New! Improved? The Transformation of the Global Agrifood System*

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ABSTRACT The last decade has witnessed a dramatic rise in global trade in food and agricultural products. While much analysis has focused on the role of the World Trade Organization (WTO) in this process, we argue that other forms of regulation are of far greater consequence. In this paper, we examine changes in the agrifood system *made possible* by the WTO and we assess the rise of global private standards. We argue that the new global rules, regulations, and institutions implemented by the WTO have facilitated the ability of the private agrifood sector to consolidate and expand internationally. Of particular importance is the growing influence of food retailers as they rapidly become more global and oligopolistic. The article concludes that today it is the private sector, and retailers in particular, together with private standards that are at the center of the transformation of the global agrifood system.

Introduction

Although global trade in agricultural products is hardly new (Bonanno et al. 1994), the last decade has seen a dramatic rise in global trade in food and agricultural products. In 2000 some \$558 billion worth of agricultural products crossed national borders (World Trade Organization 2001). This was in no small part due to the creation of the World Trade Organization (WTO). The formation of the WTO marks the first time in world history that an international entity has regulated trade.

Proponents of free trade firmly believe that the formation of the WTO will usher in a new world of global prosperity (e.g., Bhagwati 2002; Hoekman and Kostecki 2001). In its most straightforward statement, by eliminating tariffs and quotas and prohibiting nontariff trade barriers, global markets will form rapidly. These, in turn, will permit a rapid rise in global trade, as well as the spread of prosperity across the face of the

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planet. In contrast, critics—whether marching in Seattle and Cancun or writing from within the walls of academe—argue that the terms of trade are heavily biased toward industrialized nations of the West (e.g., Shiva 2001; Wallach and Sforza 1999). Therefore, free trade merely opens the poor nations of the world to plunder by the rich.

In this paper, we argue that both views are fundamentally flawed in ways that are unexpected because they ignore the tacit knowledge found neither in development textbooks nor in bureaucratic offices. First, we argue that while much analysis has focused on the WTO itself, other changes in the agrifood system *made possible* by the WTO are likely to be of far greater consequence. In particular, the WTO has simultaneously (a) introduced a new set of international institutions and organizations to regulate trade, (b) made several existing but voluntary standards *de facto* mandatory, and (c) opened the door for greater *private* regulation of the agrifood sector through standards, contracts, and agreements.

Second, we examine the rapid rise of private global standards, itself the result of (a) the opening of national product and capital markets to global competition, and (b) the demands of (some) consumers for products that are safe, environmentally friendly, and not exploitative of workers in poor nations.

Thus, the diminishing ability of the public sector to regulate trade has provided an opportunity for the private sector to reorganize aspects of the market to better suit its needs. This is not to say that public regulations are obsolete; in fact, they continue to form the basis from which many private regulations operate. However, our focus here is to analyze the emergence of private rules, practices, and institutions since these are now at the center of transforming social, political, and economic relations throughout the global agrifood system.

Regulating the Agrifood System

One of the principal traditions for examining changes to the "practices and rules governing food systems" within the agrifood literature is drawn from the French regulation school (Buttel 2001). In brief, regulation theorists (see Aglietta 1979; Boyer 1990) argue that capitalism develops through a series of distinct phases where each stage comprises a regime of accumulation and its associated mode of social and political regulation. A regime of accumulation is defined as a stable and reproducible relationship between production and consumption. A mode

¹ North defines institutions as "the rules of the game in a society or, more formally, ... the humanly devised constraints that shape human interaction" (North 1990:3).

of regulation consists of the state and private institutional forms, social practices, habits, and norms that regulate relationships and individual behavior to ensure economic stability.

Of particular importance is the regulationist analysis of the transition from Fordist to post-Fordist forms of economic regulation and its accompanying regimes of accumulation. From the regulationist perspective, the Fordist regime was dominant through the post-World War II period. Here economic accumulation was based on the mass production and mass consumption of uniform, standardized, manufactured goods supported by Keynesian state policies and institutions. The post-Fordist regime of "flexible accumulation" was born out of the economic crisis of the 1970s. Flexible accumulation is founded on the fragmentation of the market, since workplace and labor flexibility are required to produce customized, non standardized goods and services. This period has been accompanied by the demise of Keynesianism and the welfare state.

Friedmann and McMichael (1989), specifically address agricultural regulation by incorporating Aglietta's (1979) concept of historically contextualized food regimes. The concept of food regimes refers to "the rise and decline of national agricultures as part of the geo-political history of capitalism" (McMichael 1999:4). The authors argue that each period of capitalist accumulation is linked to a different international division of labor that, in turn, creates an international system of food production and consumption (Friedmann and McMichael 1989). The post-World War II food regime was based on Keynesian state regulation, agricultural subsidies and surpluses in the U.S. and Western Europe, and American hegemony through the export of food surpluses and agri-industrial technologies to developing nations (McMichael 1999). The post-Fordist food regime is based on state deregulation, growing international free trade, as well as a fracturing in the marketplace for food (Lawrence and Vanclay 1994). In other words, while mass consumption diets remain, there has been a shift towards trade and consumption in nontraditional foods and "niche" commodities, such as fresh fruits and vegetables and organic produce. In part, this shift has been in response to those consumers who reject the production methods, techniques, and products of mass consumption and are concerned about issues such as food safety, food quality, and environmental sustainability (Lawrence and Vanclay 1994; McKenna et al. 1999).

