Sustainable Production and Trade Discrimination: An Analysis of the WTO Jurisprudence

Received: February 13, 2017
Approved: October 24, 2017

DOI: dx.doi.org/10.12804/revistas.urosario.edu.co/acdi/a.6543

María Alejandra Calle Saldarriaga*

Abstract: This article aims to examine the legality of trade measures addressing environmental conditions of production (PPMs) in the context of non-discrimination provisions under the General Agreement on Tariffs and Trade (GATT)[1] and the Agreement on Technical Barriers to Trade (TBT Agreement).[2] It shows that the notion of *de facto* discrimination is still a sensitive subject in the analysis of origin-neutral measures, including those based on environmental PPMs. Much of the discussion regarding PPMs focuses on the issue of 'like products'. The interpretation of 'likeness' has

* PhD in Law (University College Cork, National University of Ireland); master in International Economic Law and Policy (Ielpo-LLM, Universidad de Barcelona) and master in Administration Sciences (MSc, Universidad Eafit). Full Professor of International Business, Universidad Eafit (Colombia). The author can be reached at mcalle@eafit.edu.co

Para citar este artículo: Calle Saldarriaga, M. A., "Sustainable production and trade discrimination: an analysis of the WTO jurisprudence", *Anuario Colombiano de Derecho Internacional (ACDI),* 2018, 11, pp. 221-258. DOI: dx.doi.org/10.12804/revistas.urosario.edu.co/acdi/a.6543

1 General Agreement on Tariffs and Trade 1994 (GATT 1994), 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations 17 (1999), 1867 UNTS, 33 ILM 1153 (1994).

2 Agreement on Technical Barriers to Trade (TBT Agreement), 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Legal Instruments, Results of the Uruguay Round, 1868 UNTS 120 (1994).

also served to classify PPMs into the two categories of *product related* and *non-product related*. Such distinction rests on how the PPM affects the final product. However, it is important to analyse to what extent these measures can accord less favourable treatment to like products. The author argues that this requires a competition analysis. This article also elucidates how depending upon the applicable law (the TBT Agreement or the GATT) PPMs are likely to face different legal challenges, particularly in terms of less favourable treatment. The author also assesses the possibility of transposing concepts such as 'legitimate regulatory distinctions' stemming from the TBT jurisprudence into GATT cases involving PPMs, and whether there will be an additional 'test' for PPMs characterised as TBT measures. This article is based on an extensive literature review and doctrinal legal research.

Keywords: International trade law and the environment, non-discrimination obligations under the GATT and the TBT Agreement, processes and production methods, *de facto* discrimination, WTO jurisprudence.

Producción sostenible y no discriminación comercial: un análisis de la jurisprudencia de la OMC

Resumen: este artículo tiene como objetivo examinar la legalidad de medidas restrictivas al comercio basadas en consideraciones ambientales relacionadas con los métodos de producción (PPM). Ello teniendo en cuenta obligaciones de no discriminación incorporadas en el Acuerdo General sobre Aranceles Aduaneros y Comercio (GATT) y el Acuerdo sobre Obstáculos Técnicos al Comercio (Acuerdo OTC). El artículo analiza cómo el concepto de discriminación *de facto* continúa representando uno de los mayores retos para la legalidad de las restricciones al comercio basadas en PPM ambientales (incluso cuando son neutras en el origen). Gran parte del debate sobre los PPM se centra en la interpretación del concepto de 'productos semejantes'. Dicha interpretación también ha servido para forjar la clasificación de los PPM en dos categorías: 'relacionados con el producto' y 'no relacionados con el producto'. Tal distinción se basa en cómo el PPM afecta el producto final. Con todo, resulta necesario analizar hasta qué punto las medidas basadas en consideraciones ambientales clasificadas como PPM pueden ofrecer un trato menos favorable a los productos semejantes importados. Lo que requiere de un análisis de competencia. Uno de los argumentos de la autora es que, dependiendo del acuerdo aplicable (OTC o GATT), los

PPM podrían enfrentar diferentes retos jurídicos, particularmente en lo que respecta al trato menos favorable. La autora también evalúa la posibilidad de transponer conceptos tales como 'distinciones reglamentarias legítimas', que emergen de la jurisprudencia sobre OTC en casos analizados bajo el GATT que involucren PPM. Finalmente, debate la posibilidad de pruebas o tests adicionales para los PPM cuando estos son caracterizados como medidas OTC. Este artículo es producto de una investigación de carácter doctrinal y revisión de literatura.

Palabras clave: derecho del comercio internacional y medio ambiente, obligaciones sobre no discriminación en el GATT y el Acuerdo OTC, procesos de producción sostenibles, discriminación *de facto,* jurisprudencia de la OMC.

