A New Pillar of the WTO: Sound Science

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I. Introduction

Over the last decade, in gradual fashion, a new pillar of the GATT and WTO emerged—sound science. Starting in the mid-1980s, the WTO and GATT expanded the "national treatment" obligation of the GATT to effectively address de facto discrimination. In addition, GATT and WTO panels began demanding much more rigorous explanations from countries seeking to justify trade-restrictive internal regulations as "exceptions" under GATT article XX. Panels built on the underlying objectives of the GATT and WTO Agreements to close potential loopholes, strengthen GATT national treatment disciplines, and advance an open, transparent, rules-based trading system.

A. SPS Agreement

In the Uruguay Round of Multilateral Trade Negotiations, these trends were codified in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). While the SPS negotiation began as an attempt to clarify the GATT article XX exception, it evolved into a comprehensive set of rights and disciplines governing sanitary and phytosanitary (S&P) regulations designed to protect human, animal, or plant life or health. In the recent *Hormones*
decision, the WTO’s Appellate Body upheld the basic integrity of the SPS Agreement by insisting that SPS measures be based on a risk assessment and an objective relationship to sound science. Similarly, after a detour in United States—Alcoholic Beverages, the WTO reversed course in Japan—Alcoholic Beverages II by dumping the “aim and effect” test, which required a complaining party to prove protectionist aim or intent and threatened to eviscerate the WTO’s evolving disciplines over de facto discrimination.

The WTO must continue to refine and strengthen SPS and National Treatment disciplines, as it seeks to liberalize international agricultural trade and to counter the boundless ingenuity of protectionist interests. At the same time, the WTO must be careful not to constrain unduly the legitimate domestic regulatory authority of WTO Members in the areas of food safety and public health. In this respect, the SPS Agreement is a precursor of future challenges as the WTO tries to deal with the politically-charged intersection of international trade and environmental policy.

B. Articles III and XX

GATT articles III and XX are closely related. Article III—the “national treatment” or non-discrimination obligation—prohibits discriminatory internal taxes and regulations.

Article XX sets out exceptions to the General Agreement. These exceptions were designed to ensure that GATT would not preclude legitimate regulatory activity. Accordingly, article XX provides that certain measures that otherwise would violate GATT are nevertheless permitted if they fall within specific enumerated exceptions. These include protecting public morals (paragraph (a)); protecting human, animal, or plant life (paragraph (b)); customs enforcement, protecting patents, trademarks, and copyrights, and preventing deceptive practices (paragraph (c)); preventing trade in prison labor products (paragraph (e)); protecting “natural treasures of artistic, historic, or archaeological value” (paragraph (f)); and conserving “exhaustible natural resources” (paragraph (g)).

While seeking to safeguard legitimate sovereign regulatory authority, the drafters of GATT also sought to prevent “abuse of exceptions of Article [XX]”. The chapeau to article XX states:

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing

2. It is worth noting, however, that certain provisions of the Havana Charter, including a proposed exception for measures “taken in pursuance of any intergovernmental agreement which relates solely to the conservation of fisheries resources, migratory birds or wild animals,” were not carried forward into GATT and were never incorporated in article XX.

in this Agreement shall be construed to prevent the adoption or enforcement by any
contracting party of measures. . . . \textsuperscript{4}

Accordingly, applying article XX requires a three-step analysis. First, does the
measure violate an underlying GATT obligation, e.g. MFN (article I)
or national treatment (article III) obligations, or the general prohibition on
quantitative restrictions (article XI)? Second, is the measure consistent with the
chapeau to article XX, i.e., non-discriminatory and not a disguised trade
restriction? Third, have the criteria been met for the specific exception being
invoked, e.g., is the measure "necessary" to secure compliance with patents,
copyrights, trademarks (paragraph (d)), "necessary" to protect human, ani-
mal or plant life (paragraph (b)), or "relating to" the conservation of exhaust-
tible natural resources (paragraph (g))?

II. Evolution of Article III

For many years, article III jurisprudence was straightforward. In an early
decision on \textit{Italian Discrimination Against Imported Agricultural Machinery} (Ital-
ian Tractors), a GATT panel invoked "national treatment" to strike down an
Italian law that resulted in de jure discrimination against imported British trac-
tors—hardly a surprising result. By law, Italy was providing special credit facili-
ties to farmers who purchased domestically-produced agricultural machinery,
resulting in blatant de jure discrimination against imports.

Starting in the mid-1980s, in a series of path-breaking decisions, GATT panels
extended the article III national treatment obligation to de facto discrimination.
In addition, panels tightened article XX, making it much harder to invoke excep-
tions to the General Agreement.

In \textit{United States—Taxes on Petroleum and Certain Imported Substances}\textsuperscript{5} (Su-
perfund), a GATT panel determined that a U.S. superfund tax on imported petro-
leum and petroleum-based products violated article III. While the U.S. tax was
plainly de jure discriminatory in the sense that it singled out imports for higher
taxation, the United States argued that the tax had only a minimal effect on trade,
and thus could not be deemed to nullify or impair benefits under article XXIII.
Rejecting this "no-harm, no-foul" defense, the panel stated:

For these reasons, article 111:2, first sentence, cannot be interpreted to protect expecta-
tions on export volumes; it protects expectations on the competitive relationship between
imported and domestic products. A change in the competitive relationship contrary to
that provision must consequently be regarded ipso facto as a nullification or impairment
of benefits accruing under the General Agreement.\textsuperscript{6}


\textsuperscript{5} United States—Taxes on Petroleum and Certain Imported Substances, June 17, 1987, GATT

\textsuperscript{6} \textit{Id.}
In United States—Section 337 of the Tariff Act of 1930 (Section 337), a GATT panel reviewed a U.S. order prohibiting the importation of Dutch aramid fiber, which had been found to infringe a U.S. patent under Section 337 of the Tariff Act of 1930. Building on Superfund and Italian Tractors, the Panel held: "The words 'treatment no less' favorable in paragraph 4 call for effective equality of competitive opportunity for imported products in respect of the application of laws, regulations and requirements affecting the internal sale, offering for sale, purchase, transportation, distribution, or use of products." After intensively analyzing various elements of Section 337 procedure, the panel concluded that U.S. law discriminated in numerous respects. In short, "equality of competitive opportunity" had now emerged as the touchstone of article III.

In Japan—Customs Duties, Taxes, and Labeling Practices on Imported Wines and Alcoholic Beverages, a GATT panel set out a clear test for de facto discrimination under article III. While Japan's system of liquor excise taxation was not de jure discriminatory, it resulted in extremely high taxes on whiskies, vodkas, brandies, and liqueurs, which were primarily imported; correspondingly low levels of taxation were found on domestically-produced whisky and shochu—an indigenous Japanese rice wine liquor.