The regulationist framework has been important for appreciating that there are no constant, ahistorical economic principles of capitalism. Instead, capitalist economic development must be understood as shaped institutionally and socially in ways that are always specific to particular historical periods (Hoogvelt 2001). However, this

approach has been broadly and justifiably criticized for its overly structuralist and functionalist interpretations of capitalist development and institutions (Goodman and Watts 1994). As with other political economy approaches, it helps explain the broad conditions under which certain processes occur but tells us very little about the specifics (Busch and Juska 1997). However, recently the French regulationists have adopted a more modest vision of their position; as such, a growing convergence between the French convention school and themselves has been established (see Allaire and Boyer 1995; Boltanski and Thévenot 1991; Nicolas and Valceschini 1995).

The result has been the production of a neo-regulationist framework that is more carefully grounded (Buttel 2001). Building on the work of other institutionalists (e.g., Granovetter 1985; Williamson 1993), the central argument of convention theorists is that rules, norms, conventions, organizations, and institutions are what "determine the content and the form of the production and circulation of commodities" (Wilkinson 1997:317). In the agricultural sector, Allaire and Boyer (1995) have demonstrated how attributes of quality, institutional innovation and conventions are "constitutive of the new ways in which markets, states and indeed capitalism itself are conceptualised" (Watts and Goodman 1997:5).

One of their principal arguments is the emphasis on the shift to quality as the basis for economic competition. In other words, under Fordism price and quantity were the primary criteria for characterizing production. However, today the economic focus has turned to quality (Raikes, Jensen, and Ponte 2000). Quality refers to the specific attributes of the food or commodity itself, such as safety, nutritional content, label, production processes, or branding, that are emphasized and regulated (Watts and Goodman 1997). At the same time, emphasis is placed on how conventions and other institutions construct and legitimate notions of quality.

The neo-regulationist and convention frameworks are particularly salient for analyzing the shift from public to private regulation in the global agrifood system. The construction of new forms of institutions and conventions are fundamental to this process. Private food safety and quality standards, branding, contracts, certification, and agreements are the axes around which food retailers are organizing competition based on quality. Importantly, the outcomes of these processes are not neutral. As competition, production processes, and consumption linkages in the agrifood sector are reregulated, new winners and losers will emerge. Consequently, private regulations and institutions will be contested as different actors seek to shape the content and the outcomes in their favor. We now briefly examine how the institutional and organizational

changes that occurred with the establishment of the WTO were fundamental to the rise of private regulations.

The Ironies of Free Trade

The establishment of the WTO² in 1995 was motivated by the desire of proponents of free trade to create a single institutional framework for world trade that could effectively deal with the perceived shortcomings of the General Agreement on Tariffs and Trade (GATT) (Hoekman and Kostecki 2001). With the creation of the WTO, GATT—together with numerous other multilateral agreements—was subsumed into the new organization. GATT provided some of the most important articles that shaped the general principles of the WTO, including: National Treatment, Most-Favored Nation, and Elimination of Quantitative Restrictions (import and export controls). The WTO administers these agreements, together with facilitating trade negotiations and overseeing and enforcing trade dispute resolution. Of particular significance is that the WTO, unlike GATT, has international legal status with enforcement powers, similar to the United Nations, and its rules are binding on all members (International Forum on Globalization, Barker and Mander 1999). Also, the WTO is not limited strictly to trade in goods; its authority has been extended into so-called nontrade-related activity. These activities include, for example, foreign investment rules, intellectual property rights, and domestic regulatory mechanisms, such as services for insurance and transport, farm policy, and food and environmental standards (International Forum on Globalization et al. 1999).

The WTO as Enforcer of International Standards

While it took many years to reach agreement, the decision to reduce and phase out tariffs and quotas was a relatively simple one. After all, tariffs and quotas are usually quite obvious to both the nations imposing them and to those nations subject to them. However, the negotiators who designed the WTO soon realized that elimination of tariffs and quotas could easily lead to a proliferation of nontariff trade barriers. Moreover, unlike tariffs and quotas, nontariff trade barriers, at least in principle, can take a virtually infinite number of forms. Thus, eliminating tariffs and quotas had the potential to open a Pandora's box of nontariff trade barriers. The solution to that problem, the negotiators reasoned, lay in a series of agreements that would restrict the use of such barriers.

 $^{^2}$ For an account of the history of GATT and the debates that led to the creation of the WTO, please refer to Hoekman and Kostecki (2001) and Kuttner (1991).

The Sanitary and Phytosanitary (SPS) Agreement

The SPS agreement covers the domain of food safety as well as that of animal health and plant pests and diseases. It requires that signatories have SPS regulations for imported products that are the same as those for domestically produced goods. Thus, one cannot have different limits for *Salmonella* contamination for domestic and imported foods. Similarly, one cannot prohibit entry of products containing pests already endemic to the importing country. In addition, nations are called on to employ SPS standards that have been promulgated by international standards bodies such as the Codex Alimentarius, the International Plant Protection Convention, and the *Office Internationale des Epizooties*. More restrictive standards are to be used only when the scientific data warrant additional restrictions. Furthermore, the agreement specifically calls on science to resolve disputes.

Technical Barriers to Trade (TBT)

Like the SPS agreement, the TBT agreement was designed to discourage the creation of nontariff trade barriers. The TBT Agreement covers such things as specific technical requirements (e.g., labeling, packaging) that could otherwise be used to reduce global trade. Here again the focus is on consistency with respect to products for the internal market and those imported. If the internal market requires labels of a certain size and shape, labels required for imports can be no different. Moreover, the TBT agreement is meant to discourage overly long and bureaucratic delays at ports of entry by promoting harmonization of technical requirements.

