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DIFFUSION OF INTERNATIONAL FOOD SAFETY STANDARDS: DEVELOPING COUNTRY EXPERIENCES

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Abstract

States have regulated public health for centuries by providing public goods such as clean air, water, and food to their citizens. Governments mandate levels of quality in food to prevent poisoning and deception of their people. In the United States, public health regulation has been one of the few areas where the courts have recognized a subjugation of individual rights to the common good, beginning in 1905 in a case which found that the state has a right to vaccinate a child against his parents' wishes (Gostin 2000). Thus the study of public health regulation, and within that food safety and quality, is an important one to understanding the state.

Unlike efforts in some areas to de-regulate and/or move from command-and-control to market-based regulatory instruments—such as the areas of telecommunications and environmental issues—the trend in food safety regulation is increased regulatory attention in countries all around the world. The European Union is in the process of creating a new Food Safety Agency as part of an effort to avoid some of its recent food safety scares. The United States Department of Agriculture is under increasing pressure to conduct more microbiological inspections at food processing plants as well as to obtain statutory authority to recall tainted food, rather than the voluntary process that currently exists. And in countries in Latin America, Africa, and Asia, strengthening food regulatory systems is of deep interest for countries that want to increase their trade in food. Moreover, regional integration organizations and trade agreements such as the European Union, Mercosur, and the Free Trade Area of the Americas all have a component of food standards.

This paper asks whether international standards for food safety and quality affect domestic policies, and if so, how. The paper is organized as follows. The first section describes the Codex Alimentarius Commission and its role in international food safety and quality standards. The second section outlines the theoretical model for thinking about diffusion of these standards and the different ways they might influence domestic policies. The next three sections briefly describe how Argentina and the Dominican Republic relate to the Codex Commission, assess the level of influence of international standards in those countries, and outline some factors that contribute to the influence of standards. The paper concludes with some thoughts about the mechanisms by which diffusion of standards occurs.

WHAT IS THE CODEX ALIMENTARIUS COMMISSION?

International food standards are adopted by the Codex Alimentarius Commission, an international organization jointly run by the Food and Agriculture Organization and the World Health Organization. Its creation was prompted by increased concern in the 1940s and 1950s among consumers over food technologies and associated health hazards, as well as a rise in trade barriers due to different food regulations across countries. Over the past forty years, Codex has adopted hundreds of food standards in order both to promote consumer safety and to facilitate free trade in food.

The output of Codex includes standards, guidelines, and codes of practice. Commodity standards address questions such as what constitutes chocolate, sugar, canned peaches, or corned beef. These standards are concerned with questions of fair labeling, consumer fraud, and unfair competition, as well as a safety benchmark expressed in the quantity and type of food additive or contaminant permitted. General standards cover issues such as labeling, food hygiene, and methods of analysis and sampling. Standards for pesticides and veterinary drugs are usually expressed in terms of a single number, a Maximum Residue Limit (MRL) for the substance. A significant proportion of Codex output, however, takes the form of purely voluntary guidelines and codes of practice, which are not submitted to states for acceptance. Since 1963, Codex has analyzed over 195 pesticides and 50 veterinary drugs; issued over 200 commodity standards, 33 guidelines and 43 recommended codes of practice; and adopted almost 3,000 MRLs and several dozen general standards.

Standards, once adopted, are sent to governments for acceptance, which in theory means that governments integrate the standards into domestic regulations. In practice, however, there is no mechanism within Codex to enforce acceptance of standards. Until the establishment of the World Trade Organization (WTO) in 1994, Codex standards upon adoption were sent out to member governments for an acceptance review. Codex guidelines are passed on to governments but governments are not requested to respond.

Codex activities have been significantly affected by the founding of the WTO. When the Uruguay Round was signed in 1994 and the WTO was established, countries agreed to a set of

procedures about how to resolve disputes over sanitary and phytosanitary (SPS) regulations.[1] SPS regulations are a concern at the WTO because of their potential to serve as non-tariff barriers to trade, that is, barriers that do not take the form of a tariff or tax on imported goods. Instead, countries may and do use SPS regulations to protect domestic industries rather than promote health and safety as they are intended. For instance, if a country refuses to import chicken parts from another country, citing high levels of bacterial contamination,[2] and the exporter brought the ban to the WTO, the SPS Agreement would determine whether such a ban is for safety reasons or whether it is disguised protectionism. It does this by referring to international standards in dispute resolution processes. Codex, along with the International Office of Epizootics and the International Plant Protection Convention, are the international organizations mentioned in the SPS Agreement as sources of international standards. Thus, Codex food standards now serve as international benchmarks for resolution of disputes over SPS measures. This agreement has resulted in a tremendous increase in international attention to Codex.

