practice, the Mexican government has not enforced the demonstrable link to *terroir*. The tequila GI is limited to just specifying the boundaries of production. In the Comté supply chain, by contrast, supply-chain actors’ shared valorization of *terroir* is essential to the success and sustainability of the industry.

In the Comté case, the level of importance that actors ascribe to *terroir*, the formal institutions employed to protect *terroir*, and the strength of the notion of *terroir* in broader French culture combine to foment a strong appreciation for *terroir* that traverses the entire supply chain, from retailer to consumer. Most supply-chain actors see the *terroir* of the region—translated into the “richness” of the milk and the diversity of Comté cheese—as the most important factor contributing to the quality of Comté cheese. French culture and national political institutions support this collective understanding of *terroir*, but the CIGC and other influential supply chain actors have also worked hard to develop a collective appreciation and understanding of *terroir* that is exemplary even in France. The CIGC has been innovative in its development of specifications and programs to preserve the link to *terroir*. Its commitment to terroir has trickled down through the entire supply chain, as demonstrated by this fromager’s explanation of *terroir*:

The *terroir*—is what the cow eats. For example, summer cheese and winter cheese are different, because of what the cows are eating. The colors of the *pâte* are different, because [there are] substances in the grass that produce the yellow color to the fat
content of the milk, so that it produces yellow butter, yellow cheese, etc. In the winter, when the cow is eating hay, you no longer have this [yellow] color. And what is determinant for the taste is the *terroir*. Afterwards, all of the techniques involved with the production of the milk—from the producer to the *fromagerie*—[are important]. Certain villages have a way of feeding their cows, and almost all of the producers in the village do it the same way, in a way that is different from the neighboring village, and it is this that determines the taste of the cheese. (author interviews, 2007)

In brief, the collective belief in the idea of *terroir* provides a normative and discursive framework in which debates over GI reform take place and lends coherence to the discussions over the evolution of the supply chain. *Terroir* represents a central plank in the construction of production specifications for Comté cheese. Particularly in the two most recent revisions to the production specifications (in 1998 and 2007), the CIGC took major steps to ensure that Comté remains a *produit du terroir*. The CIGC succeeded in passing revisions such as the 25-km maximum radius for milk collection largely because the common appreciation for *terroir* frames actors’ individual interests in ways that are mutually reinforcing. The traditional *affineurs* want to preserve a maximum number of *fruitières* so that they will continue to be able to offer a diverse array of cheeses to their clients. The farmers and *fruitières*, likewise, are interested in ensuring the survival of the traditional *affineurs* since they have more enduring ties to the region and are more likely to develop stable, long-term relationships with specific *fruitières*. Finally, the ideology of *terroir* also solidifies the bargaining position of the farmers, given that they are responsible for maintaining the link to *terroir* in practice, and rests on consumers’ appreciation of diversity and the image of Comté as a traditional *produit de terroir*.

In Mexico, the federal government and the CRT have failed to enforce the link between the quality of tequila and the *terroir* of its region of origin. Given that there is no word for *terroir* in Spanish,14 I was very surprised that both the agave farmers and the directors and managers of the tequila distilleries exhibited a belief in the link between the concept of *terroir* and tequila quality. Many people explained, for example, that the agave produced in Tequila had a different flavor (sweeter, more subtle) than the agave produced in Los Altos (spicier). The agave farmers’ conceptualization of terroir is particularly complex, linking soil

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14 The French word *terroir* is translated as *región* (region), *tierra* (land, earth), or *terruño* (native land, homestead) but the cultural significance that *terroir* has in French is lost in translation.
types, microclimates, and slope to differences in the size and sweetness of their agave. In addition, although they have little interest in protecting terroir, many of the directors/managers of the distilleries also expressed an appreciation of terroir. Even the master tequilero at one of the big tequila companies noted:

Within the GI region, the qualities and flavors [of the agave] depend on the altitude, the soil, the climate, the time of harvest, and the agave cultivation techniques. [All of these factors] produce different qualities of agave—the level of the quality can be the same, but the flavors are different. A tequila that is produced in Los Altos does not have the same flavor as a tequila that is produced near Tequila. (author interviews, 2006)