Produção sustentável e não discriminação comercial: uma análise da jurisprudência da OMC

Resumo: este artigo tem como objetivo examinar a legalidade de medidas restritivas ao comércio baseadas em considerações ambientais relacionadas com os métodos de produção (PPM). Isto tendo em conta obrigações de não discriminação incorporadas no Acordo Geral sobre Tarifas Alfandegárias e Comércio (GATT) e o Acordo sobre Obstáculos Técnicos ao Comércio (Acordo OTC). O artigo analisa como o conceito de discriminação *de facto* continua representando um dos maiores desafios para a legalidade das restrições ao comércio baseadas em PPM ambientais (inclusive quando são neutras na origem). Grande parte do debate sobre os PPM centra-se na interpretação do conceito de 'produtos semelhantes'. Dita interpretação também tem servido para forjar a classificação dos PPM em duas categorias: 'relacionados com o produto' e 'não relacionados com o produto'. Tal distinção baseia-se em como o PPM afeta o produto final. Contudo, resulta necessário analisar até que ponto as medidas baseadas em considerações ambientais classificadas como PPM podem oferecer um trato menos favorável aos produtos semelhantes importados. O que requere de uma análise de concorrência. Um dos argumentos da autora é que, dependendo do acordo aplicável (OTC ou GATT), os PPM poderiam enfrentar diferentes desafios jurídicos particularmente no que diz respeito ao trato menos favorável. A autora também avalia a possibilidade de transpor conceitos tais como 'distinções regulamentares legítimas', que emerge da jurisprudência sobre OTC em casos analisados sob o GATT que envolvam PPM. Finalmente,

debate a possibilidade de provas ou testes adicionais para os PPM quando estes são caracterizados como medidas OTC. Este artigo é produto de uma pesquisa de carácter doutrinal e revisão de literatura.

Palavras-chave: direito do comércio internacional e meio ambiente, obrigações sobre não discriminação no GATT e o Acordo OTC, processos de produção sustentáveis, discriminação *de facto,* jurisprudência da OMC.

Introduction

There can be little doubt that the legality of environmental Process and Production Methods (PPMs) is a crucial issue in the context of the trade and environment relationship. PPMs can be regarded as regulatory choices associated with a wide range of environmental concerns. However, in trade disputes, challenged measures involving policy objectives addressing production issues in the conservation of natural resources tend to focus on fishing/harvesting techniques affecting animal species. *US-Tuna (Mexico),*[3] *US-Tuna (EEC),*[4] *US-Shrimp,*[5] *US-Tuna II (Mexico)*[6] and *EC-Seal Products*[7] show that concerns stemming from fishing and hunting techniques have been mainly associated with the protection of marine wildlife. The concept of PPMs is not without ambiguities. In principle, it refers to measures prescribing the use of a specific production technique as a condition for market access. It follows that the product in question has to fulfil certain criteria associated with the use of particular PPMs in order to be allowed in the

---

[3] GATT Panel Report, *United States-Restrictions on imports of tuna,* DS21/R, DS21/R, 3 September 1991, unadopted, BISD 39S/155 [hereinafter *US-Tuna (Mexico)*].

[4] GATT Panel Report, *United States-Restrictions on imports of tuna,* DS29/R, 16 June 1994, unadopted [hereinafter *US-Tuna (EEC)*].

[5] WTO Appellate Body Report*, United States-Import prohibition of certain shrimp and shrimp products,* WT/DS58/AB/R, adopted 6 November 1998, DSR 1998: VII, 2755 [hereinafter *US-Shrimp*].

[6] WTO Appellate Body Report*, United States-Measures concerning the importation, marketing and sale of tuna and tuna products,* WT/DS381/AB/R, adopted 13 June 2012 [hereinafter *US-Tuna II (Mexico)*].

[7] WTO Appellate Body Reports, *European Communities-Measures prohibiting the importation and marketing of seal products,* WT/DS400, WT/DS401 and Add.1, circulated on 22 May 2014 [hereinafter *EC-Seal products*].

market, or to qualify for a tariff[8] or non-tariff advantage such an exclusive label. In this sense, PPMs can be correctly interpreted as conditions for market access or tariff benefits. Such conditions may be mandatory[9] or voluntary.[10] They may also prescribe the production technique either in a positive or a negative way. That is to say, they may establish how the product must be produced, or, in contrast, how the product must not be produced.[11]

In spite of the above, it can be argued that the concept may also encompass measures adopted as a response to the way in which a certain PPM is perceived. This means that, the PPM can be regarded as the motivation behind the measure rather than as a requirement for market access. This is arguably the case of the Seal Regime of the European Union (EU Seal Regime) prohibiting the import and placing on the market of seal products. Such measure was adopted as a response to the "inhumane killing of the seals",[12] or in other words, to the "cruel" hunting methods employed when killing the seals. In this dispute, the EU alleged that the purpose of the Seal Regime was "not to ensure that a seal product fits a product characteristic or related process or production method" but rather to prohibit the sale of seal products.[13] That was equivalent to saying that the Seal Regime did not prescribe PPMs. However, one could ask whether the exceptions provided in the seal regime, particularly the one related to

---

[8] Benoit, Charles, "Picking tariff winners: non-product related PPMs and DBS interpretations of 'unconditionally' within article I:1', *Georgetown Journal of International Law,* 2011, 42, (2), pp. 1-24.

[9] Consider for instance the measure at issue in the case *US-Shrimp*.

[10] This was one of the contentious issues in the case *US-Tuna II (Mexico)*. It was alleged that although exporters were allowed to sell tuna products without a 'dolphin-safe' label in the United States, "any 'producer, importer, exporter, distributor or seller' of tuna products must comply with the measure at issue in order to make any 'dolphin-safe' claim". Appellate Body Report, *US-Tuna II (Mexico),* para. 196.