Given the long existence of Codex, surprisingly little research has been published on its influence. Two studies completed in the mid-1970s outlined the operation of the organization but concluded that it had not been active long enough to affect state-level regulations (Kay 1976; Leive 1976). Victor (1998) conducted an empirical investigation into Codex as part of a broader study on multilateral regulation, and found sparse evidence of Codex influence. Victor's conclusions, however, suggest other paths of influence and other ways of measuring influence that might reveal different patterns. Research more generally on international standardization is more descriptive than analytical (Kindleberger 1983; Krislov 1997; OECD Working Papers 1999; Sykes 1995; Verman 1973) and tends toward technological determinism, the assumption that the 'best' standards are adopted and diffused. Yet social science analysis in the historical institutionalism tradition (Hall 1993; Pierson 1996; Thelen and Steinmo 1992) instructs us to look beyond a functionalist explanation for why things are the way they are.

Within law, economics, and political science, the creation of the WTO dispute settlement system has inspired a growing body of research on international food safety regulation and trade (Barceló III 1994; Bredahl and Forsythe 1989; Horton 2001; Kennedy 2000; Roberts 2000;

Wirth 1994). In this vein, current inquiries into Codex focus on the legally binding nature of Codex standards in the post-WTO era (Ewers 2000; Sikes 1998; Silverglade 2000, 1998; Skogstad 2001; Victor 2002). But a research agenda that focuses only on areas of binding international law overlooks the potential of non-binding or soft law to initiate "a process and a discourse that may involve learning and other changes over time" (Abbott and Snidal 2000). The study of international norms and their influence on national practices (Boyle and Preves 2000; Etzioni 2000) therefore has much to contribute to our understanding of soft law. Thus I ground my attempt to investigate the range of influence Codex standards have had in the study of influence of international norms.

A THEORETICAL MODEL FOR UNDERSTANDING POLICY DIFFUSION

This paper considers the pathways that affect the uptake of international standards by states. In doing so, it attempts to adjudicate between the three most prominent explanations in theories of international relations and law about how international institutions affect state behavior: interests of the domestic political economy; the transmission and influence of norms through transnational advocacy networks; and the influence of knowledge-based or epistemic communities. The dissertation makes two major theoretical contributions:

- Conceptualizing and measuring the influence that international standards and norms have on states
- Defining, identifying, and comparing the three major pathways by which international institutions are thought to influence states

This paper asks two main questions: *What is the breadth and legal bindingness of Codex influence at the level of the member state? Under what conditions do we observe varying levels of breadth and bindingness?* Breadth refers to whether Codex standards influence only exports—that is, whether they have their effect on international trade only—or whether they also influence internal, domestic trade and regulations. Thus breadth can be low, involving only international trade; or high, encompassing both international and domestic trade. Bindingness refers to whether Codex standards are adopted and used voluntarily by industry without government oversight, or whether government has mandated use of Codex standards.

Bindingness can be low, such as when Codex standards are used voluntarily by industry with no government involvement; medium, if government has put the standard into place in its domestic legislation or regulations; and high, if government is also actively involved in enforcing the standard. Of course, all activities mandated by governments are not actually adopted by industry. The categories here are a first cut at measuring bindingness, and can be refined through subsequent study. Also, while breadth and bindingness showcase important aspects of influence, they are not independent of one another.

The second question is, Under what conditions do we observe varying levels of breadth and bindingness? The literature on international relations and law describes three pathways by which international agreements and organizations influence state-level behavior. The first is *instrumental*: states adopt standards because it furthers their interests (or the interests of sub-national actors) to do so (Milner and Keohane 1996). The second is *socialization*: states adopt standards because they are either persuaded to (Risse 2000) or they are influenced by their social environment to do so (Johnston 2001). The third, particularly important for an arena that focuses on scientific and technical issues, is *social learning* (Haas 1990; Haas 1990; Miller 2001). Here, states adopt standards because they believe that this is the only way to improve public welfare.

