A STRUCTURAL THEORY OF WTO DISPUTE SETTLEMENT: WHY INSTITUTIONAL CHOICE LIES AT THE CENTER OF THE GMO CASE

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The regulation of agricultural biotechnology is of great importance.[1] Opponents of the use of genetically modified organisms (GMOs) in agriculture maintain that they can irreparably harm the environment and threaten human health.[2] Supporters contend that they can significantly increase food yields and enhance nutrition in a world where almost a billion people go hungry every day.[3] In this way,

1. 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 and 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, 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.

2. JEFFREY M. SMITH, GENETIC ROULETTE: THE DOCUMENTED HEALTH RISKS OF GENETICALLY ENGINEERED FOODS 150-57 (2007); Anita Bakshi, *Potential Adverse Health Effects of Genetically Modified Crops*, 6 J. TOXICOLOGY & ENVTL. HEALTH 211, 213-21 (2003).

3. *See* BIOTECHNOLOGY INDUSTRY ORGANIZATION, GUIDE TO BIOTECHNOLOGY 65 (Debbie Strickland ed., 2007), http://www.bio.org/speeches/pubs/er/BiotechGuide.pdf (discussing the developments and benefits of biotechnology); Peter G. Lacy, *Deploying the Full Arsenal: Fighting Hunger with Biotechnology*, SAIS REV., Winter-Spring 2003, at 182, 200. *See generally* GRAHAM BROOKES & PETER BARFOOT, GM CROPS: THE FIRST TEN YEARS - GLOBAL SOCIO-ECONOMIC AND ENVIRONMENTAL IMPACTS (2006), http://www.isaaa.org/Resources/Publications/briefs/36/download/isaaa-brief-36-2006.pdf (studying the increase in farm profitability and the various technological advances as a result of genetically modified crops); The Golden Rice Project, Official Website, http://www.goldenrice.org (2008) (arguing that biofortified rice can help alleviate micronutrient deficiencies in developing countries); CropLife International, Biotechnology Benefits & Safety Database, http://croplife.intraspin.com/BioTech/index.asp (last visited September 11, 2008); PEW INITIATIVE ON FOOD AND BIOTECHNOLOGY, ISSUES IN THE REGULATION OF GENETICALLY ENGINEERED PLANTS AND ANIMALS (2004), http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/

agricultural biotechnology regulation is emblematic of our modern world, in which science constantly creates new opportunities and risks as we use science to manage them.[4] Disputes over this technology have threatened to trigger a major trade conflict among the world's two economic powers, the United States and the European Union (EU).[5] The World Trade Organization (WTO) provides a legal forum that can help to address such politically charged conflicts, but it suffers from challenges to its legitimacy.[6]

Reports/Food_and_Biotechnology/food_biotech_regulation_0404.pdf ("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.").

4. *See* ULRICH BECK, WORLD RISK SOCIETY 140 (1999) (arguing that when people use science to understand risks that confront them, they create new types of risk by opening up new spheres of action); ANTHONY GIDDENS, MODERNITY AND SELF-IDENTITY: SELF AND SOCIETY IN THE LATE MODERN AGE 27-28 (1991) (arguing that science and technology offer both benefits for humankind and the possibility of new risks and dangers).

5. *See* POLLACK & SHAFFER, WHEN COOPERATION FAILS: THE INTERNATIONAL LAW AND POLITICS OF GENETICALLY MODIFIED FOODS (forthcoming 2009) (manuscript at ch. 1, on file with authors).

6. *See, e.g.*, Robert Howse, *The Legitimacy of the World Trade Organization*, *in* THE LEGITIMACY OF INTERNATIONAL ORGANIZATIONS 355 (Jean-Marc Coicaud & Veijo Heiskanen eds., 2001) (discussing issues of legitimacy with regards to the WTO); Marcus Krajewski, *Democratic Legitimacy and Constitutional Perspectives of WTO Law*, 35 J. WORLD TRADE 167 (2001) (arguing that "because of its inherent lack of democratic legitimacy, WTO law cannot serve constitutional functions"); B.S. Chimni, *The World Trade Organization, Democracy and Development: A View From the South*, 40 J. WORLD TRADE 5 (2006) (arguing that the "transnational capitalist class" limits reforms in the WTO and may undermine its legitimacy). *See* LORI WALLACH & MICHELLE SFORZA, WHOSE TRADE ORGANIZATION? CORPORATE GLOBALIZATION AND THE EROSION OF DEMOCRACY (2004) (discussing the undemocratic nature of the WTO which serves the interests of big business and wealth countries at the expense of the majority of the world's people); Steven Greenhouse, *Trade Ministers Sidestep a Sticky Issue: Secrecy*, N.Y. TIMES, Dec. 4, 1999, at A6 (quoting Lori Wallach, director of Public Citizen's Global Trade Watch and noting demonstrators' signs such as "Where Have You Gone, Joe Democracy?"); Henry Holmes, *The World Trade Take-Over*, EARTH ISLAND J., Winter 1999-2000, at 38 (referring to "the WTO's masterplan," including its "seeking to expand its ability to override environmental laws"); Don Knapp, *WTO Rejects U.S. Ban on Shrimp Nets That Harm Sea Turtles*, CNN, Oct. 12, 1998, http://www.cnn.com/US/9810/12/world.trade.ruling/ (expressing the statement of WWF-World Wide Fund for Nature that "[t]he WTO remains an institution captured by the special interests of multinational corporations and free trade technocrats").

Grounding itself in this regulatory conflict, this Article puts forward and applies a theoretical framework for understanding what an international judicial process does—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 authority for addressing policy concerns to alternative institutional processes, including market, political, administrative, and judicial processes 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 decisionmaking process has unique dynamics of participation, ultimately affecting *who decides* the appropriate weighing and balancing of different (and sometimes conflicting) social values and the distribution of costs arising from particular policy choices.

Much of the legal scholarship addressing WTO judicial decisions, for example, addresses 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. People around the world live in vastly different social contexts, resulting in vastly different social priorities. Since all decisionmaking processes suffer from imperfections in terms of accountability, the determination of what is a better decisionmaking process needs to be a comparative

institutional one—which is the best of the real-world institutional alternatives?[7]

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 goals to pursue. A WTO panel faces difficult alternative interpretive choices that implicate the discretion a WTO Member has to regulate, whether such Member must defer to an international body, and, if so, which one and to what extent, and whether it must open its market to trade in a manner that effectively allocates decisionmaking to market mechanisms. By shifting authority between institutional alternatives, the WTO judicial process alters relations between decisionmakers and affected publics.

The Article first lays out the comparative institutional analytic framework and then demonstrates how to apply it, 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 four parts. Part I explains the theoretical framework and its importance in relation to other leading approaches advanced in the legal academy—in particular, global constitutionalism, global pluralism/conflict of laws, and global administrative law. Part II provides grounding for the application of the comparative institutional analytic framework by briefly introducing the relevant WTO agreements, the parties' claims and the interpretive choices made by the WTO panel in the politically charged case *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*. This decision, over 1,000 pages long, was adopted without appeal by the WTO Dispute Settlement Body on November 21, 2006.[8]

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7. *See* NEIL KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 3-53 (1995) (stressing the need to analyze institutional performance in comparative context); NEIL KOMESAR, LAW'S LIMITS: THE RULE OF LAW AND THE SUPPLY AND DEMAND OF RIGHTS 11-34 (2001) (assessing the relationship between property law and institutional choice).

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

The United States and the EU are still intensively negotiating the latter's implementation of this decision, and U.S. constituencies have pressed the government to bring a follow-up case challenging other aspects of the EU's regulation of agricultural biotech practices.[9] These issues are part of ongoing U.S.-EU negotiations over biotech regulation.[10]

Part III, the core of this Article, then demonstrates how to apply the comparative institutional analytic frame through this 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 typically they are not explicit about them. Part IV 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 allocation of decisionmaking authority should vary with the context, given the relative imperfections of different institutional alternatives. In many cases, the appropriate institutional approach for addressing transnational regulatory conflicts will not be to leave regulation solely to national bodies, but rather to impose obligations 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 generally should not be too intrusive for normative and sociological reasons that the Article 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, including by taking a proceduralist approach.

The WTO judicial process does not simply assess national regulatory measures in a jurisprudential manner. It can affect the dynamics and processes through which national regulatory measures and international standards are determined. In turn, it responds to domestic and international political circumstances. The Article's grounded analysis provides a

9. *See infra* notes 57-58. R

10. *Id. See generally* POLLACK & SHAFFER, *supra* note 5 (ch. 5). R

means to understand the way international and national law and politics reciprocally operate in a pluralist world characterized by jurisdictional diversity, global markets, and a fragmented international legal 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

When examining an international case such as the GMO dispute, legal practitioners and legal academics tend to focus on the international judicial process from either 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 decided, and thus are largely silent as to how these judicial bodies' decisions structurally implicate *who* ultimately decides these questions (addressed in Part III) and how the judicial bodies themselves are affected by the audience that receives and responds to their decisions (addressed in Part IV).[11]

Textualist approaches tend to focus on whether disputed facts fall within different 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 "ex-

11. The term "judiciocentric" is used by Victoria Nourse, writing with respect to analogous questions concerning the analysis of questions of federalism and separation of powers under U.S. constitutional law. Victoria Nourse, *Toward a New Constitutional Anatomy*, 56 Stan. L. Rev. 835, 837-57 (2004).

trajurisdictional measure."[12] The role of the judicial interpreter and legal advocate under a textualist approach is to match the facts to existing categories or to create new categories for the purpose of analysis or advocacy.

Of course, there are good reasons for judicial decisionmakers, advocates, and scholars to take a legal formalist approach. Going back to Max Weber,[13] law's legitimacy is grounded in its formal, quasi-scientific character, so that legal academics may play a more important role in debates over the legal interpretation of treaty provisions and case law when their scholarship retains its formal analytic nature.[14] Yet in focusing solely on jurisprudential categories, we mask the institutional choices being made. We miss what international dispute settlement panels actually do.

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12. 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 the Application of Sanitary and Phytosanitary Measures, Apr. 15, 1994, 1867 U.N.T.S. 493 [hereinafter SPS Agreement] and the WTO Agreement on Technical Barriers to Trade, Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations Annex 1A art. 2, Apr. 15, 1994, 33 I.L.M. 1141. *See* Joel P. Trachtman, *International Trade as a Vector in Domestic Regulatory Reform: Discrimination, Cost-Benefit Analysis, and Negotiations*, 24 FORDHAM INT'L L. J. 726, 733 (2000) ("[L]east trade restrictive alternative analysis has been adopted judicially in connection with the application . . . of Article XX of GATT, and has been adopted 'legislatively' in both the SPS Agreement and the TBT Agreement.").

13. *See* Max Weber, *Politics as a Vocation*, *in* FROM MAX WEBER: ESSAYS IN SOCIOLOGY 77, 78-79 (Hans Heinrich Gerth & C. Wright Mills eds., 1946) (referring to the following three "pure" types of "legitimations": "traditional," "charismatic," and "legal"). Weber writes that legal legitimation of "domination" is "by virtue of the belief in the validity of legal statute and functional 'competence' based on rationally created rules." *Id.*

14. For classic accounts of positivism, see generally H.L.A. Hart, *Positivism and the Separation of Law and Morals*, 71 HARV. L. REV. 593 (1958) (defending the positivist school of jurisprudence); HANS KELSEN, PURE THEORY OF LAW (Max Knight trans., 1967) (arguing that the "Pure Theory of Law is a theory of positive law"). *See also* PHILIPPE NONET & PHILIP SELZNICK, LAW AND SOCIETY IN TRANSITION: TOWARD RESPONSIVE LAW 53-72 (1978) (arguing that legitimacy is a goal of autonomous law, which has numerous characteristics including "strict obedience to the rules of positive law"). As Martti Koskenniemi writes, "An appeal from the bench, however articulate and sincere, is always an appeal from formal authority, defined by its claim to universality and neutrality." Martti Koskenniemi, *Letter to the Editors of the Symposium*, 93 AM. J. INT'L L. 351, 358 (1999).

Although the comparative institutional analytic approach can be viewed as "functionalist" (and, in this way, teleological) because it examines consequences, the analysis is structural in that it examines the potential impact of WTO dispute settlement decisions on other decisionmaking processes, as opposed to focusing solely on preferred norms and values. 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 or weigh a particular worthy normative goal, such as free trade, environmental conservation, or food security—goals that may be in tension. Rather, the focus is on structural relations of different decisionmaking processes that affect one another. From a structural perspective, we are interested in the effective allocation of power between alternative institutions, thus affecting who participates and how they participate in deciding which substantive goals to pursue. By shifting authority among institutional alternatives, the WTO judicial process can alter relations between those who decide and affected publics, as we will show in detail in Part III.