The Agreement on Trade-Related Intellectual Property (TRIPs)

TRIPs was designed to harmonize intellectual property rules worldwide. Although it was initially supported by large companies in the industrial world to end widespread copying of electronic and textile products, it has also been used of late by other companies from industrial nations seeking to patent products long used in their country of origin. The scandal over the granting of a patent for Turmeric, a spice used in India for centuries for its coagulating properties, is illustrative of the problems associated with TRIPs (Bagla 1997). While the patent was eventually overturned, it suggests a considerable advantage to firms in industrial nations.

The Dispute Settlement Process (DSP)

As one might imagine, creation of a broad set of agreements of this nature has led to a number of heated disputes. Under the DSP, agreed

to by WTO members, all nations may bring complaints. As this is an expensive proposition, in practice the DSP tends to be biased against poorer nations. Moreover, as critics have noted, the DSP takes place behind closed doors; only the results are announced to the public. Changing this procedure will not be easy, as it will require a vote of the members and is not merely a bureaucratic rule put into place by the WTO staff.

Taken together, the WTO agreements were designed to facilitate global trade by restricting the ability of individual nations to use nontariff trade barriers. This was accomplished through the establishment of international agreements that would harmonize standards and ensure that these standards were transparent, consistent, and enforceable. Ironically, one of the most important consequences of the development of these global rules on standards has been the emergence of standards promulgated by the private sector. The process of making existing voluntary standards *de facto* mandatory has allowed greater private regulation of the agrifood sector through standards, contracts, and agreements.

Separation of Food Safety, Labor, Environment, and Quality Agencies

Virtually every nation on earth, and the international community, has four distinct agencies responsible for and mandated to enforce food safety, animal and plant health, environment, and labor standards.³ These agencies usually operate largely independently of each other. Furthermore, the private sector has had quality standards (sometimes aided by government, as in the case of the standards for fruits and vegetables promulgated by the Agricultural Marketing Service in the U.S.). As activists have rightly pointed out, the WTO has no brief with respect to, for example, labor standards.

As noted above, the establishment of the WTO had the effect of making many voluntary standards *de facto* mandatory. In the past, such standards only applied to those who desired to use them. Therefore, contradictions and inconsistencies among the various categories of standards were often unnoticed. However, the SPS and TBT agreements make direct reference to such standards. Therefore, not using them (or some reasonable equivalent) has become exceedingly difficult.

As a consequence of active enforcement of trade-related standards and the organizational distinctness of the various standards bodies, conflicts are bound to arise. For example, as Thrupp (1995) has

 $^{^{3}}$ This is not to suggest that every nation has equal ability to enforce these rules.

suggested, adhering to U.S. phytosanitary standards could well mean dousing farm workers in another country with insecticides. Similarly, meeting quality standards might involve the use of child labor.

These are pressing issues of considerable concern to various non-governmental organizations (NGOs), but also of concern to a significant percentage of the consuming public. As such, the private sector has begun to develop its own, often more strict and certainly better integrated, set of standards. Importantly, these standards now transcend the historical division of labor in setting standards. It is to these that we now turn.

The Rise of the Private Regulatory System

The profound changes wrought by the formation of the WTO have concealed what may be far more profound changes occurring outside the system of public regulation of markets. In particular, the trade regime introduced by the WTO permitted—indeed, encouraged—large supermarket chains to become truly global in scope. Those retailers already operating across national borders began to seek out new markets more aggressively. Still other chains began to look beyond national borders for the first time (Hendrickson et al. 2001). Most of the larger chains have used a combination of strategies. On the one hand, they have increased the number of stores, opening new ones in nations previously outside their sphere of operations. For example, the French chain Carrefour has opened stores in Poland. On the other hand, the large chains have bought (all or part of) smaller ones, allowing and even encouraging them to operate under their original name. Thus, Royal Ahold now owns 50 percent of La Fragua supermarkets in Central America. Moreover, as these retailers have increased in size, they have begun to promulgate their own private regulations, both individually and as a group.

The Shift of Power from Processors to Supermarkets

In the past, food processing giants such as Nestlé and Heinz dominated the food industry. Such giants could and did set the terms of contracts with supermarkets, offering a range of branded products advertised directly to final consumers. Supermarkets were largely at the mercy of processors, who determined the content, sizes, and shapes of products. But during the 1990s supermarkets began to expand in scale such that the larger chains were able to exert market power over upstream actors. As they consolidated their gains, the balance of power shifted from the processors to the retailers (Marion 1998). Even the very largest food processors found that they had to accede to retailer requests, at least

for the very large retailers. For example, Proctor and Gamble now publishes a special supplement to their annual report that details their relationship with Wal-Mart. Similarly, Wal-Mart, now Mexico's largest food retailer, recently withdrew Danone yogurt from the shelves of its stores there for several months in a dispute over pricing (Smith 2002).

Furthermore, supermarkets have benefited at the expense of processors from several lifestyle and demographic shifts that have led to changes in consumer preferences. As a result of greater health consciousness on the part of some consumers, higher disposable incomes of middle class consumers, improved transportation and communication, and increased migration of ethnic groups outside their regions of origin, consumers have shifted some of their purchases from packaged goods to fresh and fresh-cut produce, fresh meat and seafood, storebaked bakery products, and fresh prepared foods (Martinez and Davis 2002; Reardon and Berdegue 2002). Such products are rarely branded, and have a far greater markup than packaged products offered by the food processing industry.

