

A Structural Theory of WTO Dispute Settlement: Why Institutional Choice Lies at the Center of the GMO Case

by Gregory Shaffer¹

Abstract: The regulation of agricultural biotechnology (the use of genetically modified organisms, GMOs) is of great importance. Opponents maintain that it can irreparably harm the environment and threaten human health. Supporters contend that it can significantly increase food yields and enhance nutrition in a world where almost a billion people go hungry every day. Disputes over this technology threaten to trigger a trade war among the world's two economic powers, the United States and European Union, posing risks to the global economy and international relations. The World Trade Organization (WTO) provides a legal forum that addresses these politically-charged conflicts, but it suffers from challenges to its legitimacy.

Grounding itself in this regulatory conflict, this Article puts forward and applies a theoretical framework for understanding what international courts do—that of comparative institutional analysis. Comparative institutional analysis assesses the impacts of judicial interpretive choices in terms of their structural allocation of power to alternative institutions. The Article demonstrates how WTO judicial interpretive choices allocate institutional authority for addressing policy concerns to alternative institutional processes, including the market, political and administrative processes, and courts, at different levels of social organization, from the local to the global. These choices are particularly important in a pluralist world involving constituencies with different interests, priorities, perceptions and abilities to be heard.

This theoretical framework is essential from a positive perspective (for understanding the structural role that judicial decisions play), and from a normative one (for evaluating institutional alternatives). From a normative perspective, the Article demonstrates that we cannot meaningfully assess the attributes and deficiencies of one institutional process – beset by resource, informational and other asymmetries – without comparing it with other institutions that may be subject to similar (but never identical) dynamics. Each institutional decision-making process has its attributes and deficiencies in terms of the dynamics of participation within it, ultimately affecting *who decides*.

From a structural perspective, the focus shifts from the question of what is being interpreted to the question of *who* is determining it. The Article shows how the WTO judicial process effectively allocates power “from” one institution “to” another, thus affecting who participates and how they participate in deciding which substantive goal(s) to pursue. By shifting

¹ James L. Krusemark Professor of Law, University of Minnesota Law School; and Wing-Tat Lee Professor of International Law, Loyola University Chicago School of Law. The arguments in this Article will be subsequently incorporated into a book by Gregory Shaffer and Mark Pollack, which is tentatively titled *When Cooperation Fails: The Law and Politics of Genetically Modified Foods*. I wish to thank Sungjoon Cho, Neil Komesar, Mark Pollack and Spencer Waller for their comments, and Matt Fortin for his research assistance. I wish to thank Neil Komesar in particular. I will always be indebted to his path-breaking work on comparative institutional analysis and to his thought-provoking engagement with my work. I dedicate this Article to him. Of course, any errors are my own.

authority among institutional alternatives, the WTO judicial process alters relations between who decides and affected publics.

The Article first lays out the comparative institutional analytic framework in relation to other leading approaches applied in the legal academy—and in particular those of global constitutionalism, global pluralism/conflicts of laws, and global administrative law. It then demonstrates how to apply the framework through the WTO dispute over the regulation of GMOs.

Table of Contents

I. Comparative Institutional Analysis and its Relation to other International Law Analytic Frames

II. Background to the Dispute: The Regulation of GMOs and the WTO

1. The EU Regulatory System for Genetically Modified Organisms
2. The WTO SPS and TBT Agreements
3. Relevant WTO Jurisprudence

III. The WTO Complaints and Panel Decision in the GMO Case

1. The 2003 WTO Complaints
2. The 2006 WTO Panel Decision

IV. The Impact of Institutional Choice in Judicial Interpretation—Who Decides?

1. A Policy of Deference: Allocation of Authority to National Political and Judicial Processes
2. WTO Imposition of a Clear Rule in Favor of Trade: Allocation of Authority to the Market
3. The International Regulatory Alternative: Allocation of Authority to an International Political Body
4. The Judicial Alternative: An International Court's Balancing of Substantive Norms and Interests
5. The Proceduralist Turn: International Judicial Review of the Process of National Decision-Making

V. Institutional Choice in Context: The Sociolegal Constraints on WTO Judicial Decision-making

Conclusions

Annex A: Step-by-Step Review of the WTO Panel Biotech Decision

The regulation of agricultural biotechnology is of great importance.² Opponents of the use of genetically modified organisms (GMOs) in agriculture maintain that they can irreparably harm the environment and threaten human health.³ Supporters contend that they can significantly increase food yields and enhance nutrition in a world where almost a billion people go hungry every day.⁴ In this way, agricultural biotechnology regulation is emblematic of our modern world in which science creates ever new opportunities and risks and we use science to manage them.⁵ Disputes over this technology threaten to trigger a trade war among the world's two economic powers, the United States (US) and European Union (EU), posing risks to the global economy and international relations. The World Trade Organization (WTO) provides a legal forum that addresses these politically-charged conflicts, but it suffers from challenges to its legitimacy.

Grounding itself in this regulatory conflict, this Article puts forward and applies a theoretical framework for understanding what international courts do — that of comparative institutional analysis. Comparative institutional analysis assesses the impacts of judicial interpretive choices in terms of their allocation of power to alternative institutions. The Article demonstrates how WTO judicial interpretive choices allocate institutional authority for

² Agricultural biotechnology, also known as genetic engineering, is a technology used to isolate genes from one organism, manipulate them in the laboratory, and inject them into another organism. This technology is used to create transgenic seeds, crops, and the food, feed and other products produced from them. European laws use the term “genetically modified” (GM) foods and crops, while United States regulatory authorities tend to refer to “bioengineered” or “genetically engineered organisms,” or foods or crops. This Article uses these terms interchangeably. When the Article uses the more common term “genetically modified” food, it should be clear that it speaks of genetic engineering and not conventional modification through the cross-breeding of plants.

³ Jeffrey M. Smith, *Genetic Roulette: The Documented Health Risks of Genetically Engineered Foods* (2007); Mohammad B. Habibi-Najafi, *Food Biotechnology and Its Impact on Our Food Supply*, *Global J. Biotechnology & Biochemistry* 1(1): 22-27, 24 (2006); Anita Bakshi, *Potential Adverse Health Effects of Genetically Modified Crops*, *J. Toxicology & Env'tl Health* 6(3): 211-226 (May 2003).

⁴ See Biotechnology Industry Organization (BIO), *Guide to Biotechnology* (2007); Graham Brookes & Peter Barfoot, *GM Crops: The First Ten Years - Global Socio-Economic and Environmental Impacts* (ISAAA Brief No. 36, 2006); Peter G. Lacy, *Deploying the Full Arsenal: Fighting Hunger with Biotechnology*, *SAIS REVIEW* 23(1): 181-202 (2003); see generally *The Golden Rice Project*, <http://www.goldenrice.org>; CropLife International, *Biotechnology Benefits & Safety Database*, <http://croplife.intraspin.com/BioTech/index.asp>. See generally Pew Initiative on Food and Biotechnology, “Issues in the Regulation of Genetically Engineered Plants and Animals,” at <http://pewagbiotech.org/research/regulation/Regulation.pdf>, at 3 (2004) (“The next generation of GE crop varieties will likely include a wider range of desirable agronomic traits, including drought tolerance. Food crops may be modified with traits to improve freshness, taste, and nutrition”).

⁵ See ULRICH BECK, *WORLD RISK SOCIETY* (1999); ANTHONY GIDDENS, *MODERNITY AND SELF-IDENTITY: SELF AND SOCIETY IN THE LATE MODERN AGE* (1991).

addressing policy concerns to alternative institutional processes, including the market, political and administrative processes, and courts, at different levels of social organization, from the local to the global. These choices are particularly important in a pluralist world involving constituencies with different interests, priorities, perceptions and abilities to be heard.

This theoretical framework is essential from a positive perspective (for understanding the structural role that judicial decisions play), and from a normative one (for evaluating institutional alternatives). From a normative perspective, the Article demonstrates that we cannot meaningfully assess the attributes and deficiencies of one institutional process – beset by resource, informational and other asymmetries – without comparing it with other institutions that may be subject to similar (but never identical) dynamics. Each institutional decision-making process has its attributes and deficiencies in terms of the dynamics of participation within it, ultimately affecting *who decides*.

Much of the legal scholarship addressing WTO judicial decisions, for example, address interpretive choices in either textualist terms or in normative ones that advance particular policy aims. Yet the normative choices should not only be determined based on the substance of *values or norms* — such as what health and safety regulation is appropriate. Since people around the world live in vastly different social contexts, resulting in vastly different social priorities, a WTO judicial decision’s validity from a normative perspective should also be assessed in terms of the relative attributes and deficiencies of the alternative *decision-making processes* available, in which different constituencies have different possibilities of being heard. Since all decision-making processes suffer from imperfections in terms of accountability, the determination of what is a better process needs to be a *comparative institutional* one — that is, in terms of the relative attributes and deficiencies of real life institutional alternatives.⁶

From a structural perspective, the focus of this Article shifts from the question of *what* is being interpreted to the question of *who* is determining it. The Article shows how the WTO judicial process effectively allocates power *from* one institution *to* another, thus affecting who participates and how they participate in deciding which substantive goal(s) to pursue. That is, the

⁶ See Neil Komesar, *Imperfect Alternatives: Choosing Institutions in Law, Economics and Public Policy* (1995); and Neil Komesar, *Law’s Limits: The Rule of Law and the Supply and Demand of Rights* (2002).

Article shows how a WTO panel faces difficult alternative institutional choices that implicate the amount of discretion a WTO Member will have to regulate, whether such Member must defer to an international body and if so which one and to what extent, or whether it must open its market to trade in a manner that effectively allocates decision-making to market mechanisms. By shifting authority to and from institutional alternatives, the WTO judicial process alters relations between who decides and affected publics, domestic, foreign and global.

The Article first lays out the comparative institutional analytic framework and then demonstrates how to apply it through grounding the approach in an assessment of the transatlantic (and now global) dispute over the regulation of agricultural biotechnology that has come before the WTO. It proceeds in five parts. Part I explains the theoretical framework and its importance in relation to other leading approaches advanced in the legal academy — and in particular those of global constitutionalism, global pluralism/conflicts of laws, and global administrative law. Part II provides a background overview of the EU regulatory regime for GM food, feed and seed, and of relevant WTO law, and in particular of the WTO Agreement on Sanitary and Phytosanitary Measures (SPS Agreement). Part III introduces the interpretive choices made by the WTO panel in the biotech case in a decision of over 1,000 pages which was adopted without appeal by the WTO Dispute Settlement Body on November 21, 2006.⁷

Part IV demonstrates how to apply the comparative institutional analytic frame through the GMO case, addressing the difficult institutional choices faced by the panel from a *governance* perspective. It shows how judicial bodies and legal scholars in interpreting WTO texts implicitly make institutional choices with structural implications, although they are typically not explicit about them (or perhaps not even aware of them). Part V evaluates how WTO legal decisions (reciprocally) are made in light of the sociological legitimacy constraints confronting the WTO. It shows how national legal contexts thus reciprocally affect WTO legal decisions, and, in turn, their structural implications.

The Article concludes that the most appropriate institutional approach for addressing transnational regulatory conflicts is not to leave regulation solely to national bodies without

⁷ See Panel Report, *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, WT/DS291/R (Sept. 29, 2006) [hereinafter *EC-Biotech*].

imposing any obligation on them to justify their decisions to affected outsiders, such as on the grounds of scientific risk assessments. Yet the scope of review at the international level cannot be too intrusive for normative and sociological reasons that the Article also addresses. The Article shows how the WTO dispute settlement system can play a positive role in helping to manage transnational regulatory conflicts in this area by taking a proceduralist-oriented approach. The WTO judicial process does not simply jurisprudentially assess national regulatory measures. It responds to domestic and international political contexts, and, in turn, can affect the dynamics and processes through which national regulatory measures and international standards are determined. The Article's grounded analysis provides a means to understand the way international law and politics work in a pluralist world characterized by jurisdictional diversity, global markets, and a fragmented international law system. At the same time, it provides a better way to evaluate normatively the interpretive choices available to international judicial bodies in terms of their structural and institutional effects — that is, in terms of *who decides*.

I. Comparative Institutional Analysis and its Relation to other International Law Analytic Frames

Most legal academics examining an international case, such as the GMO dispute, take an interpretive textualist-oriented approach, focused on the international judicial process, whether from a formal or a functionalist perspective. They may interpret the relevant legal texts “*formally*” in terms of their ordinary meaning, or “*functionally*” in terms of their meaning in light of a normative goal (taking a teleological approach). By doing so, they tend to assume a “judiciocentric” perspective as to how these disputes are to be decided, and thus are largely silent as to how these judicial bodies’ decisions structurally implicate, on the one hand, *who* ultimately decides these questions (addressed in Part IV), and, on the other, how the judicial bodies themselves are affected by the audience that receives and responds to their decisions, which involves states and constituents that wield varying amounts of influence (addressed in Part V).⁸

Such textualist approaches tend to focus on whether disputed facts fall within different

⁸ The term “judiciocentric” is used by Victoria Nourse, writing in respect of analogous questions concerning the analysis of questions of federalism and separation of powers under US constitutional law. See Victoria Nourse, *Toward a New Constitutional Anatomy*, 56 STAN. L. REV. 835, 837, 857 (2004).

categories that are often derived from legal texts and jurisprudence. For example, as we will see, categories are extrapolated from terms used in WTO texts, such as “SPS measure,” “technical regulation,” “like product,” “necessary” and “insufficient scientific evidence.” They are also constructed in case law and scholarly analysis without the terms being used in WTO texts, such as “product or process requirement,” “least trade restrictive alternative,” and “extrajurisdictional” measure.⁹ The role of the judicial interpreter and scholarly advocate under this conceptual framework is to match the facts to existing categories or to create new categories for the purpose of analysis or advocacy.

Yet from the perspective of the impact of judicial interpretations, such interpretive, textualist approaches miss what, in fact, international dispute settlement panels actually do. Although the comparative institutional analytic approach can also be viewed as “functionalist” in terms of the importance of examining consequences as opposed to applying categorical labels, the analysis is *structural* in that it examines the potential impact of WTO dispute settlement decisions on other decision-making processes. From this structural perspective, the focus expands from the questions of *what* is being interpreted and which norms are being applied, to the question of *who* is determining it. No longer is the question solely about textual interpretation and the matching of a set of facts to a particular category. Nor is the focus about how to attain a particular worthy functional goal, such as free trade, environmental conservation or food security, goals that may be in tension with each other. Rather the focus is on structural relations of different decision-making processes that affect one another. From a structural perspective, we are interested in the effective allocation of power *from* one institution *to* another, thus affecting who participates and how they participate in deciding which substantive goal(s) to pursue. By attempting to shift authority among institutional alternatives, the WTO judicial process can alter relations between *who* decides and affected publics.

For example, as we will see, categorizing a governmental measure as an “SPS measure” (as used in the SPS Agreement) instead of a technical regulation can subject the measure to a more stringent level of scrutiny, so that less deference will be granted to national governmental

⁹ In the case of the term “least trade restrictive alternative,” it was not used in the GATT text, but arose within GATT jurisprudence, and then was codified in the WTO Agreement on Sanitary and Phytosanitary Measures and the WTO Agreement on Technical Barriers to Trade.

regulatory decisions, and authority will be shifted away from national decision-making processes. Similarly, focusing on what is the “least trade restrictive” alternative (in GATT jurisprudence), or whether a measure constitutes a “process method” (as opposed to a “product” standard) (as addressed in trade law scholarship), can narrow national governmental discretion. Thus, the determination of whether a GM product falls within the category of “like products” (in comparison with conventionally developed varieties) will create different presumptions as to whether the national measure complies with relevant WTO requirements.

At first blush, the use of these classifications appears to define institutional choices. That is, different institutional choices will be made depending on the category chosen. Yet institutional choices can also be implicitly driving the use of these classifications. Decision-makers may be invoking these classifications not because they are “natural” terms arising from the text or from normative theory, but rather because they are aware of the institutional implications of the categorization, such as whether to grant more or less national governmental discretion or to favor global market or international standard-setting processes.¹⁰

The key to a structural perspective is thus to assess how relations between polities and among constituencies are mediated in different ways through alternative institutional processes. The optic here is to see the WTO judicial process through the broader lens of *governance* and not through a judiciocentric perspective focused solely on judicial interpretation and review. This Article pays considerable attention to judicial interpretation, yet it grounds its assessment of what the WTO judicial process in fact does, and what it should do, in terms of the effects of a shift in decision-making from and to alternative decision-making processes.

Comparative institutional analysis, as defined and applied in this Article, is a method of analysis that provides a framework for comparing the tradeoffs (both the attributes and deficiencies) of real life institutional alternatives for addressing policy concerns in a pluralist world involving constituencies with different interests, priorities, perceptions and abilities to be heard.¹¹ Through applying it, this Article shows how we cannot meaningfully criticize the defects of one institutional process without reference to those besetting real life institutional

¹⁰ I thank Neil Komesar for his insights on this issue.

¹¹ See KOMESAR, IMPERFECT ALTERNATIVES, *supra* note...

alternatives. A comparative institutional analytic approach makes explicit the imperfections and limits of different institutional alternatives. It recognizes that there may be parallel biases affecting them, but shows why these are never uniform because of their implications for who decides.

This analytic framework is particularly useful in assessing the institutional implications of interpretive choices confronted by international tribunals, and in our case, WTO dispute settlement bodies. Through this conceptual framework, we see that an international dispute settlement body, such as a WTO panel, do not simply interpret legal texts but, *de facto*, allocates decision-making responsibilities among various governmental and market actors. In doing so, a WTO panel faces inevitable dilemmas in light of the imperfections of each alternative. The purpose of comparative institutional analysis is to make these tradeoffs explicit.

The comparative institutional analytic framework used here can be seen in contrast with, and as complementary to, a number of normative analytic frames currently used in international law research, including global constitutionalism, conflict of laws and global administrative law approaches. I first briefly summarize each of these analytic frames and then compare and contrast the comparative institutional analytic approach with them, before demonstrating how to apply the framework in a grounded manner to specific disputes — in this case, that of the transatlantic and now global dispute over the regulation of agricultural biotechnology.

As Jeffrey Dunoff has shown, international law scholars of different proclivities deploy different global *constitutional law perspectives* to address the role of WTO law.¹² These frameworks include those taking a substantive rights-based perspective; an institutional perspective; and a process-based pluralist perspective of constitutionalism. The rights-based constitutional approach, highlighted in the work of Ernst-Ulrich Petersmann, looks at particular constitutional rights, including a right to trade and other “market freedoms” that the WTO is alleged to incorporate.¹³ The pluralist process-based constitutional approach, highlighted by the work of Neil Walker, looks at the constitutional principles and discourse that the WTO generates

¹² Jeffrey Dunoff, *Constitutional Concepts: The WTO's 'Constitution,' and the Discipline of International Law*, 17 EUR. J. INT'L L. 647 (2006).

¹³ Ernst-Ulrich Petersmann, *The WTO Constitution and Human Rights*, 3 J. INT'L ECON. L. 19 (2000).

in relation to other constitutional orders.¹⁴ The institutionalist constitutional perspective, as seen in the work of Joel Trachtman, addresses structures of authority within and between different institutions.¹⁵

The predominant view when we speak of a WTO constitution arguably is an institutional one. In the WTO context, some of this work, such as that of John Jackson, focuses on the internal institutions of the WTO and their role in relation to foreign trade restrictions.¹⁶ Much trade scholarship also looks at the relation of WTO legal provisions and national regulation in a manner analogous to the dormant commerce clause of the US constitution and the trade provisions of articles 28 and 30 the Treaty Establishing the European Community. These provisions respectively address when US state (or EU member state) restrictions on commerce from other US states (or EU member states) are permissible under the US constitution (or EU constitutive treaty), as the case may be.¹⁷ WTO law is viewed as playing similar constitutional law functions.

The *comparative institutional analytic framework* used here has much in common with the institutional aspects of constitutional analytic approaches. It fits particularly well with approaches that address how different legal orders interact. Like the constitutional law pluralist and institutionalist approaches, it addresses the reciprocal impact of different institutions on each other.¹⁸ It highlights, in particular, the role that WTO dispute settlement plays in shaping other

¹⁴ Neil Walker, *Late Sovereignty in the European Union*, in SOVEREIGNTY IN TRANSITION 4 (Neil Walker ed., 2003) (“Constitutional pluralism...is a position which holds that states are no longer the sole locus of constitutional authority, but are now joined by other sites, or putative sites of constitutional authority, most prominently...and most relevantly...those situated at the supra-state level, and that the relationship between state and non-state sites is better viewed as heterarchical rather than hierarchical”); see also Neil Walker, *The EU and the WTO: Constitutionalism in a New Key*, in THE EU AND THE WTO: LEGAL AND CONSTITUTIONAL ISSUES (Grainne de Burca & Joanne Scott eds., 2001); Neil Walker, *The Idea of Constitutional Pluralism* (European Univ. Inst., Working Paper Law No. 2002/1, 2002).

¹⁵ Joel Trachtman, *The Constitutions of the WTO*, 17 EUR. J. INT’L L. 623 (2006) (addressing different ways to approach the issue of WTO constitutionalism, including institutional ones).

¹⁶ JOHN JACKSON, THE WORLD TRADE ORGANIZATION: CONSTITUTION AND JURISPRUDENCE (1998).

¹⁷ Robert E. Hudec & Daniel A. Farber, *Free Trade and the Regulatory State: A GATT's-Eye View of the Dormant Commerce Clause*, 47 VAND. L. REV. 1401 (1994); JOHN JACKSON, U.S. CONSTITUTIONAL LAW PRINCIPLES AND FOREIGN TRADE LAW AND POLICY (1991); John McGinnis & Mark Movsesian, *The World Trade Constitution*, 114 HARV. L. REV. 511 (2000).

¹⁸ In fact, Joel Trachtman, from his institutionalist constitutional perspective, explicitly notes this connection when he writes, “[t]he task of framers of constitutions, and of analysts, is to engage in comparative institutional analysis.”

institutional processes. However, I do not see the need to use the normatively-charged term “constitution” as opposed to the more modest term “institution” in the WTO context. The term “constitution,” which is used primarily by lawyers and not scholars from other disciplines in addressing the role and functions of the WTO, can be problematic in that it can be *perceived* as one which places the WTO at the top of a global hierarchy, even if this runs directly counter to pluralists’ contentions. After all, the term constitutionalism is derived from domestic contexts in which constitutional decisions by courts can trump political ones by legislatures. The comparative institutional analytic perspective thus looks pragmatically at the tradeoffs among different institutional choices that confront the WTO judicial process in a dispute like that over the regulation of agricultural biotechnology.

A second analytic framework that has been proposed for understanding WTO dispute settlement is that of a *conflict-of-laws perspective*, presented by Christian Joerges. In a compelling stream of papers, Joerges has taken from legal pluralist insights¹⁹ to address how legal systems can exist simultaneously while playing due respect to one another when they overlap and conflict.²⁰ Joerges views the WTO dispute settlement process in terms of how it creates meta-norms to address conflicting national laws, such as the laws of the exporting state and the importing state in a particular trade dispute, as part of a pluralist legal order. These meta-norms are to be applied within states’ own jurisdictions. As Joerges writes, “conflicts law seeks to overcome legal differences by dint of meta-norms, which the jurisdictions involved can accept

Trachtman, *The Constitutions of the WTO*, *supra* note..., at 633. See also Joel Trachtman, “Regulatory Jurisdiction and the WTO,” 10:3 *Journal of International Economic Law* 631 (2007).

¹⁹ On legal pluralism, for an excellent earlier overview, see John Griffiths, “What is legal pluralism?”, 24 *Journal of Legal Pluralism and Unofficial Law* 1 (1986), and for a recent one addressing the global context, see Paul Berman, *Global Legal Pluralism*, 80 *S. CAL. L. REV.* (2007).

²⁰ Christian Joerges, *Constitutionalism in Postnational Constellations: Contrasting Social Regulation in the EU and the WTO*, in *CONSTITUTIONALISM, MULTILEVEL TRADE GOVERNANCE AND SOCIAL REGULATION* 491 (Christian Joerges & Ernst-Ulrich Petersmann eds., 2006); Christian Joerges, *Conflict of Laws as Constitutional Form: Reflections on International Trade Law and the Biotech Panel Report* (Reconstituting Democracy in Europe, RECON Online Working Paper No. 2007/03, 2007). Joerges contends that his vision of conflicts of law in the WTO serves a constitutional function, but a very different one than a hierarchical version in which WTO law trumps. See also Andreas Fisher-Lescano and Gunther Teubner, *Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law*, 25 *Mich. J. Int’l L.* 999 (2004) (calling for a conflicts approach involving mediation between sectoral regimes and in which transnational substantive norms are created).

as supra-national yardsticks in the evaluation and correction of their own jurisprudence.”²¹ For Joerges, these norms serve as a mediating device between conflicting laws in a pluralist world, playing a role between law and politics. Joerges thus characterizes WTO dispute settlement as a form of “comitas” or “comity,” constituting “a middle ground between law and politics by advising the latter to take the expertise of the former seriously, and by advising the former to be aware of the limited legitimacy of law that did not originate in a democratic process.”²² A key question for Joerges regarding disputes over risk regulation is what role “science” and “risk assessment” should play as a meta-norm. While Joerges contends that they have a central role to play because of their universalizing character, he strongly argues that they should not be applied by WTO dispute settlement panels to trump national democratic decision-making in the GMO case because of scientific uncertainty and because of ethical and other non-scientific concerns.²³

As with the conflict-of-laws perspective, the comparative institutional analytic approach sees the WTO as a mediating institution. To the extent that the conflict-of-laws approach is an analogy used to address a range of choices in solving trade conflicts, a comparative institutional approach has much in common with it. Unlike the traditional conflict-of-laws approach, however, it focuses on choices involving different institutional processes, as opposed to different “laws.” Moreover, it addresses a much broader range of choices than that of the law of the importing and exporting states, finding that the key impact of WTO dispute settlement lies in the role it can play in shaping institutional choices. Finally, while I agree with Joerges that the WTO interjects new norms into transnational governance such as the role of science and risk assessment (what he sees as conflict-of-laws norms), the comparative institutional analytic approach focuses not on the particular norms (though as we will see, they are indeed important), but rather on who applies them and the institutional choices that drive them. That is, a

²¹ Christian Joerges, *Trade with Hazardous Products? The Emergence of Transnational Governance with Eroding State Government* (European Univ. Inst., Working Paper Law No. 2006/05, 2006).