While the literatures do refer to one another, there has not yet been a systematic attempt to compare the different pathways in an issue area and see how they interact with one another as well as whether it is indeed possible to distinguish them conceptually and empirically. In order to define, identify, and compare these pathways in the context of international food safety and quality standards, I argue that there are three questions we must ask (Johnston 2001). First, what are the characteristics of the actors involved? In order for standards to have an influence, someone must be paying attention to them. Second, what is the nature of the state structures through which those actors must work? This helps us explain why the presence of motivated actors does not always result in the adoption of international norms. Third, do the different kinds of standards adopted by the international organization affect the actors in different ways?

The first step in building the model is to distinguish and identify the three pathways. The question with each of these pathways is, How do we know it when we see it? I argue that

different clusters of actors, states and standards are likely to be seen in the presence of different pathways of influence. Once we have theoretically distinguished the three pathways through their clusters of actors, states and standards, we can empirically determine how the pathways interact and whether they are, in fact, distinct. Then we can turn to the second step of building the theoretical model: describing the possible outcomes we might expect to see in terms of breadth and bindingness of influence. The third stage of model building will link the pathways to the outcomes.

The most important question about actors is, Which actors are involved? They can be government regulators, industry officials, consumer advocates, or food scientists. Food scientists can be independent of the other three categories, or they can also be, for example, government regulators or industry officials. These actors function in varying institutional contexts, considered here as state and sub-state level contexts. Three important state characteristics that may affect the influence of Codex standards are: importance of food exports as revenue generators; level of economic development; and locus of regulatory responsibility (O'Neill 2000), that is, the government agency which is the primary liaison with Codex. Standards are characterized by their purpose and their type. Purpose is either health and safety or food quality (i.e. not deceiving the consumer). Type is either process standards, which specify the manner in which a product can be manufactured, or product standards, which define the end characteristic of a product but not the means by which it was produced (Williams 2001).

For some of the variables it is possible to hypothesize about their relationship to pathway of influence; for others, such as level of development and process or product standards, it is not. For example, Risse, Ropp, and Sikkink (1999) find that the socialization mechanism can be effective at all levels of development. The socialization and social learning pathways imply a change not just in actor behavior but in actor preferences.

I assess which actors are involved in the uptake of Codex standards by conducting interviews with actors in all four areas mentioned above: government, industry, science, and public advocacy. I ask actors what motivates them to use or push for the use of Codex standards, and how Codex helps them. Because the goal of Codex in promoting international trade has long

been important, few are likely to feel social pressure to respond with a different motivation if in fact economic interests are their motivation.

The justifications that actors provide for their actions also serve as an important measure of the instrumental, socialization, and social learning pathways. When actors justify their actions in terms of increased economic benefit for themselves or for the country, this suggests that the instrumental pathway may be more important than socialization or social learning. When actors justify their involvement by referring to the moral component of the standard, of doing the best thing in terms of public health, and by referring to the actions and expectations of the international community, this suggests that the socialization pathway may be the more important. When the actors refer to the best available science justifying their actions, this suggests that we look to the influence of the social learning pathway.

CASE STUDIES: ARGENTINA AND THE DOMINICAN REPUBLIC

The Dominican Republic and Argentina were selected to examine the influence of Codex standards in greater depth. They both vary along the dimensions of state structure I have indicated above. Argentina is a major food exporter, with the export of food constituting over 50% of Argentina's exports. It is in the upper middle income range, according to World Bank data, and the the Secretariat of Agriculture is the main contact point for the Codex Alimentarius. It has been a member of the Codex Alimentarius Commission since 1966, the first year that Codex began keeping records. In comparison to other developing countries, Argentina has been an active participant in Codex, sending delegations to all of the Commission meetings where the standards are adopted (this does not include the Committee meetings where standards are developed). Almost all of these delegations were led by personnel from within the country, not by personnel in the Embassy or in the Food and Agriculture Organization, as is the case with some other countries. Also, the delegations have been led consistently by the trade or industry ministries. In other words, participation by Argentina in the work of the Codex Alimentarius Commission has been fairly strong.

Currently, the Codex contact point for Argentina is situated in the Secretariat of Agriculture, which sits in the Ministry of Production, although the ministry in which the secretariat sits

switches frequently. There is a National Food Committee consisting of representatives from the Secretariats of Health, Agriculture and other government agencies. This committee works on setting standards and, while it considers the Codex standards, it is designed for broader purposes than just considering them.

