

## **Certification as a Mode of Social Regulation**

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Certification of products and companies has long been used as a signal of quality, but its transformation into a mode of social regulation is more recent. Over the past two decades, a range of initiatives has emerged to certify conditions in global supply chains, typically addressing environmental sustainability, labor conditions, human rights, or some combination of these. This includes early and influential programs like organic, Fair Trade, and Forest Stewardship Council (FSC) certification, a second wave of programs like the Marine Stewardship Council (MSC) and Social Accountability International (SAI), and a seemingly endless array of newly emerging initiatives, focused on shrimp farming, cocoa production, palm oil, and many others. Such initiatives are typically privately organized and supported by coalitions of NGOs, firms, and foundations, though they are also profoundly shaped by governments. Industry associations have also developed their own certification initiatives, such as the Sustainable Forestry Initiative (SFI) and Worldwide Responsible Apparel Production (WRAP) systems, or have added certification to prior initiatives, like Responsible Care in the chemical industry.

The proliferation of certification and labeling initiatives has led some observers to worry about confusion among consumers and “certification fatigue” among companies. Yet the growth of certification also raises important questions for scholars of regulation

and transnational governance. Why has this form emerged across so many industries? Under what conditions can voluntary, privately operated certification initiatives gain governing authority? Does the rise of certification complement or “crowd out” other forms of regulation?

This chapter sheds light on these questions by discussing the character, emergence, evolution, and impacts of certification as a way of addressing the environmental or social conditions of production. It begins with a discussion of certification as a regulatory form, considering its linkages to other modes of “regulation by information,” market-based tools, and private governance. It then turns to questions about certification’s emergence and evolution. Finally, the chapter considers certification’s impacts “on the ground,” showing that the relevant mechanisms of influence are varied in type but often limited in consequence. In general, this chapter suggests that certification systems are more intertwined with states and less straightforward in their effects than many previous discussions imply.

### **Certification as a regulatory form**

While companies may make a variety of claims about environmental or social responsibility, the most credible way to do so is through third party systems that set standards, require external monitoring, and certify compliance. Most commonly, this occurs through an association that develops standards, accredits auditors and grants the use of its certification mark or consumer label. The central contention of this chapter is that certification is not merely—or even primarily—a signal for consumers. It is a mode of regulation, being put to use by various NGOs, governments, and industry bodies. This is not to suggest that certification carries the authority, coercive power, or legitimacy of

state regulation. In most instances, certification is voluntary and administered by private bodies—often competing for credibility and recognition—that depend on the support of firms. The authority of certification is broader but patchier than that of states and based on a logic of “one dollar, one vote” rather than the “one person, one vote” logic of democratic citizenship. There are numerous examples of certification systems that are lax in standards or weak in enforcement, as well as evidence that even the most credible programs often fail to significantly improve conditions “on the ground” (Seidman 2007).

Still, calling certification a mode of regulation recognizes that it involves standards that are often precise and prescriptive, plus rationalized procedures for assessing compliance. Furthermore, certification initiatives’ structures for setting standards, enforcing compliance, and adjudicating disputes have evolved to look strikingly similar to state and legal structures (Meidinger 2006). In some countries and supply chains, certification systems have gained substantial, albeit partial, governing authority (Cashore, Auld and Newsom 2004), and at the transnational level, they have intertwined with state-based actors to generate hybrid fields of governance (Djelic and Sahlin-Andersson 2006). To make sense of certification, one must consider broader trends in regulatory theory and practice, which have gone beyond the administrative procedures characterized (usually derisively) as “command and control.” This includes a number of experiments that use markets, information, deliberation, and “soft law” as regulatory tools (Schneiberg and Bartley 2008).

Calls to make regulation “market-based” have motivated a variety of policy proposals, from the strengthening of property rights to “cap and trade.” Certification is market-based in that its power to affect behavior derives mainly from market demand.

This may come from end consumers practicing “political consumerism” (Micheletti 2003), but also from retailers promoting a particular brand image, procurement or licensing policies of institutional actors (e.g., governments, universities) (Seidman 2007), or socially responsible investors. In any case, the “price” of non-compliance is set by market forces, not by administrative authority. Certification does not embrace market mechanisms as fully as cap and trade, which uses markets not only to set the price of pollution but also to identify the most efficient ways for firms to improve their performance. Because certification initiatives set particular performance standards, they rely on market forces while also inserting alternative “conventions” (Renard 2003) or “orders of worth” (Boltanski and Thévenot 2006) based in some non-market form of expertise or morality.

