Handbook of International Trade
Volume II
Economic and Legal Analyses of Trade Policy and Institutions

Edited by E. Kwan Choi and James C. Hartigan

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Edited by E. Kwan Choi and James C. Hartigan
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warming.
When we first discussed the possibility of organizing and editing a Handbook for Blackwell, we quickly decided to include works from both legal scholars and economists in the volume. The increasing availability of abstracts on the Internet had encouraged us to keep apprised of legal scholarship concerning international trade. As part of our growing attention to legal scholarship, we became more aware of the lack of cross-disciplinary citations between international law and international economics. In fact, the Journal of International Economics published five issues so far in 2002 (January, March, June, August, and October). Of the 1326 citations appearing in those issues, only 12 appear to qualify as legal sources. This is 0.90 percent of the total. The Review of International Economics published three issues so far in 2002 (February, May, and August). Of the 764 citations in those issues, six appear to qualify as legal documents. This is 0.79 percent of the total.

The legal profession does better. In the June 2002 issue of the Journal of International Economic Law (JIEL), 11.97 percent of the citations by the authors are to economics sources. In the June 2002 issue of the Journal of World Trade (JWT), 15.06 percent of the citations are to economics sources. However, this is not quite as encouraging as it may appear, as 84.9 percent of the citations to economics sources in the JWT occur in two of the eight articles it contains. For the JIEL, 77.8 percent of the citations to economics sources appear in one of the six articles in that issue. Nonetheless, it does seem that legal scholars are more receptive to economics scholarship than international economics scholars are to legal analysis.

The barrier to entry to economics for international legal scholars seems fairly obvious: the extent of mathematical formality endemic to the discipline. What was not apparent to us was the barrier to entry to legal scholarship. We believed that it must have something to do with the style of presentation. We assumed initially that it must be the prevalence of footnotes in legal scholarship. However, we found that in reading the contributions to this volume, the footnotes quickly ceased to be a distraction. Only after reading all of the legal contributions did we decide what the barrier was. It was that economists are not comfortable with the subtlety and ambiguity of language.

A primary objective of this book is to increase cross-disciplinary fertilization. As such, we requested that each of the contributors keep the counterpart discipline in mind.
when writing their chapter. The economists were asked to use as little mathematical formality as possible, and they were very receptive to this request. Not having as much experience in law as we did in economics, we were less specific in our requests to the contributors from that discipline. However, the legal participants are sympathetic to economic analysis, and have provided chapters that we believe are interesting and accessible to economists.

In selecting topics to be represented in the volume, we were guided by two criteria: (1) the topic must be of significant interest to both disciplines, and (2) the topic must be at the forefront of current research in international trade policy. In satisfying the first criteria, we eschewed issues such as national sovereignty, which are important to legal scholars, but do not get much attention from economists. We also avoided topics, such as explanations for trade patterns, which are important to economists, but not legal scholars. To the extent possible, we included an author from each discipline for the subjects discussed in the volume.

Because antidumping (AD) duties are the only form of protection that is still increasing, and because their use is proliferating beyond the traditional utilizers (the United States, Australia, the European Union, Canada, and New Zealand) to include many less-developed countries (LDCs), we felt that it was important to include experts from both disciplines to address this issue. From the legal profession, James Durling and Matthew McCullough discuss the material injury investigation/decision of the US International Trade Commission. In particular, they focus upon the legal obligation to not attribute other causes of injury to imports in this investigation. From economics, Thomas Prusa and Susan Skeath discuss economic and strategic motives for the filing of AD complaints, finding support for the hypothesis that countries use AD petitions to deter future use or punish past use against them. Ian Wooton and Maurizio Zanardi analyze the interface of AD and competition policies, concluding that reducing reliance on AD will require increased supranatural coordination of antitrust policies. James Hartigan provides a model of cyclical reciprocal dumping with simultaneous innovation. While providing a justification for an economics-based injury decision in unfair trade investigations, he contends that its requirements are not likely to be met frequently.