[11] Here the author is following the rationale established in *EC-Asbestos*, when the Appellate Body interpreted the concept of 'physic characteristics' in the context of technical regulations. See WTO Appellate Body Report, *European Communities-Measures Affecting asbestos and asbestos-containing products,* WT/DS135/AB/R, adopted 5 April 2001, DSR 2001:VII, 3243, para. 69 [hereinafter *EC-Asbestos*].

[12] See Second Written Submission by the European Union, *European Union-Measures prohibiting the importation and marketing of seal products,* 27 March 2013, para. 274.

[13] See *ibid.,* para. 185.

indigenous communities, may amount to market access requirements based on PPMs.[14]

The initial stage of the debate about environmental PPMs was particularly shaped by the so-called product-process doctrine. Under the product-process doctrine, product distinctions based on the characteristics of the production method or the producers were regarded as *a priori* illegitimate.[15] It was feared that allowing product distinctions based on PPMs rather than the physical characteristics or quality of products would create a loophole in the GATT.[16] It is worth stressing that the product-process doctrine has been criticised in the literature. For instance, the opinion of Irwin is that it emerged from a "creative interpretation" of a GATT panel (*i. e.,* US-Tuna) that gradually took on a life of its own. He points out that although the product-process doctrine was never explicitly proposed or endorsed by WTO Members, it still represents a challenge for PPMs.[17]

The basis for the product-process doctrine lies in the interpretation of the concept of 'like products' in Article III of the GATT.[18] Although this issue is discussed below in further detail, it is important to mention here that in the assessment of likeness, adjudicatory bodies evaluate different factors such as the physical properties of the products, quality, end-uses, consumers' tastes and habits, tariff classification,[19] and also, competitive

---

[14] Although this issue was not explored in the dispute, it is possible to think that when the IC exception focuses on the aboriginal identity of the hunter, it implicitly evokes traditional methods of hunting.

[15] See Hudec, Robert E., "GATT/WTO constraints on national regulation: requiem for an aim and effects test", *The International Lawyer,* 1998, 32, (3), pp. 619-649.

[16] As suggested by Conrad, the concern was that, with this loophole, countries would be allowed to link trade measures with virtually all aspects subject to national regulation, including the protection of labour or minority rights, religious requirements or cultural traditions. Conrad, Christiane R., *Processes and production methods (PPMs) in WTO law: interfacing trade and social goals,* Cambridge University Press, Cambridge, 2011, p. 26.

[17] See Irwin, Douglas A., *Free trade under fire,* 3rd ed., Princeton University Press, New Jersey, 2009, p. 247.

[18] See Vranes, Eric, "Climate labelling and the WTO: the 2010 EU ecolabelling programme as a test case under WTO law", in Herrmann, Christoph & Terhechte, Jörg Philipp (eds.), *European yearbook of international economic Law 2011,* Springer, Berlin-Heidelberg, 2011, pp. 205-237.

[19] See *GATT Working Party Report on Border Tax Adjustments,* GATT BISD 18S/97, December 2, 1970, para 18.

relationship between products.[20] The interpretation of 'likeness' in the context of the product-process doctrine has also served to classify PPMs into the two categories of *product related* and *non-product related*.[21] Such distinction rests on how the PPM affects the final product. Whilst the former affects the characteristics of the finished product, the latter does not. This is a fundamental distinction since the first consideration that has to be born in mind, when examining discrimination claims, is whether imported and domestic products are like products.

The category of *product related* PPMs (PR-PPMs) usually refers to processes affecting the expected physical characteristics of finished products (*e. g.,* composition, colour, size, design features and functionality). These process-based concerns are associated with the impact of the method of production on the safety and quality of the product.[22] It follows that in respect of concerns dealing with PR-PPMs, the process has a direct impact on the product characteristics. Consequently, it is possible to establish a *nexus* between process and the expected product attributes (*e. g.,* safety considerations regarding the use of hormones in meat production, or pesticide residues in non-organic agricultural production). The main purpose of PR-PPMs can be therefore to achieve desirable quality/safety attributes in the product that are highly dependent on the production process.

In contrast, the category of *non-product related* PPMs (NPR-PPMs), which is the subject of this article, refers to other environmental or societal preferences stemming from the production stage (*e. g.,* sustainably sourced products, animal welfare standards, carbon footprint and fair trade) that do not affect the external physical characteristics of products. In this type of measure, importance is attributed to life cycle considerations and environmental impacts associated with a certain production method. NPR-

---

[20] Appellate Body Report, *EC-Asbestos,* para. 99.

[21] The classification of PPMs as 'product-related' and 'non product related' is often criticised as being artificial and conceptually problematic. See Tietje, Christian, "Process-Related measures and global environmental governance", in Winter, Gerd (ed.), *Multilevel governance of global environmental change: perspectives from sciencie, sociology and the law,* Cambridge University Press, New York, 2006, pp. 254-274; and Charnovitz, Steve, "The law of environmental 'PPMs' in the WTO: debunking the myth of illegality"*, Yale Journal of International Law,* 2002, 27, (1), pp. 59-110.

