GREEN BY CHOICE? Cross-National Variations in Firms' Responses to EMS-Based Environmental Regimes

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INTRODUCTION

THIS paper seeks to explain cross-national variations in patterns of firm-level adoption of two supranational environmental management system (EMS) standards: the European Union's Eco-Management and Audit Scheme (EMAS) and the International Standards Organization's ISO 14001. EMS standards encourage firms to voluntarily adopt policies that go beyond the requirements of extant law and promote continuous improvement in firms' environmental performance. It is doubtful that political scientists twenty years ago would have paid much attention to the advent of such voluntary schemes, and they almost certainly would not have been interested in examining firms' responses to them. Yet today EMS standards can be seen as a part of broader trends that are fundamentally changing the way business and certain policy areas are regulated. Perhaps the two most prominent characteristics of this new form of governance are the increase in the amount of regulation being formulated within supranational forums (usually in the form of issue-specific regimes) and the greater reliance on private actors for implementing these supranational standards. While there has been a great deal of research on the formation and structure of supranational regulatory regimes, the implementation of these regimes by national governments and their effects on private ac-

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tors remain underresearched.[1] This article addresses these gaps by examining firms' responses to EMAS and ISO 14001 in the United States, the United Kingdom, and Germany and then offering an institutional explanation for why this response has varied so widely. It concludes that the characteristics of both domestic (business-government relations) and supranational institutions (the nature of the policy regime) need to be taken into account to fully explain the cross-national variations in firm-level responses.

EMS regimes represent what several scholars of international relations see as a new form of governance in which actual governments play a more limited role in the establishment, monitoring, and enforcement of regulatory regimes.[2] By transferring policy-making to supranational (regional or international) bodies, individual states in effect forfeit a certain amount of sovereignty to these institutions. While these policies are often enshrined in international law, no overarching governance structure (the EU being a partial exception) is responsible for the coordination, implementation, or adjudication of these agreements in various national settings. Thus, the implementation of international agreements becomes a more fluid and variable process than the implementation of domestic law, and it often incorporates a wider array of actors. The increase in the number of supranational environmental regimes in particular has led to an extremely fragmented and decentralized form of governance, with the result that states have had to adjust their national regulatory styles.[3] Additionally, and less recognized in the literature, many of these regimes are transnational in nature and include nongovernmental actors in their negotiations and compliance structures.[4] As a result, the unquestionable dominance of national governments over environmental policy-making seems to be eroding.

It is difficult to separate these developments in environmental governance from the advent of globalization, both economic and norm ori-

[1] For recent contributions to the private regimes literature, see A. Claire Cutler, Virginia Haufler, and Tony Porter, eds., *Private Authority and International Affairs* (Albany, N.Y.: SUNY Press, 1999); John Braithwaite and Peter Drahos, *Global Business Regulation* (Cambridge: Cambridge University Press, 2000). For a review of the beyond-compliance literature, see Aseem Prakash, "Why Do Firms Adopt Beyond-Compliance Environmental Policies?" *Business Strategy and the Environment* (forthcoming); and idem, *Greening the Firm: The Politics of Corporate Environmentalism* (Cambridge: Cambridge University Press, 2000).

[2] James N. Rosenau and Ernst-Otto Czempiel, eds., *Governance without Government: Order and Change in World Politics* (Cambridge: Cambridge University Press, 1992); Aseem Prakash and J. Hart, eds., *Globalization and Governance* (London: Routledge, 1999); Oran R. Young, *Governance in World Affairs* (Ithaca, N.Y.: Cornell University Press, 1999).

[3] Peter M. Haas, "Social Constructivism and the Evolution of Multilateral Environmental Governance," in Prakash and Hart (fn. 2); Young (fn. 2).

[4] Margaret E. Keck and Kathryn Sikkink, *Activists beyond Borders: Advocacy Networks in International Politics* (Ithaca, N.Y.: Cornell University Press, 1998).

ented.[5] Increased liberalization of trade and investment has created a need for supranationally harmonized regulation, as multinational enterprises (MNEs) usually prefer to deal with one supranational standard rather than a myriad of often conflicting national regulations. Additionally, the rise of transnational consumer and environmental movements has significantly affected the sociopolitical environments in which these firms operate. Widespread consumer protests against such powerful MNEs as Union Carbide after the Bhopal disaster and Exxon after the Exxon Valdez oil spill have taught these firms that environmental and social issues can no longer be ignored. Because the governmental institutions necessary to create supranational environmental standards are either too weak to be effective or simply nonexistent,[6] MNEs—and to a lesser extent NGOs—have been able to step into this void and become intimately involved in the formation of regulatory environmental regimes.

Research aimed at understanding the implications of these far-reaching changes has been hindered to a certain extent by the artificial boundary in political science between the study of domestic and international politics. Thus, while the regime theory[7] and globalization literatures[8] have done an admirable job of describing the circumstances under which global regimes arise and the various forms that they take, much less work has been devoted to tracing the effects that these regimes have on domestic governments and actors.[9] Given the fact that almost all environmental regimes are implemented by these domestic actors, the ultimate effects of these new forms of governance can be ascertained only through such implementation studies. As Oran Young recently noted, regime "effectiveness will often be a function of the compatibility between top-down approaches reflected in the content of supranational regimes and bottom-up approaches implicit in local or

[5] For an explanation of the difference between these two globabalizations, see Richard Falk, *Predatory Globalization: A Critique* (Oxford: Blackwell, 2000).

[6] Gilpin has recently argued that global governance mechanisms will have to be strengthened if they are to keep pace with economic globalization. See Robert Gilpin, *The Challenge of Global Capitalism: The World Economy in the Twenty-first Century* (Princeton: Princeton University Press, 2000).

[7] Stephen Krasner, ed., *International Regimes* (Ithaca, N.Y.: Cornell University Press, 1983); Volker Rittberger, ed., *Regime Theory and International Relations* (Oxford: Clarendon Press, 1993); Oran R. Young, *International Governance: Protecting the Environment in a Stateless Society* (Ithaca, N.Y.: Cornell University Press, 1994).

[8] Suzanne Berger and Ronald Dore, eds., *National Diversity and Global Capitalism* (Ithaca, N.Y.: Cornell University Press, 1996); James N. Rosenau, *Along the Domestic-Foreign Frontier* (Cambridge: Cambridge University Press, 1997); Aseem Prakash and Jeffrey A. Hart, eds., *Coping with Globalization* (London: Routledge, 2000).

[9] Exceptions include David Victor, Kal Raustiala, and Eugene Skolnikoff, eds., *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (Cambridge: MIT Press, 1998); Braithwaite and Drahos (fn. 1).

regional arrangements."[10] While game-theoretic approaches such as the two-level game and the nested game[11] have been developed to address this problem, very little empirical work, especially in the environmental field, has explored the interactions of supranational regimes and domestic institutional structures.

Our case study examines the crucial regime implementation question by seeking to explain the varying responses of firms to the introduction of supranational EMS standards in the U.K., the U.S., and Germany. In this context, this article pays special attention to the influence of what we refer to as domestic adversarial economies. Given the increased involvement of private actors in the implementation of both domestic and supranational regulation, we believe, further, that our findings also have broader implications for the future of environmental governance. Thus, the nature of business-government relations will be an important factor—albeit not the only one—in determining how compatible supranational regimes are with domestic structures. Despite the growing importance of industry-government relations, students of public policy have been slow to add it to their research agendas.[12] While political scientists did spend a great deal of time investigating the policy effects of corporatist structures and consensus-seeking norms in the 1980s,[13] relatively little effort has been made to update these theories in the late 1990s. In fact, we find theories that were largely developed to explain economic policy do not always hold for environmental policy. Thus, we draw heavily on the two authors who have done the most to advance our understanding of government-industry relations in the en-

[10] Young (fn. 2), 15.

[11] Robert D. Putnam, "Diplomacy and Domestic Politics: The Logic of Two-Level Games," *International Organization* 42 (Summer 1988); George Tsebelis, *Nested Games: Rational Choice in Comparative Politics* (Berkeley: University of California Press, 1990); Peter B. Evans, Harold K. Jacobson, and Robert D. Putnam, eds., *Double-Edged Diplomacy* (Berkeley: University of California Press, 1994).

[12] Although political scientists have extensively studied the influence of business over government and policy outcomes, far less research has addressed the effects of government-industry relations on policy implementation. For an overview of this largely underdeveloped literature, see Stephen Wilks and Maurice Wright, eds., *Comparative Government-Industry Relations: Western Europe, the United States, Japan* (Oxford: Clarendon Press, 1987); David Vogel, *Kindred Strangers* (Princeton: Princeton University Press, 1995); Robert Kagan and Lee Axelrad, "Adversarial Legalism: An International Perspective," in Pietro S. Nivola, ed., *Comparative Disadvantages? Domestic Social Regulations and the Global Economy* (Washington, D.C.: Brookings Institution Press, 1997); Robert Kagan, "Regulatory Enforcement," in David H. Rosenbloom and Richard D. Schwartrz, eds., *Handbook of Regulation and Administrative Law* (New York: Marcel Dekker, 1994); Robert Kagan, "Adversarial Legalism and American Government," *Journal of Policy Analysis and Management* 10, no. 3 (1991).

