
Kuei-Jung Ni, National Chiao Tung University

Kuei-Jung Ni*

Abstract

Most international health-related standards are voluntary *per se*. However, the incorporation of international standard-making into WTO agreements like the SPS Agreement has drastically changed the status and effectiveness of the standards. WTO members are urged to follow international standards, even when not required to comply fully with them. Indeed, such standards have attained great influence in the trade system. Yet evidence shows that the credibility of the allegedly scientific approach of these international standard-setting institutions, especially the Codex Alimentarius Commission (Codex) governing food safety standards, has been eroded and diluted by industrial and political influences. Its decision-making is no longer based on consensus, but voting. The adoption of new safety limits for the veterinary drug ractopamine in 2012, by a very close vote, is simply another instance of the problematic operations of the Codex. These dynamics have led skeptics to question the legitimacy of the standard setting body, and to propose solutions to rectify the situation.

Prior WTO rulings have yet to pay attention to the defect in the decision-making processes of the Codex. Nevertheless, the recent Appellate Body decision on *Hormones II* is indicative of a deferential approach to national measures that distinct from Codex formulas. The ruling also rejects the reliance on those experts who authored the Codex standards to assess new measures of the European Community. This approach provides an opportunity to contemplate what the proper relationship between the WTO and Codex ought to be. Through a critical review of WTO rulings and academic proposals, this article aims to analyze how the WTO ought to define such interactions and respond to the politicized standard-making process in an optimal manner.

I argue that building a more systematic approach and normative basis for WTO judicial review of standard-setting decisions and the selection of technical experts would be instrumental to strengthening the mutual supports between the WTO and international standard-setting organizations, and may help avoid the introduction of a prejudice toward a justified science finding.

* Professor of Law & Director, Institute of Technology Law, National Chiao Tung University, Taiwan. Email: kjni@mail.nctu.edu.tw. The author thanks Min-Chao Sun for his research assistance. An earlier draft of this article was delivered at the “International Conference on Trade, Science, Technology, and Justice,” organized by the Institute of Technology Law, National Chiao Tung University, in Hsin Chu, Taiwan, on Nov. 1, 2011.
I. Introduction

Harmonization of national sanitary and phytosanitary measures is considered a useful means to promote trade liberalization of agricultural and food products.\(^1\) In effect, the Agreement on the Application of Sanitary and Phytosanitary Measures of the World Trade Organization (WTO) requires that members base their SPS measures on relevant international standards,\(^2\) which are established not by the trade regime itself, but by other professional international institutions.\(^3\) With respect to food safety, it is the Codex Alimentarius Commission (Codex) that has the competence to set the relevant standards. By the explicit incorporation of such an international standard-setting mechanism into the trade system, the WTO has drastically changed the status of Codex to the extent that supposedly voluntary standards have gained greater force and grown in significance in deciding whether a national measure is consistent with SPS obligations.

Codex standard-setting should be done on a scientific basis, and indeed, scientists used to play a major role in standard-making. However, linkages between trade interests and the Codex’s standards-setting have made the institution susceptible to non-scientific influences and the intervention of political and industrial forces into the operations of the Codex are evident.\(^4\) The Codex has resorted to the voting\(^5\) to determine standards instead of endeavoring to reach a decision by consensus, especially when dealing with controversial or uncertain scientific findings on food safety.

The adoption of Codex standards may trigger complaints to be addressed through the WTO dispute settlement mechanism. For instance, soon after the standards on growth-promoting hormones -- which favored the position of the United States (U.S.) -- were approved by Codex, the U.S. filed a suit against the European Community (EC) on the basis of measures distinct from those of Codex. After a lengthy debate on international standards for ractopamine,\(^6\) the Codex finally approved standards in July 2012.\(^7\) The U.S., which permits the use of ractopamine, complains that some countries have imposed unjustified trade restrictions on the

\(^1\) See recitals 5 & 6 of the Preamble to the Agreement on the Application of Sanitary and Phytosanitary Measures [hereinafter the SPS Agreement].

\(^2\) The SPS Agreement, art. 3.1. Apart from harmonization, the SPS Agreement underlines several principles to be observed, including scientific principle, mutual recognition, transparency etc.

\(^3\) E.g. Codex Alimentarius Commission (Codex), the International Office of Epizootics (OIE) and the International Convention on Plant Protection (IPPC) are explicitly recognized by the SPS Agreement as international standard-setters. Paragraph 3 of Annex A to the SPS Agreement.

\(^4\) See Part III. A of this article.

\(^5\) See Part III. B of this article.

\(^6\) Ractopamine, a veterinary drug administered as a feed additive, is used to increase leanness in pork and beef. See Codex website: http://www.fao.org/news/story/en/item/150953/icode/.

\(^7\) At the previous Codex sessions, no consensus was reached concerning the approval of a residue standard for ractopamine. The U.S. and Canada favored the proposed draft standard, but European countries opposed the adoption of such a standard. Eventually, the Codex adopted a standard at the 35th session, held in Rome on June 6, 2012, by a very close vote: 69 in favor, 67 against, with seven abstentions. See the Codex website: http://www.fao.org/news/story/en/item/150953/icode/. The move was seen as a triumph by countries that approve the use of the drug in meat production. See http://www.foodsafetynews.com/2012/07/codex-votes-69-67-to-advance-ractopamine-limits-for-beef-and-pork/.
importation of U.S. pork and beef. It is to be expected that the strength of the new Codex standards may bring pressure on China, European countries, and others, that prohibit the use of this veterinary drug.

Given the current challenges to the credibility and legitimacy of Codex standard-making, the question arises whether the WTO should be more proactive in addressing problems with Codex standard-setting. The Hormones I and Sardine cases showed that the WTO has adopted a policy of deference to Codex standards, rejecting challenges raised by the EC against the problematic operations of the institution. Not until WTO adjudication of Hormones II, did the Appellate Body take a relatively flexible approach regarding the extent of an importing country’s obligation to comply with scientific principles of the SPS Agreement. Further, the Appellate Body did not agree with the Panel’s selection of Codex experts to opine on the EC’s new measures. The WTO jurisprudence should be welcomed by members adopting higher levels of public health protection than that embraced by the Codex. Yet, the soft stance over measures distinctive from the Codex formula also leaves some questions unanswered.

The SPS Agreement encourages Members to follow international standards, but how shall WTO adjudicators respond to this flaw in an international standard-making mechanism? As complaints about the legitimacy of the approval process continue to arise, to what extent and on what legal basis, will adjudicators evaluate the standards in question?