[22] According to Nielsen, a classic example of PR-PPMs is the one of Kosher or Halal quality products. See Nielsen, Laura, *The WTO, animals and PPMs,* Martinus Nijhoff Publishers, Leiden, 2007, p. 272.

PPMs reflect existing social and environmental values that might inform purchase or consumption decisions.[23]

The classification of PPMs in terms of product-related (PR) and non-product related (NPR) may also influence the perception of likeness. PR-PPMs could be said to have an impact on the likeness assessment of imported vs. domestic products insofar as the products could be deemed unlike because of different physical characteristics. This ultimately would imply that the distinction based in the PPM is not unlawful because products are not "like", particularly insofar as the PPMs may have an impact on the physical characteristics or the quality of the products. However, the same conclusion for NPR-PPMs is less clear.[24] Should all criteria point to likeness between the products because the PPM does not affect the physical characteristics, end uses or product classification, the *prima facie* conclusion would be that products are "alike". Therefore, a panel should assess whether the distinction based on the NPR-PPM has a detrimental impact on the competitive relationship between the products. Arguably, the only likeness criterion that could be affected by the PPM would be the consumers' perception.[25] However, it remains difficult to conclude that products that would otherwise be like (because all criteria point to likeness) are unlike on the basis of consumers' preferences for a PPM, especially if the PPM is not incorporated into the product. In principle, the only manner in which consumers may be aware of the PPM is through a label, which is ultimately

---

[23] In 1997, the OECD developed a taxonomy of environmental NPR-PPMs which focuses on the scope of the environmental effect created by the production method (*i. e.,* the production externality). The analytical framework developed by the OECD also analyses different measures associated with the enforcement of PPMs and their possible impact on trade and trade policy. See OECD, "Processes and production methods (PPMs): conceptual framework and considerations on the use of PPM-based trade measures", 1997.

[24] See Marceau, Gabrielle, "The new TBT jurisprudence in US-Clove cigarettes, WTO US-Tuna II, and US-COOL", *Asian Journal of WTO and International Health Law and Policy,* 2013, 8, (1), pp. 1-39.

[25] Read refers to the criteria of like products and suggests that in PPMs dealing with 'by-product negative externalities' such as dolphin-friendly tuna, turtle-friendly shrimps, goods made using child labour and organically grown farm products "only the last —consumer tastes and habits— would apply and then only for well-informed and discerning consumers". See Read, Robert, "Process and production methods and the regulation of international trade", in Perdikis, Nicholas & Read, Robert (eds.), *The WTO and the regulation of international trade: recent trade disputes between the European Union and the United States,* Edward Elgar Publisher Limited, Cheltenham, 2005, pp. 239-266.

the result of governmental intervention. This governmental intervention can be expressed by means of mandatory or voluntary labelling schemes.

A question that remains to be answered is whether the traditional classification of PPMs as product-related and non-product related is still useful. This issue has been discussed by commentators such as Charnovitz,[26] Pauwelyn,[27] Howse and Regan,[28] and Howse and Levy.[29] As the distinction between PR-PPMs and NPR-PPMs has not yet been examined by WTO adjudicatory bodies,[30] it is still uncertain whether the generic term 'PPMs' encompasses both categories or, conversely, whether NPR-PPMs should be considered as product characteristics. This is certainly a systemic issue that should be addressed either by the membership or by WTO adjudicatory bodies (if brought by a member in a future dispute). It should be emphasised that measures such as the one scrutinised in *US-Tuna II (Mexico)* can be regarded as a classic example of what the scholarly literature considers an environmental NPR-PPM. However, such a distinction was not addressed in the dispute. The panel agreed with the United States that the phrase "they apply to a product, process or production method",[31] means that "labelling requirements and other elements listed in the second sentence *must relate* to and concern "a product, process or production method".[32] It also agreed that the "labelling requirements laid down in the US dolphinsafe

---

26 Charnovitz, above n. 19, at 110.

27 Pauwelyn, Joost, "Tuna: the end of the PPM distinction? The rise of international standards?", *International Economic Law and Policy Blog,* 2012, at https://goo.gl/XF11A9, accessed on June 10, 2013.

28 Howse, Robert & Regan, Donald, "The product/process distinction-an illusory basis for disciplining 'unilateralism' in trade policy, *European Journal of International Law,* 2000, 11, (2), pp. 249-289.

29 Howse, Robert & Levy, Philip I., "The TBT panels: US-Cloves, US-Tuna, US-COOL", *World Trade Review,* 2013, 12, (2), pp. 327-375.

30 The silence of WTO adjudicatory bodies on the question of the legality of this type of measure can be explained by the fact that the issue has not been brought up as such in dispute settlement. Although the dispute *EC-Seal products* gave the Appellate Body the opportunity of clarifying the meaning of this sentence in the context of the TBT Agreement, it refrained from ruling on this particular issue. See Panel Report, *EC-Seal products,* para. 7.103; and Appellate Body Report, *EC-Seal products,* para. 5.69.