To give a few examples at this stage, we will see how categorizing a governmental measure as an "SPS measure" instead of a technical regulation can subject the measure to a more stringent level of scrutiny.[15] Thus, less deference will be granted to national governmental regulatory decisions, and authority will be shifted away from national decisionmaking 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. The determination of whether a genetically modified 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

15. The term "SPS measure" is used in the SPS Agreement, *supra* note 12. **R**

choices will be made depending on the category chosen. Yet institutional choices can implicitly drive the use of these categories. Decisionmakers may be invoking these categories 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.[16]

The key to a structural perspective is to assess how relations between polities and among constituencies are mediated in different ways through alternative institutional processes. The fundamental point 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 decisionmaking between alternative decisionmaking 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 positives and negatives) 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.*[17] Through applying it, this Article shows how we cannot meaningfully criticize the defects of one institutional process without reference to the defects besetting 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 the appropriate balancing of different social goals and the distribution of costs arising from specific policy choices, as we will see in detail in Part III.

This analytic framework is particularly useful in assessing the institutional implications of interpretive choices confronted by international tribunals, and in our case, WTO dis-

16. I thank Neil Komesar for his insights on these issues.

17. *See* KOMESAR, IMPERFECT ALTERNATIVES, *supra* note 7, at 3-4. **R**

pute settlement bodies. Through this conceptual framework, we see that an international dispute settlement body, such as a WTO panel, does not simply interpret legal texts but, *de facto*, allocates decisionmaking 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. I then demonstrate 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 (Parts II–III).

Constitutional law perspectives. As Jeffrey Dunoff has shown, international law scholars with different worldviews employ different global constitutional law perspectives to address the role of WTO law.[18] These frameworks include those taking a substantive rights-based perspective, an institutional perspective, and a process-based pluralist perspective. 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.[19] The pluralist process-based constitutional approach, highlighted by the work of Neil Walker, looks at the constitutional principles and discourse that the WTO generates in relation to other constitutional orders.[20] The institutionalist constitutional perspective,

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18. Jeffrey Dunoff, *Constitutional Conceits: The WTO's 'Constitution,' and the Discipline of International Law*, 17 EUR. J. INT'L L. 647, 651-56 (2006).

19. Ernst-Ulrich Petersmann, *The WTO Constitution and Human Rights*, 3 J. INT'L ECON. L. 19, 22-23 (2000).

20. Neil Walker, *Late Sovereignty in the European Union*, *in* SOVEREIGNTY IN TRANSITION 3, 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

as seen in the work of Joel Trachtman, addresses structures of authority within and between different institutions.[21]

The predominant view when we speak of a WTO constitution is, arguably, an institutional one. 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.[22] 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 U.S. Constitution and the trade provisions of articles 28 and 30 of the Treaty Establishing the European Community. These provisions respectively address when U.S. state (or EU member state) restrictions on commerce from other U.S. states (or EU member states) are permissible under the U.S. Constitution (or EU constitutive treaty), as the case may be.[23] 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 insti-

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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 31, 32-33 (Grainne de Burca & Joanne Scott eds., 2001); Neil Walker, *The Idea of Constitutional Pluralism*, 65 MOD. L. REV. 317, 340, 355-56 (2002).

21. Joel P. Trachtman, *The Constitutions of the WTO*, 17 EUR. J. INT'L L. 623, 625-26 (2006) (addressing different ways to approach the issue of WTO constitutionalism, including institutional methods).

22. *See generally* John Jackson, The World Trade Organization: Constitution and Jurisprudence (1998) (explaining the background and work of the WTO and its effects on international economic affairs).

23. *See, e.g.*, 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, 1403 (1994) (comparing global GATT regulations to those of the domestic Dormant Commerce Clause); JOHN JACKSON, *U.S. Constitutional Law Principles and Foreign Trade Law and Policy*, *in* NATIONAL CONSTITUTIONS AND INTERNATIONAL ECONOMIC LAW 65, 80-89 (1991) (noting the effects of U.S. constitutional principles on GATT and U.S. trade agreements); John O. McGinnis & Mark L. Movsesian, *The World Trade Constitution*, 114 HARV. L. REV. 511, 514 (2000) (arguing that the WTO upholds rather than threatens the goals of the U.S. Constitution).

tutions on each other.[24] It highlights, in particular, the role that WTO dispute settlement plays in shaping other 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 WTO law 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.

Of the predominant constitutional law analytic approaches that we have mentioned, the one that most directly takes a comparative institutional approach is Joel Trachtman's version of law and economics.[25] He takes a substantive goal-oriented approach to assessing institutional tradeoffs, that of efficiency, while the approach advocated above is participation focused, and is relatively agnostic (and more ecumenical) about the particular substantive goal pursued. In light of the wide diversity of priorities, perspectives, and goals at stake around the globe in relation to most governance matters, and

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24. 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." Trachtman, *supra* note 21, at 633. *See generally* Joel Trachtman, *Regulatory Jurisdiction and the WTO*, 10 J. INT'L ECON. L. 631 (2007) (discussing the interplay between WTO and domestic institutions). **R**

25. *See, e.g.*, Joel Trachtman, *The Theory of the Firm and the Theory of the International Economic Organization: Toward Comparative Institutional Analysis*, 17 NW. J. INT'L L. & BUS. 470, 555 (1997) (identifying efficiency in meeting state preferences as a metric for comparison). *Cf.* Dunoff & Trachtman, *The Law and Economics of Humanitarian Law Violations in Internal Conflict*, 93 AM. J. INT'L L. 394, 397-99 ("it requires that any proposed institution . . . be compared with others to understand which provides the greatest social benefits," with the definition of benefit not limited in terms of "resource allocation efficiency").

the bounded character of rationality,[26] it seems presumptuous to prescribe a single goal for the evaluation of all policy contexts. In this sense, I take an approach of value pluralism, as used in the work of Isaiah Berlin.[27]

Moreover, my focus on the dynamics of participation does not mean that I am a "participation-fundamentalist," substituting a goal of "participation-maximization" for some other goal, such as utility maximization.[28] As Neil Komesar notes in his two-force model of politics, we should be just as concerned with the prospect of majoritarian bias (the infliction of intense harm by majorities on under-represented minorities, as exemplified by discriminatory regulation), as with minoritarian bias

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26. *See e.g.,* Daniel Kahneman, *Maps of Bounded Rationality: Psychology for Behavioral Economics*, 93 AM. ECON. REV. 1449 (2003) (studying "the psychology of intuitive beliefs and choices and examin[ing] their bounded rationality").

27. As Berlin writes, "Pluralism, with the measure of 'negative' liberty that it entails, seems to me a truer and more humane ideal . . . . It is truer, because it does, at least, recognise the fact that human goals are many, not all of them commensurable, and in perpetual rivalry with one another." ISAIAH BERLIN, LIBERTY 216 (Henry Hardy ed., 2002). For more background information about pluralism, see ISAIAH BERLIN, POLITICAL IDEAS IN THE ROMANTIC AGE: THEIR RISE AND INFLUENCE ON MODERN THOUGHT (Henry Hardy ed., 2006) and WILLIAM GALSTON, LIBERAL PLURALISM: THE IMPLICATIONS OF VALUE PLURALISM FOR POLITICAL THEORY AND PRACTICE (2002).

28. As Komesar points out, these two approaches (participation- and efficiency-based) are, in fact, not necessarily opposed. Participation, for example, lies at the center of classic economic analysis' attention to resource allocation, whether in terms of supply and demand curves, market distortions through monopolistic and oligopolistic behavior and information asymmetries and manipulations, "public choice" effects on government decisionmaking, or the impact of who uses the judicial system. The different dynamics of participation characterizing different institutional fora will determine the pursuit of any particular social goal, whether it be resource allocation efficiency, justice as fairness, human rights, sustainable development, or whatever else might be promoted. *See* Neil Komesar, *The Essence of Economics: Law, Participation and Institutional Choice (Two Ways), in* ALTERNATIVE INSTITUTIONAL STRUCTURES: EVOLUTION AND IMPACT 165, 170 (Sandra Batie & Nicholas Mercuro eds., 2008) ("[P]articipation lies at the heart of key economics concepts such as transaction costs, externalities and resource allocation efficiency. Transaction costs are the costs of market participation. Externalities are failures of market participation where missing transactions give rise to allocative decisions that do not reflect all costs and benefits. Resource allocation efficiency is defined by transaction costs and violated by externalities and is, therefore, a participation-based notion.").

(as in regulatory capture under "public choice" approaches).[29] Majoritarian decisionmaking can lead to harmful policies, and, in particular, to policies that impose extremely severe harm on certain groups without any compensatory offset. Foregrounding the importance of a participation-centered approach does not require one to ignore the potential for majoritarian decisionmaking that may be offensive to norms of human dignity and other human rights. It rather means that one needs to be cautious in one's assumptions, focusing more attention on the consequences of the goal's pursuit, as mediated through institutional processes, as opposed to the abstract principles behind the goals.

Conflicts-of-law, legal pluralist perspective. 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. Joerges expands on legal pluralist insights[30] to address how legal systems can coexist while paying due respect to one another when they overlap and conflict.[31] Joerges views the WTO dispute settlement process in terms of how it creates meta-norms to address conflicting na-

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29. KOMESAR, IMPERFECT ALTERNATIVES, *supra* note 7, at 53–97. From a trade law perspective, one can sometimes view discriminatory trade restrictions as a reflection of minoritarian bias (in favor of discrete producer interests at the expense of consumer interests), and sometimes as a reflection of majoritarian bias (in favor of the priorities of local majorities at the expense of under-represented foreign interests with respect to food safety restrictions, especially in the United States and EU, about which African and other developing countries complain). **R**

30. On legal pluralism, for an excellent earlier overview, see generally John Griffiths, *What Is Legal Pluralism?*, 24 J. LEGAL PLURALISM & UNOFFICIAL L. 1 (1986), and for a more recent article addressing the global context, see Paul Berman, *Global Legal Pluralism*, 80 S. CAL. L. REV. 1155, 1169-92 (2007).

31. *See* 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* 13-14 (Reconstituting Democracy in Eur., Working Paper No. 2007/03, 2007), *available at* http://www.reconproject.eu/projectweb/portalproject/RECONWorkingPapers2007.html. 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 Fischer-Lescano & Gunther Teubner, *Regime-Collisions: The Vain Search for Legal Unity in the Fragmentation of Global Law*, 25 MICH. J. INT'L L. 999, 1018 (2004) ("[T]he choice of national law must be superseded by an

tional 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, "[C]onflicts law seeks to overcome legal differences by dint of meta-norms, which the jurisdictions involved can accept as supra-national yardsticks in the evaluation and correction of their own jurisprudence."[32] 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."[33] 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 argues strongly that they should not be applied by WTO dispute settlement panels to trump national democratic decisionmaking in the GMO case because of scientific uncertainty and because of ethical and other non-scientific concerns.[34]

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orientation to transnational but sectoral regimes which lead to different principles of conflicts law.").

32. Christian Joerges, *Free Trade with Hazardous Products? The Emergence of Transnational Governance with Eroding State Government* 8 (Eur. U. Inst., Working Paper No. 2006/5, 2006), *available at* http://www.iue.it/PUB/LawWPs/law2006-05.pdf.

33. Christian Joerges & Jürgen Neyer, *Politics, Risk Management, World Trade Organisation Governance and the Limits of Legalisation*, 30 SCI. & PUB. POL'Y 219, 224 (2003).

34. 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, *Free Trade with Hazardous Products*, *supra* note 32, at 11. R

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 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 from 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 shifts authority from a national decisionmaking 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.

Global Administrative Law Perspective. A third approach is the global administrative law (GAL) project advanced by Richard Stewart, Benedict Kingsbury, and Nico Krisch, which has stimulated a great deal of important work.[35] This ambitious project has been broad in its focus, including within its scope the role of transgovernmental and transnational regulatory networks and global institutions such as the UN and WTO. The GAL project aims to put forward common principles for administrative decisionmaking 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."[36] In a case such as the GMO dispute, the global administrative law approach would look at both the accountability of WTO decisionmaking and the role that the WTO can play in reviewing national decisions—particularly in terms of their compliance with such principles as due process, transparency, participation of affected stakeholders, proportionality, and reasoned justification for regulatory measures.[37] 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.[38]

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35. *See* Benedict Kingsbury et al., *The Emergence of Global Administrative Law,* 68 LAW & CONTEMP. PROBS. 15 (2005) ("Emerging patterns of global governance are being shaped by a little-noticed but important and growing body of global administrative law."). The author has also contributed to this project. *See* Kalypso Nicolaidis & Gregory Shaffer, *Transnational Mutual Recognition Regimes: Governance Without Global Government*, 68 LAW & CONTEMP. PROBS. 263 (arguing that "global administrative law" is a "core element of any global governance regime that eschews global government").

36. Kingsbury et al., *supra* note 35, at 15. R

37. The authors "define global administrative law as comprising the mechanisms, principles, practices, and supporting social understandings that promote or otherwise affect the accountability of global administrative bodies, in particular by ensuring they meet adequate standards of transparency, participation, reasoned decision, and legality, and by providing effective review of the rules and decisions they make." *Id.* at 17.

38. *See infra* note 167. R

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 decisionmaking 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."[39] In this light, transnational disputes over agricultural biotechnology regulation before the WTO indeed arise in multiple contested sites for its governance.[40] 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 III and IV. The comparative institutional analytic approach provides the GAL project with 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 reflects institutional choices implicitly being made. Good analysis from a GAL perspective must engage in comparative institutional analysis.[41]

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39. Nico Krisch, *The Pluralism of Global Administrative Law*, 17 EUR. J. INT'L L. 247, 266-67 (2006).