The Dominican Republic economy, by contrast, is in the low middle income range and agricultural exports are a much less important part of the economy, although still of significance to officials. The Codex contact point for the Dominican Republic is in the Secretariat of Public Health. The Dominican Republic has been a member of Codex since 1971, although it did not attend any Commission meetings until 1997. Since 1997, however, the Dominican Republic has become an active participant in Codex, in particular through its role of chairing the regional coordinating committee for Latin America for the past four years.

In the Dominican Republic, the Codex contact point is located within the Secretariat of Public Health. Standards are developed by the General Directorate of Standards, which is within the Secretariat of Industry. There is a National Codex Committee whose structure mirrors that of the Codex Alimentarius Commission. The purpose of this national committee is to review Dominican Republic standards to ensure that they are in line with Codex standards. The National Codex Committee was formed in 1996 and formalized by presidential decree in 2001.

ASSESSING THE LEVEL OF BREADTH AND BINDINGNESS OF CODEX STANDARDS

The influence of Codex standards is measured by breadth and bindingness of standards. Breadth refers to whether standards are used in international trade, for domestic purposes, or both.[3] In both the Dominican Republic and Argentina, I found little evidence that Codex standards are used for international trade by companies. Instead, standards are relied upon or "taken into account" by governments when setting their own, domestic standards.

Bindingness refers to whether the Codex standards are incorporated into some kind of framework where they become obligatory to follow, or whether their use is solely for guidance

but incurs no penalties if not followed. Here there is evidence that Codex standards are used in both ways in Argentina and the Dominican Republic.

Codex standards first began to be used as a basis for Dominican standards in the mid-1980s. The Dominican Republic has just completed a technical cooperation project with the Food and Agriculture Organization that has raised awareness of Codex standards considerably. The National Codex Committee is currently in the process of revising all of the Dominican food standards to make them consistent with Codex standards. At the moment, according to a report made on the technical cooperation project, 61 Dominican standards are in accordance with Codex standards (FAO and SESPAS 2001). While this procedure may appear to be a simple "cut-and-paste" of international standards into domestic ones, people involved in the process stressed that the Codex standards were used as a starting point for discussion, and then adapted as needed to fit the circumstances. One interviewee involved in adapting standards for milk into Dominican standards stated that the adoption process was done to ensure that standards were applicable to local production conditions. In this standard and others, industry is encouraged to present data to support their claims for changing specifications laid out in the Codex standards.

This activity surrounding Codex standards, through the National Codex Committee, contrasts to industry's use of Codex standards. Companies exporting from the Dominican Republic comply with what their partners in the destination countries demand, which is often dictated by regulations in the destination country. For exports to the United States, for instance, the US company receiving the shipment sets up requirements and sometimes conducts on-site inspections of the facilities in the Dominican Republic to ensure that the facilities are in accordance with US law. Similarly, for export to smaller markets such as other Caribbean countries, companies have requirements for the Dominican Republic exporter, although it is unclear where those requirements come from, i.e. whether they are dictated by domestic law. But generally, exports to the United States (US) and the European Union (EU) must conform with the regulations in those regions regardless of what the Codex standard says.

Another way in which Codex standards are used in the Dominican Republic, although to a lesser extent than by government regulators, is by laboratories. Both public and private laboratories to

some extent refer to Codex standards when analyzing samples from industry. But here, as we will see later, Codex is used along with other international, regional and national standards of other countries. Finally, some consumer groups also use the Codex Alimentarius as a source of information which they may not get from the government.

In Argentina, government officials say that Codex standards are "taken into account" when developing national standards. Most officials in interviews cautioned, however, that more important to them are the standards of Mercosur, the regional trading bloc encompassing Argentina, Brazil, Paraguay and Uruguay. The government negotiators putting together these standards also take into account Codex standards. It is unclear exactly what "taken into account" means relative to other factors that might influence the adoption of a standard.

Industry in Argentina also appears not to use the standards, similar to the Dominican Republic. As in the Dominican Republic, the food industry emphasized the importance of standards in the country to which they are exporting. While there is not any room for negotiation in the standards when exporting to markets in the United States and the European Union, it is possible that Codex standards do provide some leverage for companies exporting to markets in countries where inspections are conducted on imported products but perhaps standards do not exist for all products.

In an interview within a laboratory run by the Ministry of Industry, the respondent acknowledged awareness of Codex standards but tended to rely much more on the International Standardization Organization (ISO) and standards from other countries, such as Chile.