The notion of terroir has failed to achieve salience within the institutions that regulate the tequila industry not because supply-chain actors do not believe in terroir but because protecting and maintaining the link to terroir would disrupt existing power relations within the industry. Unlike in the Comté case, where actors across the supply chain were able to find a common interest in protecting terroir, the major tequila companies have blocked initiatives to institutionalize the link to terroir because they feel that it is not in their economic interest to do so. By emphasizing other quality attributes (i.e., the type of barrels used, the method for cooking the agave, and the amount of time that the tequila is aged), the tequila companies are able to remain flexible in their agave supply arrangements and minimize costs. Moreover, the agave farmers lack the discursive tools and organizational capacity to use the concept of terroir within a framework of tequila quality and authenticity. The agaveros have not been able to argue, for example, that the increased self-sufficiency of the tequila companies undermines the connection to terroir, or that traditional farmer practices are an important part of the quality of tequila.

Three main factors weaken the link to terroir in the tequila case. First, the GI region is very large (11,194,600 hectares and 181 municipalities in five states) and includes regions that do not have appropriate climatic or soil conditions for growing agave. The vast majority of the GI region is contiguous to the historic center of tequila production, the Amatitán-Tequila Valley. However, the region also includes several municipalities in the state of Tamaulipas, located on the east coast of Mexico. When the GI for tequila was originally established in December 1974, it did not include the state of Tamaulipas; however, plantations of agave were established in Tamaulipas in the late 1960s, and in 1977, the GI was modified to include several municipalities in Tamaulipas (Valenzuela Zapata 2003). It is widely agreed that the decision to include Tamaulipas was largely political.
increases the variability of the quality of agave, and in doing so, undermines the link to terroir. In addition, political struggles inherent in the definition of the GI boundaries degrade the tequila industry’s legal claim to GI protection. Second, many tequila companies now source their agave from across the entire GI region. The sheer size of these firms’ agave basins, combined with the fact that they mix agave from many different regions when producing tequila, dissolves the link to terroir. When agave from a number of very distinct places is blended together to produce tequila, it becomes impossible for consumers to identify or taste the specificity associated with a particular region’s terroir. Third, by allowing the agave farmers to be effectively eliminated from the supply chain and by failing to define the quality of agave, the GI specifications fail to protect the “human factors” (local agricultural knowledge and practices) that have contributed to tequila’s specificity and heritage.

Overall, the tequila industry has evolved in a way that threatens the connection to terroir. The institutionalization of terroir would require the tequila companies to recognize the contributions of the small agave farmers. Supply-chain actors will likely continue to degrade local environmental and cultural resources and the link to terroir unless the Mexican state decides to enforce the demonstrable link to terroir that is implicit in the definition of GIs (in Mexico specifically and in almost all legal definitions of GIs worldwide).

**Cohesion, Collectivity, and Trust: Collective Organizing Bodies**

Because GI labels are the shared property of supply-chain actors, they must be managed collectively (Torre 2006). Thus, a major issue is to determine “the content of the agreement between the different parties, and how it is maintained and complied with” (59). In most GIs, these roles are fulfilled by a collective organizing body. I posit that the most effective GI supply-chain organizations guarantee the quality of the product by drafting and implementing common rules, and foment trust and cooperation between actors by reducing uncertainty and integrating supply-chain actors.

