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NEVER FOR-GATT: WHAT RECENT TBT DECISIONS REVEAL ABOUT THE APPELLATE BODY'S ANALYSIS OF ENVIRONMENTAL REGULATION UNDER THE WTO AGREEMENTS

Ravi Soopramanien*

ABSTRACT

Few environmentalists have positive things to say on the impact of the World Trade Organization (WTO) on the environment. WTO legal obligations are frequently cited as the most significant impediment to a range of environmental initiatives, including notably meaningful international coordination to combat climate change, particularly through carbon tax initiatives, and imposition of electronic waste disposal export bans. In this vein, adverse findings of WTO dispute panels on environmental conservation measures tend to attract the ire of international civil society. The tensions between liberal trade and environmental protection can be traced back to the days of the General Agreement on Tariffs and Trade (GATT) of 1947, which pre-dated the WTO. Under the GATT 1947, trade and environment disputes tended to be resolved through diplomatic channels. The WTO Agreements were intended to provide a more predictable and legalistic means by which to resolve such disputes, in exchange for deeper commitments on domestic regulation, a domain historically deemed off limits to international disciplines. Two of these agreements in particular, the Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement), introduced binding disciplines with serious implications for domestic environmental decision-making, a subset of domestic regulation. The expectation was that the depoliticization of WTO disputes would afford more certainty to regulators. This has decidedly not turned out to be the case. This paper explores why this is so, focusing notably on the role of the WTO and Appellate Body Secretariats in shaping domestic regulation jurisprudence under the GATT, SPS and TBT Agreements. It argues that the Appellate Body has misapplied important features of the SPS and TBT Agreements to sometimes wrongly condemn environmental regulations, owing to a cognitive bias against trade distortions. It argues for an alternative approach that stays more faithful to the text of the WTO Agreements.

I. INTRODUCTION

International economic law and international environmental law have developed considerably over the past decades. The WTO Agreements, the focus of this paper, entered into force in January 1995, and set binding disciplines on a range of trade-related disciplines ranging from goods and services,

to investment, intellectual property, and product standards. In parallel, the United Nations Framework Convention on Climate Change (UNFCCC), among other institutions, has served as a capable forum to coordinate state action to reduce thematic cross-border environmental externalities. Yet, there is surprisingly little formal cross-fertilization between trade and the environment. Instead, environmental regulation is typically framed in trade literature as derogating from core WTO obligations.

The possibilities for cross-fertilization between both disciplines are infinite, and certainly well beyond the bounds of this paper. Suffice it to state that these disciplines are not natural antagonists: the development of “green” industries can foster growth opportunities in new markets.¹ Trade measures, in turn, can steer states towards cleaner and greener development trajectories.² The preamble to the GATT, now part of the WTO legal framework, contemplates that economic relations should raise “standards of living” and lead to “the full use of the resources of the world”.³ GATT 1947 drafters thus contemplated decades ago that economic growth need not come at the expense of the global commons. Despite these provisions, a few years before becoming part of the WTO framework, the GATT Secretariat faced sharp criticism from environmentalists and civil society actors for its handling of two disputes focusing on United States (US) dolphin conservation measures restricting the sale of imported tuna products.⁴ The GATT panels concerned made broad statements seemingly indicating that such conservation measures were *per se* inconsistent with Contracting Parties’ GATT obligations.⁵ These panel reports were subsequently not adopted into the GATT *acquis* by the Contracting Parties.

The GATT regulated tariff bindings. By the 1960s, these bindings reached levels below which tariff increases from applied to bound levels could no longer afford meaningful protection to domestic industries. GATT exporters grew increasingly wary of so-called “non-tariff barriers”, such as product standards similar in operation to those the US had applied to tuna imports.⁶ During the Tokyo Round of negotiations of 1974, GATT Parties pressed for a special negotiating group on standards.⁷ This yielded the plurilateral Agreement on Technical Barriers to Trade (the Standards Code), which 46 Contracting

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Parties joined.⁸ The Standards Code inspired further product standards negotiations in parallel sessions held by technical barriers and agriculture groups set up during the Uruguay Round of negotiations establishing the WTO legal framework.⁹

Inasmuch as it is common to refer to the WTO legal framework in the singular, it should be borne in mind that the WTO Agreements are a series of inter-related and inter-state treaties. During the Uruguay Round, these agreements were negotiated in 15 different working groups, with little to no coordination among them initially.¹⁰ Towards the close of negotiations, the notion of the “single undertaking” gained traction — pursuant to which the results of the negotiations were deemed to form a “single package” joined together by the Marrakech Agreement Establishing the WTO.¹¹ This led to a scramble to better coordinate among the different agreements, which Members resisted to avoid disturbing the negotiated texts. The SPS and TBT Agreements emerged from these negotiations and both regulate product standards. The SPS Agreement applies to product standards adopted to protect human, animal or plant health from the spread of pests, and from dangerous additives, contaminants, toxins, and disease-causing organisms contained in foodstuffs.¹² The TBT Agreement applies, residually, to all other product standards.¹³ Together, the GATT, SPS and TBT Agreements impose measures restricting adverse trade impacts of Members’ domestic regulation. Given the ease with which any domestic environmental regulation can be construed as restricting trade, the collective reach of these agreements to environmental laws is broad.

Environmental regulation can typically distort trade in three ways.¹⁴ The first is through a complete ban on those imported products that produce environmental externalities.¹⁵ The second is through a partial ban, on imports using a particular process and production method (PPM) resulting in an environmental externality. Where such PPM is amended or altered to the importing Member’s satisfaction, subject products may re-access the relevant market.¹⁶ It will become clear in my below discussion of relevant WTO jurisprudence, that most trade and environment disputes tend to implicate this second distortion, inasmuch as complaining Members have a tendency to “frame” a particular environmental regulation as having the effect of partially limiting market access to the respondent Member’s domestic market. The third is through sanctions, under which all or some of a Member’s imports are subject to punitive import restrictions following a serious environmental transgression.¹⁷ This latter category, outside some very limited exceptions,¹⁸ runs counter to the WTO’s ban on unilateral remedial measures.

This paper will address the scope of environmental regulation under the WTO Agreements. It will do so by reviewing WTO dispute settlement reports on environmental regulation under the GATT, SPS and TBT Agreements. This paper will demonstrate that these reports have followed uniform GATT canons of interpretation. This paper posits that the Appellate Body, the WTO’s judicial appellate organ, has followed these canons of interpretation owing to a cognitive bias exhibited in its trade and environment disputes, in favor of GATT-driven principles that has enabled it to regulate away internal inconsistencies

in the application of environmental regulations under three very different agreements. This paper will conclude that this bias, as manifested in recent TBT dispute reports, has resulted in the narrowing of the scope of the TBT Agreement beyond whatever was intended or foreseen by WTO draftspersons. This paper will posit that this is due principally to a human element that is by and large ignored in the literature.

Section II will introduce the WTO and Appellate Body Secretariats. Section III will discuss prevailing theories on the challenges that trade and environment disputes pose to the WTO. These theories, most of which were presented over a decade ago at the height of WTO dispute settlement activity on environment conservation measures, are still influential in trade circles. I will outline an alternative explanation for the evolution of this activity. Section IV will summarize WTO provisions relevant to environmental regulation. Section V will give an overview of the Appellate Body’s “guide” to environmental regulation in disputes under the GATT, SPS and TBT Agreements. It will demonstrate that the Appellate Body has transposed GATT principles into later SPS and TBT disputes in a manner that, particularly in the case of the TBT Agreement, has blurred important distinctions between different sets of obligations. Section VI will conclude with recommendations.

II. THE WTO AND APPELLATE BODY SECRETARIATS

The WTO is composed of two Secretariats: the WTO and Appellate Body Secretariats. The WTO website summarizes the WTO Secretariat’s main duties as follows:

“to supply technical and professional support for the various councils and committees, to provide technical assistance for developing countries, to monitor and analyze developments in world trade, to provide information to the public and the media and to organize the ministerial conferences. The Secretariat also provides some forms of legal assistance in the dispute settlement process and advises governments wishing to become Members of the WTO.”¹⁹

The WTO Secretariat supports Member actions in relation to the WTO Agreements’ three pillars: negotiations, monitoring and dispute settlement.²⁰ The Appellate Body Secretariat, in contrast, “provides legal and administrative support to the Appellate Body”²¹, and thus only supports the last of these pillars.²²

Negotiations under the first pillar are held under the auspices of the Trade Negotiations Committee (TNC), mandated to negotiate deeper market access commitments and binding rules. Monitoring under the second pillar is carried out under the Trade Policy Review Mechanism (TPRM). Dispute settlement under the third pillar is formally governed by the Membership acting jointly as the Dispute Settlement Body (DSB). There is something of a fluidity to the three pillars: Members negotiate new market access commitments. These and pre-existing commitments are regularly monitored and, where required, enforced by WTO dispute settlement. This structure has been reversed lately, with Members seeking to push new market access commitments

through the backdoor of the third pillar.²³ Below, I summarize these developments.²⁴

1. THE DEMISE OF THE NEGOTIATIONS PILLAR

Uruguay Round negotiators, wary of civil society criticism and adverse press from the abovementioned GATT panel reports condemning US dolphin conservation measures, had hoped that a Committee on Trade and Environment (CTE) could reach a political solution to environmental policy convergence. Sadly, the CTE, composed largely of trade bureaucrats operating largely behind closed doors, failed to deliver on this task. The CTE effectively sought to ‘wish away’ the problem of environmental disputes in the WTO by taking the now discredited position that Members were unlikely to resort to WTO dispute settlement, where alternative dispute settlement mechanisms existed under other environmental agreements.²⁵ This is sometimes cited with irony in the literature as the CTE’s one meaningful contribution to the trade and environment polemic.²⁶ As this paper will elaborate in some detail, the CTE’s failure, rather than yielding a negotiated solution to environmental regulation in the WTO, instead forced environmental regulation into the domain of WTO dispute settlement panels. The result is that the Appellate Body is vested with the final say on the WTO-conformity of any such regulation.

The result is that Members adopt environmental laws under conditions of uncertainty: such measures are liable to challenge by another Member, and to be deemed to violate the WTO Agreements by a dispute panel, thus exposing the adopting Members to trade countermeasures. This uncertainty has hindered institutional developments in the fields of international economic law *and* international environmental law. On the former, the ease by which Members can trigger dispute settlement procedures stands in contradistinction to the difficulty of successfully negotiating new trade disciplines. This has led to a collective and progressive loss of faith in the WTO’s ability to serve as a forum for deeper multilateral integration, culminating recently in the collapse of the Doha Development round of negotiations.²⁷ On the latter, concerns about the WTO-consistency of proposed environmental agreements have led to a decline in multilateral environmental negotiations — exemplified by the slowdown in negotiations in Cartagena over the Biosafety Protocol to the Convention on Biological Diversity.²⁸

2. THE RISE OF THE DISPUTE SETTLEMENT MECHANISM

WTO disputes are governed by the Understanding on rules and procedures governing the settlement of disputes (DSU) annexed to the WTO Agreements. The DSU recognizes that dispute settlement is a “central element in providing security and predictability to the multilateral trading system . . . it serves to preserve the rights and obligations of Members under the covered agreements, and to clarify the existing provisions of those agreements”.²⁹ WTO disputes are formally initiated at the request of the complainant Member, in respect of any trade-related measure adopted or maintained by the respondent Member. These Members must first attempt to reach a negotiated settlement. If they fail to do so the complainant Member

may request the establishment of a dispute panel, normally composed of three trade diplomats. The panel’s final report can be appealed to the seven-judge (formally, they are referred to as “members”) Appellate Body on issues of law or legal interpretation.³⁰ Typically, a division composed of three Appellate Body members will review a given panel report.³¹ Nowadays, most panel reports are appealed.³²

WTO rules on the burden of proof emanate from general principles of law, and require the complainant Member to assert and prove its claim. A complainant Member will satisfy its burden when it establishes a *prima facie* case, namely a case which, in the absence of effective refutation by the respondent Member, requires a panel, as a matter of law, to rule in favor of the complainant Member.³³ Where a complainant Member fails to establish a *prima facie* case, its claim will fail for want of meeting the burden of proof.

A panel’s standard of review under the DSU is neither *de novo*, nor total deference: “a panel should make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements.”³⁴ For this purpose, a panel may “seek information and technical advice from any individual or body which it deems appropriate”, including notably experts.³⁵ In making findings and recommendations in a given dispute, panels and the Appellate Body cannot “add to or diminish the rights and obligations provided in the covered agreements.”³⁶ Only Members can do so, by way of authoritative interpretations under Art. IX:2 of the Marrakech Agreement. The DSU recognizes that WTO dispute settlement is subject to this qualification.³⁷ The DSU contemplates that a panel’s role is limited to assessing the relative strengths of the arguments presented by the disputing parties. Panels cannot make law, nor can they stray beyond the claims presented to them.

Over time, the Appellate Body has implemented its duty to provide ‘security and predictability’ in WTO Members’ treaty obligations, under the DSU, in a manner that some would regard as running counter to the DSU prohibition against ‘adding to or diminishing from’ Members’ WTO treaty obligations. According to the Appellate Body, adopted panel reports, while formally binding only on the disputing parties, nevertheless “create legitimate expectations among WTO Members, and, therefore should be taken into account where they are relevant to any dispute.”³⁸ Appellate Body reports, further, seem to occupy a status in between adopted panel reports and an authoritative interpretation. In one dispute, a panel departed from “well-established Appellate Body jurisprudence clarifying the interpretation of the same legal issues”, namely on the use of the so-called “zeroing” methodology³⁹ in antidumping investigations. The Appellate Body roundly condemned the panel for doing so, and interpreted the DSU as requiring a panel “absent cogent reasons” to “resolve the same legal question in the same way in a subsequent case.”⁴⁰

In constraining panels, the Appellate Body introduced *stare decisis* and judicial law making through the backdoor. It bears mentioning, in this regard, that the Appellate Body has never explicitly reversed itself or openly modified its prior reasoning

on a legal question in its more than 20 years of existence.⁴¹ This may come as a surprise to the reader, given that the seven judges serving it do so under staggered four-year terms with the possibility of only one contract renewal.⁴² Further, some of these judges do not have their primary residence in Switzerland. It becomes less of a surprise, however, if the reader considers the understated role the Appellate Body Secretariat plays in facilitating the work of these seven Members. The enduring character of Appellate Body jurisprudence would tend to suggest that the WTO and Appellate Body Secretariats have a larger role to play in facilitating the role of the DSB than has been chronicled in the literature. Indeed, the role of both the WTO and Appellate Body Secretariats is surprisingly ignored in the literature.⁴³

Formally, panelists and Appellate Body Members rule on the outcome of a dispute. They normally do so by consensus, notwithstanding provisions in the DSU for the issuance of separate or dissenting opinions. Panel and Appellate Body disputes are guided by the two Secretariats.⁴⁴ The WTO Secretariat influences panels in two important respects. First, while disputing Members can agree upon panel composition, they typically do not. WTO litigation is expensive, and can sometimes implicate trade volumes reaching towards the billions of dollars. With so much at stake, disputing Members will typically request the WTO Director-General to compose a neutral panel, acting on the advice of his staff.⁴⁵ Second, Panelists are often guided by the legal, factual and technical assistance provided by Secretariat staff, notably in the form of background papers that digest volumes of prior WTO jurisprudence and reams of factual exhibits and party arguments into manageable documents.⁴⁶ This process is repeated, *mutatis mutandis*, by the Appellate Body Secretariat following appeals. In most, if not all cases, the authors of the background papers prepared for panels and the Appellate Body are senior WTO legal counselors who are advocating ingrained views on WTO legal doctrine.⁴⁷ The WTO and Appellate Body Secretariats' rosters of legal officers, some of whom served the GATT Secretariat prior to the creation of the WTO, include some of the world's foremost trade law experts. After spending decades servicing dozens of WTO disputes, it is inevitable that a number of these experts will have developed ingrained views on WTO legal doctrine. Such views, it follows, do not easily lend themselves to a reversal or modification, from one dispute to the next.⁴⁸

Below, I illustrate how a cognitive bias towards first-order GATT-inspired market access and non-discrimination (what I refer to as "first order") principles that can be found in the analytical approach and sequencing employed in Appellate Body dispute settlement reports on environmental regulation had led to a line of jurisprudence that openly struggles with the WTO-consistency of environmental measures. Before doing so, I summarize alternative theories on trade and environment disputes. This literature addresses WTO disputes in the broader framework of "trade and" disputes, referring to those disputes that implicate regulatory concerns extending well beyond the conventional domain of a WTO dispute involving tariffs or quotas. I compare these theories to my alternative account for the Appellate Body's analytical approach to environmental regulation.

III. PREVAILING THEORIES ON "TRADE AND" DISPUTES

"Trade and" disputes have generated a great deal of literature. This section will give an overview of how trade scholars perceive the *problématique* of "trade and" disputes in the WTO before building on the above discussion of the Secretariats with an alternative proposal.⁴⁹ For ease of reference, I have grouped these theories into three distinct categories. I have labeled these the Hermetic Shift, the Constitutional Order and the DSU Conflict.