²² Christian Joerges & Jürgen Neyer, *Politics, Risk Management, World Trade Organization Governance and the Limits of Legalization*, 30 SCI. & PUB. POL’Y 219, 224.

²³ As Joerges convincingly argues, “[y]et, a meta-norm, referring to scientific knowledge as peacemaker, is not that innocent—actors involved know this quite well. Three reasons might suffice to illustrate this point: first, science typically provides no clear answers to questions posed by politicians and lawyers; second, it cannot resolve ethical and normative controversies about numerous technologies; third, consumer *Angst* might be so significant that neither policy-makers nor the economy dare to ignore it, although scientific experts might assess a risk as tolerable or even marginal.” Joerges, *Trade with Hazardous Products*, *supra* note..., at 11.

comparative institutional analytic frame focuses not just on what is being applied (the norm), but, crucially, on who is applying it. A focus on norms, in this sense, is little different than focusing on textualist or jurisprudentially-constructed categories. For example, strict scrutiny of whether a national regulatory measure is based on a meta-norm of risk assessment is shifting authority from a national decision-making body to another institution, be it that which defines what constitutes a valid risk assessment (such as the Codex Alimentarius Commission), or that which evaluates the specific risk assessment in question (such as a WTO judicial panel). A focus on the criteria of the norm can obscure the institutional choices that are consciously or unconsciously being made. Although Joerges points to the deficiencies of an international dispute settlement panel relying on science as a “meta-norm,” one must pay equal attention to the deficiencies of deferring to a regulatory state, regardless of the impact of its decisions on outsiders, however appealing the regulatory state’s articulation of a particular norm may be. In analyzing the GMO case, one must look to the deficiencies of not just one institutional choice, but one must simultaneously (and with equal scrutiny) weigh the tradeoffs of that institutional choice against other (also imperfect) institutional alternatives.

A third approach that has been well-articulated and that has stimulated a great deal of work, in which I too have participated,²⁴ is the *global administrative law* (GAL) project advanced by Richard Stewart and Benedict Kingsbury.²⁵ This ambitious project has been broad in its focus, and included within the scope of its analysis the role of transgovernmental and transnational regulatory networks as well as global institutions such as the UN and WTO. The GAL project aims to put forward common principles for administrative decision-making within these different international and transnational processes. In the authors’ words, the task is to “identify..., amongst these assorted practices, some patterns of commonality and connection that are sufficiently deep and far-reaching as to constitute, we believe, an embryonic field of global administrative law.”²⁶ In a case such as the GMO dispute, the global administrative approach

²⁴ See Kalypso Nicolaidis and Gregory Shaffer, “Transnational Mutual Recognition Regimes: Governance Without Global Government,” 68:3 *Law and Contemporary Problems* 267 (2005).

²⁵ Benedict Kingsbury, Nico Krisch and Richard Stewart., *The Emergence of Global Administrative Law*, 68 *LAW & CONTEMP. PROBS.* 15 (2005).

²⁶ *Id.* at 17.

would look at the role that WTO judicial review can play in reviews of national decisions in terms of their compliance with principles such as transparency, due process, participation of affected stakeholders, proportionality and reasoned justification for regulatory measures.²⁷ As we will see, these principles were indeed of central concern to the WTO panel in the GMO case, which decided against the EU for the “undue delay” in its application of EU procedures and the lack of a scientific basis for member state safeguards in light of the EU’s own official risk assessments.

The comparative institutional analytic framework used here fits particularly well with a global administrative law perspective in its focus on the relation of international and national decision-making processes. Nico Krisch aptly describes global administrative law as involving “a constant potential for mutual challenge: of decisions with limited authority that may be contested through diverse channels until some (perhaps provisional) closure might be achieved.”²⁸ In this light, transnational disputes over agricultural biotechnology regulation before the WTO indeed arise in multiple contested sites for its governance.²⁹ The WTO panel decision in the GMO dispute is thus best seen as part of an ongoing process, both informed by and informing national regulatory practice, transnational regulatory dialogue and developments in multiple international fora, as shown in Parts IV and V. What the comparative institutional analytic approach provides for the GAL project is a tool for evaluating institutional choices for the application of administrative law principles. A focus on GAL principles alone, just as a focus on conflict-of-laws meta-norms or on textual or judicially-constructed categories, will fail to address the inherent institutional choices at stake. Norms, principles and categories in the abstract do not determine outcomes. Institutional processes do. The choice between different norms, principles and jurisprudential categories simply reflect institutional choices implicitly

²⁷ The authors “define global administrative law as comprising the structures, procedures and normative standards for regulatory decision-making including transparency, participation, and review, and the rule-governed mechanisms for implementing these standards.” *Id.* at 17

²⁸ Nico Krisch, *The Pluralism of Global Administrative Law*, 17 *EUR. J. INT’L L.* 247, 266 (2006).

²⁹ These sites include the OECD, the Codex Alimentarius Commission, the Cartagena Biosafety Protocol to the Convention on Biodiversity, and the WTO at the international level, and in different government branches and administrative agencies in countries around the world. See discussion in Shaffer & Pollack, *When Cooperation Fails*, *supra* note.... (chapter 4); *cf.* Kal Raustiala & David Victor, *The Regime Complex for Plant Genetic Resources*, 58 *INT’L ORG.* 277 (2004).

being made. Good analysis from a GAL perspective must engage in comparative institutional analysis.³⁰ The comparative institutional analytic approach makes explicit the tradeoffs among these institutional alternatives for decision-making, such as those alternatives which confront a WTO panel in its interpretation of WTO texts.

To summarize, the *comparative institutional analysis* used here provides a conceptual framework for assessing alternative interpretive choices in terms of their institutional effects. This comparative institutional analytic framework helps to situate the implications of judicial interpretation in social and institutional context, recognizing that interpretive choices have structural effects on different institutional processes in which constituencies of different countries, with varying priorities, perceptions, and abilities to be heard, are able to participate to varying and always imperfect degrees. The task of this Article is to demonstrate how to apply comparative institutional analysis by making explicit the relative attributes and deficiencies of a WTO panel's interpretive choices in comparative institutional context. In this way the Article provides a more incisive, grounded way both of understanding what WTO judicial decisions do, and of assessing them normatively.

II. Background to the Dispute: The Regulation of GMOs and the WTO

In some parts of the world, genetically modified corn, cotton, canola and soybeans are grown widely, and in others not at all. In the United States (US), around 90% of soybeans and 80% of cotton are from genetically modified varieties, as are around 75% of processed foods.³¹ China and India are rapidly adopting genetically modified cotton and Brazil and Argentina genetically modified soy.³² Europe, in contrast, raises significant obstacles to the planting and sale of GM varieties, as do many other countries. Because of the difficulty of segregating grains

³⁰ Indeed, comparative analysis lies at the core of Richard Stewart's earlier seminal work on US administrative law, to which so many of us are indebted. See Richard Stewart, *The Reformation of American Administrative Law*, 88 Harv. L. Rev. 1669, 1810 (June 1975) ("vital differences - which are likely to be obscured by any single conception of administrative law - invite comparative classification").

³¹ ANIMAL & PLANT HEALTH INSPECTION SERV. (APHIS), U.S. DEP'T OF AGRIC., FACTSHEET: LOW-LEVEL PRESENCE (March 2007), available at http://www.aphis.usda.gov/publications/biotechnology/content/printable_version/fs_llppolicy3-2007.pdf.

³² JAMES CLIVE, INT'L SERV. FOR THE ACQUISITION OF AGRI-BIOTECH APPLICATIONS, ISAAA BRIEF NO. 35, GLOBAL STATUS OF COMMERCIALIZED BIOTECH/GM CROPS (2006).

traded in the global market, the regulatory disputes that have arisen could affect the future of agriculture as we know it.

Global disputes over the regulation of agricultural biotechnology illuminate the challenges faced *when national legal regimes meet economic interdependence*. Most contemporary regulation remains nation-based or, in the case of the European Union, a nation/region-based hybrid. Yet the market for food and for innovations in biotechnology is increasingly global, and companies pursue global strategies. Thinking about regulation in terms of autonomous national jurisdictions, therefore, is inaccurate and inappropriate. National regulatory systems respond to developments beyond national boundaries that have internal effects, and their decisions have external effects over those who have no say in their determination.

This Part II, and the following Part III and Annex A, provide respectively the background factual and legal contexts to EU regulation and the WTO panel decision in the GMO case. They are important to demonstrate how to apply the comparative institutional theoretic framework. Without applying theory to a factual context, theory is of little pragmatic use. There is a strong temptation for scholars and policy analysts not to get bogged down in details, and thus not to scrutinize too carefully. That is why a theoretical framework, be it comparative institutional analysis or any other one, needs to be worked out in detail, which is what compels this Article. Those already aware of this background information can, however, move directly to the comparative institutional analysis in Part IV.

1. The EU Regulatory System for Genetically Modified Organisms

The EU has developed over time an increasingly stringent system for regulatory approvals of GM seed, food and feed. In 1990, the EU enacted its first legislation over agricultural biotechnology in Directive 90/220 on the Deliberate Release into the Environment of Genetically Modified Organisms, which laid out a complicated, multi-level approval process for the release and marketing of GM foods and crops.³³ Although this directive has since been

³³ Council Directive 90/220/EEC, On The Deliberate Release Into the Environment of Genetically Modified Organisms, 1990 O.J. (L 117) 15. This background section is developed from Mark A. Pollack & Gregory C.

replaced (as described below), the basic structure for decision-making over GMOs that it created remains in place. Under the directive and the legislation that replaced it, a manufacturer or importer seeking to market a GMO or release it into the environment first has to submit an application to the national competent authority of an EU member state, including an extensive scientific risk assessment for the GMO in question. The member state to which the application is submitted then examines the dossier, and either rejects the application or accepts it. In the case of a favorable opinion, the dossier is forwarded to the European Commission and to the other member governments, each of which has a right to raise objections. If one or more member states raises an objection, a decision has to be taken at the EU level. The Commission, acting on the basis of an opinion from its scientific bodies, adopts a draft decision. This draft decision is forwarded to a committee of member-state representatives for review. If the committee does not approve the decision by a qualified majority vote, it is sent to the Council of Ministers, which can approve the Commission decision by qualified majority or reject it by a unanimous vote. If the Council fails to act within three months, “the proposed measures shall be adopted by the Commission.”³⁴

In 1997, this Directive was supplemented by Regulation 258/97, the Novel Foods Regulation.³⁵ According to the terms of the regulation, “novel foods” are defined as all foods and food ingredients that have “not hitherto been used for human consumption to a significant degree within the Community” and include both transgenic foods as well as foods produced from, but not containing GMOs. The regulation imposes an authorization procedure for novel foods, which is similar to the procedure under Directive 90/220 described above.³⁶

The enactment of this EU legislation was subsequently followed by member state revolt when GM products entered the market. This led to a complete breakdown of normal EU decision-making that has yet to be resolved. To understand the difficulties of implementation, we

Shaffer, *Biotechnology Policy*, in *POLICY-MAKING IN THE EUROPEAN UNION* 329 (Helen Wallace et al. eds., 5th ed. 2005)).

³⁴ Council Directive 90/220/EEC, *supra* note..., at art. 21.

³⁵ Commission Regulation (EC) 258/97, Concerning Novel Foods and Novel Food Ingredients, 1997 O.J. (L 43) 1.

³⁶ However, the regulation created a simplified regulatory approval procedure for foods derived from, but no longer containing, GMOs, provided that those foods remain “substantially equivalent” to existing foods in terms of “their composition, nutritional value, metabolism, intended use and the level of undesirable substances contained therein.” Commission Regulation 258/97, *supra* note...at art. 3.

need to place the legislation in the context of a series of developments in the mid-1990s and, in particular, the BSE food-safety scandal that struck in 1996. In March 1996, the British government of Prime Minister John Major revealed a possible connection between Creutzfeldt-Jacob disease, a fatal disease for humans, and bovine spongiform encephalopathy (BSE), a disease spread among cattle through their consumption of contaminated feed, popularly known as “mad cow disease.” Perhaps most importantly for our purposes, the BSE scandal raised the question of risk regulation “to the level of high politics, and indeed of constitutional significance,” generating extraordinary public awareness of food safety issues and widespread public distrust of regulators and scientific assessments.³⁷

It was in this political context that genetically modified crops were first commercially introduced in the United States and Europe. In April 1996, within a month of the ban on British beef, the Commission approved the sale of genetically modified soy products over member state objections.³⁸ In November 1996, GM soy was imported from the United States to the EU, spurring widespread protest by Greenpeace and other groups. In December 1996, the United States and Canada lodged a complaint before the WTO challenging the EU’s ban on hormone-treated beef on the grounds that the EU ban constituted a disguised barrier to trade and was not justified on the basis of a scientific risk assessment.³⁹

The close succession of these events illustrates how the popular understanding of GM products in Europe became associated with consumer anxieties related to food safety crises, distrust of regulators and scientific assessments, disquiet over corporate control of agricultural production, ethical unease over genetic modification techniques, environmental concerns, and anger over the use by the United States of international trade rules to attempt to force novel foods on Europeans. A widespread cross-sectoral movement organized to oppose GMOs in

³⁷ Damian Chalmers, *Food for Thought: Reconciling European Risks and Traditional Ways of Life*, 66 MOD. L. REV. 532 (2003). A study showed that only around 12% of Europeans stated that they trusted national regulators, whereas 90% of U.S. citizens believed the U.S. Department of Agriculture’s statements on biotechnology. See David Vogel, *The Politics of Risk Regulation in Europe and the U.S.*, in 3 THE YEARBOOK OF EUROPEAN ENVIRONMENTAL LAW xx (Han Somsen et al., 2003).

³⁸ See Commission Decision 96/281/EC, Concerning the Placing on the Market of Genetically Modified Soya Beans, 1996 O.J. (L 107) 10.

³⁹ Appellate Body Report, *European Communities—Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R (Jan. 16, 1998) [hereinafter *EC-Hormones*].

Europe, bringing together environmentalists, consumers, and small farmers. The movement operated at multiple levels, working the media and local and national political processes, coordinating transnationally, and lobbying the Commission and EP.⁴⁰

In the midst of the fray, the Commission approved the sale of another GM food crop (Bt-maize) in January 1997, over the objection or abstention of all but one of the fifteen member states.⁴¹ The Commission was able to do so because of the approval procedure set forth in Directive 90/220, which allowed a single member state (in this case France) to block amendment of the Commission's proposal before the Council. Even though fourteen member states refused to support the Commission, the approval went forward.

The member states did not simply accept the Commission's decision. They undermined its implementation, invoking a safeguard clause in Directive 90/220 which permitted a member state to prohibit an approved GM variety in its territory if it had "justifiable reasons to consider that [the] product... constitutes a risk to human health or the environment." By January 2004, nine member-state safeguards, applied by Austria, France, Greece, Germany, Luxembourg, and the United Kingdom, were in effect. Italy also invoked an analogous safeguard procedure under Article 12 of the Novel Foods Regulation to ban the sale of food products containing ingredients from four varieties of GM maize.⁴²

Responding to the popular backlash against GMOs, a group of member states pronounced in June 1999 the need to impose a moratorium on approvals of GM products.⁴³ Since the earlier date of October 1998 (when two GM varieties of carnations were approved), no GM varieties were authorized for sale in the EU market until 2004 during the WTO case examined below.⁴⁴ The Commission, however, was caught in a vice, as it faced determined opposition to the

⁴⁰ Christopher Ansell et al., *Protesting Food: NGOs and Political Mobilization in Europe*, in *WHY THE BEEF? THE CONTESTED GOVERNANCE OF EUROPEAN FOOD SAFETY* 97 (Christopher Ansell & David Vogel eds., 2006).

⁴¹ See Commission Decision 97/98/EC, Concerning the Placing on the Market of Genetically Modified Maize, 1997 O.J. (L 31) 69.

⁴² European Commission, *Information Note Concerning Forthcoming Decisions on Gmos and GM Food, Feed and Seed*, SEC(2003) 1131.

⁴³ Council of Ministers, 2194th Council Meeting - Environment, Press 203 - Nr 9406/99 (Luxembourg, June 24-25, 1999).

⁴⁴ The only exception was for foods derived from GM varieties deemed "equivalent" to traditional foods under the Novel Foods Regulation. This exception, however, was closed under new regulations adopted in 2003 noted below.

moratorium from the United States, which tends to treat GM crops and foods as “substantially equivalent” to non-GM varieties, and, in consequence, relies largely on industry self-regulation.⁴⁵

Facing pressure on multiple fronts, the Commission looked for a way to resume approvals of genetically modified varieties, thwart a potential WTO challenge, assuage member states and their constituents that adequate controls were in place, implement an EU-wide labeling regime, and restrict member state opt-out rights under “safeguard” provisions. The Commission hoped that the problem of the moratorium on GM approvals could be addressed through new legislation that would replace or complement Directive 90/220 and the Novel Foods Regulation. It was not an easy task, leading to considerable frustration within the Commission.

In response to challenges to the legitimacy of European GMO regulations from above and below, the Commission in 1998 proposed a new directive to govern the deliberate release of GMOs into the environment and the placing of GM food products on the market, replacing Directive 90/220. The resulting legislation, Directive 2001/18, was finally adopted in March 2001.⁴⁶ The directive’s twin objectives were to protect the environment and human health when GMOs are released into the environment and placed on the market “as or in products,” “[i]n accordance with the precautionary principle.”⁴⁷ The need to assuage those member states that desired stringent regulation of GMOs led to a ratcheting up of EU regulatory requirements for

⁴⁵ Simplifying slightly, the US regulatory framework has been based on the premise that the techniques of biotechnology are not inherently risky and that biotechnology can therefore be adequately regulated by existing federal agencies under existing statutes, obviating the need for new legislation dedicated to genetically modified organisms. See Shaffer & Pollack, *When Cooperation Fails*, *supra* note... (chapter 2).

⁴⁶ Council Directive 2001/18, On the Deliberate Release Into the Environment of Genetically Modified Organisms and Repealing Council Directive 90/220, 2001 O.J. (L 106) 1.

⁴⁷ The precautionary principle is noted in articles 1 and 4 and paragraph 8 of the preamble, although it remains undefined. The literature on the precautionary principle in risk regulation has mushroomed. For a range of supportive and critical views, see, e.g., Daniel Bodanksy, *Scientific Uncertainty and the Precautionary Principle*, 33 ENVIRONMENT 4-5, 43-44 (1991); J. Cameron & J. Abouchar, *The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment*, 14 B.C. INT’L & COMP. L. REV. 1 (1991); Commission of the European Communities, Commission Communication on the Precautionary Principle, COM(2000) 1 (Feb. 2, 2000); Jonathan Wiener & Michael Rogers, *Comparing Precaution in the United States and Europe*, 5 J. RISK RESEARCH 317 (2002); GIANDOMENICO MAJONE, *What Price Safety? The Precautionary Principle and Its Policy Implications*, in RISK REGULATION IN THE EUROPEAN UNION: BETWEEN ENLARGEMENT AND INTERNATIONALIZATION (2003); CASS SUNSTEIN, *THE LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE* (2005).

GMOs.⁴⁸ More specifically, under the directive's environmental release requirements, member state and applicant obligations were enhanced to include a more extensive environmental risk assessment, further information concerning the conditions of the release, and monitoring and remedial plans.

Although touted by the EP's rapporteur David Bowe as "the toughest laws on GMOs in the whole world,"⁴⁹ the adoption of Directive 2001/18 did not satisfy a core of member states (in particular Austria, Denmark, France, Greece, Italy, and Luxembourg), which continued to insist on the moratorium's continuation and on the need to impose national safeguard bans in the absence of still more stringent EU regulations.⁵⁰ Unable to obtain the regulatory committee's approval of a legal challenge against these bans, the Commission worked toward passage of yet further EU legislation governing the authorization, labeling, and traceability of GM products. New regulations for labeling and traceability were finally adopted in September 2003.⁵¹ Regulation 1829/2003, regarding the authorization of GMOs in food and feed, replaced the provisions of Directive 2001/18 governing the authorization for marketing of GMOs as or in products, and the labeling provisions of the Novel Foods Regulation. Regulation 1830/2003, in turn, created new rules on the traceability of GM products throughout the production and distribution process. Once again, it has been difficult to implement them.

These 2003 regulations are not covered in this Article as they were not in effect at the time the complainants filed their claims before the WTO, and thus were not examined by the WTO panel. We simply take note that the European Food Safety Authority (EFSA), a centralized EU agency created in 2002, now oversees the application file and works in conjunction with

⁴⁸ Alasdair Young, *Political Transfer and 'Trading Up'? Transatlantic Trade in Genetically Modified Food and U.S. Politics*, 55 *WORLD POLITICS* 457 (2003).

⁴⁹ Quoted in Blake Evans-Pritchard, *Vote on GMO Legislation Today*, EUOBSERVER.COM, Feb. 14, 2001, <http://euobserver.com>.

⁵⁰ In a joint statement, France, Italy, Austria, Denmark, Greece and Luxembourg "reaffirm[ed] their intention... of ensuring that the new authorizations for cultivating and marketing GMOs are suspended pending the adoption" of new provisions on traceability, labeling, and environmental liability. Quoted in Michael Mann, *Six EU States Refuse to Lift Block on New Modified Crops*, *FINANCIAL TIMES* (London), Feb. 16, 2001, at 8.

⁵¹ Commission Regulation 1829/2003, On Genetically Modified Food and Feed, 2003 O.J. (L 268) 1; Commission Regulation 1830/2003, Concerning the Traceability and Labelling of Genetically Modified Organisms and the Traceability of Food and Feed Products Produced from Genetically Modified Organisms and Amending Directive 2001/18/EC, 2003 O.J. (L 268) 24.

member state competent authorities and a Community reference laboratory to conduct risk assessments and product safety evaluations. The application process still begins when an operator submits an application file to the competent authority from one of the member states. That member state authority, however, now immediately provides the file to the EFSA, which is to issue its opinion on the safety of the variety, based on risk assessments, within six months from its receipt of the file.⁵²

2. The WTO SPS and TBT Agreements

The WTO was created in 1995 and includes a package of nineteen agreements negotiated as part of the Uruguay Round of Trade Agreements. Two of these agreements, the Agreement on Sanitary and Phytosanitary Measures and the Agreement on Technical Barriers to Trade (TBT Agreement), explicitly address non-tariff barriers to trade. These non-tariff barriers have become an increasing concern as tariff rates were lowered following eight rounds of international trade negotiations conducted under the General Agreement on Tariffs and Trade (GATT). The intention behind the SPS Agreement is to discipline members' sanitary and phytosanitary (SPS) measures, a term defined in Annex A to the agreement. The TBT Agreement, in complement, covers regulations that lay down mandatory technical product and process requirements that lie outside of the SPS Agreement's scope. For example, while provisions responding to health risks posed by GM foods are covered under the SPS Agreement, requirements for the labeling of GM foods to provide content information to consumers are non-SPS measures that are subject to the TBT Agreement.

From a regulatory perspective, the WTO system now implicates itself much more deeply into national regulatory processes. The SPS Agreement does not establish international standards for biotechnology or other food-safety questions (a role left to the Codex Alimentarius Commission, a joint venture of the UN Food and Agricultural Organization and the World Health Organization). However, the agreement does incorporate and promote the adoption of international standards in a manner that could be interpreted in a constraining manner, as examined below. In this way, the WTO has significantly increased the stake of negotiations in

⁵² See Shaffer & Pollack, *When Cooperation Fails*, *supra* note... (chapter 5).

“voluntary” standard-setting bodies such as the Codex Alimentarius Commission and the International Plant Protection Commission.

The agreement also establishes rules that limit the ability of states to adopt trade-restrictive regulations without “scientific justification.” Article 2.2 of the Agreement requires members to “ensure that any [SPS] measure... is based on scientific principles and is not maintained without sufficient scientific evidence,” regardless of whether it is applied equally to domestic and foreign products. Article 5.1, in turn, prescribes: “Members shall ensure that their sanitary or phytosanitary measures are based on an assessment, as appropriate to the circumstances, of the risks to human, animal, plant life or health. The only exception is “where relevant scientific evidence is insufficient,” in which case, under article 5.7, “a Member may provisionally adopt... measures on the basis of available pertinent information,” subject to certain conditions. These provisions are binding and enforceable before WTO dispute settlement panels, and they lay at the center of the dispute over EU regulation of biotechnology.