Differential levels of taxation were achieved through peculiar product categories that drew artificial distinctions between competing imported and foreign alcoholic beverages, resulting in higher taxes on import product categories, and by bizarre peaks and valleys in the Japanese liquor excise tax schedule, which favored domestic products. While the excise tax law did not overtly single out imports for discriminatory treatment, this was its principal effect. Indeed, it was difficult to discern any other plausible explanation for the Japanese system, apart from a thinly disguised effort to favor domestic producers at the expense of importers: "The panel further found that as a result of this differential taxation of 'like products,' almost all whiskies/brandies imported from the EEC were subject to the higher rates of tax whereas more than half of whiskies/brandies produced in Japan benefitted from considerably lower rates of tax." The Japan—Alcoholic Beverages panel set out a straightforward two-step test for evaluating de facto discrimination under article III:

GATT practice in the application of Article III further shows that past GATT panel reports adopted by the Contracting Parties have examined Article III:2 and 4 by determin-

7. "[T]he drafters of the Article intended to cover in paragraph 4 not only the laws and regulations which directly governed the conditions of sale or purchase but also any laws or regulations which might adversely modify the conditions of competition between the domestic and imported products on the internal market." Italian Discrimination Against Imported Machinery, Oct. 23, 1958, GATT B.I.S.D. (7th Supp.) at 64 (1959).
8. Id.
10. Id. para. 5.9(a).
ing, firstly, whether the imported and domestic products concerned were 'like' and, secondly, whether the internal taxation or other regulation discriminated against the imported products.\textsuperscript{11}

It explained:

Just as Article I was generally construed, in order to protect the competitive benefits accruing from reciprocal tariff bindings, as prohibiting 'tariff specialization' discriminating against 'like' products, only the literal interpretation of Article III:2 as prohibiting 'internal tax specialization' against 'like' products could ensure that the reasonable expectation, protected under GATT Article XXIII, of competitive benefits accruing under tariff concessions would not be nullified or impaired by internal tax discrimination against like products.\textsuperscript{12}

After analyzing the \textit{objective} features and overall coherence of the liquor excise tax system:

The Panel was unable to find that the differences as to the applicability and non-taxable thresholds of the ad valorem taxes were based on objective product differences (e.g., alcohol content) and formed part of a general system of taxation equally applied in a trade-neutral manner to all like or directly competitive liquors...”\textsuperscript{13}

In short, Japan might have been able to justify differential taxation of like imported and domestic liquors, but it could not show that the differences arose from the objective application of a coherent overall system of liquor excise taxation.

In Canada—Import, Distribution, and Sales of Alcoholic Drinks by Provincial Marketing Agencies, the panel applied the two-part test of Japan—Alcoholic Beverages I to strike down Canada’s restrictive distribution and pricing system for imported beer and wine:

The panel noted that minimum prices applied equally to imported and domestic beer \textit{did not necessarily} accord equal conditions of competition to imported and domestic beer. Whenever they prevented imported beer from being supplied at a price below that of domestic beer, they accorded \textit{in fact} treatment to imported beer less favorable than that accorded domestic beer.\textsuperscript{14}

In short, GATT appeared to have established a straightforward test for de facto discrimination, which relied on (1) the two-step like product test of Japan—Alcoholic Beverages I, (2) objective analysis of the overall structure of tax systems resulting in differential taxation of imported and domestic like products, and (3) an overall principle of protecting "equality of competitive opportunity" set out in the \textit{Superfund} and Section 337 panel reports.

In the early 1990s, however, GATT panels apparently had second thoughts about the ‘like product’ test. In United States—Measures Affecting Alcoholic and Malt Beverages (United States—Alcoholic Beverages), the panel upheld cer-

\textsuperscript{11} Id. para 5.4(d).
\textsuperscript{12} Id. para. 5.5(b).
\textsuperscript{13} Id. para. 5.9(b) (emphasis added).
tain U.S. state taxes on low-alcohol beer. In its report, the Panel noted "there was no evidence submitted to the panel that the choice of the particular level has the purpose or effect of affording protection to domestic production." In short, United States—Alcoholic Beverages could be read to require proof of protectionist intent, although it was difficult to know what to make of a brief reference in a lengthy panel report.

Shortly thereafter, in United States—Taxes on Automobiles (Car Taxes), a GATT panel confirmed that violations of article III:2, first sentence, now required a proof of protectionist "aim and effect." The Car Taxes report was never adopted, and has fallen into a peculiar oblivion shared by numerous other un-adopted GATT panel reports. Nevertheless, United States—Alcoholic Beverages and Car Taxes appeared to apply a much stricter test for proving de facto discrimination under article III. It was now necessary for the complaining party to prove protectionist intent or purpose. In part, the new test may have reflected concern in some quarters of GATT that Japan—Alcoholic Beverages I unduly restricted domestic environmental regulation, particularly in light of harsh attacks on "GATTzilla" by Public Citizen, the Sierra Club, and other WTO opponents.

III. Back to the Future: Japan—Alcoholic Beverages II

The glory of "aim and effect" was short-lived. In Japan—Alcoholic Beverages II, the European Community (EC), United States, and Canada again challenged Japan’s liquor excise tax system under article III. In the face of a withering attack by the EU, the WTO Appellate Body abandoned the "aim and effect" test of United States—Alcoholic Beverages, and reverted to the two-part like product analysis of Japan—Alcoholic Beverages I.

After parsing article III, the Appellate Body found no support in the plain language of article III:2, first sentence, for "aim and effect." It noted that article III:1 states that the broad purpose of the national treatment obligation is to ensure that internal measures are not "applied to imported or domestic products so as to afford protection to domestic production." But article III:2, first sentence, which deals with discrimination between like products, does not refer to protectionism, only to less favorable treatment of like imported and domestic products. In contrast, article III:2, second sentence, which deals with discrimination between "directly competitive and substitutable" products, prohibits the application of internal taxes in a manner that affords protection. The Appellate Body reasoned:

There is no specific invocation in this first sentence of the general principle in Article III:1 that admonishes Members of the WTO not to apply measures "so as to afford protection." This omission must have some meaning. We believe the meaning is simply that the presence of a protective application need not be established separately from the specific requirements that are included in the first sentence in order to

show that a tax measure is inconsistent with the general principle set out in the first sentence.\(^\text{16}\)

Interpreting Article III:2, second sentence, the Appellate Body also found that showing that a measure "affords protection" under paragraph 1 also does not require proof of subjective protectionist intent:

It is not necessary for a panel to sort through the many reasons legislators often have for what they do and weigh the relative significance of those reasons to establish legislative or regulatory intent. If the measure is applied to imported or domestic products so as to afford protection to domestic production, then it does not matter that there may not have been any desire to engage in protectionism in the minds of the legislators or regulators who impose the measure.\(^\text{17}\)

Instead, the Appellate Body endorsed *Japan—Alcoholic Beverages* I, which required an *objective* analysis of the overall tax system to determine protectionist effects:

As in that case, we believe that an examination in any case of whether dissimilar taxation has been applied so as to afford protection requires a comprehensive and objective analysis of the structure and application of the measures in questions on domestic as compared to imported products. *We believe it is possible to examine objectively the underlying criteria used in a particular tax measure, its structure, and its overall application to ascertain whether it is applied in a way that affords protection to domestic products.*\(^\text{18}\)

The Appellate Body’s decision in *Japan—Alcoholic Beverages II* revitalized WTO national treatment discipline. As the Appellate Body showed, the "aim and effect" test is difficult to square with the literal language of article III. More importantly, "aim and effect" threatened to eviscerate the evolving application of "national treatment" to de facto discrimination. After fifty years of experience with GATT, few governments today engage in overt discrimination. Instead, the challenge for the WTO is preventing disguised protectionism—subterfuges where discrimination is cloaked in legitimate regulatory objectives. By definition, de facto discrimination involves hiding a trade-restriction in an ostensibly facially-neutral regulation. Any government engaged in such illicit activity is bound to hide its tracks.