What are some tentative conclusions about the extent of influence of Codex standards in Argentina and the Dominican Republic? First, Codex standards have the most influence on government policies, rather than on industry practices. Second, the extent to which Codex standards are used is different within Argentina and the Dominican Republic, with a higher level of (at least formal) reliance on Codex in the Dominican Republic. Table 1 sums up with some dimensions along which the Dominican Republic and Argentina vary in their interaction with Codex.

Table 1. Interaction with Codex

Country	Is there a National Codex Committee?	Are there formal procedures for adoption of Codex standards into national legislation?	Is there opportunity for public comment on adopted standards?
Argentina	No	No	No
Dominican Republic	Yes	Yes	Yes

FACTORS CONTRIBUTING TO THE INFLUENCE OF CODEX STANDARDS

I have mapped out some of the ways in which Codex standards are used in the Dominican Republic and Argentina. What are factors that facilitate use of Codex standards, that motivate actors to use those standards? The main category to focus on is government. This is because, in a highly regulated area such as food, the industry looks to either government or the country to which it is exporting to determine which standards to meet. Government means either regulators or laboratories that conduct analysis. Four main factors that facilitate use of Codex standards by government agencies emerge from the interviews: the existence of regional trading blocs, familiarity with Codex standards, the importance of food exports, and the level of development of the regulatory structure.

First and foremost is the existence of regional trading blocs or trade agreements. In Argentina, officials rely heavily on Mercosur standards when developing Argentine standards, and the Mercosur standards in turn take Codex standards into account. In the Dominican Republic, the nascent Free Trade Agreement of the Americas (FTAA) was cited in interviews as the most immediate reason prompting the Dominican Republic to review its standards in accordance with the Codex Alimentarius. This is because the FTAA requires countries to harmonize its standards with Codex by 2005. Thus it appears that regional trading blocs are important mechanisms of diffusion of international standards. Perhaps it is the case that international organizations are simply too far removed from countries, and that the regional institutions provide a more accessible forum and background for decisionmaking.

Second, use of Codex standards depends on familiarity with Codex standards. The agencies most closely associated with the Codex process—agriculture and health—were both more familiar with Codex standards than were other agencies such as industry. An industry official in Argentina spoke of the complicated procedure to obtain Codex standards through an inter-agency request, and seemed unaware that the standards are available free of charge through the website of the Codex Alimentarius Commission. Reinforcing this idea that familiarity breeds use, in the Dominican Republic, where a project with the Food and Agriculture Organization has just been completed focused on increasing use of Codex standards, officials in different agencies were familiar with and used Codex standards. Argentina, meanwhile, finished a similar cooperation project a few years ago and it appears that any emphasis to use Codex standards emerging from that project has faded considerably over time. For instance, the well-organized Codex national office that was set up as part of that project has dissolved and contacts with Codex are currently run by a very small number of personnel compared to what had been previously.

Third, the desire to increase food exports plays a large part in the participation of Argentina and the Dominican Republic in Codex. Argentina has participated more in the process of developing Codex standards over the years than other developing countries, and in interviews this was explained as a result of the importance of food exports to the Argentine economy. Officials in the Dominican Republic assert that a main reason for using Codex standards is to facilitate exports.[4]

Fourth, concerning level of development, the regulatory structure in the Dominican Republic is less well-developed than in Argentina—for instance, there is no overarching food law or code, as there has been in Argentina since 1969—and this may lead to a greater propensity on the part of Dominican Republic officials to rely on Codex standards compared to Argentina.

Codex standards are not, however, the only other sources of information about food standards to which domestic regulatory officials can turn. Codex standards "compete" with international standards from the ISO; with regional standards from organizations such as the Pan-American Commission on Technical Standards; and with standards from numerous countries such as the United States, Spain, Chile, and so forth. What are the factors that play into an actor's decision

not to use Codex standards? An important factor in a laboratory setting is the certification process offered by some organizations, particularly ISO. Once a laboratory has passed the proper procedures and inspections, it is then qualified to certify an industry's products as passing, for example, ISO standards. Codex does not have a similar certification process. Another factor that might lead actors to choose other standards to rely on over Codex standards are the comprehensiveness of the standard.