Also worthy of note is the degree to which retailers have avoided vertical integration, preferring instead to coordinate upstream actors without taking on the added risks of ownership (Marsden, Flynn, and Harrison 2000). This appears to be as true in Europe as it is in the United States.

Oligopolistic Competition and the Making of Consumer Demand

Food retailing globally has become more oligopolistic. This is as true in industrialized nations as it is in middle income countries (see Table 1). But even nations with relatively low per capita incomes have seen phenomenal supermarket growth. Kenya now sports two homegrown supermarket chains, Uchumi and Nakumatt, each with more than 20 stores ranging from neighborhood convenience stores to hypermarkets. Zambia, with a total population of 9.5 million persons now boasts more than 18 supermarkets (Giovannucci et al. 2001).

However, in conformity to the theory of oligopoly, supermarkets have not become less competitive as a result of edging out the competition (Dolan and Humphrey 2000). Rather they have shifted from price competition to nonprice competition where variety, convenience, quality, and year-round supply are as important or even more important than price. This shift away from price competition has been accompanied by greater use of contracting to supply quality, consistency, and year-round supply (Martinez and Davis 2002).

The new nonprice competition focuses in large part on the creation of demand. This, too, follows the theory of oligopoly. A leading firm will

Country	1993	1996	1999	2000
Austria	54.0	59.0		68.0
Belgium	60.0	62.0		66.0
Brazil		26.0		40.8
Denmark	54.0	59.0		76.0
Europe	13.8^{a}			26.0
Finland	94.0	89.0		89.0
France	48.0	51.0		61.0
Guatemala			94.0	$99.0^{\rm b}$
Germany	45.0	45.0		61.0
Greece '	11.0	28.0		38.0
Ireland	62.0	64.0		54.0
Italy	11.0	12.0		25.0
Netherlands	52.0	50.0		68.0
Portugal	36.0	56.0		52.0
Spain	22.0	32.0		50.0
Sweden	79.0	78.0		95.0
U.K.	69.5°	73.2	79.8	
U.S.A.		26.3		38.0

Table 1. Five Firm National Supermarket Concentration Ratios (%)

Sources: (ABRAS 1999; Agra Europe Ltd 2000; Dobson Consulting 1999; Foreign Agricultural Service/USDA 1999; Foreign Agricultural Service/USDA 2000a; Foreign Agricultural Service/USDA 2000b; Foreign Agricultural Service/USDA 2001b; Foreign Agricultural Service/USDA 2001b; Internal Market Directorate General 2002; Turcsik 2000).

Notes: a 1990 data; b 2001 data; c 1994 data.

add a new product to its product mix. Alternatively, it will provide a previously seasonal product year-round. Or, it will expand the range of products in its fresh produce section. Or, it will introduce an exotic fruit successfully. Supermarkets are constantly experimenting with new fresh and packaged products to entice consumers into their stores as well as to encourage repeat sales (Kaufman et al. 2000). In industrial nations, supermarkets put 30,000 new products on store shelves annually, although most fail (Food Marketing Institute 1998). But since the market is oligopolistic, supermarkets can and do copy each other with extraordinary rapidity. An innovation that is successful in one chain will soon be copied by others.

This shift has also been aided and abetted by declining transport costs. Air transport costs have been reduced sufficiently that Kenyan "french" beans can now be harvested, washed, trimmed, packed in blister packs, bar-coded, and delivered to British retail shelves in less than one day. Moreover, for many products commonly eaten by consumers in industrialized nations, there are numerous sources of supply. All this serves to enhance the oligopsonistic character of fresh product markets.

Furthermore, the farmer share of the food dollar has declined and continues to decline. On average, across all farm products, farm gate prices now make up less than 20 percent of the retail price (Harris et al. 2002). Thus, even a 10 percent increase in the farm gate price of a given commodity is only likely to result in a retail price increase of <2 percent. As a result, more than ever, supermarkets are likely to value quality and consistency of supply over price, at least within a certain range. Moreover, price cutting is likely to be far more successful when applied to brokering, packaging or transport costs, or elimination of spoilage and waste, than when applied to the farm gate price.

Increased scale has permitted supermarkets to shift from sourcing through multiple brokers toward employing a single broker to engage in all buying or to directly sourcing all products themselves (Economic Research Service 2000). It has also encouraged supermarkets to contract directly with suppliers rather than relying on spot markets for desired products (Martinez and Davis 2002). In a particularly ironic move, this is making price competition among farmers more difficult, since such competition depends on publicly available prices. Even price data long collected by government agencies such as the Agricultural Marketing Service is now suspect. In many cases, public markets are what economists call "thin markets." That is, they reflect only the price of the uncontracted product still traded in a spot market. Such prices can be far removed from and uncorrelated with the prices of similar products grown under contract. Small farmers have voiced concerns that with the shift away from spot markets towards contracting spot market prices become "more vulnerable to manipulation and volatility as fewer buyers and sellers account for a larger percentage of the trade" (Martinez and Davis 2002:33).

Thus, the oligopolistic structure of the retail sector has not resulted in declining competition as much as it has shifted the nature of competition away from prices toward nonprice competition based on service, convenience, variety, quality, and consistency of supply. Therefore, despite its oligopolistic structure, profit margins in food retailing remain low.

⁴ One profound effect of this shift is the end of price market data upon which neoclassical economics is based. Regardless of one's position on the neoclassical approach, it is clear that (1) the market structure of the agrifood sector is becoming overwhelmingly oligopsonistic, no longer conforming even approximately to the neoclassical model, and (2) without access to price data other than at the retail level, upstream markets will not clear as supply and demand converge. Even as actors within a given supply chain come to understand the operation of the chain and their role in it, no one will have access to information across supply chains; that information is essential for market pricing to take place. But that is the subject of another paper.