WTO adjudicators do not set scientific standards, but rely on technical experts to advise them on SPS requirements, such as the sufficiency of scientific evidence specified in Article 5.7. In Hormones II, the Appellate Body rejected the ruling of the panel, which fully deferred to the opinions of experts who were previously involved in setting food standards in question. Yet, no clear rational sustaining the rejection has been provided. Should such opinions not be taken into account simply because they stemmed from a prior international standard-making decision?

As international food safety standards have become increasingly important to WTO judicial activities, it is essential that their legitimacy be vigorously reviewed. The emergence of some justifiable basis for the interactions between these two institutions appears imminent. This article aims to explore how the WTO should address the problems associated with Codex international standard-making. Part II of this article reveals the uncertainty and limits of science in determining food safety standards so as to acknowledge the controversy behind the application of an alleged

---


11 Id. paras. 421, 422, 467, 472, 477, 479, 481, 482.
scientific approach in setting international standards. In Part III, this article will analyze the defects in the functioning of the Codex. Part IV proposes a response for the WTO to flawed standard-making like that of Codex following a critical examination of relevant scholarly works and WTO case law. Part V offers concluding remarks.

II. The Uncertainty and Limitations of Science in the Determination of Food Safety Standards

Scientific evidence and findings should speak powerfully in the determination of food safety-related standards, especially in the risk analysis of food products in question. Not surprisingly, the professional language and expertise of the Joint Expert Committee on Food Additives (JECFA), which is responsible for performing risk assessments and providing scientific advice to Codex, is fairly scientific. Yet, a critical review of the JECFA risk analysis process reveals that it is not difficult to detect the limits and uncertainties of science in assessing risk.

Prior to discussing the deliberations of the JECFA, it may be necessary to reveal certain limitations inherent in scientific studies of food safety. First, most scientific surveys are subject to uncertainty, and the findings are usually inconclusive. Such uncertainties could be the result of deviations in the experimental process, misinterpretation of experimental data and insufficient evidence. Even a process that makes use of identical materials may produce different results due to a variety of factors, including, inter alia, differences in animal test results, human populations, geographic location, and timing.

Moreover, much data to be used falls short of the information concerning field trials. Evidence and data collected from the laboratory may not carry the same implications as field tests -- the variations occur due to factors in the natural environment that are beyond laboratory controls. Some natural factors associated with disease-causing organisms may, or may not, accelerate the progress of an effect. Theoretically, gathering sufficient data from field tests will stand as a warranty behind a sound science-based standard. But, in reality, it has been observed that such tests usually appear politically and economically infeasible.

12 The JECFA was established in 1956 under the auspice of FAO/WHO, which is run independently of Codex. See Codex website: http://www.codexalimentarius.org/scientific-basis-for-codex/jecfa/en/
15 See Peel, supra note 13, at 98-103 (elaborating works of social scientists regarding uncertainty in science).
The major task of the JECFA is to decide upon acceptable maximum residue levels (MRLs) for veterinary drugs, pesticides, additives, and contaminants. Lacking field test information for a given proposed MRL underscores the fact that there is often insufficient information available to reach a scientific conclusion on an MRL. Applying MRLs as food safety standards is an assumption that certain level of risk can be acceptable to human being. In effect, the policy that invokes MRLs as a benchmark rules out the zero tolerance position on risk arising from food contaminants. As observed, the scientific basis for deciding upon an MRL may be incomplete or not entirely solid. Thus the data collected will not be helpful in guaranteeing the complete safety of food products. Rather, only as a result of risk assessments will the information disclose apparently acceptable effects on human health. The uncertainty and evolving nature of the science concerning food safety thus may help explain why Codex standards are of voluntary basis.

III. The Problematic Operation of International Standing-Setting Involving Food Safety

Since Codex standards have attained a greater influence in settling food trade disputes, the standard-setting and decision-making of the institution has drawn greater and more serious attention and criticism. The complaints are mainly of two types: First, the scientific approach of Codex expert bodies has been, to some extent, diluted by non-scientific factors. Second, the process of setting food safety standards generally falls short of due process, and thus constitutes a major challenge to the legitimacy of its operations.

A. The Dilution of a Science-Based Approach in the Standard-Setting Process

The Codex explicitly requires that relevant food standards and recommendations be based on sound scientific principle. Indeed, the major task to evaluate and analyze the risk of food process should be on the shoulder of scientists and competent experts. Of the Codex’s eight steps to set a food safety standard, Step Two, deals with serious risk assessment and analysis; when dealing with highly contested standards for residues, this depends on the risk assessments of independent expert bodies of two joint FAO/WHO committees: the Joint Meeting on Pesticide Residues (JMPR) and the JECFA.

However, skeptics of the JECFA have raised concerns over the independence and impartiality of its deliberations. Of course, JECFA members should be of highly

18 Id. at 68.
19 Cf It is argued that every product implies differential risk. To require a zero risk is impracticable. However, according to the ruling on Australia–Salmon case, the Appellate Body recognizes the right of WTO members to use zero risk as an appropriate level of protection. See Appellate Body Report, Australia – Measures Affecting Importation of Salmon, WTO Doc. WT/DS18/AB/R, para. 125 (Oct. 20, 1998).
21 According to Codex Procedural Manual, the procedure to conclude a food standard consists of eight steps. See “Uniform Procedure for the Elaboration of Codex Standards and Related Texts,” id., at 31-32.
qualified and professional. However, the experts do not always conduct scientific experiments themselves to produce essential data. Instead, the making of an MRL standard hinges on the review of available scientific data. Normally, the body heavily relies on data provided by the industries concerned. The risk assessment usually proceeds by reviewing the information submitted by pharmaceutical companies, and the findings of which influence the assessment of the JECFA.

The JECFA has also been criticized because its data collecting and findings fail to cover the information that reflects a world-wide basis. Thus, for example, the MRLs for pesticides were mainly finalized as a result of counting information provided by developed countries like the U.S. and EU. Some data to sustain an MRL is worth examining. The data was collected mainly from animal tests. It should be noted that Codex standards for food safety are set to ensure public health as food products are consumed by human beings. Nevertheless, the data to support a given MRL rarely comes from human tests. For example, little data collected concerning the adverse effects of ractopamine is derived from human tests, and the current data on ractopamine is considered incomplete due to a lack of information on the impact on human livers and risks to certain people.