[13] Gerhard Lehmbruch and Philippe C. Schmitter, eds., *Patterns of Corporatist Policy-Making* (Beverly Hills, Calif.: Sage Publications, 1982); Peter J. Katzenstein, *Policy and Politics in West Germany: The Growth of a Semi-Sovereign State* (Philadelphia: Temple University Press, 1987); idem, *Industry and Politics in West Germany* (Ithaca, N.Y.: Cornell University Press, 1989).

vironmental field, namely, David Vogel and Robert Kagan.[14] We conclude that while their insights are key to understanding the American context, the concept of an adversarial economy needs to be expanded if it is to be useful for understanding policy implementation in other systems. We offer a framework for doing so in the conclusion.

EMS standards have been chosen for this case study precisely because their supranational and "beyond compliance" nature are representative of what is often purported to be the future of environmental governance. Using broadly similar structures, both EMAS and ISO 14001 encourage firms to voluntarily adopt policies dedicated to continual improvement in environmental performance beyond what is required by law. Participating firms/sites establish management systems designed to evaluate their environmental impacts, set goals for future improvements, and carry out regular audits of the firm's/site's environmental protection measures. To ensure that each company's management system conforms to a certain standard, they are subject to an external certification procedure that is carried out by an independent, accredited verifier. Once the external certification has been successfully completed, firms receive a participation logo that can be used for advertising purposes.

As stated above, the article focuses on firm-level participation (the dependent variable) in EMSs and the institutional factors that have led to it (the independent variable). In fact, adoption patterns in these three countries vary significantly, suggesting that institutional contexts, both domestic and supranational, greatly influence firms' responses. Thus, "convergence" in firms' practices is not occurring as fast as some globalization scholars have predicted.[15]

[14] David Vogel, *National Styles of Regulation: Environmental Policy in Great Britain and the United States* (Ithaca, N.Y.: Cornell University Press, 1986); Kagan (fn. 12, 1991).

There is an extensive literature examining the nature and impact of adversarial relationships in other issue-areas: on labor unionization, see Robert J. Flanagan, *Labor Relations and the Litigation Explosion* (Washington, D.C.: Brookings Institution Press, 1987); on mine safety, see John Braithwaite, *To Punish or to Persuade: Enforcement of Coal Mine Safety* (Albany, N.Y.: SUNY Press, 1985); on corporate governance, see Jonathan P. Charkham, *Keeping Good Company: A Study of Corporate Governance in Five Countries* (Oxford: Clarendon Press, 1994); and on pharmaceuticals, see H. Teff, "Drug Approval in England and the United Sates," *American Journal of Comparative Law* 33 (Fall 1985).

[15] Bennett points out that convergence can occur at various levels: setting objectives, establishing systems, adopting technologies, and achieving outcomes. See Colin J. Bennett, "Review Article: What Is Policy Convergence and What Causes It?" *British Journal of Political Science* 21 (April 1991). EMS-based policies focus on convergence of management systems based on the assumption that if such systems are in place, firms will adopt technologies most suitable to them and improve their environmental performance over time.

For a critical examination of the convergence debate, see Berger and Dore (fn. 8); Robert Boyer and Daniel Drache, eds., *State against Markets* (London: Routledge, 1996); Louis W. Pauly and Simon Reich, "National Structures and Multinational Corporate Behavior: Enduring Differences in the Age of Globalization," *International Organization* 51, no. 1 (1997); Aseem Prakash and Jeffrey A. Hart, eds., *Responding to Globalization* (London: Routledge, 2000).

The variation in firms' responses is surprising because most businesses have welcomed the advent of voluntary beyond-compliance policies. More traditional command-and-control policies, which make up the core of most countries' environmental regulation, seek to bring about environmental improvements by setting strict emission limits as well as prescribing industrial technologies and processes needed to meet these limits. These policies are typically applied uniformly across industry regardless of local economic or ecological conditions, and they impose stiff penalties on violators. Not surprisingly, most businesses oppose such regulations. Business managers are, in general, more open to the use of market instruments such as eco-taxes and tradable permits that set substantive goals but do not specify specific technologies for meeting these goals. Problems beset market-based instruments as well, however. First, not every jurisdiction has the institutional capacity to design, monitor, and enforce such policies. Second, market-based instruments still do not sufficiently empower firms to design and implement their own environmental programs.

Taking their cue from the widely touted "sustainable development" ideology,[16] as well as from the "reinventing government"[17] movement, many groups have proposed voluntary EMS-based policies in the hope that over the long run these policies will replace command-and-control regulations. For these very reasons, however, most environmental groups view EMS-based regulations with a fair amount of skepticism. Regulators thus often find themselves caught between the proverbial rock and a hard place on this issue. It is therefore critical to investigate the levels and causes of acceptability of beyond-compliance policy instruments across and within countries, as they are often characterized as the blueprints for future regulations.

As of April 2000, 2,331 German sites were EMAS validated as opposed to just 73 sites in the U.K. (see Table 1). Firms in the U.K. have, however, responded enthusiastically to ISO 14001 with about 1,014 sites certified. Additionally, in Germany, 1,950 sites have become ISO 14001 certified (see Table 2). By contrast, only 750 American sites are ISO 14001 certified. (American firms are not eligible to participate in

[16] World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987); World Bank, *World Development Report* (New York: Oxford University Press, 1992); Stephen Schmidhieny, *Changing Course* (Cambridge: MIT Press, 1992).

[17] David E. Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (Reading, Mass.: Addison-Wesley, 1992); Donald F. Kettl and John J. DiIulio, Jr., eds., *Inside the Reinvention Machine: Appraising Governmental Reform* (Washington, D.C.: Brookings Institution Press, 1995).

TABLE 1
EMAS: RESPONSE ACROSS COUNTRIES

Country	*No. of Registered Sites as of May 24, 2000*	*No. of Registered Sites per $ Billion 1998 GDP*
Germany	2,331	1.10
Austria	228	1.05
Sweden	176	0.78
U.K.	73	0.06
Total	3,325	n/a

SOURCES: ISO World (2000), http://www.ecology.or.jp/isoworld/english/analy14k.htm (retrieved May 24, 2000); World Bank (fn. 18), 230–31.

TABLE 2
ISO 14001: RESPONSE ACROSS COUNTRIES

Country	*No. of Registered Sites as of April 2000*	*No. of Registered Sites as a Proportion of 1998 GDP*
Japan	3,548	0.87
Germany	1,950	0.92
U.K.	1,014	0.80
U.S.	750	0.09
Thailand	255	1.90
Malaysia	155	1.94
Total	15,772	0.55

SOURCES: ISO certifications: ISO World ISO (2000), http://www.ecology.or.jp/isoworld/english/analy14k.htm (retrieved May 24, 2000); GDP: World Bank (fn. 18).

EMAS.) When considered in relative terms, that is, as the number of certificates in relation to the size of the economy, these differences become even more pronounced (see Tables 1 and 2).[18] What explains these differences in the uptake of supranational EMS?

[18] These tables measure take-up rates in absolute terms, as well as by the number of certified sites in relation to GDP. Because no comparable data exist on the total number of sites in these countries, we are unable to calculate the ideal comparative measure—the ratio of certified sites to total sites for each country. As such, we assume that GDP is a rough proxy for the total number of sites. We base this assumption on the fact that the U.S., U.K., and German economies have broadly similar structures. In comparing take-up rates of EMAS, which is only available to firms in manufacturing sectors, we also look at the share of manufacturing as percentage of GDP in the U.K. and Germany. In the U.K. manufacturing makes up 21 percent of GDP, while in Germany it makes up 24 percent, again showing that they are roughly similar. It should also be pointed out that we are not comparing the take-up rates of EMAS and ISO 14001 within countries but rather are comparing the take-up rate of each EMS separately across countries. As such we compare only like with like. Data are from World Bank, *1999/2000 World Development Report* (New York: Oxford University Press, 2000), 252–53.

We began investigating these intercountry variations with the hypothesis that firms in countries with adversarial economies such as the U.S. and Germany—where regulators and business are on less than friendly terms—are less likely to adopt EMS-based policies. This is because regulators would be unwilling to offer companies the necessary incentives, such as regulatory relief, to make these voluntary schemes attractive. This hypothesis explains why the take-up of ISO 14001 has been relatively high in the U.K. (a nonadversarial economy) and low in the U.S. (an adversarial economy). However, it cannot explain the high rate of EMS take-up, both of EMAS and ISO 14001, in Germany, where the stringency of environmental legislation has been a contentious issue between government and industry. In contrast to the consensual style of policy-making found in economic policy fields in Germany, environmental policy-making is characterized by strident, public disagreements between industry and environmental groups with government regulators often caught in the middle. Second, the adversarial economy hypothesis cannot explain why EMAS has been more popular in Germany than in the U.K.