Consequently, by tying article III to a subjective admission by a WTO Member that an ostensibly legitimate public policy regulation was in fact issued to protect its domestic industry, "aim and effect" ensured that the GATT discrimination obligations would only apply to the foolish or inept. This contradicted the clear intent of the drafters of the General Agreement who, by framing discrimination in terms of an objective "like product" standard in article III:2, first sentence and article III:4, sought to avoid entangling GATT in the morass of subjective intent.

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\(^{17}\) *Id.*

\(^{18}\) *Id.* (emphasis added).
'Aim and effect' also undermines the WTO's longstanding institutional objective of promoting an open, transparent, rules-based global trading system. The practical consequence is to reward authoritarian and non-transparent governments, which are in the best position to dissemble about the true motives for discriminatory laws or regulations. In contrast, in the United States, Canada, and Western Europe, a combination of transparent government, democracy, a free press, and the rule of law make it difficult to conceal the real purposes of a law or regulation.

Finally, by requiring highly subjective elements of factual proof to establish an article III violation, 'aim and effect' threatened to swamp the WTO in litigation, defeating the core purposes of GATT. With over $5 trillion in annual global trade, WTO rules that require case-by-case application and detailed, factual inquiries by panels are unlikely to prove enforceable. Dispute settlement is an important part of the GATT system, but there were only fifty-odd panel reports adopted in the history of the General Agreement. A key strength of GATT 1994 was that it provided clear, largely self-regulating rules for the international trading system.

The principal criticism of the 'like product' test has been that it could degenerate into a metaphysical inquiry into what constitutes a 'like' product, where arbitrary distinctions as to the characteristic and uses of the products determine the article III outcome. Because of this, 'like product' could slide into a highly result-oriented analysis where the product is characterized as 'like' if the panel concludes that a regulation's purpose and provenance are dubious, and as 'unlike' if they appear legitimate.

Nevertheless, the 'like product' test is consistent with the basic purpose of article III—ensuring a level playing field for competing imported and domestic products. Indeed, by tying article III to a protectionist purpose, 'aim and effect' could significantly narrow the scope of national treatment disciplines, since a regulation can be discriminatory without being overtly protectionist. Indeed, in most situations, the purpose of disparate treatment is not to stop imports completely, but to minimize the cost or impact of a regulation on politically-powerful domestic producers. Accordingly, some form of 'like product' analysis is essential to any inquiry into alleged discrimination, since it rests on an underlying determination that the imported and domestic products deserve equal treatment.

The risk of metaphysical and arbitrary distinctions between products can be avoided by interpreting 'like product' in terms of the over-arching purpose of article III—maintaining 'equality of competitive opportunity.' The goal of equality of competitive opportunity offers a real-world benchmark for assessing whether an internal tax or regulation draws an illegitimate and artificial distinction

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19. See, e.g., Superfund and Reformulated Gasoline.
between imported and domestic products which otherwise deserve a "level playing field." 20

While the purpose of a regulation is—explicitly or implicitly—an underlying factor in assessing its legitimacy, the Japan—Alcoholic Beverages I and II cases suggest a potential approach: once there has been a prima facie showing that a regulation discriminates under article III:2 or III:4, the burden could shift to the defendant to show that the disparate treatment achieves a legitimate public policy purpose. This would put the burden on the WTO Member who adopted the measure to explain away any appearance of discrimination. In the absence of a credible public policy justification for the disparity, the WTO could legitimately infer it was trade-related, particularly if the overall structure of the measure suggests that regulatory distinctions were creatively sculpted to single out imports for less favorable treatment or minimize regulatory burdens on domestic producers.

IV. Tightening Article XX

In the last decade, article XX has undergone a similar evolution toward more rigorous scrutiny of trade-restrictive measures allegedly covered by GATT exceptions. In 1981, in United States—Prohibition of Imports of Tuna and Tuna Products from Canada, 21 a panel characterized then-prevailing GATT practice as follows: "[T]he practice of panels has been to interpret Article XX narrowly, to place the burden on the party invoking Article XX to justify its invocation, and not to examine Article XX exceptions unless invoked." 22 In reality, however, GATT gave broad latitude under article XX, particularly in the health and safety area. As one commentator put it, GATT panels "studiously avoided limiting in any way the complete discretion of sovereign governments in the area of health and safety." 23

In United States—Section 337 of the Tariff Act of 1930, the European Community (EC) challenged a U.S. Section 337 order prohibiting the entry of Dutch aramid fiber that infringed a U.S. patent. Citing a GATT panel report involving Spring Assemblies, which had rejected an earlier Canadian challenge to Section 337, the United States argued that Section 337 was "necessary" for purposes of article XX(d), because the practical limitations of U.S. patent law required a special procedure aimed exclusively at infringing imports. The panel disagreed:

20. As a practical matter, WTO Members have applied similar "like product" analyses in hundreds of antidumping and countervailing duty investigations, without generating much, if any, real controversy. Under GATT article VI, the Tokyo Round Antidumping Code, and the WTO Agreement on Antidumping, the domestic industry for purposes of assessing material injury is defined in terms of the domestic producers of a "like product." While there have been numerous GATT and WTO challenges to AD/CVD measures, "like product" has not been a major point of contention. 21. Feb. 22, 1982, GATT B.I.S.D. (29th Supp.) at 91 (1983). 22. Id. at 105. 23. Eliza Patterson, International Efforts to Minimize the Adverse Effects of National Sanitary and Phytosanitary Regulation, 24 J. WORLD TRADE L. 91, 94 (1990).
It was clear to the panel that a contracting party cannot justify a measure inconsistent with another GATT provision as "necessary" in terms of Article XX(d) if an alternative measure which it could reasonably be expected to employ and which is not inconsistent with other GATT provisions is available to it. By the same token, in cases where a measure consistent with Article III is not reasonably available, a contracting party is bound to use among the measures reasonably available to it that which entails the least degree of inconsistency with other GATT provisions.\textsuperscript{24}

In other words, the Section 337 panel found there is an affirmative obligation on any party who invokes article XX(d) to show there was no GATT-consistent measure that was reasonably available to it and that it sought to minimize any degree of GATT-inconsistency.\textsuperscript{25} In short, \textit{Spring Assemblies} was no more.

In subsequent reports, GATT panels put even more teeth into article XX. In the famous—or infamous—\textit{Tuna/Dolphin} case, Mexico challenged a U.S. law prohibiting the importation of Mexican tuna caught using methods that result in excessive dolphin mortality.\textsuperscript{26} In the eastern tropical Pacific Ocean, tuna often swim beneath schools of dolphin. Because of this linkage, fishing vessels adopted a practice of deliberately encircling schools of dolphin in nets in order to catch the tuna swimming below. This practice of setting on dolphin led to high rates of dolphin mortality. The United States contended that the import ban was designed to promote dolphin-safe fishing methods, and therefore was protected under article XX(g) as "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restriction on domestic production or consumption" or under article XX(b) as "necessary to protect human, animal, or plant life or health."