As I will set out below, the Hermetic Shift is premised on the fragmentation of international legal disciplines. It questions the merit of any convergence of disciplines, given the lack of coherence in international relations. The Constitutional Order is premised either on the existence of global administrative law or, more ambitiously, constitutionalism of international law. Both premises consider that international institutions act beyond the autonomy conferred upon them by states, by drawing upon a pre-existing or foundational set of international norms. Both premises further consider convergence a natural consequence of the expanding role of international institutions. The DSU Conflict is the most difficult to categorize. It is best defined as premised on international legal pluralism: it recognizes the phenomenon of convergence, without ascribing it any dominant value.⁵⁰

1. THE HERMETIC SHIFT

Hermetic Shift theorists consider that international economic law was designed to operate in a legal vacuum.⁵¹ To them, the WTO was not designed to handle trade and environment disputes. At its heart, the WTO stems from the dictates of economic theory: its free trade rationale is rooted in Adam Smith's *laissez-faire*⁵² and David Ricardo's comparative advantage ideologies.⁵³ Its historical development has consequently fallen out of step with those of the UN institutions such as the UNFCCC, borne out of comity and human rights.⁵⁴ As one commentator, Donald McRae puts it: "at the theoretical level, international trade law and international law are in important respects based on different assumptions. The organizing principle for the international trading regime is the economic theory underlying a liberal trade order, that is the principle of comparative advantage; the organizing principle for international law, by comparison, is the concept of the sovereignty of states . . . International law is built on the fundamental construct of a community of sovereign states whose relations with each other is the substance of the discipline — international trade law runs counter to that construct and in significant ways acts to undermine it."⁵⁵

Despite these differences, these two disciplines have converged towards the end of the 20th century. As another commentator, Joost Pauwelyn states: "with the end of the Cold War and the accession of many former communist countries to the Bretton Woods institutions, the separation [between different fields of international law] was no longer self-evident. The increased inter-dependence between states and between issue-areas (e.g., trade and environment, human rights and economic development) ma[kes] the strict separation between different fields of international law all the more artificial."⁵⁶

Jeffrey Dunoff, in a widely-cited paper, identified subject-matter convergence as the driver of trade and environment disputes. Writing on the apparent demise of the international trade regime, he describes the impact of so-called “trade and”⁵⁷ issues on two trade liberalization models, the realist⁵⁸ collective action model (CAM⁵⁹) and the liberalist embedded liberalism model (ELM⁶⁰).⁶¹ Dunoff illustrated that both models are undermined by “trade and” issues. CAM is premised on the failure, in international relations, that would result if states each acted individually in economic relations. “Trade and” issues, for Dunoff, frame the failure instead as one of uneven distribution in substantive international obligations. ELM, which juxtaposes shared decision-making in international affairs with a state’s exclusive control over domestic affairs, for Dunoff, is undermined as those matters deemed domestic and thus reserved to the sovereign prerogative of states are instead scrutinized in an international forum. “Trade and” disputes thus blur the lines between the domestic and international, and render the distinction drawn by ELM a false dichotomy.⁶²

Sanford Gaines, another trade scholar, finds that convergence between trade and environmental laws is problematic due to the use of the more normative WTO dispute settlement mechanisms to induce compliance with non-WTO treaty obligations that the DSU is poorly equipped to handle.⁶³ For Gaines, while “modern international trade law . . . has the relatively easy task of establishing agreed ground rules about when and how governments are permitted to or prohibited from adopting national policies that interfere with these private transactions or distort the terms of market competition that drive the transactions . . . environmental law is vastly more complex and contingent than trade law: complex because almost every human behavior has multiple environmental effects; contingent because regulation of those effects depends on our incomplete, ever-changing, and irreducibly uncertain scientific understanding of the natural world.”⁶⁴ For Hermetic Shift theorists, the WTO’s trade rules, if used to adjudicate non-WTO environmental treaty terms beyond the remit of ‘ordinary’ trade matters, will yield outcomes that twist and turn the environmental treaty terms.

2. THE CONSTITUTIONAL ORDER

Constitutional Order theorists consider that the prevalence of trade and environment disputes signals the convergence of different legal disciplines in international relations. These theorists thus propose a counter-narrative to proponents of fragmentation in international law, such as DSU theorists. Beyond this, ‘constitutionalization’⁶⁵ can mean different things to different commentators — and the debate has been aptly likened to the fabled elephant in the hand of six blind men by one commentator.⁶⁶

Against this caveat, Joseph Weiler and Ernst Petersmann are the most frequently cited⁶⁷ proponents of international constitutionalization. Weiler defines constitutionalization as possessing a normative and social element. Writing on the formation of the EU, he identified the normative element as the creation of a ‘higher’ body of EU law. Weiler credits the European Court of Justice with shaping the relationship between community law

and municipal law as one “indistinguishable from analogous legal relationships in constitutional federal states.”⁶⁸ The social element, for Weiler, developed through the progressive formation of a federalized “European entity.” It is less clear whether the normative element is a precondition to the social element. However, in later and more doctrinal writing on legitimacy and governance, he suggests that the social element is, indeed, the “output” of the normative element.⁶⁹

Writing on the WTO,⁷⁰ Weiler found elements of both present, but lacking in some important respects. On the normative element, he found that the WTO Secretariat did not operate completely free from ‘external influences’, by which he [probably] meant large trading Members’ influence. Weiler attributed the lack of institutional independence to shortcomings with the WTO’s judicial organs. Weiler considered that the Appellate Body’s focus on Oxford English Dictionary definitions to ascertain the “ordinary meaning of words” and treaty provisions in disputes, in particular, prevented it from meaningfully engaging with the more difficult and systemic issues presented by “trade and” disputes — issues capable of shaping the social element, leading to an epistemic trade community.⁷¹

For Petersmann, constitutionalization is a rights-based phenomenon.⁷² Unlike Weiler’s judge-driven model, Petersmann’s model is premised on a more substantive notion of federalism grounded in Kantian philosophy on individual autonomy and freedom. In Petersmann’s view, international relations are conducted against the backdrop of unalterable fundamental rights. International trade serves as a conduit for enjoyment of these rights: “the fact that most people spend most of their time on their ‘economic freedoms’ (e.g. to produce and exchange goods and services including one’s labour and ideas) illustrates that, for most people, economic liberties are no less important than civil and political freedoms.”⁷³ In Petersmann’s view, WTO panels can and indeed should adjudicate more candidly on the full range of “trade and” disputes, particularly those affecting the environment, and human rights. [More] Controversially, Petersmann views Bretton Woods institutions, spearheaded by the GATT, as creating a “right to trade”⁷⁴ which must be weighed and balanced against these other fundamental rights.⁷⁵

In later writing, Petersmann would focus on the fragmentation of human rights law, with emphasis on disparate horizontal and regional instruments, and international economic law, through studying the proliferation of bilateral investment treaty obligations, to argue for a grander constitutional order marshalled by a UN-led collective pursuit of human rights protection. In this vein, he would emphasize the need for judicial cooperation in applying so-called “constitutional methodologies” to coordinate between judgments of various international courts and tribunals.⁷⁶ Petersmann would likely consider that trade and environment disputes in the WTO should be (but aren’t presently) adjudicated upon through adherence to uniform canons of international judicial adjudication, to avoid the types of fragmentation problems that Hermetic Shift theorists observe in relation to environmental regulation disputes.⁷⁷

3. THE DSU CONFLICT

The DSU flipped GATT 1947 dispute settlement rules. Under the GATT 1947, Contracting Parties could forum shop within the GATT,⁷⁸ and block adoption of an adverse panel report owing to the positive consensus rule. This rule required *all* Contracting Parties to vote in favor of a panel report before it could become part of the GATT *acquis*, allowing the losing party to block its adoption. Dispute settlement under the GATT was thus weak, and Contracting Parties preferred negotiated solutions to formal dispute settlement.⁷⁹ Under the WTO, in contrast, a negative consensus rule results in the automatic adoption of panel reports, except where *all* Members block it.⁸⁰

Under the DSU, further, forum shopping is prohibited due to the now-exclusive jurisdiction of WTO panels.⁸¹ Panel proceedings are subject to strict time frames, of six months for completion of panel reports and 60 days for completion of Appellate Body reports.⁸² Once the findings and conclusions in these reports are formally adopted by the DSB,⁸³ the latter may recommend, where appropriate, that the respondent Member bring its measures into conformity within a reasonable period of time. Upon expiration of this period of time, the complaining Member can, in principle,⁸⁴ seek to retaliate through countermeasures by securing permission — from the DSB — to suspend “concessions or other obligations under the covered agreements.”⁸⁵ Such retaliation, which is prospective in nature, may be fixed to a level “equivalent” to the level of economic harm caused by the offending measure(s).⁸⁶

WTO dispute settlement is thus broad, compulsory, adversarial, and can often result in economic retaliation. DSU Conflict Debate theorists focus on the first two aspects. They point out that WTO treaty obligations are worded as open-ended prohibitions, violations of which can all too easily be alleged by a complainant Member. They also point out that the terms of the DSU oblige Members to resort to WTO dispute settlement when seeking “the redress of a violation of obligations or other nullification or impairment of benefits under the covered agreements or an impediment to the attainment of any objective of the covered agreements.”⁸⁷ This leads them to argue that the DSU has ‘attracted jurisdiction’ away from non-WTO treaties. Gabrielle Marceau, a WTO legal counselor, phrases the problem in the following terms: “a WTO Member may seek redress for a violation of a human rights treaty before a human rights court. Yet, WTO Members seem to have precluded themselves from engaging in any debate on whether human rights courts would order remedies having any trade-related impact inconsistent with WTO law. At the same time, WTO Members have human rights commitments, and all states must respect all their international rights and obligations at all times.”⁸⁸

Eric Posner and John Yoo consider that the DSU’s extensive jurisdiction is so broad that it may actually deter sovereign states from complying. To back this claim with empirical data, the authors use proxy indicators for “effectiveness,” which they concede is a “difficult” measure to apply as a dependent variable. Using the proxies of compliance, usage and budget to measure effectiveness, the authors submit by means of a strong hypothesis

that there is a negative correlation between effectiveness and independence. A weaker hypothesis reserved by the authors is that “there is no evidence for positive correlation between independence and effectiveness.” The authors conclude, based on findings that Member States are taking conspicuously longer to comply with DSB recommendations, that the DSB “will have diminished chances of success, as already indicated by steps being taken by states to avoid or weaken their jurisdiction.”⁸⁹

DSU Conflict theorists, without necessarily ascribing any value judgments to trade and environment disputes, attribute their prevalence in the WTO to a procedural feature of dispute settlement rules. WTO panels, to them, simply have to deal with these disputes in the best way possible. Where they stray too far, they risk having their recommendations ignored by the losing party.

4. ASSESSMENT OF THE THEORIES AND AN ALTERNATIVE THESIS

The Hermetic Shift theory considers that panels and the Appellate Body do not have the tools to properly adjudicate trade and environment disputes under the WTO Agreements. The GATT 1947 dispute settlement mechanism gave Contracting Parties a way out: the US, it is recalled, voted against adopting those adverse GATT panel reports that restricted its ability to adopt dolphin conservation measures. Such reports floated around the GATT universe thereafter as specious sources of persuasive authority: out of sight, and out of mind. Under the WTO, however, adoption is the default rule. Every trade and environmental dispute adjudicated by a panel creates new WTO ‘law’ that hurts or benefits either economic law or environmental law foundations, at the cost of the other, and thus exacerbates fragmentation.⁹⁰ In a similar vein, the DSU Conflict theory posits that neither panels nor the Appellate Body really have a choice in hearing a dispute: whenever Members frame a complaint as a violation of WTO obligations, they must adjudicate upon the matters raised therein. The Constitutional Order theory is more prescriptive. It considers that fragmentation notwithstanding, panels and the Appellate Body *should* engage with their broader roles in an expanding trade or global constitution to resolve “hard cases.” That the DSU “attracts jurisdiction”⁹¹ is, if anything, indicative of the need for such action.

Empirical evidence supporting any of these theories is weak. The Hermetic Shift theory better summarizes the pre-WTO GATT 1947 position on trade and environment disputes. GATT panels were wary that allowing environmental conservation measures to pass muster would somehow allow these measures to ‘trump’ trade obligations. Yet, as will become clear in my below discussion of the SPS and TBT Agreements, these two texts were specifically designed with environmental regulation in mind. Rather than view such regulation as a threat to the trading system, WTO drafters saw the merit in setting some binding rules to limit the discriminatory or disproportionate elements of environmental regulation, which panels are in turn meant to enforce. The DSU Conflict theory, in turn, is circular — as applied to trade and environment disputes, it assumes that any and all environmental measures can be framed as a trade measure. Thus, under the expansive terms of

the DSU, any environmental measure can be challenged before a WTO panel. If this is indeed true, this has more to do with the fact that most WTO obligations are drafted as open-ended prohibitions against certain conduct than with the DSU's compulsory jurisdiction clause *per se*. A further flaw with the DSU Conflict theory is that it assumes away the critical role of states in initiating WTO disputes against trading partners. In the absence of any prosecutorial authority vested in the two Secretariats, these states are surely more to blame for the expansive reach of the DSU than the text of the DSU itself. Lastly, the Constitutional Order theory has explicitly been rejected by the Appellate Body, the same body meant to be charged with creating an epistemological community of free or liberalized traders.⁹² Leaving this aside, further, Panel and Appellate Body reports are filled with claims that are not addressed for reasons of "judicial economy". One would expect tribunals in a constitutional setting not to engage in such issue-avoidance techniques, but rather make sweeping doctrinal statements on trade and environment principles.

I would propose a far more functional theory. Building upon my discussion in the previous Section on the role legal officers within the WTO and Appellate Body Secretariats, I would posit that legal officers advise panels and the Appellate Body through the lens of a GATT 1947 lawyer: with a keen eye for circumvention of GATT non-discrimination principles, and a sense of skepticism, if not measured disdain, towards any measure that curtails market access principles.⁹³ This GATT 1947 perspective, in turn, filters its way into panel and Appellate Body reports.

Whereas, as previously mentioned, the GATT grew into 15 separate agreements, the analytical approach to be followed by panels did not likewise develop into 15 separate analytical approaches. Rather, the analytical approach that WTO and Appellate Body Secretariat staff adopt when advising panels and the Appellate Body, respectively, stays largely faithful to GATT first order principles that we will define below: namely, those relating to market access, non-discrimination and necessity, all buttressed by a skeptical attitude towards Members' purported justifications for the promulgation of 'non-tariff barriers', of which environmental regulation formed an historically contentious subcategory.

IV. DOMESTIC REGULATION IN THE WTO

Below, I will compare and contrast GATT disciplines relevant to environmental regulation from SPS and TBT disciplines. The following Section introduces GATT key disciplines, alongside analogous SPS and TBT disciplines. It will seek to underline the distinct analytical approach panels are meant to adopt when resolving an SPS or TBT dispute.

1. THE GATT⁹⁴

SCOPE

The GATT applies, broadly, to any "measure" that nullifies or impairs any of its benefit, or frustrates attainment of any of its objectives.⁹⁵ At a minimum, these measures include: "rules and formalities in connection with importation or exportation";⁹⁶ "internal taxes and other internal charges, and laws, regulations

and requirements affecting the internal sale";⁹⁷ and measures resulting in the "prohibitions or restrictions",⁹⁸ of products.⁹⁹

MARKET ACCESS

Market access under the GATT refers to the elimination of quantitative restrictions on goods. In the course of the negotiations leading up to the Uruguay Round, WTO Members had embarked upon a process of tariffication' of 'non-tariff' quantitative restrictions, particularly non-automatic import and export licenses, and quotas. The GATT generally prohibits quantitative restrictions in form and effect.¹⁰⁰ GATT tariff schedules follow the World Customs Organization (WCO) Harmonized Commodity Description and Coding System (HS).¹⁰¹ Current practice allows Members some flexibility in how they subcategorize goods and service commitments in domestic law.¹⁰²

NON-DISCRIMINATION: NATIONAL TREATMENT (NT)

NT prohibits WTO Members from treating imported products less favorably than "like" products.¹⁰³ This prohibition applies to any measure adversely affecting imported products in law or in fact. In determining whether a measure adversely affects 'like' imported products, a WTO dispute panel will typically assess the extent to which the measure at issue has modified the "conditions of competition" in favor of the 'like' domestic product.¹⁰⁴ In this context, likeness, is determined with respect to the following four criteria: (a) product end-uses; (b) consumer tastes and preferences; (c) physical characteristics; and (d) tariff classifications.¹⁰⁵

NON-DISCRIMINATION: MOST FAVORED NATION (MFN)

MFN prohibits WTO Members from treating imported products from some Members less favorably than "like" imported products from other Members. Any "advantage"¹⁰⁶ granted by a Member must be accorded, unconditionally, to other Members, whether or not these Members joined the WTO later by accession, and were thus not party to the original tariff or service commitment negotiations.¹⁰⁷ As with NT, MFN applies to measures affording an unfair advantage in law or in fact, unless such measures were specifically exempted when commitments were initially scheduled.¹⁰⁸ Whenever such 'advantage' is established, a violation of MFN is established with no additional inquiry into the "conditions of competition" necessary.¹⁰⁹ It bears mentioning that in the MFN context, likeness is understood to focus more narrowly on physical characteristics and tariff classifications.