To explain these puzzles, the original hypothesis needs to be better specified. Thus, the article examines two additional independent variables—the type of adversarial economy and the nature of supranational policy regimes—that influence the institutional environment and shape incentives for firm participation. In examining the research questions, the article employs an institutionalist perspective. It draws insights from three variants of this perspective—new institutionalism, historical institutionalism, and regime theory. Specifically, the article focuses on the roles institutions play as intervening variables between individual choices and collective outcomes, as well as their impact on incentives and preferences of various actors (firms, regulators, and citizen groups). By taking the causal power of both domestic and supranational institutions seriously, the article sheds light on how these two variables interact and how in turn this interaction affects governance in a world with increasingly fragmented authority structures.

The article proceeds in four sections. The first section briefly outlines the three variants of the institutionalist approach and draws links between them and our research questions. Section II outlines the basic features of ISO 14001 and EMAS and their historic development. Section III examines the hypotheses outlined above and explains why there has been such a pronounced cross-national difference in EMS adoption. The last section presents conclusions and issues for further research.

The Institutionalist Approach

This article employs an explicitly institutional approach to explaining the linkages between supranational policy and domestic outcomes. We draw on and synthesize insights from three different variants of institutional theory used in political science, namely, historical institutionalism, regime theory, and new institutionalism. Despite some very real differences, the approaches start from a similar core set of assumptions. Broadly speaking, the institutional approach asserts that institutions influence individual strategies and collective outcomes. This assertion begs the following questions: What are institutions (definitional)? How and why do they arise/sustain themselves (ontological)? And what is their impact on individual choices and collective outcomes (epistemological)?

After falling out of favor during the postwar behaviorist revolution, the revival of institutional theory in political science began in the 1960s, when public choice theorists started investigating how institutions arise (especially legislative institutions) and impact collective outcomes.[19] This new variant, whose subsequent incarnation came to be known as new institutionalism, grants individual agents autonomous decision-making capabilities within a set of structural confines, as well as the ability to shape institutions.[20] In this perspective, institutions are viewed as enforced rules about what actions are required, prohibited, or permitted.[21] In effect, institutions are assumed to affect incentives and also, therefore, individual choices and collective outcomes.[22]

New institutionalism is particularly helpful in examining the impact of institutions on collective action problems that are rooted in the clash

[19] James A. Buchanan and Gordon Tullock, A *Calculus of Consent* (Ann Arbor: University of Michigan Press, 1962); Kenneth J. Arrow, *Social Choice and Individual Values* (New Haven: Yale University Press, 1963); Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Cambridge: Harvard University Press, 1965).

[20] The literature on this subject is vast. Key works, both supportive and nonsupportive of new institutionalism, include Walter W. Powell and Paul J. DiMaggio, eds., *The New Institutionalism in Organizational Analysis* (Chicago: University of Chicago Press, 1983); Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology* 91, no. 3 (1985); Peter B. Evans, Dietrich Rueschemeyer, and Theda Skocpol, *Bringing the State Back* in (Cambridge: Cambridge University Press, 1985); Thrainn Eggertsson, *Economic Behavior and Institutions* (Cambridge: Cambridge University Press, 1990); Eirik G. Furubotn and Rudolf Richter, eds., *The New Institutional Economics* (College Station: Texas A and M University Press, 1991); Sven Steimo, Kathleen Thelan, and Frank Longstreth, *Structuring Politics* (New Haven: Yale University Press, 1992); R. Kent Weaver and Bert A. Rockman, eds., *Do Institutions Matter?* (Washington, D.C.: Brookings Institution, 1993); Guy B. Peters, *Institutional Theory in Political Science* (London: Pinter, 1999).

[21] Elinor Ostrom, "An Agenda for the Study of Institutions," *Public Choice* 48 (1986).

[22] Douglas C. North, *Institutions, Institutional Change, and Economic Performance* (Cambridge: Cambridge University Press, 1990); Elinor Ostrom, *Governing the Commons* (Cambridge: Cambridge University Press, 1990).

between individual and collective rationalities. Unlike historical institutionalists, new institutionalists assert that many (not all) institutions are human artifacts. They thus begin with the premise of methodological individualism—that individuals are the key actors and that they act to maximize their own personal utility. Of course, the final outcome in terms of institutional design may not be pareto superior or efficiency enhancing; that is, institutions may bestow benefits and impose costs asymmetrically across actors.[23] We begin with a new-institutionalist assertion that institutions are human artifacts crafted to corner collective gains that cannot be accessed adequately through individual action. Both ISO 14000 and EMAS were established at the urging and participation of MNEs looking to guard against the proliferation of national standards that could potentially serve as nontariff barriers to trade. Drawing on this new-institutionalist framework, we assume that firms base their decisions about adopting an EMS on the prevailing incentive structures. However, new institutionalists often do not adequately highlight the embeddedness, especially the cultural embeddedness, of one set of institutions in another set. As such, the importance of this embeddedness in determining institutional efficacy and an institution's attractiveness to actors who may consider joining it is left largely unexplored. We therefore turn to historical institutionalism and regime theory to better understand how supranational regimes are embedded in domestic structures and why incentives for firms vary cross-nationally.

Unlike new institutionalists, historical institutionalists do not ontologically privilege agents over structures. They start with the premise that choices made during the formation of an institution have lasting effects on the future operations of that institution. Often referred to as path dependency, this approach holds that past decisions that have become formalized in institutions limit the range of present possibilities. In short, history—as embodied in laws, policies, and procedures—matters. Historical institutionalists claim to endogenize or explain individual preferences while new institutionalists treat preferences as exogenous. Thus, the debate between new institutionalists and historical institutionalists centers on the levels of agent autonomy vis-à-vis structures, the ability of individuals to modify these structures, and the degree to which actors' preferences are exogenous.

Historical institutionalists also define institutions somewhat more broadly.[24] Although Peter Hall's oft cited definition of institutions as

[23] North (fn. 22); Jack Knight, *Institutions and Social Conflict* (Cambridge University Press, 1992).

[24] See, for example, John R. Commons, *Institutional Economics: Its Place in Political Economy* (Madison: University of Wisconsin Press, 1961).

"formal rules, compliance procedures and standard operating procedures that structure . . . relationships" does not differ greatly from the new-institutionalist definition, it incorporates more normative conceptions.[25] To use the words of March and Olsen, it includes the "logic of appropriateness" as well as the "logic of consequentiality."[26] Thus, institutions influence actors not only by influencing their calculus of benefits and costs but also by acting as guides to what is appropriate behavior.[27] This last point can be helpful in examining how actors in different cultural and historical settings react to similar challenges, for example, how they deal with environmental degradation. While historical institutionalists tend to emphasize the differences between their approach and that of new institutionalists, the two are more complementary than contradictory.[28] Many new institutionalists employ historical explanations that emphasize path dependency.[29] As such, an integration of these two approaches gives us a framework for analyzing why and to what extent firms in the U.K., the U.S., and Germany face different sets of institutionally based incentive structures when deciding whether to adopt EMAS and/or ISO 14001.

The third strand of institutionalism that will be employed in this article, regime theory, is more a collection of theories than an explicit approach. In many ways, the distinction made between domestic and international politics is an arbitrary one, reflecting divisions over how political life is studied, rather than over how it is practiced. This division has been exacerbated to a certain extent by the dominance of realism/neorealism in the study of international relations. The emphasis in this approach on international anarchy leaves little room for the role of institutions as meaningful variables. To the extent that institutions do matter in international relations, they are seen to reflect the preferences of the hegemon and thereby become epiphenomenal.[30]

Throughout the postwar period various challenges to the realist position that have often been couched in institutional terms. By the late

[25] Peter Hall, *Governing the Economy: The Politics of Intervention in Great Britain and France* (New York: Oxford University Press, 1986), 29.

[26] James March and Johan Olsen, *Rediscovering Institutions* (New York: Free Press, 1989), 56.

[27] On this subject, see the debate between Lake and Sandholtz: David A. Lake, "Global Governance: A Relation Contracting Approach," in Prakash and Hart (fn. 2); and Wayne Sandholtz, "Globalization and the Evolution of Rules," also in Prakash and Hart (fn. 2).

[28] Elinor Ostrom, "Rational Choice and Institutional Analysis: Toward Complementarity," *American Political Science Review* 85 (March 1991).

[29] For example, North (fn. 22); and Ostrom (fn. 22).

[30] Kenneth Waltz, *Theory of International Politics* (Reading, Mass.: Addison-Wesley, 1979); Joseph Greico, "Anarchy and the Limits to Cooperation," *International Organization* 42 (August 1988). For an overview of the neorealist-institutionalist debate, see David A. Baldwin, ed., *Neorealism and Neoliberalism: The Contemporary Debate* (New York: Columbia University Press, 1993).

1970s a broad-based institutional approach began to appear in the form of regime theory.[31] Developed to explain the institutionalized mechanisms of international cooperation that are a part of everyday life within an anarchic world, regime theory has come to employ a definition of institutions similar to that used by students of domestic politics. Krasner, in his widely used definition, posits that regimes are "implicit or explicit principles, norms and decision-making procedures around which actors' expectations converge in a given area of international relations."[32]

To make the notion of regimes more precise, some theorists distinguish between international orders such as the capitalist market system and more narrow regimes such as the WTO. Indeed in his most recent work, Oran Young argues that regimes are usually limited to one specific issue-area such as global warming, ozone depletion, or reduction of trade barriers. Despite this distinction, regime theory is prone to certain boundary problems.[33] Thus, for example, while the EU has often been subsumed under regime theory,[34] it is not quite clear where regimes end and more complex, supranational polities begin.