The panel clearly was troubled by U.S. efforts to regulate the taking of migratory dolphins located outside its territory, and the imposition of U.S. trade embargoes designed to coerce other countries into adopting dolphin-safe fishing methods corresponding to those required of the U.S. fleet: "The Panel considered that if the broad interpretation of Article XX(b) suggested by the United States were accepted, each contracting party could unilaterally determine the life or health protection policies from which other countries could not deviate without jeopardizing their rights under the General Agreement."\textsuperscript{27}

Accordingly, \textit{Tuna/Dolphin} found that protection of animal life or exhaustible natural resources outside a contracting party's territory was beyond the scope


\textsuperscript{26} See also Canada—Measures Affecting Exports of Unprocessed Herring and Salmon, Mar. 22, 1988, GATT B.I.S.D. (35th Supp.) at 114 (1989) (interpreting "relating to the conservation of exhaustible natural resources" under article XX(b) as requiring that the measure be "primarily aimed" at such conservation).

of article XX(b) or (g). The panel also found that the United States failed to demonstrate that "it had exhausted options reasonably available to it to pursue its dolphin protection objectives," 28 e.g., an international dolphin conservation agreement, as required by the Section 337 report. Finally, it ruled that the U.S. measures did not qualify as "necessary" under article XX(b) or (g):

The United States linked the maximum incidental dolphin taking rate which Mexico had to meet during a particular period in order to be able to export tuna to the United States to the taking rate actually recorded for United States fishermen during the same period. Consequently, the Mexican authorities could not know whether, at a given point in time, their policies conformed to the United States' dolphin protection standards. The Panel considered that a limitation on trade based on such unpredictable conditions could not be regarded as necessary to protect the health or life of dolphins. 29

In short, the panel drastically limited the scope of articles XX (b) and (g). The Tuna/Dolphin report was never adopted, and some of its more sweeping pronouncements were pared back a bit in United States—Restrictions on Imports of Tuna (Tuna/Dolphin II). 30 Nevertheless, while retreating on some aspects of article XX, Tuna/Dolphin II took an even firmer stance on trade embargoes aimed at forcing changes in the environmental policies of other nations:

If Article XX were interpreted to permit contracting parties to take trade measures so as to force other contracting parties to change policies within their jurisdiction, including their conservation policies, the balance of rights and obligations among contracting parties, in particular the right of access to markets, would be seriously impaired. 31

V. Agreement on the Application of Sanitary and Phytosanitary Measures

In the Uruguay Round of Multilateral Trade Negotiations, the GATT and WTO adopted a fresh approach to GATT article XX by transforming paragraph (b) into a set of comprehensive rights and obligations governing trade-restrictive sanitary and phytosanitary measures. The WTO Agreement on the Application of Sanitary and Phytosanitary Measures 32 (SPS Agreement) represents one of the crowning achievements of the Uruguay Round. 33 Governments routinely adopt S&P measures 34 to protect human, animal, or plant life or health. But, as GATT

28. Id.
29. Id. (emphasis added).
30. For example, in contrast with the earlier panel report, Tuna/Dolphin II concluded that extra-territorial conservation of migratory dolphin could fall within the scope of measures covered by paragraphs (b) and (g).
33. See Patterson, supra note 23, at 94.
34. Sanitary and phytosanitary (S&P) measures consist of laws and regulations which protect human, animal, and plant life and health from the risk of plant- or animal-borne pests or diseases, or from additives, contaminants, chemicals, toxins, or disease-causing organisms in foods, beverages, or feedstuffs.
article XX(b) recognizes, S&P measures can easily metamorphose into disguised trade restrictions. It is not uncommon, for example, for countries to prohibit agricultural imports on the basis of spurious and scientifically unfounded concerns about pests or disease in order to protect local farmers from competition. While the SPS talks started as an effort to clarify article XX(b), they evolved into affirmative multilateral disciplines for S&P measures, including scientific justification, risk assessment, transparency, and equivalency.

The SPS Agreement complements the historic Uruguay Round Agreement on Agriculture, which aims to liberalize international agricultural trade for the first time. When forced to open protected agricultural markets, some countries invariably will seek to circumvent their WTO commitments to protect their farmers. The SPS Agreement seeks to close a potential loophole for agricultural protectionism. Therefore, it represents an important experiment in: (1) imposing stricter discipline over GATT/WTO exceptions; (2) preventing abuse of internal regulations aimed at protecting food safety, public health, and human, animal and plant life, and health; and (3) linking WTO scrutiny of domestic internal regulations to scientific principles.

A. DEFINITION OF SPS MEASURES

The SPS Agreement applies to any measure\(^35\) that is applied:

To protect animal or plant life or health within the territory of a Member country from risks arising from the entry, establishment or spread of pests, diseases, or disease-carrying or disease-causing organisms;

To protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-carrying organisms in foods, beverages or feedstuffs;

To protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or

To prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.\(^36\)

To qualify as an S&P measure, a regulation must protect against one of the risks listed above. Otherwise, it is outside the scope of the SPS Agreement.\(^37\)

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35. S&P measures can include end product criteria; process and production methods; testing, inspection, sampling, certification or approval procedures; packaging and labeling requirements directly related to food safety; and quarantine requirements.

36. SPS Agreement, supra note 32, annex A.

37. The WTO draws a clear distinction between measures covered by the SPS Agreement and those covered by the Agreement on Technical Barriers to Trade (TBT or Standards Agreement). Article 1.4 of the SPS Agreement provides that it does not affect rights or measures covered by the TBT Agreement. For its part, article 1.5 of the TBT Agreement clarifies that standards disciplines do not apply to SPS measures.
B. BASIC SPS RIGHTS AND OBLIGATIONS

Article 2 lays out the basic rights and obligations of the SPS Agreement. These rights and obligations are explained or further elaborated in subsequent articles of the Agreement. The SPS Agreement strives to strike a balance between permitting governments to take legitimate measures to protect public health and preventing disguised protectionism.  

1. Right to Take SPS Measures

Article 2.1 makes clear that WTO Members have a right to take S&P measures "necessary for the protection of human, animal or plant life or health."

2. Obligation to Apply Only to Extent "Necessary"

Under article 2.2, a WTO Member must ensure that any S&P measure "is applied only to the extent necessary to protect human, animal or plant life, or health, is based on scientific principles and is not maintained without sufficient scientific evidence, except as provided for in paragraph 7 of Article 5 [which provides for provisional regulations in situations involving scientific uncertainty]."  

The U.S. Uruguay Round Statement of Administrative Action (SAA) clarifies that:

It is clear that the requirement in the S&P Agreement that measures be based on scientific principles and not be maintained 'without sufficient scientific evidence' would not authorize a dispute settlement panel to substitute its scientific judgment for that of the government maintaining the sanitary or phytosanitary measure. For example, by requiring that measures be based on scientific principles (rather than, for instance, requiring measures to be based on the 'best' science) and not to be maintained without sufficient scientific evidence (rather than, for instance, requiring an examination of the 'weight of evidence'), the S&P Agreement recognizes . . . that scientific certainty is rare and many scientific determinations require judgments between differing scientific views.  

3. Unjustifiable Discrimination and Disguised Trade Restrictions

Article 2.3 provides that S&P measures shall not "unjustifiably discriminate between members where identical or similar conditions prevail, including between their own territory and other Members."  

In addition, S&P measures "shall

38. While the language reaffirming the rights of governments to adopt SPS measures is fundamental to the Agreement, what is new is the imposition of WTO disciplines on future SPS measures. As one U.S. environmental expert put it, "many commentators have been distracted by this language about 'rights' and have missed the fact that the purpose of SPS was to impose obligations." Steve Charnovitz, The World Trade Organization, Meat Hormones, and Food Safety, 14 INT'L TRADE REP. (BNA) 1779, 1781 (1997).