For many commentators, these regulatory requirements in the SPS Agreement are highly problematic. The SPS Agreement can be read to require that “science” always trumps politics in national (and, in the EU case, regional) regulatory policy.⁵³ Such a reading raises concerns about a “democratic deficit” in the design and application of WTO rules. As the late Robert Hudec pointed out:

Traditionally, trade agreements have focused on eliminating discrimination against foreign trade by disciplining governmental measures that impose competitive disadvantages on foreign goods vis-à-vis domestic goods with which they compete. In the recent Uruguay Round trade agreements, however, it appears

⁵³ On the notion that science is not purely objective and value-free, see Vern Walker, *Keeping the WTO from Becoming the ‘World Trans-Science Organization,’* 31 CORNELL INT’L L.J. 251 (1998); David Wirth, *The Role of Science in the Uruguay Round and NAFTA Trade Disciplines,* 27 CORNELL INT’L L.J. 817, 857-59 (1994); see also Lawrence Busch et al., *Amicus Curiae Brief Submitted to the Dispute Settlement Panel of the WTO in the Case of European Communities - Measures Affecting the Approval and Marketing of Biotech Products* 12 (April 30, 2004), available at http://www.ecolomics-international.org/biosa_ec_biotech_amicus_academic2_ieppp_lancasteru_coord_0404.pdf (“According to a growing body of social scientific research and expert panel reports, judgment enters into both risk assessment and risk management”). Cf. CASS SUNSTEIN, *RISK AND REASON: SAFETY, LAW AND THE ENVIRONMENT* 294 (2003) (supporting the “centrality of science and expertise to the law of risk” and “sharply skeptical of populism”).

that the draftsmen... added another goal, one that can be described as the prevention of unjustified regulation per se, whether or not such a regulation creates a competitive disadvantage for foreign goods vis-à-vis domestic goods. Thus, for example, a food safety measure that is not based on scientific principles would be a violation of Article 2 of the [SPS Agreement], whether or not it discriminates against foreign goods.⁵⁴

As Hudec continues, a WTO rule that requires regulatory “rationality” can provide “foreign traders... a greater set of legal rights than is given to the domestic producers with whom they compete.”⁵⁵

On the other hand, risk regulation adopted with no scientific risk analysis suggests that protectionist motives could lurk behind it, or that most of the costs imposed by the regulation are possibly being shifted to non-represented foreign parties. Even if the motive for the measure is not protectionist, the measure can have the greatest adverse impact on foreign producers (and not domestic ones) because they were not taken into account in the domestic decision-making process. The requirement of a risk assessment can serve, in Howard Chang’s words, “a prophylactic purpose.”⁵⁶ It creates a procedural mechanism that requires that domestic regulators must at least weigh scientific evidence before adopting non-discriminatory regulations that have disparate adverse effects on foreign traders. Robert Howse makes the related point that, from the perspective of “deliberative democracy:”

⁵⁴ Robert E. Hudec, *Science and Post-Discriminatory WTO Law*, 26 B.C. INT’L & COMP. L. REV. 187 (2003). In a similar vein, Conrad writes, “It seems surprising, that of all the values listed in Article XX, the contracting parties chose that measures relating to the highest values, namely human health and life, should be viewed under the stricter standards of the SPS Agreement.” Christiane R. Conrad, *The EC-Biotech Dispute and Applicability of the SPS Agreement: Are the Panels Findings Built on Shaky Ground?*, 6(2) World Trade Rev. 233, [252] (2007).; see also Walker, *Keeping the WTO*, *supra* note...; Alan Sykes, *Domestic Regulation, Sovereignty, and Scientific Evidence Requirements: A Pessimistic View*, 3 CHI. J. INT’L L. 353 (2002).

⁵⁵ Hudec, *Science and Post-Discriminatory WTO Law*, *supra* note..., at 188.

⁵⁶ Howard Chang, *Risk Regulation, Endogenous Public Concerns, and the Hormones Dispute*, 77 S. CAL. L. REV. 743, 771 (2004); cf. Sykes, *Domestic Regulation*, *supra* note..., at 355 (concluding that, “Meaningful scientific evidence requirements fundamentally conflict with regulatory sovereignty. WTO law must then choose between an interpretation of scientific evidence requirements that essentially eviscerates them and defers to national judgments about ‘science,’ or an interpretation that gives them real bite at the expense of the capacity of national regulators to choose the level of risk that they will tolerate”).

“[D]emocracy... requires respect for popular choices, even if different from those that would be made in an ideal deliberative environment by scientists and technocrats, *if* the choices have been made in awareness of the facts, and the manner that they will impact on those legitimately concerned has been explicitly considered.”⁵⁷

The requirement of a risk assessment procedurally helps to ensure that regulatory decisions more likely respect “*real* choices,” after taking into account scientific evidence.⁵⁸

3. Relevant WTO Jurisprudence

The central challenge confronting the Appellate Body has been how to retain relatively deferential review of WTO Members’ risk regulatory measures while holding Members accountable. Prior to the GMO case, the WTO Appellate Body responded to some concerns over the SPS Agreement’s reach by interpreting it to provide greater discretion for domestic regulatory policymakers than many had thought. In particular, the Appellate Body’s interpretations appear to have reduced the potential constraints of provisions of the SPS Agreement that require WTO members to “base” national measures on international standards, and to respond to risks in a consistent manner. Yet, at the same time, the Appellate Body has attempted to retain some oversight, in particular through a third SPS requirement — that measures be based on a risk assessment.

Regarding the first requirement, article 3.1 provides: “To harmonize sanitary and phytosanitary measures on as wide a basis as possible, *Members shall base their sanitary or phytosanitary measures on international standards, guidelines and recommendations, where they exist, except as otherwise provided for in this Agreement, and in particular in paragraph 3*” (emphasis added). The Appellate Body’s early jurisprudence appears to have circumscribed the potential reach of article 3.1 as an independent legal obligation. In the *EC-Meat hormones* case,

⁵⁷ Robert Howse, *Democracy, Science and Free Trade: Risk Regulation on Trial at the WTO*, 98 MICH. L. REV. 2330 (2000).

⁵⁸ *Id.* at 2335.

the Appellate Body overruled the panel in respect of its interpretation of the phrase “shall base their [SPS] measures on international standards.” The Appellate Body found that a party does not need to “conform to” these standards, and that such an interpretation (of the panel) would inappropriately vest international standards with “obligatory force and effect,” transforming them into “binding norms.”⁵⁹ As Joanne Scott writes, because the article 3 provisions on harmonization no longer appear to constitute independent, autonomous obligations, “the bite of international standards in the WTO is shown once again to be less fierce than many had anticipated.... So sensitive is the AB to the sovereignty concerns of Member States in the face of international standards that, arguably, it has strained the meaning of the relevant texts in downplaying the authority of such standards.”⁶⁰

Similarly, the Appellate Body, through its interpretation in the *EC-Meat hormones* case, appears to have constrained the potential reach of article 5.5 of the SPS Agreement which addresses the consistency of a state’s regulation of risks — a second SPS Agreement requirement. Article 5.5 provides:

“With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade.”

In the *EC-Meat hormones* case, the panel found that the EU violated this provision on account of its differential treatment of natural and synthetic hormones when used for growth purposes as

⁵⁹ See Appellate Body Report, *EC-Hormones*, *supra* note..., at ¶ 165.

⁶⁰ Joanne Scott, *International Trade and Environmental Governance: Relating Rules (and Standards) in the EU and the WTO*, 15 EUR. J. INT’L L. 307, 327, 333 (2004). But compare the *EC-Sardines* case in which the Appellate Body found the EU to be in violation of the TBT Agreement because the EU did not base its internal technical regulations on a international standard of the Codex Alimentarius Commission, and failed to demonstrate that this international standard would not be “effective” or “appropriate” in fulfilling the EU’s “legitimate objectives” of ensuring “market transparency, consumer protection, and fair competition.” Appellate Body Report, *European Communities—Trade Description of Sardines*, ¶¶ 259-91, WT/DS231/AB/R (Oct. 23, 2002).

compared to “natural hormones occurring endogenously in meat and other foods,” as well as to the use of carbadox and olaquinox (anti-microbial agents) mixed in feed given to piglets.⁶¹ The Appellate Body overruled the panel’s application of article 5.5 on both counts. First, in strong terms, the Appellate Body found the panel’s ruling regarding naturally-occurring hormones to be “an absurdity,” since “there is a fundamental distinction between added hormones (natural or synthetic) and naturally-occurring hormones in meat and other foods.” Second, although the Appellate Body agreed that the EU’s differential treatment of carbadox and olaquinox was arbitrary, it overruled the panel and found in favor of the EU because the EU had not engaged in “discrimination or a disguised restriction of international trade,” a separate required element for an article 5.5 claim. In this respect, the Appellate Body noted “the depth and extent of the anxieties” in the EU concerning the use and possible abuse of growth hormones in meat, and in the process showed considerable deference to EU decision-making.⁶²

Although these other provisions certainly remain relevant, a central issue in an SPS case has become how demanding the Appellate Body and panels will be on a member’s basing its SPS measure on a “risk assessment” pursuant to article 5.1 of the agreement — a third requirement. In the *EC-Meat hormones* case, the Appellate Body limited the panel’s holding under article 5.1 as well, while this time finding against the EU. The Appellate Body stated that members may rely on minority scientific opinions, including in risk assessments conducted in third countries, and can take account of “factors which are not susceptible of quantitative analysis by the empirical or experimental laboratory methods commonly associated with the physical sciences.”⁶³ In the *EC-Asbestos* case, the Appellate Body found that a country may decide to reduce the risk to zero through a ban where a substance is carcinogenic and thus life-

⁶¹ The quotations in this and the succeeding paragraph are taken from Appellate Body Report, *EC-Hormones*, *supra* note..., at ¶¶ 210-246.

⁶² Cho maintains that, in this decision, the AB rejected conventional laboratory science for a populist, “common-sense” based science. See Sungjoon Cho, *Of the World Trade Court’s Burden* 23 (manuscript on file, 2007). Contrast, however, the Appellate Body’s approach in the *Australia-Salmon* case, in which it compared Australia’s “high” level of protection of uncooked ocean-caught Pacific salmon with its “definitely lower” standards for herring used as bait and live ornamental finfish. See Appellate Body Report, *Australia—Measures Affecting Importation of Salmon*, ¶ 146, WT/DS18/AB/R (Oct. 20, 1998) [hereinafter *Australia-Salmon*]. As Scott says, the AB approach in *Salmon* “was predominantly, perhaps exclusively an objective one,” while its approach in *EC-Hormones* “seems somewhat more focused upon the subjective intent of the Member.” JOANNE SCOTT, *THE WTO AGREEMENT ON SANITARY AND PHYTOSANITARY STANDARDS* 154 (2007).

⁶³ See Appellate Body Report, *EC-Hormones*, *supra* note..., at ¶ 253.

threatening (as France had done).⁶⁴ The Appellate Body also found that risk factors alone can differentiate products that are otherwise similar. In the *EC-Meat hormones* and *Japan-Varietals* cases, the Appellate Body settled on a rational relationship test, stating that “whether there is a rational relationship between an SPS measure and the scientific evidence is to be determined on a case-by-case basis and will depend upon the particular circumstances of the case, including the characteristics of the measure at issue and the quality and quantity of the scientific evidence.”⁶⁵

Such language as a “rational relationship” test and “case-by-case” review provide little guidance in the abstract. For example, a “rational relationship” test could mean that almost complete discretion is granted to national decision-makers, as typically occurs when this test is applied to state regulation in the US constitutional context.⁶⁶ The use of the term “rational relationship” would then mean that a WTO panel will generally just rubber stamp a government’s risk regulatory measure. Yet application of the test alternatively could mean that a panel engages in actual scrutiny, even if it grants the benefit of the doubt to the national decision-maker. Similarly, the Appellate Body can afford to make statements such as the need for “case-by-case” review if it does not hear that many cases. However, were the WTO to be consistently confronted with a large number of SPS cases, the Appellate Body would need to devise new ways of managing them, including by providing clearer signals as to what a government will need to do for its risk regulatory measure to be upheld. Otherwise, “case-by-case” review would be impossible in light of the number of SPS measures being adopted around the world. In other words, textual analysis and the analysis of jurisprudential categories are meaningless in the abstract. Everything depends on what judicial bodies actually do with them.

A key issue for national regulators has become how stringent the Appellate Body will be

⁶⁴ See Appellate Body report, *European Communities—Measures Affecting Asbestos and Asbestos-Containing Products*, ¶ 122, WT/DS135/AB/R (Mar. 12, 2001). The Appellate Body confirmed in *EC-Hormones* that members may enact measures so as to reduce a risk to zero where they have conducted an appropriate risk assessment, and provided that the risk is not merely a “theoretical” one.

⁶⁵ See Appellate Body Report, *Japan—Measures Affecting Agricultural Products*, ¶ 84, WT/DS76/AB/R (Feb. 22, 1999) [hereinafter *Japan-Agricultural Products II*]. Similarly, in the *EC-Hormones* case, the Appellate Body stated that: “The requirement that an SPS measure be ‘based on’ a risk assessment is a substantive requirement that there be a rational relationship between the measure and the risk assessment.” Appellate Body Report, *EC-Hormones*, *supra* note..., at ¶ 163. The AB further maintained that “determination of the presence or absence of that relationship can only be done on a case-to-case basis, after account is taken of all considerations rationally bearing upon the issue of potential adverse health effects.” *Id.*

⁶⁶ See Komesar, *Imperfect Alternatives...*, at 222.

in determining what constitutes a sufficient scientific risk assessment. Where the definition of a risk assessment is more stringent, such judicial review can become substantively intrusive in its effects.⁶⁷ The Appellate Body test for a risk assessment set forth in the *Australia-Salmon* case can be viewed as a relatively strong, substantive-oriented requirement because of the degree of specificity that it required. There, the Appellate Body found that a risk assessment in respect of pests and diseases must:

“(1) identify the diseases whose entry, establishment, or spread a Member wants to prevent within its territory, as well as potential biological and economic consequences associated with the entry, establishment or spread of those diseases;

(2) evaluate the likelihood of entry, establishment or spread of these diseases, as well as the associated potential biological and economic consequences; and

(3) evaluate the likelihood of entry, establishment or spread of these diseases according to the SPS measures which might be applied.⁶⁸

It then went on to state that “likelihood” means “the probability” of entry, establishment or spread. Although these requirements can be viewed as “procedural” ones in that panels are to focus on the modalities of the risk assessment, and not on the assessment’s substantive findings, the line between procedural and substantive can be a fine one. As Alan Sykes has explained the Appellate Body’s standard may be extremely hard to meet in many cases, having clear substantive implications for risk regulation.⁶⁹ A key question in the GMO case thus was — how demanding would the panel be regarding EU risk assessments of genetically engineered

⁶⁷ See SCOTT, WTO AGREEMENT, *supra* note..., at 79; Andrew Guzman, *Food Fears: Health and Safety at the WTO*, 45 VA. J. INT’L L. 1 (2004) (arguing for procedural and not substantive review).

⁶⁸ Appellate Body Report, *Australia—Salmon*, *supra* note..., at ¶ 125.

⁶⁹ Sykes, *Domestic Regulation*, *supra* note..., at 363-64 (asking what the EU actually could have done to show a risk, and concluding that “the Appellate Body’s insistence [in *EC-Hormones*] that Europe point to highly particularized studies showing a risk from hormone residues in meat likely presents an insurmountable hurdle. The effect is to make it impossible for national regulators to elect to eliminate low level risks that are not susceptible to rigorous demonstration”).

varieties.

III. The WTO Complaints and Panel Decision in the GMO Case

1. The 2003 WTO Complaints

The US government, responding to pressure from US farm associations and agricultural biotechnology companies, was long frustrated with the EU's restrictions on GM crops and foods.⁷⁰ Although the United States often threatened to bring a complaint before the WTO, it delayed doing so for years. US forbearance finally gave way in May of 2003 when the United States, Canada and Argentina filed separate but overlapping complaints before the WTO Dispute Settlement Body against the EU, maintaining that EU and EU member state regulatory practices concerning GM crops and foods violated the EU's international trading commitments. The complaints resulted in a highly controversial WTO (consolidated) panel decision which was adopted by the WTO Dispute Settlement Body in November 2006.

In their May 2003 requests for consultations, the complainants limited their WTO claims to a challenge of the EU's de facto moratorium on approvals, and the EU member state "national marketing and import bans" on those biotech products that had been approved. Agricultural trade associations within the United States, led by the American Soybean Association, pressed the USTR to initiate a WTO challenge against the EU's labeling and traceability rules as well.⁷¹ Law firms in Washington had a legal case ready to go.⁷² The filing of a complaint, however, would depend on the legal and commercial outcome of the initial case.

The three complainants made their initial request for consultations under the SPS Agreement, the Agreement on Agriculture ("Agriculture Agreement"), the Agreement on Technical Barriers to Trade ("TBT Agreement"), and the General Agreement on Tariffs and

⁷⁰ For an analysis as to why the US waited so long to bring the complaint, see Mark Pollack & Gregory Shaffer, *Dealing with Regulatory Differences: Global Markets, International Institutions, and The Transatlantic Dispute over Agricultural Biotechnology*, in *THE FUTURE OF TRANSATLANTIC ECONOMIC RELATIONS: CONTINUITY AMID DISCORD* 167 (David Andrews et al., eds., 2005), available at http://www.iue.it/RSCAS/e-texts/Future_Transat_EconRelations.pdf.

⁷¹ See *ASA Takes Lead in Pushing for New WTO GMO Case Against EU*, *INSIDE US TRADE*, March 12, 2004, at 25. For a preliminary analysis of such a claim, see SCOTT, *WTO AGREEMENT*, *supra* note..., at 233-42.

⁷² *ASA Takes Lead*, *supra* note..., at 25. (noting that the American Soybean Association is taking the lead in hiring private lawyers to prepare the background for such a WTO challenge).

Trade 1994 (“GATT 1994”). The United States’ written submissions focused on the provisions of the SPS Agreement, although it “reserved the right” to bring claims under the TBT Agreement. Canada and Argentina also focused on the SPS Agreement, but they set forth cumulative and alternative claims under the TBT Agreement and under Article III.4 of GATT 1994.

The parties’ claims were set forth in three parts, in which they respectively challenged the EU’s “general moratorium,” its “product-specific moratoria,” and EU member state marketing and import bans applied to biotech seeds and food. That is, they challenged the application of both EC Directive 2001/18 and its predecessor Directive 90/220 governing “the deliberate release into the environment of [GMOs],” and EC Regulation 258/97 regulating “novel foods and novel food ingredients.”

The United States made four primary claims against the general moratorium and the product-specific moratoria. First, the US maintained that the EU imposed “undue delay” in its product and marketing approvals, in violation of article 8 and annex C of the SPS Agreement. Second, it contended that the EU failed to “publish promptly” its “moratorium” in violation of article 7 and annex B of the agreement. Third, it argued that the general moratorium and product-specific moratoria are not based on *risk assessments* as required under article 5.1, thus also resulting in a violation of article 2.2 of the SPS Agreement.⁷³ Fourth, the US claimed that the EU applies arbitrary or unjustifiable distinctions in the levels of protection required for GM products in violation of article 5.5 of the agreement. In particular, the US noted the EU’s less stringent regulatory treatment of products produced with “biotech processing aids,” such as enzymes used in the production of European cheeses, which do not require regulatory approval under GM-specific legislation.⁷⁴

⁷³ The United States pointed to twenty-eight product-specific moratoria. It claimed that in fourteen of them, the EU “has not put forth any risk assessments whatsoever.” In the remaining fourteen, where the EU undertook risk assessments, the US stated that “the product-specific moratoria are not based on these assessments,” since the “scientific assessments... concluded that there was no evidence that these biotech products would pose a risk to human, animal or plant life or health or cause other damage.” First Written Submission of the United States, *EC-Biotech*, ¶¶ 47, 143, 145 (April 21, 2004).

⁷⁴ In addition, Canada and Argentina noted the differential treatment of “biotech products that were approved for marketing prior to the imposition of the general moratorium, and novel non-biotech products such as those produced by conventional plant breeding techniques.” Panel Report, *EC-Biotech*, ¶ 7.1410.

The United States then challenged the nine “safeguard” measures adopted by six EU member states which ban the importation or marketing of biotech products that have been respectively approved under Directive 90/220 or Regulation 258/97. The United States maintained that these member state measures were also not based on a risk assessment, as required under article 5.1. Moreover, in each case, the “EU scientific committees considered and rejected the information provided by the member States.”⁷⁵ Finally, the United States specifically challenged Greece’s import ban under article XI:1 of GATT 1994. Article XI prohibits the use of quantitative restrictions, subject to the exceptions set forth in GATT Article XX. Greece’s measure expressly “prohibits the importing into the territory of Greece of seeds of the genetically modified rape-plant line bearing reference number C/UK/95/M5/1.”⁷⁶

2. The 2006 WTO Panel Decision

After considerable delay, the panel finally circulated its decision in September 2006, to WTO members, which was adapted without appeal in November 2006. The decision was 1,087 pages in text, and over 2,400 pages when including annexes. The panel found in favor of the United States, Canada and Argentina, but largely on procedural and not substantive grounds, having particular institutional implications. In particular, in respect of the EU moratorium and product-specific moratoria, the panel only found that the EU engaged in “undue delay” in its approval process in violation of Article 8 and Annex C of the SPS Agreement. The panel avoided determining whether the EU had based a decision on a risk assessment or whether the assessments showed actual risks or greater risks than for conventional plant varieties. It did so by holding that the moratoria did not constitute “an SPS measure within the meaning of the SPS Agreement.”⁷⁷ The panel found that the EU legislation, which the complainants did not challenge, constituted an SPS measure, but that the EU practices, which they did challenge, did not. On this legalistic distinction, the panel decided against all of the complainants’ claims against the EU moratoria other than the Article 8 claim for “undue delay.” In this way, the panel could effectively *decide not to decide* as regards the substance of any regulatory measure at the

⁷⁵ First Written Submission of the United States, *EC-Biotech*, *supra* note..., at ¶ 170.

⁷⁶ *Id.* at ¶ 174.

⁷⁷ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 8.6.

EU level.⁷⁸

In contrast, the panel found that all of the EU member state safeguards against EU-approved varieties constituted SPS measures, and that these member state measures failed to be based on a risk assessment and thus were inconsistent with the EU's substantive obligations under articles 5.1 and 2.2 of the agreement.⁷⁹ The panel similarly found that the EU member states failed to comply with the SPS Agreement's version of a precautionary principle in article 5.7, which the panel characterized as providing a "qualified right" to implement temporary measures in situations of uncertainty, subject to certain requirements.⁸⁰ In doing so, the panel implicitly supported the Commission's earlier position regarding the legality of the member state bans under internal EU law, providing leverage to EU central authorities within the multi-level EU governance context.

In Annex A, we examine each step in the panel's interpretation of the SPS Agreement's text, highlighting their institutional implications in light of the interpretive options available. Those unfamiliar with the 1000-page decision or otherwise desiring to refresh their understanding of its interpretive moves can turn to Annex A. Otherwise, we move directly to a comparative institutional analysis of the choices confronting the panel in this dispute, which exemplifies the choices that WTO dispute settlement bodies face generally. We categorize these choices into five ideal types.

IV. The Impact of Institutional Choice in Judicial Interpretation—Who Decides?

The WTO dispute settlement system has been highly praised as an example of effective international law (often in contrast to that of other international bodies), while at the same time it has been severely criticized for inappropriately trumping national democratic choices over

⁷⁸ Interestingly, this "decision not to decide" lay at the heart of the complainants' claims against the EU. Even the former EU Environmental Commissioner Margot Wallstrom had called the "moratorium" a "situation where we just simply decline to take a decision." Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.538. The quote, "decision not to decide" in the panel report is taken from the Third Written Submission of Canada, ¶¶ 202, 203 and 204 and Canada's replies to Panel questions, Nos. 172 & 179. Panel Report, *EC-Biotech*, ¶ 7.455, fn. 568.

⁷⁹ Panel Report, *EC-Biotech*, ¶¶ 8.9-8.10. I term these "substantive obligations" because they involve panel determinations regarding the legality of actual SPS measures under WTO law (in this case regarding whether they were based on a risk assessment), in contrast to the procedural issue of whether the EU engaged in delay in making such determinations.

⁸⁰ *Id.*

regulatory policy. This section evaluates the difficult choices confronted when the WTO dispute settlement system rules on legal complaints over national agricultural biotechnology regulation in light of broad institutional questions. On the one hand, the EU consists of twenty-seven democratic countries and includes a European Parliament and a Council of Ministers representing the EU member states. The regulation of GM food is a highly sensitive matter in the EU and national and EU politicians have responded with a stringent regulatory system that includes *de facto* and *de jure* bans on GM products. On the other hand, the EU's regulatory practices have significant effects on the United States and countries around the world, and the official EU scientific body has conducted risk assessments in line with WTO requirements and found that individual GM varieties at issue do not pose any additional risks to their conventional (non-GM variety) counterparts.

The normative issues and choices at stake in these regulatory disputes cannot easily be brushed aside by simple slogans such as “democracy first.” The key issue is *who* should decide. The institutional choices are not obvious. Here are some of the normative questions with which we must grapple. Should choices over the regulation of this technology be left to democratic political processes, technocratic ones or market forces? If the choice is to be left to democratic processes, then which ones? What if a large state's regulation impedes the development and deployment of this technology, and thus of democratic choices for other states, including for smaller, poorer ones? Should we be concerned about the impact of a large state's “democratic” choices on others' choices because of the market power it exercises? Or should decentralized market forces facilitate competition between regulatory jurisdictions for “better” GM regulation so that there is no need for political or judicial intervention at the international level. Using a comparative institutional analytic frame, we address these questions and, in doing so, demonstrate how to apply this theoretical framework not only to conflicts over agricultural biotechnology, but to transnational regulatory disputes generally.

From the perspective of accountability, the dilemma confronting the WTO panel when making its interpretive-institutional choices is that there is no single spectrum of accountability against which institutional decision-making can be assessed since different mechanisms for accountability are themselves in tension. As shown in debates over risk regulation between

rationalists (such as Cass Sunstein) and culturalists (such as Dan Kahan), expertise-based accountability mechanisms (focused on effectiveness) are in tension with those of democratic politics (focused on responsiveness).⁸¹ Moreover, in the context of multi-level governance, as Robert Keohane's work shows, internal accountability mechanisms within national democracies are in tension with the external accountability mechanisms of global governance.⁸² In the GMO case, the WTO panel faced the difficult dilemma of addressing the demand to make European internal political and regulatory processes appropriately accountable to affected outsiders, while itself remaining appropriately respectful of internal European political and administrative processes.