A chapter blending very nicely with Wooton and Zanardi is Eric Bond’s economic analysis of trade liberalization and its relationship to the behavior of international price fixing cartels. Bond also addresses the issue of international rule formation in the application of national competition policies.

One of the most significant achievements of the Uruguay Round was the extension of General Agreements on Tariffs and Trade (GATT) discipline to trade in services. The result was the General Agreement on Trade in Services (GATS). Economist Lawrence White provides a documentation of the growing importance of international trade in services, and a discussion of the achievements of the GATS.

Another issue of increasing importance in international trade is regionalism, or the formation of Preferential Trading Areas (PTAs). Petros Mavroidis provides a legal analysis of the compatibility of PTAs with the World Trade Organization (WTO) contract. As his chapter considers PTAs and dispute settlement, it also blends with Ruth Okediji’s chapter discussed below. Pravin Krishna offers an economic analysis of PTAs, and provides conditions for the institutional design of a PTA to be welfare improving.
Another significant achievement of the Uruguay Round was the agreement on trade and intellectual property known as TRIPS. Ruth Okediji provides a legal perspective, with a particular emphasis upon compliance and dispute settlement. Rod Falvey, Feli Martinez, and Geoff Reed have contributed an economic analysis of TRIPS, focusing upon global patent enforcement. This chapter, in and of itself, is an example of the interdisciplinary cross-fertilization for which this volume is striving, as Feli Martinez has legal training.

Brett Frischmann’s legal analysis of compliance institutions in international trade law and international environmental law integrates effectively with several other chapters in this volume. Because compliance is a close relative of dispute settlement, this chapter has an interface with those of Mavroidis and Okediji. It also complements the chapters addressing trade and the environment, to be discussed below. Further, it invokes game theoretic analysis, a cornerstone technique of economists.

Kwan Choi has contributed a chapter on economics that is in the interface of the TRIPS literature and the literature addressing counterfeit products. That is, he analyzes the market equilibria that may arise when a producer of a good entailing intellectual property must compete with firms that copy the product illegitimately. He then contrasts the results arising when imitation is tolerated with those when intellectual property is enforced.

As the WTO has been under pressure to permit members to address environmental issues through trade policy, including a softening of Most Favored Nation and National Treatment obligations, we cannot imagine not including chapters on this subject in a volume of this nature. Economists Larry Karp and Jinhua Zhao highlight the complexity of this matter in a dynamic model of international trade that is based upon different natural resource stocks, different degrees of environmental resiliency, and different regulatory policies regarding environmental exploitation. They disclose that, under various plausible assumptions, trade can be welfare enhancing or diminishing. With a focus upon trade and environment, economists Paola Conconi and Carlo Perroni discuss multilateral institutional forms for linking issues in international cooperation. That is, they consider the possibilities for cooperation when countries can negotiate binding agreements with different partners along more than a single policy dimension. Legal scholar Chantal Thomas analyzes the institutional competence of the WTO to address labor and environmental issues, and contrasts the lack of progress on these matters with the success in obtaining a TRIPS agreement in the Uruguay Round. This chapter also complements the aforementioned chapters addressing TRIPS. Legal scholar David Driesen examines the interface of international trade and regulation of the environment in the context of a much more general objective of defining free trade. Although economists typically view free trade as entailing nondiscrimination among sources of supply, Driesen discusses whether or not its definition should be extended to include freedom from attempts by one WTO member to impose its regulatory regime upon another.

In a thorough analysis and critique of panel and Appellate Body case law, Michael Trebilcock and Shiva Giri advocate criteria for determining whether or not products are “like,” that is, based upon existing or potential competitive relationships between products. Their discussion of National Treatment highlights the extent to which facially neutral tax or regulatory measures can have protectionist implications.
Although the WTO has had limited success in the negotiation of Trade Related Investment Measures, it is generally recognized that foreign investment flows can have a significant impact upon trading patterns. Using OECD data, economists Bruce Blonigen and Ronald Davies examine the relationship between tax treaties and foreign investment. They suggest that recent tax treaties may be designed to reduce tax evasion rather than to promote foreign investment.