39. SPS Agreement, supra note 32, art. 2.2.


41. SPS Agreement, supra note 32, art. 2.3.
not be applied in a manner which would constitute a disguised restriction on international trade." These provisions were drawn from the chapeau to article XX and are further elaborated in article 5 of the SPS Agreement, which deals specifically with "risk assessment" and "appropriate level of protection."

C. Harmonization

The SPS Agreement seeks to promote harmonization around international standards, even though it allows WTO Members to adopt more stringent SPS measures if they follow certain procedures.

1. International Standards

Article 3.1 calls on Members to adopt international standards where they exist. Annex A defines relevant "international standards" as those promulgated by the Codex Alimentarius Commission, International Office of Epizootics, the International Plant Protection Convention, or other international organizations identified by the WTO Committee on Sanitary and Phytosanitary Committee.

Under article 3.2, SPS measures that "conform to" international standards are deemed necessary to protect human, animal or plant life under SPS article 2.1 and are presumed consistent with the SPS Agreement and GATT 1994. A country challenging an international standard has the burden of rebutting the presumption of validity. In practice, this rule should operate as a virtually airtight defense in the WTO.

2. Right to Promulgate Higher Standards

Article 3.3, however, explicitly reaffirms the right of governments to promulgate standards that result in a higher level of S&P protection if (1) there is a "scientific justification" or (2) as a result of "the level of sanitary of phytosanitary protection a Member determines to be appropriate." Article 3.3 further clarifies that a standard shall not be deemed inconsistent with SPS obligations merely because it results in a different level of protection than an international standard. In short, a WTO Member is not required to accept a lower international standard or "harmonize downward," as long as it has a scientific justification or desires a higher level of protection.

D. Equivalence

Article 3.1 requires WTO Members to accept the S&P measures of other Members as "equivalent" if such measures achieve the same level of protection. The exporting Member has the burden of demonstrating equivalence. "Equiva-
lence” is a breakthrough for the WTO, because it recognizes that different standards, production processes, and inspection procedures can achieve the same levels of health and safety protection. Thus, article 3.1 offers a remedy against the longstanding refusal by certain countries to allow the importation of farm or food products, because of inconsequential differences in another WTO Member’s inspection or food safety standards, which do not pose an increased threat to human, animal, or plant life or health.

E. “RISK ASSESSMENT” AND “APPROPRIATE LEVEL OF PROTECTION”

Article 5 requires WTO Members to ensure that S&P measures are based on a “risk assessments” and on a determination as to the “appropriate level of protection.” Because measures that conform to international standards are presumed consistent with the SPS Agreement, the procedures set out in article 5 are relevant primarily in situations where a WTO elects to adopt a higher standard.

1. Risk Assessment

Article 5.1 requires that any standard be based on a risk assessment. Annex A of the SPS Agreement defines a “risk assessment” as:

The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or an evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins, or other disease-carrying organisms in food, beverages, and feedstuffs.

While the SPS Agreement does not specify a particular methodology for conducting a risk assessment, it requires Members to take certain factors into account, such as “available scientific evidence; relevant processes and production methods; relevant inspection, sampling, and testing methods; prevalence of specific diseases or pests; existence of pest- or disease-free areas; relevant ecological and environmental conditions; and quarantine or other treatment.”

2. Appropriate Level of Protection

Upon conducting a risk assessment, a WTO Member is free to choose its “appropriate level of protection.” Annex A defines this level as one that the Member thinks appropriate in establishing a sanitary or phytosanitary measure to protect human, animal, or plant life or health within its territory. In other words, as long as there is scientific evidence of risk, a WTO Member can determine how much risk it wants to assume. The U.S. URAA SAA explains: “The S&P Agreement thus explicitly affirms the right of each government to choose its

43. Id. annex A.
44. Id.
level of protection, including a ‘zero risk’ level if it so chooses . . . In the end, the choice of the appropriate level of protection is a societal value judgment."

In situations where the science is insufficient or unclear, a WTO Member may adopt a provisional SPS measure based on the "available pertinent information," as long as it continues to seek additional information for a more objective assessment of risk under paragraph 7.

3. Unjustifiable Discrimination and Trade Restrictions

While providing WTO Members with broad flexibility as to their "appropriate level of protection," the article 5 incorporates certain disciplines drawn from GATT article XX. These are set out in paragraphs 4-6:

1. Members shall "take into account the objective of minimizing negative trade effects." (article 5.4)
2. Members shall avoid "arbitrary or unjustifiable distinctions in the levels it considers to be appropriate . . . if such distinctions result in discrimination or a disguised restriction on trade." (article 5.5)
3. Members shall ensure that "measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection . . ." (article 5.6)

A footnote to paragraph 6 clarifies that "a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade" (emphasis added).

F. Transparency

Under article 7 and annex B, WTO Members are required to ensure the transparency of S&P measures, including publishing such measures, maintaining an office with relevant documents and information, advance publication for notice and comment of proposed measures which are not based on international standards, and transition periods to allow trade to adjust (except in an emergency).

G. Control, Inspection, and Approval Procedures

Article 8 and annex C deal with control, inspection, and approval procedures for S&P measures.

VI. Hormones

The WTO recently issued a major decision regarding the SPS Agreement—EC Measures Concerning Meat and Meat Products (Hormones). The Hormones report is important because it (1) represents the first interpretation of key provi-
sions of the SPS Agreement, and (2) suggests how the WTO's Appellate Body may handle future scientific disputes.

In *Hormones*, the United States and Canada challenged a European ban on imports of meat and meat products from cattle treated with growth hormones. EC Directives banned the sale of domestic and imported meat treated with certain natural and synthetic growth hormones. The Directives provided exceptions for hormones administered by a veterinarian for certain therapeutic or zootechnical purposes, and for certain natural hormones permitted by regulations of the Member States. Treating cattle with hormones is a common practice in the United States and Canada, but not Europe.

To the extent a lawyer is only as good as his or her facts, the EC's Legal Services Office had a difficult job. The Codex Alimentarius, which annex A of the SPS Agreement identifies as the international standard for veterinary residues, recommended that ingestion of hormones in accordance with good animal husbandry practice is "unlikely to pose a hazard to human health." Similarly, the studies and recommendations considered by the EU in promulgating the Directives concluded that hormones were *unlikely* to pose a health threat.

The panel ruled that the United States had the initial burden of presenting a prima facie case that the EC's Directives were inconsistent with the SPS Agreement: "Once such a prima facie case is made, however, we consider that, at least with respect to the obligations imposed by the SPS Agreement that are relevant to this case, the burden of proof shifts to the responding party."\(^{46}\) Importantly, the panel held that since articles 3.3 and 5 were "exceptions" to the requirement that SPS measures be based on international standards, "the burden is on the respondent to show that the measure is justified under the exceptions provided for in Article 3.3."\(^{47}\)

Applying article 3.1, the panel equated the phrase "based on" in article 3.1 with the phrase conform to" in article 3.2. It concluded that in order to be "based on" an international standard, an S&P measure must achieve the *same* level of protection. Since the EC's standard was not the same as the Codex standard, it was subject to articles 3.3 and 5, which set out special requirements for S&P measures aimed at a higher level of protection.