40. 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 generally* SHAFFER & POLLACK, *supra* note 5 (ch. 4) (discussing cooperation and conflict over GMO's in a multiple arenas). *Cf.* Kal Raustiala & David Victor, *The Regime Complex for Plant Genetic Resources*, 58 INT'L ORG. 277, 305 (2004) (arguing that "genetic resources, while seemingly esoteric, are increasingly an arena of global conflict in world politics"). **R**

41. Indeed, comparative analysis lies at the core of Richard Stewart's earlier seminal work on U.S. administrative law, to which so many of us are indebted. *See* Richard Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667, 1810 (1975) ("[V]ital differences—which are likely to be obscured by any single conception of administrative law—invite comparative classification.").

The comparative institutional analytic approach makes explicit the tradeoffs among these institutional alternatives for decisionmaking, 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.

Without applying a theoretical framework to a factual context, the theory is of little pragmatic use. Through its analysis of the GMO dispute, this Article aims to provide a more incisive way of understanding what WTO judicial decisions do and of assessing them normatively.

II. Background: The Regulation of GMOs, the SPS Agreement, and the Panel Decision in the WTO Case

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, around 90% of soybeans and 80% of cotton are from genetically modified varieties, as are around 75% of processed foods.[42] China and India are rapidly adopting genetically modified cotton; Brazil and Argentina, genetically modified soy.[43] Europe, in contrast, raises signifi-

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42. Animal & Plant Health Inspection Serv. (APHIS), U.S. Dep't of Agric., Factsheet: Low-Level Presence 1 (Mar. 2007), http://www.aphis.usda.gov/publications/biotechnology/content/printable_version/fs_llp policy3-2007.pdf; *GMO Update: Brazil, EU, Uganda, US*, Bridges Trade BioRes, Oct. 3, 2003, at 4, http://ictsd.net/downloads/biores/biores3-17.pdf.

43. *See* James Clive, Int'l Serv. for the Acquisition of Agri-Biotech Applications [ISAAA], *Global Status of Commercialized Biotech/GM Crops*, ISAA Brief 35-2006 (2006), *available at* http://www.isaaa.org/resources/publications/

cant obstacles to the planting and sale of GM varieties, as do many other countries.[44] Because of the difficulty of segregating grains 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 national or, in the case of the European Union, a national/regional 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 is anachronistic. 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.

Part II and Annex A provide, respectively, the background factual and legal contexts to EU regulation and the WTO panel decision in the GMO case. Those already familiar with this background, however, should move directly to the comparative institutional analysis in Part III.

A. *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 (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement), explicitly address non-tariff barriers to trade. These non-tariff barriers have become of 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

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briefs/35/executivesummary/default.html (finding that in 2006 India grew more Bt cotton than China).

44. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 2, 6). **R**

process requirements that fall 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 subject to the TBT Agreement. As we will see, the interpretive choice as to which of these agreements apply can result in different allocations of institutional authority.[45]

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 other international organizations, such as the Codex Alimentarius Commission, a joint venture of the UN Food and Agricultural Organization and the World Health Organization, and the International Plant Protection Commission, or IPPC). However, the SPS Agreement does incorporate and promote the adoption of these international standards, as examined below. The WTO has significantly increased the stake of negotiations in "voluntary" standard-setting bodies such as the Codex Alimentarius Commission and the IPPC.

The SPS 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 lie at the center of the dispute over EU regulation of biotechnology.

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45. *See infra* Part III, (assessing the tradeoffs of each of five institutional alternatives resulting from different interpretive choices).

For many commentators, these regulatory requirements in the SPS Agreement are highly problematic. The SPS Agreement can be read to require that "science" always trump politics in national (and, in the EU case, regional) regulatory policy.[46] 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 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.[47]

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46. 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": Scientific Uncertainty, Science Policy, and Factfinding in the Growth Hormones Dispute*, 31 CORNELL INT'L L.J. 251, 252 (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. as Amici Curiae, Dispute Settlement Panel of the WTO in the Case of E.C.: Measures Affecting the Approval and Marketing of Biotech Products, 12, WT/DS291 (Apr. 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").

47. Robert E. Hudec, *Science and Post-Discriminatory WTO Law*, 26 B.C. INT'L & COMP. L. REV. 185, 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 WORLD

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."[48]

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 unrepresented 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 decisionmaking process. The requirement of a risk assessment can serve, in Howard Chang's words, "a prophylactic purpose."[49] 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:"

> [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

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TRADE REV. 233, 252 (2007). *See also* Alan O. Sykes, *Domestic Regulation, Sovereignty, and Scientific Evidence Requirements: A Pessimistic View*, 3 CHI. J. INT'L L. 353, 354 (2002) (contending that the scientific evidence requirement can interfere with the nation's efforts to manage risk). *See generally* Walker, *supra* note 46 (discussing the rule-making process in the WTO which involves substantial scientific study). **R**

48. Hudec, *supra* note 47, at 188. **R**

49. Howard F. Chang, *Risk Regulation, Endogenous Public Concerns, and the Hormones Dispute: Nothing to Fear but Fear Itself?*, 77 S. CAL. L. REV. 743, 771 (2004). *Cf.* Sykes, *supra* note 47, 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."). **R**

> will impact on those legitimately concerned has been explicitly considered.[50]

The requirement of a risk assessment procedurally helps to ensure that regulatory decisions more likely respect "*real* choices" made after taking scientific evidence into account.[51]

A central challenge confronting the WTO 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. 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.[52] 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. In other words, prior to the WTO case, the Appellate Body had already made some important institutional choices in interpreting the SPS Agreement.[53]

B. *The 2003 WTO Complaints*

The U.S. government, responding to pressure from U.S. farm associations and agricultural biotechnology companies, was long frustrated with the EU's restrictions on GM crops and

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50. Robert Howse, *Democracy, Science, and Free Trade: Risk Regulation on Trial at the World Trade Organization*, 98 MICH. L. REV. 2329, 2330 (2000).

51. *Id.* at 2335.

52. 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 (Sept. 26, 2002) (*adopted* Oct. 23, 2002).

53. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 4). **R**

foods.[54] Although the United States often threatened to bring a complaint before the WTO, it delayed doing so for years. U.S. 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. The United States and EU continued to negotiate over the implementation of this decision under the threat of U.S. trade sanctions, as well as regarding other U.S. concerns in the shadow of a potential follow-up case.[55]

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 states' "national marketing and import bans" on those biotech products that had been approved.[56] 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.[57] Law firms in Washington had a legal case ready to file, depending on the legal and commercial outcome of the initial case.[58]

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54. For an analysis as to why the United States waited so long to bring the complaint, see Gregory C. Shaffer & Mark A. Pollack, *Reconciling (or Failing to Reconcile) Regulatory Difference: The Ongoing Transatlantic Dispute over the Regulation of Biotechnology, in* THE FUTURE OF TRANSATLANTIC ECONOMIC RELATIONS: CONTINUITY AMID DISCORD 167 (David M. Andrews et al., eds., 2005), *available at* http://www.iue.it/RSCAS/e-texts/Future_Transat_EconRelations.pdf.

55. *See* Daniel Pruzin, *U.S. Identifies Areas for Possible Retaliation In GMO Dispute With EU*, 25 BNA INT'L TRADE REP. 123, 123 (2008).

56. *See,* Request for Consultations by the United States, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products*, ¶¶ 2–3, WT/DS291/1 (May 20, 2003).

57. *See ASA Takes Lead in Pushing for New WTO GMO Case Against EU*, INSIDE U.S. TRADE, Mar. 12, 2004, at 25. For a preliminary analysis of such a claim, see JOANNE SCOTT, THE WTO AGREEMENT ON SANITARY AND PHYTOSANITARY MEASURES: A COMMENTARY 233-42 (2007).

58. ASA Takes Lead in Pushing for New WTO GMO Case Against EU, supra note 57, 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).

The three complainants made their initial request for consultations under the SPS Agreement, the Agreement on Agriculture (Agriculture Agreement), the TBT Agreement, and the General Agreement on Tariffs and Trade 1994 (GATT 1994).[59] The United States' written submissions focused on the provisions of the SPS Agreement,[60] although it reserved the right to bring claims under the TBT Agreement.[61] 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.[62] 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.[63] 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."[64]

The United States made four primary claims against the general moratorium and the product-specific moratoria. First, the United States 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 con-

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59. Panel Report, *EC-Biotech Products*, *supra* note 8, ¶¶ 1.1, 1.4, 1.7. **R**

60. *Id.* ¶ 4.133.

61. Under Article 6.2 of the Dispute Settlement Understanding (DSU), a complainant is precluded from introducing a claim that is "not asserted in the request for the establishment of a panel." Appellate Body Report, *Korea – Definitive Safeguard Measure on Imports of Certain Dairy Products*, ¶ 139, WT/DS98/AB/R (Dec. 14, 1999). By asserting a violation of the TBT Agreement in its request for the establishment of a panel, the United States thereby reserved the right to bring claims under said Agreement. *See* Request for the Establishment of a Panel by the United States, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products*, ¶ 4(4), WT/DS291/23 (Aug. 8, 2003).

62. *See* Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 4.195, 4.254 (listing the ways in which the moratorium is inconsistent with existing agreements). Canada made alternative claims under the TBT Agreement and article III.4 of GATT 1994. *Id.* ¶ 4.197. In contrast, Argentina made a cumulative claim under the SPS Agreement and GATT 1994. *Id.* ¶ 4.254. Argentina also made a claim under the TBT Agreement in the alternative. *Id.* **R**

63. *See, e.g.*, *id.* ¶¶ 4.155, 4.184, 4.188 (describing each of the parts in more detail and discussing each specific objective).

64. *Id.* ¶ 2.3.

tended 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.[65] Fourth, the United States claimed that the EU applied 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 United States 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.[66]

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 had been approved under Directive 90/220 or Regulation 258/97. The United States maintained that these member state measures were 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."[67] 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 "prohibit[s] the importing into the territory of

65. 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 United States 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) [hereinafter First Written Submission, *EC-Biotech*].

66. 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, supra* note 8, ¶ 7.1410. R

67. First Written Submission, *EC-Biotech*, *supra* note 65, ¶ 170. R

Greece of seeds of the genetically modified rape-plant line bearing reference number C/UK/95/M5/1."[68]

There appears to have been some division within the U.S. government as to the focus of the complaint, reflecting U.S. concerns regarding the appropriate deference to be granted to national authorities, since the United States could also be a respondent in a related WTO case. There apparently was a group within the U.S. government that wished to limit the U.S. challenge to procedural issues under articles 7 and 8 of the SPS Agreement because of concern regarding U.S. vulnerability to legal challenge under the U.S. Bioterrorism Act of 2002.[69] Some commentators, including the EU itself, indicate that the Bioterrorism Act lacks a risk assessment as required under the SPS Agreement and results in discrimination against foreign food imports.[70] These internal U.S. concerns reflect the difficult institutional choices at stake.

C. *The 2006 WTO Panel Decision*

After considerable delay, the panel finally circulated its decision in September 2006 to WTO Members. The decision, which was 1,087 pages itself (over 2,400 when counting annexes), was adopted without appeal in November 2006. The panel found in favor of the United States, Canada, and Argentina, but largely on procedural and not substantive grounds (resulting in 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 determin-

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68. *Id.* at ¶ 174.

69. Telephone Interview with private U.S. lawyer (June 5, 2007).

70. *See generally* Preliminary Comments from the European Commission on the USA Bioterrorism Act, Commission of the European Communities (Aug. 8, 2002) *available at* http://ec.europa.eu/food/international/trade/us_bio_act_prel_com_en.pdf (establishing EU concerns that the Bioterrorism Act does not respect U.S. obligations under the SPS Agreement, including because its provisions have not been based on a risk assessment); Gary G. Yerkey, *Protectionist Pressures in U.S. Forcing Bush to Ignore WTO Obligations, EC Says*, 21 INT'L TRADE REP. 19 (2004) (stating that the European Union found these new restriction to have "unnecessarily trade-distorting effects"). The United States notified the Bioterrorism Act to the WTO's SPS Committee, and WTO members have posed questions to the United States in the Committee regarding the act's implementation.

ing whether the EU had based its 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."[71] 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."[72] In this way, the panel could effectively *decide not to decide* with regard to the substance of any regulatory measure at the EU level.[73]

In contrast, the panel found that all of the EU member states' safeguards against EU-approved plant varieties constituted SPS measures, and that these measures were not 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.[74] 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.[75] In doing so, the panel implicitly supported the Commission's earlier position regarding the legality of the member states' bans under internal EU law, providing lever-

71. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 8.6. R

72. *See infra* Annex A, p. 74.

73. 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 8, ¶ 7.538. The quotation "decision not to decide" in the panel report R is taken from the Third Written Submission of Canada, ¶¶ 202, 203, 214 and Canada's replies to Panel questions, Nos. 172, 179. Panel Report, *EC-Biotech*, ¶ 7.455 n.568.

74. 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.

75. Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.2973, 7.2974, 7.2997, R 7.2998, 7.3004.

age to EU central authorities within the multi-level EU governance context.