The CIGC reinforces and strengthens the culture of trust and cooperation that characterizes the Comtè region by representing relations between actors as symbiotic, rather than predatory, and by implementing rules that ensure that relations remain stable and that benefits are equally distributed. Three factors explain the CIGC’s success: (1) a strong sense of leadership, (2) a collective vision oriented around sustainability and quality, and (3) an organizational process that is per-
ceived to be fair and representative of all supply-chain actors. These key elements lend legitimacy to the CIGC. Importantly, all decisions are made only after unanimous agreement between representatives from the three major groups of actors (the dairy farmers, cheese producers, and affineurs). The different groups in the Comté supply chain are “condemned to understand each other,” which favors continuity within the supply chain. The president of one fromière explained, “It is complicated to put all of these actors around the table and to establish the rules of the game [fixer les règles de jeu] in a unanimous way. That is complicated. But without the product as the motor, it would be impossible. The actors have the willingness [la volonté] to collectively construct the product and the quality” (author interviews 2007). Furthermore, the CIGC frames the stakes involved in the production of Comté in collective terms, helping actors prioritize their common goals over their individual interest. For example, one dairy farmer told me, “We have common interests: a strong supply chain, to defend our product, to promote our product, to defend it against attacks and imitations, and to valorize the terroir and the practices [of the farmers]. Everyone is in agreement about these issues” (author interviews, 2007). In short, the strength of the CIGC and its ability to integrate all of the actors in the supply chain have been essential to the success of the Comté industry.

The CRT, like the CIGC, is an interprofession that theoretically integrates all of the different actors in the tequila industry. In practice, however, the organizational structure of the CRT and its guiding objectives largely exclude the agave farmers. As discussed above, the CRT has contributed to a culture of quality within the tequila supply chain, and significant improvements in the technical quality of tequila have been made since the CRT’s creation. Nonetheless, overall, the CRT has failed to make decisions in the collective interest of all supply-chain actors. For example, the CRT recently compiled an inventory of all of the agave planted in the GI regions, but has not made information about the projected cycles of surplus or shortage or planting recommendations accessible to the agave farmers. Because of the widespread perception among the agave farmers and the smaller tequila companies that the CRT is little more than a tool of the transnational liquor companies, the CRT itself is a barrier to improved relations and cooperation between actors in the tequila supply chain. In addition, without a voice in the CRT, the agave farmers are in danger of being pushed out of the supply

16 Legitimacy is understood here as a product of both the process by which decisions are made—the degree to which decisions are perceived to reflect the “will of the people”—and the substance or outcome of that process—the degree to which decisions and rules are viewed as promoting the collective good of participants (see Scharpf 1999).
chain altogether. In the absence of intervention from either the state or
the CRT, the tequila companies are consolidating their power, to the
detriment of the farmers. Rather than trying to negotiate with the tequila
companies or lobbying the government, agave farmers are increasingly
turning to more drastic solutions, such as forcing the tequila companies
to buy agave from independent farmers by blocking the entries to tequila
factories or preventing the factories from operating. History has shown
the farmers that confrontation is their only means of improving their
position vis-à-vis the tequila companies.

In sum, because GI labels are collectively owned, the GI organization
plays a central role in the governance of the supply chain. The GI
organization is not only responsible for drawing up the formal rules that
guarantee the transparency and fairness of the decision-making process,
it also influences the culture of the supply chain. The CIGC fosters trust
between actors and contributes to a sense of collective engagement that
extends across the entire supply chain, while the CRT exacerbates pre-
existing inequalities. GI supply chains that lack a strong central organiz-
ing body are unlikely to develop in a sustainable manner, since powerful
actors will be able to manipulate the institutions that govern the supply
chain in ways that benefit them, at the exclusion of other actors.

Where Do These Supply Chains “Touch Down”?
Examining the Territorial Contexts

In the previous section, I outlined three critical differences in the design
of the tequila and Comté GIs: the way quality is defined, the role of
*terroir*, and the strength and cohesion of the collective organizing body.
It is also important, however, to recognize that these differences are
fundamentally tied to the territorial contexts in which the two GIs are
embedded. I acknowledge, as does Collins (2003:24), that “in every place
where global production touches down, it is instantiated differently. It
works through local institutions and establishes the necessary organiza-
tion to get the work done.” I argue that recognizing the importance of
the broader territorial framework does not undermine my claims, but
provides a more complex and nuanced picture of the way these supply
chains are structured by the local social, institutional, and political
context. In this section, I consider two particular aspects of the political
economic contexts of my cases: state support for GIs and national agri-
cultural policies. My comparison of the institutions that support GI
protection and agricultural development in Mexico and France gives
insight into the ways that state policies can be mobilized to protect small
farmers and local production systems. Furthermore, by linking these
national-level regulations and institutions to broader global patterns and inequalities, I am able to consider the particular challenges the GIs in developing countries might face (see Bowen 2009 for a more in-depth exploration of this topic).