The WTO panel made a series of complex, tortuous interpretive moves in the GMO case, presented step-by-step in Annex A, which effectively reflect choices over the allocation of institutional authority. Adopting a comparative institutional analytic approach, we can now evaluate these interpretive choices. We evaluate five radically different institutional alternatives available to the panel through interpretation of the relevant WTO texts, including the one that the panel chose, in terms of whose perspectives are most likely to be heard in each institutional process. We then address in Part V how the panel itself operated under institutional constraints, examining the panel's choices in light of the broader legitimacy constraints confronting WTO judicial decision-makers. These analyses help explain why the panel made the interpretive choices that it did.

Comparing the choices among the institutional alternatives that the panel faced is not easy. Any WTO judgment rendered will implicitly be choosing among the relative benefits and detriments of imperfect alternatives, which can be subject to easy criticism by those focusing on the institutional deficiencies of a single institution without comparing them with equal scrutiny

⁸¹ Cf. SUNSTEIN, *THE LAWS OF FEAR*, *supra* note...; Dan Kahan et al., *Fear of Democracy: A Cultural Evaluation of Sunstein on Risk*, 119 HARV. L. REV. 1071 (2006). See also ELIZABETH FISHER, *RISK REGULATION AND ADMINISTRATIVE CONSTITUTIONALISM* 26-34 (2006) (contrasting what she terms "rational-instrumental" and "deliberative-constitutive" administrative approaches to risk regulation).

⁸² Robert Keohane, *Global Governance and Democratic Accountability*, in *TAMING GLOBALIZATION: FRONTIERS OF GOVERNANCE* (David Held & Mathias Koenig-Archibugi eds., 2003), for example, has categorized accountability mechanisms into seven types, which he terms hierarchical, legal, market, reputational, fiscal, supervisory, and participatory. See also Ruth Grant & Robert Keohane, *Accountability and Abuses of Power in World Politics*, 99 AM. POL. SCI. REV. 29 (2005)..

with the deficiencies of the institutional alternatives.⁸³ Here are five strikingly different institutional processes to which the WTO panel could attempt to allocate decision-making through its interpretation of the relevant WTO texts. Each should be seen as an ideal type which we examine in order to clarify the institutional implications of legal analysis in this dispute and generally:

(i) the panel could interpret the agreements to show great deference to EU political decision-makers, finding (for example) that the EU measures included non-SPS objectives, such as the protection of biodiversity, so that they should be interpreted under GATT article III or the TBT Agreement. Under these agreements, the panel could find that the EU's measures are non-discriminatory and reflect a legitimate public policy objective. Alternatively, the panel could reach this result by finding that the EU restrictions were consistent with the SPS Agreement's version of the precautionary principle under article 5.7. Through characterizing the EU's regulatory measures in any of these ways, the panel would *allocate the decision-making to an EU and/or national political process*;

(ii) the panel could stringently review EU decision-making under a relatively clear rule, such as that product bans are presumptively illegal, or that SPS measures must be based on a strict quantitative scientific risk assessment. Finding that the EU violated its WTO commitments and should thus permit the sale of GM seeds and foods, the panel could effectively *allocate decision-making to the market* through the aggregated decisions of EU consumers. EU consumers could make their decisions on the basis of a labeling system and in response to market advertising. Moreover, a clear rule can spur more efficient bargaining between the parties to resolve their dispute;

(iii) the panel could interpret the agreements to *allocate decision-making to an*

⁸³ Again, see KOMESAR, IMPERFECT ALTERNATIVES, *supra* note...

international political process. The SPS Agreement refers to international standards set by the Codex Alimentarius Commission and the International Plant Protection Commission which respectively provide (formally) for simple majority or two-thirds majority voting. In addition, other international law, reflective of international political processes, could be deemed relevant, such as customary international law or a treaty governing GMOs such as the Biosafety Protocol, each of which were affirmatively cited by the EU and addressed by the panel in the case;

(iv) the panel could allocate the substantive decision to itself by balancing the interests and concerns of the parties to the dispute. WTO panels have weighed competing concerns in reviewing other measures, balancing a measure's effectiveness in addressing national public policy objectives against the impact on foreign traders in light of reasonably available policy alternatives. For example, in reviewing whether the EU measure was based on a risk assessment, the panel could weigh the severity and likelihood of the risks posed against the trade impacts of the measure. In this way, the panel would effectively *allocate substantive decision-making to itself, an international judicial process;*

(v) the panel could attempt to focus on the procedures of the approval process as opposed to the substance of the risks posed. For example, the panel could focus on whether the EU approval process was transparent, involved a risk assessment, or resulted in undue delay. In this way, the panel would again allocate decision-making *to EU and or national political processes, but this time subject to internationally-imposed procedural constraints,* whether created through WTO jurisprudence or another international body. In my view, this is the path that the panel largely took through its series of interpretive moves.

None of these institutional choices are perfect from the perspective of the participation of affected stakeholders. Under each alternative, stakeholder positions will be heard in different and

imperfect ways. These alternatives must be evaluated comparatively.

1. A Policy of Deference: Allocation of Authority to National Political and Judicial Processes

One institutional choice favored by many commentators is for the WTO judicial body to show deference to the country implementing the trade restriction, thereby effectively *allocating decision-making authority to a national (or in this case, EU) political process*, subject to judicial review before national courts under national law. For example, a WTO judicial panel could find that the EU national legislation and implementing regulations are in compliance with WTO rules so long as they are non-discriminatory and the regulatory purpose behind them is legitimate, whether the purpose is to protect against potential risks under uncertainty or reflects ethical concerns regarding the technology.⁸⁴ If the regulatory purpose is facially valid, then the panel will look no further at the regulatory measure chosen, whether in terms of its impact on trade, its effectiveness, its proportionality or otherwise.

The panel could obtain this institutional result through different interpretive moves by placing the EU regulatory measures in different categories. For example, it could find that the EU restrictions are indeed “SPS measures,” but are permissible under the SPS Agreement’s version of a precautionary principle (article 5.7), finding that this provision grants considerable discretion to national risk regulatory measures adopted on precautionary grounds.⁸⁵ Alternatively, the panel could determine that the EU measures include non-SPS objectives, such as the protection of biological diversity or ethical concerns over the manipulation of genes, so that the SPS Agreement does not apply. In that case, the panel could apply the TBT Agreement and find that the EU regulations are non-discriminatory and reflect “legitimate” domestic policy objectives so that they are WTO-compliant.⁸⁶ The panel could also have reached similar

⁸⁴ In the internal EU context, an example of European Court of Justice decisions roughly taking this approach are Joined Cases C-67/91 & C-268/91, *Keck and Mithouard*, 1993 E.C.R. I-6097, and the line of jurisprudence following it (although subject to the condition that the national measures involve “selling arrangements”).

⁸⁵ See Tomer Broude, *Genetically Modified Rules: the Awkward Rule-Exception-Right Distinction in EC-Biotech*, 6 WORLD TRADE REV. 215 (2007); Oren Perez, *Anomalies at the Precautionary Kingdom: Reflections on the GMO Panel’s Decision*, 6 WORLD TRADE REV. 265 (2007).

⁸⁶ Christine Conrad, *PPMs*, *supra note...*

conclusions by applying the GATT, finding that the EU measures comply with GATT Article III.4 because they do not discriminate among “like products,” but rather constitute internal regulations that are enforced against foreign products through an import ban.⁸⁷ Some scholars propose more radical means to obtain such a deferential result, maintaining that WTO judicial panels should also be able to decline jurisdiction or apply a political exception doctrine in politically-charged cases that implicate trade and other social policies, in which case the national import restriction will not be judicially scrutinized.⁸⁸ Through each of these interpretive moves, the panel could respond to legal scholars’ contention that WTO rules should be interpreted in deference to the “local values” of the country imposing the trade restriction.⁸⁹ In each case, the textual interpretation would result, at least from a first-order analysis, in an allocation of decision-making to EU political processes.

There are strong policy grounds for deferring to domestic political choices for regulating market transactions given the remoteness of international processes. Participation in democratic decision-making at the national level is of a higher quality than at the international level because of the closer relation between the citizen and the state, the consequent reduced costs of organization and participation, and the existence of a sense of a common identity and of communal cohesiveness – that is, of a *demos*. National and sub-national processes are better able to tailor regulatory measures to the demands and needs of local social and environmental contexts. They are more likely to respond rapidly and flexibly to new developments. This approach is reflected in the principle of subsidiarity in the EU, as well as by the framers of the US constitution.⁹⁰ It is a principle espoused in a variety of scholarly disciplines, from law to

⁸⁷ See, e.g., Robert Howse & Donald Regan, *The Product/Process Distinction: An Illusory Basis for Disciplining “Unilateralism” in Trade Policy*, 11 EUR. J. INT’L L. 249 (2000).

⁸⁸ Jeffrey Dunoff, *The Death of the Trade Regime*, 10 EUR. J. INT’L L. 733, 756 (1999) (proposing new procedural mechanisms whereby WTO dispute settlement panels would avoid controversial trade-environment cases on standing, ripeness, political question and related grounds, thereby permitting domestic trade restrictions imposed on environmental grounds to remain unchallenged before the WTO).

⁸⁹ Philip Nichols, *Trade Without Values*, 90 NW. U. L. REV. 658 (1996) (proposing the creation of “an exception that would allow certain laws or actions to exist if they violate the rules of the World Trade Organization, provided that “the impediment to trade must be incidental, and the measure must be “undertaken for the purpose of reflecting an underlying societal value”).

⁹⁰ See, e.g., ALEXANDER HAMILTON, THE FEDERALIST NO. 17 107 (Jacob Cooke ed., 1961) (“Upon the principle that a man is more attached to his family than to his neighborhood, to his neighborhood than to the community at

political science to institutional economics.⁹¹

National and sub-national political decision-making processes, nonetheless, can also be highly problematic from the perspectives of participation and accountability. Producer interests may be better represented than consumer interests on account of their higher per capita stakes in regulatory outcomes.⁹² Producer interests' predominance explains a great deal of protectionist legislation. However, even where national and local procedures are relatively pluralistic — involving broad participation before administrative and political processes that are subjected to judicial review — they generally do not take account of adverse impacts on unrepresented foreigners.

From the standpoint of accountability, if the WTO judicial process showed complete deference to national political processes, permitting them to ignore severe impacts on foreign interests that could be easily avoided through an alternative measure, then it would be effectively delegating decision-making to a process that was not sufficiently accountable to all affected parties. The SPS Agreement thus requires members to justify their SPS measures to those affected by them, including on the basis of a scientific risk assessment.

Yet even where a Member's regulation appears to lack a "rational basis" in terms of a scientific risk assessment, and yet severely affects foreign traders, WTO judicial intervention raises normative concerns. Although the Appellate Body and panels write in terms of "whether there is a rational relationship between an SPS measure and the scientific evidence,"⁹³ the underlying concept is that a Member's regulation must be rationally supported. Commentators rightly ask, who are WTO panelists to decide what is "rational." Such a basis for judicial review lies in tension with principles of representative democracy.

However, if one believes in the value of deliberation, whether under the concept of

large, the people of each State would be apt to feel a stronger byass [sic] towards their local governments than towards the government of the Union").

⁹¹ See, e.g., Gordon Tullock, *Federalism: Problems of Scale*, 6 PUB. CHOICE 19 (2001); Oliver Williamson, *Hierarchical Control and Optimum Firm Size*, 75 J. POL. ECON. 123 (1967).

⁹² MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965); John McGinnis & Mark Movsiesan, *The World Trade Constitution: Reinforcing Democracy through Trade*, 114 HARV. L. REV. 511 (2000); Warren F. Schwartz & Alan O. Sykes, *The Economic Structure of Renegotiation and Dispute Settlement in the World Trade Organization*, 31 J. Legal Studies 179, 183-84 (2002).

⁹³ See Appellate Body Report, *Japan-Agricultural Products II*, *supra* note..., at ¶ 84; Appellate Body Report, *EC-Hormones*, *supra* note..., at ¶ 163.

“deliberative democracy” or simply as an important governance principle, then adoption of a trump card that “states have the right to be irrational” is highly problematic when their decisions impose costs on unrepresented outsiders.⁹⁴ Because of the EU’s market power and its ideational influence in world politics, the EU has a significant impact on what farmers grow around the globe, in particular in ACP (Asia-Caribbean-Pacific) countries which include the world’s poorest. If indeed the technology can offer benefits in increasing plant stability through reducing pests, in raising crop yields, and in reducing the use of pesticides and their risks to farmers and the environment, including to poor developing country farmers (as development analysts contend),⁹⁵ then showing broad deference to the EU on the ground that “states have the right to be irrational” is ethically dubious. EU political processes have negatively affected investment in new agricultural biotechnology varieties, whether conducted by private or public bodies, which could (at least potentially) benefit developing country populations.⁹⁶

Of course, such first-order institutional allocation of decision-making to EU political processes does not mean that global markets will play no role. To assess the relation of global market forces to EU policy-making, we must distinguish between two types of EU regulatory intervention — that of restricting the planting of GM varieties and that of restricting their consumption as food or animal feed. There arguably is less need for WTO scrutiny of EU restrictions on the cultivation of GM varieties on environmental protection grounds because of

⁹⁴ This comment of states having “the right to be irrational” was, in fact, made by a deliberative theorist at a conference attended by the author in February 2007. On deliberative democracy, see J. Bohman, *Survey Article: The Coming of Age of Deliberative Democracy*, 6 J. POL. PHIL. 400 (1998); DELIBERATIVE DEMOCRACY (Jon Elster ed., 1998); Joshua Cohen & Charles Sable, *Global Democracy?*, 37 N.Y.U. J. INT’L L. & POL. 763 (2005); David M. Ryfe, *Does Deliberative Democracy Work?*, 8 ANN. REV. POL. SCI. 49 (2005). On deliberative supranationalism at the international level, see Christian Joerges, *Deliberative Supranationalism - A Defence*, 5 EUR. INTEGRATION ONLINE PAPERS 1 (2001), <http://eiop.or.at/eiop/pdf/2001-008.pdf>; Thomas Risse, *Let's Argue! Communicative Action in World Politics*, 54 INT’L ORG. 1 (2000).

⁹⁵ See e.g. FOOD AND AGRICULTURE ORGANIZATION, UNITED NATIONS, *THE STATE OF FOOD & AGRICULTURE 2003-2004* 6 (2004) [hereinafter 2004 *FAO Report*]; Fukuda-Parr, *The Gene Revolution: GM Crops and Unequal Development*, Nuffield Council on Bioethics (2003). *The Use of Genetically Modified Crops in Developing Countries: A Follow-Up Discussion Paper*, available at: http://www.nuffieldbioethics.org/go/ourwork/gmcrops/publication_313.html; and Per Pinstrup-Andersen and Ebbe Schioler, *Seeds of Contention* (2000). The 2004 FAO report, for example, notes, “some of these crops, especially insect-resistant, are yielding significant economic gains to small farmers as well as important social and environmental benefits through the changing use of agricultural chemicals.” *Id.*, at 6.

⁹⁶ The 2004 FAO report states, “[a]n expensive, unpredictable and opaque biosafety regime is even more restrictive for public research than private research, because public institutions have considerably less money to finance the research trials required to meet regulatory requirements.” *Id.* at 88.

the impact of product market competition. Seed companies would still be able to develop and sell GM seeds to farmers planting them in foreign countries. If the EU permitted the sale of the resulting GM food and feed in the EU market, then these foreign farmers would compete in the EU market with EU growers. Were GM varieties to provide a significant cost advantage to these foreign farmers, then EU farmers would have a strong incentive to lobby for change within the EU political process. Indeed EU farmers have lobbied EU politicians and have found some support in the European Commission to ease their access to GM animal feed in order to reduce their input costs arising from a feed shortage.⁹⁷ In this way, global markets can have an impact on national political processes by activating national interest group participation. If the EU nonetheless continues to ban the cultivation of GM crops, it would not be to favor protectionist producer interests, but because producer interests were unsuccessful in EU and member state political processes.

The impact of global markets, however, is arguably different in respect of EU restrictions on the consumption of GM food varieties. Here the restrictions benefit EU farmers from foreign competition in EU food markets. The EU import restrictions thus primarily harm foreign producers and EU consumers, the latter being harmed to the extent that they pay higher food prices as a result of the import restrictions.⁹⁸ So long as obtaining information on the risks of GM foods is costly for EU consumers and the benefits of GM foods appear to be ambiguous (especially where consumers have no access to them so that they do not see any price differential), then global markets can have little impact on EU political processes in respect of an import ban, while the EU restrictions can impose significant costs on foreign producers (as well as on foreign consumers to the extent the EU's exercise of market power affects regulatory

⁹⁷ See "Commissioners Urge Reconsideration of Zero Tolerance GMO Policy, 25:47 Inside U.S. Trade 1 (Nov. 30, 2007). Moreover, unless there are strong penalties for illegally growing GM crops, EU farmers will have an incentive to gain an advantage against each other by illegally procuring them. In Brazil and India, farmers rebelled against restrictions on growing GM soy and cotton by procuring them illegally, which ultimately resulted in the regulatory approval of the use of GM soy in Brazil and GM cotton in India. See Ronald Herring, "Stealth Seeds: Bioproperty, Biosafety, Biopolitics," 43:1 *Journal of Development Studies* 130 (Jan. 2007); and Fukuda-Parr, *The Gene Revolution*, supra note..., at 218.

⁹⁸ To the extent that imported grains intended for consumption could escape into the environment, they would of course also raise environmental concerns, further complicating the analysis. The environmental risks, however, would be much reduced, especially in a highly regulated developed economy such as the EU where farmers would be sanctioned for growing unapproved GM products.

choices abroad). As a result, a second institutional alternative could be considered — that of WTO judicial intervention to press the EU to remove its import restrictions on GM food and feed where there is no evidence that the GM food or feed varieties in question impose greater health risks than their conventional food and feed counterparts.

2. WTO Imposition of a Clear Rule in Favor of Trade: Allocation of Authority to the Market

The WTO panel also had choices for its interpretation of the WTO texts which could result in a constraining review of the EU's risk regulatory measures under a relatively clear rule that would favor international trade and the resulting market competition. The panel, for example, could find that the EU's moratoria on approvals of GM varieties constitutes a ban in violation of GATT article XI and is not "necessary" under GATT article XX because of other reasonably available alternatives such as product labeling. The panel could make an analogous finding under provisions of the SPS Agreement, such as in its interpretation of the article 5.6 requirement that "measures [be] not more trade-restrictive than required." In this way, the EU's *de facto* import bans would be strictly scrutinized. Alternatively, the panel could require a rigorous risk assessment under article 5.1 of the SPS Agreement, one that the panel could closely review with the assistance of outside expert testimony. Some commentators find that the WTO panel took this less deferential approach in respect of the member state safeguards when it refused to recognize any of the studies indicated by the EU member states as constituting a risk assessment.⁹⁹

Under this second institutional choice, EU constituencies would be able to buy either GM or "GM-free" products which would compete with each other on the market. Product labeling could inform consumption decisions (and, indirectly, foreign production decisions). Such an approach would effectively shift decision-making over the appropriate balance among trade, environmental, and consumer protection goals from a national (or in this case EU) political process *to the market* through the aggregated decisions of EU consumers.

This market-based model has many benefits from the perspective of participation. A

⁹⁹ See *supra* note.... (referring to Scott, Gruszynski, and Perez).

market-based decision-making mechanism permits for more individualized participation in determining the proper balance between trade, consumer protection and environmental goals. In this manner, markets can enhance democratic voice. Sellers of non-GM products could label their products “produced without GMOs.” Consumers, informed through advertising campaigns, could choose which products to buy on the basis of their process of production. In choosing between food products, EU consumers would implicitly choose among alternative regulatory regimes for their production.

As a result, unrepresented foreign producers would not be prejudiced by protectionist interests in EU political processes. In the EU internal context, we see EU courts take such a position as regards EU member state regulation. The European Court of Justice has been much less deferential in its review of legislation at the member state level than at the EU level because member state political processes are less likely to take account of the perspectives of all affected EU citizens, and, in particular, of producers that are not represented in the EU member state imposing its regulation.¹⁰⁰ The result has been significant EU judicial support for the creation and maintenance of an EU “single market.”¹⁰¹

Were WTO panels to apply such an approach, they could stimulate not only product competition, but also regulatory competition between jurisdictions.¹⁰² Different jurisdictions could ban or authorize the planting of GM varieties, which (as noted in our review of the first alternative) could be upheld under WTO rules. However, if the EU were to authorize the sale of GM foods for consumption, and ban the sale of GM seeds for cultivation, then EU and foreign regulatory requirements for the production of food would be in competition when EU consumers select which food to eat on the basis of product labeling. In purchasing food, EU consumers would effectively be voting for one regulatory system (providing for more, or for less, regulation of the planting of GM varieties) over another. This market process could, in turn, affect EU

¹⁰⁰ ALBERTO ALEMANNI, *TRADE IN FOOD: REGULATORY AND JUDICIAL APPROACHES IN THE EC AND WTO* 327 (2007). A famous ECJ case taking this approach is Case 120/78, *Rewe-Zentrale AG v. Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)*, 1979 E.C.R. 649.

¹⁰¹ See Miguel Maduro, *We, the court: The European Court of Justice and the European Economic Constitution* (1998).

¹⁰² See *INTERNATIONAL REGULATORY COMPETITION AND COORDINATION* (William Bratton et al. eds., 1996); *REGULATORY COMPETITION AND ECONOMIC INTEGRATION* (Daniel Esty & Damien Geradin eds., 2000).

political processes. Were GM products cheaper than their non-GM counterparts so that EU consumers bought them, EU farmers would have a greater incentive to lobby for authorization to cultivate GM varieties themselves.

These market decision-making mechanisms, however, are also imperfect, and are subject to skewed participation in the determination of the appropriate balance of policy concerns. Markets are subject to information asymmetries, externalities, collective action problems and oligopolistic practices. Perhaps most importantly, information costs are high for consumer purchasers given the complexities of risk assessments. The type of label would affect product pricing, and shape consumer choice, especially were the labels misleading.¹⁰³ For example, consumers may react differently to a mandatory labeling regime (imposed on all products that contain or are produced with GMOs) than to a voluntary one (in which producers could label a product as not containing GMOs). Even if the labels are accurate, many consumers will not take the time to review them adequately. Under a mandatory labeling system, products that must be labeled as “contains GMOs” could be stigmatized as risky without supportive evidence. In addition, where information costs are high for consumers, anti-GM activists can more easily target supermarkets exercising oligopolistic power with threats of boycotts or other negative publicity, so that private standards (such as supermarket requirements on food distributors for GM-free products) may face highly imperfect market competition.¹⁰⁴

Moreover, the views of concerned EU citizens regarding the alleged environmental impacts of GM crops would be poorly represented in the market process. Some consumers who do not eat the food product in question, whether or not it contains GMOs, would have no impact on the competition between the GM and non-GM products in question, even though they may be quite concerned about the environmental impact of the GM products in question. Other

¹⁰³ “GMO producers maintain that the [EU’s] traceability requirements, coupled with the low labeling threshold for GMO content, will require complete segregation of GM and non-GM products throughout the production, transportation, processing and distribution chains, imposing major economic burdens (cost increase up to 25% or more).” Richard Stewart, “The GMO Challenge to International Environmental Trade Regulation: Developing Country Perspectives” (May 2007 draft, on file), at 33. To the extent that the labels were not private, but rather government-mandated or government-regulated, then this alternative would involve some degree of government intervention.

¹⁰⁴ Indeed, anti-GM activists have successfully targeted supermarket chains and brand name companies in Europe. See Shaffer & Pollack, *When Cooperation Fails*, supra note.... (chapter 2).

consumers might refrain from buying GM-free products because they doubt that their purchasing decisions would be effective.

If the cultivation of GM varieties results in environmental costs, these costs might not be internalized in the price charged to consumers, so that the market would not take these costs into account. If EU environmental regulation is more stringent than foreign regulation, resulting in higher prices for EU-grown varieties, then EU farmers may demand that EU environmental requirements be reduced in order for them to compete against foreign producers. EU constituencies opposed to such a reduction in environmental regulation could face collective action problems to counter these producer demands, triggering a “race to the bottom” in GMO environmental regulation. To the extent that EU constituencies are concerned about a potential “race to the bottom” of the regulation of GM cultivation, they may wish to curtail regulatory competition by banning the sale of GM food and feed on the EU market, even if there is no evidence that they pose any harm to human health relative to conventional counterparts.

Finally, we note that the clearer the rule applied by a WTO panel, the more efficiently the EU, US and other WTO Members can negotiate around it. Yet the transaction costs of such negotiations would still be considerable, and the application of the rule would have distributional implications for the negotiation. From a distributional perspective, a policy of clear deference toward EU decision-making would increase what the US and others would have to pay the EU to alter its regulatory policies, while a clear rule imposed against EU trade restrictions would require the EU to pay for the right to retain its regulatory restrictions.¹⁰⁵ Nonetheless, WTO Members are constantly engaged in negotiations at the international level, be it within the WTO or in other international regimes which provide alternative decision-making processes to which we turn next.

In short, were the WTO panel to interpret WTO texts in a way that would significantly curtail EU policy discretion, it could help to allocate greater decision-making to the market. This institutional process would provide different opportunities for participation in decision-making that would also entail tradeoffs. These tradeoffs need to be compared with those under the first

¹⁰⁵ As Trachtman writes, pointing to Coase, “all problems of externalities are reciprocal: if I am required to stop taking action that has bad effects on you, then I bear a cost.” Trachtman, “Regulatory Jurisdiction and the WTO,” *supra* note...., at 644.

alternative of deference to an incompletely representative EU political process, as well as with those that follow.