Certification also resonates with ideas about “regulation by information.” Scholars are increasingly investigating the effects of disclosure, reporting, and public rating, whether related to pollution (García, Afsah and Sterner 2009), financial markets (Rona-Tas forthcoming), or universities (Espeland and Sauder 2006). As Fung et al. (2007) point out, what information-based initiatives have in common is that the application of rewards and penalties is left to external audiences, which can include not just consumers, but also citizens and advocacy organizations. Viewing certification in this light suggests that its enforcement might happen not only within markets but through political and legal mobilization. Yet unlike programs that disclose relatively “raw” data or grade performance on some scale, certification typically reveals an aggregated, discrete judgment. And in contrast to *mandatory* disclosure initiatives, certification only generates “positive” information on firms that choose to participate and meet the

standards. For both of these reasons, certification is a very circumscribed form of regulation by information. If standards or auditing are especially lax, certification may even generate “disinformation” in the form of “greenwash” labeling.

Social and environmental certification initiatives are also types of voluntary programs—though unlike some, they include auditing and public recognition of compliance. As in all voluntary programs, whether publicly or privately run, firms must have some incentive to join, which creates a tension between stringency and participation (Potoski and Prakash 2009). Furthermore, since most certification programs are privately run (with the exception of government sponsored ecolabels), they face challenges of establishing authority while still garnering support from firms (Cashore, Auld and Newsom 2004). Combined with the fact that participants can easily exit and develop their own standards (discussed later in this chapter), this sets up a complex politics of credibility (Boström 2006).

Scholars sometimes refer to certification as “soft law.” Though certification lacks “hard” enforcement powers, calling it soft law is in many respects misleading. The core idea behind “soft” forms of governance is that behavior can be affected by stimulating informal social pressures, deliberation, and learning within the community of the regulated (Schneiberg and Bartley 2008). Often, this means jettisoning “standards” in favor of guidelines and evolving systems for peer review and benchmarking. In contrast, certification systems tend to embrace standards and develop detailed indicators for auditing. In this sense, they depart from soft law’s focus on dialogue among firms, though some certification associations might use collective deliberation to revise their standards over time.

In sum, certification resonates with a range of ideas about how markets and information can be used as regulatory tools, as well as broader shifts toward voluntary programs and private governance. Yet ideas alone did not spawn certification, and its impacts may be far different than what advocates of regulatory innovations suggest. The next sections examine the history and ascendance of certification, as well as its evolution and potential consequences.

### **The rise of social and environmental certification**

Social and environmental certification is not entirely new. Progressive-era activism over tenement sweatshops in the US led to the National Consumers' League "White Label," which certified garments "made under clean and healthful conditions" from the 1890s to early 1920s (Sklar 1998). This gave way to the "union label" promoted by American organized labor in the mid-20<sup>th</sup> century (Frank 1999). Consumer watchdogs that emerged in the 1920s—such as the forerunner to *Consumer Reports*—initially included labor standards in their ratings of products, though this later got sidelined by an "impartial testing" approach focused narrowly on quality (Rao 1998).

For the most part, certification efforts in the 20<sup>th</sup> century focused on product quality, safety, or technical standards. The Underwriters Laboratories (UL) label signified electrical safety for the American market (Cheit 1990)—as did similar certificates in other countries. The International Organization for Standardization (ISO), founded in 1947, promoted certification to a wide range of technical standards to facilitate global trade (Murphy and Yates 2009). In one move toward the expansion of certification into new terrain, the ISO began developing standards for management

systems (ISO 9000) in the 1980s and for environmental management systems (ISO 14001) in the 1990s.

The current wave of social and environmental certification purports to go beyond management systems, however, to assess whether practices “on the ground” conform to standards for sustainability or social justice. Much of the inspiration for this wave came from organic agriculture. As a movement of farmers, organics can be traced to the 1930s, but it was in the 1970s that *certification* of organic food began in the US and Europe (Guthman 2004) and standards began to be developed by the International Federation of Organic Agriculture Movements (IFOAM). Government sponsored ecolabels also began to emerge in the 1970s, starting with Germany’s Blue Angel label (Gulbrandsen 2005). Fair Trade certified coffee and bananas first came on the market in the late 1980s, as a result of partnerships between Northern activists and farmers in Central America, and drawing on an older tradition of alternative trading organizations (Jaffee 2007; Linton, Liou and Shaw 2004).

With organics, Fair Trade, and various government eco-labels as partial models, a major wave of certification arose in the 1990s, with the founding of programs like Rugmark, the Forest Stewardship Council, Social Accountability International, Marine Stewardship Council, and Marine Aquarium Council. It is this wave of certification that has most captured the attention of social scientists. Scholars tend to agree that the rise of certification is in some fashion a response to the globalization of production and consumer concerns about exploitation. But beyond this baseline, attempts to explain the emergence of certification tend to follow two different tracks.