Branding: A Two-Edged Sword

As stores have grown in size, retailers have begun to develop their own brands. Branding is relevant in two ways. First, branding substitutes for more detailed information about quality in retail stores. Branding may provide information to consumers about pricing strategy, cleanliness and attractiveness of stores, as well as of unbranded merchandise in those stores (e.g., fish). Second, store brands may compete directly with food processors' brands. In much of Europe, private labeling has gone much further than in the U.S., with private labels often occupying more shelf space than national brands. In Britain, for example, Marsden et al. (2000) report that 50 percent of packaged goods were private labeled by 1995.

However, private labels cut both ways. On the one hand, private labels can be a means of enhancing customer loyalty, even while increasing the share of value remaining at the retail level. On the other hand, private labels can be a source of loss in the event of a failure to meet consumers' expectations. For example, a *Salmonella* outbreak in store-branded meat will be seen by consumers as the responsibility of the store, while the same meat with a processor's brand will be seen by consumers as the responsibility of the processor. Thus, retailers who use their own brand are likely to be particularly conscious of production standards.

Shaping the New Private Regulatory System: The Role of NGOs

At the same time, branding has increased the vulnerability of retailers to a wide range of NGO and consumer concerns—from food safety and quality to environmental, labor, and animal welfare issues. Some NGOs have expressed dismay that public institutions are proving to be inadequate for improving standards in these areas. Consequently, many social activists are taking their concerns regarding current agrifood practices directly to those corporations deemed responsible.

One key strategy is for NGOs to target their protests at highly visible retailers with direct links to consumers, such as Starbucks, McDonalds or Wal-Mart. In this way, they hope to turn "the power and vulnerability of corporate brand names to their advantage" (Gereffi, Garcia-Johnson and Sasser 2001:64). In response, corporations are implementing standards and certification programs that are designed to ensure that both they and their worldwide suppliers are meeting particular "codes of conduct, production guidelines, and monitoring standards" (Gereffi et al 2001:56).

For example, in 1999, protests by animal rights activists led McDonald's to introduce audits designed to ensure more humane

animal handling and stunning practices from their meat suppliers. Wendy's, Burger King, and retailer Safeway are further examples of companies compelled to follow McDonald's example after being targeted by animal rights activists. Furthermore, in 2000, a campaign by thousands of activists pressured Starbucks Corporation into carrying fair trade coffee beans, which pay above market prices to small farmers (Gereffi et al. 2001).

Concerned that globalization and market liberalization are encouraging greater social and economic inequality, as well as environmental destruction, NGOs have turned to fair trade and ethical trade initiatives. Here, NGOs work to develop private certification and labeling programs that are adopted by corporations who want to participate in fair trade or ethical trade (Blowfield 1999; Murray and Raynolds 2000). For example, the Rainforest Alliance (RA), a U.S.-based environmental NGO, initiated certification programs for bananas. In 2000, Chiquita announced that all of its Latin American banana plantations were certified by RA's "Better Banana" program (Chiquita Brands, Inc. 2003). In 1996, the World Wildlife Foundation and Unilever announced the creation of the Marine Stewardship Council (MSC), which certifies whether fish products were caught in a sustainable manner. Major U.K. food retailers, fishing companies and associations, and prominent environmental and conservation organizations support the MSC (Constance and Bonanno 2000).

Thus, campaigns by NGOs have played a key role in shaping new private regulatory schemes that have emerged. Individual firms and private associations have adopted a variety of initiatives, since they recognize that the revelation that products sold by them were (1) picked by child labor or highly exploited adult labor, (2) involved unnecessary suffering and/or inhumane treatment of animals, (3) resulted in environmental degradation, or (4) were of questionable safety, could easily result in a drop in retail sales throughout an entire supermarket chain. Given the fierce competition, loss of even a small percentage of customers can mean the difference between a positive and a negative bottom line.

The New Responsibility: Eurepgap, CIES, etc.

With respect to group initiatives, consider Eurep, an association of European supermarket chains that has announced its intention to require all suppliers to meet quality, safety, environment, and labor standards that are superior to those required by governments (EUREP 2002). Under the rubric of "Good Agricultural Practices" (GAP), Eurep members will endeavor to certify that all their suppliers conform to

these stringent regulations. Similarly, CIES, an international association of supermarkets, has begun to implement its own "Global Food Safety Initiative" (CIES 2002). In addition to ensuring that food on supermarket shelves is safer, the initiative promises to reduce the cost of monitoring and certification by harmonizing dozens of national food safety systems long before legislators can do so under the rubric of the Codex Alimentarius or WTO. Yet another initiative is the Comité de Liaison Europe—Afrique Caraïbes Pacifique (COLEACP), a quasi-governmental initiative of European Union exporters, importers, and other stakeholders (COLEACP 2002). COLEACP has as its mission the reduction of pesticide residues on imported fresh products. While the rules were promulgated by the EU, their application is largely in private sector hands.

While these initiatives are driven as much or more by concern for the bottom line as for responsiveness to NGO and consumer demands, they are nevertheless having a profound effect on the entire food chain. The kind of outright exploitation that is easy to maintain when food is bought and sold in anonymous spot markets is—ironically—more and more intolerable in oligopolistic markets.