31 See the definition of a technical regulation provided in Annex 1 of the TBT Agreement.

32 Panel Report, *US-Tuna II (Mexico),* paras. 7.77- 7.78 (emphasis added).

labelling provisions apply to' a product, namely tuna products". In other words, it considered the measure as "product related".[33]

What seems to be clear is that non-discrimination obligations under the GATT and the TBT Agreement remain as an important challenge for the legality of measures based on environmental NPR-PPMs, in particular, the concept of 'like products' and the interpretation of *de facto* discrimination. This article analyses the scope of the legal tests for this type of measure in the context of Articles I and III of the GATT, and Article 2.1 of the TBT Agreement. In addition, it discusses the intersection between Article III and Article XI of the GATT for the purposes of characterising environmental NPR-PPMs as border measures or as domestic regulations. This article also draws attention to the fact that, although measures based on environmental NPR-PPMs may not contain any explicit reference to the origin of the products (*i. e.,* not be facially discriminatory), they can nonetheless violate GATT and TBT provisions. Special attention is given to the concepts of 'even-handedness' and 'legitimate regulatory distinctions' stemming from the recent TBT jurisprudence. In particular, to the question of whether such concepts can illuminate the analysis of claims under GATT. Whether the concepts of 'even-handedness' and 'legitimate regulatory' distinctions only relate to the interpretation of the TBT Agreement as a possible *lex specialis* to GATT is a question of extensive debate. However, as discussed below, the recent ruling of the Appellate Body in *EC-Seal Products* has significantly clarified this issue. The most apparent consequence of such clarification is that the analysis of non-discrimination obligations under the GATT and the TBT Agreement follows different legal standards. Hence, depending under which agreement environmental NPR-PPMs are scrutinised, they may face different challenges in terms of consistency with non-discrimination obligations.

1. Origin-Neutral Environmental NPR-PPMs: MFN issues under GATT and the TBT Agreement

In the scholarly discussion about the legality of PPMs, one of the arguments put forward is that this type of measure may violate the principle of Most-Favoured-Nation (MFN) Treatment provided for in Article I:1 of the GATT. In recent reports, the Appellate Body has interpreted this provision

[33] *Ibid.*

broadly as protecting *expectations* "of equal competitive opportunities for like imported products from all Members".[34]

It is often argued that the legality of measures based on environmental NPR-PPMs under Article I of the GATT depends to a large extent on the definition of the term 'like products'.[35] As suggested above, the issue of likeness has been one of the fundamental questions addressed in the legal analysis of process-based distinctions in the context of non-discrimination obligations under the GATT.[36] In the recent *US-Tuna II (Mexico)* dispute, the panel followed the general or traditional approach for the determination of likeness, and also referred to the metaphor of the accordion, stressed in *Japan-Alcoholic Beverages II*.[37] According to the panel, the products at issue shared "common physical characteristics and properties, end uses and tariff classification". In other words, the panel concluded that the products were "in essence the same products, processed in a different country".[38] In addition, it also considered the relevance of "consumer preferences" when conducting the like products analysis, for instance when noting that American consumers had certain preferences related to the 'dolphin-safe' status of the tuna product.[39] The panel emphasised that such preferences were *a priori* relevant for the likeness assessment insofar as "consumer preferences, including preferences relating to the manner in which the product has been obtained, may have an impact on the competitive relationship between these products".[40] However, after an examination of consumer preferences in relation to the dolphin-safe status of tuna products, the panel was not persuaded that such a criterion would affect the likeness of the products compared.[41] It is worth mentioning that, although the measure

---

34 Appellate Body Report, *EC-Seal products,* para. 587.

35 Conrad, above n. 14, at 36.

36 See *e. g.,* Hudec, Robert E., "'Like product': the differences in meaning in GATT articles I and III", *Worldtradelaw.net,* 2000, at link accessed on June 10, 2013; and Charnovitz, above n. 19, at 86.

37 See WTO Appellate Body Report*, Japan-Taxes on alcoholic beverages,* WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, adopted 1º November 1996, DSR 1996:I, 9722 [hereinafter *Japan-Alcoholic beverages II*].

38 Panel Report, *US-Tuna II (Mexico),* para. 7.246.

39 *Ibid.,* para. 7.249.

40 *Ibid.*

41 *Ibid.,* para. 7.250.

at issue was based on a NPR-PPM, it was never contended among the parties that the product shared the same physical characteristics and properties.[42] Thus, it can be argued that in the likeness analysis, the criterion related to the physical characteristics of the products was not as contentious as the one related to consumer perceptions.

Despite the fact that the question of likeness is fundamental in the analysis of non-discrimination obligations in the GATT and the TBT Agreement, it is not the only challenge for the legality of environmental NPR-PPMs. A violation of such obligations has to consider not only whether the imported and domestic products are alike, but also whether the imported products are treated less favourably than domestic like products.[43] Hence, even if it is accepted that NPR-PPMs do not render products unlike, a panel has still to determine whether the measure affords less favourable treatment to the imported like products. A key question under this analysis is therefore whether environmental NPR-PPMs can modify the "conditions of competition in the relevant market to the detriment of imported products".[44] However, such detrimental impact has to be attributed to the governmental measure and not to other factors such as private choice.[45] In this sense, it can be argued that the challenges for the legality of environmental NPR-PPMs under "non-discrimination" obligations in the GATT do not only relate to the definition of likeness but also to the idea of "less favourable treatment". Such challenges may be even higher, provided that the notion of less favourable treatment, as currently interpreted by the Appellate Body, is highly focused on detrimental impact on competitive opportunities.[46]

---

42 *Ibid.*

43 See WTO Appellate Body Report, *Korea-Measures affecting imports of fresh, chilled and frozen beef,* WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 January 2001, DSR 2001:I, 5, para. 122 [hereinafter *Korea-Various measures on beef*]. See also Panel Report, *US-Tuna II (Mexico),* para. 7.212.