One style of answer is rooted in theories of self regulation and private ordering among firms (King, Lenox and Terlaak 2005; Prakash and Potoski 2006), drawing inspiration from institutional economics and public choice theory. By this account, certification is a solution to information asymmetries and collective action problems, which arise via activist “naming and shaming” of firms as well as consumers’ interest in “shopping with a conscience.” As activists put companies in the spotlight for exploiting workers or ecosystems, companies begin to make a variety of claims of social or environmental responsibility. Conscientious consumers may be interested in supporting responsible companies but find it difficult to assess the accuracy of their self-serving claims. Given this information problem, the market for responsible production is expected to fail unless credible systems of certification can be created to separate the “wheat from the chaff” (Akerlof 1970; Viscusi 1978). For their part, companies face collective action problems that certification has the potential to solve. In particular, theorists of the “reputation commons problem” (King, Lenox and Barnett 2002) and similar accounts of reputation (Potoski and Prakash 2009), argue that naming and shaming campaigns leave entire groups of companies “tarred by the same brush.” One way to address this problem is to construct external systems of certification. These can distinguish the good apples from the bad, provide “club benefits” to firms that contribute to an improved reputation, exclude free riders, and stabilize competition among leading firms (Potoski and Prakash 2009; Spar and Yoffie 2000)

A second theoretical account views certification less as a solution to problems in the market and more as a political settlement and institution-building project (Bartley 2007b; Cashore, Auld and Newsom 2004). Here, following Polanyi (1944), markets are

seen as deeply embedded in social structures and unlikely to self-regulate effectively. The pressures to re-embed markets in social relations that have typically generated state regulation are increasingly giving rise to private certification initiatives (Guthman 2007; Reynolds 2000), as a result of political challenges being mobilized, channeled into particular arenas (i.e., markets), and crystallized into institutional arrangements. As social movements demand standards that can somehow regulate global supply chains, questions arise about the appropriate arena. Standards can conceivably be institutionalized in national governmental regulations or in inter-governmental agreements or organizations (e.g., trade agreements, UN, WTO). Yet the strategies of states and NGOs in a context of neoliberalism have tended to channel regulatory politics over international labor and environmental standards to the private sector (Bartley 2007b). Unlike governments, private certification initiatives are relatively immune to WTO restrictions on non-tariff barriers to trade (Bernstein and Cashore 2004). Private efforts have also been perceived by many NGOs as a way to bypass political roadblocks (Cashore, Auld and Newsom 2004; Seidman 2007) and by many powerful governments as consistent with a neoliberal agenda. So by this account, the rise of certification results largely from a kind of forum-shifting by policy entrepreneurs, congealing into a relatively coherent institution-building project with support from government agencies and philanthropic foundations (Bartley 2007a).

As Bartley (2007b) shows, both theoretical perspectives can help to explain the rise of certification, though neither does so perfectly. The theory of certification as a solution to problems within markets explains why the coalitions that created several leading certification initiatives (like FSC and SAI) included groups of firms. And this

perspective can help to explain why private regulatory initiatives take different forms (i.e., certification instead of self regulation without sanctions) (Potoski and Prakash 2009). But this account tends to overstate the causal influence of capitalist collective action and consumer demand. Industry associations have often developed certification systems, but in nearly every case, this occurs *after* the development of an NGO-endorsed system in a particular sector. Substantial consumer demand more commonly follows than leads the formation of certification initiatives (Conroy 2007; Gulbrandsen 2006; McNichol 2006), though there is clearly variation between sectors (like coffee) where consumer demand grew rapidly and those (like forest products) where “market building” campaigns have struggled to stimulate consumers.

Political theories explain why NGO-endorsed programs were the initiators in most sectors. Furthermore, this perspective makes sense of the major role NGOs, governments, and foundations played in developing leading certification initiatives. WWF, for instance, became a key developer of the FSC following disappointments in the UN and other inter-governmental arenas. It went on to catalyze or cultivate a number of other certification initiatives, including the MSC, Marine Aquarium Council, and the Roundtable on Sustainable Palm Oil. European and North American governments provided important early funding for most forms of certification and have sometimes turned their procurement policies into key market drivers. On the other hand, this political account has less to say about the precise form that private regulation takes or the conditions under which firms and consumers might expand their participation in certification. Further inquiry can help to clarify the explanatory scope of these theories and consider ways of integrating them.