Third Party Certification

But effective private standards will require third party certification. Producers are unlikely to police themselves, while retailers do not wish to be bothered with this complex but necessary chore. At the same time, direct certification by retailers puts the onus on the retailers themselves should problems emerge. Thus, third party certification is fast becoming the norm in food retailing (see, e.g., Henson and Northen 1998). Whereas in the past only government inspectors checked food, and usually only for the safety of products, private certifying firms have since emerged to engage in custom-designed audits for their multinational customers. Audits may concern food safety (e.g., Codex standards, Codex Alimentarius 2003), food quality (retailer or processor standards), Good Agricultural Practices, Good Manufacturing Practices, and/or Good Handling Processes (e.g., ISO 9000 series standards, International Organization for Standardization 2002), labor practices (e.g., SA 8000, Social Accountability International 2002), and/or environmental standards (e.g., ISO 14000, International Organization for Standardization 2002).

Two global accrediting bodies have emerged, the International Accreditation Forum, Inc. and the International Auditor and Training Certification Association (IATCA), both of which accredit national programs. These national programs, in turn, accredit individual

certifying firms that actually conduct the audits. Such audits can be relatively brief and narrow or highly comprehensive. Failure to pass an audit may mean a warning; repeated failure may mean the loss of a contract with a retailer or processor. There are few means of appeal of such audits in most instances. Moreover, most auditing firms are based in the industrialized world. Auditing is expensive, as auditors must be flown in at great expense. There is a desperate need to create auditing firms and train auditors from developing nations.

From Public to Private Regulation

In short, the private sector has jumped ahead of the public sector, substituting consumer demand for citizen demand, market accountability for governmental accountability (Marsden, Flynn, and Harrison 2000). While it has hardly rendered public regulation obsolete—public regulation remains the foundation of private regulation—it is proceeding at a far faster pace and is much broader in scope. Moreover, unlike public regulation, which must be approved at several layers of government and is often given the force of law, private regulation requires no such procedure. Furthermore, private regulation relies on the market for its enforcement. Put differently, commodities that do not meet the private standards are not bought, or are bought at sharply discounted prices. Thus, not meeting the private standards is often tantamount to bankruptcy.

For example, New Zealand's Ministry of Agriculture and Fisheries (MAF) believed that the Sanitary and Phytosanitary Agreement would benefit the country's export meat industry by facilitating the internationalization of standards. Meat processors would no longer have to replicate, for example, U.S. or EU sanitary systems for exports because the New Zealand risk management standards program would be recognized as delivering the same level of health protection (Ministry of Agriculture and Ministry of Foreign Affairs and Trade 1997). However, MAF's optimism is not widely shared by meat industry leaders who believe that international food safety standards are becoming more detailed and more stringent, particularly in the private sector. Some argue that there is no common agreement on what "equivalent" standards would look like (Butler 2001), and since their customers can readily turn to other suppliers willing to meet these demands, New Zealand's opinion regarding equivalence is almost beside the point. For example, Burger King, a major U.S. client for New Zealand, requires that all meat produced for them be sampled for E. coli by an independent third-party testing agency. This is despite the claim by New Zealand companies that the country does not have high enough levels of these bacteria to actually warrant testing, and that they have a sophisticated, national microbiological database that statistically supports their assertion (Davidson 2001).

Farmer Activities

Farmer-led Standards

Increasingly, some producers have viewed the growth in private regulations as an opportunity to expand market share by developing their own initiatives to meet standards. For example, since the mid-1990s, increasingly rigorous grades and standards regarding fruit appearance, quality, the environment, and packaging demanded by retailers have led to major transformations in the New Zealand apple industry. While its output is relatively small, New Zealand is a leader in supplying the top end of the retail market in North America, the EU, and Japan with premium apple varieties. The New Zealand Apple and Pear Marketing Board (ENZA) argues that the introduction of total quality management (TQM) schemes is fundamental to meeting the demands of retailers. They recognized that traditional end-of-line inspection was no longer sufficient to meet such diverse quality standards and that instead quality must become the responsibility of every actor throughout the entire commodity chain (Perry et al. 1997). Since TQM systems require the organization of production to meet "customer-identified specifications," cooperative relationships between producers and the retail chains are necessary to ensure that producer standards meet the expectations and specifications of the individual buyers (Perry et al. 1997). Through this process, exporters are expected to move towards standards that are market-specific rather than toward a generic model (Le Heron and Roche 1996).

Strategic Alliances

Partly in response to growing concentration in the retail sector, producers are shifting their strategies as well. Whereas primary product producers were once of one mind with respect to foreign competition, numerous farms and firms have now broken ranks and have formed strategic alliances with producers in other locations so as to compete effectively in providing retailers with a year-round supply of consistent quality.

For example, in 2000, ENZA joined forces with Geest Worldwide Fruit. This alliance allows the group to harness a wide range of produce, particularly from Chile. Their goal is for Geest's apple and pear businesses in France, Italy, and North America to complement the New

Zealand summer season so that they can offer a 12-month procurement capability to their customers backed with their expertise in category management (The Grocer 1999a). The New Zealand grower-owned company, Zespri International, has likewise declared that year-around marketing is not an option. The company has aligned itself with Chiquita in Chile, together with Italian growers, to provide the European and American market with kiwifruit during New Zealand's off-season (National Restaurant Association 1999; The Grocer 1999b). Similarly, Ocean Spray now markets Spanish clementines in the U.S. and North Bay Co-op, a Michigan farmer organization, has members in Latin America.