3. The International Regulatory Alternative: Allocation of Authority to an International Political Body

Because of their concern over WTO judicial intervention, many legal scholars contend that the weighing of scientific evidence should be left to “the political domain.”¹⁰⁶ But if they are right, then this raises the question of which political domain. National political processes are largely unresponsive to those outside of national borders, even though foreigners may be highly affected by national decisions. One institutional alternative which (in theory) is more representative of a broader array of constituents is to *allocate decision-making to a more inclusive political process, an international one*. This third alternative institutional choice, referred to as “positive integration” because it involves the enactment of new supranational regulation, contrasts with “negative integration” promoted through the regulatory competition model (the second one just covered).¹⁰⁷

A number of legal commentators have advocated the incorporation of consumer protection, environmental, labor and other regulatory issues into the WTO so that the WTO would become a global regulatory organization, and not just a trade organization with regulatory implications. As international relations scholars have long noted, the clustering of diverse issues within a single regime can facilitate tradeoffs (or side payments) among issues.¹⁰⁸ Andrew Guzman has built on this concept by advocating that:

“the WTO [should] be structured along departmental lines to permit its expansion into new areas while taming its trade bias... Each department would hold periodic

¹⁰⁶ See, e.g., Perez, *Anomalies*, *supra* note... (criticizing the panel’s application of article 5.7 of the SPS Agreement, and maintaining that there are always “different levels of insufficiency,” and that “weights” or “thresholds” should be left to the “political domain,” presumably at the member level, regardless of the effects on non-represented foreigners). See also Guzman, *Food Fears*, *supra* note...; Sykes, *Domestic Regulation*, *supra* note...

¹⁰⁷ JAN TINBERGEN, INTERNATIONAL ECONOMIC INTEGRATION (1965).

¹⁰⁸ ROBERT O. KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY, 93 (1984).

negotiating rounds to which member states would send representatives. These ‘Departmental Rounds,’ however, would be limited to issues relevant to the organizing department.... In addition to the Departmental Rounds, there would be periodic ‘Mega-Rounds’ of negotiation that would cover issues from more than one department.”¹⁰⁹

In this way, Guzman proposes turning the WTO into a “World Economic Organization.”¹¹⁰

Regarding the application of this institutional alternative, one can start by looking at the SPS Agreement itself as a political choice. WTO Members agreed to the constraints imposed by the SPS Agreement because they distrusted granting complete discretion to national political processes. In particular, they agreed that national SPS measures must be based on risk assessments in order for them to be justified in light of their trade implications.

Next, one can turn to the three international organizations expressly recognized by the SPS Agreement for the adoption of harmonized international food, plant and animal health protection standards — the Codex Alimentarius Commission, the International Plant Protection Commission (IPPC) and International Office of Epizootics (OIE). These three bodies each have adopted guidelines and principles providing that regulation be based on scientific risk assessments.¹¹¹ The WTO panel repeatedly referred to their provisions, as noted in Annex A.¹¹²

The organizational rules of these three bodies provide for the adoption of standards by either a simple majority vote (for food and animal health standards under the Codex Alimentarius Commission and OIE) or a two-thirds majority vote (for plant protection standards under the IPPC). The EU (or US) could thus try to force a vote to create a clear international standard which would clarify the relevant rule — be it on the use of the precautionary principle,

¹⁰⁹ Andrew Guzman, *Global Governance and the WTO*, 45 HARV. INT’L L.J. 303, 307-08 (2004).

¹¹⁰ *Id.* at 309.

¹¹¹ See, e.g., Codex Alimentarius Commission [Codex], Joint FAO/WHO Food Standards Programme, *Principles for Food Import and Export Inspection and Certification*, at § 3, CAC/GL 20-1995, and *Guidelines on the Judgment of Equivalence of Sanitary Measures Associated with Food Inspection and Certification Systems*, at §§ 4 and 6, CAC/GL 53-2003; International Plant Protection Convention, *Guidelines for a Phytosanitary Import Regulatory System*, at §§ 3.1 and 5.1.4 (International Standards for Phytosanitary Measures (ISPM) No. 20, 2004); World Organization for Animal Health (OIE), *Terrestrial Animal Health Code*, at § 1.3 (2006).

¹¹² See supra note...

the ability to rely on “other legitimate factors” in risk management or otherwise. National or EU regulations that implemented these international standards would then be presumed to be legitimate under the SPS Agreement. In the words of SPS article 3, WTO member’s “[s]anitary or phytosanitary measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of this Agreement and of GATT 1994.” In other words, the EU could work with other countries, such as the ACP countries with which it has a “partnership,” to protect itself from WTO judicial challenge through an international political process for standard-setting. In fact, all three of these organizations have programs that specifically address agricultural biotechnology regulation and Codex members have negotiated over the role of the precautionary principle.¹¹³ The EU, however, has so far not forced a vote on agricultural biotech standards in these fora.

Next, a WTO panel could take into account relevant regulations adopted through an international regime that is not referenced by the SPS Agreement. The EU was successful in having the precautionary principle incorporated into the Biosafety Protocol, which extended the Convention on Biodiversity’s scope of coverage to include the protection of “human health.”¹¹⁴ In its submissions in the agricultural biotech case, the EU contended that its internal regulations reflected its international obligations under the Biosafety Protocol.¹¹⁵ The WTO panel, however, did not apply the Protocol’s provisions because none of the complainants have ratified the Protocol, and the Conference of the Parties to the Protocol is not recognized as an international standard-setting body in Annex A of the SPS Agreement.¹¹⁶ Some commentators nonetheless

¹¹³ See Shaffer and Pollack, *When Cooperation Fails*, supra note.... (chapter 4).

¹¹⁴ Article 10 of the Biosafety Protocol provides that a country may reject the importation of “a living modified organism for intentional introduction into the environment” where there is “lack of scientific certainty regarding the extent of the potential adverse effects... on biological diversity in the Party of import, taking also into account risks to human health.” Article 11 of the Protocol applies a similar provision to a country’s rejection of bulk genetically modified commodities (such as soybeans, corn and cotton) for food, feed or processing. For a full analysis of the Biosafety Protocol in terms of overlapping regime complexes and EU forum shopping, see Shaffer & Pollack, *When Cooperation Fails*, supra note... (chapter 4).

¹¹⁵ See Annex A, supra note....

¹¹⁶ Panel Report, *EC-Biotech*, supra note..., at ¶¶ 7.67-7.71.

contend that the panel should have recognized the Protocol's authority.¹¹⁷

Next, a panel can refer to customary international law in order to resolve a dispute, once again referring to law that reflects a more inclusive level of social organization. WTO panels have recognized that “customary international economic law applies generally to the economic relations among WTO members.”¹¹⁸ As a WTO panel wrote in a case against Korea involving government procurement measures, “to the extent there is no conflict or inconsistency, or an expression in a covered WTO agreement that implies differently, we are of the view that the customary rules of international law apply to the WTO treaties.”¹¹⁹ The EU thus contended in the agricultural biotech case that the precautionary principle was part of customary international law and should be applied on these grounds.¹²⁰ The panel, however, followed the Appellate Body's lead in the earlier *EC-Meat hormones* case and declined to “take a position on whether or not the precautionary principle is a recognized principle of general or customary international law.”¹²¹ It rather noted that there has “been no authoritative decision by an international court or tribunal” which so recognizes the precautionary principle, and that legal commentators remain divided as to whether the precautionary principle has attained such status. It thus “refrain[ed] from expressing a view on this issue,” other than declining to apply any such international law principle, if it exists, to the panel's interpretation of the SPS Agreement.

Finally, the Agreement Establishing the WTO itself provides for majority or supra-majority voting, including for interpretations and amendments of the texts of WTO agreements. Thus, in theory, it is possible to interpret and amend the WTO agreements through a political process. These decisions would be made by the WTO General Council or at a WTO ministerial meeting, depending on the issue in question. Article IX:1 provides for a general rule on WTO

¹¹⁷ See e.g. Howse, *supra* note... The International Law Commission, for example, wrote in 2006, “although a tribunal may only have jurisdiction in regard to a particular instrument, it must always *interpret and apply* that instrument in its relationship to its normative environment—that is to say ‘other’ international law.” International Law Commission (ILC), Study Group, *Fragmentation of International Law: Difficulties Arising From the Diversification and Expansion of International Law*, 423, U.N. Doc. A/CN.4/L.682 (April 13, 2006) (*finalized by Martti Koskenniemi*). ¶ 423.

¹¹⁸ Panel Report, *Korea—Measures Affecting Government Procurement*, WT/DS163/R, para. 7.96 (June 19, 2000).

¹¹⁹ *Id.*

¹²⁰ See Annex A, *supra* note...

¹²¹ Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.86-7.89.

decision-making that “except as otherwise provided, where a decision cannot be arrived at by consensus, the matter at issue shall be decided by voting,” and, in such case, by a simple majority of the votes cast. Articles IX:2 and IX:3 provide respectively for a three-fourths majority vote for authoritative interpretations of the texts and for the waiver of any obligations of a member. Article X contains a specific rule on amendments, providing for a two-thirds majority vote, subject to qualifications depending on whether an amendment would alter substantive rights and obligations.¹²²

In practice, however, secondary decision-making by international political bodies is almost always made by consensus.¹²³ In the WTO, decisions are always made by consensus and even then they are infrequent.¹²⁴ Because of the prevailing norm of decision-making by consensus, the WTO political/legislative system, in contrast to its judicial system, is relatively weak. Similarly, decisions in the Codex and IPPC are typically taken by consensus because the organizations’ efficacy would otherwise be undermined. Codex and the IPCC do not constitute chambers within an international parliament and their standards are meant to be “voluntary.” If votes were taken against the will of a Codex member, especially a powerful one, it might withdraw or otherwise attempt to disrupt Codex operations. Decision-making over politically contentious matters such as the regulation of agricultural biotechnology by a majority vote

¹²² See Marrakesh Agreement Establishing the World Trade Organization, Arts. IX, X, XII, Apr. 15, 1994, Legal Instruments - Results of the Uruguay Round, 33 I.L.M. 1140 (1994). Under Article X, only a few provisions require a unanimous vote to be amended. From a technical perspective, most provisions can be amended by a two-thirds majority of the members, and will either take effect only with respect to those members or with respect to all members, depending on whether the provision alters the “rights and obligations” of the parties. See *id.* at art. X:1. In addition, WTO members may decide by a three-fourths majority that an amendment is of such importance that “any Member which has not accepted it within a period specified by the Ministerial Conference . . . shall be free to withdraw from the WTO or remain a Member with the consent of the Ministerial Conference.” *Id.* at art. X:3. For overviews, see RAJ BHALA & KEVIN KENNEDY, *WORLD TRADE LAW* § 4(f)(3) (1998); Claus-Dieter Ehlermann & Lothar Ehring, *Are WTO Decision-Making Procedures Adequate for Making, Revising, and Implementing Worldwide and “Plurilateral” Rules?*, in *REFORMING THE WORLD TRADING SYSTEM: LEGITIMACY, EFFICIENCY, AND DEMOCRATIC GOVERNANCE* 498 (Ernst-Ulrich Petersmann ed., 2005).

¹²³ See, e.g., PHILLIPE SANDS & PIERRE KLEIN, *BOWETT’S LAW OF INTERNATIONAL INSTITUTIONS* 266 (2000) (noting “a trend towards a search for ‘consensus’ as opposed to reliance on the results of formal voting.”)

¹²⁴ As Posner and Rief write, “At least one thing is clear about WTO interpretations and amendments: they are not designed to be taken regularly or readily. In fact, there has not been a single interpretation or amendment adopted since the WTO came into effect in 1995, and there were only six amendments (the last in 1965) in the previous forty-eight years of GATT.” Theodore Posner & Timothy Rief, *Homage to a Bull Moose: Applying Lessons of History to Meet the Challenges of Globalization*, 24 *FORDHAM INT’L L.J.* 481, 504 (2000).

within a centralized international political process is generally avoided because member states do not wish to set a precedent which could threaten their autonomy in the future on other matters.

Although international decision-making processes can be more inclusive of affected stakeholders than national political processes, they are quite remote from citizens and thus are subject to severe imperfections in at least five ways. First is the question of which interest groups have access to national representatives that negotiate at the international level. To the extent that parliamentary bodies are relatively disempowered in international fora, interest groups having preferential access to administrative officials will be favored. Second is the question of which interest groups have better direct access at the international level. Those with high per capita stakes in outcomes will invest in following negotiations directly at the international level, and sometimes participate in them as observers. Third is the question of the asymmetric power of countries that negotiate at the international level. Countries with large markets tend to wield much greater power in international economic negotiations. Moreover, the bureaucracies of northern countries have greater resources, and larger, more experienced staffs. Within Codex, for example, many developing countries have traditionally not attended meetings.¹²⁵ Fourth is the challenge of devising appropriate voting rules at the international level. Even if all countries did participate in international economic negotiations in an informed manner, the weighing of votes by country is problematic where countries vary in size from small island nations to China. Fifth, even were these centralized international governance mechanisms to facilitate relatively greater voice of a broader array of stakeholders, these mechanisms may be unsuited to respond to local norms, needs, and conditions in rapidly changing environments.

Finally, the current structure of international trade, environmental, and development

¹²⁵ See CAC website at <http://www.codexalimentarius.net>; ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT [OECD], NON-TARIFF MEASURES ON AGRICULTURAL AND FOOD PRODUCTS 36 (2001) (noting low participation rates for low- and middle-income countries). For a critique of Codex in terms of the limited participation of developing countries, see B.S. Chimni, *Co-Option and Resistance: Two Faces of Global Administrative Law*, 37 N.Y.U. J. INT'L L. & POL. 799, 811-18 (2006) (“the overall participation of developing countries themselves is inadequate and ineffective,” stating that “(1) developing countries most often do not participate in the meetings given the inability to meet the travel and other expenses of participants; (2) members from developing countries have received little support from their governments; (3) developing countries have held few leadership positions in the primary committees; and (4) the complexities involved in ‘tracking implementation requirements.’”)

organizations is fragmented.¹²⁶ Rather than moving toward a consolidation of international law, we are seeing a pluralist ménage of “regime complexes” in which institutions have overlapping jurisdiction, reflecting the *ad hoc* nature of their creation. States sometimes purposefully calculate for the provisions in one agreement to be in tension with, and potentially undermine, those in another which they are unable to change. The EU arguably had this aim in mind when negotiating the Biosafety Protocol.¹²⁷ This brings us back to the question with which we began our discussion of this institutional alternative: which political process should decide.

In short, decision-making at the international level is also subject to severe tradeoffs in terms of the participation of affected parties over the appropriate weighing of policy concerns. Even were international political processes made more robust, they would be subject to serious biases on account of power asymmetries, resource imbalances, collective action problems, and general citizen disinterest in distant fora — biases which must be compared, however, with those affecting other institutional alternatives.

4. The Judicial Alternative: An International Court’s Balancing of Substantive Norms and Interests

Under a fourth institutional alternative, the WTO judicial bodies themselves could “balance” competing preferences for trade and consumer and environmental protection in their review of the facts of specific cases. In contrast to the second approach in which the panel would apply relatively bright-line rules, under this fourth approach it would apply more open-ended standards to the facts of a case. In this way, the panel could *allocate the substantive decision to itself* — an *international judicial process*. Under each alternative, a WTO panel is intervening, but under the other alternatives, the panel is effectively allocating authority to some other decision-making process. Under this one, in contrast, it is deciding that it will decide the appropriate balance between competing concerns.¹²⁸

¹²⁶ See, e.g., International Law Commission [ILC], Report of the Study Group of the ILC, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, ¶ 8, U.N. Doc. A/CN.4/L.682 (Apr. 13, 2006) (finalized by Martti Koskenniemi).

¹²⁷ See Shaffer and Pollack, *When Cooperation Fails*, supra note... (chapter 4).

¹²⁸ Some may contend that judicial decision-makers are inevitably involved in some form of “balancing,” including whether they wish to balance policy concerns in an explicit manner, as under this fourth institutional choice. Our

The Appellate Body has explicitly taken a balancing approach in some WTO cases. In the *Korea-Beef* case, involving a Korean requirement that retailers make a choice of selling only Korean or foreign beef (which was allegedly required to ease the government’s monitoring of the labeling of the beef’s origin so that Korean consumers are accurately informed), the Appellate Body concluded:

“In sum, determination of whether a measure, which is not ‘indispensable’, may nevertheless be ‘necessary’ within the contemplation of Article XX(d), involves in every case a process of weighing and balancing a series of factors which prominently include the contribution made by the compliance measure to the enforcement of the law or regulation at issue, the importance of the common interests or values protected by that law or regulation, and the accompanying impact of the law or regulation on imports or exports.”¹²⁹

Applying these three listed factors to the factual context, the Appellate Body held against the Korean measure.

Similarly, the panel, in applying the SPS Agreement in the GMO case, could have explicitly weighed the severity and likelihood of the risks posed against the trade impacts of the EU’s measures, constituting a form of “proportionality” review. It could have done so under any number of SPS provisions, including articles 2.2, 2.3, 5.1, 5.5 and 5.6, as supported by a number of commentators. In the *Japan-Apples* case, a WTO panel engaged in a balancing of concerns in

interest lies in capturing the institutional implications, attributes and deficiencies of this choice (as an ideal type) compared with the others.

¹²⁹ See Appellate Body Report, *Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, ¶ 164, WT/DS161/AB/R & WT/DS169/AB/R (Dec. 11, 2000); see also Appellate Body Report, *Dominican Republic—Measures Affecting the Importation and Internal Sale of Cigarettes*, ¶ 70, WT/DS302/AB/R (Apr. 25, 2005) (affirming the “weighing and balancing” of the judicial body of these factors). The WTO Appellate Body also took a balancing approach, in part, in the *US-Shrimp-turtle* case when it reversed much of the initial panel’s decision. Rather than apply a generic analysis to all import bans based on foreign production and process methods, and thereby implicitly delegating decision-making to the market (under the second institutional alternative), the Appellate Body turned to the “facts making up” the “specific case,” and sought to maintain “a balance... between the right of a Member to invoke an exception under Article XX and the duty of that same Member to respect the treaty rights of the other Members.” Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶¶ 155-59, WT/DS58/AB/R (Oct. 12, 1998).

applying article 2.2, holding that Japan's "phytosanitary measure at issue is clearly *disproportionate* to the risk identified on the basis of the scientific evidence available" (emphasis added).¹³⁰ There is thus a proportionality dimension to SPS article 2.2, and arguably to article 5.1 to which this provision relates.¹³¹ Caroline Foster maintains that panels should use proportionality-type analysis under article 5.6 in determining whether a member's "measures are not more trade-restrictive than required."¹³² Alessia Herwig has suggested the same in respect of complaints under article 5.5 of the agreement that Member's measures constitute "unjustifiable discrimination."¹³³ Clearly there is plenty of opportunity for a panel to engage in proportionality review of Members' health policy measures under the SPS Agreement. From a technical risk assessment perspective, a case could at least be made that the EU's moratoria on the approval of GM varieties for sale as food and feed products were disproportionate, especially given that the EU's own scientific body, EFSA, had determined that the varieties posed no greater risks than their conventional counterparts.

Judicial bodies are sometimes viewed as being better-situated than political institutions to weigh expert evidence and facts on a case-by-case basis because of concerns over potential executive or legislative bias in individual cases. That is the rationale for making Bills of Attainder, involving criminal punishment, unconstitutional under article I, section 9 of the US Constitution. Of course, more informal administrative processes may often be superior to formal judicial procedures for the gathering and weighing of facts. Many commentators thus favor a greater role for "soft law" governance mechanisms such as the WTO committee system, or

¹³⁰ See Appellate Body Report, *Japan-Apples*, *supra* note..., at ¶ 8.198. Article 2.2 provides that "Members shall ensure that any [SPS] measure is applied only to the extent necessary, is based on scientific principles and is not maintained without sufficient scientific evidence, except as provided for in paragraph 7 of Article 5."

¹³¹ See SCOTT, THE WTO AGREEMENT, *supra* note..., at 110.

¹³² See Caroline Foster, *Genuine Fears: Interpretation of the SPS Agreement and the Right to Political Participation* (paper presented at workshop in Prato, Italy, June 2007) (on file) (suggesting that panels should rely more on article 5.6 than scientific assessments under article 5.1 to assess the legitimacy of member measures). Article 5.6 provides that "Members shall ensure that such [SPS] measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility." Agreement on the Application of Sanitary and Phytosanitary Measures, Art. 5.6, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A.

¹³³ See Alessia Helwig, *Wither Science in WTO Dispute Settlement?* (paper presented at workshop in Lecce, Italy, June 2007) (on file). See also Guzman, *Food Fears*, *supra* note... For the text of article 5.5, see *supra* note....

Codex working groups.¹³⁴ Yet where a country may be sanctioned because its regulatory measures fail to comply with an international obligation, then it will likely prefer the use of a more formal dispute settlement process.

In the GMO case, the panel heard evidence that would permit it to engage in proportionality review. It called on six scientific experts to testify. The panel asked the experts detailed questions in writing and at hearings regarding the risks posed by individual GM varieties and whether the EU member state bans were supported by risk assessments. In this way, the panel could better assess the concerns at stake.

If WTO panels issue rulings under a balancing test against national and EU regulatory decisions which reflect strongly held values, however, the sociological legitimacy of the WTO judicial process may be strongly challenged, undermining its authority. The WTO judicial body is not only unelected. It (as any international organization) lies at an extremely remote level of social organization, far from the ordinary citizen. Constituencies may thus find it to be poorly situated to decide substantively whether specific genetically modified products must be authorized because they are safe for human health and the environment according to scientific risk assessments. Moreover, given the history of mistaken scientific judgments, coupled with the possibility of bias in the scientific evidence because the testing of GM varieties is financed primarily by the private sector, WTO panels may wish to avoid being in the position of second-guessing Member determinations on “scientific” grounds. Finally, it is much more difficult for WTO Members to correct or respond collectively to a WTO judicial decision by amending a WTO rule, compared to in domestic legislative systems, so that Members may be wary of WTO panels asserting too much authority in these cases.

The WTO panel was thus reluctant to allocate substantive decision-making authority to itself in the GMO case under a balancing test. Although the Appellate Body did so in the *Korea-Beef* case, that case did not involve politically-charged environmental issues that would attract

¹³⁴ On the SPS Committee, see Scott, *The SPS Agreement*, supra note..., at 41-75. On the soft law dispute settlement mechanism provided by the IPPC, see Shaffer and Pollack, *When Cooperation Fails*, supra note... (chapter 4).

the attention of transnational NGOs and the media.¹³⁵ In the GMO case, in contrast, the panel likely realized that it lacked the authority to engage explicitly in a delicate balancing on this particular matter. Although, as with any court, WTO panel members are not elected, they are even more subject to legitimacy challenges than domestic courts because of the more fragile social acceptance of their decisions, as we examine in Part V. Paradoxically, as the need for international judicial review increases because of biases in national political processes, intrusive judicial review can also become more difficult, and judicial panels must weigh the potential adverse reactions to their decisions as a cost to the overall trading system.¹³⁶ The WTO panel thus took a proceduralist turn in the agricultural biotech case, in which it could look for allies within the EU political system, an institutional alternative that we now address.

5. The Proceduralist Turn: International Judicial Review of the Process of National Decision-Making

Under a fifth institutional alternative, instead of engaging in a balancing of substantive concerns, the WTO panel can review the *procedures* of the national decision-making process to attempt to ensure that national decision-makers take into account the views of, and impacts on, affected foreign parties. As under the first option, the panel would attempt to return substantive decision-making to a national political forum, but unlike under the first option, it would not completely defer to the regulating state. The WTO Appellate Body has adopted this approach in a number of important decisions involving the intersection of trade and social policy.¹³⁷

The panel clearly chose this fifth option in its response to the complainants' challenges to decision-making at the EU level. It avoided addressing the SPS Agreement's substantive

¹³⁵ The case, of course, may have been a high profile one for certain constituencies in Korea, but it did not resonate among social movements internationally. Power asymmetries exist not only in relation to state influence, but also that of transnational non-governmental organizations that are primarily based in the US and EU. See discussion in Gregory Shaffer, *The World Trade Organization under Challenge: Democracy and the Law and Politics of the WTO's Treatment of Trade and Environment Matters*, 25 HARV. ENVTL. L. REV. 1 (2001).

¹³⁶ I thank Neil Komesar for eliciting this point.

¹³⁷ The WTO Appellate Body applied this process-based approach in the *US—Shrimp-Turtle* and *EC-GSP* cases. See discussion in Gregory Shaffer, *Power, Global Governance and the WTO: A Comparative Institutional Approach*, in *POWER IN GLOBAL GOVERNANCE* (Michael Barnett & Raymond Duvall eds., 2005); Gregory Shaffer & Yvonne Apea, *Institutional Choice in the GSP Case: Who Decides the Conditions for Trade Preferences*, 39 J. WORLD TRADE 977 (2005).

provisions by finding that the EU had not adopted a reviewable “SPS measure.”¹³⁸ By categorizing the EU *de facto* moratoria in this way, the panel avoided examining whether the moratoria complied with article 5.1’s requirement that measures be based on a risk assessment, article 5.5’s requirement that measures be consistently applied, and article 5.6’s requirement that measures be no more trade-restrictive than required to achieve their aims. The panel nonetheless found that the EU had violated its procedural obligations under the SPS Agreement by engaging in “undue delay” in the review process.¹³⁹ The EU’s review process is again operating, even though the process remains quite slow and politically charged.¹⁴⁰

Categorizing the panel’s more stringent review of the EU member state safeguard bans is more complicated.¹⁴¹ Because the panel held that the safeguards were not based on a risk assessment in violation of article 5.1 of the SPS Agreement, some commentators contend that the panel applied a strict rule under the second institutional option, or (alternatively) itself assumed substantive decision-making by balancing competing concerns under the fourth one.¹⁴² However, the panel can also be viewed as returning the issue to EU political, administrative and judicial processes in light of the two-level nature of EU policy-making. The member state bans are procedurally subject to EU political challenge and judicial review under EU legislation. Just as the panel held that the EU had engaged in undue delay in deciding whether to approve the sale of GM varieties, the panel implicitly found that the EU was taking undue delay in challenging the member state bans under the EU’s own internal legislation. The EU’s scientific bodies had found that the bans were not justified by a scientific risk assessment so that, under EU law, the Commission should challenge them.¹⁴³ Under EU law, the member state safeguards are only

¹³⁸ See Annex A, *supra* note....