In Annex A, I 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 1,000-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. I categorize these choices into five ideal types.

III. 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), but at the same time it has been severely criticized for inappropriately trumping national democratic choices over regulatory policy.[76] This section evaluates the difficult choices confronted when the WTO dispute settlement system rules on legal complaints over national agricultural biotechnology regulations. 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. Additionally, the official EU scientific body has con-

76. *See* John H. Jackson, *The Changing Fundamentals of International Law and Ten Years of the WTO,* 8 J. Int'l Econ. L. 3, 5–7 (2005) (describing the effectiveness of the WTO dispute settlement system and outlining common criticisms). *See also* Donald McRae, *Measuring the Effectiveness of the WTO Dispute Settlement System*, 3 Asian J. WTO & Int'l Health L. & Pol'y 1, 1-3 (2008) (outlining praise for the WTO dispute settlement system as an example of effective international law); Lori M. Wallach, *Accountable Governance in the Era of Globalization: The WTO, NAFTA, and International Harmonization of Standards*, 50 U. Kan. L. Rev. 823, 823–25, 862–63 (2002) (criticizing the WTO for trumping national democratic choices over regulatory policy).

ducted risk assessments in line with WTO requirements and found that the individual GM varieties at issue do not pose any additional risks than do their conventional (non-GM variety) counterparts.[77]

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. 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 undermines democratic choices for other states, including for smaller, poorer ones?[78] Should we be concerned about the impact of a large state's "democratic" choices on other states' 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 decisionmaking 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).[79] Moreover,

77. *See* POLLACK & SHAFFER, *supra* note 5 (chs. 2, 6). **R**

78. *See infra* notes 95–102 and accompanying text.

79. CASS R. SUNSTEIN, THE LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE (2005); 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).

in the context of multi-level governance, internal accountability mechanisms within national democracies are in tension with the external accountability mechanisms of global governance.[80] 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, which, in turn, reflected conflicts among EU technical bodies, EU political bodies, and EU member states.

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. I 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. I 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 decisionmakers. These analyses help explain why the panel made the interpretive choices that it did.

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 considering the deficiencies of the alternatives.[81] Here are five strikingly different institutional processes to which the WTO panel could attempt to allocate decisionmaking through its interpretation of the relevant WTO texts. Each should be

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80. *See* Robert Keohane, *Global Governance and Democratic Accountability*, *in* TAMING GLOBALIZATION: FRONTIERS OF GOVERNANCE 130, 149 (David Held & Mathias Koenig-Archibuigi eds., 2003). Keohane has categorized accountability mechanisms into seven types, which he terms hierarchical, legal, market, public reputational, fiscal, supervisory, and peer. *See* Ruth Grant & Robert Keohane, *Accountability and Abuses of Power in World Politics*, 99 AM. POL. SCI. REV. 29, 35-36 (2005).

81. *See* KOMESAR, IMPERFECT ALTERNATIVES, *supra* note 7, at 5-6 (noting the problems with single institutional analysis). **R**

seen as an ideal type which we examine in order to clarify the institutional implications of legal analysis in this dispute, as well as more broadly:

(i) the panel could interpret the agreements to show great deference to EU political decisionmakers, 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. By characterizing the EU's regulatory measures in any of these ways, the panel would *allocate the decisionmaking to an EU and/or national political process*;

(ii) the panel could stringently review EU decisionmaking 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 decisionmaking 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 decisionmaking to an 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.[82] 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;

82. *See infra* notes 123–25 and accompanying text.

(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.[83] 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 decisionmaking 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 decisionmaking *to EU and/or national political processes, but 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.

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

One institutional choice many commentators favor is for the WTO judicial body to show deference to the country implementing the trade restriction, thereby effectively allocating decisionmaking 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

83. *See infra* notes 149–50 and accompanying text.

them is legitimate, whether the purpose is to protect against potential risks under uncertainty or to reflect 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 scenario, 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 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

84. In the internal EU context, examples of European Court of Justice decisions roughly taking this approach are Joined Cases C-267/91 & C-268/91, *Criminal* Proceedings Against 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, 220 (2007) (stating that the *EC-Biotech* panel failed to engage in a serious analysis of the applicability of Art. 5.7); Oren Perez, *Anomalies at the Precautionary Kingdom: Reflections on the GMO Panel's Decision*, 6 WORLD TRADE REV. 265, 274 (2007) (emphasizing that the conditions under which governments may successfully use a precautionary principle defense under Section 5.7 remain unclear).

86. *See* Conrad, *supra* note 46, at 234 (noting that a panel will resort to the GATT and the TBT Agreement when it finds that SPS analysis is inappropriate). R

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, 278 (2000) (arguing that a country which is only directly regu-

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 decisionmaking 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 decisionmaking 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 U.S. Constitution.[90] It is a principle espoused in a variety of scholarly dis-

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lating behavior within its own borders is not regulating extra-territorially and therefore is not in violation of GATT).

88. Jeffrey Dunoff, *The Death of the Trade Regime*, 10 EUR. J. INT'L L. 733, 757-58 (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, 660 (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.*, THE FEDERALIST NO. 17, at 107 (Alexander Hamilton) (Bantam Books 1961) ("Upon the principle that a man is more attached to his

ciplines, from law, to political science, to institutional economics.[91]

National and sub-national political decisionmaking 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, which can give rise to protectionist legislation.[92] 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. 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 decisionmaking 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" and severely affects foreign parties, 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 scien-

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family than to his neighborhood, to his neighborhood than to the community at 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, Spring 2001, at 19 (discussing the effectiveness of small-sized governmental units based on a number of factors including the internalization of externalities); Oliver Williamson, *Hierarchical Control and Optimum Firm Size*, 75 J. POL. ECON. 123 (1967) (arguing that large organizations encounter the problem of "control loss" and that this loss may be a reason to diminish the scale of large organizations).

92. MANCUR OLSON, JR., THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS (1965); John McGinnis & Mark Movsesian, *The World Trade Constitution*, 114 HARV. L. REV. 511, 523-24 (2000); Warren F. Schwartz & Alan O. Sykes, *The Economic Structure of Renegotiation and Dispute Settlement in the World Trade Organization*, 31 J. LEGAL STUD. 179, 183-84 (2002).

tific evidence,"[93] the underlying concept is that a Member's regulation must be rationally supported. Commentators may 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 "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, particularly in ACP (Asia-Caribbean-Pacific) countries.[95] The threat of exclusion from lucrative developed-country markets has arguably become the most important factor preventing developing country agriculture from advancing with GMO technol-

93. Appellate Body Report, *Japan – Measures Affecting Agricultural Products*, ¶ 84, WT/DS76/AB/R (Feb. 22, 1999); *see also* Appellate Body Report, *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, ¶ 193, WT/DS26/AB/R, WT/DS48/AB/R (Jan. 16, 1998) ("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.").

94. The comment that states have "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 DELIBERATIVE DEMOCRACY (Jon Elster ed., 1998) (discussing the limits, weaknesses, and strengths of deliberative democracy); James Bohman, *Survey Article: The Coming of Age of Deliberative Democracy*, 6 J. POL. PHIL. 400 (1998) (discussing "different ways in which the ideals of deliberative democracy have changed in light of practical concerns for feasibility"); Joshua Cohen & Charles F. Sable, *Global Democracy?*, 37 N.Y.U. J. INT'L L. & POL. 763 (2005) (discussing at length deliberative polyarchy); David M. Ryfe, *Does Deliberative Democracy Work?*, 8 ANN. REV. POL. SCI. 49 (2005) (discussing the obstacles within deliberative democracy). 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 (elaborating the elements of deliberative democracy in a form beyond the constitutional state).

95. *See generally* POLLACK & SHAFFER, *supra* note 5 (ch. 7) (discussing the importance of the EU's power in the international system). **R**

ogy.[96] Analysts of the situation in Africa, for example, find that "[n]egative perceptions [of agricultural biotech] are often based on local decision takers' concern for certain donors' positions rather than scientific analysis."[97] Even Argentina, the leading grower of GM varieties after the United States, created a foreign market access review component to its domestic approval process, which resulted in a "mirror policy" in which Argentina would not approve a GM variety until it was approved in Argentina's major export markets—mainly the EU.[98] This policy gave rise to a *de facto* moratorium on new approvals of GM varieties in Argentina from 2001-2004 in response to the EU's moratorium. Similarly, a temporary EU ban on the import of soy from China because of the detection of adventitious GM content "played a critical role" in causing China to "go slow" in considering approvals of GM soy and other varieties.[99] If the technology can indeed 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),[100]

96. Richard Stewart, The GMO Challenge to International Environmental Trade Regulation: Developing Country Perspectives 15-16 (May 2007) (unpublished draft, on file with author).

97. Marcel Nwalozie, Paco Sereme, Harold Roy-Macauley & Walter Alhassan, *West and Central Africa: Strategizing Biotechnology for Food Security and Poverty Reduction*, *in* THE GENE REVOLUTION: GM CROPS AND UNEQUAL DEVELOPMENT 69, 72 (Sakiko Fukuda-Parr, ed., 2007) [hereinafter THE GENE REVOLUTION].

98. DAVID VOGEL, PETER NEWELL & EDURADO TRIGO, A FRAMEWORK FOR POLICY-MAKING ON TRADE, AGRICULTURAL BIOTECHNOLOGY AND SUSTAINABLE DEVELOPMENT (forthcoming 2008) (manuscript at 17, 38, 39, on file with author).

99. *Id.* at 30-32.

100. *See e.g.*, PER PINSTRUP-ANDERSEN & EBBE SCHIOLER, INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE, SEEDS OF CONTENTION: WORLD HUNGER AND THE GLOBAL CONTROVERSY OVER GENETICALLY MODIFIED CROPS 50-55 (2001) (arguing that genetic modification can yield positive results including reducing production costs, making farming easier, increasing yields, etc.); Sakiko Fukuda-Parr, *Emergence and Global Spread of GM Crops: Explaining the Role of Institutional Change*, *in* THE GENE REVOLUTION, *supra* note 97, at 16, 22-23 (examining the role of institutions in driving these trends); NUFFIELD COUNCIL ON BIOETHICS, THE USE OF GENETICALLY MODIFIED CROPS IN DEVELOPING COUNTRIES: A FOLLOW-UP DISCUSSION PAPER 1, 4-5 (2004), http://www.nuffieldbioethics.org/fileLibrary/pdf/GM_Crops_Discussion_Paper_2004.pdf (noting that GM crops can provide a number of benefits including R

then showing broad deference to the EU on the ground that "states have the right to be irrational" is ethically dubious. European Union 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.[101]

Of course, such first-order institutional allocation of decisionmaking to EU political processes does not mean that global markets will play no role. To assess the relation of global market forces to EU policymaking, 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 the impact of product market competition, as 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.[102] In

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disease resistance and more nutrients); FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, THE STATE OF FOOD AND AGRICULTURE 2003-2004 6 (2004), *available at* http://www.fao.org/docrep/006/Y5160E/Y5160E00.htm [hereinafter 2004 FAO REPORT] (finding the potential for numerous benefits including disease resistant crops). The 2004 FAO report, for example, notes, "some of these crops, especially insect-resistant cotton, 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.

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

102. *See Commissioners Urge Reconsideration of Zero Tolerance GMO Policy*, INSIDE US TRADE, Nov. 30, 2007 at 1. Moreover, unless there are strong penal-

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 with respect to EU restrictions on the consumption of GM food varieties. Here, the restrictions protect 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.[103] 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 with respect to an import ban, while the EU restrictions can impose significant costs on foreign producers (as well as on foreign consumers, to the extent that the EU's exercise of market power affects regulatory choices abroad).[104] 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

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ties 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 J. Herring, *Stealth Seeds: Bioproperty, Biosafety, Biopolitics*, 43 J. DEV. STUD. 130 (2007) (examining the responses of the Indian and Brazilian governments to the prospect of illegal use of GM crops); THE GENE REVOLUTION, *supra* note 97, at 218 (arguing that "informal marked seeds did not perform as well as the authorized seeds"). R

103. 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.

104. *See supra* notes 95–102 and accompanying text.

greater health risks than their conventional food and feed counterparts.

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

The WTO panel could also interpret WTO texts to significantly constrain the EU's regulatory choices by applying a relatively clear rule that would favor international trade and the resulting market competition. The panel, for example, could have found that the EU's moratoria on approvals of GM varieties constituted a ban in violation of GATT article XI and was not "necessary" under GATT article XX because of other reasonably available alternatives, such as product labeling. The panel could have made an analogous finding under provisions of the SPS Agreement, as it did in its interpretation of the article 5.6 requirement that "measures [be] not more trade-restrictive than required."[105] In this way, the EU's *de facto* import bans would be strictly scrutinized as compared to less trade restrictive regulatory alternatives such as product labeling. Alternatively, the panel could have required 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 with respect to the member state safeguards when it refused to recognize any of the studies indicated by the EU member states as constituting a risk assessment.[106]

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 decisionmaking 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 market-based decisionmaking

105. SPS Agreement, *supra* note 12, art. 5.6. **R**

106. *See, e.g.*, SCOTT, THE WTO AGREEMENT, *supra* note 57, at 92-95; Perez, *supra* note 85. **R** **R**

mechanism permits for more individualized participation in determining the proper balance between trade, consumer protection, and environmental goals, and can thus 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 production process. 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 with regard to 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.[107] The result has been significant EU judicial support for the creation and maintenance of an EU "single market."[108]

Were WTO panels to apply such an approach, they could stimulate not only product competition, but also regulatory competition among jurisdictions.[109] 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

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107. ALBERTO ALEMANNO, TRADE IN FOOD: REGULATORY AND JUDICIAL APPROACHES IN THE EC AND WTO 327-28 (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.