Of course, not all producers or producer organizations have been equally enthusiastic about expanding global markets. Some populist producers, such as José Bové in France, have rallied farmers and consumers against the globalizing trends. However, opportunities proffered by the global market for some producers make it unlikely that the once solid farm bloc will long endure.

The Private Regulation of the Public

Yet another twist in the emerging global agrifood system is the private regulation of the public sector. As noted by Scott (2002), such regulation is not new, but it is becoming commonplace worldwide. It is often subtle or even hidden from the public eye. Such regulation ranges from credit ratings for governments, to accreditation of public universities, to monitoring for compliance with legal regulations. Marsden et al. (2000) have recently illustrated its importance in the British retail food industry, as the large chains influence public regulation in their attempt to position themselves as the defenders of consumers. Such direct private influence is both a matter of ensuring that public standards adopted do not reduce profits by imposing what retailers see as burdensome requirements and of using such standards to block competition. And, when the public standards appear inadequate based on marketing surveys, retailers can simply prohibit what has been approved by the state. Retailer prohibition on irradiation of fresh produce in both the U.S. and the U.K. is one example of such an action. The lead role that McDonald's took in Britain in banning the use of British beef in the face of Bovine Spongiform Encephalopathy (BSE) is another clear case of private regulation of the public (Marsden et al. 2000).

Similarly, in a very real sense, COLEACP (noted above) is an example of such a private regulator of government agencies. It regulates products exported from developing nations to ensure that they meet EU rules—independently of the EU's ability to monitor and enforce

such standards. Furthermore, every time an industry association develops a code of good practice, the courts equate it with acceptable practice. As such, it is likely to be used in litigation, usually by the plaintiffs. Moreover, very often such regulation is quite different from public sector regulation in that creation of the rules, monitoring, and enforcement are all found in the same private body.

The Accountability Problem

A critical dimension of this transition from public to private regulatory schemes in the agrifood system is the problem of accountability. There are two levels on which this is played out.

Who Will Guard the Guards?

Much of the developing agrifood system depends on the effectiveness and impartiality of third party auditors. If done correctly, such audits can be good for everyone in the supply chain, benefiting each actor by making it clear what the rules are. However, the potential for cheating, bribery, corruption, and other chicanery cannot be overstated. Given the physical distance between buyers and sellers, the potential for damage during transport, and the considerable sums at stake, there will be considerable incentives to cheat. These incentives will be tempered somewhat by the need to maintain long-term relations, but they will nevertheless be there.

Stakeholder Representation

Equally problematic in the shift to the private sector is the lack of democratic procedures in establishing standards. Ironically, although improved standards are driven in large part by NGO and consumer concerns in industrial nations, few mechanisms exist for engaging citizens or consumers in designing those standards. Even fewer mechanisms exist for including developing nation stakeholders in the standards design, monitoring, or evaluation process.⁵

This lack of representation has several important implications. First, the proliferation of private standards allows companies to be selective about which standards they wish to follow. For example, the Rainforest Alliance emphasizes the importance of environmental standards but is less concerned with social issues. When standards were set for the Better Banana program discussed above, unions were excluded from the initial meetings and were only invited to subsequent meetings after the

 $^{^5}$ One partial exception is Devco, the special committee of the ISO responsible for addressing special concerns of developing nations.

standards were developed (Murray and Raynolds 2000). Consequently, independent representation for workers on banana plantations through organizations such as unions is not required, nor are basic conventions of the International Labour Organization necessarily upheld (Murray and Raynolds 2000). This is problematic since representation by NGOs, including unions, helps to ensure that companies are not only accountable to their shareholders and customers but also to their employees and the broader community in which they operate (Blowfield 1999).

A second important implication is that developing countries have a great deal to lose if they are not parties to negotiations regarding standards. The problem is not only the paternalism involved but that standards that simply "reflect the values and concerns of Northern companies and consumers" can potentially do great harm to producers, farm workers, and businesses from developing countries (Blowfield 1999:767). For example, the desire for particular food quality standards by European consumers and retailers, such as pineapples that are golden and ripen quickly, has led to the overuse of chemical inputs on pineapple farms in Ghana (Blowfield 1999). Similarly, conflicts of interest have arisen over food safety standards. For example, one recent study found that a more stringent standard for aflatoxins on peanuts imported into Europe could cost African nations \$670 million in lost revenues (Otsuki, Wilson, and Sewadeh 2001).

Thus, the content and effectiveness of private standards and auditing programs will reflect the degree to which various stakeholders are included in the design, implementation, monitoring, and evaluation processes. Some observers have argued that because certification and audit procedures remain an imperfect tool, there will continue to be a necessary role for governments and international organizations in assuring corporate responsibility, especially as trade liberalization on a global scale continues (Gereffi et al. 2001).

Conclusions

Regulation theorists have contributed to sociology of agriculture studies by demonstrating that one cannot conceptualize the agrifood system separately from the broader processes of economic development and capital accumulation. Importantly, this perspective concentrates on the role and transformation of economic and noneconomic social relations in stabilizing capitalist accumulation, rather than on abstract economic laws. In other words, the social reproduction of capitalism is never guaranteed, but must be continually secured through a range of norms, social networks, institutions, and forms of organization "which ensure

the reproduction—through stabilizing and ameliorating conflicts—of a particular pattern of consumption and regulation" (Flynn and Marsden 1995; Goodwin, Cloke, and Milbourne 1995). In doing so, regulationists challenge the assumption from neoclassical economics that capitalism is simply reproduced through the laws of supply and demand.