Much of regime theory has concentrated on describing the processes by which states agree to give up sovereignty in narrow policy areas through the implementation of international agreements. As noted in the introduction, regime theory has not paid much attention to examining the effects that supranational regimes have on domestic actors, and even fewer studies have examined the effects of regimes on nongovernmental domestic actors.

Literatures that address this gap do exist, however. Perhaps most notable of these is the globalization discourse.[35] An important issue within this literature is whether the increasing levels of capital flows, both portfolio and foreign direct investment, will cause a convergence in the political, economic, and cultural institutions of once disparate societies.[36] This article joins the debate by examining a case where supranational

[31] Robert O. Keohane and Joseph S. Nye, *Power and Interdependence* (Boston: Little and Brown, 1977).

[32] Krasner (fn. 7), 2.

[33] Young (fn. 2).

[34] For example, Andrew Moravcsik, "Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach," *Journal of Common Market Studies* 31 (1993).

[35] For other works that look at the effects of domestic institutions on foreign policy decision making, see Peter J. Katzenstein, ed., *Between Power and Plenty: Foreign Economic Policies of Advanced Industrial States* (Madison: University of Wisconsin Press, 1978); Putnam (fn. 11); Peter A. Gourevitch, "Squaring the Circle: The Domestic Sources of International Cooperation," *International Organization* 50 (Spring 1996); Kal Raustiala, "Domestic Institutions and International Regulatory Cooperation: Comparative Responses to the Convention on Biological Diversity," *World Politics* 49 (July 1997).

[36] Berger and Dore (fn. 8); Peter Evans, "The Eclipse of the State? Reflections on Stateness in an Era of Globalization," *World Politics* 50 (October 1997); Herbert Kitschelt, Peter Lange, G. Marks, and John D. Stephens, eds., *Continuity and Change in Contemporary Capitalism* (Cambridge: Cambridge University Press, 1999).

policy regimes have not resulted in significant convergence in the management systems of firms located in the U.K., the U.S., and Germany. It does this not only by looking at how domestic institutions structure firms' preferences for participating in an EMS but also, and somewhat uniquely, by examining how the nature of the policy regime itself shapes governments' abilities to mold this policy to its own institutional landscape.

We draw on and synthesize insights from the three different variants of institutional theory outlined above. While historical institutionalism has been used almost exclusively by comparativists and regime theory almost exclusively by scholars of international relations, new institutionalism has been able to offer insights to both subfields. As such, we start with the new-institutionalist assumption that individual firms look to prevailing incentive structures as the basis for deciding whether to adopt an EMS. We then turn to historical institutionalism and regime theory to better understand the formation of incentive structures and how they vary across countries. We do not privilege the importance of one type of institution over the other. Rather, we are interested in the interactive effects of supranational and domestic institutions. In examining this interaction, we pinpoint the circumstances under which each has causal effects. In our case, and we suspect in most cases, both are important in explaining the outcomes observed.

EMAS AND ISO 14001

EMAS and ISO 14001 are consciously crafted supranational regimes whose origins can be found in both economic globalization and what Richard Falk refers to as "globalization from below."[37] Falk argues that while the influence of MNEs and supranational economic institutions such as the WTO, the IMF, and the World Bank have greatly increased through economic globalization, the power of these institutions has simultaneously been countered by the spread of certain supranationally accepted norms. One of the most important of these global norms is sustainable development, which calls for economic growth that does not outstrip the earth's capacity to regenerate the resources used. As a result of the acceptance of this norm, the last decade has seen the establishment of several supranational environmental programs in which business formally recognizes its responsibility to the environment and pledges to take a proactive stance to reduce its ecological impacts.[38]

[37] Falk (fn. 5).

[38] Other examples of supranational "beyond compliance" codes include the chemical industry's Responsible Care Program, the Valdez Principles, and the International Chamber of Commerce's

The early 1990s also saw changes in the EU's basic environmental policy framework. The 5th Environmental Action Plan, published in 1992, proposed introducing more voluntary and market-oriented policy instruments.[39] Interest in a voluntary EMS scheme grew within the European Commission after what was perceived to be the successful piloting of the national British EMS standard, BS 7750. In December 1991 the commission submitted a proposal for the EMAS regulation to the European Environmental Council. After intense debate it was finally adopted as a community regulation in June 1993.[40] As a governmental initiative, the individual member states are responsible for establishing the accreditation system for the independent verifiers and for appointing a body responsible for registering companies into the system.[41] Many countries have chosen to use private bodies for these tasks. Typically, these bodies are also responsible for the accreditation and registration procedures of the ISO 14001 scheme in that country.

As with EMAS, one of the primary objectives of ISO 14001 is to preempt the proliferation of national environmental laws that could serve as trade barriers.[42] ISO took the first step toward developing ISO 14001 in 1991, when it established a strategic advisory group. In 1992 a technical committee (TC 207) was set up to formulate environmental standards. Forty-seven countries participate in TC 207 as full voting members, and another thirteen participate as advisers. National standards organizations such as the DIN (Deutsche Institut Normen) in Germany or the ASNI (American National Standards Institute) in the U.S. make up the official membership of ISO. Much of the work carried out in the subcommittees is done by appointed "experts," however, many of whom are representatives of industry.[43] TC 207 has six subcommittees,

Business Charter for Sustainable Development. For a theoretical discussion, see Aseem Prakash, "Responsible Care: An Assessment," *Business and Society* 39, no. 2 (2000).

[39] Commission of the European Communities, *Towards Sustainability: A European Community Programme of Policy and Action in Relation to the Environment and Sustainable Development* (COM(92)23 final, 1992).

[40] The Environmental Council of Ministers is the intergovernmental body that consists of the environmental ministers of the fifteen member states and that is responsible for adopting all environmental legislation proposed by the commission. For reference, the first EMAS draft was published before the 5th EAP in 1991, but it changed a great deal after the publication of BS 7750 and the pilot program that preceded this.

[41] Commission of the European Communities, *Draft Proposal for a Council Regulation Establishing a Community Scheme for the Evaluation and Improvement of Environmental Performance in Certain Activities and the Provision of Relevant Information to the Public (Eco-Audit)* (COM(91)XI/83, 1991).

[42] Jennifer Clapp, "The Privatization of Global Environmental Governance: ISO 14000 and the Developing World," *Global Governance* 4, no. 3 (1998).

[43] D. Hortensius and Barthel, "Beyond 14001," in C. Sheldon, ed., ISO *14001 and Beyond* (Sheffield, U.K.: Greenleaf Publishing, 1997).

TABLE 3
ISO 14000 SERIES: AN OVERVIEW

ISO Series	*Description*
ISO 14001	environmental management systems: specifications with guidance for their application
ISO 14004	environmental management systems: general guidelines on principles, systems, and supporting techniques
ISO 14010	general principles of environmental auditing
ISO 14011	audit procedures
ISO 14012	qualifications criteria for environmental auditors
ISO 14024	environmental labeling
ISO 14031	environmental performance evaluation
ISO 14040	guidelines on life-cycle assessment
ISO 14050	terms and definitions

SOURCE: Adapted from Subash C. Puri, *Stepping Up to ISO 14000: Integrating Environmental Quality with ISO 9000 and TQM* (Portland, Ore.: Productivity Press, 1996), 18.

which, in turn, have several working groups. As illustrated in Table 3, the ISO 14000 series consists of one mandatory compliance standard—ISO 14001—and several nonmandatory guideline standards. The mandatory standard, like EMAS, calls for establishing an EMS whose criteria must be met in order to receive certification from an outside verifier. Since both ISO 14001 and EMAS are based on BS 7750, they share many structural similarities.

Despite explicit efforts to bring ISO 14001 and EMAS into conformity with one another, several differences exist between the two standards. The most important of these can be found in the scope, reporting requirements, and the strength of language contained in the two standards. EMAS is restricted to use within EU/EFTA member states, while ISO 14001 is international. Additionally, EMAS can be employed only by manufacturing industries and must be implemented at specific sites, whereas ISO 14001 is open to organizations of all kinds and is not site specific. Thus, while ISO 14001 can be used to certify all of a company's offices and production sites, companies opting for an EMAS certificate must have each of its production sites validated separately and cannot include nonproduction offices in the certificates. Furthermore, EMAS requires participating companies to publish an environmental statement. While ISO 14001 encourages open communication with the public, no environmental publication is required. Finally, several elements of EMAS that are also found in ISO 14001 are stated in more concrete language and leave less room for interpretation. Thus, for example,

both standards consider the need to make continuous improvements in environmental performance. EMAS, however, requires improvements in actual environmental performance, whereas ISO 14001 calls only for making continuous improvements in the management system. Similarly, while compliance with all national and supranational environmental laws is a requirement for EMAS validation, ISO 14001 participants have to show only that the management system is capable of ensuring legal compliance. While there is little evidence to suggest that companies with EMAS validation have higher levels of environmental performance than those certified to ISO 14001, EMAS is widely perceived to be the more stringent of the two standards among both environmental and business groups.[44]

In adopting EMAS or ISO 14001, firms face two kinds of costs. First, they have to create a new EMS or modify an extant one. Both EMAS and ISO 14001 require extensive documentation, which, in turn, requires the use of significant company resources. Because of the environmental statement obligation, the documentation necessary for implementing EMAS is greater than that required for implementing ISO 14001. Second, both EMSs require third-party certification. These expenses are significant, typically around $25,000 per facility. It is estimated that for a firm with twelve facilities, overhead and certification expenses would amount to $1 million per annum.[45] There is no evidence to suggest that the costs of verification are greater for one EMS than for the other. Generally, the auditing of the two systems within European countries is carried out by the same firms, which offer identical services for both EMSs.