Further, the function and operation of the JECFA, especially, arouses more concern because the Committee has constantly determined certain controversial MRLs for additives or veterinary drugs in food. For instance, during the middle of the 1990s, it recommended MRLs for growth-promoting hormones as veterinary drugs in beef, which were not based purely on scientific considerations. The MRLs of hormones, apart from being a result of scientific studies, have been blended with other risk management factors. The MRLs have actually incorporated the idea of Good Agriculture Practices (GAP), is yet to be endorsed by all countries. But, it appears that the calculated risk would be subject to whether, and to what extent,

---

22 See Peel, supra note 13, at 294.
24 Masson-Matthee, supra note 17, at 68.
26 Masson-Matthee, supra note 17, at 68.
27 Id. at 69.
28 See David G. Victor, The Sanitary and Phitosanitary Agreement of the WTO: An Assessment After Five Years, 32 N. Y. U. J. Int’l L. & Pol. 865, 899 (2000)(explaining the determination of MRLs relies on “no effect” level in tested animals, but questioning “how it translates to human effects has not been rigorously defined or quantified”).
29 It is observed that there are only six test persons that have been studied concerning ractopamine’s effect. See European Food Safety Authority’s scientific opinion on Safety Evaluation of ractopamine, the Scientific Opinion of the Panel on Additives and Products or Substances Used in Animal Feed, adopted on Apr. 2, 2009, The EFSA Journal (2009) 1041, at 24, 28, available at http://www.efsa.europa.eu/en/efsajournal/pub/1041.htm (last visited May 1, 2012).
32 Masson-Matthee, supra note 17, at 172.
farmers follow established good practices on the use of drugs. Thus, the scientific approach has often been compromised by non-science factors.

As a particular risk assessment is finalized, a proposed standard is forwarded to Codex subsidiary bodies for deliberations. The subsequent procedures for risk management are relatively political and have proven problematic and subject to criticism. The composition of participants at the current Codex deliberation is diverse. The Codex used to be a club for scientists, who were the major players in the institution. Nowadays, in addition to member States represented by government officials, a variety of non-governmental organizations (NGOs), including industry, consumer and environmental groups, can be present as observers at Codex meetings. Yet, the participation and influence of each non-State group falls short of equality. Food industry groups have the tradition that involves in the standard-setting deeply and have become the primary part of NGOs. By contrast, the portion of non-commercial interested groups even though has increased still falls behind of that of industry.

Compared with NGOs, States enjoy far greater powers and privileges during Codex deliberations. In term of forming national delegations and setting positions, industry voices have disproportionately prevailed over those of consumers and environmental groups. Given the close institutional linkages between the Codex and WTO/SPS, industries have been active at the Codex, joining with governmental delegates to influence national positions and Codex operations. If a Codex standard favors a domestic food-related industry, that decision may help open global markets. The Codex standards on growth promoting hormones are illustrative in this regard. A newly adopted standard on ractopamine may open doors on new food markets. Thus, those likely to benefit, or concerned that they might be harmed by new players in local markets, are motivated to shape Codex standards in ways not reflective of scientific findings, but which rather serve the interests of industry.

B. Lack of Consensus in Adopting International Food Safety Standards

1. The Significance of Engaging in International Rule-Making by Consensus

---

33 See steps 4, 5 of Uniform Procedure for the Elaboration of Codex Standards and Related Texts, Codex Procedural Manual, supra note 20, at 31, 32.
34 Pereira, supra note 23, at 1700-01. A risk assessment as observed is to decide what level of risk is acceptable, which usually subjects to non-science factors. Although risk managers are expected to base their judgment on risk assessments, they needs to consider other factors relating to the protection of consumers’ health and the promotion of fair food trade. See id.
36 Livermore, supra note 35, n. 90.
37 The voice of consumer groups remains less influential than that of groups of industry. Id. at 785-86.
39 It has been rightly pointed out that “industry representatives [who] are seeking to use the international harmonization process as a vehicle for global deregulation.” See B. A. Silverglade, The Impact of International Trade Agreements on U.S. Food Safety and Labelling Standards, 53 Food & Drug L. J. 537, 540 (1998).
A critical criterion in evaluating the legitimacy of an international law-making process is on the extent of democratization.\(^{40}\) Apart from ensuring universal participation, especially in rule-making processes, it has been widely accepted that democratization would be squarely fulfilled if a rule or standard-making would be engaged “by consensus negotiating procedure.”\(^{41}\) Such procedures may allow countries, regardless of how strong or weak they may be, to leverage their bargaining power.\(^{42}\)

In contrast to resorting to voting, decision-making by consensus discarding the use of voting circumvents the taking of clearly conflicting positions in favor, against, or abstains. For instance, the UN Convention on the Law of the Sea defines consensus as “the absence of any formal objection.”\(^{43}\) Some commentators suggest that the merit of governing by consensus is that it avoids introducing divisions between members so as not to create hostility publicly.\(^{44}\) For countries that do not have clear interest on certain issues, this manner of decision-making can help avoid the jeopardy that comes with being forced to choose sides.\(^{45}\)

Of course, seeking consensus is not always flawless. For instance, the UN Fishery Conservation Agreement\(^{46}\) was the product of a package deal between coastal and fishing countries, which was negotiated and concluded by consensus. At the forum, some countries opted not to object explicitly to avoid being condemned for obstructionism. Yet, Boyle and Chinkin observe that a number of States later expressed opposition to the accord, and some actually declined to ratify or accede to the treaty.\(^{47}\)

Regardless of the advantages of consensus, it is not an ideal decision-making model for all international rule-setting procedures. A consensual deal is suitable for the issue that is of compromising nature. Nations with conflicting interests have to make concessions and compromises to reach consensus. But, negotiations may not guarantee that a compromise or consensus is reached, or may result in a weaker or vague commitment.\(^{48}\) Normally, decision-making by consensus will not be suitable for agendas that are beyond compromise, or where a package deal is not possible.\(^{49}\) For instance, international legislation on human rights is normally finalized by majority voting\(^{50}\) and allows for parties to register their reservations. In contrast,

---


\(^{41}\) Boyle & Chinkin, supra note 40, at 101-102.

\(^{42}\) Id.


\(^{44}\) Boyle & Chinkin, supra note 40, at 158.

\(^{45}\) Id. at 158.


\(^{47}\) Boyle & Chinkin, supra note 40, at 158.

\(^{48}\) Id. at 159.

\(^{49}\) Id.

\(^{50}\) For instance, the 2007 UN Declaration on the Rights of Indigenous Peoples was adopted by voting. The UN Declaration was adopted by a majority of 143 states in favor, with 4 votes against (Australia,
some contend that reaching a decision by voting is not suitable to regimes built on the “politics of interdependence,” such as those governing international trade, the oceans, or global environment protection.\(^5\)

The matters governed by the Codex relate to public health and fair trade in food. Therefore, its decision-making is not suitable to resort to voting. The approval of a controversial standard by voting may lead to serious antagonism and mistrust amongst members. Furthermore, it should be noted that the WTO itself practically engages in rule-making by consensus, instead of voting.\(^5\) In terms of regulating global trade in food, it is essential that the WTO and Codex operate in a coherent manner, especially concerning their decision-making processes. At the Codex, the resort to voting to approve a standard would result in irregularities between these two international institutions, which are supposed to act in harmony with one another. Hence the standard-setting process of Codex should be run based by consensus as far as possible.