GENERAL EXEMPTIONS

WTO Members may derogate from the three principles outlined above, whether for "security interests",¹¹⁰ or by operation of the "general exemptions" clauses that allow Members to impose trade restrictions "necessary" to protect stated objectives, notably the protection of public morals, human, animal or plant health, and/or to secure compliance with domestic laws or regulations not otherwise inconsistent with the WTO Agreements.¹¹¹ The GATT also allows Members to impose restrictions "related to" the conservation of exhaustible natural resources, where made effective with reductions in domestic consumption.¹¹² In all instances, Members must satisfy the requirements of the

so-called “chapeau” which requires that the measures at issue 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”.¹¹³ These standards impart meaning to one another, and seek to filter out foreseeable discrimination in the application of a measure, as distinct from inadvertent or unavoidable discrimination.¹¹⁴

In disputes where the disputing Members are party to international law instruments bearing upon any of the relevant exemptions, dispute panels and the Appellate Body have shown a greater willingness to consider these instruments as satisfying the chapeau.¹¹⁵ However, the precise status of non-WTO treaties in dispute settlement is unsettled. While the Appellate Body has shown itself willing to consider the terms of such treaties where the disputing parties are signatories as relevant interpretive context,¹¹⁶ in other disputes it has refused to consider the relevance of those treaties that fail to reflect the “common intention of all parties”¹¹⁷. This sets a high bar, particularly when one considers that the WTO membership counts certain separate customs territories that are otherwise unrecognized under international law.

2. SPS & TBT

SCOPE

The SPS Agreement applies to all “laws, decrees, regulations, requirements and procedures”¹¹⁸ bearing on human, animal or plant health risk regulation; sanitary matters arising from the risks of entry, establishment and spread of pests, diseases or disease-causing organisms or from additives, contaminants or toxins in food and feedstuffs; and pest-related damages. Given that these operate as a ‘carve out’ from the TBT Agreement, SPS measures should be narrowly defined.¹¹⁹ Nevertheless, SPS measures have sometimes been interpreted widely to apply to the regulation of GMOs and crossbreeds, as ‘pests’.¹²⁰

The TBT Agreement defines a technical regulation as any “document” which lays down “product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory.”¹²¹ Whether a measure is a technical regulation will turn on the extent to which it lays down “product characteristics.”¹²² A full or partial import ban can constitute a technical regulation.¹²³

The default rule is that SPS and TBT Agreements operate in mutual exclusion: they cannot apply to the same element of a measure.¹²⁴ In theory, however, they can apply to different elements of the same measure.¹²⁵

NECESSITY TEST & POST-DISCRIMINATION PROPORTIONALITY STANDARD

The SPS and TBT Agreements both refer to the GATT general exemptions clause in their preambles.¹²⁶ Both agreements further the objectives of the GATT in the realm of product standards. The SPS Agreement, by its terms, authorizes Members to adopt only those measures necessary to protect human, animal or plant health, provided they are backed by “sufficient scientific evidence”.¹²⁷ The TBT Agreement is broader than the GATT in

allowing Members to pursue any “legitimate objectives”, which a panel must assess against the “risks non-fulfillment would create.”¹²⁸ An important distinction is that while the GATT general exemptions clause is, by its terms, an affirmative defense for a respondent Member to invoke to show that its contested measures were “necessary” to achieve a stated objective, the SPS and TBT Agreements frame the necessity requirement as an obligation of the complainant.¹²⁹

Importantly, both Agreements go beyond the GATT general exemptions clause in requiring Members to adopt standards that are “not more trade-restrictive than necessary”.¹³⁰ These common provisions contemplate that an SPS or TBT measure can be found to violate WTO law even if they do not discriminate, in law or in fact, against imports. Specifically, they can be found to be WTO-inconsistent if a less trade-restrictive measure is available. Such measure must be both technically and economically feasible to implement, *and* achieve the respondent’s stated level of protection. This proportionality standard thus embodies a “post-discrimination” standard, which extends the reach of the SPS and TBT Agreements beyond the reach of GATT non-discrimination principles.¹³¹

HARMONIZATION AND THE ROLE OF INTERNATIONAL STANDARDS

The SPS and TBT Agreements encourage Members to harmonize standards.¹³² To incentivize Members to harmonize on a broad basis, the agreements afford safe harbor to standards that are “based on” relevant international standards.¹³³ The agreements differ on the parameters of this safe harbor. The SPS Agreement deems all domestic regulation “in conformity with” existing international standards to pass the necessity test, and presumes them to be consistent with the WTO Agreements as a whole.¹³⁴ The TBT Agreement requires Members to use existing international standards “as a basis” for their technical regulations, unless such standards are “an inappropriate or ineffective means to achieve” their legitimate objectives.¹³⁵ However, the TBT Agreement presumes all conforming measures to be consistent only with its terms, and not, for instance, with the GATT.

The SPS Agreement defines “international standards” restrictively as those adopted under the aegis of the Codex Alimentarius Commission, the World Organization for Animal Health (OIE) and the International Plant Protection Convention (IPPC).¹³⁶ Under the TBT Agreement, on the other hand, whether a standard qualifies as an “international standard” turns on an enquiry of the issuing “international standardization body”, which must be a body with recognized activities in standardization, whose membership is open to at least all WTO Members.¹³⁷ Neither the SPS nor the TBT Agreement requires qualifying standards to be adopted by consensus. This seems to confer on relevant international bodies some quasi-legislative status under the WTO.¹³⁸

LESS FAVORABLE TREATMENT (NT & MFN)

The SPS and TBT Agreements both contain combined references to MFN and NT. The SPS Agreement requires Members to adopt measures that do not “arbitrarily or unjustifiably

discriminate between Members where identical or similar conditions prevail, including between their own territory and that of other Members.”¹³⁹ Similarly, the TBT Agreement requires “treatment no less favorable than that accorded to like products of national origin and to like products originating in any other country”.¹⁴⁰

It is recalled that SPS standards protect living organisms from pests or diseases in foodstuffs. SPS measures are thus tailored to specific risks, expressed, in terms of a Member’s stated level of protection. This level of protection is typically gauged in terms of the residual risk that remains following implementation of an SPS measure.¹⁴¹ Depending on how low the residual risk is set, an SPS measure can affect a range of products even in the absence of any competitive situations. Likeness under the SPS Agreement is thus assessed in relation to the levels of residual risks set in analogous situations, which in essence focuses on the *regulatory purposes* behind SPS measures.¹⁴² In practice, likeness is rarely a live issue in SPS disputes — rather, it tends to be assumed, for the reason that no respondent Member will want to argue that the risks posed by the underlying imported goods are *unrelated* to the risks redressed by its contested measure. Though literature is sparse on this point, it is submitted that doing so would likely signal the absence of any SPS-compliant justification for the resulting market access restriction, and thus result in an admission of a GATT violation.

TBT product standards can also apply to analogously wide product groups, for instance in relation to carcinogen warning labels. It can thus be argued that the “like” product in both agreements should also be assessed primarily against the regulatory purpose of the relevant measure.¹⁴³ This becomes particularly compelling if we recall that the same measure can have divisible SPS and TBT components:¹⁴⁴ to assess the SPS component of this measure as applying to a product group differing in scope from the TBT component of the same measure would be anomalous. Yet, panels have been instructed by the Appellate Body to approach likeness under the TBT Agreement primarily with reference to the four GATT competitive relations factors.¹⁴⁵ As I will discuss below in my discussion of Appellate Body jurisprudence, an inquiry into regulatory purpose under the TBT has been limited to a non-discrimination analysis of “even-handedness” between imported and domestic products (a concept borrowed from the GATT chapeau).¹⁴⁶

V. THE APPELLATE BODY’S GUIDE TO WTO-CONSISTENT DOMESTIC REGULATION

The sequencing of an SPS/TBT analysis differs from that of a GATT analysis. Whereas a GATT panel will first assess whether there is a market access or non-discrimination violation, followed by consideration of the necessity justifications put forward by the respondent Member, a proper SPS/TBT analysis should proceed in the reverse order. This is because both agreements presume, to some degree, that domestic regulation will distort trade. Such sequencing, further, stays faithful to the object and purpose of the SPS and TBT Agreements, which, it is recalled, are elaborations of the GATT’s ‘general exemptions’ clause.

Under this approach, a complainant Member should first substantiate its claim that a respondent Member’s SPS or TBT measure is not necessary to achieve its stated purpose, through identification of a lesser trade-restrictive alternative measure, with those alternative measures conforming to a relevant international standard being the most compelling. Importantly, it is incumbent on the complainant Member to make its case, by satisfying applicable rules on the burden of proof.¹⁴⁷ Only when it does so should the respondent Member provide justifications for the contested measure, including rebutting the appropriateness of any suggested alternative measures proffered by the complainant Member. A SPS or TBT panel should first consider the necessity of the contested measure as a threshold issue, before assessing whether or to what extent the measure accords less favorable treatment to imports. Importantly, beyond an assessment of necessity, the DSU does not authorize panels to evaluate the appropriateness of the contested measure in the abstract. They may only do so where they determine that the complainant Member has made a *prima facie* showing of WTO-inconsistency. Where a contested SPS or TBT measure is not necessary, moreover, no further enquiry into less favorable treatment, discriminatory or otherwise, is warranted. Its trade-restrictive impacts become disproportionate, notwithstanding this further enquiry.

Below, after summarizing the Appellate Body’s GATT analysis, I will show that, in spite of the important distinctions summarized above, the Appellate Body’s SPS analysis has ignored proportionality altogether. The Appellate Body’s TBT analysis, further, not only ignores the proportionality standard: it ignores the proper sequencing of a TBT dispute and is, effectively, tainted by the wholesale importation of material elements of the Appellate Body’s conventional GATT analysis.

1. GATT

Building upon decades of GATT jurisprudence, environmental regulation resulting in a complete or partial ban on imports are almost mechanically found to violate GATT provisions on MFN, NT and/or market access, except in those circumstances where the “likeness” between imported and domestic products is less clear-cut.¹⁴⁸ In those instances, a close analysis of physical characteristics, and tariff classifications (in addition to product end-uses and consumer tastes and preferences, in the NT context) may compel a panel to find no violation, on the basis that the products at issue are not alike. In a typical GATT dispute, however, framing a violation as a quantitative restriction, such as a full or partial import ban, or regulatory discrimination through establishing likeness under NT or MFN, and subsequent treatment less favorable, is straightforward for a complainant Member.

NECESSITY

In such disputes, the final outcome will normally hinge on whether such regulation can satisfy both limbs of the necessity analysis contained in the ‘general exemptions’ clause. This clause requires, first, that there be a nexus between the measure and the stated objective and, second, that the measure passes the ‘chapeau’ test of even-handed application. The nexus under the first limb is expressed either in terms of a “necessity” threshold, where the

stated objective relates to the protection of public morals, human, animal or plant health, or to secure compliance with domestic laws or regulations not otherwise inconsistent with the WTO Agreements, or as a “related to” threshold for the conservation of exhaustible natural resources. Such natural resources have been interpreted, broadly, to apply to “clean air”¹⁴⁹ and sea turtles.¹⁵⁰ “Necessity” is a tougher threshold to meet than “related to”. It requires a “material” contribution to the achievement of the stated objective.¹⁵¹ In an assessment of this nexus, “the contribution of the measure has to be weighed against its trade restrictiveness, taking into account the importance of the interests of the values underlying the objective pursued”.¹⁵² An assessment of measures “related to” the conservation of exhaustible natural resources, in contrast, hinges on a “close and genuine relationship of ends and means.”¹⁵³ Typically, respondent Members have not faced difficulties meeting either relational threshold.

THE CHAPEAU: EVEN-HANDEDNESS AND ITS LIMITS

Respondent Members have fared worse under the chapeau test. The chapeau, it is recalled, filters out discrimination in the way that the contested measure is applied. It addresses a form of discrimination that is unrelated to the violation of, for instance, MFN or NT.¹⁵⁴ The chapeau has been met successfully in one dispute to date, involving US sea turtle conservation measures restricting the sale of imported shrimp products.¹⁵⁵ In the original proceedings, the Appellate Body found elements of “unjustifiable discrimination” in the conservation measures, for allowing certain Members longer grace periods to adapt to the measures than others,¹⁵⁶ and “arbitrary discrimination” in the manner in which certification decisions under the measures were undertaken with respect to certain Members with zero to comparatively low accidental takings of sea turtles.¹⁵⁷ More broadly, the Appellate Body was critical of the failure by the US to engage in “serious, across-the-board negotiations with the objective of concluding bilateral or multilateral agreements for the protection and conservation of sea turtles” before “enforcing the import prohibition against the shrimp exports of those other Members.”¹⁵⁸

In ensuing compliance proceedings, the US streamlined its certification process and engaged in bilateral and regional sea turtle conservation negotiations, while maintaining an import ban on South Asian shrimp. Malaysia, one of the principal complainants, argued that the US was obliged to successfully conclude negotiations prior to maintaining its measures. The Appellate Body disagreed, finding that such a requirement had no basis in the GATT or chapeau.¹⁵⁹ The US effectively pushed the Appellate Body’s reasoning to its natural limits, by complying with the Appellate Body by removing all discriminatory and arbitrary aspects of its impugned conservation measures. Once it did so, the Appellate Body had little choice but to accept that the US had complied with its earlier recommendations, at the risk of otherwise adding an onerous and *ultra vires* requirement that states conclude negotiations before they can meet the chapeau test.¹⁶⁰

Since these proceedings, complainant Members have stopped litigating environmental measures primarily under the GATT — possibly for fear that the Appellate Body had revealed

a blueprint for evading GATT chapeau disciplines. They have turned instead to the SPS and TBT Agreements. In more recent years, GATT claims have featured as subsidiary claims that are only assessed in those rare instances where contested measures fall outside the broad scope of the SPS and TBT Agreements.¹⁶¹

ASSESSMENT

Under the GATT, panels must first determine whether there has been a substantive treaty violation. If a panel finds a violation, the environmental regulation’s compliance with the WTO standard will depend on whether the respondent Member can demonstrate that the regulation is applied even-handedly between different Members, and between imports and like domestic products. Such a finding, coupled with good faith negotiations that achieve an international consensus on the underlying policy objective, can clear the chapeau hurdle.¹⁶²

2. SPS

The narrow definition of an SPS measure suggests that the SPS Agreement was not designed to apply to environmental regulation *per se*, but rather to a subset of food and feed regulation.¹⁶³ That said, the SPS Agreement can apply, and indeed has applied, more broadly to those environmental risks that are regulated by WTO Members as a food and feed regulation. This has been the case with the EU and its legal frameworks for hormones and GMOs.¹⁶⁴

Where SPS disciplines apply and the complainant Member has made a *prima facie* showing of inconsistency with a provision of the SPS Agreement, the Appellate Body begins with an assessment of the measure’s necessity. Necessity can be demonstrated by a respondent Member in two ways. First, where an SPS measure conforms to a qualifying international standard. It is recalled, in this respect, that the SPS recognizes a closed list of qualifying international bodies.¹⁶⁵ Second, Members can diverge from international standards and satisfy necessity by showing that the measure is “based on” a scientific justification or a risk assessment.¹⁶⁶

NO CLEAR GUIDELINES ON THE PROPORTIONALITY STANDARD

Most SPS disputes on environmental regulation to date have focused on this second avenue. Factors relevant to conducting the required risk assessment include: “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.”¹⁶⁷ Appellate Body decisions on these cases have highlighted two features. First, such Members may factor socio-political considerations into their risk assessments. This is surprising, as such considerations logically feature more naturally in risk management, an altogether separate inquiry. Risk management, while not expressly addressed in the SPS Agreement, finds some expression in those provisions on a Member’s stated or desired regulatory level of protection.¹⁶⁸ Second, while general WTO transparency-related considerations require that a WTO Member’s stated or desired regulatory level of protection be sufficiently discernible from surrounding circumstances, the

Appellate Body has accepted, somewhat counter-intuitively, that ambiguities in defining their level of protection may actually insulate respondent Members from a finding that a less trade-restrictive alternative measure exists.¹⁶⁹ These two factors may suggest that the Appellate Body has blunted the application of the proportionality standard to its SPS analysis.