Adopting EMAS and ISO 14001 also creates benefits for firms. First, these initiatives have the potential to enhance participants' environmental image. While often difficult to quantify, this enhanced image could lead to such things as increased sales, better ability to recruit talented employees, and improved relations with environmental regulators

[44] Commission of the European Communities, *Regulation on EMAS* (EEC/1836/93, 1993).

The European Union is in the process of adopting a revised EMAS II scheme that would use ISO 14001 as the management system part of the scheme. The European Parliament has also tried to add amendments to this proposal to introduce concrete performance standards such as more stringent BAT measures. No final draft has yet been decided upon. Thus the struggle both to harmonize EMAS with ISO 14001 and to strengthen the scheme goes on. For the latest version of EMAS II draft proposal, see Commission of the European Communities, *Community Preparatory Acts,* Document 599PC0313 (2000).

[45] NSF International, *International Environmental Management System Demonstration Project: Final Report* (Ann Arbor, Mich.: NSF International, 1996). Procter and Gamble, however, estimates a higher figure: $100,000 per site. With 150 facilities worldwide, it would amount to $15 million for Procter and Gamble's worldwide operations. See Ans Kolk, *The Economics of Environmental Management* (Essex: Prentice Hall/Financial Times, 2000).

and other stakeholders.[46] This latter advantage could lead to greater industry influence over policy-making processes. Since command-and-control regulations (that still form the basic structure of environmental policies) are often perceived to be unfriendly to industry and economically inefficient, better access to and influence over the regulatory process could bring real benefits to the companies involved.

Second, supranational EMS norms could facilitate international trade by replacing country-specific standards with a supranational standard. To a certain extent, of course, the regional scope of EMAS undermines this principle. In fact, one reason many European companies opt for ISO 14001 over EMAS is its international scope. Both, however, do offer the potential advantage of lowering trade barriers by superseding national standards. The use of these EMS standards in developing countries that are widely perceived to have lower environmental standards could also result in a more level playing field, thereby blunting the empirically incorrect but politically powerful criticism that foreign trade abets the lowering of environmental standards.[47]

Finally, EMSs have the potential to bring companies tangible financial gains. First, locating and subsequently reducing resource waste during production processes could lead to significant cost savings. These savings would come in the form of lower energy expenditures, reduced waste-handling fees, and lower costs for raw materials. Additionally, companies with EMSs may be able to secure better insurance and/or lending rates.[48] Many suggest, however, that such "low hanging fruit" has already been plucked and EMSs can only marginally lower production costs.[49]

To summarize, both EMAS and ISO 14001 bestow benefits on firms but also impose costs. Most costs are quantifiable and occur in the short run, while the benefits are nonquantifiable and occur over the long run. Costs are often excludable and benefits relatively nonexcludable. The varying degrees of success of ISO 14001 and EMAS in the U.S., the U.K., and Germany suggest that the perception of benefits and costs of these two EMSs varies significantly across countries. The next section examines the reasons for this variation in response. Building on our original

[46] For an overview of the stakeholder theory, see Max B. E. Clarkson, ed., *The Corporation and Its Stakeholders* (Toronto: University of Toronto Press, 1998).

[47] For a review, see Jagdish Bhagwati and Robert E. Hudec, eds., *Fair Trade and Harmonization* (Cambridge: MIT Press, 1996), vols. 1, 2.

[48] "Responsible Care Earns Discount on EIL Premium," *Chemical Week* (July 23, 1997), 11.

[49] Noah Walley and Bradley Whitehead, "It's Not Easy Being Green," *Harvard Business Review* (May–June 1994). For an opposing view, see Michael E. Porter and C. van der Linde, "Towards a New Conception of Environment-Competitiveness Relationships," *Journal of Economic Perspectives* 9, no. 4 (1995).

hypothesis that the institutionalization of business-government relations in a country would influence the attractiveness of an EMS to firms, the section also examines effects of the type of adversarial economies and the nature of the policy regime in explaining these outcomes.

Firm-Level Response: A Cross-National Comparison

As stated previously, firms' responses to EMAS and ISO 14001 have varied in Germany, the U.K., and the U.S. (see Tables 1 and 2). British firms have responded enthusiastically to ISO 14001, but EMAS take-up rates in the U.K. are rather low in comparison with those in other EU member states. German firms have responded enthusiastically to both EMS standards. By contrast, American firms have not responded enthusiastically to ISO 14001, the only international EMS standard available to them. How can these variations be explained? Our initial hypothesis posited that firms residing in countries with adversarial economies will be less likely to adopt EMS standards.[50] As will subsequently be discussed, although adversarial relations come in different forms, it is generally agreed that they are found in countries where governments have shown a persistent will and ability to pass stringent pollution-control legislation over the objections of industry. Thus, historically, governments have imposed environmental policy upon industry without extensive attempts at consensus building.[51]

In the realm of environmental policy, environmental groups contributed significantly to this adversarial relationship. Because of the transnational nature of many environmental groups, scholars have tended to ignore cross-national differences in the environmental movements found in advanced industrial societies. While a global civil society may be forming around such issues as human rights and environmental issues, differences between national groups and broader national social movements should not be ignored. Thus, for example, governments in countries with politically strong environmental move-

[50] MNEs have facilities across countries. Pauly and Reich (fn. 15) Research suggests that the nationality of the parent firm continues to matter in many aspects of corporate governance. However, most MNEs try to implement nonmarket strategies, especially in terms of their relationship with regulators, that respond to the characteristics of the host country. In other words, MNEs' nonmarket strategies are multidomestic and not global; David P. Baron, *Business and Its Environment* (Upper Saddle River, N.J.: Prentice Hall, 1999). This, of course, may prove problematic if the opposition to MNEs assumes a global rather than a local character—Seattle being a case in point. For a detailed discussion, see Aseem Prakash, "Beyond Seattle: Globalization, the Non-Market Environment, and Business Strategy," Working Paper no. 2000-03 (Department of Strategic Management and Public Policy, The George Washington University, Washington, D.C., 2000).

[51] Lennart Lundqvist, *The Hare and the Tortoise: Clean Air Policies in the United States and Sweden* (Ann Arbor: University of Michigan Press, 1980).

ments that espouse an anti-industry ideology—such as Germany and the U.S.—often have to deal more harshly with polluting industries than governments in countries where the environmental movement is not so anti-industry in orientation. Environmental groups that are suspicious of industry "capture" of regulators are often wary of consensual, third-generation regulations. As a result, they often put a great deal of pressure on governments to continue using prescriptive command-and-control policies. Not surprisingly, levels of trust among all three actors tend to be rather low.

This adversarial relationship negatively affects firms' incentives to participate in an EMS in a number of ways. First and perhaps most obviously, governments find it difficult to offer firms regulatory relief and/or more access to policy-making processes. Second, years of stringent environmental laws make industry suspicious of any type of environmental regulation, even of a voluntary nature. Those in industry are on the lookout for hidden dangers. Furthermore, companies that have been fined for violating environmental regulations or have been taken to court in environmental liability lawsuits are leery of sharing information with third-party auditors. Finally, firms that have been stringently regulated are less likely to find environmentally related cost-cutting opportunities through EMS arrangements than are their counterparts in less stringently regulated countries. This occurs for the rather obvious reason that tightly regulated companies have already been forced to use resources more efficiently and therefore have generally exhausted the easily implemented cost-cutting measures. All told, firms operating in countries with an adversarial economy have fewer incentives to participate in EMS schemes than do their counterparts in countries where relations are less conflictual.

The term adversarial economy was developed to describe government-business relations in the U.S.[52] This adversarial economy has deep historical roots that can be traced back to the manner in which industrialization occurred in the U.S. and to the early emergence of manufacturing and distribution monopolies. In the U.S., unlike in some European countries, government stepped in to regulate big business, and this crusading mentality has become embedded in the missions and cultures of many federal regulatory agencies. While considerably younger than the first regulatory agencies that gained fame during the Progressive Era, the Environmental Protection Agency (EPA) was cre-

[52] Alfred D. Chandler, "Government versus Business: An American Phenomenon," in John Dunlop, ed., *Business and Public Policy* (Cambridge: Harvard University Press, 1980); Alfred A. Marcus, *The Adversary Economy* (Westport, Conn.: Quorum Books, 1984).

ated to combat what was perceived to be widespread industry abuse of the environment. To retain support of its key constituents, the EPA aggressively regulates industry.[53] The adversarial nature of environmental policy-making in the U.S. has been meticulously described by a number of scholars.[54] However, perhaps the most damning evidence can be found in a simple statistic. A study in the early 1990s found that four out five regulations signed by the EPA administrator are challenged in court.[55] Not only are these challenges costly and time consuming, but their adversarial nature has all but poisoned relations between the EPA, industry, and environmental groups.