108. *See generally* MIGUEL MADURO, WE, THE COURT: THE EUROPEAN COURT OF JUSTICE AND THE EUROPEAN ECONOMIC CONSTITUTION (1998) (discussing the various factors including judicial support which assisted in the creation and maintenance of the "single market").

109. *See* Michael Faure, *Regulatory Competition vs Harmonization in EU Environmental Law*, *in* REGULATORY COMPETITION AND ECONOMIC INTEGRATION: COMPARATIVE PERSPECTIVES 263, 265–67 (Daniel Esty & Damien Geradin eds., 2001) (outlining the Tiebout model of regulatory competition). *See generally* INTERNATIONAL REGULATORY COMPETITION AND COORDINATION: PERSPECTIVES ON ECONOMIC REGULATION IN EUROPE AND THE UNITED STATES (William Bratton et al. eds., 1996).

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

These market decisionmaking 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 could affect product pricing and shape consumer choice, especially if the labels were misleading.[110] For example, consumers may react differently to a mandatory labeling regime (imposed on all products that contain or are produced with GMOs) than they would 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 supporting 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

110. "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) . . . ." Stewart, The GMO Challenge, *supra* note 96, at 33. To the extent that the labels were not private, but rather government-mandated or government-regulated, this alternative would involve some degree of government intervention. **R**

GM-free products) may face highly imperfect market competition.[111]

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. Other 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. European Union constituencies opposed to such a reduction in environmental regulation could face collective action problems in countering 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, United States, 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 decisionmaking would increase what the United States and others would have to pay

111. Indeed, anti-GM activists have successfully targeted supermarket chains and brand name companies in Europe. *See* SHAFFER & POLLACK, *supra* note 5 (ch. 2). **R**

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.[112] Where a Member fails to comply with a WTO ruling, the WTO's Dispute Settlement Understanding (DSU) provides for either compensation or the right of the other parties to withdraw trade concessions in an equivalent amount.[113] This threat can provide leverage to such parties in settlement negotiations. In fact, following the panel decision, the United States and EU have in fact engaged in intensive negotiations.[114] The WTO process has arguably facilitated a number of new EU approvals of GM varieties and the removal of EU-member safeguard bans.[115] WTO Members are constantly engaged in negotiations at the international level, be it within the WTO or in other international regimes which provide alternative decisionmaking processes, to which we next turn.

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 decisionmaking to the market. This institutional process would provide different opportunities for participation in decisionmaking that would also entail tradeoffs. These tradeoffs need to be compared with those under the first alternative of deference to an incompletely rep-

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112. 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 24, at 644. **R**

113. *See* Understanding on Rules and Procedures Governing the Settlement of Disputes, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, Art. 22, 367-70, Apr. 15, 1994, 1869 U.N.T.S. 401, 33 I.L.M. 1226 [hereinafter DSU].

114. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 5). **R**

115. *Id.* The EU approved a biotech product for the first time in six years during the middle of the WTO proceedings, one of the specific varieties listed in the U.S. complaint. *See infra* note 223 and accompanying text. Overall, the Commission approved fifteen varieties for sale as food and feed, from the end of the moratorium in May 2004 through January 2008, although without member state support, and EFSA has issued a positive assessment regarding other GM varieties in the pipeline. POLLACK & SHAFFER, *supra* note 5 (ch. 5). Austria finally removed its safeguard ban for certain EU food and feed products in 2008. Daniel Pruzin, *Argentina Delays EU Compliance Deadline in GMO Dispute, as Brussels Cites Progress*, 25 BNA INT'L TRADE REP. 923, 923 (2008). **R**

resentative EU political process, as well as with those that follow.

C. *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."[116] But, even if they are right, which political domain should decide? National political processes can be 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 decisionmaking 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 just covered.[117]

A number of legal commentators have advocated the incorporation of consumer protection, environmental, labor, and other regulatory issues into the WTO such that the WTO would become a global regulatory organization rather than simply 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.[118] Andrew Guzman has built on this concept by advocating that:

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116. *See, e.g.*, Perez, *supra* note 85, at 275-77 (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* Andrew T. Guzman, *Food Fears: Health and Safety at the WTO*, 45 VA. J. INT'L L. 1, 4 (2004) ("[P]anels and the Appellate Body should defer to the implementing state's evaluation of the level of risk it is willing to tolerate, the relevant scientific evidence, and the relationship between the measure and the risk assessment."). R

117. *See* JAN TINBERGEN, INTERNATIONAL ECONOMIC INTEGRATION 77-79 (Elsevier Publ'g Co. 1965) (1955) (defining "positive integration" and "negative integration").

118. ROBERT O. KEOHANE, AFTER HEGEMONY: COOPERATION AND DISCORD IN THE WORLD POLITICAL ECONOMY 91 (1984).

> 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 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.[119]

In this way, Guzman proposes turning the WTO into a "World Economic Organization."[120]

Regarding the application of this institutional alternative, the SPS Agreement itself represents a political choice. WTO Members arguably 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 have each adopted guidelines and principles providing that regulation be based on scientific risk assessments.[121] The WTO panel repeatedly referred to their provisions, as noted in Annex A.[122]

The organizational rules of these three bodies provide for the adoption of standards by either a simple majority vote (for

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119. Andrew T. Guzman, *Global Governance and the WTO*, 45 HARV. INT'L L.J. 303, 307-08 (2004).

120. *Id.* at 309.

121. Codex Alimentarius Comm'n [Codex], Joint FAO/WHO Food Standards Programme, *Principles for Food Import and Export Inspection and Certification,* § 3, CAC/GL 20-1995 (1995); Codex, Joint FAO/WHO Food Standards Programme, *Guidelines on the Judgment of Equivalence of Sanitary Measures Associated with Food Inspection and Certification Systems*, §§ 4, 6, CAC/GL 53-2003 (2003).

122. *See, e.g.,* Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.241, 7.297, 7.299, 7.312, 7.873, 7.2287, 7.2350, 7.3240. **R**

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).[123] The EU (or United States) 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, 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 Members' "[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."[124] 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.[125] 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."[126] In its submissions in the agricultural biotech case,

123. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 4). R

124. SPS Agreement, *supra* note 15, art. 3.2. R

125. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 4). R

126. 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

the EU contended that its internal regulations reflected its international obligations under the Biosafety Protocol.[127] The WTO panel, however, did not apply the Protocol's provisions because none of the complainants had 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.[128] Some commentators nonetheless contend that the panel should have recognized the Protocol's authority.[129]

Further, 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."[130] 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."[131] 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.[132] 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 princi-

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terms of overlapping regime complexes and EU forum shopping, see SHAFFER & POLLACK, *supra* note 5 (ch. 4). **R**

127. *See infra* Annex A, Part (v) (explaining how "[t]he EU was able to have the precautionary principle incorporated into international law . . ."). **R**

128. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.75.

129. *See, e.g.*, Carmen G. Gonzalez, *Genetically Modified Organisms and Justice: The International Environmental Justice Implications of Biotechnology*, 19 GEO. INT'L ENVTL. L. REV. 583, 622–24. 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 *interpet* and *apply* that instrument in its relationship to its normative environment—that is to say 'other' international law." Int'l L. Comm'n [hereinafter 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 (Apr.13, 2006) (*finalized by* Martti Koskenniemi).

130. Panel Report, *Korea—Measures Affecting Government Procurement*, ¶ i.96, WT/DS163/R (May 1, 2000).

131. *Id.*

132. *See infra* Annex A.

ple is a recognized principle of general or customary international law."[133] It noted instead 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.[134]

Finally, the Agreement Establishing the WTO itself provides for majority or supermajority 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 decisionmaking 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.[135] 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.[136] 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.[137]

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133. Panel Report, *EC-Biotech*, *supra* note 8, at ¶¶ 7.86-7.89. R

134. *Id.* at ¶¶ 7.88-7.89

135. Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, art. IX:1, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter WTO Agreement].

136. *Id.* at arts. IX:2, IX:3.

137. *See* Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiation, arts. IX, X, XII, Apr. 15, 1994, 33 I.L.M. 1140 (establishing procedure for interpretation and amendment of the text of WTO agreements). 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.* art. X:1 (establishing which provisions apply to proposed amendments). In addition, WTO members may decide by a three-

In practice, however, secondary decisionmaking by international political bodies is typically made by consensus.[138] In the WTO, decisions are always made by consensus and even then they are infrequent.[139] Because of the prevailing norm of decisionmaking 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. The 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 from the body or otherwise attempt to disrupt Codex operations. Decisionmaking over politically contentious matters, such as the regulation of agricultural biotechnology, by a majority vote 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 decisionmaking processes can be more inclusive of affected stakeholders than national political

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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 to remain a Member with the consent of the Ministerial Conference." *Id.* art. X:3. *See generally* RAJ BHALA & KEVIN KENNEDY, WORLD TRADE LAW: THE GATT-WTO SYSTEM, REGIONAL ARRANGEMENTS, AND U.S. LAW § 4(f)(3) (1998) (explaining the process of amending the WTO Agreement); 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 497, 502-06 (Ernst-Ulrich Petersmann ed., 2005) (explaining the procedures for modifying and revising trade rules).

138. *Cf.* PHILLIPE SANDS & PIERRE KLEIN, BOWETT'S LAW OF INTERNATIONAL INSTITUTIONS 266 (5th ed. 2000) (noting "a trend towards a search for 'consensus' as opposed to reliance on the results of formal voting").

139. As Posner and Rief write, "[a]t 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, 504-05 (2000).

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. When they are based in powerful states, such as the United States, they can "enroll" them to advance their concerns at the international level.[140] 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 and regulatory negotiations. In their masterful study of global business regulation, Braithwaite and Drahos found that the United States played a leading role in twelve of the thirteen areas they studied (all but international labor regulation) and the EU played a leading role in nine of these areas.[141] Moreover, the bureaucracies of the United States, EU, and large developed countries have greater resources and larger, more experienced staffs. Braithwaite and Drahos, for example, conclude that "[t]he fact that U.S. and EU law are modeled more than others is not only because of their economic hegemony and the fact that weaker economies want to meet their terms for admission to the clubs they dominate. In the case of the United States in particular, modeling is underwritten by the sheer depth of regulatory expertise Washington agencies can offer."[142] Within the Codex, for example, many developing countries have traditionally not attended meetings.[143] Fourth is the challenge of

140. In this respect, Braithwaite and Drahos find that "US corporations exert more power in the world system than corporations of other states because they can enroll the support of the most powerful state in the world." John BRAITHWAITE & PETER DRAHOS, GLOBAL BUSINESS REGULATION 490 (2000).

141. *Id.* at 476-77 (see chart).

142. *Id.* at 542.

143. *See* Codex Alimentarius Commission website, http://www.codexalimentarius.net (last visited Sept. 17, 2008). *See also* ORGANISATION FOR ECO-

devising appropriate voting rules at the international level. Even if all countries did participate in international economic negotiations in an informed manner, the weighting of votes by country is problematic where countries vary in population from small island nations to China. Fifth, even were these centralized international governance mechanisms to facilitate relatively greater voice for 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 organizations is fragmented.[144] Rather than moving toward a consolidation of international law, we are seeing a pluralist mélange of "regime complexes" in which institutions have overlapping jurisdiction, reflecting the *ad hoc* nature of their creation.[145] 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.[146] The EU arguably had this aim in mind when negotiating the Biosafety Protocol.[147] This brings us back to the question with which we began our discus-

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NOMIC CO-OPERATION AND DEVELOPMENT, NON-TARIFF MEASURES ON AGRICULTURAL AND FOOD PRODUCTS 36 (2001) [hereinafter OECD] (noting low participation rates for low- and middle-income countries). For a critique of the 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.'").

144. *See, e.g.*, ILC, *Fragmentation of International Law*, *supra* note 129 (describing how specialization within international law leads to "relative ignorance of legislative and institutional activities in adjoining fields"). **R**

145. Kal Raustiala & David G. Victor, *The Regime Complex for Plant Genetic Resources*, 58 INT'L ORG. 277, 279 (2004).

146. Gregory Shaffer & Mark Pollack, *How Hard and Soft Law Interact in International Regulatory Governance: Alternatives, Complements and Antagonists*, 31-44, (Soc'y of Int'l Econ. Law, Working Paper No. 45/08), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1156867.

147. *See* POLLACK & SHAFFER, *supra* note 5 (ch. 4). **R**

sion of this institutional alternative: Which political process should decide?

In short, decisionmaking 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 with those affecting other institutional alternatives.