In examining how regimes of accumulation are stabilized and reproduced, regulationists have focused on an analysis of regulation and the nation-state. Their primary concern is with the rules and practices of the state and how changes to these practices impact and reshape the agrifood system. Yet, a focus on nation-state regulation is no longer adequate in light of the growing influence of the private sector and new forms of private institutions in shaping the global agrifood system. While regulationists have argued that the dominant role of the state in establishing regulations has changed, there is a tendency to use oversimplified binary concepts of Fordism and post-Fordism to explain this shift. Inherent in these concepts is the view that each mode of regulation is institutionally coherent (Page 1997). From this perspective, we have simply moved from a Fordist regime of state regulation and institutions to a post-Fordist regime exemplified by state deregulation.

In contrast, we have argued that the rise of private regulatory forms is emerging out of a process of both public and private re-regulation and that these changes are occurring at both the global and national level. In particular, we have outlined how the establishment of new global rules, regulations, and institutions implemented by the WTO both facilitated the ability of private actors, such as supermarkets, to consolidate and expand internationally and encouraged the private sector to develop its own regulatory mechanisms. As a result of these changes, food retailing has become more oligopolistic, and its strengthened position has allowed it to exert market power over upstream actors within the commodity chain through the enforcement of new private institutions, such as standards and contracts.

Regulatory practices and institutions are, thus, more complex than concepts of Fordism and post-Fordism allow for. As Flynn and Marsden (1995:1186) argue, "regulation may be formalised through the enactment of legislation" or it may be "established socially through sets of social [and economic] practices, backed up by political and/or economic power." Any assessment of the global agrifood system today must consider the ways that re-regulation has allowed private interests to replace or contest "the traditional public custodians of regulation" at both the local and international level (Flynn and Marsden 1995:1190; Goodwin et al. 1995).

Neo-regulationist and convention approaches provide a more grounded means for assessing some of the key mechanisms of how processes of re-regulation are occurring. From this perspective, quality rather than price or quantity is the basis around which production, commodities, and markets are increasingly organized. As food retailers become more oligopolistic, quality provides the necessary foundation for nonprice competition. This framework has allowed us to focus on how the establishment of new rules, conventions, organizations and institutions are essential to the reorganization of economic relations based on quality. Here we have emphasized and analyzed what we consider to be the most significant changes in agrifood commodity chains. These include the introduction of private standards for food safety and quality, the development of private labels and branding by retailers, the shift from spot markets to direct contracting, the implementation of third-party certification systems, and the development of new organizations responsible for establishing and monitoring many of these new institutions.

We conclude that standards, contracts, audits, or labels cannot be dismissed as merely objective technical or economic devices. Rather, they play a fundamental role in reconfiguring social relations. In response, producers, consumer groups, and NGOs are considering new alliances and organizing new strategies both globally and locally to meet the challenges posed by these transformations in the agrifood system. Many export-oriented agrifood producers have recognized for some time that the greatest challenge they face is not the rules and regulations of the WTO but the diverse and increasingly specific requirements of their customers. The struggle to meet these demands is producing both winners and losers, as actors who are unable to meet the new and more rigorous retail standards are excluded from the market. Certainly, the shift from public to private standards poses particular challenges for small producers, especially from developing countries. These producers often do not have the institutional, technological, or infrastructural capabilities to easily make the necessary changes.

Recognizing that the power of private branding and contracting also makes businesses vulnerable, NGOs are playing a key role in shaping new private regulatory schemes. Traditionally, consumer groups and NGOs have directed many of their grievances toward governments. However, as campaigns around animal welfare, Genetic Modification labeling, and fair trade coffee illustrate, many of these activists are reworking their strategies. They recognize that it is often more effective to focus their actions and demands directly at those businesses that they perceive to be responsible, rather than the government. Campaigns from NGOs around these issues have led to entire retail or fast-food

chains, and organizations such as CIES and EUREP, adopting new standards that reflect these demands. At times, these changes have led to a sweeping reorganization of the relevant commodity chain.

Supermarkets (and fast-food chains) want to be seen as more responsive and effective at addressing public concerns than government bodies. In portraying itself as the leading advocate of consumer interests, the private sector hopes to remove itself from the front line of any negative publicity that emerges concerning food safety, environmental, or other food-related crises. At the same time, retailers are eager for government-imposed standards and regulations to remain minimal by demonstrating to both the public and government bodies that they are capable of policing themselves. Such responses have encouraged some commentators (see Grandin 2001) to argue that private interests now play a positive role in setting standards.

While it may be true that the private sector has acted where governments have failed to do so, the growing shift in standards setting and enforcement from the public to the private arena is problematic. Standards are pervasive; therefore, debates surrounding their content and their organization have import for our lives not just as consumers but, more importantly, as citizens. Consequently, issues of transparency, ethics, democratic participation, and accountability are fundamental to all discussions concerning the shift from public to private standards.

In this article we have provided an overview of how the expansion and consolidation of food retailers and the shift towards private standards are dramatically reshaping social, political, and economic relationships on a global scale. Industries are being reorganized, new alliances among producers and between producers and retailers are being forged, and novel institutions, such as third party certifiers, are being constructed. At the same time, the ascendancy of the private sector in domains long viewed as belonging to the public sphere, such as food safety or environmental stewardship, could not have been imagined a decade ago. Government accountability for the needs and demands of its citizens is being replaced by market accountability for consumer demands. However, most research on agrifood systems remains focused on the WTO as the primary instigator and mediator of global change regarding trade relations. Consequently, much of the empirical analysis of how food retailers are reshaping social relations and what the consequences are for various stakeholders has only begun to be addressed.

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