The panel found the EC Directives did not comply with the article 5 requirement that such measures be based on a risk assessment, because there was no evidence that the EC "*actually took into account* a risk assessment when it enacted or maintained its sanitary measure. . . ."\(^{48}\) After reviewing various studies cited by the EC, the panel noted the studies uniformly concluded that hormones applied

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47. *Id.*, para. 8.86.
48. *Id.*
in a manner consistent with good practice were "unlikely" to pose a health threat. It rejected the EC’s argument that it was still entitled to adopt a standard that achieved "zero risk":

We recall the conclusion we reached above on burden of proof, in particular that the European Communities has, with respect to its measures which deviate from international standards, the burden of proving the existence of a risk assessment (and derived therefrom, an identifiable risk) on which the EC measures in dispute are based. It is not, in this dispute, for the United States to prove that there is no risk.49

The panel concluded: "[I]f there is no scientific evidence of an identifiable risk, there is no basis on which to adopt a measure to achieve a level of sanitary protection."50 While the Appellate Body agreed with the panel that the EC Directives violated the SPS Agreement, it adopted a very different rationale.

A. BURDEN OF PROOF

The Appellate Body ruled that the panel erred in allocating the burden of proof. While it agreed that the United States had the initial burden of establishing a prima facie violation of the SPS Agreement, it concluded this burden applied to each provision of the SPS Agreement. The Appellate Body flatly rejected the panel’s characterization of article 3.3 as an "exception" to the SPS Agreement: "It is clear . . . that a decision of a Member not to conform a measure to an international standard does not authorize the imposition of a generalized or special burden of proof upon that Member, which may, more often than not amount to a penalty."51

Accordingly, the Appellate Body held that the United States, as complainant, must make a prima facie showing as to each alleged violation of the SPS Agreement: "Only after such a prima facie determination has been made by the panel may the onus be shifted to the European Communities to bring forward evidence and arguments to disprove the complaining party’s claim."52

49. Id. para. 8.150 (emphasis added).

50. Id.


52. This reasoning is consistent with the Appellate Body’s decision in United States—Measure Affecting Imports of Woven Wool Shirts and Blouses from India, which rejected India’s characterization of the safeguard provisions of the Uruguay Round Agreement on Textiles and Clothing as an "exception." The Appellate Body rejected the Panel’s decision to shift the burden of proof to the United States as the defending party. WT/DS33/AB/R (Apr. 25, 1997), at WTO Website, supra note 16.

The transitional safeguard mechanism provided in article 6 of the ATC is a fundamental part of the rights and obligations of WTO Members concerning non-integrated textile and clothing products covered by the ATC during the transitional period. Consequently, a party claiming a violation of a provision of the WTO Agreement by another Member must assert and prove its claim (emphasis added).

B. "Based On" Requirement

Applying article 3.1, which requires that S&P measures shall be "based on" international standards, the Appellate Body rejected the panel's conclusion that "based on" in article 3.1 can be equated with "conforms to" in article 3.2:

Under Article 3.1 of the SPS Agreement, a Member may choose to establish an SPS measure that is based on the relevant international standard, guideline or recommendation. Such a standard may adopt some, but not necessarily all, of the elements of the international standard. The Member imposing this measure does not benefit from the presumption of consistency set up in Article 3.2; but, as observed earlier, the Member is not penalized by exemption of a complaining Member from the normal burden of showing a prima facie case of inconsistency with Article 3.1 or any other relevant article of the SPS Agreement or of the GATT 1994.54

In other words, the class of measures "based on" an international standard for purposes of article 3.1 is broader than the class of measures which "conform to" the international standard, i.e., achieve the same level of protection. For WTO purposes, only those measures that "conform to" the international standard are presumed consistent with the SPS Agreement. As a result, there may be certain measures which, while exactly not the same as the international standard, still qualify as "based on" that standard for purposes of article 3.1. After examining the EC Directive, the Appellate Body concluded it was more stringent than the relevant international standard, and therefore subject to article 3.3.

C. Risk Assessment

Under article 3.3, a WTO Member who seeks a higher level of protection than an international standard must comply with the additional procedural requirements of article 5.1. Interpreting "risk assessment," the Appellate Body concluded that articles 2.2 and 5.1 should be read together, and in conjunction, they require a risk assessment to be "based on scientific principles" and "sufficient scientific evidence":

We . . . would also stress that Articles 2.2 and 5.1 should be constantly read together. Article 2.2 informs Article 5.1: the elements that define the basic obligation set out in Article 2.2 impart meaning to Article 5.1.55

While rejecting the panel's interpretation that a risk assessment must be based on an "identifiable risk," the Appellate Body nevertheless stiffened the requirements for a valid risk assessment through a different rationale. The panel had concluded that article 5.1 requires a risk assessment to be "taken into account,"

54. Id.
55. Id. para. 180.
56. "To the extent that the Panel purported to require a risk assessment to establish a minimum magnitude of risk, we must note that the imposition of such a quantitative requirement finds no basis in the SPS Agreement. A panel is authorized only to determine whether a given SPS measure is 'based on' a risk assessment." Id. para. 186.
implying that it is sufficient to show that government officials "actually" read and considered the risk assessment.

The Appellate Body interpreted article 5.1 in different fashion to require an objective relationship between the standard and the risk assessment:

We believe that 'based on' is appropriately taken to refer to a certain objective relationship between the two elements, that is to say, an objective situation that persists and is observable between an SPS measure and a risk assessment . . . We believe that Article 5.1, when contextually read as it should be, in conjunction with and as informed by Article 2.2 of the SPS Agreement, requires that the results of the risk assessment must sufficiently warrant—that is to say, reasonably support—the SPS measure at stake.57

In other words, an SPS standard must bear a rational relationship to the scientific risk assessment which underlies it. Otherwise, it is not based on "sufficient scientific evidence" for purposes of article 2.2 and 5.1.

D. Zero Risk

Despite employing somewhat different reasoning, the Appellate Body agreed with the panel's bottom-line that the EC could not adopt a policy of "zero risk," in the face of underlying scientific evidence showing hormones were unlikely to pose a threat to human health:

In one part of its Reports, the Panel opposes a requirement of an "identifiable risk" to the uncertainty that theoretically always remains since science can never provide absolute certainty that a given substance will not ever have adverse health effects. We agree with the Panel that this theoretical uncertainty is not the kind of risk which, under Article 5.1, is to be assessed.58

E. Sufficient Scientific Evidence

In short, through an alternative route, the Appellate Body, like the panel, sought to infuse a degree of scientific rigor into the risk assessment. While rejecting the panel's notions of "identifiable risk" and a minimum "magnitude of risk," the Appellate Body nevertheless found that the EC had violated articles 5.1 and 5.2, because it had never furnished a risk assessment "that reasonably supports or warrants the import prohibition embodied in the EC Directives . . ."59 In other words, a risk assessment need not find a minimum quantitative threshold of risk, but it must bear a rational and objective relationship to science.

F. Article 5.5

While the Appellate Body upheld the basic integrity of the article 5.1 risk assessment, it may have weakened article 5.5 and its goal of consistent application

57. Id. paras. 189 and 193.
58. Id.
59. Id. para. 208.
of S&P protection. The panel had held that the EC violated article 5.5 by drawing arbitrary and unjustifiable distinctions between different types of risks, particularly the disparate treatment of (1) hormones used for growth promotion and (2) carbonax, an anti-microbial agent and known carcinogen.