D. *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, consumer, and environmental protections 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 decisionmaking process. Under this approach, in contrast, it is deciding that it will itself decide the appropriate balance between competing concerns. Some may contend that judicial decisionmakers 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 interest, however, lies in capturing the institutional implications, attributes and deficiencies of this choice (as an ideal type) compared with the others, including in terms of their impacts on the dynamics of litigation and negotiations.

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 between selling only Korean or only 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.[148]

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—essentially 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 applying article 2.2, holding that Japan's "phytosanitary measure at issue is clearly *disproportionate* to the risk identified on the basis of the

148. 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). *See also* Appellate Body Report, *United States—Import Prohibition of Certain Shrimp and Shrimp Products*, ¶¶ 155-59, WT/DS58/AB/R (Oct. 12, 1998). 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 decisionmaking 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."

scientific evidence available" (emphasis added).[149] There is thus a proportionality dimension to SPS Article 2.2, and arguably also to article 5.1, to which this provision relates.[150] 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."[151] Alexia Herwig has suggested the same in respect of panels' application of article 5.5 of the agreement, arguing that Member's inconsistent measures constitute "unjustifiable discrimination."[152] 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.[153] That is the

149. *See* Appellate Body Report, *Japan—Measures Affecting the Importation of Apples*, ¶ 17-28, WT/DS245/AB/R (Nov. 26, 2003) (indicating that article 2.2 requires that states 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).

150. SCOTT, THE WTO AGREEMENT, *supra* note 57, at 110. R

151. *See* Caroline Foster, Genuine Fears: Interpretation of the SPS Agreement and the Right to Political Participation 12–13 (June 2007) (unpublished paper, presented at workshop in Prato, Italy, on file with author) (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." SPS Agreement, *supra* note 12, art. 5.6. R

152. Alexia Herwig, *Whither Science in WTO Dispute Settlement?*, 21 LEIDEN J. INT'L L. (forthcoming 2008) (manuscript at 23). *See also* Guzman, *supra* note 116, at 4. For the text of article 5.5, see SPS Agreement, *supra* note 15, art. 5(5). R

153. *See* Abram Chayes, *The Role of the Judge in Public Law Litigation*, 89 HARV. L. REV. 1281, 1308 (1976) (arguing that courts have advantages over legislatures and administrative agencies in their ability to gather and assess

rationale for making Bills of Attainder, involving criminal punishment, unconstitutional under Article I, Section 9 of the U.S. Constitution.[154] Of course, more informal administrative processes may often be superior to formal judicial procedures for the gathering and weighing of facts.[155] Many commentators thus favor a greater role for "soft law" governance mechanisms such as the WTO committee system or Codex working groups.[156] Yet where a country may be sanctioned because its regulatory measures fail to comply with an international obligation, 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

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information); Neal Devins, *Congressional Factfinding and the Scope of Judicial Review: A Preliminary Analysis*, 50 DUKE L.J. 1169, 1186 (2001) (arguing courts are better at social fact-finding than Congress); John O. McGinnis & Charles W. Mulaney, *Judging Facts Like Law: The Courts Versus Congress in Social Fact-Finding*, 25 CONST. COMMENT. (forthcoming 2008) (manuscript at 3), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1061502 ("[W]e show that Congress' fact-finding abilities are less capacious and more biased than those in the judiciary . . . . In contrast, the judiciary is insulated from the preferences of constituents and less subject to partisan bias. Its salient institutional structure is the adversarial proceeding where each side has incentives to scrutinize relentlessly the factual claims of its opponent. Accordingly, the judiciary would appear to be a superior fact-finder both because of its institutional capacity and in its relative lack of bias.").

154. *See* Rachel E. Barkow, *Separation of Powers and the Criminal Law*, 58 STAN. L. REV. 989, 1012-14 (2006) (noting that the Framers built express limits on the legislative exercise of judicial power into Article I, Section 9 of the Constitution).

155. *See* Richard H. Fallon, Jr., *Of Legislative Courts, Administrative Agencies, and Article III*, 101 HARV. L. REV. 915, 935-36 (1987-88) (identifying expertise, flexibility, and efficiency as potential advantages of administrative proceedings over more formalized judicial processes); Robert W. Gordon, *Willis's American Counterparts: The Legal Realists' Defence of Administration*, 55 U. TORONTO L.J. 405, 418 (2005) (noting that administrative fact-finding may be superior to its judicial counterpart due to greater expertise, external input, and flexibility of rules).

156. On the SPS Committee, see SCOTT, THE WTO AGREEMENT, *supra* note 57, at 41-75. On the soft law dispute settlement mechanism provided by the IPPC, see POLLACK & SHAFFER, *supra* note 5 (ch. 4). R R

state bans were supported by risk assessments. In this way, the panel could better assess the concerns at stake.

However, if WTO panels engage in a factually intensive, judicial balancing test under vague standards, WTO provisions will provide less legal certainty. Applying WTO provisions in this way on a case-by-case basis will increase litigation costs. This approach should thus affect the dynamics of WTO litigation as well as settlement negotiations conducted in the shadow of potential litigation. As two socio-legal scholars wrote long ago regarding domestic litigation, "[a]s costs rise, so does the threshold at which litigation becomes worthwhile."[157] Such an approach can asymmetrically affect those with fewer resources, and, in particular, smaller developing countries.[158]

Moreover, if WTO panels issue rulings under a balancing test against national and EU regulatory decisions which reflect strongly held values, 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 an 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. 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-

157. Lawrence Friedman & Robert Percival, *A Tale of Two Courts: Litigation in Alameda and San Benito Counties*, 10 LAW & SOC'Y REV. 276, 298 (1976).

158. *See, e.g.*, Marc Busch, Eric Reinhardt & Gregory Shaffer, *Does Legal Capacity Matter? Explaining Patterns of Protectionism in the Shadow of WTO Litigation*, 1, 3 (Working Paper Series, Feb. 1, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1091435 (arguing that WTO members with more legal capacity are more likely to challenge antidumping suits brought against them by the WTO and less likely to be named in such challenges); Håkan Nordström & Gregory Shaffer, International Centre for Trade and Sustainable Development, *Access to Justice in the WTO: The Case for a Small Claims Procedure?*, Issue Paper 1, June 2007, *available at* http://ictsd.net/downloads/2008/06/nordstrom2020shaffer_small_claims.pdf (arguing that dispute settlement procedures create a threshold effect that discriminates against smaller trading nations).

guessing Members' determinations on "scientific" grounds. Finally, compared to domestic legislative systems, it is much more difficult for WTO Members to correct or respond collectively to a WTO judicial decision by amending a WTO rule. Thus, Members may be wary of WTO panels asserting too much authority in these cases.

The WTO panel was reluctant to allocate substantive decisionmaking 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 the attention of transnational NGOs and the media.[159] 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. WTO panel decisions are subject to greater 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.[160] 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.

E. *The Proceduralist Turn: International Judicial Review of the Process of National Decisionmaking*

Under a fifth institutional alternative, instead of engaging in a balancing of substantive concerns, the WTO panel can review the *procedures* of the national decisionmaking process to attempt to ensure that national decisionmakers take into ac-

159. 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 United States and EU. *See generally* 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, 41-47, 61-74 (2001) (exploring the roles of states and NGOs in the CTE process).

160. I thank Neil Komesar for eliciting this point.

count the views of, and impacts on, affected foreign parties. As under the first option, the panel would attempt to return substantive decisionmaking 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.[161]

The panel clearly chose this fifth option in its response to the complainants' challenges to decisionmaking at the EU level. It avoided addressing the SPS Agreement's substantive provisions by finding that the EU had not adopted a reviewable "SPS measure."[162] 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 assessement, 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.[163] The EU's review process is again operating, even though the process remains quite slow and politically charged.[164]

Categorizing the panel's more stringent review of the EU member state safeguard bans is more complicated.[165] Because the panel held that the safeguards were not based on a risk assessment in violation of article 5.1 of the SPS Agreement,

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161. The WTO Appellate Body applied this process-based approach in the *US—Shrimp-Turtle* and *EC-GSP* cases. *See* Gregory Shaffer, *Power, Global Governance and the WTO: A Comparative Institutional Approach*, *in* POWER IN GLOBAL GOVERNANCE 130, 142-44 (Michael Barnett & Raymond Duvall eds., 2005) (discussing WTO's policy of deference towards the country implementing the trade restriction); Gregory Shaffer & Yvonne Apea, *Institutional Choice in the Generalized Preferences Case: Who Decides the Conditions for Trade Preferences? The Law and Politics of Rights*, 39 J. WORLD TRADE 977 (2005) (discussing the flexible procedural approach the Appellate Body takes in the Enabling Clause, reminiscent of its decision in *US—Shrimp-Turtle*).

162. *See infra* Annex A (describing how the panel avoided examining substantive claims against the SPS Agreement).

163. *See infra* Annex A (explaining the panel's finding that the EU violated procedural requirements).

164. *See* SHAFFER & POLLACK, *supra* note 5 (ch. 5). **R**

165. *See infra* Annex A (discussing member state safeguard bans).

some commentators contend that the panel applied a strict rule under the second institutional option, or (alternatively) itself assumed substantive decisionmaking by balancing competing concerns under the fourth one.[166] However, the panel can also be viewed as returning the issue to EU political, administrative, and judicial processes in light of the two-tiered nature of EU policymaking. The member states' 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.[167] Under EU law, the member states' safeguards are only 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."[168]

Had the panel decided in favor of the member states' 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

166. *See, e.g.*, Perez, *supra* note 85, at 272 (arguing that the WTO panel does not employ a coherent conception of the precautionary principle). **R**

167. 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 8, ¶¶ 7.3260, 8.9 (giving examples where the risk analysis was not challenged). **R**

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

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.[169]

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, resentment, and conflict."[170] Similarly, advocates of "deliberative," "participatory," and legal pluralist approaches stress the advantages of focusing on procedures over substance.[171] As Peter Gerhart and Michael Baron write, "the

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169. For a few details on the Swiss referendum, see Yves Tiberghien, *Europe: Turning Against Agricultural Biotechnology in the Late 1990s*, *in* THE GENE REVOLUTION, *supra* note 97, at 66. R

170. Guzman, *supra* note 116, at 4. For an example of another WTO scholar calling for such a procedural approach in order to defend the organization, see Sungjoon Cho, *Of the World Trade Court's Burden* (Working Paper Series, Mar. 13, 2007), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=969437 (suggesting that the court should adopt a procedural standpoint so that parties will cooperate). R

171. *See, e.g.,* Joerges, *Conflict of Laws as Constitutional Form, supra* note 31 (developing "yardsticks" to answer debates on transnational constitutionalism as opposed to more substantive rules). For a "deliberative-constitutive" approach to risk regulation under the SPS Agreement, see Elizabeth Fisher, R

process-based view . . appeals to values of participatory democracy that are more widely accepted."[172]

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 would 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 decisionmakers 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 United States simply retailored its procedural requirements in order to continue the same import ban, the substantive outcome of which was not in doubt.[173]

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 U.S. constitutional law.[174] 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 to provide tools

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Beyond the Science/Democracy Dichotomy: The World Trade Organization Sanitary and Phytosanitary Agreement and Administrative Constitutionalism, *in* CONSTITUTIONALISM, MULTILEVEL TRADE GOVERNANCE AND SOCIAL REGULATION 329 (Christian Joerges & Ernst-Ulrich Petersmann eds., 2006) (comparing the "deliberative-constitutive approach with a "rational instrument" theory in the conext of risk regulation and administrative constitutionalism). For a legal pluralist perspective, see generally Paul Schiff Berman, *Global Legal Pluralsim*, 80 S. CAL. L. REV. 1155 (2007) (discussing literature on legal pluralism and surveying procedural mechanisms used to address normative conflict).

172. Peter M. Gerhart & Michael S. Baron, *Understanding National Treatment: The Participatory Vision of the WTO*, 14 IND. INT'L & COMP. L. REV. 505, 552 (2004).

173. *See* Shaffer, *Power, Global Governance and the WTO*, *supra* note 161, at 157. **R**

174. *See* Neil K. Komesar, TAKING INSTITUTIONS SERIOUSLY: INTRODUCTION TO A STRATEGY FOR CONSTITUTIONAL ANALYSIS, 51 U. CHI. L. REV. 366, 378 n.30 (1984). I wish to generally thank Neil Komesar for his stimulating discussion on these points.

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 decisionmaking 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.

As a 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 decisionmaking, which has become subject to more transparent notice and comment procedures from interested stakeholders.[175] 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.

175. *See* Patrycja Dabrowska, Hybrid Solutions for Hybrid Products? EU Governance of GMOs (2006) (unpublished Ph.D. dissertation, European University Institute) (on file with author).

I find so particularly on account of the legitimacy constraints that the WTO judicial process itself faces, to which we now turn.