EVEN-HANDEDNESS: NO LIMITS

I predicate that the Appellate Body's findings on a Member's level of protection *may* have blunted the application of the proportionality standard as the Appellate Body has never actually moved far enough along in its SPS analyses to apply it. Instead, it has incorporated into its necessity assessment a requirement that panels assess the even-handedness of an SPS measure in a manner analogous to that required under the first limb of the GATT necessity analysis. While meeting the relational threshold is easy for respondent Members in a GATT dispute, in the SPS context it calls upon respondent Members to adduce clear scientific evidence. Where the adduced by the respondent Member is ambiguous, panels will actively solicit the views of experts on the proper application of SPS measures.¹⁷⁰ These experts, in turn, have provided assessments that panels have, at times, cherry-picked from to question the merits of the underlying scientific basis for a contested measure, and the reasoning of the risk assessor based on the available science.¹⁷¹ The Appellate Body has regularly upheld panels' factual determination that the respondent's scientific justifications in a given dispute have been found lacking, either due to the lack of specificity of studies relied upon¹⁷² or ambiguities as between the scientific conclusions and the SPS measure, or the SPS measure and the respondents' stated levels of protection.¹⁷³ The Appellate Body has done so, while accepting that Members' may base their SPS measures on non-mainstream science.¹⁷⁴

ASSESSMENT

Under the SPS Agreement, the WTO-consistency of environmental regulation, surprisingly, does not hinge on a proportionality standard. This is odd, given the possibility that Members have of basing SPS measures on a range of non-mainstream or majority science.¹⁷⁵ Such a standard would have required a complainant Member to establish that the respondent Member's environmental regulation is *more* trade restrictive than necessary to achieve the respondent Member's stated level of protection. Instead, the Appellate Body has directed that environmental regulation be first assessed against a searching necessity analysis, culminating in an examination of the relational nexus between contested measure and stated objective based on the first limb of a GATT necessity analysis. This examination assesses a measure's relational links to underlying scientific justification, and the respondent Member's stated level of protection. All other things being equal, such a heightened necessity analysis will tend to disfavor the respondent Member, in prompting it to show that its measure meets a scientific certainty test in a manner that, effectively, relieves the complainant Member of any obligation to show a reasonable alternative measure in the course of proceedings. Ironically, while this favors the complainant Member in the

short term, it works to its disadvantage in the medium to long term, inasmuch as the lack of any readily identifiable reasonable alternatives creates ambiguities in compliance proceedings that can be exploited by the respondent Member.¹⁷⁶

It bears mentioning that the lack of environmental disputes litigated under the SPS Agreement since issuance of a panel report on GMOs bears possible testimony to the over-stringency of SPS disciplines. While evidence on this point is anecdotal, respondent Members seem to prefer framing environmental regulation as TBT measures rather than SPS measures.¹⁷⁷ Complainant Members, for reasons I will elaborate upon below, are only too happy to base their claims under the TBT Agreement.

3. TBT

It bears noting at the outset that, while the Appellate Body has drawn a relatively clear line between environmental regulations regulated by the SPS Agreement as distinct from the GATT,¹⁷⁸ precisely where the line is drawn between an environmental regulation that is a TBT technical regulation as distinct from a GATT measure is currently an open question.¹⁷⁹ This is exacerbated by the lack of any clear guidance on whether a measure deemed consistent with one preempts a violation of the other.¹⁸⁰ It bears emphasizing that such ambiguities would have been avoided altogether if the Appellate Body had followed its SPS sequencing, and reversed its TBT analysis to first analyze the necessity of the TBT measure. This would have allowed the Appellate Body, where a contested measure is alleged to violate both the GATT and TBT Agreements, to begin a TBT analysis where its GATT analysis closes.

Be that as it may, current ambiguities allow a complainant Member to frame GATT challenges to environmental regulations under the [slightly] more stringent disciplines of the TBT Agreement. In this vein, the Appellate Body recently disposed of a spike of TBT appeals on a US ban on clove cigarettes, a US dolphin conservation measures restricting the sale of imported tuna products, US country of origin labeling requirements for imported meat products, and an EU restriction on seal fur and other byproducts¹⁸¹.

THE GATT APPROACH YIELDS ITS LIMITS

The Appellate Body's TBT analysis, as mentioned above, does not begin with a necessity analysis. Instead, the Appellate Body reverted in its recent TBT decisions to its GATT analysis. It thus starts its enquiry with a determination of product likeness, and an assessment of whether the contested measure treats imported products less favorably than like imported or domestic products. Likeness, in this context, does not follow an SPS-type analysis of regulatory purpose, but rather mirrors GATT-type competitive relations factors.¹⁸² Where less favorable treatment is established, the Appellate Body directs additional enquiry into whether this treatment "stems exclusively from legitimate regulatory distinctions."¹⁸³ This additional enquiry, which finds no textual basis in the TBT Agreement, draws upon elements of the GATT NT and chapeau provisions, and requires a respondent Member to show that its measure is properly "calibrated" to the

risks it seeks to mitigate.¹⁸⁴ In practice, all TBT measures to date have failed this amorphous ‘calibration’ test.

In a development that parallels the above-cited GATT dispute concerning US sea turtle conservation measures, however, the Appellate Body’s most recent TBT decision, issued in end-November 2015, saw the US come within paragraphs of passing the ‘calibration’ test in recourse proceedings relating to the latest installment of the dolphin conservation measures that had so troubled GATT panel over two decades earlier. In the original proceedings, the US measure had been found to subject tuna harvesters within the Eastern Tropical Pacific (ETP) to less onerous certification requirements than tuna harvesters outside the ETP, despite both groups of harvesters posing equal risks to dolphin populations.¹⁸⁵ The US had amended its measure to require additional certification outside the ETP in situations involving the existence of “regular and significant association between dolphins and tuna”, but not upon existence of “regular and significant mortality or serious injury of dolphins”. The Appellate Body found that this regulatory distinction reflected a lack of even-handedness, inasmuch as the risks to dolphins from both situations was comparable.¹⁸⁶

While the US lost the appeal, it can comply with the Appellate Body’s ruling through cosmetic amendment to its certification requirements, which the Appellate Body will be precedent-bound to ratify as TBT consistent in any follow-up compliance proceedings. Having zeroed in on the Appellate Body’s GATT-style legal analysis, the US, as it did in the above-referenced shrimp dispute again pushed the Appellate Body to the limits of its non-discrimination analysis, by chipping away at all but one of those aspects of its conservation measures that the Appellate Body had deemed improperly ‘calibrated’. Had the Appellate Body steered closer to the text of the TBT Agreement, by focusing less on discrimination (as there was none present) and more on the feasibility of lesser trade-restrictive alternatives, it could have availed itself of some of the lesser trade-restrictive alternative measures proposed by the complainant, Mexico, to strike down the US measure on other grounds. As I will elaborate upon below, however, the Appellate Body has instead elected to distance itself from the proportionality standard in TBT case law.

THE BETTER ANALYTICAL APPROACH

Pursuant to an SPS-type analysis, which it at one stage seemed to follow in earlier TBT disputes,¹⁸⁷ the Appellate Body should have started its enquiry with a necessity analysis, either by examining relevant international standards cited by the complainant, or by assessing the extent to which the measure at issue is based on a legitimate objective.

Most TBT disputes have focused on the relevance of an existing international standard. A complainant Member here must do more than show that a relevant standard exists. It must also show that the standard is “appropriate” and/or “effective” to achieve the respondent Member’s legitimate objective.¹⁸⁸ A respondent Member could challenge the standard on the basis of climactic particularities or technology gaps, or because it aspires to more stringent standards than the international

standard — reflecting its stated or desired regulatory level of protection in the TBT context.¹⁸⁹

Were a Member to diverge from relevant international standards, it would need to satisfy a necessity standard, by showing, as required in an SPS analysis, that the measure is based on a legitimate objective. The starting point in a panel’s analysis here would not be the TBT provision addressing less favorable treatment, teeing up the free-standing calibration test, but rather the proportionality provision requiring Members to adopt TBT measures that are the least restrictive to trade.¹⁹⁰ No additional enquiry into less favorable treatment should be required where the measure at issue is deemed disproportionate.

ASSESSMENT

Under the TBT Agreement, the WTO-consistency of environmental regulation turns on the respondent Member’s satisfying a GATT chapeau-style even-handedness assessment. This is because the Appellate Body has largely framed its TBT analysis in the same terms as its GATT analysis. The result, it is submitted, is the transformation of the TBT into a ‘GATT 2.0’, where the burden of proof favors the complainant Member, and contested measures are unlikely to survive the a freestanding ‘calibration’ test. Though this calibration test is no less exacting than the even-handedness test applied in the SPS context, a potentially infinite range of international standards and the absence of any pervasive requirement to adduce supporting scientific justification seems to make litigating environmental regulation under the TBT Agreement the more attractive of the three agreements for complainant and respondent Members alike.

As with its SPS case law, the Appellate Body’s introduction, in its TBT jurisprudence of an even-handedness analysis has blunted application of the proportionality standard.¹⁹¹ Accordingly, the Appellate Body has been slow to accept less restrictive alternative measures proposed by complainant Members, where these find no basis in existing international standards.¹⁹² It has instead shown total deference to respondent Members’ stated or desired regulatory levels of protection. Where proposed alternatives fail to achieve these stated levels, however artfully or fancifully expressed, the contested measure cannot be considered more trade-restrictive than necessary. Thus, in one of the rare cases where the Appellate Body addressed an alternative measure — albeit one based on an international standard — it reversed the panel’s findings to hold that Mexico’s proposal that a tuna label certifying that no dolphins were *killed* by harvesting methods fell short of the broader US concern that dolphins not be *harmed* by these methods.¹⁹³ Though these objectives were unquestionably different, there was surely some common ground between both sets of objectives for the Appellate Body to maneuver to identify a suitable compromise measure on the record before it.

Under my proposed analytical approach, the US’ stated level of protection would have been subject to a more searching assessment,¹⁹⁴ where a panel would have weighed the contested certification requirement against a range of other possible alternative measures adduced by Mexico. Were the US’ certification

requirement to yield disproportionate trade-restrictive impacts, this would not necessarily be the end of the matter:¹⁹⁵ assuming the respondent Member puts forward a plausible justification for the necessity of the trade-restrictive impacts, the WTO inconsistency of the measure would hinge on the existence of an equally efficient yet less trade restrictive alternative. If a complainant Member could establish the viability of such an alternative, the contested measure would be deemed WTO-inconsistent. Otherwise, the respondent Member should be presumed to be acting in a WTO-consistent manner. This analysis would be more accommodating to the concerns addressed in the United States' dolphin conservation measure, while staying more faithful to the text of the TBT Agreement.¹⁹⁶

VI. CONCLUSION

The Appellate Body, through adherence to uniform GATT cannons of interpretation, has belied the lack of internal coherence in the various WTO Agreements. In so doing, it has succeeded in maintaining rigid limits on Members' abilities to lawfully circumvent any and all WTO treaty obligations. Laudable as this may be, given the WTO's recent struggles to push anything meaningful through its negotiating pillar as of late, the problem is that the Appellate Body has not acted pursuant to any clear mandate from the WTO membership. Some would argue that this unbridled judicial activism may have recently caught up with the Appellate Body, following the US' decision to block re-appointments of sitting Appellate Body members that it deemed had failed to properly execute their functions in the course of their first term, notably due to their 'questionable' stance on aspects of US trade remedies legislation.¹⁹⁷ Though this impasse was eventually crossed after months of internal tussles in the DSB,¹⁹⁸ the timing is ripe to rethink the Appellate Body's approach to WTO dispute settlement.

When reviewing the above jurisprudence on environmental regulation, we see that the Appellate Body has imported key elements of its GATT necessity analysis into its SPS and TBT jurisprudence. In its SPS case law, the most critical analytical element, the assessment of the relational nexus between the contested measure and the stated objective, is lifted from the first limb of the Appellate Body's GATT necessity analysis. Case law has yet to reveal whether the second limb will feature in an SPS analysis. Similarly, in its TBT case law, which otherwise replicates the Appellate Body's GATT analysis in full, the most critical analytical element, the assessment of a contested measure's 'calibration', draws from the second limb of the Appellate Body's GATT necessity analysis. No analysis of the first limb precedes this calibration test. It is curious that the Appellate Body has ostensibly severed the GATT necessity analysis between the two agreements in such a manner. Moreover, while the Appellate Body seems to follow proper sequencing in its SPS rulings, by starting with a necessity analysis before, presumably, following through with a proportionality assessment, it does not do so in its TBT rulings. This is surprising, given that the TBT Agreement is structured much more closely with the SPS Agreement, and should be identified more closely with the latter.

The Appellate Body has thus narrowed the scope of the SPS and TBT Agreements, effectively aligning them with GATT-type market access, non-discrimination and necessity principles. Doing so, however, has yielded some unintended consequences: chief among them being that it becomes difficult to demarcate precisely where a GATT analysis ends and a TBT analysis begins. It would seem that a technical regulation under the GATT is anything short of a product ban that fails to lay down any discernible "product characteristics."¹⁹⁹ In this sense, the TBT Agreement does not seem to apply as holistically to quantitative restrictions. Further, the TBT Agreement allows Members to pursue an open-ended list of "legitimate objectives". Members seeking to legislate for objectives beyond those enumerated in the GATT 'general exemptions' clause will thus continue to avail themselves of the ability to do so under the TBT Agreement.

These factors, however, represent the 'outer limits' of the GATT and the TBT Agreement. How the Appellate Body will handle a conflict between GATT and TBT disciplines where they overlap becomes unclear. One can fathom of a situation where a complainant Member challenges a measure that the respondent Member seeks to justify with reference to a TBT-consistent objective that is not listed under the GATT general exemptions clause; or, where such complainant Member challenges the relevance of an international standard cited by the respondent Member to benefit from the TBT Agreement's 'safe harbor' in a GATT complaint, where a measure's purported compliance with international obligations may not insulate it from challenge. Had the Appellate Body stayed more faithful to the text of the TBT Agreement, it would have avoided teeing up such a potentially significant legal conflicts.

While it is true that the SPS and TBT Agreements seek to extend the application of GATT 'general exemptions' principles to product standards, both are meant to go well beyond conventional GATT market access and non-discrimination disciplines. A key feature of this extension lies in the obligation common to both the agreements that measures not be more trade-restrictive than necessary. This common obligation invites WTO panels to assess the proportionality of a measure, and requires respondent Members to adopt feasible and less restrictive alternative measures, where such measures have been identified clearly by complainants. The Appellate Body has distanced itself from this proportionality standard, perhaps because it represents a concept relatively alien to a GATT analysis. Unfortunately, the use of and abuse of GATT principles in SPS and TBT case law has yielded a more intrusive analysis than that contemplated by the SPS and TBT Agreement drafters. This comes at a significant cost: environmental regulations with trade-distorting effects tend to be struck down for the very reason that they distort trade. This is tautological. Inasmuch as the Appellate Body has elected to avoid applying proportionality standards by affording a good measure of deference to a respondent Member's stated or desired regulatory level of protection, such deference matters not where panels consistently find that contested measures fail to satisfy a necessity analysis. These Members would surely prefer having their environmental objectives preserved, even if a more

searching enquiry into the existence of a viable alternative requires them to amend certain aspects of their regulations.

Taking a step back, it cannot be said that the Appellate Body's struggle to properly analyze environmental regulation is supported by any of the theories outlined in Section II. The Appellate Body has not reverted to first order GATT principles as a means to either blunt or embrace the DSU's expansive jurisdiction, or because there is a fundamental conflict between WTO obligations and international environmental law obligations. Indeed, the Appellate Body has previously sanctioned the use of trade-distorting environmental conservation measures in prior rulings without destabilizing the global trade regime. Rather, I have sought to show that first order GATT principles, which are ingrained in the WTO's institutional memory, filter through to WTO and Appellate Body dispute settlement reports.

POSSIBLE REFORM INITIATIVES

HUMAN RESOURCES

WTO and Appellate Body Secretariat staff are trained to detect circumvention of tariff bindings, in breach of non-discrimination and market access principles. They are conditioned to treat stated justifications for these breaches with a healthy dose of skepticism. These staff, in turn, can regularly influence the legal analysis contained in panel or Appellate Body reports. That WTO panel and Appellate Body reports reveals a high level of comfort with the "belt and braces" disputes on market access restriction, while openly struggling with the precise contours of the GATT, SPS and TBT agreements, would suggest that those very skills that make a legal officer adept at dispensing with highly technical aspects of a dumping or countervailing duty investigation do not lend themselves easily to an environmental regulation dispute. These latter disputes cannot be resolved in a technical vacuum, at the expense of fully appreciating the

myriad scientific nuances and fine political balancing embodied in environmental regulation. There is no easy fix to this problem. Moving forward, a more diversified pool of legal officers, featuring individuals with stronger science and environmental studies training, may offer fresher perspectives yielding more cohesive WTO trade and environment dispute reports.

AUTHORITATIVE INTERPRETATIONS

Beyond human resource reforms, I have already that the US has sought to rectify the balance of power within the WTO by refusing to sign off on Appellate Body member reappointments. Curbing the Appellate Body's legislative prerogative by way of authoritative interpretations represents a more democratic reform initiative. Problematically, such interpretations are nearly impossible to pass for the same reason that the US is vested with a *de facto* block on Appellate Body member staffing: institutional voting requirements favor decisions taken by consensus. Reaching consensus on anything these days is a tall order now that the WTO counts upwards of 164 Members.