GI Policy

First, the level and type of state involvement in GI policy is very different in Mexico and France. The French system is not only the oldest but is also widely recognized as the strictest and most well-developed system of GI legislation in the world. The first place-based delimitations on wine production in France were passed in 1905, to protect against fraud (Trubek 2008). In 1935, the French state established the term “appellation d’origine contrôlée” (AOC) as a legal concept and created the National Institute for Appellations of Origin (INAO) to oversee “all aspects of determining, monitoring, and promoting wines awarded the AOC designation” (Trubek 2008:28). In 1990, the jurisdiction of the INAO was expanded to include all AOC food labels (cheese, olive oils, etc.). The AOC system grants substantial power to the producers, but also provides a check to ensure the maintenance of the overall reputation of the AOC label and of individual AOCs. In addition, since 1992, when the European Union established a pan-European system aimed at developing a harmonized framework for protecting GIs from all member states (EC Regulation 2031/92), French AOCs benefit from institutional support (and checks and balances) at the European level, as well.

Mexican GI policy, in contrast, is less coherent and less strictly enforced than France’s, which has influenced the evolution of the tequila GI. Mexico’s history of recognizing GI products is shorter than France’s. The “denominación de origen” for tequila, established in 1974, was the first in Mexico. Importantly, Mexico does not have a specific institution dedicated to GIs; GI protection is included in the jurisdiction of the Mexican Institute of Industrial Property, which regulates patents and trademarks. The Mexican government has not established any objectives for GI policy (i.e., rural development, environmental protection) beyond protecting Mexican products from foreign-produced imitations. The Mexican government’s lack of involvement in GI regulation has permitted the tequila GI to evolve in ways that undermine the quality and authenticity of tequila.

Strong national GI legislation acts as a necessary but not sufficient factor in explaining the relative success of the Comté GI vis-à-vis the tequila GI. The French system is unique in that it allows producers to
retain substantial influence, but also integrates a system of checks.\footnote{All new AOC applications and modifications (i.e., revised production specifications) are approved by a national committee of the INAO, which comprises a cross-section of AOC producers and is designed to be “representative of all of the regions, [balanced] between small and large producers . . . to be as balanced and representative as possible of all of the AOCs” (author interviews, 2007). The norms that regulate AOCs are thus proposed by the collective organizations associated with each product, and then approved and modified (as necessary) by a committee of AOC producers from across France. The final decrees are approved by the French ministers of agriculture and finance (and in the case of new AOCs, by the prime minister) (author interviews, 2007). Importantly, the ministers have only the power of approval or veto; they do not have the right to change even one word of what is voted on by the national committee (author interviews, 2007).} The system tries to ensure that French GI schemes, as a whole, protect the link to terroir and maintain the use of “local, loyal, and constant” production practices. The French system therefore guarantees a \textit{minimum} level of quality of French GIs. At the same time, because the French system grants so much agency to the producers and collective organizing bodies, it also allows for substantial variation in the success and sustainability of GIs. In that sense, the CIGC has been critical in pushing the standards of Comté production \textit{well above} those set at the French and European levels of regulation. Furthermore, the strong vision of CIGC leaders has guided the Comté supply chain through periods in which governmental support was misguided or lacking (for example, during the 1970s, when the CIGC was urged to enact policies to encourage industrialization and concentration among the fruitières and dairy farmers).