## **Competition and evolution**

The evolution of social and environmental certification has been dynamic and contentious. As described above, many sectors feature multiple, competing initiatives. Competition appears to be an inherent feature of private certification, since firms that are dissatisfied with one initiative can exit for a different program or start their own (Seidman 2007). Not surprisingly, competition between NGO-endorsed programs and those originating with industry associations has been especially intense. Competition between the FSC and industry-based programs like SFI and the Programme for the Endorsement of Forest Certification (PEFC) has led to public relations wars (e.g., “Don’t buy SFI” campaign), strained relationships in the conservation community, and a series of public comparisons of standards. Similar patterns of competition exist among labor standards initiatives (e.g., SAI, the Fair Labor Association, and WRAP) and increasingly in the coffee sector, where multiple initiatives certify fairness and sustainability (including Fair Trade, Rainforest Alliance, Utz Kapeh, and the Common Code for the Coffee Community).

Given the existence of competing programs, it would appear that certification would be plagued by a “race to the bottom,” leading to an overall decline in the stringency of standards. Yet at least two other trajectories are also possible. By some accounts, competition may breed a “ratcheting up” of standards, generated by credibility contests, or by learning and benchmarking in the world of certification (Sabel, O’Rourke and Fung 2000). In addition, it is possible for multiple programs to co-exist (without one undermining another), especially if the markets they target are segmented.

The conditions under which competition breeds laxity, ratcheting up, or market segmentation are not yet clear. However, it is clear that in at least some circumstances, competition has not undermined relatively strong standards. In forestry, the FSC was able to fend off industry-based challenges in some regions (especially those with export-dependent forest products industries, weak industry associations, and high degrees of public involvement in forest policy) (Cashore, Auld and Newsom 2004). Furthermore, public comparisons led industry-based programs to strengthen their standards over time (Overdeest forthcoming). While some fear that FSC's standards were watered down in the process (Rainforest Foundation 2002), it is at least clear from this case that competition need not produce a net decline in standards, though it might facilitate a "race to the middle."

Evidence from other sectors suggests that a "ratcheting up" of standards may not always translate into improvements in implementation. While best practices for labor standards auditing and certification have arguably improved over time—consistent with Sabel et al's (2000) account—initiatives in this sector have also increasingly struggled with audit fraud, falsified records, and recalcitrance (Locke, Amengual and Mangla 2009). This reminds one that standards "on paper" and norms in the certification community may be strengthened over time without necessarily generating improvements at the point of production.

Conflicts over credibility in the world of certification have also bred a variety of meta-standardization activities, that is—standards for the standard-setters and higher level certification of the certifiers. This includes the ISO 65 standard for certification systems themselves and umbrella groups like the International Social and Environmental

Accreditation and Labelling (ISEAL) Alliance. Such initiatives appear to be facilitating both greater interconnectedness among certification initiatives and greater homogeneity in their organizational form (Bartley and Smith 2008). This kind of meta-standardization (or what organizational theorists might call “ISO isomorphism”) signals the crystallization of certification as a mode of regulation, though it also poses difficulties for implementing certification equitably across diverse local settings (Mutersbaugh 2005).

### **Impacts of certification**

Serious questions remain regarding the consequences of certification initiatives. Are their impacts, transformative, marginal, or non-existent? How are standards “on the books” put into practice? Might certification have unintended, perverse consequences? The research literature is too undeveloped to offer full answers to these questions. However, it is clear that the transformative power heralded by many champions of certification and political consumerism is both over-simplified and over-stated. Far from transcending socio-economic conflicts, power struggles, and governance failures, even the most credible certification program’s operation is deeply influenced by configurations of power and interest at the local, national, and transnational levels. In one striking example, Ponte (2008) shows how MSC certification in South Africa was appropriated by white-owned fishing groups to maintain market control and exclude black-owned companies. This sort of finding reminds us that certification does not operate in a vacuum and may have wide range of effects, both intended and unintended.

The difficulties of assessing certification’s impacts are partially methodological. Identifying causal impacts poses serious data and research design challenges—including

accessing appropriate negative cases for comparison (i.e., uncertified firms) and problems of self-selection (i.e., better-performing firms choosing to get certified) (Hiscox, Schwartz and Toffel 2009). Furthermore, some impacts of certification may arise over long periods of time (Bernstein and Cashore 2007), raising additional challenges for researchers.

Nevertheless, several findings about impacts have been rigorously established: ISO 14001 certification increases US facilities' compliance with government regulations for air pollution (Prakash and Potoski 2006). Fair Trade certification increases the household nutrition and satisfaction with living conditions of coffee farmers in Kenya (Becchetti and Costantino 2008). Other analyses have found important differences between certified and conventional producers—as with the prices received by coffee farmers participating in Fair Trade or organic certification (Bacon 2005; Jaffee 2007)—even though questions about causality and countervailing costs remain (Mutersbaugh 2005). In many other instances, however, comparisons of certified and uncertified firms have found differences that are small or ambiguous (Agnew et al. 2006; Lima et al. 2009; Sharma, Sharma and Raj 2000).