Economist James Anderson analyzes the endogenous relationship between the formation of institutions and trade. This chapter provides a deep fundamental background to the policy issues discussed elsewhere in this volume.

We hope that the reader deems this volume to be a success, and is stimulated by the research being done in this exciting area. Both disciplines can be strengthened by recognition of each other’s insights and contributions.
What is Free Trade?: The Rorschach Test at the Heart of the Trade and Environment Debate

David M. Driesen

CHAPTER OUTLINE

This chapter argues that a fundamental question, “what is free trade?,” lurks behind the ongoing debate about the relationship between international trade law and competing legal regimes. Although the literature contains volumes about the reasons for free trade, it says remarkably little about free trade’s definition.

This chapter explores three possible concepts of free trade, trade free from discrimination against foreign companies, trade free from coercion, and trade free from restraint, that is, laissez-faire, primarily in the context of trade and environment disputes. The misunderstanding between environmentalists and free traders reflect trade law’s tendency to amalgamate the antidiscrimination, anti-coercion, and laissez-faire concepts. Free traders tend to think of trade law as primarily aimed at policing discrimination, while environmentalists tend to think of it as aimed at laissez-faire, the least legitimate concept. The trade law provides some support for both views.

1 INTRODUCTION

A large literature addresses relationships between free trade and other policy areas that trade law increasingly affects, including environmental law, intellectual property, labor relations, human rights, and competition policy. These materials rarely include
a precise definition of “free trade.”\textsuperscript{16} They do not answer a crucial question, what precisely must trade be free of in order to be “free” rather than inappropriately shackled? This chapter addresses that question.

Instead of defining free trade, scholars seem to assume that “free trade” has an obvious (although unspecified) meaning.\textsuperscript{7} Decisions interpreting the General Agreement on Tariffs and Trade (GATT)\textsuperscript{8} and academic writing use vague phrases like “trade barriers,”\textsuperscript{9} “trade restrictions,”\textsuperscript{10} and “protectionism,”\textsuperscript{11} to describe that which trade should be free of. But these phrases, absent clarification, may be broad enough to collectively embrace almost any regulation or commercial tax serving competing values, as demonstrated below.\textsuperscript{12}

This failure to articulate a normatively attractive and clear legal concept of free trade leaves the World Trade Organization (WTO), the administrator of the GATT and related multilateral trade agreements,\textsuperscript{13} unable to defend its legitimacy in a convincing manner.\textsuperscript{14} Increasing tension between the WTO and other legal regimes has made the question of the WTO’s legitimacy quite salient.\textsuperscript{15} Decisions holding environmental and public health regulations contrary to GATT have contributed to paralyzing division among WTO member governments and triggered a campaign by non-governmental organizations (NGOs) to stop new trade talks.\textsuperscript{16}

A decade that witnessed the WTO’s creation and a significant expansion of international trade law has brought the WTO into conflict with international and domestic environmental law. During this decade, the WTO became increasingly concerned with “nontariff trade barriers.” This creates enormous potential for conflict, because, in a globally integrated world, most regulations and commercial taxes might be described as nontariff trade barriers, since they burden commercial activity, much of which is international.

In the early 1990s, two GATT panels held the unilateral imposition of a ban on tuna imports caught in a manner that unduly endangers dolphins, contrary to GATT.\textsuperscript{17} More recently, WTO dispute resolution panels held an import restriction aimed at protecting endangered sea turtles contrary to GATT and a European ban on the sale of beef injected with growth hormones contrary to the Agreement on Sanitary and Phytosanitary Measures (SPS),\textsuperscript{18} another WTO-administered trade agreement.\textsuperscript{19} A stream of articles and books addressing the proper relationship between free trade and environmental protection followed the “Tuna/Dolphin” and “Shrimp/Turtle” decisions, but rarely addressed the definition of free trade.\textsuperscript{20}

This inattention to first principles may reflect the formal legal structure of GATT, which imposes a set of trade disciplines upon contracting parties, rather than explicitly requiring free trade. Nevertheless, free trade provides the normative justification for the WTO and the agreements it administers, and differing concepts of free trade sometimes help explain the results of cases interpreting trade agreements. Hence, an adequate legal concept of free trade would greatly enhance the debate about the WTO.