IV. Institutional Choice in Context: The Sociolegal Constraints on WTO Judicial Decisionmaking

Assessing the WTO judicial decision in the GMO case within a comparative institutional framework should not be done solely in terms of the impact of that decision on other institutions. The relationship between international and national law and politics is reciprocal.[176] 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 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. Thus, in assessing institutional

176. *See* Gregory Shaffer, *A New Legal Realism: Method in International Economic Law Research*, *in* International Economic Law: The State and Future of the Discipline, 29, 37-42 (Colin B. Picker et al. eds., 2008). For a socio-legal account of the recursive, reciprocal relation of international institutions and domestic contexts, see generally Terence C. Halliday & Bruce G. Carruthers, *The Recursivity of Law: Global Norm Making and National Lawmaking in the Globalization of Corporate Insolvency Regimes*, 112 Am. J. Soc. 1135 (2007). In political science, two-level game theory examines the interrelationship of international negotiations (Level 1) and domestic politics (Level 2), assessing the strategic role of national leaders in determining national positions and strategies at the international level in light of national political contexts. In contrast, the literature referred to as "the second image reversed" examines how international structures affect domestic political life. On two-level games, see generally Double-Edged Diplomacy: International Bargaining and Domestic Politics (Peter B. Evans, Harold K. Jacobson & Robert D. Putnam eds., 1993) (describing how international negotiations are characterized by both domestic and international politics by examining a series of case studies); Robert D. Putnam, *Diplomacy and Domestic Politics: The Logic of Two-Level Games*, 42 Int'l Org. 427 (1988) (describing two-level games as a metaphor for domestic-international relations, where domestic groups pursue their interests by pressuring the national government and national governments seek to maximize domestic interests at the international level). For a discussion on the second image reversed, see generally Peter Gourevitch, *The Second Image Reversed: The International Sources of Domestic Politics*, 32 Int'l Org. 881 (1978).

choices, including from a normative perspective, we should do so with an appreciation of the sociological context.

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.[177] In discussing legitimacy here, we stress the concept's sociological dimensions in terms of the social acceptance of a judicial decision.[178] 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 or Appellate Body ruling.[179]

Our analysis of the WTO panel decision strongly suggests that the WTO judicial process is not independent of politics or strategic action by WTO judicial decisionmakers. WTO judges, both panelists and the members of the Appellate Body, have some independent agency. They are not only interpreters and appliers 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

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177. *See* James McCall Smith, *WTO Dispute Settlement: The Politics of Procedure in Appellate Body Rulings*, 2 WORLD TRADE REV. 65, 78–80 (2003).

178. *Cf.* Daniel Bodansky, *The Legitimacy of International Governance: A Coming Challenge for International Environmental Law?*, 93 AM. J. INT'L L. 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 justified 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 J. Postema, *Implicit Law*, 13 L. & PHIL. (SPECIAL ISSUE) 361, 368 (1994). 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 understand, the language they use and the decisions they make." Gerald Postema, *Implicit Law*, in REDISCOVERING FULLER: ESSAYS ON IMPLICIT LAW AND INSTITUTIONAL DESIGN 255, 264 (Willem J. Witteveen & Wibren van der Burg, eds., 1999).

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

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."[180] As a result, Joerges and Neyer argue that the WTO should "search for a middle ground between law and politics."[181]

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 United States 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, there is a strong risk that the EU would not comply with its decision, in response to the demands of EU member states and the larger European public. For example, the EU has still not complied with the ruling in the *EC-Meat Hormones* case over ten years after the decision, despite WTO-authorized trade sanctions that the United States and Canada continue to impose.[182] Moreover,

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180. *See* DSU, *supra* note 113, art. 3.7. The DSU 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." *See id.* art. 19.1 (footnotes omitted) (emphasis added). **R**

181. *See* Joerges & Neyer, *supra* note 33, at 219. *See also* Joerges, *Conflict of Laws*, *supra* note 31, at 12. **R**

182. The EU, however, has challenged the legality of the continued U.S. sanctions. On October, 16, 2008, the Appellate Body reversed the panel findings regarding the EU's continued violations of Articles 5.1 and 5.7 because of the panel's application of an incorrect standard of review and allocation of burden of proof, among other grounds. Appellate Body Report, *United States—Continued Suspension of Obligations in the EC-Hormones Dispute*, ¶ 736, WT/DS320/AB/R (Oct. 16, 2008). The Appellate Body also found that it was unable to complete the analysis based on the factual record regarding the legality of the EU bans under the legal standards clarified by the Appellate Body in its decision. *Id.* The Appellate Body nonetheless has signaled that the EU may have proper grounds to challenge the continuation of such U.S. sanctions. *See id.* ¶737. The U.S. sanctions, however, remain in effect. *See WTO Beef Hormone Ruling Inconclusive, But U.S., Canada Sanctions May Remain*, 25 INT'L TRADE REP. 1504 (2008) ("The Appellate Body's ruling will

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 U.S. 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 noncompliance could trigger other Members' tit-for-tat strategies of noncompliance. As McDougal and Lasswell said of 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."[183] As Koskenniemi writes in a 2006 report from the International Law Commission, "[t]reaty interpretation is diplomacy, and it is the business of diplomacy to avoid or mitigate conflict."[184] Part of diplomacy, of course, involves power variables, and there 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 United States or EU is a respondent.[185]

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 decisionmaking was based on a scientific risk assessment to be decided 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 risk assessment,

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therefore allow the United States and Canada to maintain sanctions of $116.8 million and C$11.3 million ($9.5 million), respectively, in the form of higher tariffs on select European imports.").

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

184. ILC, *Fragmentation of International Law*, *supra* note 129, at 25. R

185. *See* Cho, *supra* note 170 (discussing the inconsistency in cases in which the United States and the EU are given more deference than Japan or Australia). R

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.[186]

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, paradoxically, using methods which 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 ini-

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186. 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's safeguard could be found to meet the requirements under 5.7 for provisional measures. *See* Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.3065 & 7.3244-7.3245. *See also* Letter of the Panel to the Parties of May 8, 2006, Annex K, WT/DS291/R/Add.9, WT/DS292/R/Add.9, WT/DS293/R/Add.9 (Sept. 29, 2006). **R**

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 address "more explicitly potential long-term effects and bio-diversity issues" in its risk assessments and to take member state views into account. *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*, at 11, 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."). 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.

tial filing of the claim to render a decision, instead of 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 the panel was composed on March 4, 2004, it took over thirty-two months to circulate its decision.[187]

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 to 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 2,580 pages), supplemented by "an estimated total of 3,136 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.[188] 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. It is possible that the panel purposefully delayed issuing its report until after the WTO Ministerial Meeting in Hong Kong in December 2005, in which intensive bargaining (and demonstrations) took place under (and against) the Doha round of trade negotiations.[189]

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187. The claim was filed in May 2003 and the Panel was formed on August 29, 2003, but not actually composed until March 4, 2004 (the Director General designated panelists because the parties could not agree on the panel's composition). Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.38 n.227. 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. R

188. Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.37-7.45. R

189. *See* Keith Bradsher, *Trade Officials Agree to End Subsidies for Agricultural Exports*, N.Y. TIMES, Dec. 19, 2005, at C1 (recounting the intensive bargaining surrounding the WTO meeting in Hong Kong).

None of the parties to the proceeding appeared to object to the delays.[190]

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 decisionmaking will thus be much longer than the three-and-a-half years that the case formally took (not to count subsequent procedures regarding the EU's implementation of the ruling), if indeed a new claim is ever filed. The panel thereby effectively parried deciding on the substance of EU decisionmaking.

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

190. 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, a deadline they then extended until January 11, 2008 (almost five years after the initial filing of the WTO complaint). Daniel Pruzin, *EU Receives Deadline of Nov. 21 to Comply With WTO GMO Ruling*, 24 BNA INT'L TRADE REP. 947 (2007); Erica Lee Nelson, *U.S., EU Agree to Extend Deadline for Implementation of GMO Case*, INSIDE U.S. TRADE, Nov. 23, 2007, at 1.

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 decisionmaking 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.

V. CONCLUSIONS

This Article has used the controversial WTO biotech decision as a point of entry to accomplish two aims, one positive and the other normative, for broader theorizing on WTO and international dispute settlement. From a positive standpoint, the Article has shown how WTO judicial interpretation structurally operates through allocating decisionmaking authority to different institutions. As we have seen, WTO interpretive choices involve shifts in decisionmaking *from* and *to* alternative institutional processes, made within the WTO's own institutional constraints. In our case, the WTO panel could interpret WTO provisions in a manner that could shift decisionmaking from an EU political process to a number of alternatives, including to a global market process, an international political process, or a process of international judicial balancing. Alternatively, the panel could return the case to the EU level while prescribing new procedural 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, I 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 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) decisionmaking 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.[191] As Joanne Scott writes, "WTO law may not have direct effect in European law, but its effect in this sphere is palpable nonetheless."[192] At the 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 decisionmaking. The GMO case exemplifies these dy-

191. 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, 2000 E.C.R. I-1651.

192. SCOTT, THE WTO AGREEMENT, *supra* note 57, at 128 (citing the Pfizer and Monsanto Agricoltora Italia court decisions). *See also* Joanne Scott, *European Regulation of GMOs and the WTO*, 9 COLUM. J. EUR. L. 213, 223, 228-32 (2003) ("[t]he WTO Agreement may not have a direct effect in Community law, but it enjoys a significant, if still uncertain, capacity to influence strongly the interpretation of this body of law . . ."); Jan Bohanes, *Risk Regulation in WTO Law: A Procedure-Based Approach to the Precautionary Principle*, 40 COLUM. J. TRANSNAT'L L. 323, 327 (2002) (pointing to criticism of the WTO by countries which believe that this "regime encroaches upon national sovereignty and compromises legitimate democratic choices"). R

namic and reciprocal interactions between international and domestic (and in this case EU) law.[193]

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 Robert 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."[194]

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 can provide information to national regulatory processes so that regulatory decisions are more likely to be informed and subject to legitimate challenge within the regulating state.[195] The WTO panel in the GMO case can be viewed, through the procedural orien-

193. 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, *supra* note 5 (ch. 5, 6). R

194. Howse, *Democracy, Science and Free Trade*, *supra* note 50, at 2330. R

195. 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, en-

tation 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 exchanges 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 decisionmaking 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.

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couraging information generation and a healthy reflexivity." SCOTT, THE WTO AGREEMENT, *supra* note 57, at 80. **R**

ANNEX A: STEP-BY-STEP REVIEW OF THE WTO PANEL BIOTECH DECISION

In this Annex, I examine each step in the WTO panel's interpretation of the SPS Agreement's text in the case *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*. I do so for two reasons. First, this decision is of public significance, and it is important to provide an overview of it in sufficient detail for students and scholars who do not have the time to read the entire report of over 1,000 pages. Second, throughout the Annex, I highlight the institutional choices and implications of each of the interpretive moves made by the panel, step-by-step. In this way, the reader can cross-check, as desired, the comparative institutional analysis in Part III against this overview.

(i) Applicability of the SPS Agreement. The first key interpretive choice with institutional implications confronting the panel 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 decisionmaking 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 from conventional varieties under a number of criteria, including consumer perceptions.[196] This is the case because the EU treats European-developed and foreign-devel-

196. General Agreement on Tariffs and Trade, art. III, ¶ 4, Oct. 30, 1947, 61 Stat. A-11, 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 require-

oped 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. The panel wrote, "[I]t 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."[197] 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."[198] The list of what constitutes a "legitimate objective" is an open one, and includes protection of the "environment" and "the prevention of

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ments affecting their internal sale, offering for sale, purchase, transportation, distribution or use."

197. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 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.* ¶ 7.2411. In both cases, Argentina had failed to provide specific factual evidence and analysis in this respect. *Id.* ¶¶ 7.2411, 7.2421, 7.2513. **R**

198. SPS Agreement, *supra* note 15, art. 2.2 (emphasis added). **R**

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 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.[199] 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

199. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.151. **R**

GATT.[200] 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.[201] However, it found that all of the risks of 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 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"[202] (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 sub-paragraphs (a) through (d).[203]

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200. *See id.* ¶ 7.153.

201. 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 id.* ¶¶ 7.162-7.170.

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

203. 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 "re-

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 process.[204] 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.[205]

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."[206]

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quirements 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." *Id.* ¶¶ 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, THE WTO AGREEMENT, *supra* note 57, at 21. R

204. *See* Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.176-7.184. R

205. *Id.* ¶ 7.368. The EU cited concerns over "carbon and nitrogen recycling through changes in soil decomposition of organic material" as an important example. *Id.*

206. For example, under paragraph 1(a) of the Annex, the panel found that the terms "animal" and "plant" include "non-target micro-organisms,

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.[207] The panel came to similar conclusions regarding Regulation 258/97, the Novel Foods Regulation.[208] As Christine Conrad states,

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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. *Id.* ¶¶ 7.219, 7.226. S*ee also id.* ¶ 7.225 (finding that the phrase "arising from" includes risks which either "invariably and inevitably" or simply "might arise from, *e.g.*, the spread of a pest"). 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)." *Id.* ¶ 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." *Id.* ¶¶ 7.299-7.300, 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.* ¶¶ 7.370, 7.374.

207. *See id.* ¶¶ 7.285-7.286, 7.343-7.344, 7.361-7.362, 7.379-7.380.

208. 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. *Id.* ¶¶ 7.404-7.414. The panel agreed that only the first aim constituted an SPS objective, while the latter two did not. *Id.* ¶¶ 7.415-7.416. 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.* ¶¶ 7.2209, 7.2213-7.2215. The panel indicated, nonetheless, that were the United States or other complainants to challenge the EU labeling regime with respect to foods, as they have threatened, the SPS 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

by 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.[209] 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."[210] Joanne Scott thus raises a concern over SPS "imperialism" in which the SPS Agreement trumps otherwise applicable WTO law.[211] 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 decisionmaking, and as a result have more input into EU decisionmaking processes for agricultural biotech approvals.