The difficulty of assessing certification's impact is also partly theoretical. Scholars have often glossed over or conflated the *variety* of processes through which certification might shape the conditions of production. A closer look at five conceptually distinct but empirically overlapping “mechanisms of influence” can shed further light on the significance and limits of certification.

First, managers may improve particular production practices in order to get (or stay) certified. Studies of forest certification under the FSC, for instance, show that

essentially all certified operations have been required by auditors to make some changes (Gullison 2003; Klooster 2006; Newsom, Bahn and Cashore 2006). This may mean altering harvesting or conservation practices, though most commonly it means adopting managerial processes that may not necessarily translate into behavioral changes requirements (Nussbaum and Simula 2004). Research on fisheries certification similarly finds that the changes required by auditors are numerous but only occasionally linked directly to discernable “on the water” outcomes (Agnew et al. 2006).

Although much research assumes that spurring managerial improvement is the only way in which certification matters, this ignores several other potentially important processes. Even if it does not cause a *change* in behavior, certification may matter if it provides support for alternative production models (like cooperatives or community-based organizations) or firms that are already “above the bar.” Fair Trade certification has boosted the incomes of coffee cooperatives (Bacon 2005; Jaffee 2007), and forest certification has sometimes helped community forestry operations improve access to markets and financing (Klooster 2006; Nebel et al. 2005). Furthermore, this support may generate demonstration effects in which alternative practices spill over from certified to conventional farms—as has happened with some organic farming methods (Jaffee 2007).

Third, certification could conceivably shape dispersed decisions about investment or land use. For instance, supporters of forest certification have often hoped that by building markets for certified forest products, they could reduce the incentives for large-scale clearing of forests for conversion to agriculture (Johnson and Cabarle 1993). In theory, if certification adds value to socially just or environmentally friendly practices, this could reduce the relative profitability of the most exploitative practices. Yet there is

little evidence that this hypothesized influence has actually occurred. Whatever premiums exist for certified products appear far too small to significantly reduce the incentives for exploitative investment and land use. Forest certification has rewarded firms that are already managing forest land for wood and paper production, but the reward has proven far too small to discourage others from converting forests to plantations or cattle pasture (Gullison 2003). Neither does sustainable fisheries certification appear to have altered the fundamental calculus of the industry, as yields and ocean biodiversity have continued to decline (Worm et al. 2006). The ability of certification to alter the logic of resource exploitation throughout a sector appears to be quite limited at the current time.

A fourth mechanism of influence comes through certification's interaction with social movements and transnational activism. Like other transnational standards, certification may provide a platform for challengers to expose exploitative practices or mobilize global forces to rectify local injustice. Under some conditions, activists may be able to *leverage* certification to *force* changes that companies would otherwise resist. Labor rights activists have occasionally leveraged transnational standards to gain recognition of insurgent unions, although this strategy has only rarely been successful (Barrientos and Smith 2007; Rodríguez-Garavito 2005). Engagement with certification may also carry dangers of co-optation and de-radicalization (Hughes 2007; Seidman 2007). More research is needed to assess the conditions under which social movement leveraging of certification can bring about significant changes.

Finally, certification may shape the conditions of production by influencing public authority and government regulation. The direction of this influence is the subject

of much debate. Some scholars worry that even if certification spurs marginal improvements, its net effect may be negative if it crowds out more powerful interventions, like the strengthening of state capacities and citizenship rights. Seidman (2007) argues that Rugmark certification has deflected attention from the Indian state's complicity in child labor and from more promising strategies for reducing it. Vandergeest (2007) suggests that effective local regulation of shrimp aquaculture in Thailand is being crowded out—or at least ignored by—sustainable shrimp certification initiatives. On the other hand, some scholars see certification and government regulation as complementary. Some work suggests that the expansion of private auditing may allow government agencies to focus their limited resources on other parts of the market, thus generating a kind of “uncoordinated complementarity” (Amengual forthcoming). In other cases, government regulation may explicitly endorse certification or provide regulatory relief to certified operations, as has happened with forestry law in several countries (Nebel et al. 2005; Pattberg 2006). Another account of complementarity suggests that firms that have been certified to high standards may participate in “Baptist-bootlegger” coalitions that lobby for increased regulatory stringency (Bernstein and Cashore 2007; Vogel 2005). Much work remains to be done to understand how certification and governments complement or contradict one another, especially at the point of production in developing countries.