¹³⁹ See Annex A, *supra* note....

¹⁴⁰ See Shaffer & Pollack, *When Cooperation Fails*, *supra* note... (chapter 5).

¹⁴¹ See Annex A, *supra* note....

¹⁴² See *e.g.*, Lukasz Gruszczynski, “The SPS Measures Adopted in Case of Insufficiency of Scientific Evidence - Where do We Stand after EC-Biotech Products Case?,” in *ESSAYS ON THE FUTURE OF WORLD TRADE ORGANIZATION*, Julien Chaisse & Tiziano Balmelli (Eds.) (2007 forthcoming).; and Perez, *Anomalies*, *supra* note....

¹⁴³ The panel pointed out that the EU’s “relevant scientific committees had evaluated the potential risks,... and had provided a positive opinion.” The panel stressed that “[t]he relevant EC scientific committee subsequently also reviewed the arguments and the evidence submitted by the member State to justify the prohibition, and did not consider that such information called into question its earlier conclusions.” See, *e.g.*, Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.3260 and 8.9.

valid if adopted in an “emergency” in which it is “evident” that EU-authorized products “are likely to constitute a serious risk to harm human health, animal health or the environment.”¹⁴⁴

Had the panel decided in favor of the member state safeguards, it would likely have been viewed as calling into question the judgments of the EU’s official scientific bodies! Thinking counterfactually, such a WTO panel decision would have had a very different impact in internal EU politics. Commentators on the WTO decision have ignored this key institutional aspect of the case. Had EU official scientific bodies not explicitly issued positive opinions on the GM varieties in question, the panel would have been in a much more compromised position and its institutional choice in respect of the safeguard bans could indeed more properly be viewed in terms of the second or fourth alternatives examined above. For example, were the complainants to challenge Switzerland’s decision to apply a five-year moratorium on GM crop production, which resulted from a popular referendum in November 2005 that was supported by 56% of Swiss voters and all 26 Swiss cantons, the panel’s legitimacy challenges would have been much more stark. In contrast, had only one Swiss canton imposed a moratorium on GM varieties that had earlier been authorized by Swiss federal authorities based on Swiss risk assessments, and that Swiss canton’s measures arguably violated Swiss law, a WTO panel’s decision would be easier. The WTO decision would provide leverage for public and private actors in the Swiss domestic law context to bring the canton into compliance.¹⁴⁵

Process-based review may seem ideal, since it is relatively less intrusive than substantive review and it directly focuses on the issue of participation of domestic and foreign parties. Not surprisingly, legal scholars of various bents have advocated a procedure-based approach. Taking a rationalist, law-and-economics perspective, Andrew Guzman maintains that a “procedure-focused approach is preferred to a substantive review because the costs of a substantive review are likely to be systematically higher in the SPS area than in more traditional trade disputes. Matters of health and safety implicate deeply held notions of sovereignty and autonomy. For the WTO to review the substance of a state's health and safety rules is to invite non-compliance,

¹⁴⁴ Commission Regulation 1829/2003, art. 34, 2003 O.J. (L 268) 1.

¹⁴⁵ On the Swiss referendum, see Yves Tiberghien, *Europe: Turning Against Agricultural Biotechnology in the Late 1990s*, in *THE GENE REVOLUTION: GM CROPS AND UNEQUAL DEVELOPMENT* 51-69 (Sakiko Fukuda-Parr ed., 2007).

resentment, and conflict.”¹⁴⁶ Similarly, advocates of “deliberative,” “participatory,” and legal pluralist approaches stress the advantages of focusing on procedures over substance.¹⁴⁷ As Peter Gerhart and Michael Baron write, “the process-based view... appeals to widely shared values of participatory lawmaking.”¹⁴⁸

However, process-based review also raises significant concerns, in particular because strategic actors can manipulate processes to give the appearance of consideration of affected foreigners without in any way modifying a predetermined outcome. Moreover, even if international case-by-case review were possible (which it is not), it will be difficult, if not impossible, for an international judicial body to determine the extent to which a national agency actually takes account of foreign interests. National and EU decision-makers can thus go through the formal steps of due process without meaningfully considering the views of the affected parties. Indeed, following the Appellate Body shrimp-turtle decision, the US simply retailored its procedural requirements in order to continue the same import ban, the substantive outcome of which was not in doubt.¹⁴⁹

Process-based review is more likely to be meaningful if the WTO panel can empower actors within existing national political processes that will reduce bias. Neil Komesar has labeled this a “trusty buddy” strategy in his analysis of US constitutional law.¹⁵⁰ Judicial actors using this approach recognize that political and administrative processes are not monolithic, but have cracks that can be worked. They understand that for their decisions to be effective, they will need

¹⁴⁶ Guzman, *Food Fears*, *supra* note., at 4-5. For example of another WTO scholar calling for such a procedural approach in order to defend the organization, see e.g. and Sungjoon Cho, *Of the World Trade Court’s Burden* (March 2007, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=969437).

¹⁴⁷ See e.g. Joerges, *Conflict of Laws as Constitutional Form*, *supra* note... For a “deliberative-constitutive” approach to risk regulation under the SPS Agreement, see Elizabeth Fisher, “Beyond the Science/Democracy Dichotomy: The World Trade Organization Sanitary and Phytosanitary Agreement and Administrative Constitutionalism,” in *CONSTITUTIONALISM, MULTILEVEL TRADE GOVERNANCE AND SOCIAL REGULATION* 491 (Christian Joerges & Ernst-Ulrich Petersmann eds., 2006). For a legal pluralist perspective, see Paul Schiff Berman, *Global Legal Pluralism*, *Southern California Law Review* (2007 forthcoming).

¹⁴⁸ Peter M. Gerhart and Michael S. Baron, *Understanding National Treatment: The Participatory Vision of the WTO*, 14 *Ind. Int’l & Comp. L. Rev.* 505, 551 (2004).

¹⁴⁹ See Shaffer, *Power*, *supra* note...

¹⁵⁰ See Neil K. Komesar, *Taking Institutions Seriously: Introduction to a Strategy for Constitutional Analysis*, 51:2 *The University of Chicago Law Review*, 366, 378 (Spring, 1984). I wish to generally thank Neil Komesar for his stimulating discussion on these points.

to provide tools that can be used by actors in these processes. If a WTO panel can enlist allies in the EU system to reduce the system's inevitable biases, then process-based review may work. Otherwise, a WTO panel will inevitably have to engage in some form of substantive review if it wishes to have any impact where national measures, responding to majoritarian or minoritarian political demands, prejudice unrepresented foreign traders. In the agricultural biotech context, both EFSA and members of the European Commission are potential allies within EU decision-making processes. The Commission has long been looking for tools to remove the member state safeguards or at least not have them renewed after they expire by their terms. EFSA will continue to make the risk assessments on which EU decisions are to be based in the future.

In complement, the transparency demands of process-based review can help to activate broader and more informed participation in national and EU political and administrative processes to counter any minoritarian biases. For example, the conduct of risk assessments has become a focal point in EU decision-making which has become subject to more transparent notice and comment procedures from interested stakeholders.¹⁵¹ This process also gives rise to an administrative record that can facilitate subsequent judicial review at the WTO level. The prospect of such judicial review, in turn, can create leverage in EU administrative processes so that they are more likely to avoid violations in the first place than would otherwise be the case. Overall, the WTO SPS Agreement, as interpreted in SPS cases, has spurred the EU to adopt authorization procedures that create administrative records that can either justify its measures or subject them to legal challenge.

In sum, to assess whether this institutional outcome through judicial interpretation is normatively desirable, we need to compare it with the implications of other available (and also imperfect) alternatives. This Article has provided a framework and analysis to do so. Although I may have technically interpreted the WTO agreements differently, I find that the overall thrust of the panel's report was appropriate in its procedural orientation in light of the institutional alternatives. I find so particularly on account of the legitimacy constraints that the WTO judicial process itself faces, to which we now turn.

¹⁵¹ See Patrycja Dabrowska, *Hybrid Solutions for Hybrid Products? EU Governance of GMOs* (unpublished PhD thesis, European University Institute, 2006).

V. Institutional Choice in Context: The Sociolegal Constraints on WTO Judicial Decision-making

Assessing the WTO judicial decision in the GMO case should not be done solely in terms of the impact of that decision on other institutions. The relation of international and national law and politics is a reciprocal process.¹⁵² Not only can an international decision affect domestic political processes. An international body's anticipation of likely domestic political reactions to its decisions can also affect its very decision. What appears to be an independent and autonomous judicial decision, therefore, can be and often is subtly influenced by judges' anticipation of the decision's reception among the parties to the dispute as well as the membership of the organization and the broader legal community.

When there is a risk of defiant responses to WTO judicial decisions, especially by powerful Members in "hard" cases, the WTO judicial process has an incentive to issue reports that avoid deciding the substantive issues, resulting in what has been termed a politics of legitimacy.¹⁵³ By legitimacy, here, we stress the concept's sociological dimensions in terms of the social acceptance of a judicial decision.¹⁵⁴ In the case of the WTO dispute settlement system, we refer to whether WTO Members and society at large ultimately accept or reject a WTO panel

¹⁵² See discussion in Gregory Shaffer, *A New Legal Realism: Method in International Economic Law Research*, in *INTERNATIONAL ECONOMIC LAW—THE STATE & FUTURE OF THE DISCIPLINE* (Colin B. Picker et al. eds., 2007) (forthcoming).

¹⁵³ See Karen Alter, Agents or Trustees? International Courts in their Political Context, 14:1 *European Journal of International Relations* (forthcoming 2008).

¹⁵⁴ Cf. Bodansky, "The Legitimacy of Interantional Governance: A Coming Challenge for International Environmental Law?" 93 *American Journal of Internatinal Law*, 596, 601-02 (1999) (speaking of sociological legitimacy as "popular legitimacy" and "normative legitimacy" as "whether a claim of legitimacy is well-founded—whether it is objective in some objective sense," and thus "whether it is worthy of support"). There are parallels with domestic legal process, for the impact of formal law, in Gerald Postema's words, also depends on "a substantial degree of congruence between [formal law] and background social practices and conventions governing horizontal relations among citizens." Gerald Postema, "Implicit Law," in *REDISCOVERING FULLER: ESSAYS ON IMPLICIT LAW AND INSTITUTIONAL DESIGN* (William J. Witteveen & Wilbren van der Burg, edss, 1999), at 255, 270. As Postema further contends, which applies to courts as well as legislators, "lawgivers must shape the rules they enact or interpret in anticipation of how citizens are likely to understand, and expect their fellow citizens to undertand, the language they use and the decisions they make." *Id.*, at 264.

or Appellate Body ruling.¹⁵⁵ For us, the normative aspects of legitimate judicial decision-making are linked to the sociological ones in that they point to specific aspirations of the judicial process that can enhance the prospects of social acceptance of its decisions, such as judicial impartiality, transparency, fair access for affected parties, consistency, due respect for political branches at different levels of social organization, and the provision of reasoned and principled decisions.¹⁵⁶

Panels and the Appellate Body are concerned with the acceptance of their decisions by the WTO members themselves, as well as by social forces that will place pressure on WTO member governments to defy panel and Appellate Body decisions. Powerful WTO Members such as the US and EU, which are the world's largest traders, are arguably of particular concern. Were the WTO judicial process to come down hard on the EU in the GMO case, the EU would likely not comply with its decision, in response to the demands of EU member states and the larger European public. Moreover, such a ruling could provide fodder to anti-globalist challenges to trade liberalization, and fuel further mass protests against the WTO, in which EU and US NGOs can play a catalyzing role. The EU's defiance of the WTO decision, coupled with mass protests, could provide a rationale for other WTO Members to refuse to comply with WTO legal rulings. One Member's non-compliance could trigger other Members' tit-for-tat strategies of non-compliance. As McDougal and Lasswell stated about international law almost fifty years ago, "[s]ince the legal process is among the basic patterns of a community, the public order includes the protection of the legal order itself, with authority being used as a base of power to protect authority."¹⁵⁷ As Koskenniemi writes in a 2006 report from the International Law Commission writes, "[t]reaty interpretation is diplomacy, and it is the business of diplomacy to avoid or mitigate conflict."¹⁵⁸ Part of diplomacy, of course, involves power variables, and there

¹⁵⁵ Laurence Helfer and Anne-Marie Slaughter thus define "effective adjudication in terms of a court's basic ability to compel or cajole compliance with its judgments." Laurence Helfer & Anne-Marie Slaughter, *Toward a Theory of Effective Supranational Adjudication*, 107 YALE L.J. 273, 278 (1997).

¹⁵⁶ See e.g. Helfer & Slaughter, *supra* note..., at 284 ("impartiality; principled decisionmaking; reasoned decisionmaking; continuity...; consistency of judicial decisions over time; respect for the role of political institutions at the federal, state and local levels; and provision of meaningful opportunity for litigants to be heard"); Bodansky 1999; and THOMAS M. FRANCK, *THE POWER OF LEGITIMACY AMONG NATIONS* (1990).

¹⁵⁷ Myres McDougal & Harold Lasswell, *The Identification and Appraisal of Diverse Systems of Public Order*, 53 AM. J. INT'L L. 1, 10 (1959).

¹⁵⁸ ILC, *Fragmentation of Int'l Law*, *supra* note..., at 21.

are justifiable concerns over a pattern of WTO dispute resolution in SPS and GATT article XX cases in which WTO dispute settlement bodies show greater deference when the US or EU is a respondent.¹⁵⁹

Our analysis of the WTO panel decision indeed strongly suggests that the WTO judicial process is not independent of politics or strategic action by WTO judicial decision-makers. WTO judges, both panelists and the members of the Appellate Body, have some independent agency. They are not only interpreters and applicators of WTO legal provisions. The pattern of their jurisprudence suggests that they also assume a mediating role. They can press members to take account of each others' views and interests, and they can spur the settlement of disputes by facilitating compliance with judicial recommendations, including through empowering actors at the domestic level, thereby upholding the WTO legal system. After all, this is a *dispute settlement system* (not simply a court) whose ultimate "aim," under the Understanding on Rules and Procedures Governing the Settlement of Disputes, "is to secure a positive solution to a dispute."¹⁶⁰ As a result, Joerges and Neyer characterize WTO dispute settlement as constituting "a middle ground between law and politics."¹⁶¹

The WTO Appellate Body and judicial panels have an incentive to write opinions that are slightly ambiguous, leading to different interpretations as to how they can be implemented. In this way, they can shape their decisions to facilitate EU compliance and amicable settlement, and thereby uphold the WTO legal system. Through finding that neither the EU general nor product-specific moratoria were "SPS measures," the panel left a WTO decision over the crucial substantive issue of whether EU-level decision-making was based on a scientific risk assessment for another day, if ever. As regards the member state safeguard measures, the panel found that they were inconsistent with the EU's substantive WTO commitments to base SPS measures on a

¹⁵⁹ See Cho, Court's Burden, *supra* note... See also *supra* notes.... (concerning the outcomes in the *Korea-Beef* and *Australia-Salmon* cases.

¹⁶⁰ See Understanding on Rules and Procedures Governing the Settlement of Disputes, Art. 3.7, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, Legal Instruments - Results of the Uruguay Round, 33 I.L.M. 1125 (1994) [hereinafter *DSU*]. The Understanding provides further that, "Where a panel or the Appellate Body concludes that a measure is inconsistent with a covered agreement, it shall *recommend* that the Member concerned bring the measure into conformity with that agreement" (emphasis added). See *DSU*, article 19.1.

¹⁶¹ Joerges & Neyer, *Politics, Risk Management, WTO Governance*, *supra* note..., at 219-25; see also Joerges, *Conflict of Laws*, *supra* note....

risk assessment, but did so by relying on risk assessments conducted by the EU itself in a context where the EU has so far refrained from challenging the safeguards under EU law. The panel can be best viewed as returning the issues to EU political, administrative and judicial processes in a way that can facilitate compliance with the WTO legal order. The panel even indicated a means for them to do so, which has already elicited a Commission reaction.¹⁶²

The extraordinary length of the WTO panel decision and the significant delay in issuing it provide further evidence of the panel's concerns over challenges to its authority. Ironically, the panel attempted to avoid making substantive decisions, just as the EU had done, in part by using methods which paradoxically were the basis for its legal holding against the EU. While the panel held against the EU for engaging in "undue delay," the panel itself took over three years from the initial filing of the claim to render a decision, instead of from around seven-to-ten months as contemplated by the DSU. As a consequence, the panel vastly exceeded WTO guidelines which, under article 12.8 of the DSU, provide, "the period in which the panel shall conduct its examination.... shall, as a general rule, not exceed six months." Article 12.9 of the DSU further states that "[i]n no case should the period from the establishment of the panel to the circulation of the report to the Members exceed nine months." Even once composed on March 4, 2004, the

¹⁶² The panel stated that "if there are factors which affect scientists' level of confidence in a risk assessment they have carried out, a Member may in principle take this into account." It declared that "there may conceivably be cases where a Member which follows a precautionary approach, and which confronts a risk assessment that identifies uncertainties or constraints, would be justified" in adopting a stricter SPS measure than another member responding to the same risk assessment. The panel repeated this same analysis verbatim in assessing whether a member state safeguard could be found to meet the requirements under 5.7 for provisional measures. See Panel Report, at ¶¶ 7.3065 & 7.3244-7.3245. See also Annex K, Letter of the Panel to the Parties of May 8, 2006, WT/DS291/R/Add.9, WT/DS292/R/Add.9, WT/DS293/R/Add.9 (Sept. 29, 2006). In other words, were the EU-level risk assessment to identify certain "*uncertainties or constraints*" in its evaluation, there could be grounds for upholding an EU member state's safeguard measure as being "based" on an EU risk assessment (as required under article 5.1), even though the EU had approved the variety. The European Commission has already responded by calling explicitly for EFSA to take member state views into account, as well as to address "more explicitly potential long-term effects and bio-diversity issues" in its risk assessments. See Report from the Commission to the Council and the European Parliament on the Implementation of EC No. 1829/2003 of the European Parliament and of the Council on Genetically Modified Food and Feed, COM (2006) 626 final (Oct. 25, 2006) (the Commission "invite[s] EFSA to liaise more fully with national scientific bodies, with a view to resolving possible diverging scientific opinions with Member States" and it notes that "applicants and EFSA will also be asked to address more explicitly potential long-term effects and bio-diversity issues in their risk assessments for the placing on the market of GMOs"). I thank Sara Poli for pointing this out. If EFSA responds to member state concerns by indicating greater "uncertainty" in its risk assessments regarding "long-term effects," then EU and member state measures could withstand WTO scrutiny. In this way, the EU could claim "implementation" of the report without changing the substance of EU or member state scrutiny.

panel took over thirty-two months to circulate its decision.¹⁶³

Some might find it a bit presumptuous for the panel to hold that the EU had engaged in “undue delay” in making decisions in this controversial area, and then do so itself. Of course, the panel listed good reasons for the length of its proceedings. It noted in its opinion the inordinate amount of written submissions (which it estimated at 2580 pages), supplemented by “an estimated total of 3136 documents,” the need to consult with a panel of scientific experts (which provided the panel with an “estimated 292 pages” of responses), the case’s procedural and substantive complexity, and the fact that the three complainants did not consolidate their complaints.¹⁶⁴ WTO panels face resource constraints in handling the mass of evidence presented. Yet the panel clearly was in no hurry to make a quick decision, which is one reason that it consulted so many documents and experts. There is a sense as well that the panel purposefully delayed issuing its report until after the WTO Ministerial Meeting in Hong Kong in December 2006 in which intensive bargaining (and demonstrations) took place under (and against) the Doha round of trade negotiations. None of the parties to the proceeding appeared to object to the delays.¹⁶⁵

The panel’s delay in deciding the substantive claims at the EU level will, in fact, be even longer on account of its decision, if in fact a WTO judicial decision on the substance is ever made. Under the panel’s reasoning, only once the EU actually makes a decision which results in an “SPS measure” regarding a GM variety may a complainant bring a substantive claim. In such case, the complainant would have to restart the process from scratch. A panel would have to be formed and experts consulted. The actual delay in the panel making a decision on the substance of EU decision-making will thus be much longer than the three and half years that the case formally took (not to count subsequent procedures regarding the EU’s implementation of the

¹⁶³ The claim was filed in May 2003 and the Panel was formed on August 29, 2003, but not actually composed until March 4, 2004 (i.e. panelists actually designated by the Director General because the parties could not agree on them). The procedure took 1,235 days between the Request for Consultations and the issuance of the Panel report. The report was finally adopted, without appeal, on November 21, 2006, 1,279 days after the initial request for consultations.

¹⁶⁴ Panel Report, *EU-Biotech*, *supra* note..., ¶¶ 7.37-7.45.

¹⁶⁵ Moreover, even after the decision, the parties to the dispute reached an agreement in June 2007 that established November 21, 2007 as the deadline for implementation of the panel decision, which deadline they then extended until January 11, 2008 (almost five years after the initial filing of the WTO complaint). See “U.S., EU Agree to Extend Deadline for Implementation of GMO Case,” 25: 46 Inside U.S. Trade 1 (Nov. 23, 2007).

ruling), if indeed a new claim is ever filed. The panel thereby effectively parried deciding on the substance of EU decision-making.

The length of the decision is also telling. By issuing an opinion that is 1,087 pages, containing 2,187 footnotes, citing the jurisprudence of sixty previous WTO panel and Appellate Body reports, and with more than another thousand pages of annexes, the panel made the decision look both extremely thorough and considerably technical. At the same time, it becomes much more difficult for outsiders to read, understand and criticize the panel report. Few have the patience to do so. Whether consciously done or not, the one thousand plus page panel decision obfuscates the judicial role, submerging legal conclusions and analysis in a sea of text. The mere translation of the decision into the WTO's other official languages, French and Spanish, resulted in further delay before it could be formally adopted and officially released.

The panel's delay and arguable obfuscation can be viewed in both sociolegal and normative terms. From a sociolegal perspective, the panel was not anxious to make a substantive decision on EU procedures regarding the politically controversial issue of GMOs on account of the likely challenges to its authority. It thus took a tortuous path involving a series of interpretive moves to avoid deciding the substantive issues, as summarized in our step-by-step review of the decision in Annex A. From a normative perspective, the delay, length and overall complexity of the panel decision may nonetheless have positive attributes when viewed in light of the interpretive and institutional alternatives that the panel confronted in broader institutional context. The panel was attempting to grant time for the parties to sort out their disputes in the shadow of WTO law, to provide input into EU administrative and judicial decision-making processes (in particular through giving tools that domestic actors can use under EU law in order to facilitate compliance), to indicate flexible means for the EU to comply with the decision by (strategically) retaining some ambiguity, and to protect its own authority through painstaking textualist justifications for its interpretive moves given their unstated (but nonetheless significant) institutional implications.

Conclusions

Comparative institutional analysis provides a theoretical framework that is explanatory,

normative and practical, all at the same time. It addresses what judicial processes do when they engage in interpretation; what they should do in light of the institutional implications of the choices that they face; and what they can do in light of sociolegal constraints. This Article has used the controversial WTO biotech decision as a point of entry for broader theorizing on WTO and international dispute settlement. From a positive standpoint, the Article has shown how WTO judicial interpretation operates structurally through allocating decision-making authority to different institutions. As we have seen, WTO interpretive choices involve shifts in decision-making *from* and *to* alternative institutional processes, made within the WTO's own institutional constraints. From a normative perspective, the Article has applied a comparative institutional perspective to assess the attributes and deficiencies of the real life institutional choices available to the panel in light of the sociolegal constraints that dispute settlement panels face. In doing so, we hope to demonstrate that meaningful legal analysis of WTO and international dispute settlement must be comparative institutional.

Through its comparative institutional analytic approach, the Article also aims to show how international law pragmatically works in relation to national legal systems. The central way in which WTO law can have effects is by empowering actors within national (or in this case EU) decision-making processes. In the agricultural biotech case, the panel effectively empowered the European Commission and private litigants who can rely on EFSA determinations (complemented by the WTO panel decision) to challenge member state bans within EU and member state legal systems. The Commission can do so before the European Court of Justice and private litigants can do so before member state courts which, in turn, can refer questions under EU law to the European Court of Justice.¹⁶⁶ As Joanne Scott writes, "WTO law may not have direct effect in European law, but its effect in this sphere is palpable nonetheless."¹⁶⁷ At the

¹⁶⁶ A Monsanto affiliate, in fact, had already done so in respect of an Italian safeguard. *See* Case C-236/01, *Monsanto Agricoltura Italia SpA v. Presidenza del Consiglio dei Ministri*, 2003 E.C.R. I-8105. Similarly, the European Court of Justice ruled in March 2000 that France could not ban the sale of GM crops that had been approved at the EU level without producing new information regarding health and environmental risks. The case was referred to the Court of Justice by a French court following a challenge by Greenpeace of France's initial approval of a GM maize variety. *See* Case C-6/99, *Ass'n Greenpeace France v. French State, Ministère de l'Agriculture et de la Pêche*, 200 E.C.R. I-1651.