2. The Procedural Defect in the Codex Standard-Setting Process

The Codex used to set voluntary standards by consensus. There seemed no need to resort to voting, which allowed Codex members to engage in deliberations with greater patience. Prior to the establishment of the WTO, there was no history of resorting to voting.\(^5\)

The requirement of the SPS Agreement that pressures WTO members to stick to international standards, including those adopted by Codex, has significantly changed the mood of participants in Codex deliberations. Nowadays, Codex standards carry legal weight and are economically important in the global trade system. To secure a standard that matches national or regional regulations may convey a two-fold advantage. For importing countries, a Codex standard that endorses and reflects national regulations may render trading partners’ challenges of WTO-inconsistency relatively difficult.\(^5\) For exporting countries, if the Codex sides with their national standards, the situation will impose much pressure and cost on countries that adopt a standard higher than that of Codex.\(^5\)

Decision-making by consensus normally involves a lengthy process, and has become unpopular and difficult in the Codex community as the number and diversity

---


\(^{52}\) Since the inception of the WTO in 1995, the trade regime has constantly engaged in negotiation and decision-making based on consensus. The WTO never resorts to a voting process. Otherwise, the major members that are of developing countries would have dominated the decision of the regime. Yet, it is also true that the current Doha negotiation almost collapses mainly because no consensus could be reached among WTO members.

\(^{53}\) Livermore, supra note 35, at 787.

\(^{54}\) The SPS Agreement, supra note 1, art. 3.2.

\(^{55}\) Id. art. 3.3.
of stakeholders has increased.\textsuperscript{56} Also, Codex members are increasingly unwilling to make compromises and offer concessions as their respective national standards are quite different.\textsuperscript{57} Thus, the usual consensual approach of Codex decision-making is fading and becoming less dominant, especially on highly controversial issues. If a majority of Codex members find themselves adopting the same position, they will be motivated to push for a vote in order to secure the adoption of those standards they favor in order to serve their national interests.

Since 1995, the Codex has approved several contentious standards, not by consensus, but by a majority vote. Indeed, the approval of MRLs for five growth hormones in 1995 proved to be extremely controversial. These standards were adopted by a simple, closely contested, majority vote.\textsuperscript{58} Another deficiency of the procedure is that it employs a secret ballot instead of open, public vote.\textsuperscript{59} The EC opposing the standards heavily criticized this voting method for lacking transparency.\textsuperscript{60}

The adoption of a commodity standard on natural mineral waters by a narrow majority vote\textsuperscript{61} also aroused resentment. The standard actually echoes the EC national policy that requires the bottling of mineral waters at their source.\textsuperscript{62} As mentioned above, adopting such a standard would make it difficult for exporting countries whose mineral water bottling methods fail to comply with the EU law to challenge the SPS-inconsistency of such measure. The U.S., which applies less stringent bottling regulations, expressed strong objections to the standard on the grounds that the criterion does not serve to further the protection of public health.\textsuperscript{63}

The tendency to resort to voting to break deadlocks disturbs most of those Codex members who still favor setting standards by consensus.\textsuperscript{64} As a result, the

\textsuperscript{57} See Victor, supra note 28, at 931; Livermore, supra note 35, at 789. Countries like America and the European nations have adopted a differential policy on growth promoting hormones. The use of hormones would be legal in North America if farmers comply with regulations. By contrast, the EC directives prohibit the use of hormones as veterinary drugs.
\textsuperscript{58} 33 votes in favor, 29 against, 7 abstentions. Report of the 21\textsuperscript{st} Session of the Joint FAO/WHO Codex Alimentarius Commission, Rome, July 3-8, 1995 ALINORM 95/37, para. 45 [hereinafter Codex 21\textsuperscript{st} Session Report].
\textsuperscript{59} Rules of Procedure, Rule VIII, para.5, in Codex Procedural Manual (20\textsuperscript{th} ed., 2010), supra note 20, at 11.
\textsuperscript{60} Codex 21\textsuperscript{st} Session Report, supra note 58, para. 46; Stewart & Johanson, supra note 56, at 42.
\textsuperscript{61} 33 votes in favor, 31 against and 10 abstentions. Report of the 22\textsuperscript{nd} Session of the Joint FAO/WHO Codex Alimentarius Commission, Geneva, June 23-28, 1997 ALINORM 97/37, para. 69 [hereinafter Codex 22\textsuperscript{nd} Session Report].
\textsuperscript{62} Victor, supra note 28, at 887.
\textsuperscript{63} The U.S. objected the standard by stating that “[this] standard ignores public health protection by prohibiting any antimicrobial treatment and creates a barrier to international trade by including unnecessary and inappropriately restrictive requirements which are contrary to the General Principles of Codex Alimentarius, adopted by the Commission to protect public health and facilitate international trade. Codex 22\textsuperscript{nd} Session Report, supra note 61, para. 91.
\textsuperscript{64} Id. para. 93; According to an evaluation initiated by the FAO in 2002, the majority of Codex members objected an increase of resorting to vote in standard-making. W. Bruce Trail et al., Report of the Evaluation of the Codex Alimentarius and Other FAO and WHO Food Standards Work (2002), at
Codex was pressured to revise its procedural rules. Thus the amended Rule XII specifies that, “The Commission shall make every effort to reach agreement on the adoption or amendment of standards by consensus. Decisions to adopt or amend standards may be taken by voting only if such efforts to reach consensus have failed.”

The revision does verify the supreme status of consensual decision-making. Nevertheless, the statement does not rule out the possibility of resorting to voting. In addition, it is observed that the simple clarification cannot resolve problems currently facing the Codex. First, the rule does not provide a clear definition of consensus. During the 2001 session, as deliberations over the idea of insufficient scientific information took place, the Chairperson and members disagreed with respect to the definition of consensus. Further, the revision does not clarify under what circumstance the stipulation regarding failed efforts to reach consensus may be considered fulfilled. Nor does the rule stipulate when voting should proceed and who has the authority to initiate the voting.

Moreover, Codex subsidiary committees are likely to ignore efforts to seek consensus so as to rush to voting. It is submitted that individual committees should play the role of consensus-builders. Yet, ‘The Guidelines for Committees,’ simply states, “the chairpersons should always try to arrive at a consensus and should not ask the Committee to proceed to voting if agreement on the Committee’s decision can be secured by consensus.” In contrast to the procedural rule mentioned above, the Guidelines use a relative weaker expression, which does not express the same resolve to pursue consensus. The committees would thus encounter problems similar to those facing the Commission.