IN-DISPUTE SAFE HARBORS

One final reform initiative that may prove be easier to implement lies in the 'safe harbor' provisions of the SPS and TBT Agreements for standards conforming to qualifying international standards. Members seeking to reach meaningful agreements on environmental regulation need not be held hostage by either a rampant Appellate Body or the looming collapse of the WTO negotiations pillar. A critical mass can come together to promulgate qualifying international standards in international organizations outside the WTO legal framework, which may subsequently be relied upon in disputes as presumptively valid. The WTO domestic regulation disputes of the future may well focus on the contours of qualifying international standard bodies. 

ENDNOTES

¹ See Aaron Cosbey, *Lessons Learned on Trade and Sustainable Development*, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT (2004), https://www.iisd.org/sites/default/files/publications/tkn_lessons_learned_en.pdf (addressing the scale of export opportunities to Europe that exist for Chilean producers of organic wine and eco-labeled forest products). See also N. Borregaard et al., *Green Markets: Often a Lost Opportunity for Developing Countries*, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT (2003), http://www.iisd.org/sites/default/files/publications/tkn_green_markets.pdf.

² See G. Valles et al., *Trade and Climate Change Policy Beyond 2015*, Policy Brief No. 36, UNCTAD, (Sept. 2015), http://unctad.org/en/PublicationsLibrary/presspb2015d8_en.pdf (addressing the importance of measures to reduce tariff and non-tariff barriers and encourage subsidies to allow green products to displace like "brown" ones).

³ Preamble to the General Agreement on Tariffs and Trade, Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT].

⁴ See Tuna/Dolphin I, 30 ILM 1954 (1991) [hereinafter Tuna/Dolphin I Panel]; Tuna/Dolphin II 33 ILM 839 (1994) [hereinafter Tuna/Dolphin II Panel] (explaining criticism in Tuna/Dolphin, which ultimately were not adopted).

⁵ See Tuna/Dolphin I Panel, *supra* note 4, (finding that it significantly handicapped the range of environmental measures that Contracting Parties could lawfully take under the GATT 1947).

First, it found, at paras. 5.10-5.14, that United States measures disciplining the production and processing methods (PPMs) of tuna harvested by Mexican fishermen were impermissible non-tariff barriers prohibited by GATT Art. XI. It concluded that any measures regulating anything other than a product's physical or inherent characteristics fell outside the scope of Art. III, the GATT provision on lawful internal regulations. *Id.* Second, it considered, at para. 5.26, that Contracting Parties could not apply such measures extra-territorially. *Id.* Accordingly, no Party could enact measures to protect the global commons, where such measures distorted trade. *Id.*; see also Tuna/Dolphin II Panel, *supra* note 4, (featuring a complaint by the EU against different aspects of the same US measures). These two GATT decisions, though not adopted, signaled to Parties that, in the eyes of the GATT Secretariat, they could only regulate the physically hazardous properties of a product within its borders. Under the GATT 1947, Parties could take no action against any product that harmed the environment, whether relating to their PPMs or physical properties, where such product was not being imported into their markets. Where the product was being imported into their markets, Parties could only regulate it if its physical or inherent properties posed a proximate danger to human health or the environment. See generally GATT art. XX; *The Agreement on Technical Barriers to Trade*

- (TBT). Where the danger to health or the environment related to their PPMs, no GATT-consistent action could be taken.
- ⁶ See R.W. Staiger & A.O. Sykes, *International Trade, National Treatment, and Domestic Regulation*, 149-203 (National Bureau of Economic Research Working Paper, No. 15541, November 2009), <http://www.nber.org/papers/w15541.pdf>.
- ⁷ See Simon Lester & William Stenberg, *The GATT Origins of TBT Agreement Articles 2.1 and 2.2*, 14 J. OF INT'L ECON. L. 215, 217-21 (2014).
- ⁸ See Staiger, *supra* note 6, at 149-203 (discussing the rent-shifting interaction between tariffs, consumption taxes and product standards, as well as a short history of the product standards agreements).
- ⁹ See *id.*
- ¹⁰ Gabrielle Marceau & Joel P. Trachman, *A Map of the World Trade Organization Law of Domestic Regulation of Goods: The Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Measures Agreement, and the General Agreement on Tariffs and Trade* 48 J. OF WORLD TRADE, 351, 353 (2014).
- ¹¹ See generally *Ministerial Declaration on the Uruguay Round* (Sept. 20, 1986), GATT B.I.S.D. 33S/19 (1989).
- ¹² See SPS Annex A.1.
- ¹³ See TBT Annexes 1.1 & 1.2.
- ¹⁴ See P. Morrison & L. Nielsen, *Trade, Environment and Animal Welfare: Conditioning Trade in Goods and Services on Conduct in Another Country*, in RESEARCH HANDBOOK ON ENVIRONMENT, HEALTH AND THE WTO, 211-12 (Edward Elgar, Cheltenham 2013) (discussing relevant issues concerning tariff surcharges motivated by environmental concerns, such as a "carbon tax" as none has featured to date in WTO dispute settlement); see R. Quick, *Border Tax Adjustment to Combat Carbon Leakage: A Myth*, *Global Trade & Customs J.*, 353-357 4 (11/12) (2009).
- ¹⁵ See *id.* P. Morrison & L. Nielsen.
- ¹⁶ *Id.*
- ¹⁷ *Id.*
- ¹⁸ See generally Peter Lindsay, Note, *The Ambiguity of GATT Article XXI: Subtle Success or Rampant Failure?*, 52 DUKE L. J. 1277, 1286 (2003) (explaining construed security exemptions falling within GATT Article XXI, however this provision has thus far not been invoked by WTO Members).
- ¹⁹ *Overview of the WTO Secretariat*, WTO, https://www.wto.org/english/thewto_e/secret_e/intro_e.htm (last visited Nov. 27, 2016).
- ²⁰ See William J. Davey, *The WTO and Rules-Based Dispute Settlement: Historical Evolution, Operational Success, and Future Challenges*, 17 J. OF INT'L ECON. L. 679, 693 (2014); see also, *Divisions*, WTO, (explaining the Secretariats' work within these three pillars), https://www.wto.org/english/thewto_e/secret_e/div_e.htm (last visited Nov. 27, 2016).
- ²¹ *Appellate Body Secretariat*, WTO, https://www.wto.org/english/tratop_e/dispu_e/ab_secretariat_bio_e.htm (last visited Nov. 27, 2016).
- ²² See *The Secretariat*, (explaining how the Appellate Body Secretariat reports to the WTO Director-General for all activities unrelated to dispute settlement. These non-dispute related activities, accordingly, are subsumed within the work of the WTO Secretariat), https://www.wto.org/english/thewto_e/whatis_e/tif_e/org4_e.htm (last visited Nov. 27, 2016).
- ²³ See Claus-Dieter Ehlermann, *Tensions Between the Dispute Settlement Process and the Diplomatic and Treaty-Making Activities of the WTO*, 1 WORLD TRADE REV. 301, 302 (Nov. 2002).
- ²⁴ The second pillar operates constantly in the background — through regular committee meetings convened by the Secretariat. Sometimes, concerns expressed in these meetings can manifest themselves in dispute settlement. The second pillar thereby serves a transparency function that supports the first and last pillars. I do not discuss the second pillar any further in this paper.
- ²⁵ See Philippe Sands, *Litigating Environmental Disputes: Courts, Tribunals and the Progressive Development of International Environmental Law*, GLOBAL FORUM ON INT'L INVESTMENT (Mar. 27-28, 2008), <http://www.oecd.org/investment/globalforum/40311090.pdf> (explaining that a large number of environmental agreements either contain no dispute settlement provisions, or weak dispute settlement mechanisms). As result, international environmental disputes are raised in broader international forum, including the WTO, the International Court of Justice and pursuant to bilateral investment Treaties (BITs). *Id.*
- ²⁶ J. Cameron & K. Campbell, *A Reluctant Policy Maker*, THE GREENING OF TRADE LAW 31, 32 (Bowman & Littlefield Publishers, Lanham 2002).
- ²⁷ See *The Doha Round Finally Dies a Merciful Death*, FIN. TIMES, (Dec. 21, 2015), <https://www.ft.com/content/9cb1ab9e-a7e2-11e5-955c-1e1d6de94879> (explaining how the Doha negotiations had been intended to 'rebalance' the Agreements). Now, there is a growing realization among Members that they are effectively stuck with the incomplete accord of 1995, with the exception of the occasional plurilateral add-ons related to trade in IT products and trade facilitation. *Id.*
- ²⁸ See J.M. Salazar-Xirinachs, *Concern about Trade Impacts Block Adoption of the Biosafety Protocol*, INT'L CENTRE FOR TRADE AND SUSTAINABLE DEV. BRIDGES 1, 11 (Mar. 1999), <http://www.ictsd.org/downloads/bridges/bridges3-2.pdf>.
- ²⁹ See Art. 3.2 of the Understanding on rules and procedures governing the settlement of disputes (DSU).
- ³⁰ See DSU Art. 17.6.
- ³¹ A principle of collegiality requires that such division consult with the other four members before resolving the dispute. See Art. 4 of the Working Procedures for Appellate Review, WT/AB/WP/6 (last updated in 16 August 2010).
- ³² See Appellate Body Secretariat, Annual Report for 2015, p. 14, WT/AB/26 (June 3, 2016) (indicating that parties have appealed 67% of panel reports from 1995 to 2015).
- ³³ Appellate Body Report, *EC Measures Concerning Meat and Meat Products (Hormones)*, ¶¶ 98, 104, WT/DS26/AB/R, WT/DS48/AB/R (adopted 13 February 1998).
- ³⁴ See DSU Art. 11.
- ³⁵ See DSU Art. 13.
- ³⁶ See DSU Art. 19.2.
- ³⁷ See DSU Art. 3.9.
- ³⁸ See Appellate Body Report, *Japan — Taxes on Alcoholic Beverages*, ¶ 108, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (adopted 1 November 1996).
- ³⁹ See Petros Mavroidis et al., THE LAW AND ECONOMICS OF CONTINGENT PROTECTION IN THE WTO (Edward Elgar, Cheltenham, 2008), pp. 66-94 (providing an excellent and exhaustive summary of the law, economics and WTO case law of zeroing).
- Zeroing is a practice sometimes exercised by a WTO Member's trade remedies Investigating Authority (IA), the body tasked with investigating harm allegedly caused to domestic industries by the introduction of goods that are either subsidized or priced below home market prices (dumped). *Id.* Dumping investigations normally require an IA to compare imported transactions (the "export price") with transactions of the like product as sold in the exporting Member's market (the "normal value"). *Id.* An IA "zeroes" by disregarding those sales on the normal value side that exceed the export price when calculating dumping margins for the product under investigation. Disregarding these transactions results in a dumping margin that exaggerates the actual dumping practices of the exporters concerned. *Id.* These larger dumping margins, in turn, form the basis of the imposition of dumping duties, which are typically expressed as an *ad valorem* tax on imported goods. In a series of challenges to United States Department of Commerce dumping determinations, Appellate Body has systematically ruled that zeroing runs counter to Articles 2, 9 and 11 of the WTO Antidumping Agreement. *Id.*
- ⁴⁰ Appellate Body Report, *United States — Final Anti Dumping Measures on Stainless Steel from Mexico*, ¶ 160, WT/DS344/AB/R (adopted May 20, 2008) (explaining how a long-running disagreement between Appellate Body Secretariat staff and former IA trade remedies officials working within the WTO Rules Division on the merits of zeroing evidently fell short of the "cogent reasons" threshold).
- The Rules Division, chiefly tasked with supporting trade remedies-related committee work, sometimes supports the work of the Legal Affairs Division with respect to trade remedies disputes. *Id.*
- ⁴¹ See generally Frieder Roessler, *Changes in the jurisprudence of the WTO Appellate Body During the Past Twenty Years*, 14 J. OF INT'L TRADE L. & POL'Y 129 (2015).
- ⁴² See *Appellate Body Members*, WTO, https://www.wto.org/english/tratop_e/dispu_e/ab_members_descrp_e.htm (last visited Nov. 27, 2016).
- ⁴³ See J.H.H. Weiler, *The Rule of Lawyers and the Ethos of Diplomats*, 35(2) J. OF WORLD TRADE 191-207 (2001).

⁴⁴ See Merit Janow, *The Role of the Secretariat in Dispute Settlement*, *World Trade Forum World Trade*, 1, 10 (Aug. 2002), <http://www.columbia.edu/~mj60/PDF/berne%20paper.pdf> (explaining the overreliance on Secretariat staff).

⁴⁵ See Weiler, *supra* note 43, at 202; see Janow, *supra* note 45, at 6-7.

⁴⁶ See Janow, *supra* note 45, at 7.

⁴⁷ See Robert Hudec, *The Role of the GATT Secretariat in the Evolution of the WTO Dispute Settlement Procedure*, Jagdish Bhagwati et al. (Eds.) (providing an account of the broader role played by legal officers in the framework of GATT disputes); see also *The Uruguay Round and Beyond: Essays in Honor of Arthur Dunkel*, 115ff (Springer-Verlag, Berlin, 1998).

⁴⁸ Inasmuch as these senior legal officers train the junior ones, these views effectively carry over into other generations of WTO and Appellate Body legal officers.

⁴⁹ See generally Richard Steinberg, *Understanding Trade and the Environment: Conceptual Frameworks*, in *THE GREENING OF TRADE LAW* 1-22 (Bowman & Littlefield Publishers, Lanham 2002) (discussing realism, institutionalism and liberalism in the application of more conventional international relations theories on the WTO).

⁵⁰ See generally Lucas Lixinski, *Narratives of the International Legal Order and Why They Matter*, 1 *ERASMUS L. REV.*, 2, 2-5 (June 2013).

⁵¹ See D'Orleans, *Aspects du Droit International Economique* (Fr.), <http://www.cours-de-droit.net/droit-international-economique-c27647620> (last visited Nov. 27, 2016) (marking progression from the situation in 1971, when the Société Française de Droit International held a debate on whether international economic law was even a part of international law at the Colloque).

⁵² See generally ADAM SMITH, *AN INQUIRY INTO THE NATURE AND CAUSES OF WEALTH OF NATIONS*, Ch IV. 2.12 (Dent & Sons, London, 1904) (1776).

⁵³ See DAVID RICARDO, *ON THE PRINCIPLES OF POLITICAL ECONOMY AND TAXATION*, Ch. 28 (John Murray, London 1821).

⁵⁴ See Prosper Weil, *Towards Relative Normativity in International Law?*, 77 *AM. J. OF INT'L L.* 413, 413 (1983).

⁵⁵ See Donald M. McRae, *The WTO in International Law: Tradition Continued or New Frontier?* 3 *J. OF INT'L ECON. L.* 1, 29 (Mar. 2000).

⁵⁶ See generally Joost Pauwelyn, *Bridging Fragmentation and Unity: International Law as a Universe of Inter-Connected Islands*, 25 *MICH. J. INT'L L.* 903 (2004).

⁵⁷ The term “trade and” became popularized in the framework of the WTO’s 1996 Ministerial Conference in Singapore. While the term initially referred to the areas of investment, competition policy, transparency, and trade facilitation, scholars also include matters of environment, labor and human rights in this category.

⁵⁸ See Jeffrey L. Dunoff, *The Death of the Trade Regime*, 10 *EUR. JOURNAL INT'L L.* 733-38 (1999).

⁵⁹ *Id.* at 737-38 (providing that the CAM considers that states acting as rational actors in international relations will fare worse on aggregate without some form of supranational coordinating and collaborating policy).

⁶⁰ *Id.* at 738-39 (showing that the ELM justifies a loss of sovereignty in economic relations on the retention, by states, of control over diverse matters of domestic regulation).

⁶¹ See J.G. Ruggie, *International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order*, 36 *INT'L ORG.* 379, 382 (1982) (considering that the ELM better exposes the political science “generative grammar” produced by institutions’ functioning).

The need for the more arose partly due to a shift in international monetary theory provoking a change in international economic dynamics — the pre-war tendency of “mak[ing] international monetary policy conform to domestic social and economic policy and not the other way around,” had shifted post-war, necessitating the embedded liberal “compromise” of “multilateralism versus discrimination,” and complemented by a more monetary-inspired need for “intergovernmental collaboration”. *Id.* at 392-395. In the “trade and” context, the ELM reflects itself through the chapeau conditions, “necessity” and “related to” standards contained throughout the substantive sub-provisions of GATT Art. XX and GATS Art. XIV. *Id.*

⁶² See Dunoff, *supra* note 36 at 747-8 (clarifying that the model identifies the “problem” as “how to facilitate coordination and cooperation so as to avoid collectively sub-optimal outcomes resulting from individually ‘rational decisions,’ for which the “solution” is “to combine a binding international agreement and organization to oversee and enforce the agreement with an ongoing negotiation process,” after which “nations can more easily reach collectively optimal outcomes.”).