The purpose of article 5.5 is to require WTO Members to adopt relatively consistent levels of protection for various risks, in order to prevent risks found predominantly in imported agricultural products from being treated more strictly than roughly equivalent risks found in domestically-produced food products. The Appellate Body held that article 5.5's requirements are cumulative. Accordingly, it must be shown that three separate requirements are met to establish a violation: (1) adoption of different levels of sanitary protection in different situations; (2) the differences are "arbitrary or unjustifiable;" and (3) the differences result in discrimination or a disguised restriction on trade.60

The Appellate Body agreed with the panel that the EC's prohibition of growth hormones on the one hand, and tolerance of unlimited residues of carbonax and olaquidox on the other, resulted in different treatment. It also agreed that this difference was "unjustifiable" for purposes of article 5.5.

The Appellate Body disagreed, however, with the panel on whether the distinction resulted in discrimination or a disguised trade barrier. The panel had relied on a combination of factors to support its inference that the growth hormones/carbonax distinction resulted in de facto discrimination or a disguised trade restriction, including (1) the EC's multiple objectives in banning hormones, which allegedly including reducing beef surpluses, and (2) the much lower percentage of European cattle treated with growth hormones than in the United States or Canada. The Appellate Body stated that a finding of discrimination "is not supported either by the architecture and structure of the EC directives here at stake . . . or by the subsequent evidence submitted by the United States and Canada to the panel."61

Accordingly, the Appellate Body struck down the panel's findings on discrimination and disguised trade restrictions, although its decision appeared to turn more on factual considerations, than definitive legal interpretations of article 5.5. The Appellate Body did state there was insufficient evidence to show the EC directives "were not really designed to protect its population from the risk of cancer, but rather to keep out US and Canadian hormone-treated beef and thereby to protect the domestic beef producers. . . ."62 This may imply that article 5.5 requires a showing of protectionist intent, but it can also be read simply as a rejection of the panel's factual inferences. Time will tell.

60. Id. para. 214.
61. Id. para. 246.
62. Id.
VII. Future Issues

While the Appellate Body clarified key SPS provisions in *Hormones*, it left much for another day.

A. Prima Facie Case

While the Appellate Body made clear that the complaining party bears the burden throughout of establishing a prima facie case as to each alleged violation, it remains unclear how much of an obstacle this represents. If prima facie case is interpreted to require a high threshold of initial proof, it could be difficult for WTO Members to challenge protectionist SPS measures under article 3.3, particularly since the defendant possesses the critical information as to the risk assessment and scientific evidence that went into its decision to adopt a higher level of protection. Unless the Appellate Body sets a reasonable threshold for establishing an initial prima facie showing, or forces WTO defendants to disgorge critical information underlying a challenged SPS measure, there may be tactical opportunities to stonewall SPS Agreement disputes.

B. Non-Quantifiable Risks

By holding that a risk assessment is not limited to identifiable, quantifiable risks, the Appellate Body opened some room for non-science factors. The Appellate Body stated that a risk assessment may go beyond the “scientific laboratory operating under strictly controlled conditions” to “the actual potential for adverse effects on human health in the real world where people live and work and die.”

The Appellate Body clearly wanted to provide scope to deal with control and enforcement concerns. It may also have wanted an additional margin of safety: e.g., for human irrationality and unpredictability; for children, who may not know better; or for other factors not susceptible to strictly quantitative analysis.

But it would be disastrous if the WTO were to permit risk assessments based on pure emotion, e.g., risk of ensuing public hysteria, scientifically unjustified fears of genetically-altered foods, “consumer preferences,” inability of most Japanese to digest foreign beef, etc. The scope for such non-quantifiable factors presumably remains subject to the Appellate Body’s over-arching rule that there must be an objective relationship between the scientific risk assessment and an SPS measure. If so, the WTO will continue to demand that SPS measures be supported by some level of sound science. Nevertheless, the Appellate Body’s ruling on this point calls for further clarification, and no doubt will provoke future disputes as WTO Members try to exploit a potential loophole.

63. *Id.*
64. *Id.* para. 206.
C. Objective Relationship

The Appellate Body’s interpretation of article 5.1, which requires an objectivity relationship between a standard and the underlying risk assessment, also deserves clarification. While such a test can only be elaborated on a case-by-case basis, the WTO must avoid the twin shoals of condoning protectionist abuses on the one hand by not demanding sufficient scientific rigor, and unduly second-guessing WTO Members by preventing them from take precautionary measures in situations of scientific uncertainty on the other.

D. Summary of Article III and XX and SPS Developments

In the last decade, the WTO and GATT have made important strides toward strengthening article III; tightening article XX, bringing science into S&P measures; and striking an appropriate balance between protecting sovereign regulatory authority and preventing protectionist trade barriers. Panels have built on the underlying objectives of the GATT and WTO Agreements to advance an open, transparent, rules-based trading system. In the Japan—Alcoholic Beverages cases, GATT and the WTO developed an effective test for de facto discrimination. Despite occasional overreaching, GATT succeeded in effectively limiting the potential for open-ended abuse of article XX. In Hormones, the Appellate Body and panel upheld the fundamental integrity of the SPS Agreement by insisting that SPS regulations be based on a risk assessment and some degree of sound science.

While the Appellate Body has yet to establish a clear track record, trends are already evident. The Appellate Body is skeptical of tests requiring proof of subjective intent. In Japan—Alcoholic Beverages II, it abandoned the new “aim and effect” test, reverting to an interpretation of article III:2, second sentence, which calls for an objective inquiry into the structure, underlying criteria, and overall application of the tax system to ascertain whether a measure affords protection. It adopted a similar approach in Hormones, by construing article 5.1 to require an “objective relationship” between an S&P measure and the risk assessment, and by overturning the panel’s ruling that article 5 requires a subjective showing that the risk assessment was “actually considered” by the relevant government authorities.

Nevertheless, the Appellate Body’s emphasis on strict constructionism may also mean that some aspects of article XX jurisprudence are vulnerable. In interpreting the WTO, the Appellate Body has relied heavily on the plain meaning of the WTO texts and on rules of treaty construction set out in the Vienna Convention. In contrast, key elements of recent article III and XX jurisprudence by GATT panels have drawn more from inspiration and the underlying principles of the GATT/WTO than from the four corners of the GATT and WTO Agreements.65 In United States—

65. Indeed, in Reformulated Gasoline, the Appellate Body offered tantalizing hints that, while none of the parties had contested the issue, it might have been prepared to reconsider the “primarily aimed” test of Herring and Salmon. WT/DS2/AB/R, 18 (Jan. 29, 1996), at WTO Website, supra
Standards for Reformulated and Conventional Gasoline, the Appellate Body made clear that it would require panels to stick closely to the texts of the WTO and GATT in interpreting article XX.66 This means some aspects of existing article XX jurisprudence may be vulnerable in the Appellate Body.

E. IMPLICATIONS FOR TRADE AND THE ENVIRONMENT

In recent years, the WTO has been fiercely attacked by some environmental groups, e.g. the Sierra Club, which have criticized an open, rule-based global trading system as a fundamental threat to U.S. regulatory sovereignty. While any U.S. commitment to a system of multilateral rules and obligations necessarily involves some trade-offs, the environmental critique may also reflect certain misconceptions about the WTO. Accordingly, it is useful to clarify how GATT and WTO rules apply in the area of food safety, and what this implies for broader environmental regulation.