44 Appellate Body Report, *Korea-Various measures on beef,* para. 137.

45 This is the way in which the Appellate Body interpreted 'genuine relationship' in the analysis of less favourable treatment in the IC exception. See Appellate Body Report, *EC-Seal products,* para. 5.336.

46 See Qin, Julia, "Should there be a single non-discrimination obligation for trade in goods? Julia Qin reply to liberality", *International Economic Law and Policy Blog,* 2014, at https://goo.gl/TKTCNw, accessed on May 30, 2014.

1.1. *De facto* Discrimination in Origin-Neutral NPR-PPMs

It is generally accepted that a measure that is origin-contingent can violate Article I:1, provided that it discriminates between trading partners.[47] As established in *Colombia-Ports of Entry,* this provision prohibits members from addressing certain concerns through the use of measures applied on the basis of origin.[48] An important question is therefore whether origin-neutral environmental NPR-PPMs can be consistent with Article I:1 of the GATT.[49] However, environmental PPMs might also risk being found inconsistent with Article I:1 of the GATT even when they do not facially discriminate or incur disparate impacts. The jurisprudence is clear that origin neutral measures can nonetheless violate non-discrimination obligations when they have a detrimental impact on the competitive opportunities for imported like products (*i. e.,* they are *de facto* discriminatory).[50] It follows that a measure based on PPMs can violate Article I:1 of the GATT irrespective of whether it is facially discriminatory or not.

A similar logic applies in cases involving claims under Article 2.1 of the TBT Agreement. The *US-Tuna II (Mexico)* dispute is particularly relevant for the purposes of identifying the challenges for origin neutral environmental NPR-PPMs in the context of the 'non-discrimination' obligation in the TBT Agreement.[51] It is important to note that a violation of Article 2.1 of the TBT occurs when two conditions are met. The first condition is that

---

47 Charnovitz, above n. 19, at 84.

48 WTO Panel Report*, Colombia-Indicative prices and restrictions on ports of entry,* WT/DS366/R and Corr.1, adopted 20 May 2009, DSR 2009:VI, 2535, para. 7.366. [hereinafter *Colombia-Ports of entry*].

49 In order to examine the legality of a PPM measure under the MFN provision, it is necessary to evaluate whether the PPM measure 'facially' and 'explicitly' discriminates based on the national origin of the products, or whether, in contrast, it is origin-neutral. See Howse, Robert & Langille, Joanna, "Permitting pluralism: the seal products dispute and why the WTO should accept trade restrictions justified by noninstrumental moral values", *Yale Journal of International Law,* 2012, 37, (2), pp. 368-432.

50 See WTO Appellate Body Report, *Canada-Certain measures affecting the automotive industry,* WT/DS139/AB/R, WT/DS142/AB/R, adopted 19 June 2000, DSR 2000:VI, 2985, para. 78. See also Vranes, Erich, *Trade and the environment: fundamental issues in international law, WTO law and legal theory,* Oxford University Press, New York, 2019, p. 326.

51 Although the claims under *US-Tuna II (Mexico)* were analysed under the TBT Agreement, the panel used GATT provisions as guidance for the interpretation of the TBT Agreement (particularly in the context of the non-discrimination obligation).

the measure at issue has to fall within the scope of the TBT Agreement. The second condition is that the measure at issue accords less favourable treatment to like products (*i. e.,* domestic or originated in any other WTO Member).[52] The panel in *US-Tuna II (Mexico)* stated that the concept of equal treatment "does not necessarily imply identity of treatment for all products, but rather an absence of inequality to the detriment of imports from any Member".[53] In consequence, the panel found a similarity between the requirement of equal treatment in TBT Agreement, and the non-discrimination obligations in the GATT (Article I:1 and III:4).[54] In addition, it also observed that the interpretation of concepts such as 'less favourable treatment' and 'like products' in the GATT provide further guidance for the interpretation of similar concepts in the context of the TBT Agreement.[55]

The panel in *US-Tuna II (Mexico)* analysed the level of discrimination in the US "dolphin safe" labelling provisions, and observed that when allowing the use of the "dolphin safe" label, the measures at issue distinguished between products on the basis of "capture method", instead of the origin of the products.[56] For the panel, this did not necessarily imply that the measure accords less favourable treatment to Mexican tuna products, as any fleet operating anywhere in the world had to comply with the same requirements.[57] It was clear for the panel that the "dolphin safe" labelling provisions did not discriminate on the basis of the origin of the

---

52 See Panel Report, *US-Tuna II (Mexico),* para. 7.209.

53 *Ibid.,* para. 7.275.