Where the problem is distributional however, “there can be little doubt that an agreement partially harmonizing worldwide IP protections to developed

country levels will not maximize global economic welfare.” *Id.* The “trade and” issues necessitate a closer look at the model’s “Payoff Matrix,” which depicts the costs and benefits States receive from cooperation or defection. *Id.* The payoffs are always exogenous to the mode, or assumed. *Id.* The problem under the model thus becomes that it “sheds no light on how the net benefits from cooperation are distributed among various nations. *Id.* Moreover — and even more unrealistically — game theoretic models frequently assume that the payoffs nations enjoy from collaboration are symmetric.” *Id.*

⁶³ See Sanford E. Gaines, *The Problem of Enforcing Environmental Norms in the WTO and What to do About it*, 26 *HASTINGS INT'L & COMP. L. REV.* 362-64 (2003) (1969).

⁶⁴ *Id.* at 363-364.

⁶⁵ JOHN H. JACKSON, *WORLD TRADE AND THE LAW OF GATT* 31 (Bobbs-Merrill, Indianapolis 1969) (applying the term descriptively for the first time to GATT).

⁶⁶ See Joel P. Trachman, *The Constitutions of the WTO*, 17 *EUR. J. INT'L L.* 623, 624 (2006); see also Debroah Z. Cass, *The ‘Constitutionalization’ of International Trade Law: Judicial Norm-Generation as the Engine of Constitutional Development in International Trade*, 12 *EUR. J. INT'L L.* 39, 39 (2001).

⁶⁷ Compare Jackson, *supra* note 68 (referring to the history and structure of the GATT) with John H. Jackson, *Sovereignty—Modern: A New Approach to an Outdated Concept*, 97 *AM. J. INT'L L.* 782-802 (2003) (calling for an overhaul of the Westphalian concept of sovereignty, in favor of economic zones of interest). As neither view offers a descriptive or prescriptive account of trade and environment disputes, I do not include Jackson’s work in the body of this essay.

⁶⁸ See Joseph H.H. Weiler, *The Transformation of Europe*, 100 *YALE L. J.* 2403, 2413 (June 1991).

⁶⁹ See Joseph H.H. Weiler, *In the Face of Crisis — Input Legitimacy, Output Legitimacy and the Political Messianism of European Integration*, 1 *PEKING U. TRANSNATIONAL L. REV.* 292, 303 (2013).

⁷⁰ Weiler, *supra* note 43, at 195.

⁷¹ *Id.* at 207.

⁷² See generally Ernst-Ulrich Petersmann, *The Transformation of the World Trading System through the 1994 Agreement Establishing the World Trade Organization*, 6 *EUR. J. INT'L L.* 1 (1995) (using the European integration narrative to serve as a model).

⁷³ See generally Ernst-Ulrich Petersmann, *Time for a United Nations ‘Global Compact’ for Integrating Human Rights into the Law of Worldwide Organizations: Lessons from European Integration*, 13 *EUR. J. INT'L L.* 621 (2002).

⁷⁴ See generally Phillip Alston, *Resisting the Merger and Acquisition of Human Rights by Trade Law: A Reply to Petersmann*, 13 *EUR. J. INT'L L.* 815, 815 (2002).

⁷⁵ See generally Ernst-Ulrich Petersmann, *Human Rights and the Law of the World Trade Organization*, 37 *J. WORLD TRADE* 241 (2003).

⁷⁶ Ernst-Ulrich Petersmann, *How to Reconcile Health Law and Economic Law with Human Rights? Administration of Justice in Tobacco Control Disputes*, 10 *ASIAN J. WTO & INT'L HEALTH L. & POL.* 27, 27-28 (2015).

⁷⁷ H.G. Cohen, *From Fragmentation to Constitutionalization*, 25 *PAC. MCGEORGE GLOBAL BUS. & DEV. L.J.* 381, 381-94 (2012).

⁷⁸ See Petersmann, *supra* note 75, at 208.

⁷⁹ See Weiler, *supra* note 43 (discussing the shift in culture from the GATT 1947 to the WTO).

⁸⁰ Which the winning party is not likely to do.

⁸¹ See DSU Art. 23.1.

⁸² See DSU Arts. 12.8 & 17.5.

⁸³ See *How are disputes settled?*, at https://www.wto.org/english/thewto_e/whatis_e/tif_e/disp1_e.htm (providing the discussion on a plenary meeting of the WTO’s membership, essentially wearing a different hat).

⁸⁴ See DSU Art. 22.6 (explaining where the parties disagree on the level of retaliation proposed by the winning Member (which always occurs), the Members will refer the matter to WTO arbitration).

Such proceedings should last no more than 60 days. *Id.* However, in a typical case, the losing respondent Member will make cosmetic amendments to the offending measure(s) and argue that it has, in fact, complied with the DSB’s recommendations. *Id.*; see also DSU Art. 21.5 (explaining the process a complainant Member must follow when where the complainant Member disagrees). The 21.5 proceedings should ideally be disposed of before 22.6 proceedings are initiated — typically by way of so-called “sequencing” agreements owing to some unfortunate ambiguity in the DSU on this matter. *Id.*; see e.g., Thibault Fresquet et al., *Retaliation under the WTO system: When does Nullification or Impairment Begin?*, Graduate Institute of Int’l & Dev. Studies Trade Law Clinic Paper, 6-12 (2011)

http://graduateinstitute.ch/files/live/sites/iheid/files/sites/ctei/shared/CTEI/Law%20Clinic/Memoranda%202011/Memo-Retaliation_under_the_WTO.pdf (summarizing “sequencing” agreements).

⁸⁵ See DSU Art. 22.2.

⁸⁶ Such retaliation may target goods other than those subject to the dispute, and may implicate the suspension of obligations in other WTO Agreements. See Appellate Body Report, *United States — Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, p. 5663, WT/DS285/AB/R (adopted 20 April 2005) (and Corr.1, DSR 2006:XII, p. 5475) (hereinafter *United States — Gambling*) <http://www.ip-watch.org/2016/11/28/antigua-barbuda-lift-us-ip-protection-2017-us-fails-comply-wto-ruling/> (demonstrating the notable Antigua & Barbuda’s recent promise to act upon prior threats to lift intellectual property protection on United States goods if the latter fails to comply with the adverse panel and Appellate Body decision in Appellate Body Report, *United States — Gambling*).

⁸⁷ See DSU Art. 23.1.

⁸⁸ See Gabrielle Marceau, *WTO Dispute Settlement and Human Rights*, 13 EUR. J. INT’L L. 753, 767 (2002). (explaining how WTO panels are arguably prevented by other provisions of the DSU, notably Arts. 3(2) and 7, from making any findings on non-WTO law and that such non-WTO law, it is argued can, at best, be raised as a defense to the non-adherence to WTO obligations); see also Joost Pauwelyn, *The Role of Public International Law in the WTO: How Far Can We Go?*, 95 AM. J. INT’L L. 535, 535 (2001); see also David Palmeter & Petros Mavroidis, *The WTO Legal System: Sources of Law*, 92 AM. JOURNAL OF INT’L LAW 399, 399 (1998); but see T. Schoenbaum, *WTO Dispute Settlement: Praise and Suggestions for Reform*, 47 INT’L & COMP. L. QUARTERLY, 653 (2000) (explaining a different view, in which the DSU contains “implied powers” for panels to adjudicate beyond the Covered Agreements); see contra Joost Pauwelyn, *How to Win a World Trade Organization Dispute Based on Non-World Trade Organization Law? Questions of Jurisdiction and Merits*, 37 J. WORLD TRADE 1005-19 (2003) (taking a middle ground in a later — identifying the possibility for a panel to decline jurisdiction in favor of non-WTO law as an alternative to making findings on non-WTO law).

⁸⁹ See Eric A. Posner & John C. Yoo, *A Theory of International Adjudication*, University of California, Berkeley Law School (Boalt Hall) Public Law and Legal Research Paper Series Research Paper, 126, 24-27 (2004) (noting that compliance “can be measured in terms of compliance rate: the number of complied-with judgments divided by the total number of judgments,” whereas usage “can be measured in gross terms or in more refined terms).

Budget is relevant as “States can starve tribunals that they do not like by denying them funds.” *Id.*; see e.g., M.L. Busch & E. Reinhardt, *Transatlantic Trade Conflicts and GATT/WTO Dispute Settlement*, in E.U. Petersmann & M.A. Pollack, *Transatlantic Economic Disputes: the EU, the US and the WTO* (Oxford University Press, Oxford 2004) (providing the study that the authors rely on which explains that they are confined to EU-US trade disputes for a proposition in which compliance was actually lower under the WTO than under the GATT).

⁹⁰ See ERNST-ULRICH PETERSMANN, *THE GATT/WTO DISPUTE SETTLEMENT SYSTEM: INTERNATIONAL LAW, INTERNATIONAL ORGANIZATIONS AND DISPUTE SETTLEMENT* 88 (Kluwer Law International, Den Haag 1997).

⁹¹ See Kyung Kwak & Gabrielle Marceau, *Overlaps and Conflicts of Jurisdiction between the WTO and RTAs*, WTO CONFERENCE ON REGIONAL TRADE AGREEMENTS, (Apr. 26, 2002), https://www.wto.org/english/tratop_e/region_e/sem_april02_e/marceau.pdf.

⁹² Appellate Body Report, *India — Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, ¶ 105 WT/DS90/AB/R, (adopted Sept. 22, 1999) (highlighting India’s argument, that “the drafters of the WTO Agreement created a complex institutional structure under which various bodies are empowered to take binding decisions on related matters). These bodies must cooperate to achieve the objectives of the WTO, and can only do so if each exercises its competence with due regard to the competence of all other bodies. *Id.* In order to preserve a proper institutional balance between the judicial and the political organs of the WTO with regard to matters relating to balance-of-payments restrictions, review of the justification of such measures must be left to the relevant political organs.” *Id.*

⁹³ See Robert E. Hudec, *GATT/WTO Constraints on National Regulation: Requiem for an “Aim and Effects” Test*, 31 INT’L LAWYER 634 (1998) (stating that “[t]ribunals usually call for such discretion when they are being asked to resolve important issues under legal criteria that make little or no policy sense.”).

“The normal response of most tribunals to such a task is to decide the case as best they can by making a seat-of-the-pants judgment about whether the defendant government is behaving correctly or incorrectly- a process of

judgment known in some circles as the ‘smell test.’ Once the tribunal comes to a conclusion about who should win, it fashions an analysis, in terms of the meaningless criteria it has been asked to apply, that makes the case come out that way. Given the likelihood that decisions written in this manner will have a high degree of inconsistency, the tribunals naturally seek to give such decisions as much armor-plating as possible by claiming the widest possible range of discretion.” *Id.*

⁹⁴ See P. Morrison & L. Nielsen, *supra* note 14, at 222-30. I will also refer, in this section, to GATS rules, inasmuch as they may relate to environmental protection measures. Consider, for instance, the prohibition on nationals seeking to hunt wild animals abroad. In this regard, given the paucity of GATS jurisprudence beyond the US/Gambling dispute, which I will mention below, I will largely confine my GATS discussion to footnotes.

⁹⁵ See GATT art. XXIII:1(b).

⁹⁶ GATT art. I:1.

⁹⁷ GATT art. III:1.

⁹⁸ GATT art. XI:1.

⁹⁹ See also GATS art. I:1 (applying “measures by Members affecting trade in services,” whether taken by central, regional or local government bodies, or by non-government bodies in the exercise of officially delegated authority).

¹⁰⁰ See GATT art. XI (articulating the “general elimination of quantitative restrictions”); GATS art. XVI:2.

GATS art XVI:2 lists six forms of market access restrictions that Members may not impose in a service sector unless exempted into their services commitments, including: maximum limits on the number of service suppliers; value of service transactions; number of service operations allowed; and natural persons that may be employed, measures restricting the types of legal entity or joint venture, and limits on the participation of foreign capital, whether expressed as a percentage or aggregate numerical value. See GATS art XVI:2.

¹⁰¹ See generally *International Convention on the Harmonized Commodity Description and Coding System* (June 14, 1983) with HS Nomenclature (2012), Hein’s No. KAV 2260, available at http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/hs_nomenclature_2012/hs_nomenclature_table_2012.aspx (last visited Oct. 9, 2016) (establishing pursuant to the International Convention on the Harmonized Commodity Description and Coding System, the HS nomenclature, presently in its 2012 iteration); see also Note by the WTO Secretariat, *Services Sectoral Classification List*, WTO Doc. MTN.GNS/W/120 (July 10, 1991).

GATS service commitments follow the UN Provisional Central Product Classification Code (CPC). See Statistical Paper, United Nations Provisional Central Product Classification Code (CPC), Version 2.1, ¶ 85, U.N. Statistical Paper ST/ESA/STAT/SER.M.77/Ver.2.1 (2015).

¹⁰² See Appellate Body Report, *European Communities — Customs Classification of Certain Computer Equipment*, ¶¶ 30, 33, 42, WT/DS68/AB/R (adopted Jun. 22, 1998) (holding that the panel correctly established that the U.S. sufficiently identified measures and products at issue when they identified to the panel a general “product grouping of products” and are not required to identify every sub grouping of those broad categories).

¹⁰³ See GATT art. III:2 (drawing a distinction between “like” products and “directly competitive and substitutable” products, which does not appear in other WTO Agreements); see also GATS art. XVII (drawing a distinction between like services and like service suppliers).

More fundamentally, for purposes of WTO dispute settlement, GATT’s coverage is far more extensive than GATS, owing to an “agreement to disagree” in Uruguay Round negotiations that resulted in the positive listing of GATS commitments relative to the negative listing of GATT commitments. See Sandrine Cahn & Daniel Schimmel, *The Cultural Exception: Does it Exist in GATT and GATS Frameworks? How Does it Affect or is Affected by the Agreement on TRIPS?*, 15 Cardozo Arts & Ent. LJ 281, 293-304 (1997). Where disputes involve hybrid goods, this distinction becomes practically immaterial. See Panel Report, *Canada — Certain Measures Concerning Periodicals*, ¶¶ 3.33, 5.19, WT/DS31/R (adopted 30 July 1997), see also Appellate Body Report, *Canada — Certain Measures Concerning Periodicals*, ¶ 481, WT/DS31/AB/R, DSR (1997) (modifying the Panel Decision where the panel and Appellate Body agreed that the applicability of the GATS to a mixed goods/service transaction, split-run periodicals and advertisements, in that particular dispute, did not exclude application of the GATT).

¹⁰⁴ See GATT art. III:2 (mentioning competition explicitly as relevant whenever the impact of a measure is assessed against a “directly competitive and substitutable” imported product and has been extended to the art. III:4 cases by

the Appellate Body); *see also* GATS art. XVII:3 (asserting national treatment for like services); *see also* Appellate Body Report, *Korea—Measures Affecting Imports of Fresh, Chilled and Frozen Beef*, 1-58, WT/DS161/AB/R (adopted Jan. 10, 2001) (where the Appellate Body assessed the impact of a contested measure on the ordinary channels of distribution).

¹⁰⁵ Note that under the GATS, likeness is primarily determined with reference to the nature and characteristics of the service transactions. *See* Panel Report, *European Communities — Regime for the Importation, Sale and Distribution of Bananas, Complaint by Ecuador*, 377, ¶ 7.322, WT/DS27/R/ECU (adopted Sept. 25, 1997):

“the nature and the characteristics of wholesale transactions as such, as well as of each of the different subordinated services mentioned in the headnote to section 6 of the CPC, are ‘like’ when supplied in connection with wholesale services, irrespective of whether these services are supplied with respect to bananas of EC and traditional ACP origin, on the one hand, or with respect to bananas of third-country or non-traditional ACP origin, on the other. Indeed, it seems that each of the different service activities taken individually is virtually the same and can only be distinguished by referring to the origin of the bananas in respect of which the service activity is being performed. Similarly, in our view, to the extent that entities provide these like services, they are like service suppliers.”

¹⁰⁶ *See* GATT art. I:1. “Advantages” most all effective purposes, are scheduled MFN tariff or service concessions. *See* WTO, *Goods Schedules: member commitments*, https://www.wto.org/english/tratop_e/schedules_e/goods_schedules_e.htm (providing access to MFN tariff schedules and service concessions).

¹⁰⁷ A principle established decades ago by the the GATT Working Party Report on the ‘Accession of Hungary.’ *See* L/3889, ¶ 12 (adopted Jul. 30, 1973) (interpreting language in GATT art. I:1 requiring any “advantage” to be accorded “immediately and unconditionally” to other GATT Contracting Parties); *see also* GATS art. II.

¹⁰⁸ *See* GATT art. II (stating that obtaining temporary waivers can be sought pursuant to GATT art. I, but note that these are in practice difficult to acquire); *see also* GATS art. II (allowing Members to maintain exemptions, if listed in the Annex on Article II); *see also* Annex on Article II Exemptions (containing listed exemptions).