Overall, the ascendance of certification as a mode of regulation—especially for transnational supply chains—has opened up a variety of questions for scholars of regulation. This chapter has sought to guide scholars interested in further developing this literature and for citizens and policymakers interested in understanding the character and

limits of the certification model. Most importantly, the chapter has shown that what may look like a simple consumer label is a complex set of institutional arrangements, intertwined with transnational governance, the state, neoliberalism, global social movements, and the organization of communities and workers in developing countries. Unpacking the “certification revolution” means taking each of these factors seriously.

## References

- Agnew, David, Chris Grieve, Pia Orr, Graeme Parkes, and Nola Barker. 2006.  
 "Environmental benefits resulting from certification against MSC's Principles & Criteria for Sustainable Fishing." MRAG UK Ltd and Marine Stewardship Council, [http://www.msc.org/documents/printed-documents/environmental-benefits/MSC\\_Environmental\\_Benefits\\_Report\\_Phase1\\_FINAL\\_4Ma.pdf](http://www.msc.org/documents/printed-documents/environmental-benefits/MSC_Environmental_Benefits_Report_Phase1_FINAL_4Ma.pdf).
- Akerlof, George (1970), 'The Market For 'Lemons': Quality Uncertainty and the Market Mechanism', *Quarterly Journal of Economics*, 84 488-500.
- Amengual, Matthew (forthcoming), 'Complementary Labor Regulation: The Uncoordinated Combination of State and Private Regulators in the Dominican Republic', *World Development*.
- Bacon, Christopher (2005), 'Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua?' *World Development*, 33 (3), 497-511.
- Barrientos, Stephanie, and Sally Smith (2007), 'Do workers benefit from ethical trade? Assessing codes of labour practice in global production systems', *Third World Quarterly*, 28 (4), 713 - 729.
- Bartley, Tim (2007a), 'How Foundations Shape Social Movements: The Construction of an Organizational Field and the Rise of Forest Certification', *Social Problems*, 54 (3), 229-255.
- (2007b), 'Institutional Emergence in an Era of Globalization: The Rise of Transnational Private Regulation of Labor and Environmental Conditions', *American Journal of Sociology*, 113 (2), 297-351.

- Bartley, Tim, and Shawna Smith. 2008. "Structuring Transnational Fields of Governance: Network Evolution and Boundary-Setting in the World of Standards." Working paper, Dept. of Sociology, Indiana University.
- Becchetti, Leonardo, and Marco Costantino (2008), 'The Effects of Fair Trade on Affiliated Producers: An Impact Analysis on Kenyan Farmers', *World Development*, 36 (5), 823-842.
- Bernstein, Steven, and Benjamin Cashore (2004), 'Non-State Global Governance: Is Forest Certification a Legitimate Alternative to a Global Forest Convention?' in John J. Kirton and Michael J. Trebilcock (eds), *Hard Choices, Soft Law: Voluntary Standards in Global Trade, Environment and Social Governance*, Aldershot: Ashgate.
- (2007), 'Can non-state global governance be legitimate? An analytical framework', *Regulation & Governance*, 1 (4), 347-371.
- Boltanski, Luc, and Laurent Thévenot (2006), *On Justification: Economies of Worth*, Princeton, NJ: Princeton University Press.
- Boström, Magnus (2006), 'Regulatory Credibility and Authority through Inclusiveness: Standardization Organizations in Cases of Eco-Labeling', *Organization*, 13 (3), 345–367.
- Cashore, Benjamin, Graeme Auld, and Deanna Newsom (2004), *Governing Through Markets: Forest Certification and the Emergence of Non-state Authority*, New Haven: Yale University Press.
- Cheit, Ross E. (1990), *Setting Safety Standards: Regulation in the Public and Private Sectors*, Berkeley: University of California Press.

- Conroy, Michael E. (2007), *Branded!: How the Certification Revolution Is Transforming Global Corporations*, Gabriola Island, BC, Canada: New Society Publishers.
- Djelic, Marie-Laure, and Kerstin Sahlin-Andersson (eds), *Transnational Governance: Institutional Dynamics of Regulation*, New York: Cambridge University Press.
- Espeland, Wendy Nelson, and Michael Sauder (2006), 'Rankings and Reactivity: How Public Measures Recreate Social Worlds', *American Journal of Sociology*, 113 1-40.
- Frank, Dana (1999), *Buy American: The Untold Story of Economic Nationalism*, Boston: Beacon Press.
- Fung, Archon, Mary Graham, and David Weil (2007), *Full Disclosure: The Perils and Promise of Transparency*, New York: Cambridge University Press.
- García, Jorge, Shakeb Afsah, and Thomas Sterner (2009), 'Which Firms are More Sensitive to Public Disclosure Schemes for Pollution Control? Evidence from Indonesia's PROPER Program', *Environmental and Resource Economics*, 42 (2), 151-168.
- Gulbrandsen, Lars H. (2005), 'Mark of Sustainability? Challenges for Fishery and Forestry Eco-labeling', *Environment*, 47 (5), 8-23.
- (2006), 'Creating Markets for Eco-Labeling: Are Consumers Insignificant?' *International Journal of Consumer Studies*, 30 (5), 477-489.
- Gullison, R.E. (2003), 'Does forest certification conserve biodiversity?' *Oryx*, 37 (2), 153-165.
- Guthman, Julie (2004), *Agrarian Dreams: The Paradox of Organic Farming in California*, Berkeley: University of California Press.