Unfortunately, after a long debate among Codex members on the MRLs for ractopamine, the Codex again failed to reach a decision by consensus. The eventual adoption of the veterinary drug standards by a very close vote mirrors the earlier hormone scenario. Such moves are indicative of how hard it is, in practice, for the Codex to resist the temptation of using vote to resolve differences.

IV. Search for an Optimal Response by the WTO to Defective International Standard Setting

Part III of this article reveals deficiencies in standard making at the Codex. Although the organization responsible for setting global food standard has been undertaking reform, there is no guarantee that the flaws in its operations will be remedied in the short term. Science should have been the core element in making Codex standards, regardless of its limitations. Yet the role and voice of science have been eclipsed by those of industry. The rush to voting further diminishes the credibility of the Codex. Unsurprisingly, critics have arisen to challenge the legitimacy of current Codex operations.

(2002), at § 4.4.3.7.
66 Masson-Matthee, supra note 17, at 233.
67 Id. at 236.
68 Id.
Through the incorporation of international standards set by organizations like the Codex into WTO agreements, the multilateral trade regime cannot avoid encountering the legitimacy issue, at either diplomatic or dispute settlement forum. Indeed, at the inception of the WTO, trade negotiators had no way of knowing whether, or to what extent, the WTO would rectify this flaw in Codex standards. But, the accountability of the WTO will be diminished if it simply turns a blind eye to Codex deficiencies. It is worth examining approaches that would offer a more positive role to the WTO in this balancing act. What follows offers a critical review of proposals to allow WTO adjudicators to engage in judicial review of Codex standard setting. Further, it may be interesting to analyze how the recent WTO ruling on the subsequent hormone dispute dealt with the credibility of technical experts that had been involved with the Codex previous standard-setting on hormones.

A. Whether, and to What Extent, May WTO Adjudicators Conduct Judicial Review of Flawed International Standard-Setting

1. The Status of Play for WTO Adjudicators in Reviewing Codex Standards

It is observed that the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU)\(^{69}\) of the WTO does not explicitly extend either the Panel or the Appellate Body the authority to conduct judicial reviews of international standards.\(^{70}\) Neither do trade agreements, like the SPS Agreement, authorize the competence. Nonetheless, in the WTO dispute settlement proceedings, it would be desirable for disputant parties to argue the legitimacy of the Codex standards in questions. Parties that had lost certain Codex battles may wish that the trade regime would take a skeptical stance towards Codex standard setting. They may persuade adjudicators to review such standards so as to negate their validity in a trade dispute. Upon refusal to apply the standards or to recognize their validity, hardly would the responding party be put in a risk of violating the harmonization principle embodied in the SPS Agreement.\(^{71}\)

Although, at least morally, the legitimacy of an international standard-making should be scrutinized, the present WTO adjudication bodies have yet to meet that expectation. For instance, in the dispute over hormone beef between the U.S., Canada and the EC, the EC managed to challenge the validity of hormone standards by reminding adjudicators that the MRLs for hormones were adopted without universal support, and reflected the opinions of only some members.\(^{72}\) The EC argued that the adoption was a departure from the normal Codex practice of making decision by consensus.\(^{73}\) But, the Panel did not respond to the appeal of the EC in a positive manner. Rather, the Panel clearly ruled that it only has to examine whether a standard exists in order to decide the compatibility of members’ measures with Article 3.1 of the SPS Agreement.\(^{74}\) The Panel was not convinced that it needed to consider

---


\(^{70}\) Masson-Matthee, supra note 17, at 185.

\(^{71}\) The SPS Agreement, supra note 1, art. 3.

\(^{72}\) Panel Report, EC – Hormones, supra note 16, para. 9.72.

\(^{73}\) Id.

\(^{74}\) Id.
whether or not the standards were adopted according to a particular methodology.\textsuperscript{75}

In the later \textit{Sardine} dispute, the conservative approach of WTO adjudicators remained unchanged. The EC contended that the process by which the Codex standards in question were set did not comply with its procedural rules. According to the Codex standard-making rule, at Step 8, any submitted standard that needs a substantial revision must be remanded to relevant committees for further comment. In fact, the standards under challenge failed to observe that regulation. Thus, as the EC claimed, the standard does not meet the definition of “relevant standards” specified in Article 2.4 of the TBT Agreement.\textsuperscript{76} But, the Panel failed to endorse the argument of the EC, saying simply that an alleged ‘standard’ in Annex 1.2 of the TBT Agreement does not cover considerations of whether the process to set the standard met the procedural requirements. Thus, it declined to review whether the process satisfied the requirements of due process.\textsuperscript{77}

The EC also argues that the standard was not adopted on the basis of consensus. The EC argued that, in this instance, Codex practices were at odds with the principles adopted by the TBT Committee requiring consensus in developing standards.\textsuperscript{78} However, the Panel did not recognize that the TBT document should play a vital role in deciding the validity of such a standard. Instead, it found that the consensus approach revealed by the TBT Committee is not of the text of the TBT Agreement, but ‘a policy statement of preference.’\textsuperscript{80} In addition, the Panel did not agree with the EC that standards must be approved by consensus to satisfy the definition of a standard in the TBT agreement. It referred to the last two sentences of the Explanatory note of Annex 1.2 to the TBT Agreement, concluding that “even if not adopted by consensus, an international standard can constitute a relevant international standard.”\textsuperscript{81} The Appellate Body agreed with the Panel and confirmed that a standard recognized in the TBT Agreement “does not require approval by consensus.”\textsuperscript{82}

The present passive stance of WTO adjudication is indicative of its unwillingness to challenge or review the legitimacy of an international standard-setting process. The deference approach certainly provokes criticism, not only from academics,\textsuperscript{83} but also from WTO members.\textsuperscript{84} Although judicial review should be expected, at least on moral grounds, it is worth analyzing whether solid legal grounds

\textsuperscript{75} Id.
\textsuperscript{77} Id.
\textsuperscript{78} Decision of The Committee On Principles For The Development of International Standards, Guides and Recommendations With Relation to Articles 2, 5 and Annex 3 of The Agreement, Committee on Technical Barriers to Trade, WTO Doc. G/TBT/9, adopted November 13, 2000, para. 9.
\textsuperscript{79} Panel Report, EC – Sardines, supra note 76, para. 4.33.
\textsuperscript{80} Id. para. 7.91.
\textsuperscript{81} Id. para. 7.90.
\textsuperscript{82} Appellate Body Report, EC – Sardines, supra note 9, para. 227.
\textsuperscript{84} For instance, Chile worried the adverse effect of the Appellate Body ruling. See Dispute Settlement Body, WTO Doc. WT/DSB/M/134, at 12, para. 41 (Oct. 23, 2002).
exist to underpin such trans-institutional activity.