¹⁰⁹ *See* GATT Panel Report, *Canada/Japan — Tariff on Imports of Spruce, Pine, Fir (SPF) Dimension Lumber*, ¶ 20, L/6470 (adopted July 19, 1989) (seemingly a departure from GATT 1947 principles).

¹¹⁰ GATT art. XXI; *see also* GATS art. XIV.

¹¹¹ GATT art. XX(b); GATS art. XIV.

¹¹² GATT art. XX(g).

¹¹³ GATT art. XX; GATS art. XIV (emphasis added).

¹¹⁴ *See* Appellate Body Report, *United States — Standards for Reformulated and Conventional Gasoline*, ¶ 28-29, WT/DS2/AB/R (adopted May 20, 1996).

¹¹⁵ *See e.g.*, Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 25, WT/DS58/AB/R (adopted Nov. 6, 1998) (discussing the CITES Convention).

¹¹⁶ *See* Appellate Body Report, *European Communities—Measures Affecting the Importation of Certain Poultry Products*, WT/DS69/AB/R (adopted July 23, 1998).

¹¹⁷ *See* Appellate Body Report, *European Communities — Customs Classification of Frozen Boneless Chicken Cuts*, ¶ 250, WT/DS269/AB/R (adopted Sept. 27, 2005); *see generally* H.J. Bourgeois, Jacques and Ravi Soopramanien, *The World Trade Organization Dispute Settlement System: Embedded in Public International Law?*, In Carl Baudenbacher (Ed.), *DISPUTE RESOLUTION*, 311-49 (German Law Publishers, 2009) (providing a detailed analysis of the conflicting case-law).

¹¹⁸ *See* SPS, Annex A.1.1 (stating that such measures include: “inter alia, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labeling requirements directly related to food safety”).

¹¹⁹ *See* Jacqueline Peel, *Scope of Application of the SPS Agreement: a Post-Biotech Analysis*, *RESEARCH HANDBOOK ON ENV’T, HEALTH, & THE WTO* 332, 337 (Geert Van Calster & Denise Prévost ed., Edward Elgar 2013).

¹²⁰ Panel Report, *European Communities — Measures Affecting the Approval and Marketing of Biotech Products*, ¶¶ 7.226-.240, WT/DS293/R (adopted Nov. 29, 2006).

¹²¹ TBT, Annex 1.1 (stating that such measures may “include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process, or production method.”).

¹²² *See* Appellate Body Reports, *European Communities — Measures Prohibiting the Importation and Marketing of Seal Products*, ¶ 5.58, WT/DS401/AB/R (adopted June 18, 2014) (referencing a rare instance in which the Appellate Body held that a ban on seal products that carved out exemptions relating to the identity of the hunters did not set such product characteristics).

¹²³ *See* Appellate Body Report, *European Communities — Measures Affecting Asbestos and Asbestos Containing Products*, ¶¶ 75-77, WT/DS135/AB/R (adopted Feb. 16, 2001) (finding that the full import ban of any product containing asbestos fibers as such is considered a technical regulation within the meaning of Annex 1.1 of the TBT).

¹²⁴ SPS, *supra* note 12, at art. 1.4; TBT, *supra* note 13, at art. 1.5.

¹²⁵ Panel Report, *EC/Biotech*, *supra* note 123, at para 7.165.

This assumes that “the requirement [embodied in the measure] could be split up into two separate requirements which would be identical to the requirement at issue, and which would have an autonomous *raison d’être*, i.e., a different purpose which would provide an independent basis for imposing the requirement.” *Id.*

¹²⁶ TBT, *supra* note 13, at preamble ¶ 6 (“[r]ecognizing that no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they 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, and are otherwise in accordance with the provisions of this Agreement.”); SPS, *supra* note 12, at preamble ¶ 1 (“[r]eaffirming that no Member should be prevented from adopting or enforcing measures necessary to protect human, animal or plant life or health, subject to the requirement that these measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between Members where the same conditions prevail or a disguised restriction on international trade.”).

¹²⁷ SPS, *supra* note 12, at art. 2.2, 5.7 (stating that Members may, provisionally adopt SPS measures on the basis of “available pertinent information,” which may fall short of the default standard set in art. 2.2).

¹²⁸ TBT, *supra* note 13, at art. 2.2 (stating that an assessment of the risk non-fulfillment would create will normally turn on “inter alia: available scientific and technical information, related processing technology or intended end-uses of products”).

¹²⁹ O. Cadot et al., *Streamlining Non-Tariff Measures: A Toolkit for Policy Makers*, 27 (World Bank, Washington, D.C., 2012).

¹³⁰ TBT, *supra* note 13, at art. 2.2; SPS, *supra* note 13, at arts. 2.2, 5.6.

¹³¹ *See* Appellate Body Report, *Korea/Beef*, *supra* note 107 (relating to proportionality and the identification of a lesser restrictive alternative to a challenged measure); *see also*, Alan O. Sykes, *The Least Restrictive Means*, 70 U. CHI. L. REV. 403-19 (2003) (providing a comprehensive account of the application of the lesser restrictive alternative standard in WTO and GATT disputes).

¹³² *See generally* TBT, *supra* note 13, at art. 2.7 (“Members shall give positive consideration to...”); SPS, *supra* note 12, at art. 4 (citing “Members shall accept”). *See also* Marsha Echols, *Equivalence and risk regulation under the World Trade Organization’s SPS Agreement*, *RESEARCH HANDBOOK ON ENV’T, HEALTH, & THE WTO* 79, 81-2 (Geert Van Calster & Denise Prévost ed., Edward Elgar 2013).

¹³³ TBT, *supra* note 13, at art. 2.5 (allowing for safe harbor also requires that the standard be applied in connection to a “legitimate objective”); SPS *supra* note 13, at art. 3.3.

¹³⁴ *Compare* SPS, *supra* note 12, at art. 3.1 (basing measures on international standards, do not benefit from this safe harbor) *with* SPS, *supra* note 12, at art. 3.2 (conforming with standards does benefit from the safe harbor).

The safe harbor insulating such measures from challenge under, for instance, the GATT. No similar presumption applies with TBT measures, notably because the TBT’s relationship with the GATT is uncertain. *Id.* I note, in this respect, that measures deemed consistent with the TBT are not ‘carved out’ from the GATT in the manner prescribed by SPS art. 2.4. As a so-called “Annex 1A” Agreement, the TBT Agreement is deemed *lex specialis* to the GATT pursuant to the General Interpretative Note to Annex 1A to the WTO Charter. But this does not altogether exclude the GATT’s application, when raised concurrently in a dispute. *See* Marceau & Trachman, *supra* note 10, at 424-25.

¹³⁵ TBT, *supra* note 13, at art. 2.4.

¹³⁶ SPS, *supra* note 12, at annex A.3.

¹³⁷ See Appellate Body Report, *United States — Measures Concerning the Importation, Marketing, and Sale of Tuna and Tuna Products*, ¶ 30-32, WT/DS381/AB/R (adopted June 13, 2012) (illustrating the United States's position on how the AIDCP was not an international standardizing organization because it is not international within the meaning of TBT, does not engage in standardizing activities and is not an organization, but a international agreement).

¹³⁸ See *European Communities — Trade Description of Sardines*, ¶ 223, WT/DS231/AB/R (adopted Oct. 23, 2002) (explaining how standards adopted by international bodies do not have to be by consensus); TBT; CODEX ALIMENTARIUS COMMISSION, PROCEDURAL MANUAL—RULE XII 1, 17 (21st ed., 2013) (referencing majority voting where no consensus is reached); SPS *supra* note 13; see also A. Mattoo & P. Sauve, *Domestic Regulation and Service Trade Liberalization* 70 (World Bank, Washington, D.C., 2003).

¹³⁹ SPS, *supra* note 12, at art. 2.3.

¹⁴⁰ TBT, *supra* note 13, at art. 2.1.

¹⁴¹ Compare SPS, *supra* note 12, at annex A.5, with Jeffery Atik, *On the efficiency of health measures and the appropriate level of protection*, RESEARCH HANDBOOK ON ENV'T, HEALTH, & THE WTO 116, 116-17 (Geert Van Calster & Denise Prévost ed., Edward Elgar 2013) (explaining that a better measure would pertain to the residual risk tolerated upon a measure's implementation).

¹⁴² SPS, *supra* note at art. 5.5; See Panel Report, *Australia — Measures Affecting Importation of Salmon*, ¶ 8.115, WT/DS18/RW (adopted Mar. 20, 2000).

¹⁴³ See Panel Report, *United States — Measures Affecting the Production and Sale of Clove Cigarettes*, ¶ 7.244, WT/DS406/R (adopted Apr. 24, 2012) (affirming that this was the view of the US/Clove Cigarette panel, which was overturned by the Appellate Body); see Donald Regan, *Regulatory purpose in GATT Article III, TBT Article 2.1, the Subsidies Agreement, and elsewhere: Hic et ubique*, RESEARCH HANDBOOK ON ENV'T, HEALTH, & THE WTO 41, 61-74 (Geert Van Calster & Denise Prévost ed., Edward Elgar 2013) (criticizing, the Appellate Body's transposition of GATT likeness principles on TBT art. 2.1).

¹⁴⁴ See *EC/Biotech*, *supra* note 123, at ¶ 7.381-393 (citing “in the event that the different elements could not be divided, the panel considered that the SPS Agreement would control”); see text, at note 128.

¹⁴⁵ Appellate Body Report, *United States — Measures Affecting the Production and Sale of Clove Cigarettes*, ¶ 104, WT/DS406/AB/R (adopted Apr. 24, 2012). See text at notes 107-9 for the four criteria.

¹⁴⁶ Appellate Body Report, *United States — Certain Country of Origin Labeling (COOL) Requirements*, ¶ 293, WT/DS384/AB/R (adopted July 23, 2012); see also Gabrielle Marceau, *The New TBT Jurisprudence in US — Clove Cigarettes, WTO US — Tuna II, and US—COOL*, 8 ASIAN J. OF WTO & INT'L HEALTH L. & POL'Y 1, 12 (2013) (explaining that the Appellate Body likely did so in an attempt “to preserve the balance of the TBT Agreement and its place in the WTO Agreement as a whole...”

The Appellate Body went on to say that it also did so in an attempt to keep the “Appellate Body's explanation that the ‘balance’ of interests intended by the drafters of the TBT Agreement between the right to regulate and the reduction of unnecessary obstacles to trade must be found within Article 2.1 [...] [and] the approach allows the Appellate Body to make sense of the fact that no GATT Article XX defense exists under the TBT Agreement and, in particular, under the non-discrimination provisions of Article 2.1.”

¹⁴⁷ See *EC-Hormones*, *supra*, note 33 (explaining the complainant's duty to establish a *prima facie* case).

¹⁴⁸ See generally, Henrik Horn & Petros C. Mavroidis, *Burden of Proof in Environmental Disputes in the WTO: Legal Aspects*, 18 EUR. ENERGY & ENVTL. L. REV. 112, 112-40 (see, for instance, orld of InterToolkit for Policy of WTO legal obligations erminations, mports March 27-28, 2008), at pp. 1-er p (2009) (discussing the role of the burden of proof in establishing the constituent elements of a GATT violation, including notably that the imported and domestic products at issue are alike).

¹⁴⁹ See Appellate Body Report, *US/Gasoline*, *supra* note 117, at ¶ 29 (accepting that clean air is an exhaustible natural resource).

¹⁵⁰ See Appellate Body Report, *US/Shrimp*, *supra* note 118, at ¶ 134 (accepting that sea turtles are exhaustible natural resources).

¹⁵¹ See Appellate Body Report, *Brazil — Measures Affecting Imports of Retreaded Tyres*, ¶ 210, WT/DS332/AB/R (adopted Dec. 17, 2007) (explaining the relational nexus between the effects of a measure and its stated justification needed to satisfy the GATT Article XX “necessity” standard).

¹⁵² See Marceau & Trachman, *supra* note 10, at 368, 373 (referencing the debate as to whether recent GATT cases have dispensed with this proportionality standard).

¹⁵³ See Appellate Body Report, *US/Shrimp*, *supra* note 118 at ¶ 136 (explaining the relational nexus between the effects of a measure and its stated justification needed to satisfy the GATT Article XX “related to” standard).

¹⁵⁴ See Appellate Body Report, *US/Gasoline*, *supra* note 117 at ¶ 29 (distinguishing between the violations of GATT Art. III and the GATT Art. XX chapeau).

¹⁵⁵ See *EC/Asbestos*, *supra* note 126 (meeting the chapeau, obiter).

¹⁵⁶ Appellate Body Report, *US/Shrimp*, *supra* note 118, at ¶¶ 175-76.

¹⁵⁷ *Id.* at ¶¶ 181-84.

¹⁵⁸ *Id.* at ¶ 166 (illustrating that the Appellate Body makes this point in relation to “unjustifiable discrimination” although the unilateral nature of the US measures informed much of the Appellate Body's analysis of art. XX).

¹⁵⁹ Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products — Recourse to article 21.5 of the DSU by Malaysia* ¶ 124, WTO Doc. WT/DS58/AB/RW (adopted Nov. 21, 2001, DSR 2001).

¹⁶⁰ See Sanford Gaines, *The WTO's Reading of the GATT Article XX Chapeau: A Disguised Restriction on Environmental Measures*, 22 U. PA. J. INT'L L. 739, 804-20 (2001) (arguing that the Appellate Body, in the original proceedings, had effectively created a requirement to negotiate a multilateral regime in order to pass the “unjustifiable discrimination” limb of the GATT Art. XX chapeau); but see Robert Howse, *The Appellate Body Rulings in the Shrimp/Turtle Case: A New Legal Baseline for the Trade and Environment Debate*, 27 COLUM. J. ENVTL. L. 491, 508-9 (2002) (contending that the Appellate Body did not impose a self-standing duty to negotiate separate from the broader obligation to avoid unjustifiable discrimination when seeking to derogate under GATT art. XX.)

While the Appellate Body ultimately championed Howse's view, a plain reading of its ruling in the original proceedings unquestionably imposed a requirement upon the United States to negotiate international conservation agreements.

¹⁶¹ See e.g., *EC/Fur Seals*, *supra* note 125 (explaining that no precedent exists yet for the SPS Agreement, although such disputes may arise in the future); see Marceau & Trachman, *supra* note 10, at 422 (highlighting even then, panels regularly exercise judicial economy on the GATT claims, often depriving the Appellate Body of the ability to “complete the analysis” for want of a sufficient factual record). I will discuss pertinent SPS developments from the previous decade before turning to the more recent TBT case law.

¹⁶² Although it is possible that more comprehensive import bans would prompt the Appellate Body to resurrect its least restrictive means standard, pursuant to which Members are required to use the least inconsistent measures reasonable available to it when enacting trade-related measures. Under such a standard, a PPM-related import ban could be less trade restrictive, while still producing less trade-restrictive effects. The problem with this standard is that it has never been applied as anything other than a crude cost-benefit tool, relied upon to condemn on those measures that openly or outwardly violate core principles of the WTO Agreements. See Alan O. Sykes, *The Least Restrictive Means*, 70 U. CHI. L. REV. 403, 415-19 (2003). Whether or to what extent such a standard could be applied to resolve more difficult questions linked to a country's desired level of regulatory protection is questionable. A related distinction can be drawn between PPMs and non-product related (NPR) PPMs. There is little question that WTO disciplines apply to product-related PPMs. A more contentious issue is whether or to what extent a Member can extraterritorially condition entry to its market on compliance with morally-loaded NPR PPMs. The Appellate Body has adopted somewhat of a “see no evil, hear no evil” approach to this contentious issue, by glossing over them in its findings. In *US—Shrimp*, for instance, it deemed the issue moot given the migratory nature of sea turtles. See *US—Shrimp*, *supra* note 119, at 133. Whether or to what extent a least restrictive means standard will be rolled into the permissibility of resorting to extraterritorial measures in future disputes will be an interesting development, and one that could add some bite to an otherwise toothless standard.

¹⁶³ Laura Nielsen, *The WTO, Animals and PPMs*, 128 (Martinus Nijhoff, 2007) (discussing the scope of the SPS Agreement).

¹⁶⁴ Appellate Body Report, *EC-Hormones*, *supra* note 33; *EC/GMOs*, *supra* note 123.

¹⁶⁵ See *EC/GMO*, *supra* note 123, at ¶ 7.68, (noting that in one dispute, a panel ignored the relevance of the Biosafety Protocol, which drew criticism in an ILC study and that particular panel report was not, unfortunately, appealed to the Appellate Body); see Martti Koskeniemi (Chairman), Int'l L. Comm'n, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, U.N. Doc. A/CN.4/L.682 (Apr. 13, 2006) (mentioning that whether or to what extent treaties outside the Codex, OIE or IPCC can legislate relevant international standards is presently an open issue on which the Appellate Body has yet to determinatively weigh in). It is recalled

that the Appellate Body's approach towards non-WTO treaties under the GATT has been erratic. *Id.* At its most conservative, it deems only those treaty norms reflecting the "common intention of all the parties" relevant. *Id.*

¹⁶⁶ See *EC/Hormones*, *supra* note 33, at ¶ 175-80 (illustrating that paradoxically the Appellate Body considers the requirement that SPS measures be "based on scientific principles", at art. 2.2, as identical to the requirement that such measures be based on "an assessment [. . .] of the risks to human, animal or plant life or health").