- (2007), 'The Polanyian Way? Voluntary Food Labels as Neoliberal Governance', *Antipode*, 39 (3), 456-478.
- Hiscox, Michael J., Claire Schwartz, and Michael W. Toffel (2009), 'Evaluating the Impact of SA 8000 Certification', in Deborah Leipziger (eds), *SA8000: The First Decade: Implementation, Influence, and Impact*, Greenleaf Press.
- Hughes, Caroline (2007), 'Transnational Networks, International Organizations and Political Participation in Cambodia: Human Rights, Labour Rights and Common Rights', *Democratization*, 14 (5), 834-852.
- Jaffee, Daniel (2007), *Brewing Justice: Fair Trade Coffee, Sustainability, and Survival*, Berkeley: University of California Press.
- Johnson, Nels, and Bruce Cabarle (1993), *Surviving the Cut: Natural Forest Management in the Humid Tropics*, Washington, DC: World Resources Institute.
- King, Andrew A., Michael J. Lenox, and Michael L. Barnett (2002), 'Strategic Responses to the Reputation Commons Problem', in Andrew J. Hoffman and Marc J. Ventresca (eds), *Organizations, Policy, and the Natural Environment*, Stanford, CA: Stanford University Press.
- King, Andrew A., Michael J. Lenox, and Ann Terlaak (2005), 'The Strategic Use of Decentralized Institutions: Exploring Certification with the ISO 14001 Management Standard', *Academy of Management Journal*, 48 (6), 1091-1106.
- Klooster, Dan (2006), 'Environmental Certification of Forests in Mexico: The Political Ecology of a Nongovernmental Market Intervention', *Annals of the Association of American Geographers*, 96 (3), 541-565.

- Lima, Ana Carolina Barbosa de, et al. 2009. "Does certification make a difference? Impact assessment study on FSC/SAN certification in Brazil." Piracicaba, SP, Brazil: Imaflora.
- Linton, April, Cindy Chiayuan Liou, and Kelly Ann Shaw (2004), 'A Taste of Trade Justice: Marketing Global Social Responsibility via Fair Trade Coffee', *Globalizations*, 1 (2), 223-246.
- Locke, Richard, Matthew Amengual, and Akshay Mangla (2009), 'Virtue out of Necessity?: Compliance, Commitment and the Improvement of Labor Conditions in Global Supply Chains', *Politics & Society*, 37 (3), 319-351.
- McNichol, Jason (2006), 'Transnational NGO Certification Programs as New Regulatory Forms: Lessons from the Forestry Sector', in Marie-Laure Djelic and Kerstin Sahlin-Andersson (eds), *Transnational Governance: Institutional Dynamics of Regulation*, New York: Cambridge University Press.
- Meidinger, Errol (2006), 'The Administrative Law of Global Private-Public Regulation: the Case of Forestry ', *European Journal of International Law*, 17 (1), 47-87.
- Micheletti, Michele (2003), *Political Virtue and Shopping: Individuals, Consumerism, and Collective Action*, New York: Palgrave Macmillan.
- Murphy, Craig N., and JoAnne Yates (2009), *The International Organization for Standardization (ISO): Global Governance through Voluntary Consensus*, New York Routledge.
- Mutersbaugh, T. (2005), 'Fighting standards with standards: harmonization, rents, and social accountability in certified agrofood networks', *Environment and Planning A*, 37 (11), 2033-2051.