Judicial review has been regarded as a democratic mechanism ensuring the rule of law in the domestic constitutional structure. A national court, especially at the highest level, has the power to invalidate measures approved by the legislative or executive branch. The well-established domestic norm aims to protect individuals from the acts of powers that fall short of legitimacy. Nowadays, strong arguments have been made for the necessity of applying the mechanism to constrain the acts of international organizations on the ground that the decisions of respective international institutions increasingly affect not only States but individuals. Thus international courts should be permitted to perform the act.

From a theoretical perspective, the desirability of extending the power of judicial review to international tribunals proves quite solid. Yet in practice, consistent and positive developments have yet to be a reality. Indeed, the International Court of Justice (ICJ) had opportunities to exercise review over the decisions of other UN organs like the General Assembly or the Security Council when an advisory opinion was being sought, and the World Court could review several decisions of the Security Council in the Lockerbie or the Bosnia cases. Yet the Court refrained from deciding the legal effect of the decisions. As indicated, the WTO itself has no power to set international standards in terms of SPS-related issues. Rather, it recognizes the law-making competence of relevant international organizations like the Codex, and is entitled to enforce and apply such standards. The respective functions of the WTO and Codex alike are classified as reflective of the separation of powers under a domestic constitutional structure. And some commentators argue that WTO judicial bodies should exercise judicial review on Codex decisions. Livermore contends that a review conducted by WTO judicial organs may provide process protection for stakeholders whose interests have not been properly taken into account during Codex operations. In addition, the review he considers would be able to mitigate some of the problems with Codex decision-making, such as the insufficiency of representation and equity.

Yet the counter-argument is not without force. Masson-Matthee is skeptical of the judicial approach on the ground that explicit authorization is lacking by the DSU to do so. Given Codex context is not part of WTO agreements, she does not

---

85 Klabbers et al, supra note 40, at 64.
86 Id. at 64-66.
89 Lockerbie, supra note 87, at 15.
90 Livermore, supra note 35, at 790.
92 Livermore, supra note 35, at 790-91.
93 Masson-Matthee, supra note 17, at 190-91.
consider Codex decisions should be part of WTO applicable law in proceedings.\footnote{Id. at 191.} Even though it is admitted that the WTO adjudication has the experience of examining and adjudicating non-covered agreements,\footnote{Id. at 190. (For instance, Masson-Matthee observes that the Lome Convention had been reviewed in the WTO Banana case.)} she argues that WTO adjudicators should refrain from reviewing Codex standards without a legal basis.\footnote{Id.} Otherwise, such acts may run the danger of being at odds with the meaning, purpose and function of Codex agendas. Further, without clearly confining the realm of applicable law in question, it would be difficult to ensure the legitimacy of exercising such a review.\footnote{Id. at 191.}

Irrespective of concerns about an unclear delimitation between applicable law and judicial review, the risks associated with reviewing Codex standards without proper limits have been recognized. From a practical point of view, Livermore holds that the WTO is incompetent to undertake reviews of substantial aspects of Codex standards because Codex expertise and professionalism extend beyond those of the WTO.\footnote{Livermore, supra note 35, at 792. Cf From a general perspective of international law, Klabbers submits that the scope of matters to be reviewed should also cover the content of the decisions as so to ensure respect of general international law, of course including \textit{erga omnes}. Klabbers, supra note 40, at 67.} Nevertheless, he contends that the WTO should be allowed to review the procedural requirements of Codex decision-making, and proposes that certain procedure rules of national administrative law be applied to assist the WTO in fulfilling this duty.\footnote{Livermore, supra note 35, at 794-95.} In \textit{U.S.-Shrimp}, he observes that the Appellate Body has actually invoked certain principles of due process of law to determine the WTO-consistency of the U.S. measures in dispute.\footnote{The Appellate Body considered that the lack of a proper appeal mechanism provided for importing countries as such was of arbitrary discrimination, and thus violated U.S. obligations under the chapeau of Article XX of the GATT 1994. Appellate Body Report, United States – Import Prohibition of Certain Shrimp and Shrimp Products, WTO Doc. WT/DS58/AB/R, paras. 177-83 (Oct. 12, 1998)[hereinafter Appellate Body Report, U.S. – Shrimp]. For a discussion on the principle of due process in the WTO dispute settlement proceedings, see Andrew Mitchell, Legal Principles in WTO Disputes 145-76 (Cambridge: Cambridge U.P., 2008).} In addition, certain administrative principles embodied in WTO agreements, for instance transparency and consultation, can be invoked in deciding the legitimacy of the Codex law-making process.\footnote{Livermore, supra note 35, at 795.} Further, the practices and operations of other international organizations, like the International Organization of Standardization (ISO), may be instrumental in assessing Codex standard setting.\footnote{Id.} Overall, he concludes that such a review, even if desirable, must be based on principles of international law, WTO merits, and the practices of other international institutions so as to ensure its legitimacy.\footnote{Id. at 796.}

As mentioned, Codex has been under reform. Yet there is no guarantee that a satisfactory result will be produced through internal change. As indicated, there has been a strong argument in favor of turning to an external force to rectify these flaws. Judicial review by the WTO has been hailed as an optimal corrective mechanism, and

\begin{footnotes}
\footnote{Id. at 191.} \footnote{Id. at 190. (For instance, Masson-Matthee observes that the Lome Convention had been reviewed in the WTO Banana case.)} \footnote{Id.} \footnote{Id. at 191.} \footnote{Livermore, supra note 35, at 792. Cf From a general perspective of international law, Klabbers submits that the scope of matters to be reviewed should also cover the content of the decisions as so to ensure respect of general international law, of course including \textit{erga omnes}. Klabbers, supra note 40, at 67.} \footnote{Livermore, supra note 35, at 794-95.} \footnote{The Appellate Body considered that the lack of a proper appeal mechanism provided for importing countries as such was of arbitrary discrimination, and thus violated U.S. obligations under the chapeau of Article XX of the GATT 1994. Appellate Body Report, United States – Import Prohibition of Certain Shrimp and Shrimp Products, WTO Doc. WT/DS58/AB/R, paras. 177-83 (Oct. 12, 1998)[hereinafter Appellate Body Report, U.S. – Shrimp]. For a discussion on the principle of due process in the WTO dispute settlement proceedings, see Andrew Mitchell, Legal Principles in WTO Disputes 145-76 (Cambridge: Cambridge U.P., 2008).} \footnote{Livermore, supra note 35, at 795.} \footnote{Id.} \footnote{Id. at 796.}
commentators have proposed novel and constructive ideas. But, some approaches may also provoke further controversy. The legitimacy of undertaking such a review through WTO adjudication is worth examining.