An analysis of possible definitions shows that the \textit{ad hoc} and uncertain nature of trade law stems from a failure to choose a clear, limited, and coherent concept of free trade from among the available alternatives, rather than from theoretical necessity.\textsuperscript{21} Current trade law amalgamates three different ideas about what trade should be free of. Article III of GATT’s text reflects a concept of free trade as trade free of laws,
both taxes and regulations, which discriminate between foreign and domestically produced goods. But, this chapter will argue that the Tuna/Dolphin and Shrimp/Turtle decisions implicitly rely upon an anticoercion concept of free trade, that is, trade unimpeded by efforts to enforce even nondiscriminatory environmental law (or other bodies of nontrade law) against noncomplying nations. The WTO took a step toward an even broader concept of free trade, as trade free of national regulation under a broad laissez-faire conception, when it adopted the SPS agreement during the Uruguay Round of trade negotiations.

Since trade law conflates three different ideas of what free trade is, trade law appears quite ad hoc and difficult to justify. Because these ideas are not equal in their normative attractiveness and their implications for other legal regimes, free trade becomes something of Rorschach test. Commerce advocates identify free trade with the most normatively appealing idea, that of nondiscrimination, and environmentalists tend to identify it with the least normatively appealing idea, laissez-faire government.

Section 2 of this chapter begins by identifying the roots of the ambiguity in the legal concept of free trade in the classical economics of Adam Smith and David Ricardo. It then develops three concepts of free trade based on: the principle of nondiscrimination; an international noncoercion principle; and a principle of laissez-faire government. This section describes the theoretical support for these concepts, identifies some of their sources in international trade law, and elucidates their implications for focusing efforts to expand free trade. It closes by using the concepts to help explain why the concepts of “trade barriers” and “trade restrictions” cannot adequately substitute for a definition of free trade.

Section 3 applies these concepts to show how they illuminate scholarly and judicial efforts to justify the WTO. It shows that application of these concepts yields fresh insights into the most important trade and environment cases, helps explain continued misunderstandings between free traders and environmentalists, and reframes the ongoing trade and environment debate. It concludes that a nondiscrimination concept offers the most hope for advancing acceptance of the WTO beyond the world of economists and trade specialists.

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2 THE LAW AND THEORY SUPPORTING THE NONDISCRIMINATION, INTERNATIONAL NONCOERCION, AND LAISSEZ-FAIRE CONCEPTS

Economists have, over the years, sometimes defended free trade as an extension of the principle of laissez-faire and sometimes as a principle of avoiding a somewhat narrower set of “distortions.” This section will show that the ambiguity that my conceptual
framework identifies in the legal concept of free trade has its roots in the problems addressed in the writings of David Ricardo and Adam Smith. It will then sketch out the three concepts and their sources.

2.1 Classical Roots of the Ambiguity

Economists write volumes about the reasons for “free trade,” but often say very little about its definition. Adam Smith, in “The Wealth of Nations,” advanced the argument that efforts to protect a country’s producers by banning or levying high tariffs upon imports would not only harm the nation making the taxed or banned goods, but also the nation imposing the restriction. David Ricardo refined Smith’s insights into a more nuanced theory of comparative advantage. The theory holds that free trade would allow each country to make that which it is best suited to make, thereby increasing worldwide consumption. This theory articulates the reasons why free trade offers benefits.

Smith and Ricardo’s work have less to say about what exactly free trade is. Smith’s theories constitute an extended argument against the mercantilist system of his day. This system levied high protective tariffs or banned imports outright as an economic strategy. Smith’s work showed that this strategy was economically counterproductive.