F. OBJECTIVE PRODUCT DIFFERENCES

GATT article III clearly permits different regulatory treatment when there are objective physical differences between imported and domestic food products: e.g., physical contamination; spoilage; toxic chemicals; or diseases, which threaten human, animal, or plant life or health. The WTO would almost certainly find such products are not "like" for purposes of article III, as long as there is a public health threat.

While the issue has never been tested in the WTO, this rule almost certainly extends beyond food safety to objective physical differences that are tied to valid environmental objectives, e.g., whether a product is made of recyclable materials. It is worth emphasizing that article III:2, second sentence, prohibits tax differentials between products which, while not "like," are "directly competitive," but there is no counterpart in article III:4, which covers internal regulations. Accordingly, article III:4 appears to grant more leeway with respect to differential regulatory treatment of "directly competitive" products than differential taxation.

A word of caution: if a panel concluded that meaningless physical differences were be used as a pretext for discrimination or protection in a regulation, it could adopt an expansive definition of "like product" in order to bring such measures within the ambit of article III:4 discipline. In other words, the more comprehen-

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66. While the Appellate Body's focus on the literal wording of the WTO Agreements may mean that some aspects of article XX doctrine are in jeopardy, it may also reflect caution about getting too far afield, while the appeal process is still establishing its legitimacy. For obvious reasons, it is difficult to criticize a legal ruling that is based on strict constructionism.
sive the application of an environmental law or regulation, so that regulatory burdens are shared across-the-board by domestic and foreign producers, the more likely it is to withstand WTO scrutiny. Coincidentally, comprehensive measures may also represent sound environmental policy, since they are likely to lead to more effective environmental protection than regulations which are arbitrarily sculpted to exempt domestic polluters.

G. PRODUCTION PROCESSES AND METHODS

While differences in production processes and methods (PPMs) do not necessarily result in physically distinct "like products" for article III purposes, such measures are likely to be exempted in most instances by the GATT article XX(b). But, even if a PPM regulation could be initially challenged under article III for different treatment of like products, it is almost certainly protected by article XX(b) if it deals with legitimate food safety concerns. The drafters of GATT clearly were aware that governments needed authority to prohibit or regulate products manufactured through inadequate or inferior PPMs, which pose a greater risk to human, animal, or plant life or health, even if such risks do not lead to actual verifiable physical contamination.

The SPS Agreement enhanced WTO discipline with respect to regulation of food safety PPMs by requiring, for example, that S&P measures be based on scientific evidence and a risk assessment, and recognize the principle of equivalence. These requirements are unlikely to pose much of a threat to U.S. food safety laws and regulations, which are based on sound science. But, the SPS Agreement offers an important offensive weapon for the United States against the protectionist subterfuges we frequently encounter in some of our trading partners.

In the "trade and environment" debates, a key point of contention is PPMs which lead to environmental degradation. GATT article XX(g) provides an exception for measures "relating to the conservation of exhaustible natural resources, if such measures are made effective in conjunction with restrictions on domestic production or consumption." Accordingly, U.S. environmental measures designed to conserve exhaustible natural resources located in U.S. territory are likely to withstand future WTO challenges, as long as they apply across-the-board to domestic and foreign producers under paragraph (g).

The Tuna/Dolphin rulings make clear that U.S. regulations designed to conserve natural resources outside U.S. territory—in international waters or in the territories of other WTO Members—are vulnerable in the WTO. This is particu-

67. Different production methods may result in the same "like product" for article III purposes.
68. GATT, supra note 4, art. XX(g).
larly true when the regulations are coercive, i.e., U.S. trade sanctions are designed to force other WTO Members to adopt U.S. environmental policies.  

However, less intrusive regulatory approaches for dealing with objectionable foreign PPMs might still withstand WTO scrutiny. The Tuna/Dolphin panel emphasized, for example, that non-discriminatory labeling requirements are perfectly permissible under article XX.

Similarly, in Thai Cigarettes, a GATT panel endorsed across-the-board restrictions on cigarette advertising under article XX, even though it recognized that the impact could fall disproportionately on importers trying to enter the market. The Tuna/Dolphin and Thai Cigarettes reports suggest that the WTO may show greater tolerance for less intrusive forms of regulation, as opposed to trade restrictions or prohibitions.

Even if the WTO restricts future environmental sanctions, such measures are sometimes of questionable utility. While some environmentalists appear to place great faith in the coercive power of U.S. trade sanctions, this may be short-sighted. It is true that many critical environmental challenges, such as conserving global resources, protecting common species, controlling trans-border pollution, or protecting the ozone layer, cannot be solved without international cooperation. But such cooperation probably cannot be achieved or sustained through U.S. coercion alone, and even then such a strategy can impose extremely high costs in terms of foreign cooperation on other U.S. objectives, e.g., national security, trade, and unrelated environmental initiatives. In many cases, long-term cooperation requires persuading our trading partners, particularly the less-developed countries, that sound environmental policies and sustainable development practices are in their own interest and do not carry an excessive cost. While the threat of U.S. trade sanctions can help draw attention to a problem, sanctions often have a corrosive long-term impact on international cooperation, and risk a counter-productive foreign backlash against "eco-imperialism," which could put legitimate U.S. environmental objectives at risk.

VIII. Conclusion

The SPS Agreement offers a promising model for the WTO. Infusing science into SPS measures has helped bring rigor and discipline to a potentially wide-open GATT/WTO loophole. Coordinating with other international organizations, such as the Codex, has strengthened the WTO by bringing in vital scientific expertise and tying WTO standards to a multilateral scientific consensus. Finally, the endorsement by the Appellate Body in Hormones of using independent experts to advise panels on complex scientific issues may offer a solution to the most glaring weakness of the current GATT and WTO dispute settlement mechanism—

69. Indeed, some aspects of the GATT's Tuna/Dolphin rulings may be vulnerable, because of the WTO Appellate Body's strict constructionism.
the difficulty panels face in sorting through complex and conflicting factual evidence.\textsuperscript{70}

At the same time, the WTO must continue to strike a balance between promoting open trade and safeguarding legitimate government regulation of the environment, public health, and food safety. Article XX, for example, could be usefully updated to explicitly authorizing trade-restrictive measures to implement intergovernmental environmental agreements, \textit{e.g.}, the Basel Convention, CITES, and the Montreal Protocol. Such a provision was incorporated in several early drafts of the GATT, but was dropped at the end for reasons that remain unclear.\textsuperscript{71} Like the SPS Agreement, future WTO initiatives could usefully promote international environmental cooperation, since most trans-border pollution, wildlife, and resource management issues cannot be solved by the United States alone.

The WTO faces enormous challenges managing the continued dynamism of the global trading system. However, it can draw inspiration from the men and women who drafted GATT in 1947. The document they put together has endured for over fifty years, helping launch a period of unparalleled global prosperity, and has emerged as the unchallenged charter for bringing world trade into a new century.

\textsuperscript{70} Because Panels are composed of diplomats or government officials, as opposed to full-time judges, they lack the time to wade through detailed stacks of evidence. The Panel process itself is ill-suited to deal with situations where the parties disagree about the underlying facts. Finally, because the WTO/GATT process is rooted in diplomacy, Panels sometimes appear reluctant to challenge a government which may not be telling the truth. Instead, Panels often appear to take factual assertions at face value.

\textsuperscript{71} \textit{GATT Analytical Index}, article XX, referring to Havana Reports, at 84-5.