(ii) Whether the Moratoria Constitute SPS Measures. The next interpretive issue with institutional effects facing the panel 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, leading to 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.[212] It based its decision on an extensive review of

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WTO agreements would also apply to Regulation 258/97 provisions regarding the labeling of GM foods for consumers. *Cf. id.* ¶ 7.391 (finding that Directive 2001/18 is applied for the purpose of protecting human health and the environment, and therefore may fall within the scope of Annex (A)(1)(a), (b), (c), or (d)); *id.* ¶¶ 7.415-7.416 (finding that the first purpose of Regulation 258/97 falls within the scope of the SPS agreement).

209. *See* Conrad, *supra* note 47, at 237-40 (describing the panel's reliance on the "rational relationship" concept to determine whether a product is covered by the SPS). R

210. For information about the application of GATT III.4, see Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.2517, and for information regarding the application of the TBT Agreement, see *id.* ¶¶ 7.2524, 7.2528. R

211. SCOTT, THE WTO AGREEMENT, *supra* note 57, at 17. R

212. Pointing to a dictionary definition, the panel found that "the concept of a moratorium on approvals implies that the absence of approvals must be

statements and documents issued respectively by the European Commission, the Council, the 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.[213] 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.[214]

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."[215] The panel distinguished the procedures under the EU

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the consequence of a deliberate temporary suspension of approvals." Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.534. **R**

213. *Id.* ¶¶ 7.474-7.483. Overall, the panel used the term "Group of Five" 401 times in the report.

214. 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 id.* ¶ 7.558 (citing Art. 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 re-convene 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. *Id.* at xxi-xxii.

215. *Id.* ¶ 7.1382. *See also id.* ¶ 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." *Id.* ¶¶ 7.1295, 7.1333.

legislation which were SPS measures, and "the procedural decision to delay final substantive approval decisions," which was not an SPS measure.[216] Under this casuistic reasoning, the panel concluded that "the moratorium was not itself an SPS measure,. . . but rather affected the operation and application of the EC approval procedures."[217]

Thus, while the panel found that the SPS Agreement had a broad scope of coverage in terms of the "purpose" of the 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 IV.

(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

216. *Id.* ¶ 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," "[l]ogic dictates that if the pre-marketing approval requirement must be presumed to be WTO-consistent, the same holds true for the provisional ban . . . . The decision to 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." *Id.* ¶¶ 7.1353, 7.1357.

217. *Id.* ¶ 8.16.

with the SPS requirement that a Member base its measure on a risk assessment (the claims under articles 5.1 and 2.2).[218] 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 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.[219] The first clause of Annex C provides that "Members shall ensure, with respect to any procedure to check and ensure the fulfillment of phytosantitary 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, as well as the changing state of the science. The panel was not persuaded, finding that such arguments could not be used endlessly to delay taking a deci-

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218. It thus appears that the only EU acts reviewable under article 5.1, in the panel's view, were "the pre-marketing approval requirement which results in a provisional marketing ban" (i.e. the EU legislation itself) and any "final substantive approval decisions on individual applications." *Id.* ¶¶ 7.1390-7.1391.

219. Article 8 provides that "Members shall observe the provisions of Annex C." The panel, however, found that the United States failed to establish its claims under Annex C(1)(b) in respect of the moratoria. *Id.* ¶ 7.1604.

sion.[220] 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 risk assessment."[221] 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

220. 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. *E.g.*, *id.* ¶ 7.1813 (concerning the "undue delay" related to the application of Falcon oilseed rape). 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 United States. Argentina indicated eleven applications, one of which did not overlap with the United States, but was not examined by the panel because the applicant had withdrawn its application prior to the panel's establishment. *Id.* ¶¶ 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.* ¶ 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.

221. *Id.* ¶ 7.1517. *See also id.* ¶ 7.1526 (stating that the scientific complexity and uncertainty are not grounds for "delaying substantive approval decisions").

listed in the U.S. complaint.[222] In its interim report, the panel found that the *de facto* general moratorium had thus ended.[223] In its final report, however, the panel left unresolved whether a moratorium continued to exist. It instead 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."[224]

According to Washington insiders, this switch from the interim to final panel report was important for the U.S. government, U.S. 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.[225] They now have greater leverage to press the EU to approve GM varieties, including by threatening a potential WTO compliance proceeding under article 21.5 of the Dispute Settlement Understanding. For the United States, 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 ap-

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222. 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*, EUR. REP., May 29, 2004, *available at* 2004 WLNR 7308786.

223. The panel issued an interim decision to the parties on February 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 this Panel, an amended *de facto* moratorium continues to exist or whether a new general *de facto* moratorium has since been imposed." Interim Panel Report, *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, ¶ 8.16 n.1962, WT/DS291/INTERIM, WT/DS292/INTERIM, WT/DS293/INTERIM (Feb. 7, 2006).

224. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 8.16. **R**

225. Telephone interview with private U.S. attorney. (June 5, 2007).

proved no varieties for cultivation.[226] 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 decisionmaking.

The panel first determined that each safeguard fell within the scope of the SPS Agreement pursuant to the panel's earlier criteria,[227] 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 would again 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

226. The first variety since the moratorium's start was up for consideration in the summer of 2007. *See EU is Urged to Accept Biotech Products*, INT'L HERALD TRIB., June 15, 2007, at 14 (referring to an application to plant a genetically modified potato developed by BASF).

227. Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.3412-7.3414. In one case, the panel stretched its analysis particularly far. Documentary evidence communicated that one reason for an Austrian safeguard was the lack of an adequate EU labeling regime. *See id.* ¶ 7.2646. Recalling its earlier finding that labeling regimes can have SPS and non-SPS objectives, the panel concluded that the objective of Austria's safeguard "reflect[ed] a concern about risks to consumer health," and chose to analyze the safeguard within the scope of the SPS Agreement. *Id.* ¶¶ 7.2647-7.2651. As a result, the panel avoided examining the Austrian safeguard's potential TBT-related objectives, such as a consumer's right not to be misled about the nature of the product, which not only could have added hundreds of pages to the report, but may also have had institutional implications for reasons examined earlier. *See id.* ¶¶ 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. *Id.* ¶¶ 7.2647-7.2648. As it was, this section of the report comprised two hundred pages. R

other hand, the panel could return the issues to EU administrative and judicial processes, as examined in Part III, by referring explicitly to EU-level scientific risk 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.[228] 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.[229] 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."[230] 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

228. 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, 216-20 (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 230. He finds the panel's discussion of a "qualified right" under article 5.7 unnecessarily confusing. *Id.* at 217.

229. *See* Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 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. **R**

230. *See id.* ¶¶ 7.3005-7.3006.

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 panel repeatedly turned to this Appellate Body report, which 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.[231] 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."[232]

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, in the panel's view, none of the safeguards bore a "rational relationship" to a risk assessment, it found, as a "preliminary" conclusion, that all of them were inconsistent with

231. *See id.* ¶ 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.

232. 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.* ¶ 7.3045. Commentators question the panel's factual findings. *See, e.g.,* SCOTT, THE WTO AGREEMENT, *supra* note 57, at 93, 108, 118 (concerning the panel's rejection of the Hoppichler study cited by Austria as a risk assessment); Perez, *supra* note 85 (arguing that the Panel's interpretation of the precautionary principle is unintelligible). R R

the requirements of SPS article 5.1, subject to review of the applicability of article 5.7.[233]

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 inconsistent with the requirements of Article 5.7, Article 5.1 would be applicable and . . . we would need to conclude that the European Communities has acted inconsistently with its obligations under Article 5.1. . . ."[234] 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.[235]

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.[236] The EU argued that members' "level of acceptable risk" varies and must be taken

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233. In this respect, the Appellate Body subsequently rebuked a panel for its application of an overly intrusive standard of review in the SPS case, *United States—Continued Suspension of Obligations in the EC-Hormones Dispute*. *See* Appellate Body Report, *United States—Continued Suspension of Obligations in the EC-Hormones Dispute*, ¶¶ 590, 615, 736, WT/DS320/AB/R (Oct. 16, 2008). Because the panel decision in the *EC-Biotech* case was not appealed, we do not know if the Appellate Body would have also found that the panel applied the wrong standard of review.

234. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.3217. **R**

235. 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[s] . . . accordingly within a reasonable period of time." Panel Report, *EC-Biotech*, *supra* note 8, at ¶¶ 7.2929, 7.3218 (citing Appellate Body Report, *Japan – Measures Affecting Agricultural Products*, ¶ 89, WT/DS76/AB/R (Feb. 22, 1999) and Appellate Body Report, *Japan—Measures Affecting the Importation of Apples*, ¶ 76, WT/DS245/AB/R (Nov. 26, 2003)). **R**

236. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.3217. **R**

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."[237] 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 a risk."[238] The Appellate Body, however, subsequently overruled this particular legal position in the 2008 case *United States—Continued Suspension of Obligations in the EC-Hormones Dispute*. There the Appellate Body reversed "the Panel's finding that 'the determination of whether scientific evidence is sufficient to assess the existence and magnitude of a risk must be disconnected from the intended level of protection.'"[239] We thus do not know how this would have affected the biotech decision had the panel applied such an analysis.

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 committee had evaluated the potential risks, . . . and had provided a positive opinion."[240] 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."[241] 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.

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237. *Id.* ¶ 7.3238.

238. *Id.* ¶ 7.3243.

239. *See* Appellate Body Report, *United States—Continued Suspension of Obligations in the EC-Hormones Dispute*, ¶¶ 684-86, 736, WT/DS320/AB/R (Oct. 16, 2008).

240. *Id.* ¶ 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 57, at 116 (citing Appellate Body Report, *Japan – Measures Affecting the Importation of Apples*, ¶ 184, WT/DS245/AB/R (Nov. 26, 2003)). R

241. *See* Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.3065. R

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]."[242] 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. . . ."[243] 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.[244] 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 genetically modified variety. The panel repeated this same analysis verbatim in assessing whether a member state safeguard could be found to meet the

242. *Id.* ¶ 7.3387, 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. *Id.* ¶¶ 7.3378, 7.3384, 7,3405, 7.3423 & 7.3429.

243. *Id.* ¶ 7.3065.

244. *Id.*

requirements under 5.7 for provisional measures.[245] 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.[246]

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.[247] 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. The litigation would have simply constituted a complex mind game for

245. *See id.* ¶¶ 7.3244-7.3245 (emphasizing that an "importing Member," while deciding which measures to adopt, can take into account factors that affect "scientists' level of confidence in a risk assessment").

246. Letter from the Panel to the Parties, *European Communities—Measures Affecting the Approval and Marketing of Biotech Products*, Annex K, WT/DS291/R/Add.9, WT/DS292/R/Add.9, WT/DS293/R/Add.9 (May 8, 2006).

247. *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*, at 11, COM (2006) 626 final (Oct. 25, 2006) (inviting "EFSA to liaise more fully with national scientific bodies, with a view to resolving possible diverging scientific opinions with Member States" and noting 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.

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 IV.

(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.[248]

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 decisionmakers 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."[249]

The EU was able to have the precautionary principle incorporated in international law in relation to GMOs in the Biosafety Protocol.[250] Article 10 of the Biosafety Protocol provides that a country may reject the importation of "a living modified organism for intentional introduction into the envi-

248. Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.73-7.75, 7.76-7.89. **R**

249. *Communication from the Commission on the Precautionary Principle*, at 15, COM(2000) 1 (Feb. 2, 2000).

250. 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 5 (ch. 4). **R**

ronment" 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 decisionmaking, 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."[251] 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 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.[252]

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

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251. Panel Report, *EC-Biotech*, *supra* note 8, ¶¶ 7.67-7.71. **R**

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

have meant that the Biosafety Protocol was not relevant since the complainants had not ratified it, but it would have meant that 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).[253] 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."[254] 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."[255] 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

253. *Id.* ¶ 7.72.
254. *Id.* ¶¶ 7.92-7.95.
255. *Id.* ¶ 7.95.

general or customary international law."[256] The panel 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 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.[257] 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.[258] In this way, the panel again followed previous Appellate Body

256. *Id.* ¶¶ 7.86-7.89.

257. *Id.* ¶ 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). For a copy of the brief, see Brief Submitted to the Dispute Settlement Panel of the World Trade Organization as Amici Curiae, Panel Report, *European Communities – Measures Affecting the Approval and Marketing f Biotech Products*, WT/DS291/R (Sept. 29, 2006), *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).

258. Panel Report, *EC-Biotech*, *supra* note 8, ¶ 7.11. R

practice, limiting the direct input of private actors in WTO dispute settlement.

In sum, we have shown in our step-by-step overview of the WTO biotech panel decision in this Annex how the WTO panel made a number of interpretive moves that had significant institutional implications in terms of who decides the weighing of competing policy concerns, including the allocation of costs from policy choices. This Annex provides the backdrop for the comparative institutional analysis in Part III of the Article.