The dominant view of Smith and Ricardo’s work holds that it extends the arguments for a laissez-faire theory to trade among nations. Their work supports this view. Smith, for example, characterizes his endorsement of the navigation acts (trade restrictions to advance national security) and compensatory taxation (taxation of imports compensating for other country’s taxation of exports) as “limitations” upon the principle of free trade. Similarly, Ricardo discusses a “system of perfectly free commerce” implying trade with no burdens whatsoever. This suggests that the free trade principle really involved absolute license to trade without any impediments or restrictions. This would imply no commercial taxes or regulations, at least upon goods traded internationally and the processes that produce such goods.

Analysis of Smith’s policy recommendations, however, shows that they fit a model of nondiscrimination in trade relations better than they fit a laissez-faire model. The import bans and high protective tariffs that Smith opposed discriminated against imports, since they applied to imports, but not to competing domestic industry. Smith endorsed compensatory taxation and general taxation for legitimate public purposes, positions at odds with strict laissez-faire, but consistent with antidiscrimination.

Ricardo’s work focuses more on the mechanics of comparative advantage and less on policy recommendations. Since he does not adamantly oppose taxes, Ricardo too does not really endorse laissez-faire in a strict sense either. In discussing taxes upon produce, for example, he states “the sum required by the taxes must be raised.” He then claims that a produce tax would not “materially interfere with foreign trade.” At the same time, he strikes a laissez-faire note in stating that the tax “would . . . prevent the very best distribution of the capital of the whole world . . . ” On balance, he treats taxation as necessary, not as a trade restraint to be abolished.
This analysis reveals a problem with the classical foundation for free trade. A principle different from the laissez-faire principle, which Smith and Ricardo are known for, best accounts for their policies. This problem matters a great deal for legal theory, because a definition of free trade must help guide institutional policy decisions to function as a useful legal concept.

Either a laissez-faire or a nondiscrimination principle justifies abandonment of mercantilist policies, which involve discriminatory government activism. The ambiguity, therefore, mattered little to the argument against mercantilism. The two concepts, however, diverge sharply in their implications for modern environmental and health regulations. And Smith and Ricardo, not surprisingly, have little to say about modern regulation that addresses health and environmental concerns.

The theory of comparative advantage does not directly provide a definition of free trade. Rather, the theory explains why international trade takes place and how it provides benefits. In saying this, I do not deny that the theory’s insights have proven useful in thinking about the definition of free trade, at least as an economic concept.

To see this, it will help to review the role the theory of comparative (and absolute) advantage plays in the case for free trade. International trade takes place because a foreign producer can offer some advantage to domestic consumers over domestic goods. The foreign good may cost less than domestic substitutes or offer superior quality. A domestic purchaser may also purchase a foreign good because no domestic substitute exists. In order to supply a good that costs less, offers better quality, or does not exist in the purchasing country, the foreign producer must have some advantage (such as lower labor cost or superior technology) in making that good. The advantages may be either absolute or comparative. Comparative advantages arise when the pretrade ratios of prices of different goods vary. This makes it possible for a country to enjoy comparative advantage without necessarily having an absolute advantage in any one good’s production. As Alan Sykes has recently explained, “the theory of comparative advantage offers the predominant explanation of why such circumstances arise.”

But the theory does more than simply describe why international trade takes place. It shows how international trade produces advantages for both trading partners. Of course, demonstrating the advantages of international trade strengthens the case against anything that interferes with those advantages, but specifying the things that interfere with those advantages requires additional analysis. For example, suppose that trade arises because a foreign country offers a superior product, because it has a better-educated workforce. Suppose further that the home country finances improvements in its educational system that will improve the workforce so that it can produce an equally good product. If one assumes that the costs of these products are the same, should one conclude that an improvement in an educational system interferes with free trade by subsidizing elimination of an advantage? Nobody argues that improvements in an educational system interfere with free trade. But an explanation as to why not involves more than the theory of comparative advantage.