In many ways the German system would appear to represent a very different model of regulatory control. Germany is known for its consensual style of policy-making in which its social partners, the peak industry and labor associations, are intimately interwoven in the decision-making processes. Although business is regulated through well-defined laws with quantified standards, these standards are usually made by consulting industry or by industry itself. However, not all regulatory fields fit this general policy-making model, and German environmental policy is in many ways an exception to the rule.[56] Faced with a popular and relatively radical environmental movement that is ideologically opposed to compromise with industry, the German government has been forced to take a less conciliatory line with industry than is usual. While the government has on a number of occasions caved in to industry pressure, it has consistently shown a will and an ability to pass stringent, technology-forcing environmental laws over industry protests.

[53] The adversarial economy coexists with numerous instances of "capture," especially in relation to nonenvironmental issues; on "capture," see George Stigler, "The Economic Theory of Regulation," *Bell Journal of Economics* 2 (Spring 1971). Historically, regulatory agencies have also functioned as cartel-enforcing bodies in industries such as trucking, railways, and airlines. Thus, as we argue subsequently, the notion of adversarial economy needs better specification.

[54] See Vogel (fn. 12); and Kagan (fn. 12, 1994, 1991).

[55] Environmental Protection Agency/EPA, *Oral History Interview 1, William K. Reilly,* http://www.epa.gov/cgi-bin/claritgw, 1995 (retrieved November 17, 2000).

To illustrate further, in the recently decided *Browner v. American Trucking* and *American Trucking v. Browner* cases by the U.S. Supreme Court, the trucking industry challenged the EPA's authority to make rules under the Clean Air Act. In 1997 the EPA promulgated regulations on stricter ozone and particulate emission standards. A large number of business groups also filed friends-of-the-courts briefs arguing that such regulatory powers are not inconsonant with the nondelegation doctrine that requires that laws be made by the elective representatives only (the EPA being a nonelected body). Further, firms were outraged that the EPA promulgates regulations predominantly to achieve public health objectives, without doing adequate cost-benefit analysis. At a broader level, this case suggests that businesses are challenging the authority of all federal regulatory agencies and reinforcing the continuation of an adversary economy.

[56] Edda Müller, *Innenwelt der Umweltpolitik: Sozial-liberal Umweltpolitik* (Opladen: Westdeutscher Verlag, 1986).

In part, the similarities between American and German environmental policies are not entirely coincidental. In the early phases of German environmental policy-making, legislators borrowed heavily from the American model that had been developed several years before.[57] This emulation included the use of technology-forcing emissions limits and the prescriptive use of the best available technology (BAT). The political will to pass this kind of legislation in the face of industry opposition grew throughout the 1980s along with the strength of the environmental movement and the newly formed Green Party. Perhaps the best example of the environmental movement's influence came with the passage in 1986 of the Large Combustion Plant Directive, which introduced the most stringent sulfur dioxide emissions limits for power plants in the world at the time. Despite intense industry lobbying against the adoption of such measures, the government was forced to react to widespread public dismay over the effects of acid rain on German forests. If it was not already clear, the drama that surrounded the passage of this legislation confirmed the fact that environmental policy-making in Germany would not adhere to the consensus-seeking style that characterizes economic policy-making.

Several German scholars have, however, noted a trend toward greater cooperation between environmental groups, government bureaucracies, and industry.[58] While it is true that the less radical, pragmatic wing of the Green Party, known as the Realos, has come to dominate party policy and that environmental groups are now regularly consulted before the passage of major environmental legislation, there is little evidence to suggest that levels of trust between industry and environmentalists have risen significantly. This fact has been demonstrated several times since the entry of the Greens into a national ruling coalition with the Social Democrats two and a half years ago. Although weakened by their somewhat disappointing showing in the 1998 election, the Greens entered the coalition promising to deliver on two reform projects that have been a part of the party's platform for years, namely, an ecologically oriented tax reform and shutting down Germany's nuclear power program. Both of these projects have met with significant resistance from German business groups, which have shown very little inclination to compromise on either subject. While a modest tax has been levied on mineral oil and natural gas over the objections of industry, talks aimed at encouraging energy companies to voluntarily

[57] Ibid.

[58] Helmut Weidner, "Twenty-five Years of Modern Environmental Policy in Germany: Treading a Well-Worn Path to the Top of the International Field," WZB Working Paper, FS II 95-301 (1995).

shut down their nuclear power plants in exchange for compensation have largely failed. In the summer of 2000 an agreement was reached in which it was agreed that the country's atomic power plants would be allowed to operate for another thirty-two years—a compromise that met almost none of the Green Party's demands. One of the party's two chief spokespersons reacted by calling the deal "unacceptable" and publicly voicing fears about substantial membership loss.[59] A minority of the Green Party supporters found this solution unacceptable and have called on party leaders to withdraw from the coalition. Thus, in neither case has a true consensus been reached, suggesting that the old politics of mistrust is still very much a part of German environmental policy-making.

According to David Vogel, the U.K. employs a style of environmental regulation very different from that practiced in the U.S. and Germany.[60] The British government has traditionally shied away from using national emissions limits to reduce industrial pollution. Instead, operating permits for individual sites are negotiated between local environmental inspectors and site personnel. Although national laws do stipulate nonbinding, general guidelines for emissions limits, these laws also specifically state that local environmental as well as economic conditions should be taken into account when setting these limits. British environmental regulators seldom take violators to court and have facilitated a cordial relationship between themselves and the regulated.

As in Germany and the U.S., the origins of this regulatory style can be found in the historic development of environmental policy in the U.K. As the first country to industrialize, the U.K. was also the first country to experience problems with environmental pollution. Not surprisingly, it developed the first pollution-control system with the creation of the Alkali Inspectorate in 1863. Established at a time when the precise measurement of emissions was not possible, the inspectorate relied on negotiations with individual factory sites to bring about pollution reductions. This style, with its reliance on flexibility, has been retained in the extant regulatory culture.

The nature of the environmental movement in the U.K. has also played a role in shaping British policy style. Although this movement is relatively strong in terms of membership and money, its ideology is considerably less radical and, more importantly, less anti-industry than its German or American counterparts.[61] This can, in part, be attributed

[59] M. Urbach, "Konsens aus Koalitionsraeson," *Tageszeitung* (June 6, 2000).

[60] Vogel (fn. 14).

[61] Sonja Boehmer-Christiansen and Jim Skea, *Acid Politics: Environmental and Energy Policies in Britain and Germany* (London: Belhaven Press, 1991); Philip Lowe and Jane Goyder, *Environmental Groups in Politics* (London: Allen and Unwin, 1983).

to the fact that many older conservationist groups such as the National Trust and the Council for the Protection of Rural England have played an important role in shaping the agenda of the environmental movement. These groups tend to be politically conservative and more willing to take a cooperative stance in dealing with industry. This is not to say that more politically aggressive groups such as Greenpeace and Friends of the Earth have no influence over the British environmental movement. It simply suggests that these groups are not dominant in the way that they are in the U.S. and Germany. As a result, the government has not been under the same kind of pressure to take an adversarial approach to controlling industrial pollution.

Vogel concludes that the adversarial approach to environmental policy practiced in the U.S. and Germany has resulted in about the same amount of pollution reduction as the more consensual style used in the U.K. However, the political costs incurred by the American and German governments in bringing about these improvements far outweighs those incurred by the British government. By employing adversarial tactics, the American and German governments deplete their store of political capital in their relations with industry. As a consequence, industry is wary of responding to initiatives that might set a bad precedent or make business vulnerable to the government or to environmental groups.

One would therefore expect that a voluntary, beyond-compliance EMS would be received more positively by firms in the U.K. than by firms in the U.S. or Germany. True to their adversarial disposition, U.S. regulators reacted to ISO 14001 with skepticism and have not actively promoted it by offering significant regulatory relief to its participants. Most importantly, the EPA has not offered an attorney-client type of privilege to third-party auditors.[62] This makes the prospects of using such auditors less appealing to U.S. firms, which face the stiffest environmental liability laws in the world.

In addition to the issues of the agency's culture and mandate, the EPA faced some real political constraints. It came under severe attack during the 104th and the 105th Congresses. In fact, there was an active proposal to abolish the EPA altogether. In its efforts to survive this onslaught, the EPA received valuable support from environmental groups. And since these groups are skeptical of EMS-based regulation, the EPA would spend its political capital if it actively promoted EMS-based systems.