Nevertheless, while it is the actions of the CIGC and individual supply-chain actors that explain the success of the Comté GI, the importance of strong national support for GIs should not be underestimated. The national French legislation on GIs and the structure of the INAO are essential to preserving the overall reputation of French GIs and preventing extralocal actors from exercising undue influence over the evolution of French GIs. In the tequila case, the main effect of the lack of strong and effective GI legislation is that the Mexican state does not provide any support to marginalized supply-chain actors (i.e., farmers, small producers). Furthermore, there is no formal structure in Mexico for ensuring that Mexican GIs maintain product quality or develop equitably. The lack of a minimum standard of quality or authenticity for Mexican GIs threatens the reputation of the GI concept in Mexico. Moreover, the process of negotiating the norms that regulate GI labels remains hidden and dominated by powerful supply-chain actors. Although the federal government technically writes the norms in consultation with supply-chain actors, there is no formal means of guaranteeing that all stakeholders are represented within the negotiation process. The norms that
regulate the tequila industry have always evolved in ways that benefit the large tequila companies, to the exclusion of other actors. Overall, the lack of strong GI legislation in Mexico substantially detracts from the potential for GIs to help small farmers and contribute to rural development. The Mexican case offers a warning to other developing countries that are in the process of implementing GI legislation. Larson (2007:ix), speaking of the opportunities and constraints that developing countries face, notes,

The challenges for GI implementation in developing countries are greater than in developed economies because the institutional context tends to be weaker or undeveloped vis-à-vis fraud repression, intellectual property, and natural, biological and genetic resource management. . . . The enabling institutional environment in which GIs develop bears as much importance to their success as does their reputation and quality achievements.

Support for Agriculture

Second, more generally, it is important to look at the role of the state in agricultural and rural development policy. French farmers continue to receive substantial agricultural subsidies, while the Mexican state, especially since NAFTA was passed in 1994, has largely withdrawn from the rural sector. The largest proportion of the support provided by the EU’s (CAP) goes to France; French farmers received 23 percent of all direct farm aid (worth €7.5 billion) distributed in the EU in 2005 (European Commission 2005). CAP subsidies—particularly the direct farm payments included under “Pillar 1” (Marketing and Income Support)—can be justly criticized for disproportionately accruing to larger farms and contributing to overproduction and intensification of agricultural production (Dibden, Potter, and Cocklin forthcoming). The small farmers in the Comté region have benefitted, however, from measures introduced under the more decoupled and rural development–oriented “Pillar 2” (Dibden et al. forthcoming). Although GIs are often framed as a means of enhancing the viability of rural areas through the market, rather than through subsidies or state protection (Dibden et al. forthcoming), it is important to recognize that the Comté GI is complemented and supported by French and EU subsidies, particularly those falling under Pillar 2. For example, French farmers with pasture-based systems benefit from an incentive for the maintenance of extensive grazing systems, commonly referred to as the “grass premium” (Braun-Nogué et al. 2001). In addition, European producers in regions defined as “less favored areas” receive compensatory payments (Institute for
European Environmental Policy 2006), which is significant given that approximately 70 percent of GIs in Europe are located in these less favored areas (Parrott, Wilson, and Murdoch 2002). The subsidies that the Comté farmers receive are thus filtered through, and support, the GI governance system.

Conversely, in Mexico, especially over the last 20 years, the state opened the agricultural sector up to foreign capital, substantially reduced trade, and agricultural subsidies (Appendini 1998; Gravel 2007; Hamilton 2002; Otero 2004). Federal policies have mostly abandoned rural Mexico; since 1982, national ideology has shifted away from agriculture as a development strategy and toward export-oriented industrialization (Gravel 2007). Total support for agriculture as a percentage of the Mexican GDP fell from 2.8 percent in 1991–93 to less than 1 percent in 2004–2006 (Organization for Economic Cooperation and Development [OECD] 2007), and agricultural subsidies declined by more than one-third between 1994 and 2002 (Wise 2004). Prices received by farmers for agricultural goods fell significantly over this period (OECD 2007).

Among the agave farmers specifically, governmental support in the form of price supports or direct aid is rare. Most of the agave farmers that I interviewed in 2006 received no support from the government; of the 21 agaveros for whom I conducted full economic analyses, only 6 received some type of agricultural subsidy. Certain types of aid, such as that provided by the PROGRESA and PROCAMPO programs, are available to some agave farmers, but most of the agaveros and their families either did not apply or were not eligible for these programs. Moreover, the support offered is fairly minimal, and overall, has not significantly affected productivity. Furthermore, during the current agave surplus, a

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18 Key events that have shaped the Mexican rural economy since the early 1980s include the opening of the domestic market to foreign capital and goods (1982), substantial reductions in agricultural subsidies (starting in 1982 and increasing in 1994 after NAFTA), the end of most guaranteed prices (including corn prices) in 1994, and the deregulation of the grain market under NAFTA (Appendini 1998; Gravel 2007; Hamilton 2002; Otero 2004).