54 *Ibid.* Authors such as Shaffer, consider that one systemic implication of *US-Tuna II (Mexico)* relates to the clarification of core substantive provisions of the TBT Agreement by using a traditional GATT analysis. In this sense, the obligations in GATT Article I:1 and III:4 are regarded as analogue to those within Article 2.1 of the TBT Agreement. See Shaffer, Gregory, "The WTO Tuna-Dolphin II case: United States-Measures concerning the importation, marketing and sale of tuna and tuna products", *The American Journal of International Law,* 2013, (1), pp. 192-199.

55 Panel Report, *US-Tuna II (Mexico),* para. 7.275.

56 See *ibid.,* para 7.305. It is important to clarify that according to the panel, the measures at issue "do not require the importing Member to comply with any particular fishing method". However, the products need to comply with the requirements for the use of the dolphin safe label if they want to use the label in the US market. Panel Report, *US-Tuna II (Mexico),* para. 7.372.

57 See *ibid.,* paras. 7.305 and 7.319.

products,[58] or, in other words, that the environmental measure was origin neutral. The panel also noted that the impact of the measure depended on several factors not related to the origin of the product, *inter alia,* "fishing and purchasing practices, geographical location, relative integration of different segments of production, and economic and marketing choices".[59] However, the Appellate Body did not agree with the panel, stressing that in such an interpretation, the panel appeared to "juxtapose factors that are related to the nationality of the product" with other factors such as those referenced above.[60] In consequence, the Appellate Body reversed the panel's finding related to "less favourable treatment" under Article 2.1 of TBT Agreement, stressing that "origin neutral" measures can be *de facto* discriminatory.[61] It therefore becomes apparent that the interpretation of *de facto* discrimination in the context of "origin neutral" TBT measures remains very similar to the interpretation of the same concept in the context of the GATT jurisprudence.

In sum, although environmental NPR-PPMs may not contain any explicit reference to origin, they can nonetheless violate Article I:1 of the GATT when they are *de facto* discriminatory. This issue is of great significance in the context of the trade and environment debate, particularly since environmentally motivated trade barriers are likely to be origin-neutral. This gives rise to questions such as to what extent the expansive interpretation of *de facto* discrimination in origin-neutral measures may constrain the regulatory autonomy of WTO members, particularly in the field of environmental protection.[62] Ehring observes that concerns related to the

---

58 *Ibid.,* para. 7.377.

59 Appellate Body Report, *US-Tuna II (Mexico),* para. 207.

60 According to the Appellate Body, the panel assumed incorrectly that "regulatory distinctions that are based on different 'fishing methods' or 'geographical location' rather than national origin *per se* cannot be relevant in assessing the consistency of a particular measure with Article 2.1 of the *TBT Agreement"*. See *ibid.,* para. 255.

61 *Ibid.,* para. 299.

62 Ehring refers to the potential risk of "excessive scrutiny of internal legislation by panels and the Appellate Body. The feared result is a partial loss of the national autonomy to pursue legitimate non-trade objectives for socio-economic reasons". Ehring, Lothar, "*De facto* discrimination in WTO law: national and most-favoured-nation treatment —or equal treatment—", *The Jean Monnet Center for International and Regional Economic Law & Justice,* 2001, Jean Monnet Working Paper, p. 1, at https://goo.gl/4Q7bfo, accessed on June 10, 2013.

potential risk of excessive scrutiny of domestic regulation by WTO adjudicatory bodies "have to be balanced against the interest of preventing *de facto* discriminatory trade barriers".[63]

In the light of the above, it can be argued that an expansive interpretation of *de facto* discrimination in the assessment of domestic regulations amounts to one of the greatest challenges for the legality of environmental NPR-PPMs. Although such measures are usually origin neutral, they may be regarded as causing detrimental impact on competitive opportunities of imported products. However, the jurisprudence under the TBT Agreement has consistently emphasised that such detrimental impact can be justifiable when stemming exclusively from "legitimate regulatory distinctions". Whether 'legitimate regulatory distinctions' can be taken into account when a measure violates non-discrimination provisions under the GATT it is a matter of recent debate.

2. Environmental NPR-PPMs and Non-Discrimination Obligations in the GATT and the TBT Agreement

Another challenge for the legality of environmental NPR-PPMs stems from the 'National Treatment' obligation incorporated in Article III of the GATT and Article 2.1 of the TBT Agreement. It can be said that, although Article III of the GATT provides a context for interpretation of the 'National Treatment' obligation enshrined in Article 2.1 of the TBT Agreement,[64] the legal standard under Article 2.1 of the TBT Agreement, namely the concept of 'legitimate regulatory distinctions,' does not seem to apply to claims under Article I and III of the GATT.[65] These issues are addressed below.

2.1. Article III of the GATT

The first paragraph of Article III articulates the general principle that informs the interpretation of each of the paragraphs in that provision. This principle states that "internal measures should not be applied so as to

---

[63] Ehring also points out that the concept of *de facto* discrimination needs to be clarified. See *ibid.*

[64] Panel Report, *EC-Seal products,* para. 7.584.