British regulators, by contrast, have taken great pains to promote EMS-based policies by linking them to other voluntary initiatives and by offer-

[62] Aseem Prakash, "A New Institutionalist Perspective on ISO 14000 and Responsible Care," *Business Strategy and the Environment* 8, no. 6 (1999).

ing small and medium-size firms financial help in implementing them. The British government has also offered firms some limited amounts of regulatory relief by using both ISO and EMAS as a reducing factor in the risk assessment calculations used to determine frequency of site inspections.[63] Additionally, British firms have benefited from the fact that in the early 1990s the British Standards Institute heavily promoted the national EMS, BS 7750, with a successful and extensive pilot program. This program helped lower firm costs in gaining information about EMS schemes and how to implement them. Since firms with BS 7750 certificates automatically received ISO 14001 certification upon publication of the latter and the withdrawal of the former, this pilot program, along with the national EMS standard, has provided a big boost to ISO 14001 in the U.K. It needs to be added, however, that this pilot program was also carried out with support from the Department of the Environment.[64] Thus, the ability and the will of the British government to facilitate the adoption of beyond-compliance EMS and the inability or will of the U.S. government to do the same go a long way in explaining the different take-up rates of EMSs—either EMAS or ISO 14001—in the U.K. and the U.S.

What the adversarial economy hypothesis cannot explain, however, is why Germany has the highest adoption rates of EMSs (both EMAS and ISO 14001) of the three countries under study and why British firms have responded in such a lukewarm manner to EMAS. Germany and the U.K. thus become the problematic cases in need of explanation. What the article will subsequently argue is that our original hypothesis, while largely correct, is underspecified. To better explain why German firms have responded enthusiastically to EMAS and ISO 14001 and why British firms are more enthusiastic about ISO 14001 than EMAS, one needs to take into account the international policy regime type and the nature of the adversarial economy.

Policy Regime: Procedural versus Substantive

Our original hypothesis suggests that given the strained relations among industry, government, and environmental groups, the German government would not be able to promote EMSs and offer incentives for participation in the same way that the British government could. The fact that the German government offers EMAS-certified companies at least as much, if not more, regulatory relief than the British government does seem to contradict this hypothesis. Upon closer inspection it becomes

[63] Author interview with Martin Cheesborough, Environment Agency, July 14, 1998.

[64] Author interview with Bernard Walsh, Department of Environment, Transport and the Regions, July 13, 1998.

clear, however, that the kinds of incentives the German government has offered participating companies and the way in which it has used EMAS and ISO 14001 as policy instruments are vastly different from how EMS standards have been used in the U.K. Further, the response of both governments is largely in keeping with their respective policy styles and institutional imperatives. The German government could do so because of the specific characteristics of the EMS regimes. Thus, the success of a supranational regime is contingent both on its nature and on how it fits with the institutional structures of the implementing countries.

EMAS and ISO 14001 are procedural supranational regimes that require the use of certain management systems or the erection of certain schemes. This allows governments to mold these regimes to their own policy styles and institutional imperatives. By contrast, more substantive regimes that stipulate quantifiable goals often do not leave as much room for interpretation or maneuver.[65] As will be shown below, the German and British governments have indeed molded EMAS to their own policy approaches and have used it as almost two different policy instruments. In fact, the German government never wanted EMAS and tried to block its adoption in the European Council. As support for EMAS grew among the other member states, however, Germany decided that it could no longer play the lone holdout. Nevertheless, the German negotiators were able to get certain things written into the final draft that made it more acceptable to them. The most important of these concessions was the addition of what is called EVABAT (economically viable application of the best available technology) as the criteria by which continual improvement in environmental performance is measured. The German negotiators wanted a pure BAT measurement.[66] This was vetoed by the British negotiators, who felt that the Germans misunderstood the idea behind voluntary schemes—in the opinion of the British, to get away from the prescriptive command-and-control type of legislation.[67] Contrarily, the German officials felt that the EMAS regulation put too much emphasis on management systems and not enough emphasis on measuring actual environmental performance.

The contrasting views of what EMAS should be that surfaced during the EU Council negotiations reflected the two countries' diverging pol-

[65] For a more in-depth discussion of the effects of procedural versus substantive supranational policy regimes, see Kelly Kollman, "The Globalization of German Environmental Policy" (Paper presented at the annual meeting of the German Studies Association, Atlanta, Ga., October 7–9, 1999).

[66] For a detailed account of the negotiations that took place in the Council over EMAS, see Siegfried Waskow, *Betriebliches Umweltmangement* (Heidelberg: C. F. Müller, 1997).

[67] Author interview with Geoff Smith, Department of Trade and Industry, July 13, 1998, and Ruth Hillary, March 9, 1999.

icy styles (rooted, in turn, in institutional structures and histories) and foreshadowed the differing manner in which EMAS would be implemented in each country. Britain has attempted to tie EMAS to what the Department of Environment, Transport and the Regions (DETR) calls the voluntary movement in environmental regulation. This movement calls on companies to find their own marketable ways of improving their environmental performance by engaging in a dialogue with key stakeholders.[68] Thus, the British government has incorporated both EMAS and ISO 14001 into its high-profile environmental reporting and sustainable business schemes.[69] While Britain has done its best to emphasize the beyond-compliance part of EMAS, the German government has implemented it in a way that puts compliance with regulation right back at center stage. Thus, the British government's nondiscriminatory use of both standards coupled with the fact that the preexisting national EMS, BS 7750, is more compatible with the ISO 14000 series than with EMAS explains why the former has been so much more popular than the latter in the U.K.

Unlike in the U.K., where no transposition legislation was employed, the German government has passed a series of detailed laws implementing EMAS. The Federal Environmental Ministry (BMU) made sure that procedures for the legal compliance part of the third-party audit were carefully spelled out and well regulated. Having done this, the BMU let it be known through a series of publications that EMAS could be used as a substitute for certain legal requirements. This would mostly apply to such legal requirements as mandatory environmental reports that industrial sites have to submit to regulators. However, the BMU has also made it very clear that there would be no lifting of material environmental standards.[70] In other words, EMAS participants could be relieved of the onus of double reporting, but they would not see pure deregulation.

To sum up, Germany was able to reach a compromise in its use of EMAS: it offered firms light regulatory relief, but it implemented EMAS like a command-and-control instrument designed to oversee and measure firm environmental performance. The procedural nature of the EMAS regulation provided the German government with enough room for maneuver to find this compromise position. Thus, domestic institu-

[68] Another interview with Bernard Walsh, July 13, 1998.

[69] See Department of Environment, Transport and the Regions, *Environmental Reporting: Getting Started* (London: HMSO, 1999); idem, *Sustainable Development: Opportunities for Change and Sustainable Business* (London: HMSO, 1998).

[70] Waskow (fn. 66).

tions mattered in influencing the attractiveness of EMAS to German regulators. However, the procedural nature of the supranational regime created the policy space in which the regulators could marry domestic institutional imperatives with the requirements of the regime.

Adversarial Economy

We still need to explain why American regulators have not been able to offer significant regulatory relief to ISO 14001–certified firms. The fact that EMAS is a government initiative may have made it easier for the German government to impose its more prescriptive style on the scheme, but the U.S. government could have done the same with the very flexible ISO 14001. In order to understand the differences in the American and German responses to EMS schemes, we have to look at the different institutional foundations of the two countries' adversarial environmental policy approach. For this, we draw on the work of Robert Kagan.[71]

Kagan suggests that, in comparison with other advanced industrial democracies, the U.S. employs a unique style of policy formation and implementation, for which he coins the term "adversarial legalism." This syndrome encompasses complex and formal legal rules; adversarial procedures for resolving political and scientific disputes; slow and costly forms of legal contestation; strong punitive legal sanctions; frequent judicial review of and intervention in administrative decisions; and proneness to political controversy about (and more frequent change of) legal rules and institutions. It manifests itself in frequent legal contestations, litigant activism, and substantive legal uncertainty about whether an official policy will survive judicial scrutiny.[72]

To elaborate, the fragmented nature of American government and its uniquely weak bureaucracy have led to a reliance on the public's right to challenge and prod official action through litigation. This pattern is easily identifiable in the environmental policy field, with its reliance on court challenges by public interest groups and strict liability law (for example, the joint and several liability clauses in the superfund legislation). Indeed, it is the fear of having evidence gathered from a third-party auditor used against them in a court of law that has caused many American firms to shy away from adopting ISO 14001.

While the German approach to environmental reform relies on adopting complex and legalistic policy over the objections of industry, it only rarely uses the threat of judicial action to ensure that these rules

[71] Kagan (fn. 12, 1994, 1991).

[72] For an account of how American adversarial legalism negatively affected the U.S. government's desire/ability to ratify the Convention on Biological Diversity, see Raustiala (fn. 35).

are properly implemented.[73] German regulators therefore do not operate under the constant threat of judicial review that can overturn their decisions. Thus, unlike in the U.S., the German courts have played only a minor role in shaping environmental policy. Similarly, liability law remains relatively weak in Germany and has been seen as secondary to the preferred instruments of BAT and strict emissions limits. As a result, the fear of having EMS standards reveal potential liability problems is almost nonexistent for German firms.

Furthermore, while relatively radical environmental movements in both Germany and the U.S. have forced the governments in both countries to take a rather adversarial approach to dealing with industrial pollution, government-industry relations in the area of environmental policy are not identical in the two countries. As noted previously, the German system is noted for its consensual policy-making style. While for the most part this style has not been carried over into the environmental policy-making field, the institutions that facilitate government-industry cooperation in other areas are naturally still in place. The German government has used the dense network of parastate industrial organizations[74] to help work out many of the technical details in the German environmental law.[75] Thus, Germany's adversarial economy is rooted in prescriptive interventionism rather than in adversarial legalism inspired by citizen groups.