In this preliminary review of evidence from field sites, two factors in particular stand out as not mattering as much as they would seem to. First is the World Trade Organization. As mentioned above, the WTO Sanitary and Phytosanitary Agreement gives prominence to Codex standards as international benchmarks for resolving SPS disputes among countries.[5] It is generally accepted that this linking of Codex standards to the WTO dispute resolution process has increased the importance of Codex standards. While legal interpretations are still being made, there is a general presumption that countries meeting the Codex standards can defend their standards in any SPS disputes, and that countries with weak regulatory structures in particular would be well-advised to adopt Codex standards. Perhaps this reasoning has trickled down through the regional bodies, but for whatever reason the WTO was not mentioned frequently, and in the Dominican Republic not at all, as a reason for adopting Codex standards.[6]

Second is that officials in all different agencies—health, agriculture, and standards bureaus—cited similar reasons for relying on Codex standards. Both trade and safety concerns were intertwined and quite difficult to separate out. Officials did not appear to regard trade and safety as opposed to each other in their own countries, although they did regard some of the US and EU safety standards as protectionist and not put in place for health reasons. Thus the differences among agencies and the differences across standards that were anticipated in the theoretical model do not, in this preliminary assessment of the evidence, to be of great importance. Officials considered both quality and safety standards to be important, and they did not distinguish between process and product standards.

TENTATIVE CONCLUSIONS ABOUT PATHWAYS OF DIFFUSION

Some tentative conclusions follow about how the three pathways outlined in the theoretical model are at work here. First, industry does not appear to be motivated to pressure the governments in Argentina and the Dominican Republic about the use or non-use of Codex standards. Thus the domestic political economy is not a pressure on regulators to use Codex standards. It is possible, however, that the influence of industry is less direct. Instead, domestic industry may pressure regulators to adopt standards to facilitate exports, and then regulators may decide that Codex standards are the best way of achieving this.

Regulatory officials appear to be motivated to use Codex standards in the name of increasing export markets for their country's products and building a regulatory structure for safer food. Several interviewees in both countries alluded to a belief that many other countries were also adopting Codex standards, and that it was part of an on-going process that it was necessary to participate in. The fact that Codex standards are international and thus possess a certain legitimacy that is not tied to any one country's power also was cited in several interviews as a reason for adopting Codex standards. This is despite the fact that the United States, at least, is not in the process of adopting Codex standards and has no plans to do so. Rather, this belief on the part of regulatory officials seems to be that adopting Codex standards is in keeping with the times, with globalization. This could be evidence for the international socialization hypothesis, that regulators are influenced by their social environment to adopt Codex standards.

What of the social learning explanation? Do Codex standards stimulate learning on the part of officials, industry, consumer groups, or scientists? It appears that, at least in Argentina and the Dominican Republic, Codex standards are reviewed critically before being adopted into national standards. It may be that the forces of the international social environment cause actors to choose Codex standards to examine, and then those standards form the basis for domestic discussions about what is appropriate.

Another way in which social learning seems to be taking place has to do with the notion of 'standardization.' Codex has tended to attract, over the years, the attention of individuals who are committed to the idea of standardizing in the belief that this will increase trade and hence

welfare.[7] Like-minded people in different countries, developed and developing, are committed to this goal. This shared belief in standardization as a process and a goal may facilitate linkages and learning across national boundaries.

Notes

[1] The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), text available at www.wto.org [accessed February 26, 2002].
[2] For example, as occurred recently with a Russian ban on the import of chicken parts from the United States. See Oksana Karpova, "The Chicken War: Is It Over?" *Moscow Times*, September 18, 2002. This ban has not been the subject of WTO dispute resolution.
[3] Why would we expect Codex standards to be used only in international trade and not for domestic purposes? As discussed above, Codex standards are not legally binding. The food industry, particularly in developed countries, participates fairly heavily in both country delegations to the committees that negotiate the standards as well as in delegations from international trade associations such as the International Dairy Federation. One reason that industry might participate is to ensure that standards they would use in international trade are favorable to their interests.
[4] It is unclear, however, that using Codex standards really does facilitate exports to countries in the European Union and the United States, which use their own standards and not Codex standards.
[5] See Victor (2002) for an analysis of how Codex standards have been used in the SPS dispute resolution process.
[6] Another perspective that questions the influence of the WTO is found in Rose (2002), who demonstrates that participation in the WTO and its predecessor, the Generalized Agreement on Tariffs and Trade (GATT), does not lead to an increase in trade.
[7] See, for instance, the Denner (1989) paper on food additives; see also Verman (1973) for an impassioned description of standardization.

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