Economists typically do not rest their views about what trade should be free of directly upon a definition of free trade. Rather, economists employ general equilibrium models to evaluate the costs and benefits of various policy interventions. In so doing, they employ an allocative efficiency test that does not differ fundamentally from that employed to recommend “optimum” domestic policies.
Applying this to health and environmental regulations, neoclassical economic principles would suggest that the benefits of such regulations should equal their costs. Application of this principle, however, poses numerous practical and theoretical problems. Not surprisingly, trade law does not apply a cost–benefit analysis to challenged regulations.

This summary suggests two possible definitions of free trade. One might think of free trade as trade free of burdens, a broad laissez-faire principle. One might, on the other hand, think of free trade as trade free of discrimination.

### 2.2 GATT Article III: Trade Free from Discrimination

Since its negotiation in 1947, the GATT has formed the basis for much of international trade law, with 133 countries agreeing to abide by the GATT eventually. GATT Article III supports “free trade,” defined as trade free of discrimination against foreign goods as a tool of economic policy. Article III read in isolation would suggest that GATT seeks to facilitate international trade – and thereby spread prosperity – by establishing a principle of nondiscrimination against foreign goods. GATT’s preamble emphasizes nondiscrimination and the WTO provides a forum for lowering tariffs. WTO member governments commit themselves to the principle of “national treatment” for imports, a requirement that taxes and regulations not discriminate between foreign and domestic goods without an adequate noneconomic justification. Members must also provide other GATT contracting parties with the same treatment they provide the “most-favored” nation with which they trade, a limited principle of nondiscrimination between foreign trading partners.

Although GATT’s text lacks a definition of discrimination, a working definition will help clarify the concept. One might define discrimination as imposition of a standard or restriction on imports that one does not impose upon one’s nationals. A concept of free trade as trade free of discrimination against foreign producers implies a focus upon tariff reduction, elimination of regulations and taxes that expressly discriminate between foreign and domestic goods, termination of subsidies that apply to only domestic manufacturers of products (thereby discriminating against imports), and abolition of import quotas.

### 2.3 The Sanitary and Phytosanitary Agreement, Article XI, and Article XX’s Evisceration: The Laissez-Faire Concept

One can define free trade more broadly than trade free of discrimination. We might mean by free trade, trade unencumbered by national laws that might increase prices, such as taxes and regulation.

GATT Article XI: 1 offers the potential for a substantial move toward laissez-faire government. Article XI generally prohibits “quantitative restrictions” upon exports or imports. One might construe this article narrowly to embrace import quotas and
little else, rendering it consistent with a nondiscrimination principle. But the WTO has interpreted it broadly to apply to any border measure imposing any burden upon international trade. This implies that any violation of the laissez-faire principle administered at the border offends GATT Article XI: 1.

While Article XI in isolation would go far toward establishing a laissez-faire concept, the Ad Note to Article III should limit Article XI’s push toward laissez-faire. Trade experts agree that the Ad Note to Article III acts as a defense to claims that product regulations applied at the border are per se violations of Article XI. It subjects such regulations to Article III’s national treatment obligation in lieu of the rule of per se invalidity that generally applies to trade restrictions under Article XI. Hence, the scope of Article III and its Ad Note determines the limits that apply to Article XI’s push toward laissez-faire government.

GATT contains a set of defenses in Article XX that arguably reflects a conscious choice to leave decisions about the appropriate scope of national regulation to advance at least citizens’ noncommercial welfare to national governments. These defenses, assuming that they have meaning, would allow a country to otherwise impose GATT illegal trade restrictions when they meet Article XX’s requirements. In other words, Article XX would allow quantitative restrictions on trade and discriminatory regulation of foreign commerce under some circumstances. These exceptions apply to environmental laws.