One final difference between the American and German environmental regulation has played an important role in the patterns of EMS adoption. Third-party auditors in Germany often offer to certify sites to EMAS and ISO 14001 at the same time, at no additional cost or for only a minimal additional fee. Thus, although the German government does not offer ISO-certified sites any regulatory relief, once a site is EMAS validated, the costs of securing an ISO certificate are rather low. For this price the site then gains the additional advantage of having an internationally recognized certificate. Many U.S. auditors are also beginning to offer auditing services simultaneously for ISO 14000 and ISO 9000 quality system.[76] Though this does result in some savings, especially in terms of time invested by facilities in preparing for the auditors' visit, the savings are small compared with what Germans auditors can offer.

Thus, the type of adversarial economy (adversarial legalism versus

[73] Susan Rose-Ackerman, *Controlling Environmental Policy: The Limits of Public Law in Germany and the United States* (New Haven: Yale University Press, 1995); Helmut Weidner, *Basiselemente einer erfolgreichen Umweltpolitik* (Berlin: WZB, 1995).

[74] Katzenstein (fn. 13).

[75] Müller (fn. 56); Weidner (fn. 58).

[76] Prakash (fn. 1, 2000).

prescriptive interventionism) is an important factor in how firms respond to EMS standards. In the U.S., where firms fear expensive litigation, incentives for having a certified EMS are less clear than in Germany, where the regulatory burden comes in the form of strict regulation, extensive documentation, and reporting duties. To summarize, the variable nature of the adversarial economy explains the different paths of EMS adoption in Germany and the U.S.

Conclusion

ISO 14001 and EMAS are part of a growing trend toward creating beyond-compliance supranational policy regimes. As such, they are characteristic of a new type of environmental governance that is more reliant on both supranational rule making and private authority in implementation. As both EMAS and ISO 14001 are relatively young—six and five years old, respectively—their ultimate effectiveness in changing the behavior of target groups has yet to be established. This article has examined the circumstances under which firms are likely to adopt EMS, adoption rates being the most basic measure of their effectiveness. By comparing the response of American firms with those of British and German firms to both ISO 14001 and EMAS, we have shed light on the manner in which supranational regimes and domestic institutional structures interact with one another, affect firms' incentives, and influence policy outcomes. Using this institutional approach, we have illustrated why our original adversarial economy hypothesis was underspecified and therefore unable to adequately explain either German or American firms' responses to supranational EMS.

For a better specification, we incorporated two additional variables into our analysis. First, it was necessary to look at the nature of the supranational regimes themselves to understand their compatibility with national-level institutions. Drawing on insights from the historical institutionalist literature that emphasize the impact of macrostructures on various actors, the article suggests that supranational policy regimes that are procedural in nature can more easily be manipulated by policymakers to fit a country's institutional framework than can policy regimes that set substantive goals. As a result of this institutional flexibility,[77]

[77] Levy, Keohane, and Haas, as well as Braithwaite and Drahos, conclude that environmental regimes that are strategically vague (similar to procedural regimes in this paper) provide governments with flexibility in implementing them and are therefore less likely to be opposed in the domestic political economy. See Marc A. Levy, Robert O. Keohane, and Peter M. Haas, "Improving the Effectiveness of International Environmental Institutions," in Haas, Keohane, and Levy, eds., *Institutions for the Earth* (Cambridge: MIT Press, 1993), 14; and Braithwaite and Drahos (fn. 1), 295.

German regulators have been able to offer firms the necessary incentives to participate in EMS without incurring the wrath of environmental groups. They have done so by employing EMAS as another command-and-control instrument and promoting its use over the private ISO 14001. More substantive regimes would not have permitted this kind of flexibility. In keeping with its domestic policy style, the British government has chosen to emphasize the voluntary, beyond-compliance part of both EMAS and ISO 14001. As a result, EMAS is much more popular in Germany than in the U.K.

Second, to explain why U.S. regulators could not follow their German counterparts' example in granting regulatory relief, we differentiated between two types of adversarial economies—adversarial legalism and prescriptive interventionism. These can be differentiated along two dimensions: first, which domestic actors (in our case, business, government, and citizen groups) are important for bringing about an adversarial economy and second, how these groups interact with one another. The adversarial economy that exists in Germany and the U.S. is, in large part, tied to the historic development of a radical environmental movement that pressures the government to regulate industry stringently. While industry in both countries may have similar relations with environmental groups, industry-government relations vary cross-nationally. The German government has used the institutions of its consensual policy-making style in other areas to implement its more controversial environmental policy. This has given it some credibility with industry even in an area where relations are often strained.

The second characteristic of adversarial economies pertains to the institutions and instruments used by the government to regulate industry, as well as to those used by citizen groups to combat corporate power. The adversarial legalism of the American system, which is based on strict liability laws and excessive legal proceedings, discourages both firms and regulators from using an EMS. To the contrary, the prescriptive interventionism of the German government enabled it to pass off EMAS as yet another command-and-control instrument, while at the same time offering some regulatory relief. German firms, having little fear that third-party audits would create self-incriminating evidence that would be used in court, have reacted positively to the self-policing policies enshrined in EMS systems.

It would appear that this general framework can also explain firm-level response to ISO 14001 in East Asia. Firms in those economies that are characterized by high levels of government-business coordination have responded enthusiastically to the introduction of the suprana-

tional EMS.[78] Japan, Taiwan, South Korea, and Thailand all have high levels of firm participation in ISO 14001 (see Table 2). Although more research is needed to determine the exact national incentive structures for firm participation, the close ties between government and industry in these countries have played a significant role in the relative success of EMSs in these systems. In fact, the fear is that these close relationships may result in a dilution of accreditation standards because some national accreditation organizations function as de facto agencies of the ministries of international trade and commerce. Since such ministries are charged with increasing exports, accreditation organizations may have incentives to lower their standards.[79]

Finally, we conclude by highlighting the implications of our findings. They are twofold. First, supranational policy regimes should not be seen as monolithic forces that get filtered through domestic institutions. These regimes have different characteristics and these characteristics matter. How they matter depends on the domestic institutional imperatives for implementing the regime. Thus, to build upon Putnam's notion of two-level games where domestic politics constrain supranational policy discourse,[80] this article highlights the importance of domestic institutional structures in shaping actors' incentives, both governmental and nongovernmental, in responding to supranational regimes.

This also brings us to some broader conclusions about institutional theory. Comparativists and scholars of international relations have largely developed their unique strands of institutional theory in relative isolation from one another. As globalization continues and governance becomes more transnational in nature, it will become necessary to marry these two strands. While our effort is only a first step in this direction, we believe it offers some insight into the problem. In particular, it is important to recognize that domestic institutions have been created over a longer historic period and in a much more socially dense environment than is true of their international counterparts. As we found, even environmental movements in Western countries have followed a unique and country-specific historical development.

Each country's (and in some cases each region's) institutions have quirks that can have profound effects on the way supranational regimes

[78] David Soskice, "Divergent Production Patterns: Coordinated and Uncoordinated Market Economies in the 1980s and 1990s," in Kitschelt, Lange, Marks, and Stephens (fn. 36).

[79] Naomi Roht-Arriaza, "Environmental Management Systems and Environmental Protection: Can ISO 14001 Be Useful within the Context of APEC?" *Journal of Environment and Development* 6, no. 3 (1997).

[80] Putnam (fn. 11).

function within their borders. Thus, the study of how supranational regimes interact with domestic structures does not lend itself well to broad generalizations. Our original hypothesis was underspecified precisely because we did not fully understand the implications of this historic detail. The less demanding supranational regimes are in terms of specified outcomes, the more important domestic path dependencies become. As such, progress in understanding domestic/international interlinkages will probably be made only through qualitative case studies that employ thick description.

The second and related implication is that the concept of an adversarial economy is by itself perhaps too simplistic and needs to be better specified by taking into account a wider array of factors. In order for it to be a more useful concept, scholars need to specify each of the following: the issues (in which areas they are adversarial), the actors (for whom, why), the instruments and processes (how hostility is manifested), the institutions (which ones sustain it), the levels (how varying levels of adversarial relationships can be differentiated), and the outcomes (whether varying levels of adversarial relationships affect policy outcomes). Adversarial economies typically have institutional histories that explain why the relationships among regulators, businesses, and citizen groups are distrustful and hostile. The level of distrust and hostility may vary within and across countries. Relationships may be adversarial in some institutional arenas (judicial in the U.S.) but not in others (legislative). This may also vary at different levels of aggregation: it could, for example, be more adversarial at the federal level than at the subnational level. Importantly, highly regulated economies (such as the former Soviet Union) may not always be adversarial. Thus, to better understand how adversarial settings constrain actors, the various dimensions need to be better specified. As has been shown in this article, the type of adversarial economy found in the environmental field in Germany is quite different from the one prevailing in the U.S. This difference, in part, has caused domestic actors in the two systems to react quite differently to the introduction of supranational, beyond-compliance regimes. As the pace of economic globalization grows and our mechanisms of governance change, it is essential that we gain a better understanding of how interactions between local and supranational institutions play out.