- Nebel, Gustav, Lincoln Quevedo, Jette Bredahl Jacobsen, and Finn Helles (2005), 'Development and economic significance of forest certification: The case of FSC in Bolivia', *Forest Policy and Economics*, 7 175-186.
- Newsom, Deanna, Volker Bahn, and Benjamin Cashore (2006), 'Does forest certification matter? An analysis of operation-level changes required during the SmartWood certification process in the United States', *Forest Policy and Economics*, 9 (3), 197-208.
- Nussbaum, Ruth, and Markku Simula. 2004. "Forest Certification: A Review of Impacts and Assessment Frameworks." *The Forests Dialogue: Yale University School of Forestry & Environmental Studies*.  
<http://research.yale.edu/gisf/assets/pdf/tfd/TFD%20Certification%20Impacts%20and%20Assessment%20Paper.pdf>.
- Overdevest, Christine (forthcoming), 'Comparing forest certification schemes: the case of ratcheting standards in the forest sector', *Socio-Economic Review*, 8 (1), 47-76.
- Pattberg, Philipp (2006), 'The Influence of Global Business Regulation: Beyond Good Corporate Conduct', *Business and Society Review*, 111 (3), 241-268.
- Polanyi, Karl (1944), *The Great Transformation*, Boston: Beacon Press.
- Ponte, Stefano (2008), 'Greener than Thou: The Political Economy of Fish Ecolabeling and Its Local Manifestations in South Africa', *World Development*, 36 (1), 159-175.
- Potoski, Matthew, and Aseem Prakash (2009), 'A Club Theory Approach to Voluntary Programs', in Matthew Potoski and Aseem Prakash (eds), *Voluntary Programs: A Club Theory Perspective*, Cambridge: MIT Press.

- Prakash, Aseem, and Matthew Potoski (2006), *The Voluntary Environmentalists: Green Clubs, ISO 140001, and Voluntary Environmental Regulations*, New York: Cambridge University Press.
- Rainforest Foundation, The (2002), *Trading in Credibility: The Myth and Reality of the Forest Stewardship Council*, London: Rainforest Foundation.
- Rao, Hayagreeva (1998), 'Caveat Emptor: The Construction of Nonprofit Consumer Watchdog Organizations', *American Journal of Sociology*, 103 912-61.
- Raynolds, Laura T. (2000), 'Re-Embedding Global Agriculture: The International Organic and Fair Trade Movements', *Agriculture and Human Values*, 17 297-309.
- Renard, Marie-Christine (2003), 'Fair trade: quality, market and conventions', *Journal of Rural Studies*, 19 87-96.
- Rodríguez-Garavito, César A. (2005), 'Global Governance and Labor Rights: Codes of Conduct and Anti-Sweatshop Struggles in Global Apparel Factories in Mexico and Guatemala', *Politics and Society*, 33 (2), 203-233.
- Rona-Tas, Akos (forthcoming), 'The Role of Ratings in the Subprime Mortgage Crisis: The Art of Corporate and the Science of Consumer Credit Rating', *Research in the Sociology of Organizations*.
- Sabel, Charles, Dara O'Rourke, and Archon Fung. 2000. "Ratcheting Labor Standards: Regulation for Continuous Improvement in the Global Workplace." KSG Working Paper No. 00-010 (<http://ssrn.com/abstract=253833>).
- Schneiberg, Marc, and Tim Bartley (2008), 'Organizations, Regulation, and Economic Behavior: Regulatory Dynamics and Forms from the 19th to 21st Century', *Annual Review of Law & Social Science*, 4 31-61.

- Seidman, Gay (2007), *Beyond the Boycott: Labor Rights, Human Rights and Transnational Activism*, New York: Russell Sage Foundation/ASA Rose Series.
- Sharma, Alakh N., Rajeev Sharma, and Nikhil Raj. 2000. "The Impact of Social Labelling on Child Labour in India's Carpet Industry." Institute for Human Development, New Delhi.
- Sklar, Kathryn Kish (1998), 'The Consumers' White Label Campaign of the National Consumers' League, 1898-1918.' in McGovern Strasser, and Judt (eds), *Getting and Spending: European and American Consumer Societies in the Twentieth Century*, New York: Cambridge University Press.
- Spar, Debora L., and David B. Yoffie (2000), 'A Race to the Bottom or Governance from the Top?' in Aseem Prakash and Jeffrey A. Hart (eds), *Coping with Globalization*, New York: Routledge.
- Vanderveest, Peter (2007), 'Certification and Communities: Alternatives for Regulating the Environmental and Social Impacts of Shrimp Farming', *World Development*, 35 (7), 1152-1171.
- Viscusi, W. Kip (1978), 'A Note on 'Lemons' Markets with Quality Certification', *Bell Journal of Economics and Management Science*, 9 (1), 277-79.
- Vogel, David (2005), *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility*, New York: Brookings Institution Press.
- Worm, Boris, et al. (2006), 'Impacts of Biodiversity Loss on Ocean Ecosystem Services', *Science*, 314 (5800), 787-790.