In contrast to the ICJ and the Security Council, both of which are UN organs, the WTO and Codex were not created under the same roof. The WTO is independent of the UN system, which includes the Codex. It should be noted that no hierarchy is established between international legal branches. The WTO and Codex are arguably on an equal footing under international law, but justification for the review can be sustained if a decent basis for such trans-institutional activities can be established. Therefore, theoretically, it would be highly inappropriate, in political and legal terms, for the WTO to intervene unless a consensus or deal could be reached between the two organs regarding such a review. However, it may be difficult to reach the consensus, even though the SPS Committee has the competence and duty to coordinate efforts with Codex. Thus, certain solutions need to be formulated to help overcome legal barriers for the review and make the function attain a greater degree of legitimacy, if no consensus between them would be plausible.

Firstly, consensus-building within the WTO community is essential to reduce misunderstandings and tensions between the legislative and judicial branches. To avoid judicial activism in exercising the review especially when WTO members have yet given explicit authorization, it is suggested that revisions of WTO agreements like the SPS Agreement, or the DSU, be undertaken to the extent that a well-structured review framework can be formulated. The added rules may provide a clearer road map for adjudicators in fulfilling the duty in a right direction. If it is difficult to realize such a revision, the General Council or the Ministerial Conference can alternatively adopt a decision of authoritative interpretation to endorse the power of judicial review. Of course, both solutions would require strong political will to make it happen.

Moreover, it may be interesting to explore whether WTO adjudicators still have the discretion to exercise such a review even if no political will materialize in forming a binding instrument. Indeed, as observed, no DSU provision explicitly provides for such a review vehicle. Nevertheless, I argue that the issue should be decided on a case-by-case basis.

In terms of trade and food safety arrangements, in the context of the SPS Agreement and Codex standard-making system, I favor leaving some room for discretion to the WTO judicial system. In the context of the SPS Agreement, it is

---

104 The SPS Agreement, supra note 1, art. 3.5.
105 It should be understandable that a Codex member will oppose such review if a presumed Codex standard favoring its position would be so applied as to push the lift of trade restrictions of other countries.
107 It is proposed that a structure of international judicial review should encompass issues of scope, matters to be covered, standing and effects etc. Klabbers et al, supra note 40, at 66-67.
108 Marrakesh Agreement Establishing the World Trade Organization, art. IX, para. 2.
obvious that the health related agreement not only recognizes the authority of the Codex in making relevant standards, but actually brings the life of the non-trade standards of science into the WTO regime. In essence, for the sake of harmonization on global food safety standards, Codex standards have become inextricably bound up with the WTO. This close, dynamic relationship means that the bounds between the WTO and Codex are different than those of other international institutions.

If Codex standard-making activities, especially their procedures, have inherent or inadmissible flaws, this would render illegitimate WTO adjudicators’ neglect of the problem. It should be noted that the SPS Agreement highly values scientific principles. If the making of a contested Codex standard failed to comply with the Codex’s own scientific and/or due process requirements, it would seriously undermine the SPS mandate if there were no such review.

Upon reviewing Codex standards, a critical issue may arise concerning the effect of the review. From the viewpoint of international law in general, Klabbers proposes three options for concerning the effect of judicial review, namely invalidating decisions, inapplicability of decisions in relation, and making a statement of inconsistency. She considers the second choice relatively more appropriate in dealing with international relations given that the first is too strong and the third too weak.\footnote{Jan Klabbers, Straddling Law and Politics: Judicial Review in International Law, in Towards World Constitutionalism: Issues in the Legal Ordering of the World Community 833 (Ronald St J MacDonald and Douglas M Johnston eds., Martinus Nijhoff 2005).} The argument applies in the context of the WTO-Codex. In effect, a hypothetical WTO announcement invalidating a Codex standard would be too intrusive while a mere statement of inconsistency would not send a strong enough signal to the Codex.

B. Whether or not Consulting Technical Experts Involved in a Prior Standard-Setting Procedure Should not Be Permissible?

Transatlantic trade disputes over hormones in beef have resulted in extremely contested and lengthy WTO adjudication. Under the U.S. trade retaliation,\footnote{According to article 22.6 of the DSU, the U.S. was authorized to terminate its concessions and obligations towards the EC by imposing higher tariffs on the importation of EC products. See Appellate Body Report, U.S. – Continued Suspension, supra note 10, paras. 8-9.} the EC continues to work on the science to prove the health risk caused by the consumption of hormone beef. In 2008, based on new findings, the EC brought a suit to challenge the continued suspension of U.S.’s trade obligations. The issue arose as to how WTO adjudicators should treat the technical advice of experts previously involved in making the Codex standards so as to fulfill the responsibility of making an objective assessments.\footnote{Article 11 of the DSU requires the Panel to conduct an objective assessment of the matter before it.} As the contested international hormone standards remain valid and there is no clear precedent for WTO adjudicators to conduct judicial review of such standards, the dispute may offer a good opportunity to examine whether WTO adjudicators have adopted an appropriate and balanced approach towards the use of technical experts.

1. EC Elaboration of a New Scientific Study on Hormones and the Inclination of the Panel to Heed the Advice of Scientists Involved in Making the Codex

Standards in Question

In response to the 1998 WTO verdict that confirmed the violation of EC obligations under the SPS Agreement, the EC endeavored to conduct research on the effect of hormones by providing definite risk assessments and offering more convincing scientific evidence. Based on the three new scientific opinions issued by the Scientific Committee on Veterinary Measures relating to Public Health (SCVPH) in 1999, 2000 and 2002, the EC adopted Directive 2003/74/EC as an amendment of previous Directive 96/22/EC. The EC contended that the newly regulations on hormone control have implemented the verdict of the original adjudication, and thus appealed the termination of the retaliation imposed by the U.S. and Canada. As no consensus about the lifting of trade sanctions was reached between disputants, the EC decided to bring the dispute to the WTO.

The Panel had to decide whether the new European measures resulted from an updated analysis of the risks associated with hormones, and can thus be justified. Under the circumstance, the SPS Agreement provides that the Panel should seek advice from technical experts, and that it has the competence to select experts under consultation with disputant parties. The Panel enjoys the discretion to establish an advisory technical experts group. The DSU also specifies the rules for the establishment of such a group and its procedures. Further, the DSB adopted ‘Rules of Conduct’ that underline the requirements of independence and impartiality for expert advisors.

Under the objections of the EC, the Panel selected six experts, including two scientists who had been directly involved in the drafting and adoption of previous JECFA reports on the MRLs for growth-promoting hormones. The EC questioned the independence and impartiality of Dr. Boisseau and Dr. Boobis because they were co-authors of the reports that disfavored the EC approach towards the hormones in question. The EC argued that the selection of these doctors to give advice on the new European scientific studies “would amount to asking them to review and criticize reports that are their own doing.”