19 PROGRESA is aimed at improving nutrition and health outcomes for the poorest families in rural Mexico; in 1999, about 40 percent of all rural families received PROGRESA transfers (Ruiz-Arranz et al. 2006), although none of the agaveros that I interviewed received support from PROGRESA. PROCAMPO (Programa de Apoyos Directos al Campo) was introduced in 1993 as a compensatory income transfer program to facilitate the transition to more market-oriented agricultural policies from the previous system of guaranteed prices. PROCAMPO is one of the programs implemented as part of the NAFTA agreement; the program is expected to end in 2008. Many farmers in the Amatitán-Tequila Valley were ineligible for PROCAMPO support. In addition, PROCAMPO payments are modest—averaging $329 per recipient and $68 per hectare in 1997 (Ruiz-Arranz et al. 2006; Sadoulet, de Janvry, and Davis 2001).
crisis that threatens the livelihoods of thousands of families in Jalisco, the federal government has not intervened to support the agave producers.\(^{20}\)

Both the level of national support for agriculture and the particular form that it takes are essential parts of the varying trajectories of these two cases. Subsidies help buffer Comté farmers from market instability and offset the higher costs that are associated with their more extensive production system (Colinet et al. 2006). At the same time, we must recognize that the subsidies, while important, are not determinant—if they were, we could expect them to have similar effects across France. In practice, there is substantial variation in the profitability of GIs within France.\(^{21}\) Subsidies are thus not the key factor that drives Comté’s success. However, the almost complete withdrawal of the Mexican state from the rural sector has been crippling for the agave farmers. In the absence of state intervention, the tequila distilleries have transferred the risks associated with the instability of the supply of agave to the agave farmers and begun to cut the small farmers out of the supply chain.

Especially given the extreme inequality and weak social organization that characterize rural Mexico, some type of state intervention is required to level the playing field. The gradual withdrawal of the state from agricultural and development policy, of course, is common to many countries. This, in turn, is related to struggles over trade and agricultural commodities in the WTO, as well as the neoliberal policies that were pushed by the International Monetary Fund (IMF) and World Bank during the 1980s and 1990s (Williamson 1990). The IMF and World Bank encouraged countries to reduce state involvement and support (e.g., subsidies and guaranteed prices) for agriculture, open up their domestic markets to foreign capital and goods, and force small farmers to “modernize.” Furthermore, the inequality, corruption, and collusion between governmental officials and local elites in many developing countries may prevent farmers from developing and sustaining organizational capacity.

\(^{20}\) In 2007, farmer demonstrations helped prompt the federal government to allocate 200 million pesos for the purchase of mature agave. However, in 2008, agave farmers protested outside of the offices of the secretary of agriculture of Jalisco, arguing that the funds had not yet been translated into agave sales (Maldonado 2008). The agave farmers complained that their agave was in danger of rotting if it was not purchased soon. Efforts to establish a base price of agave, which would reduce the risks associated with planting agave, have also failed.

\(^{21}\) While Comté farmers received an average 16 percent price premium for their milk between 1991 and 2004 (DRAF 2006, as cited in Colinet et al. 2006), producers of Cantal cheese, the second largest GI cheese in France, received no premium over commodity milk prices (Barjolle and Sylvander 2000, 2002). Barjolle and Sylvander (2000, 2002) conclude that the main weakness in the Cantal case was an absence of production standards that could ensure the specificity of the cheese, not a lack of support from the French government.
Overall, the lack of strong farmer organization, and the gradual withdrawal of the state from the rural sector, which exacerbates the problem, will provide an important challenge to the development of sustainable GIs in the global south. Although GIs are sometimes framed as a purely market-friendly policy tool (Dibden et al. forthcoming), the Mexican case shows that in the absence of some social and environmental protections from the state, it is unlikely that GIs will be able to make substantial contributions to rural development. This lesson is important not only for those who see GIs as a potentially viable development strategy for the global south but also for the European policymakers pursuing an “increasingly bimodal rural policy that implicitly accepts the reality of productivist agricultural spaces” (i.e., through neoliberalizing agricultural policies) on one hand, while “attempting to map out an alternative ‘consumption countryside’ ” oriented around GIs and other “alternative” food systems on the other (Potter and Tilzey 2005:596). Contrary to a conceptualization of GIs as compatible with the neoliberal model, my comparison of these two cases indicates that some level of state involvement, in order to level the playing field and empower small farmers, is a necessary, although not sufficient, precondition for successful and sustainable GIs.