¹⁶⁷ SCOTT, *THE WTO AGREEMENT*, *supra* note..., at 128 (citing the Pfizer and Monsanto Agricoltura Italia court decisions). *See also* Joanne Scott, *European Regulation of GMOs and the WTO*, 9 COLUM. J. EUR. L. 213 (2003);

same time, the panel needed to respond to the EU's political context in light of the panel's concerns over the reaction to its own decision-making. The GMO case exemplifies these dynamic and reciprocal interactions between international and domestic (and in this case EU) law.¹⁶⁸

We can, in this way, better understand the role (albeit a constrained one) that a WTO panel plays in ongoing transnational regulatory conflicts, such as over the regulation of agricultural biotechnology. As we have seen, the WTO judicial process does not simply assess national regulatory measures, but also has impacts on other institutional processes, including the dynamics and processes through which national regulations are made. Although there are severe limits to the accommodation of deep conflicts, such as over the regulation of GMOs, the WTO dispute settlement system can help to channel them within defined legal parameters. By providing a framework of legal rules, the WTO can facilitate dialogue between governments and constituencies concerning the objectives of GMO regulation, the means used to achieve these objectives, and the impact of these choices on different constituencies. As Rob Howse writes, "SPS provisions and their interpretation by the WTO dispute settlement organs... can be, and should be, understood not as usurping legitimate democratic choices for stricter regulations, but as enhancing the quality of rational democratic deliberation about risk and its control."¹⁶⁹

The WTO SPS Agreement's requirements, and, in particular, the requirement that regulation be based on a risk assessment, cannot guarantee that regulatory policy decisions will be rationally made in a deliberative manner, taking into account the impact on affected constituencies. WTO judicial decisions do not determine procedural or substantive outcomes, especially where issues are politically charged. Far from it. But in light of the alternatives, WTO requirements, such as that regulatory measures be based on a risk assessment, can provide information to national regulatory processes so that regulatory decisions are more likely to be

and Jan Bohanes, *Risk Regulation in WTO Law: A Procedure-Based approach to the Precautionary Principle*, 40 COLUM. J. TRANSNAT'L L. 323 (2002).

¹⁶⁸ For a full analysis of the impact of the WTO on the EU's biotech regime from political economy and sociolegal perspectives, see Shaffer & Pollack, *When Cooperation Fails*, *supra* note... (chapters 5 and 6).

¹⁶⁹ Howse, *Democracy, Science and Free Trade*, *supra* note...

informed and subject to legitimate challenge within the regulating state than in the alternative.¹⁷⁰ The WTO panel in the GMO case can be viewed, through the procedural orientation that it took, as having channeled a major transnational trade conflict into a legal frame which has provided input into other institutional processes in which debates will continue to play out. In this way, WTO rules can help push WTO members to take into account the impact of their decisions on others, and to justify their decisions in legal and policy terms and thereby facilitate exchange between governments at the international level, and between governments and their constituencies nationally.

This Article has put forward a structural theory of comparative institutional analysis for understanding how WTO dispute settlement works. It has demonstrated how interpretive choices by WTO judicial bodies have institutional implications in terms of the allocation of decision-making authority. These choices are not easy because each institutional alternative is beset by significant imperfections. When disputes are complex, such as over the relative risks and benefits of individual agricultural biotech varieties, and when they affect constituencies around the world, choosing the best of the bad will be challenging. Nonetheless, meaningful analysis of the choices confronting an international judicial process, such as that of the WTO, needs to engage first with the institutional implications of interpretive choices, and second with a comparison of the relative attributes and deficiencies of the institutional alternatives, in particular in terms of the participation of affected stakeholders. This analysis will be of little benefit unless it grapples in a detailed manner with real cases, which this Article hopes to exemplify.

¹⁷⁰ Similarly Scott, although she remains wary of the risk of “imposition of a methodological straightjacket operating in the name of false universalism,” points to how WTO law can “serve to open up decision-making, encouraging information generation and a healthy reflexivity.” SCOTT, *THE WTO AGREEMENT*, *supra* note ..., at 80.

Annex: Step-by-Step Review of the WTO Panel Biotech Decision

Because of the significance and complexity of the WTO panel decision in *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, we examine each step in the panel’s interpretation of the SPS Agreement’s text, highlighting their institutional implications. In this way, we provide a guide to the decision as background to the comparative institutional analytic framework in Part IV.

(i) Applicability of the SPS Agreement. The first key interpretive choice confronting the panel having institutional implications was whether the SPS Agreement applied. This first threshold issue was critical to the case because of the different legal requirements contained in WTO agreements. The SPS Agreement arguably contains more stringent provisions than the other potentially applicable WTO agreements in that it alone explicitly requires that measures be based on a scientific “risk assessment.” In consequence, if the panel found that the SPS Agreement did not apply, then the panel likely would show greater deference to EU decision-making processes and thus have less input into them.

In order to demonstrate this point, we need to review briefly why GATT and TBT claims are likely to be less intrusive. GATT requirements focus primarily on whether a measure is discriminatory. For example, the EU would not have engaged in any discrimination in violation of GATT article III so long as GM and conventional varieties are found *not* to be “like products” — that is, so long as GM varieties are considered to be different than conventional varieties under a number of criteria, including consumer perceptions.¹⁷¹ This is the case because the EU treats European-developed and foreign-developed GM varieties the same. Although the panel denied making any decision as to whether biotech and non-biotech varieties are “like products,” the panel suggested that they were *not* in its analysis of Argentina’s GATT article III.4 claim.

¹⁷¹ General Agreement on Tariffs and Trade, Art. III, ¶ 4, Oct. 30, 1947, 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194, provides: “The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.”

The panel wrote, “it is not self-evident that the alleged less favourable treatment of imported biotech products is explained by the foreign origin of these products rather than, for instance, a perceived difference between biotech products and non-biotech products in terms of their safety, etc..”¹⁷² Moreover, even if a panel found that the EU’s measures were inconsistent with GATT article III.4, the EU would have an article XX defense. Article XX provides, in general language, that measures must be “necessary to protect human, animal or plant life or health,” and not “constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.” Its more open-ended language would make it easier for the EU to justify its measures.

The TBT Agreement also arguably provides greater grounds for state regulatory intervention than does the SPS Agreement. For example, the TBT Agreement contains general language that regulations “shall not be more trade-restrictive than necessary to fulfill a *legitimate objective*, taking account of the risks non-fulfillment would create.”¹⁷³ The list of what constitutes a “legitimate objective” is an open one, and includes protection of the “environment” and “the prevention of deceptive practices.” Moreover, Article 2.2 of the TBT Agreement provides that, “[i]n assessing such risks, relevant elements of consideration are, *inter alia*, available scientific and technical information, related processing technology or intended end-uses of products.” In other words, “available scientific and technical information” appears to be just one element of consideration among others (“*inter alia*”) to be taken into account in applying the TBT Agreement. Because of the more open-ended language of the TBT Agreement, a party should more easily be able to raise non-science-based rationales to justify a measure under it. Overall, since neither the TBT Agreement nor the GATT contain a provision requiring

¹⁷² Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.2514. See also the panel’s rejection of Argentina’s claim under the second clause of Annex C(1)(a), which provides that Members shall ensure that “any procedure to check and ensure the fulfillment of sanitary or phytosanitary measures... are undertaken and completed... in no less favourable manner for imported products than for like products.” The panel found that “it is not self-evident that the alleged less favourable manner of processing applications concerning the relevant imported biotech products (e.g. imported biotech maize) is explained by the foreign origin of these products rather than, for instance, a perceived difference between biotech products and novel non-biotech products in terms of the required care in their safety assessment, risk for the consumer, etc.” *Id.* at ¶ 7.2411. In both cases, Argentina had failed to provide specific factual evidence and analysis in this respect. *Id.* at ¶¶ 7.2411, 7.2421, 7.2513 and 7.2157.

¹⁷³ Agreement on Technical Barriers to Trade, Art. 2.2, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A.

that technical regulations be “based” on a risk assessment, EU measures based on non-SPS objectives would have stronger grounds for being upheld as consistent with the EU’s WTO obligations. The EU moratoria and member state safeguard bans would, as a result, more likely withstand WTO scrutiny.

The panel faced three choices in determining whether the SPS Agreement was applicable. It could interpret that it was applicable, in which case the TBT Agreement would not apply. It could find that it was not applicable, in which case the TBT Agreement and/or perhaps the GATT would apply. Or it could determine that the EU legislation contained both SPS and non-SPS objectives so that claims and defenses could be raised under both the SPS and TBT Agreements (as well as the GATT).

The panel first addressed, in abstract terms, the EU’s defense that a measure could have multiple aims, some of which fall within the SPS Agreement’s scope and others which do not, in which case the SPS Agreement would not apply to them.¹⁷⁴ The EU argued that if the rationale for a regulatory measure includes both an SPS objective resulting in an infringement of the requirements under the SPS Agreement and “also a non-SPS objective,” then the infringing member would have to correct the SPS aspect “by removing the SPS objective and the elements of the measure therefrom.” It would not, however, otherwise have to terminate the regulatory action if it remained consistent with other WTO requirements, such as those under the TBT Agreement or the GATT.¹⁷⁵ The United States and Argentina, in contrast, maintained that only the SPS Agreement applied.

From a formal legal perspective, the panel agreed with the EU that a single legal requirement could have two different purposes, one covered by the SPS Agreement and another falling outside of the SPS Agreement’s scope.¹⁷⁶ However, it found that all of the risks of

¹⁷⁴ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.150.

¹⁷⁵ *See Id.* at ¶ 7.153;

¹⁷⁶ The panel used a hypothetical to make its point. It imagined a situation in which two identical legal requirements are contained in two separate laws, but one law expresses an SPS objective and the other a non-SPS objective. In that case, the SPS Agreement would only apply to one of the two laws. The panel then imagined that the two laws were consolidated, and found that equally, the SPS Agreement should only apply to the SPS objective for the measure, and not to the non-SPS objective. The panel reasoned that “we should not interpret the WTO Agreement in a manner which would effectively require Members to choose between enacting a requirement twice.” *See* Panel Report, paras. 7.162-7.170.

concern under the EU legislation fell within the scope of the SPS Agreement. To determine whether the SPS Agreement applied, the panel turned to article 1.1 of the agreement and the definition of SPS measures in Annex A. Article 1.1 provides that the agreement “applies to all [SPS] measures which may, directly or indirectly, affect international trade.” Since the EU’s measures clearly “may” affect international trade, the key issue was whether they constituted “SPS measures.” In a long section involving 73 pages of analysis, the panel parsed through the meaning of almost every word used in Annex A, frequently referring to the Shorter Oxford English Dictionary and other dictionaries, looking at the words’ ordinary meanings in their broader “context”¹⁷⁷ (clearly focusing on a textualist approach). As regards an SPS measures “purpose,” the annex defines SPS measures as “any measure applied to” protect against a list of enumerated risks, and in particular risks to human, animal or plant life or health arising from pests, diseases, disease-carrying organisms, additives, contaminants and toxins, as specified in four sub-paragraphs (a) through (d).¹⁷⁸

The issue of whether the EU legislation contained one or more “purposes” falling outside of the SPS Agreement’s scope was heavily litigated, resulting in endless linguistic analysis. The complainants contended that the SPS Agreement applied since the EU maintained that its measures are needed, on the one hand, to protect humans from such risks as toxicity, allergenicity, contamination, horizontal gene transfer, and antibiotic resistance, and, on the other hand, to protect the environment from such risks as the invasiveness of new species, the development of resistance in pests, impacts on non-target species, and other unintended effects arising through the use of GMOs. In support, they cited language from the applicable EU directives and regulation, as well as the information required from applicants in the EU approval

¹⁷⁷ I calculate that the panel cited to dictionaries fifty-nine times, involving the meaning of forty-two words.

¹⁷⁸ The panel interpreted the text of Annex A to define an SPS measure in terms of three attributes—its “purpose, legal form and nature.” As regards the legal “form,” Annex A provides that SPS “measures include all relevant laws, decrees, [and] regulations.” As regards the measure’s “nature,” the panel pointed to Annex A’s language that SPS measures include “requirements and procedures including *inter alia*, end product criteria; processes and production methods, testing, inspection, certificate and approval procedures;... and packaging and labeling requirements directly related to food safety.” The panel categorized the terms “requirements and procedures” in terms of the “nature” and not the “form” of the measure, although “requirements and procedures” can involve forms other than “laws, decrees [and] regulations.” The panel noted however, that the definition of legal form “should not be taken to prescribe a particular legal form.” Panel Report paras. 7.1334 & 7.2597. I agree with Scott that the panel’s categorization in terms of a measure’s nature (“requirements and procedures”) “seems counterintuitive and not supported from the syntax of the paragraph.” Scott, SPS Agreement, *supra* note..., at 21.

process.¹⁷⁹ The EU, in contrast, maintained that its directives and regulation also aimed to protect broader ecosystem concerns, including as regards “non-living components in the environment, such as biogeochemistry,” and thus also involved non-SPS objectives.¹⁸⁰

The panel sided with the complainants, and disagreed with the EU’s contention that because the legislation aimed to protect biodiversity, the legislation also expressed a purpose that was not covered by the SPS Agreement. The panel arrived at this result by broadly interpreting the coverage of particular terms used in Annex A such as “animal,” “plant,” “pest,” “additive,” “contaminant,” “arising from” and “other damage.”¹⁸¹ The panel concluded that all of the potential adverse effects indicated by the EU arising from the release of GMOs into the environment fell within the SPS Agreement’s scope.¹⁸² The panel came to similar conclusions regarding Regulation 258/97, the Novel Foods Regulation.¹⁸³ As Christine Conad states, by

¹⁷⁹ See, e.g., Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.176-7.184;

¹⁸⁰ See, e.g., *Id.* at ¶ 7.368. The EU cited concerns over “carbon and nitrogen recycling through changes in soil decomposition of organic material” as an important example. *Id.*

¹⁸¹ For example, under paragraph 1(a) of the annex, the panel found that the terms “animal” and “plant” include “non-target micro-organisms, such as soil or aquatic micro-organisms,” and that the phrase “arising from” includes “risks that arise indirectly or in the longer term” to animal and plant health. Panel Report, paras. 7.219 & 7.225-226. In interpreting paragraph 1(b) of the annex, the panel found “that genes intentionally added for a technological purpose to GM plants that are eaten or being used as an input into processed foods, can be considered ‘additives in foods’ within the meaning of Annex A(1)(b).” Panel Report, par. 7.301. Here the panel went beyond the definition provided by Codex of “additives,” as it would for the term “contaminants,” finding in each case that the more limited “Codex definition is not dispositive.” Panel Report, paras. 7.300 & 7.314. Finally, the panel pointed to the term “other damage” caused by “pests” in paragraph 1(d) as a “residual,” “potentially very broad” catch-all which covered the EU’s contention that the protection of biodiversity was among the legislation’s objectives. The panel stated, “to the extent that GMOs might cause damage to (as opposed to mere changes in) geochemical cycles, such that there would be damage to the environment other than damage to living organisms, we think such environmental damage could be considered as ‘other damage’ from the entry, establishment or spread of GMOs qua ‘pests’ within the meaning of Annex A(1)(d).” *Id.* at ¶ 3.374.

¹⁸² See *Id.* at ¶¶ 7.285-7.286; ¶¶ 7.343-7.344; ¶¶ 7.361-362; ¶¶ 7.379-380.

¹⁸³ The panel came to similar conclusions regarding Regulation 258/97, the Novel Foods Regulation, but under different reasoning. First, it again agreed with the EU in the abstract, noting that the Novel Foods Regulation’s provisions on labeling fell in part within the scope of the SPS Agreement and in part outside of it. The panel found that the regulation expressed three aims: to prevent danger for consumers from the consumption of GM foods, to prevent consumers from being misled, and to ensure consumers that they are not being nutritionally disadvantaged. The panel agreed that only the first aim constituted an SPS objective, while the latter two did not. The panel, however, avoided having to assess Regulation 258/97 under the TBT Agreement by finding that it was sufficient for it to find that one of the purposes of the regulation (the aim to prevent danger to consumers from the consumption of GM foods) constituted an SPS objective and that the complainants were not challenging the EU’s labeling provisions which would have raised the second (non-SPS) concern. *Id.* at ¶¶ 7.2209-7.2218. The panel indicated, nonetheless, that were the US or other complainants to challenge the EU labeling regime with respect to foods, as

relying on the hypothetical and indirect (as opposed to identified and direct) risks of GM varieties, the panel found that the SPS Agreement had a very expansive scope of coverage.¹⁸⁴ Because the panel found that all of the risks addressed by the EU legislation were covered, directly or indirectly, by Annex A of the SPS Agreement, the panel found that there was “no basis” for applying the TBT Agreement” and found it “not necessary to make findings... under [GATT] Article III.4.”¹⁸⁵ Joanne Scott thus raises a concern over SPS “imperialism” in which the SPS Agreement trumps otherwise applicable WTO law.¹⁸⁶ What interests us, in particular, are the institutional implications of these panel interpretations. Because the panel determined that only the SPS Agreement applied, it arguably would show less deference to EU decision-making, and as a result have more input into EU decision-making processes for agricultural biotech approvals.

(ii) Whether the Moratoria Constitute SPS Measures. The next interpretive issue facing the panel having institutional effects was whether EU general and product-specific moratoria existed, and, if so, whether they constituted “SPS measures” for purposes of the agreement. If the panel found that the moratoria existed but did not constitute “SPS measures,” then some of the SPS Agreement’s procedural provisions would apply, but its substantive requirements would not. The panel indeed took this route, having important institutional effects.

The panel first found that the EU had engaged in *de facto* general and product-specific moratoria on approvals of GM products.¹⁸⁷ It based its decision on an extensive review of statements and documents issued respectively by the European Commission, the Council, the

they have threatened, both the SPS agreement and the (arguably less stringent) TBT agreement would apply. The panel indicated that only the SPS Agreement would apply to the labeling requirements under Directive 2001/18 regarding the labeling of GMOs for deliberate release into the environment, but that other WTO agreements would also apply to Regulation 258/97 provisions regarding the labeling of GM foods for consumers. Cf Panel Report par. 7.391 & par. 7.415-416.

¹⁸⁴ See Conrad, *PPMs*, *supra* note...

¹⁸⁵ See Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.2517 (re application of GATT III.4) and ¶¶ 7.2524 & 7.2528 (re application of the TBT Agreement).

¹⁸⁶ SCOTT, THE WTO AGREEMENT, *supra* note ..., at 17.

¹⁸⁷ Pointing to a dictionary definition, the panel found that “the concept of a moratorium on approvals implies that the absence of approvals must be the consequence of a deliberate temporary suspension of approvals.” Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.534.

European Parliament and the member states, and in particular five member states whose formal 1999 declaration stated that they would take steps to suspend all EU authorizations of GM varieties.¹⁸⁸ In addition, the panel painstakingly examined the approval process for each of twenty-seven varieties (involving “product-specific moratoria”) where the EU or lead member state authority took no action for years.¹⁸⁹

Having determined that the moratoria existed, the panel determined whether they constituted “SPS measures.” Here the panel agreed with the EU that the EU’s general and product-specific moratoria did *not* constitute “SPS measures” because the moratoria constituted neither “requirements” nor “procedures” within the meaning of the SPS Agreement. It noted that “the mere fact that the decision in question related to the application, or operation, of procedures does not turn that decision into a procedure for the purposes of Annex A.”¹⁹⁰ The panel distinguished the procedures under the EU legislation which were SPS measures, and “the procedural decision to delay final substantive approval decisions,” which was not an SPS measure.¹⁹¹ Under this casuistic reasoning, the panel concluded that “the moratorium was not

¹⁸⁸ *Id.* at ¶¶ 7.474-7.483. Overall, the panel used the term “Group of Five” 401 times in the report.

¹⁸⁹ This part of the panel’s opinion reviewed the factual evidence regarding the approval process for each variety and alone comprised almost two-hundred pages, complemented by a 54-page table attached as Annex B which summarized “the history of the individual approval procedures.” As regards the Commission, the panel noted that the directive itself provided that “the Commission shall, without delay, submit to the Council a proposal relating to the measures to be taken” where the regulatory committee failed to support a Commission’s draft proposal. See Panel Report, par. 7.558 (citing Article 21 of Directive 90/220). The panel divided its analysis of individual varieties in terms of (i) Failure by the Commission to submit a draft measure to Council; (ii) Failure by the Commission to reconvene the Regulatory Committee for a vote on a draft measure; (iii) Failure by the Commission to submit a draft measure to the Regulatory Committee; (iv) Delays at member State level; and (v) Member State failure to give consent to placing on the market. The applications were for varieties of cotton, maize, soybean, oilseed rape, tomato, beet, potato and chicory.

¹⁹⁰ *Id.* at ¶ 7.1382. The panel found that the words “the application” of requirements and procedures is not listed in Annex A, and thus such application is not included in the definition of the “nature” of an SPS measure. ¶ 7.1335 (“the application of such requirements and procedures would not, itself, meet the definition of an SPS measure”). See also ¶ 7.1697 (“while ‘procedures, as such may according to the Annex A(1) definition constitute SPS measures, the application, or operation, of such procedures does not, itself, constitute an SPS measure within the meaning of Annex A(1)’”). The panel stated that the moratoria constituted challengeable “measures” under the WTO agreements, but “all measures are not SPS measures.” ¶¶ 7.1295 and 7.1333.

¹⁹¹ ¶ 7.1379. The panel noted that since the complainants did not challenge the underlying EU legislation, with its requirement of a pre-marketing approval, such legislation must be presumed to be WTO consistent. Since such approval by definition leads to a “provisional ban,” “logic dictates that if the pre-marketing approval requirement must be presumed to be WTO-consistent, the same holds true for the provisional marketing ban.... The decision to

itself an SPS measure,... but rather affected the operation and application of the EC approval procedures.”¹⁹²

Thus, while the panel found that the SPS Agreement had a broad scope of coverage in terms of the “purpose” of a measure, it found a narrower one in terms of the measure’s “nature.” In this way, the panel both avoided addressing claims under the TBT Agreement and avoided examining substantive claims against the moratoria under the SPS Agreement, while still taking over a thousand pages to reach this conclusion! It arguably did so in light of challenges to its authority to decide these substantive issues, as examined in Part V.

(iii) Legality of the Moratoria. The panel finally turned to the complainants’ substantive and procedural claims on page 624 of the report. Because it had determined that none of the moratoria constituted an “SPS measure,” the panel would find that none of the SPS Agreement’s substantive requirements applied to them. Yet by determining that the EU violated certain procedural requirements, the panel would return the substantive issues to EU administrative and judicial processes that must render their decisions without “undue delay” in the shadow of a potential future claim under these same SPS substantive requirements.

The panel held that the EU had not acted inconsistently with any of the SPS Agreement’s substantive requirements since each requirement arises only when a particular measure constitutes an “SPS measure.” On this definitional ground, the panel found that the EU moratoria were not inconsistent with the SPS requirement that a member base its measure on a risk assessment (the claims under articles 5.1 and 2.2).¹⁹³ It likewise found that the EU did not apply “arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade” (under articles 5.5 and 2.3). It found the same with respect to the claim that the EU took measures that were “more trade-restrictive than required to achieve their appropriate level of

delay final approval decisions merely had the effect of extending the duration of the provisional ban on the marketing of all non-approved biotech products.” ¶ 7.1353 and 7.1357.

¹⁹² Panel Report, *EC-Biotech*, *supra* note..., at ¶ 8.6.

¹⁹³ It thus appears that the only EU acts reviewable under 5.1, in the panel’s view, were “the pre-marketing approval requirement which results in a provisional marketing ban” (ie. the EU legislation itself) and any “final substantive approval decisions on individual applications.” *Id.* at ¶¶ 7.1390-1391.

sanitary or phytosanitary protection” (under articles 5.6 and 2.2). In short, by finding that the moratoria did not constitute SPS measures, the panel avoided having to engage in any substantive analysis of the claims.

In contrast, the panel found that the EU violated procedural requirements in engaging in “undue delay” in approving the GM varieties, in violation of article 8 of the SPS Agreement, which, in turn, refers to Annex C of the agreement.¹⁹⁴ The first clause of Annex C provides that “Members shall ensure, with respect to any procedure to check and ensure the fulfillment of phytosanitary measures, that: (a) such procedures are undertaken and completed without undue delay.” Article 8 and Annex C, unlike other SPS provisions, does not refer to “SPS measures,” but rather to procedures to fulfill SPS measures. In this case, the procedures were taken to fulfill the relevant EU legislation which the panel had determined was an SPS measure.

In response to the procedural claims, the EU argued that the delays were not “undue” because of the time needed to revise the EU legislative framework to include labeling and traceability requirements, and the changing state of the science. The panel was not persuaded, finding that such arguments could not be used endlessly to delay taking a decision.¹⁹⁵ Otherwise, the panel stated, “Members could evade the obligations to be observed in respect of substantive SPS measures, such as article 5.1, which requires that SPS measures be based on a

¹⁹⁴ Article 8 provides that “Members shall observe the provisions of Annex C.” The panel, however, found that the US failed to establish its claims under Annex C(1)(b) in respect of the moratoria.