Trade panels, however, have usually construed these provisions very narrowly. As a result, only one panel has ever upheld a health or environmental regulation under an Article XX defense, the panel adjudicating a challenge to French asbestos regulation. And on appeal, the WTO’s appellate body determined that this regulation had not offended the GATT trade disciplines in the first place. While GATT does not expressly embrace a laissez-faire philosophy, the evisceration of Article XX defenses makes it quite difficult to identify meaningful limits to a WTO panel’s ability to pursue a broad laissez-faire agenda indirectly.

The Shrimp/Turtle case rejected a very broad anticoercion rationale that might automatically eliminate any possibility of an Article XX defense. But this decision struck down the measure before it and it is too soon to tell whether subsequent panels will regularly allow Article XX defenses to validate otherwise GATT illegal environmental measures.

Even if a government regulation complies with all relevant GATT trade disciplines or somehow manages to satisfy the WTO’s interpretation of Article XX, the recent SPS agreement invites WTO panels to second guess national government’s claims that the problem a regulation addresses warrants a regulatory remedy. And a recent WTO panel decision did precisely that, declaring illegal a European Community restriction on beef from cattle injected with hormones, some of which had been found to cause cancer in laboratory animals. A panel of trade experts with no expertise in public health concluded that the European Community had failed to show that the hormones in the banned beef posed a significant risk. The WTO’s Appellate Body affirmed the panel decision, while reversing some of its subsidiary rulings.

The new SPS agreement, as interpreted so far by the WTO, creates hurdles for governments applying nondiscriminatory, but strict, standards to protect public health. Governments wishing to enact stricter standards than existing advisory
international standards must base their standards on a risk assessment. WTO panels will scrutinize national regulations that determine whether risk assessments “reasonably support” the regulatory measure at stake. The Beef/Hormone Appellate Body acknowledged, in dictum, national governments’ right to regulate on the basis of minority scientific views. But it held that the single divergent opinion of a well-respected scientist could not justify the regulatory program before it, because the scientist did not himself carry out research directly addressing hormone residues in beef fattened with hormones. It also apparently held that a government cannot regulate carcinogens without scientific studies addressing the specific application of the carcinogen it banned, at least in the face of the studies of expert opinion finding the disputed application “safe.” Finally, it rejected an apparently undisputed body of research identifying misapplication of growth hormones as a problem. The panel found the handful of studies on this issue “insufficient” to constitute a risk assessment of that issue. This would suggest that governments cannot, under the SPS agreement, permanently regulate any problem that has not been studied extensively, even when there is little scientific controversy about it.

The Appellate Body stated, in dictum, that the SPS does not require quantification of risk. But its holdings, both in Beef/Hormone and subsequent cases, cast doubt on whether any measure based on a qualitative assessment of limited information could pass muster.

Judicial scrutiny of scientific justifications can cripple regulatory programs where great scientific uncertainty exists. Because of ethical limitations on controlled human experimentation, precise data about the effects of contaminants at all levels on human beings usually does not exist. In this context, burdens of proof can become critical. Whichever party bears the burden of proof in a case with totally incomplete data has a good chance of losing.

The WTO has placed the burden of proof on regulating governments. The Beef/Hormone Appellate Body reversed a panel decision that imposed the burden of proof upon regulating governments in all cases. But the Appellate Body’s decision may still support regular application of the burden of proof to regulators. The Appellate Body endorsed shifting the burden to the regulating party once the complaining party establishes a prima facie violation of the SPS Agreement. While the Appellate Body did not articulate a set of principles defining a prima facie violation, the case may support finding a prima facie violation any time a bona fide scientific dispute exists about the relationship between a risk assessment and an adopted measure. Because such disputes are inevitable when little direct data exists about human exposure at various levels (a very common situation), a prima facie case of a violation may exist frequently.

Subsequent WTO panels may regularly require regulators to affirmatively prove that specific evidence directly supports their standards, rather than show some deference to government inferences from incomplete data or require complaining parties to show that regulated substances are safe. If this occurs the SPS agreement could significantly impede regulation, because complete data exists about very few potentially significant public health problems. In addition, the SPS agreement generally requires WTO members to use the least trade restrictive means available to protect