Nevertheless, the Panel disagreed with the EC’s objection. It was not convinced that previous experience with the JECFA would prevent these experts from providing an unbiased evaluation of new scientific evidence and findings that may contradict the previous JECFA decision on hormone standards. Further, given that the arguments of the disputant parties were all related to the previous work of the JECFA, the Panel felt that the experts who had participated in the JECFA deliberations might be in a better position to help the Panel comprehend the operations of the group. That the SPS Agreement recognizes the international

---

112 Appellate Body Report, U.S. – Continued Suspension, supra note 10, paras. 10. 11.
113 Id. para. 11.
114 The SPS Agreement, supra note 1, art. 11.2.
115 Appendix 4 to the DSU.
118 Id. paras. 7.84.
119 Id. paras. 7.85.
standard-making status of Codex seems to provide the Panel the justification for relying on experts that had substantially contributed to the findings in question. Thus, the Panel’s selection of JECFA members as experts seems to indicate its strong commitment to honoring the harmonization principle of the SPS Agreement.

2. The Appellate Body Rejects the Panel’s Selection and Use of Technical Experts Involved in International Standard-Setting

In reviewing whether the Panel’s selection of two JECFA scientists as technical experts infringed on the due process rights of the EC, the Appellate Body largely sided with the appeal of the EC. The appeal provides a good opportunity to examine the process of selecting and consulting with experts who had been deeply involved in setting an international standard.

The Appellate Body first looked into the affiliation of the two experts with the JECFA, and found that Drs. Boisseau and Boobis took key positions in the JECFA respectively when the six hormones at issue were evaluated. Further, in response to questions raised by the Panel, the selected experts, as observed by the Appellate Body, evaluated the risk assessments of the EC by applying the findings and conclusions of the JECFA as a benchmark. The Appellate Body applied the term, ‘natural inclination’, to illustrate the tendency of such experts to favor or defend the approach of the JECFA, but not “to assess whether the science relied upon by the European Communities can support the conclusions it reached”.

The Appellate Body found reason to question the impartiality of these experts in assessing EC new scientific findings, especially as the EC has repeatedly questioned the validity of the previous JECFA risk assessment and refused to follow them. Accordingly, the Appellate Body found that the Panel’s selection and consultations with Drs. Boisseau and Boobis failed to meet the independence and impartiality requirements for serving technical experts.

3. Overall Assessment and Need for a Better Solution

It is likely that the Panel’s obsession with the authority of JECFA and respect for the text of the SPS Agreement that recognizes Codex’s status will make it hard to exclude JECFA members from its consulting list. Apparently, the Panel failed to elaborate a sufficient rational to rebut the EC’s challenge about the lacking of impartiality or independence of the two experts. Similarly, the Appellate Body provided a barely sufficient rationale for why these two JECFA experts were unfit to give an objective assessment of the EC’s updated study on hormone risks. It may be premature to assume that the Appellate Body would regularly be skeptical of the

---

120 The Appellate Body considered due process protection covers the selection and consultations with experts. See Appellate Body Report, U.S. – Continued Suspension, supra note 10, para. 436.
121 The two doctors were not only members of the JECFA, but played a significant role in hormone discussions by serving Chairman, Vice-Chairman, and Joint-Rapporteur. See id. para. 460.
122 Id. paras. 462-68, 477.
123 Id. para. 469.
124 Id. paras. 458, 477, 479 (The EC argued the limitations in JECFA’s assessments and pointed out the data used by JECFA was outdated).
125 Id. para. 481.
operations of the JECFA/Codex. Yet, the Appellate Body seems to have distanced itself from the international institutions when it has to judge a risk assessment conducted by a member who has established safety levels that exceed international standards.

The Codex will continue to determine acceptable standards for MRLs as the application of veterinary drugs to promote sales of meat products will persist. Notwithstanding the legitimacy of standard-making processes in the Codex, the WTO judicial system cannot avoid dealing with Codex standards, especially if a member adopts a different benchmark from that of the Codex. As the Appellate Body has yet to judicially review Codex standards, the *Hormones II* simply reveals that it will not defer to any reference related to Codex activities without reservation. In effect, previous Codex scientific evaluation may not always play a critical role in deciding the consistency of measures that depart from Codex standards with the SPS Agreement. It may be an overstatement that the Appellate Body approach has undermined the influence of international standard making. But, by the disconnection of Codex expertise from the appraisal of national risk assessments, members are likely to survive the test of complying with SPS obligations when they refuse to comply with Codex standards.126

In *U.S. – Continued Suspension*, the Appellate Body’s deference to national health regulation was quite obvious. Yet, a decent basis and rationale to denounce the selection of JECFA/Codex experts to review measures that are at odds with international standards remains wanting.127 As the encouragement to honor international standard-setting is intact under the SPS Agreement, an objective and systematic mechanism needs to be built into the WTO dispute settlement system by which the real independence and impartiality of experts can be gauged. It seems irrational to deprive Codex experts of the competence to be consulted merely because of previous connections with Codex activities. There is a strong demand to establish fair criteria for expert selection as the process has proved crucial to arriving at fair judgments on international-inconsistent national standards.

V. Concluding Remarks

This article has revealed that the Codex standard-setting process has not always adhered to a scientific orientation. The dilution of science in the standard-making process increases as proposed standards involve huge trade and industry interests. Politics and the industrial sector now play a greater role in shaping Codex decision-making. As the progress of Codex reform remains uncertain and unpredictable, the article has explained the desirability of having the WTO treat Codex standards properly. I argue that WTO adjudication may become an optimal vehicle for rectifying the injustice arising from an undesirable Codex standard.

Judicial review is well established in domestic constitutional structures, and

---

should be extended to the relations between international regimes. As the WTO and Codex are separate and equal bodies in the international legal system, it is better for the two organs to reach an agreement on the use of judicial review. Yet, I argue that the difficulty of reaching a consensus should not prevent WTO adjudicators from exercising that function. To avoid excessive judicial intrusion into the operations of the Codex, it is suggested the effect of judicial review should be limited to a declaration of inapplicability of the standard in question in the relation between disputants, but not to nullification of the standards.

Finally, though WTO judicial review on international food safety standards may not happen in the near future, the *Hormones II* ruling by the Appellate Body has indicated that it would not uphold consultations with the experts who have played a substantial, related role with institutions like the JECFA/Codex. But, objective criteria and grounds to exclude, or include, JECFA experts need to be formulated. It remains to be seen whether the *Hormones II* adjudication that hesitates to embrace international science makers may make it difficult, or even impossible, for the panel to select experts involved in a previous standard-making process. Nevertheless, the cautious approach, of course, would please members who decline to observe such international standards.