¹⁶⁷ SPS *supra* note 12, at art. 5.2.

¹⁶⁸ Appellate Body Report, *EC/Hormones*, *supra* note 33, at 181, 186-87 (distinguishing between a panel's assessment of the adequacy of a risk assessment versus a Member's desired level of regulatory protection).

¹⁶⁹ Let alone one that is *both* technically and economically feasible. One such ambiguity pertained to Australia's stated level of protection in one dispute as aiming "at reducing risk to a very low level, but not to zero", which the Appellate Body just about tolerated as SPS-consistent. See Appellate Body Report, *Australia — Measures Affecting the Importation of Apples from New Zealand*, ¶ 343 WT/DS367/AB/R (adopted Dec. 17, 2010) (finding insufficient evidence on the record to make a finding that Australia's measure was less trade-restrictive than necessary although Australia's measure's were found not to be "based on" scientific justification in another claim). See generally Jacqueline Peel, *Of Apples and Oranges (and Hormones in Beef): Science and the Standard of review in WTO Disputes under the SPS Agreement*, ICLQ 61(2), 427-58 (2012) (exploring fully the apparent counter-intuition created in Australia-Measures Affecting Apples).

¹⁷⁰ SPS, *supra* note 12, at art. 11.2 (wording the obligation equivocally rather than an outright obligation, "should" as opposed to "shall," but in practice panels have always sought the advice of experts in SPS disputes). Note that the TBT requirement, at art. 14.2 ("may") veers closer to the wording of the more neutral wording of the DSU. *Id.*

¹⁷¹ See *Australia — Apples*, *supra* note 172, at ¶ 215.

¹⁷² See Appellate Body Report, *United States — Continued Suspension of Obligations in the EC — Hormones Dispute*, ¶ 230, WT/DS320/AB/R (adopted Nov. 14, 2008) [Hereinafter *EC/Hormones*] (finding general studies on the carcinogenic properties of estrogen to justify import bans on six specific hormones were deemed insufficiently specific in follow-on hormones litigation).

¹⁷³ Appellate Body Report, *Japan — Measures Affecting the Importation of Apples*, ¶¶ 144-47, 162-63, WT/DS245/AB/R (adopted Dec. 10, 2003); see also *EC/Hormones*, *supra* note 175 at ¶ 675 (noting that surprisingly, a third area in which Members have failed to prevail relates to an SPS provision on the insufficiency of scientific evidence, which authorizes Members to base their SPS measures on "available pertinent information").

This provision allows Members some degree of precaution in adopting SPS measures. *Id.* No respondent Member to date has successfully demonstrated an absence of sufficient scientific evidence — particularly where a relevant international standard exists. *Id.* This is so despite the Appellate Body's statement that such precautionary measures can be based on "a qualified and respected scientific view that puts into question the relationship between the relevant scientific evidence and the conclusions in relation to risk". *Id.*

¹⁷⁴ See *EC/Hormones*, *supra* note 33, at ¶ 529 (holding that "[w]e [Appellate Body] do not believe that a risk assessment has to come to a monolithic conclusion that coincides with the scientific conclusion or view implicit in the SPS measure. The risk assessment could set out both the prevailing view representing the 'mainstream' of scientific opinion, as well as the opinions of scientists taking a divergent view").

¹⁷⁵ See SPS arts. 2.3 & 5.6.

Article 2.3 states "measures shall not be applied in a manner which would constitute a disguised restriction on international trade." *Id.* Article 5.6 states "[m]embers shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility." *Id.*

¹⁷⁶ Though DSU Art. 19.1 allows WTO panels to issue specific recommendations to aid with compliance, they tend to avoid doing so ("[i]n addition to its recommendations, the panel or Appellate Body may suggest ways in which the Member concerned could implement the recommendations."): *Id.*

¹⁷⁷ Marco Bronkers, Ravi Soopramanien, *The Impact of WTO Law on European Food Regulation*, 6 EFFL 361, 361-75 (2008) (describing the trend of Members, notably the EC, reporting their SPS measures as TBT measures in TBT Committee meetings).

¹⁷⁸ See Panel Report *European Communities — Measures Concerning Meat and Meat Products*, ¶ 8.42, WT/DS26/ R (adopted July 12, 1999) [hereinafter *EC-Hormones* Panel Report] (observing that this manner of proceeding was

'the most efficient,' referring to the panel considering the WTO-conformity of any SPS measure should first be assessed in relation to all SPS violation claims, before turning to any applicable GATT violation claims).

The Appellate Body did not disturb this on appeal. Indeed, it has adopted this approach in its SPS jurisprudence. See Jacqueline Peel, *A GMO by Any Other Name . . . Might Be an SPS Risk!: Implications of Expanding the Scope of the WTO Sanitary and Phytosanitary Measures Agreement*, 17 EJIL 5 1009, 1013-18 (2006).

¹⁷⁹ Indeed, the scope of a "technical regulation" is drafted so widely that some in the WTO Secretariat wryly remark that a countervailing or dumping order could fall within its definition. See also Marceau & Trachman, *supra* note 10, at 342-433 (providing a more diplomatic assessment by a WTO legal counselor, Gabrielle Marceau).

¹⁸⁰ *Id.*; see also Regan, *supra* note 146, at 68-9.

¹⁸¹ See Appellate Body Reports, *European Communities — Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/AB/R / WT/DS401/AB/R (adopted Jun. 18, 2014). This latter dispute was framed principally as a TBT appeal. *Id.* It was disposed of as a GATT appeal once the Appellate Body determined that the EU legal framework for seal products was not a "technical regulation". *Id.*

¹⁸² Appellate Body Report, *US/Clove Cigarettes*, *supra* notes 144-148, at ¶ 239.

¹⁸³ *Id.* at ¶ 174.

¹⁸⁴ See Appellate Body Report, *US/Tuna*, *supra* note 140, at ¶ 283 (highlighting Appellate Body Report, *Japan/Apples*). See *Japan/Apples*, *supra* note 176.

¹⁸⁵ Appellate Body Report, *US/Tuna*, *supra* note 140, at ¶ 297.

¹⁸⁶ Appellate Body Report, *United States — Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products — Recourse to Article 21.5 of the DSU by Mexico*, ¶ 7.266, WT/DS381/AB/RW [DSR reference pending].

¹⁸⁷ See Appellate Body Report, *EC/Sardines*, *supra* note 141.

¹⁸⁸ See Appellate Body Report, *EC/Sardines* at ¶¶ 245-48 (showing the burden shifts to the respondent to show that the standard is "inappropriate" and "ineffective").

¹⁸⁹ See R. Wolfrum, P-T. Stoll, A. Seibert-Fohr & Max Planck, *Commentaries on World Trade Law: Technical Barriers and SPS Measures*, 221-21 (Martinus Nijhoff Publishers, Leiden 2007).

Particular attention would turn to the issuing international standardization body under such analysis. In the above-mentioned dispute on US dolphin conservation measures, for instance, the panel found that the US had erred in departing from dolphin-safe label schemes issued under the Agreement on the International Dolphin Conservation Program (AIDCP). The Appellate Body reversed this finding, on the basis that the AIDCP was not a qualifying "international standardizing body" because it was not "open" to WTO Members, as prospective membership hinged on a consensus vote. See Appellate Body Report, *US/Tuna*, *supra* note 140, at ¶ 398. It bears mentioning that international standard bodies can serve as fertile ground for promulgation of international environmental standards. Such standards are presumed "not to create an unnecessary obstacle to international trade" under the TBT Agreement. Somewhat tautologically, the Appellate Body requires these to be an "open" "international standardizing body" carrying out "recognized activities in standardization." Existing international environmental bodies could serve this role.

¹⁹⁰ TBT Art. 2.2; see also P.C. Mavroidis, *Driftin' Too Far from Shore — Why the Test for Compliance with the TBT Agreement Developed by the WTO Appellate Body is Wrong, and What Should the AB Have Done Instead*, World Trade Rev. vol. 12(3), 509-31 (2013).

¹⁹¹ Compare the wording of TBT, Art. 2.2, with the approach taken in *US/Tuna* discussed, *supra* note 188

¹⁹² Appellate Body Report, *US/COOL*, *supra* note 149, at ¶ 370.

¹⁹³ Appellate Body Report, *US/Tuna*, *supra* note 140, at ¶ 330.

This is not to suggest that preventing harm to dolphins is in any way a fanciful objective. Clearly such a consideration is compelling. Rather, I mean to suggest that panels should be more critical and searching when faced with opaquely stated desired levels of protection similar to that expressed by Australia in relation to its imports of apples. See *Australia—Apples*, *supra* note 172.

¹⁹⁴ Assuming that the measure at issue pursues a legitimate objective (which it does).

¹⁹⁵ At this stage, the Appellate Body would already have condemned the measure for failing its "calibration" test discussed above. See *supra* note 188.

¹⁹⁶ See TBT Art. 2.2 (stating that “technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create.”).

¹⁹⁷ See T.P. Stewart, *US Is Correct In Blocking WTO Appellate Body Appointment*, LAW360 (May 27, 2016), <http://www.law360.com/articles/801553/us-is-correct-in-blocking-wto-appellate-body-appointment> (summarizing, with approval, the US position that the Appellate Body needs to be reined in after exceeding its mandate in a series of disputes featuring decisions adverse to US trade policy)

¹⁹⁸ See WTO News, *WTO Appoints two new Appellate Body Members* (Nov. 23, 2016) https://www.wto.org/english/news_e/news16_e/28nov16_e.htm (announcing the appointment of two new Appellate Body members).

It is notably that the US succeeded in blocking the re-appointment of Seung Wa Chang, who was replaced by Hyun Chong Kim. Chang had been criticized for his role in four decisions that, in the United States’ view, “raised systemic concerns about the disregard for the proper role of the appellate body and the WTO dispute settlement system.” See Bryce Baschuk, *U.S. Blocks Korean Judge from WTO Appellate Body*, Int’l Trade Daily (May 24, 2016), <https://www.bna.com/us-blocks-korean-n57982072872/>.

¹⁹⁹ See *EC/Fur Seals*, *supra* note 125.

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²² Intended Nationally Determined Contribution, Republic of Indonesia, 5, http://www4.unfccc.int/submissions/INDC/Published%20Documents/Indonesia/1/INDC_REPUBLIC%20OF%20INDONESIA.pdf.

²³ *Id.* at 2.

²⁴ South Africa’s Intended Nationally Determined Contribution, 6, <http://www4.unfccc.int/ndcregistry/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf>.

²⁵ Intended Nationally Determined Contribution, the United States, 2, <http://www4.unfccc.int/submissions/INDC/Published%20Documents/United%20States%20of%20America/1/U.S.%20Cover%20Note%20INDC%20and%20Accompanying%20Information.pdf>.

²⁶ United Nations Framework Convention on Climate Change, Senate Consideration of Treaty Document 102-38, <https://www.congress.gov/treaty-document/102nd-congress/38>.

²⁷ Daniel Bodansky, *Legal Options for U.S. Acceptance of New Climate Agreement*, CENTER FOR CLIMATE & GLOBAL SOLUTIONS (May 2015), <http://www.c2es.org/publications/brief-legal-options-us-acceptance-new-climate-change-agreement>.

²⁸ See generally COP 21, Decision CP.21 on Adoption of the Paris Agreement, Section III, ¶27.

The information to be provided by Parties communicating their nationally determined contributions, in order to facilitate clarity, transparency and understanding, may include, as appropriate, inter alia, quantifiable information on the reference point including, as appropriate, a base year, time frames and/or periods for implementation, scope and coverage, planning processes, assumptions and methodological approaches including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals, and how the Party considers that its nationally determined contribution is fair and ambitious, in the light of its national circumstances. The language mirrors that in paragraph 14 of Decision 1/CP.20, part of the “Lima call for climate action.” *Id.*

²⁹ Paris Agreement, *supra* note 1, at Art. 4, ¶3.

³⁰ *Id.* at Art. 3.

³¹ See Christina Voigt, *The Compliance and Implementation Mechanism of the Paris Agreement*, REV. OF EUROPEAN COMMUNITY & INT’L ENVIRONMENTAL L. 25(2), 161-173, 161 (2016) (stating that the Paris Agreement establishes “mainly administrative, procedural obligations of a legally binding nature, leaving the substantive content [of NDCs] to a large extent to the discretion of parties”).

³² See generally Kyoto Protocol, Art. 18 (stating that “meeting of the Parties to this Protocol shall, at its first session, approve appropriate and effective procedures and mechanisms to determine and to address cases of non-compliance with the provisions of this Protocol, including through the development of an indicative list of consequences, taking into account the cause, type, degree and frequency of non-compliance”).

³³ See Todd D. Stern, *Seizing the Opportunity for Progress on Climate* (October 14, 2014), <http://www.state.gov/s/climate/releases/2014/232962.html>.

The legal form of the Paris Agreement turned out to be the same as what the U.S. and New Zealand envisaged: there would be a “legally binding obligation to submit a ‘schedule’ for reducing emissions, plus various legally binding provisions for accounting, reporting, review, periodic updating of the schedules, etc.”; “[b]ut the content of the schedule itself would not be legally binding at an international level.” *Id.*

³⁴ Paris Agreement, *supra* note 1, at Art. 4, ¶ 12.

³⁵ *Id.* at Art. 13, ¶¶ 4, 5, 11.

³⁶ *Id.* at Art. 14, ¶ 2.

³⁷ *Id.* at Art. 14, ¶ 3.

³⁸ *Id.* at Art. 15, ¶ 1-2.

³⁹ See INDCs as communicated by Parties, <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx> (last visited November 20, 2016).

⁴⁰ See e.g., Egyptian Intended Nationally Determined Contribution 10-12.

⁴¹ See e.g., Intended Nationally Determined Contribution of Chile Towards the Climate Agreement of Paris 2015.

⁴² See e.g., Intended Nationally Determined Contribution of Chile Towards the Climate Agreement of Paris 2015, 17 (the Tax Reform Law 20.780, promulgated in October 2014, which imposes a tax on the initial sale of lightweight vehicles inversely proportional to vehicle performance in terms of CO₂ emission, and starting from January 1, 2017, an annual tax benefit lien on CO₂ produced by facilities whose stationary sources have an aggregate thermal power equal or higher than 50 thermal megawatts); South Africa’s Intended Nationally Determined Contribution 6 (developing several policy instruments, including carbon tax, to reduce GHG emission); Saint Lucia Intended Nationally Determined Contribution under the United Nations Framework Convention on Climate Change 8 (proposing to reduce tax and duty for importers of fuel efficient vehicles and alternative energy vehicles and taxes on higher engine capacity vehicles).

⁴³ See e.g., Intended Nationally Determined Contribution of the United Arab Emirates 2-3.

⁴⁴ See e.g., Intended Nationally Determined Contribution of the Government of Malaysia 3 (the Tenth Malaysia Plan (2011-2015) introduced a feed-in-tariff mechanism in conjunction with the Renewable Energy Policy and Action Plan (2010) to help finance renewable energy investment, incentivize green technology investments, and promote projects’ eligibility for carbon credits); Intended Nationally Determined Contribution of Mozambique to the United Nations Framework Convention on Climate Change 9 (Renewable Energy Feed-In Tariff is one of the proposed measures to reduce GHG emissions).

⁴⁵ Saint Lucia Intended Nationally Determined Contribution under the United Nations Framework Convention on Climate Change 8 (proposing to introduce a new levy to control importation of used vehicles).

⁴⁶ See e.g., Republic of Guinea Intended Nationally Determined Contribution under the United Nations Framework Convention on Climate Change, 12 (Guinea proposes to evaluate the feasibility of establishing a financial mechanism for the mining sector to fund the contribution to the fight against climate change).

⁴⁷ See e.g., Intended Nationally Determined Contribution of the United Arab Emirates 3 (United Arab Emirates introduced efficiency standards for air-conditioning units, eliminating the lowest-performing 20% of units on the market, and is introducing efficiency standards for refrigeration and other appliances); Republic of Sudan Intended Nationally Determined Contributions 5 (proposing to establish a labeling system for electrical appliances).

⁴⁸ See e.g., Intended Nationally Determined Contribution of the Government of Malaysia, 3 (The National Biofuel Industry Act 2007 requires mandatory use of the B5 domestic blend of 5% palm biodiesel and 95% fossil fuel diesel).

⁴⁹ See sections 2.1 and 2.2 (providing further discussion on the topic).

⁵⁰ The 1992 United Nations Framework Convention on Climate Change, Art. 3(5).