Conclusions

I have analyzed the process by which local actors actively work to embed production in the social, cultural, and ecological resources of their territories, while at the same time interacting with extralocal markets. In both of these cases, the geographical expansion of the market and the entry of extralocal actors into the supply chain have made it more challenging for local actors to retain control over the production and sales of their product. Thus, one of my primary objectives was to examine the strategies that local actors use to resist the appropriation of locally embedded supply chains by extralocal actors. Tequila and Comté essentially represent two extremes on a continuum of embedded GI systems. I have identified three key factors that contribute to more embedded GI systems, and therefore to a more sustainable and equitable distribution of resources and benefits. First, quality standards must stress the interplay of tradition, authenticity, and terroir in the creation of GIs. Technical parameters define a minimum level of quality, but are not sufficient to guarantee the local specificity of GI products. Second, the link between

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22 The list includes individual countries that have passed GI agreements, nongovernmental organizations such as the Organization for an International Geographical Indications Network, and agencies like the FAO of the United Nations.
the *terroir* of a particular territory and the taste and quality of the goods produced is central to the embeddedness of GIs. An identity based on *terroir* not only gives local actors a discursive framework for justifying local control over production (by preventing the transfer of production offsite), it also requires that the environmental resources and cultural practices that constitute the *terroir* be protected and valorized. Third, the collective organization that governs the GI plays a strong role in maintaining cohesion within the supply chain. The collective organization ensures the representation of all supply-chain actors, and frames actors’ interests in ways that are mutually beneficial, as opposed to competitive and contradictory.

Constructed in such a way, the territorial embeddedness of GIs can serve as a link between local production systems and global markets, between increased competition and higher quality, and between economic and environmental sustainability. Rather than being a protectionist reaction against unfettered markets, embedded systems of production can provide for sustainable rural development while allowing for consumer choice and encouraging competition among producers. As the case of tequila shows quite vividly, disembedding the supply chain discourages competition, decreases quality, and threatens the economic, social, and environmental sustainability of production. In this sense, the two models of production, one embedded and one disembedded, present starkly contrasting models of resolving the contradiction between local and global production and distribution systems.

The two cases also illustrate, however, the importance of considering and adapting to the broader institutional and political context in which supply chains touch down. The opportunities and constraints faced by producers in developing countries may be very different from the experiences of European GI producers, who benefit from much longer histories of protection and more actively involved and supportive national governments. In the tequila case, the Mexican state’s lack of involvement undermines the industry’s ability to develop in an equitable or sustainable manner. Future research is needed to more comprehensively assess how GIs can best be used to foster rural development and protect local environmental and cultural resources in developing countries, and what the role of the state is in this process. This is especially important given the recent attention granted to fostering the creation of GIs in developing countries, both by national governments and by international organizations like the FAO and the World Bank, and as the debates over GI protection in the WTO move forward. It is essential that policy makers do not fall into the trap of what Evans (2004) has called “institutional monocropping,” in which the set of rules developed over several centu-

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ries in developed countries is grafted onto different societies and expected to have the same results (see also Portes 2006).

GI protection is no different. GI schemes must be adapted to the specific resources, objectives, and challenges of each context. GIs remain a potentially viable alternative development strategy, one that privileges the uniqueness and heritage of local actors and the places where they maintain their livelihoods. However, a band-aid approach to GI development and legislation—in which the European system is simply copied and implemented around the world—will likely be coopted by powerful extralocal actors.

Works Cited