¹⁹⁵ The panel made similar findings regarding the claims against product-specific moratoria involving twenty-seven GM varieties, maintaining that the EU had engaged in “undue delay” in the approval process for twenty-four of them. The United States initially listed forty-one applications in its request for the establishment of a panel, but in its first written submission only indicated twenty-five about which it was making claims. Canada identified four applications, two of which did not overlap with the US. Argentina indicated eleven applications, one of which did not overlap with the US, but was not examined by the panel because the applicant had withdrawn its application prior to the panel’s establishment. *EC-Biotech*, *supra* note..., at ¶¶ 7.1638-7.1646. The reasons for the undue delay for different varieties included the “unjustifiably long” period of time for the Commission to convene a regulatory committee meeting or to forward a draft measure to the Council, and the “unjustifiably long” amount of time taken by the lead member state authority for its assessment of the application. *See id.* at ¶ 7.2391 (containing a chart indicating which varieties encountered undue delay in their approval). Of the twenty-four cases in which the panel found undue delay, three were on account of the Commission failing to call a meeting to approve the varieties, seven on account of the Commission failing to forward a draft decision to the regulatory committee, and fourteen on account of delay of the lead authority at the member state level in respect of an application. In five of these latter cases, the lead member state authority was Spain, in five cases it was the Netherlands, in two cases it was Belgium, and in two cases it was France. In the case of France, the government had initially approved the variety, but then changed its views and did not take action after the Commission approved the variety.

risk assessment.”¹⁹⁶ The EU, in other words, was evading taking a decision as required under article 5.1, just as the panel now implicitly did in turn. In this way, the panel again returned the substantive issues to EU administrative and judicial processes in which public authorities and private actors can refer to WTO requirements as leverage.

In addition, the panel refrained from determining whether the general moratorium had ended, changing its initial finding in a leaked “interim report.” The EU approved a biotech product for the first time in six years during the middle of the proceedings, which was one of the specific varieties listed in the US complaint.¹⁹⁷ In its interim report, the panel found that the *de facto* general moratorium had thus ended.¹⁹⁸ In its final report, however, the panel left unresolved whether a moratorium continued to exist. It rather instructed the EU “to bring the general *de facto* moratorium on approvals into conformity with its obligations under the SPS Agreement, if, and to the extent that, that measure has not already ceased to exist.”¹⁹⁹

According to Washington insiders, this switch from the interim to final panel report was important for the US government, US farm associations and companies like Monsanto on account of the greater leverage that they now have in lobbying within the EU, exhibiting once more how international law has its effects.²⁰⁰ They now have greater leverage to press the EU to approve GM varieties, including by threatening a potential WTO compliance proceeding under

¹⁹⁶ Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.1517 & 7.1526.

¹⁹⁷ In November 2003, the Commission proposed to approve the importation of a variety of GM maize (Bt-11 sweet corn), for which EFSA had delivered a favorable opinion. The EU regulatory committee again refused to approve the Commission’s proposal so that the matter was referred to the Council, which was given until the end of April to act. On 26 April, a divided Agriculture Council failed to reach agreement on the Commission’s proposal. In the absence of a decision by the Council, the Commission adopted its proposal. Commission Decision 2004/657/EC, 2004 O.J. (L 300) 48. Under the circumstances, Syngenta, the crop’s manufacturer, indicated that it had no immediate intention of marketing Bt-11 sweet corn in Europe. *Biotechnology: Contrasting Reactions to Authorisation for Bt11 Transgenic Maize*, EUROPEAN REPORT, May 29, 2004, No. 2872.

¹⁹⁸ The panel issued an interim decision to the parties on Feb. 7, 2006, which was leaked on the web. In the “interim decision,” the panel held that the moratorium had ended and then added this footnote: “In view of its terms of reference, the Panel cannot, and does not, express a view on whether notwithstanding the approval of a biotech product which was subject to the general *de facto* moratorium in effect at the time of establishment of the Panel, an amended *de facto* moratorium continues to exist or whether a new general *de facto* moratorium has since been imposed.” Interim Reports of the Panel, *EC-Biotech*, fn. 1,962, WT/DS291-293/INTERIM (Feb. 7, 2006), available at http://www.saveourseeds.org/downloads/WTO_conclusion_070206.pdf.

¹⁹⁹ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 8.16.

²⁰⁰ Shaffer telephone interview with private US attorney following the case. June 5, 2007.

article 21.5 of the Dispute Settlement Understanding. For the US, a general moratorium still exists. Although the EU has approved a number of genetically modified varieties since 2004 for consumption following EFSA risk assessments, the EU had approved no varieties for cultivation.²⁰¹ A general moratorium thus arguably still applied to the EU's application of the deliberate release directive 2001/18.

(iv) The Member State Safeguard Bans. The panel turned finally to the member state safeguard bans, and again determined, step-by-step, whether the SPS Agreement applied, whether the safeguard measures were “SPS measures” for purposes of the SPS Agreement, and whether the complainants' substantive claims against the measures were valid. This time the panel reached a quite different outcome on the substantive claims, an outcome which needs to be viewed in the context of the multi-level (quasi-federalist) structure of EU decision-making.

The panel first determined that each safeguard fell within the scope of the SPS Agreement pursuant to the panel's earlier criteria,²⁰² and that each constituted an “SPS measure” (because the member states actually took a decision to ban imports). The panel then examined whether each of the safeguards violated the EU's obligations under the SPS Agreement. The panel's interpretation of these SPS provisions again would have institutional implications. On the one hand, the panel could itself balance competing policy concerns under a general standard or apply bright line rules that could only be modified through a political negotiation. On the other hand, the panel could return the issues to EU administrative and judicial processes, as examined in Part IV, by referring explicitly to EU-level scientific risk

²⁰¹ The first variety since the moratorium's start was up for consideration in the summer of 2007. *See EU must accept biotech crops, EU trade commissioner says*, INT'L HERALD TRIB. (Paris), June 14, 2007, (referring to an application to plant a genetically modified potato developed by BASF).

²⁰² *See* Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.3412-7.3414. In one case, the panel stretched its analysis particularly far. In response to documentary evidence that one reason for the Austrian safeguard was the lack of an adequate EU labeling regime, the panel recalled its earlier finding that labeling regimes can have SPS and non-SPS objectives. The panel concluded that Austria's labeling objective “reflects a concern about risks to consumer health,” and thus does not reflect a TBT-objective such as a consumer's right not be misled about the nature of the product. As a result, the panel avoided examining the Austrian safeguard measure under the TBT Agreement, which not only could have added hundreds of pages to its report, but also had institutional implications for the reasons we examined earlier. *See, e.g.*, ¶¶ 7.2646-7.2651. The panel noted that the Austrian safeguard was enacted pursuant to the EU deliberate release directive which the panel found reflected SPS objectives. As it was, this section of the report comprised two hundred pages.

assessments.

The panel focused on the claims that the member state safeguards were not “based on a risk assessment” in violation of article 5.1 of the SPS Agreement, and were not otherwise “consistent with the requirements of article 5.7” for provisional measures. In assessing the applicability of these provisions, the panel’s report became rather tortuous.²⁰³ The complainants argued that article 5.7 should be viewed as an “exception” to the requirements of article 5.1 so that both articles would need to be reviewed. The EU contended, in contrast, that articles 5.1 and 5.7 should be viewed as addressing two “parallel universes,” one for definitive measures and the other for provisional ones. Since the member state provisions were provisional, the EU contended that only article 5.7 applied. The panel took a somewhat confusing middle view in which it found that article 5.7 constitutes a “qualified right” of a party to take provisional measures, suggesting that it constitutes a separate track under which the burden of proof lies on the complainants.²⁰⁴ The panel nonetheless started its analysis of the claims under article 5.1 because it believed (without further explanation) that, “in the specific circumstances of this case, the critical issue in our view is whether the relevant safeguard measures meet the requirements set out in the text of Article 5.1, not whether they are consistent with Article 5.7.”²⁰⁵ The panel thus began its analysis as if article 5.1 were the primary obligation, and only then turned to article 5.7 to see if that article’s requirements were met, after which the panel made “final” conclusions.

Applying article 5.1, the panel found that none of the member state safeguards were based on a risk assessment. Key to the panel’s analysis was the definition of a “risk assessment” as set forth in Annex A and as elaborated by the Appellate Body in the *Australia-Salmon* case. The

²⁰³ For an excellent discussion of the panel’s handling of the relation between articles 2.2, 5.1 and 5.7 of the SPS agreement, see Tomer Broude, *Genetically Modified Rules: the Awkward Rule-Exception-Right Distinction in EC-Biotech*, 6 *WORLD TRADE REV.* 215 (2007). Broude views articles 5.1 and 5.7 as being applications of the general SPS Agreement obligation under article 2.2 to “two distinct situations—one, where there exists scientific evidence sufficient to establish an SPS measure on risk assessment; the second where scientific evidence is insufficient for such purpose.” *Id.* at 23. He finds the panel’s discussion of a “qualified right” under article 5.7 unnecessarily confusing.

²⁰⁴ *See* Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.3000 & 7.3004. In contrast, if article 5.7 was an exception, then the respondent should have the burden of proof to establish an affirmative defense.

²⁰⁵ *See id.* at ¶ 7.3006.

panel repeatedly turned to this Appellate Body report which, as noted in Part II, defined the required risk assessment relatively stringently, finding that an SPS risk assessment must evaluate “the probability” of entry, establishment or spread of a disease or pest.²⁰⁶ Many of the EU member states cited outside scientific studies in support of their safeguard measures, but the panel found that none of these studies constituted a risk assessment for purposes of the SPS Agreement because none of them addressed this key issue of “probability.”²⁰⁷

The EU argued, in the alternative, that the member state safeguards were based on the risk assessments conducted at the EU level, and that different conclusions could be drawn from these risk assessments. The panel considered these EU evaluations (whether conducted by the relevant EU body or the initial member state competent authority) to constitute “risk assessments” within the meaning of the SPS Agreement, since no party argued otherwise. However, it found that none of these evaluations supported the member state safeguards and that no member state explained how or why it assessed the risks differently based on such risk assessment. As a result, none of the safeguards could be viewed as “based” on them. Because none of the safeguards bore a “rational relationship” to a risk assessment, the panel found, as a “preliminary” conclusion, that all of them were inconsistent with the requirements of SPS article 5.1, subject to review of the applicability of article 5.7.

In determining whether article 5.7 applied, the panel’s findings would again have institutional implications. As the panel stated, “if we were to find that a safeguard measure is consistent with the requirements of Article 5.7, Article 5.1 would not be applicable and we would consequently need to conclude that the European Communities has not acted

²⁰⁶ See, e.g., *id.* at ¶ 7.3040. In total, the panel referred to the definition of a risk assessment elaborated by the Appellate Body in the *Australia—Salmon* case twenty-four times.

²⁰⁷ The panel recalled, in this respect, the Appellate Body’s finding that “it is not sufficient that a risk assessment conclude that there is [only] a possibility” of the risk at issue. *Id.* at ¶ 7.3045. Commentators question the panel’s factual findings. See, e.g., SCOTT, *THE WTO AGREEMENT*, *supra* note ..., at 93, 108, 118 (concerning the panel’s rejection of the Hoppichler study cited by Austria as a risk assessment) Lukasz Gruszczynski, “The SPS Measures Adopted in Case of Insufficiency of Scientific Evidence - Where do We Stand after EC-Biotech Products Case?,” in *ESSAYS ON THE FUTURE OF WORLD TRADE ORGANIZATION*, Julien Chaisse & Tiziano Balmelli (Eds.) (2007 forthcoming).; and Oren Perez, *Anomalies at the Precautionary Kingdom: Reflections on the GMO Panel’s Decision*, 6 *WORLD TRADE REV.* 265 (2007).

inconsistently with its obligations under Article 5.1.”²⁰⁸ The panel found, however, that none of the safeguards met the requirements laid out by the Appellate Body from its earlier parsing of the text.²⁰⁹

The determinative issue was whether the “relevant scientific evidence was “insufficient” for conducting a risk assessment under article 5.1. The parties litigated over whether this determination should be assessed by an objective standard or in relation to the subjective views of the legislator, once again affecting the amount of deference the panel would show to state institutions. The EU contended that the concept must “refer to the matters of concern to the legislator,” implicitly raising the issue of the democratic context in which precautionary SPS measures are adopted.²¹⁰ The EU argued that members’ “level of acceptable risk” varies and must be taken into account. The panel disagreed, stating that “there is no apparent link between a legislator’s protection goals and the task of assessing the existence and magnitude of potential risks.”²¹¹ The panel thus focused on the technical aspects of risk assessments conducted by “scientists,” who “do not... need to know a Member’s ‘acceptable level of risk’ in order to assess objectively the existence and magnitude of risk.”²¹²

In assessing the merits, the panel found that the relevant scientific evidence was sufficient for a risk assessment in each case. It did so, however, by focusing on risk assessments conducted at the EU level, thereby recognizing the authority of EU scientific risk assessors vis-à-vis EU member state risk managers. The panel pointed out that the EU’s “relevant scientific committees

²⁰⁸ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.3217.

²⁰⁹ The four requirements that a respondent must meet in order for article 5.7 to apply are as follows: (i) the key threshold that “relevant scientific evidence [must be] insufficient;” (ii) the measure must be adopted “on the basis of available pertinent information;” (iii) the member invoking it must “seek to obtain the additional information necessary for a more objective assessment of risk;” and (iv) such member must “review the measure accordingly within a reasonable period of time.” Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.2929 & 7.3218 (citing *Japan—Agricultural Products II*, *supra* note..., at ¶ 89, and Appellate Body Report, *Japan—Measures Affecting the Importation of Apples*, ¶ 76, WT/DS245/AB/R (Nov. 26, 2003) [hereinafter *Japan-Apples*]).

²¹⁰ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.3226.

²¹¹ *Id.* at ¶ 7.3238.

²¹² *Id.* at ¶ 7.3243.

had evaluated the potential risks,... and had provided a positive opinion.”²¹³ The panel stressed that “[t]he relevant EC scientific committee subsequently also reviewed the arguments and the evidence submitted by the member State to justify the prohibition, and did not consider that such information called into question its earlier conclusions.”²¹⁴ The panel thus agreed with the complainants that “the body of scientific evidence permitted the performance of a risk assessment as required under Article 5.1,” so that article 5.7 did not apply. Consequently the panel found that each of the member state safeguards was inconsistent with the obligations under article 5.1, and, “by implication,” was also inconsistent with the requirements of article 2.2 that an SPS measure be “based on scientific principles” and “not maintained without sufficient scientific evidence, except as provided for in [article 5.7].”²¹⁵ The fact that official EU scientific authorities had engaged in positive risk assessments at the EU level facilitated the panel’s interpretive findings. Had they not done so, the panel would have been in a much more delicate position in weighing the sufficiency of the scientific evidence.

Although the panel came out squarely against the member state safeguards, it nonetheless implicitly pointed to a significant loophole which could facilitate a future panel finding that member state safeguards are consistent with SPS Agreement obligations, thereby facilitating the EU’s ability to comply with WTO requirements. The panel stated that “if there are factors which affect scientists’ level of confidence in a risk assessment they have carried out, a Member may in principle take this into account.”²¹⁶ It declared that “there may conceivably be cases where a Member which follows a precautionary approach, and which confronts a risk assessment that identifies uncertainties or constraints, would be justified” in adopting a stricter SPS measure than

²¹³ *Id.* at ¶ 8.9. In addition, the panel was aided by earlier Appellate Body jurisprudence which found “that insufficiency of scientific evidence itself is not to be equated with scientific uncertainty.” See discussion in SCOTT, THE WTO AGREEMENT, *supra* note ..., at 116 (citing *Japan—Apples*, *supra* note..., at ¶ 184).

²¹⁴ See, e.g., Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.3260

²¹⁵ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.3399. The panel, however, exercised “judicial economy” as regards Canada’s and Argentina’s claims under SPS articles 2.3, 5.5, and 5.6 and GATT article III.4, as well as all of the complainants claims under GATT article XI regarding the Greek safeguard, seeing “no need to examine and offer additional findings” on them. See *id.* at ¶¶ 7.3378, 7.3384, 7.3405, 7.3423 & 7.3429.

²¹⁶ *Id.* at 7.3065.

another member responding to the same risk assessment.²¹⁷ In other words, were the EU-level risk assessment to identify certain “*uncertainties or constraints*” in its evaluation, there could be grounds for upholding an EU member state’s safeguard measure as being “based” on an EU risk assessment (as required under article 5.1), even though the EU had approved the variety. The panel repeated this same analysis verbatim in assessing whether a member state safeguard could be found to meet the requirements under 5.7 for provisional measures.²¹⁸ In addition, in a letter to the parties annexed to its decision, the panel wrote:

“The Panel's findings relating to Article 5.1 of the *SPS Agreement* preserve the freedom of Members to take prompt protective action in the event that new or additional scientific evidence becomes available which affects their risk assessments. Particularly if the new or additional scientific evidence provides grounds for considering that the use or consumption of a product might constitute a risk to human health and/or the environment, a Member might need expeditiously to re-assess the risks to human health and/or the environment.”²¹⁹

These panel dicta could affect EU evaluations (and reevaluations) of GM varieties in the future, exemplifying the reciprocal interactions of international and national law (and in our case EU law). The European Commission has already responded by calling explicitly for EFSA to take member state views into account, as well as to address “more explicitly potential long-term effects and bio-diversity issues” in its risk assessments.²²⁰ If EFSA responds to member state concerns by indicating greater “uncertainty” in its risk assessments regarding “long-term

²¹⁷ *Id.*

²¹⁸ *See id.* at ¶¶ 7.3244-7.3245.

²¹⁹ *See* Annex K, Letter of the Panel to the Parties of May 8, 2006, WT/DS291/R/Add.9, WT/DS292/R/Add.9, WT/DS293/R/Add.9 (Sept. 29, 2006) (regarding its response to the breach of confidentiality).

²²⁰ *See* Report from the Commission to the Council and the European Parliament on the Implementation of EC No. 1829/2003 of the European Parliament and of the Council on Genetically Modified Food and Feed, COM (2006) 626 final (Oct. 25, 2006) (the Commission “invite[s] EFSA to liaise more fully with national scientific bodies, with a view to resolving possible diverging scientific opinions with Member States” and it notes that “applicants and EFSA will also be asked to address more explicitly potential long-term effects and bio-diversity issues in their risk assessments for the placing on the market of GMOs”). I thank Sara Poli for pointing this out.

effects,” then EU and member state measures could withstand WTO scrutiny. In this way, the EU could claim “implementation” of the report without changing the substance of EU or member state scrutiny. The litigation would have simply constituted a complex, mind game for clever sophist-lawyers. The panel’s pointing to ways in which the EU could comply with its judgment reflects its wariness of being viewed as making substantive risk decisions on account of concerns over its own legitimacy, as I examine further in Part V.

(v) Panel Decisions on Non-WTO Law and *Amicus Curiae* Briefs. Finally, the panel made two other interpretive decisions with broader implications, one regarding the impact of other international law on WTO law, the other regarding the acceptance of *amicus curiae* briefs. The panel’s rulings on the impact of other international law, in particular, has significant institutional implications, for here the panel faced a choice of recognizing the authority of other political institutions operating at the international level. In this regard, the panel addressed the EU’s contentions that WTO agreements should be interpreted both in light of the 2000 Cartagena Biosafety Protocol to the Convention on Biodiversity, which became effective in 2003, and of the precautionary principle as a general or customary principle of international law.²²¹

As regards the precautionary principle, the European Commission had issued a Communication on it in February 2000, indicative of EU authorities’ more risk-averse approach in this politicized domain. The Commission declared that the “precautionary principle” would be applied whenever decision-makers identify “potentially negative effects resulting from a phenomenon, product or process” and “a scientific evaluation of the risk... makes it impossible to determine with sufficient certainty the risk in question [on account] of the insufficiency of the data, their inconclusiveness or imprecise nature.”²²²

The EU was able to have the precautionary principle incorporated in international law in relation to GMOs in the Biosafety Protocol.²²³ Article 10 of the Biosafety Protocol provides

²²¹ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.73-7.75 (Biosafety Protocol) and 7.76-7.89 (precautionary principle).

²²² EC, *Communication On the Precautionary Principle*, *supra* note..., at 15.

²²³ For a full analysis of the Biosafety Protocol in terms of overlapping regime complexes and EU forum shopping, see Shaffer & Pollack, *Regulating Risk*, *supra* note... (chapter 4).

that a country may reject the importation of “a living modified organism for intentional introduction into the environment” where there is “lack of scientific certainty regarding the extent of the potential adverse effects... on biological diversity in the Party of import, taking also into account risks to human health.” Article 11 of the Protocol applies a similar provision to a country’s rejection of bulk genetically modified commodities (such as soybeans, corn and cotton) for food, feed or processing. Were the WTO panel to recognize the applicability of this principle, whether as incorporated in the Biosafety Protocol or as a customary or general principle of international law, it would again show greater deference to EU and EU member state decision-making, but this time through application of public international law.

The panel examined the EU’s arguments in light of article 31.3(c) of the Vienna Convention on the Law of Treaties which provides: “There shall be taken into account [in the interpretation of a treaty], together with the context:... (c) any relevant rules of international law applicable in the relations between the parties.” The panel interpreted article 31.3(c) of the Vienna Convention narrowly regarding the applicability of non-WTO treaties in WTO disputes. It found that *all* WTO members must be parties to a non-WTO treaty in order for it to be “applicable in the relations between the parties.”²²⁴ Because WTO members collectively are parties to very few, if any, other international treaties besides the UN Charter, the panel effectively ruled that WTO panels are not required to take other treaties into account. In doing so, it effectively limited the authority of other international political processes. In this case, since the complainants (as well as other WTO members) had not ratified the Biosafety Protocol, the panel found that the language of article 31.3(c)(3) did not require it to take the Biosafety Protocol into account in the interpretation of the WTO treaty.²²⁵

The panel had at least two other alternative interpretations available to it with institutional implications. First, it could have found that article 31(c)(3) applies to treaties involving “the parties to a dispute.” Such a reading would still have meant that the Biosafety Protocol was not relevant since the complainants had not ratified it, but it would have meant that

²²⁴ Panel Report, *EC-Biotech*, *supra* note..., at ¶¶ 7.67-7.71.

²²⁵ Argentina and Canada have signed the Biosafety Protocol but not ratified it, while the US has not signed it. Argentina and Canada have signed and ratified the underlying Convention on Biodiversity, while the US has signed but not ratified it.

an international treaty would be applicable in future WTO disputes where the parties to the dispute have ratified that treaty. The panel did note, however, that it “need not, and do[es] not, take a position on whether in such a situation we would be *entitled* to take the relevant rules of international law into account” (emphasis added).²²⁶ In other words, it left open the issue as to whether a panel might have the discretion to take into account another international treaty which all parties to a particular WTO dispute have ratified.

Second, the panel could take other international law into account in interpreting a WTO agreement in order to avoid conflicts among international rules. Here the panel only noted that “other rules of international law may in some cases aid a treaty interpreter in establishing, or confirming, the ordinary meaning of treaty terms in the specific context in which they are used.”²²⁷ The panel’s finding, however, was quite narrow, maintaining that treaties can “provide evidence of the ordinary meaning of terms in the same way that dictionaries do.” The panel thus found that it “need not necessarily rely on other rules of international law, particularly if it considers that the ordinary meaning of the terms of WTO agreements may be ascertained by reference to other elements.” Although the EU “identified a number of provisions” of the CBD and Biosafety Protocol to be taken into account, the panel found that “we did not find it necessary or appropriate to rely on these particular provisions in interpreting the WTO agreements at issue in this dispute.”²²⁸ The panel thus did not examine the provisions of the Biosafety Protocol regarding the exercise of precaution in its interpretation of the SPS Agreement, and in particular SPS articles 5.1 and 5.7, once more limiting the authority of these other international fora.

The panel then turned to the applicability of customary international law in the form of the “precautionary principle.” Here the panel followed the Appellate Body’s lead in the *EC-Meat hormones* case, declining to “take a position on whether or not the precautionary principle is a recognized principle of general or customary international law.”²²⁹ The panel rather noted that

²²⁶ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.72.

²²⁷ *Id.* at ¶¶ 7.92-7.95.

²²⁸ *Id.* at ¶ 7.95.

²²⁹ *Id.* at ¶¶ 7.86-7.89.

there has “been no authoritative decision by an international court or tribunal” which so recognizes the precautionary principle, and that legal commentators remain divided as to whether the precautionary principle has attained such status. It thus “refrain[ed] from expressing a view on this issue,” other than declining to apply any such international law principle, if it exists, to the panel’s interpretation of the relevant WTO agreements, and, in particular, to the SPS Agreement.

Finally, the panel accepted three “unsolicited” *amicus curiae* briefs submitted to it, under its “discretionary authority,” thereby potentially opening the WTO judicial process to other participants. The briefs were respectively submitted by a group of university professors who addressed, in particular, the relation of scientific knowledge to government regulation; an NGO group represented by the Foundation for International Environmental Law and Development; and an NGO group represented by the Center for International Environmental Law.²³⁰ Each of the briefs maintained that the panel should find that the EU’s regulations and practices complied with WTO law. Each further contended that the panel should grant parties considerable deference in the regulation of agricultural biotechnology in light of the uncertainty of the risks posed, as well as larger democratic concerns. The panel, however, did not “find it necessary to take the *amicus curiae* briefs into account” and thus did not cite them in its reasoning.²³¹ In this way, the panel again followed previous Appellate Body practice, limiting the direct input of private actors in WTO dispute settlement.

²³⁰ *Id.* at ¶ 7.10. The professors were Lawrence Busch (Michigan State University), Robin Grove-White (Lancaster University), Sheila Jasanoff (Harvard University), David Winickoff (Harvard University) and Brian Wynne (Lancaster University). The *amicus curiae* submission is available at http://www.ecolomics-international.org/biosa_ec_biotech_amicus_academic2_ieppp_lancasteru_coord_0404.pdf. The professors also wrote an article concerning the biotech case, and the role of judicial review of science in the WTO. David Winickoff et al., *Adjudicating the GM Food Wars: Science, Risk, and Democracy in World Trade Law*, 30 YALE J. INT’L L. 81 (2005).

²³¹ Panel Report, *EC-Biotech*, *supra* note..., at ¶ 7.11.