[65] Appellate Body Report, *EC-Seal products,* para. 5.130.

afford protection to domestic production".[66] Similar to Article I:1 of the GATT, the "National Treatment" provision in Article III also applies to *de facto* discriminatory measures, including those regarded as origin-neutral.[67] However, it is worth noting that while paragraph 2 applies to internal taxes and other charges (*i. e.,* fiscal internal measures), paragraph 4 relates to internal regulations (*i. e.,* non fiscal internal measures). In this sense, Article III:2 of the GATT can apply to those measures aiming at promoting the use of sustainable PPMs by means of taxation or other charges. This would be the case for taxes imposed on the basis of how the product has been produced, for example, taxes on carbon intensive products.[68] In contrast, Article III:4 of the GATT applies to "non-tax internal regulations".[69] It is clear that internal regulations can be enacted in order to promote sustainable practices of production and consumption. Such internal regulations may seek to reduce negative environmental externalities and to ensure availability of sustainable products. However, when such regulations, other than tax related, have a considerable impact on imported goods, they can be scrutinised under the terms of this particular provision. It can be argued that a violation of the "National Treatment" obligation in Article III of the GATT would depend on the definition of 'likeness'.[70] This issue is of great relevance in the context of NPR-PPMs, particularly considering that the product-process debate stems from the interpretation of the concept of like products in Article III of the GATT.[71] As noted above, the central

---

66 Appellate Body Report, *Japan-Alcoholic beverages II,* 18.

67 Van den Bossche, Peter, Schrijver, Nico & Faber, Gerrit, "Unilateral meassures adressing non-trade concerns. A study on WTO consistency, relevance of other international agreements, economic effectiveness and impact on developing countries of measures concerning non-product-related processes and production methods", *Ministry of Foreign Affairs of The Netherlands,* 2007, (1), p. 29.

68 For a complete analysis on environmental taxes and PPMs see Egelund Olsen, Birgitte, "Gaining intergovernamental acceptance: legal rules protecting trade", in Milne, Janet E. & Andersen, Mikael Skow (eds.), *Handbook of research on environmental taxation,* Edward Elgar Publishing, Cheltenham, 2012, pp. 192-210.

69 The concept of 'Non-tax internal regulation' is used by Conrad. See Conrad, above n. 14, at 38.

70 Article I of the GATT includes the concept of 'like products' in the context of the MFN principle. Similarly, Article III includes the concept of likeness along the lines of the principle of 'National Treatment'.

71 See Howse and Regan, above n. 26, at 3.

principle of the so-called "like product test"[72] is that internal taxes and other regulatory measures have to treat like products equally. The second paragraph of the Note Ad Article III also refers to "directly competitive or substitutable products".

2.1.1. The Characterisation of NPR-PPMs as Border Measures or as Domestic Regulations: The Intersection between Article III and Article XI of the GATT

The debate concerning to the application of Article III:4 to NPR-PPMs can be traced back to the early *US-Tuna* cases brought under the GATT dispute settlement system. In such disputes the panel considered that harvesting regulations intended to reduce the incidental taking of dolphins did not regulate the sale of tuna. In this approach, the panel suggested that the measures at issue were outside of the scope of the Note Ad Article III of the GATT. As a consequence, the panel proceeded to perform its analysis under the terms of Article XI and Article XX of the GATT. However, when interpreting Article III:4, and therefore, addressing the issue of likeness, the panel in *US-Tuna (Mexico)* stated that "regulations governing the taking of dolphins incidental to the taking of tuna could not possibly affect tuna as a product".[73] In addition, the same panel stated that Article III:4 of the GATT obliged "the United States to accord treatment to Mexican tuna no less favourable than that accorded to United States tuna, whether or not the incidental taking of dolphins by Mexican vessels corresponds to that of United States vessels".[74] Although the issue of like products was not analysed in depth, the panel in *US-Tuna (Mexico)* suggested, *inter alia*, that NPR-PPMs measures were not covered by Article III, and also that production methods do not affect the likeness of products. A similar approach was followed by the panel in *US-Tuna* (EEC).[75]

Environmental NPR-PPMs can sometimes be regarded as border measures or quantitative restrictions, covered by the terms of Article XI

---

[72] Hudec, "Like 'product': the differences in meaning in GATT articles I and III", above n. 34, at 17. See also Hudec, "GATT/WTO constraints on national regulation", above n. 13, at 23.

[73] Panel Report, *US-Tuna (Mexico),* para. 5.15.

[74] *Ibid.*

[75] See Panel Report, *US-Tuna* (EEC), para. 5.9.

instead of Article III:4. This particular provision provides for a general elimination of quantitative restrictions and is considered one of the cornerstones of the GATT.[76] Article XI therefore applies to "measures prohibiting or restricting the importation, exportation or sale for export of products other than measures that take the form of duties, taxes or other charges".[77] Environmental NPR-PPMs can violate Article XI when they are articulated in measures such as bans or quotas. A common example is when a WTO member adopts a quantitative restriction of a certain product on the basis of its compliance with desirable environmental practices. It is important to mention that Article XI and the term 'restrictions' are considered to be broad in scope.[78] Pauwelyn observes that policy instruments restricting trade can be classified in terms of "border measures" or "market access restrictions" which affect products at the border, and "behind the border measures" or "domestic regulations" which affect products once they have cleared customs. While the former fall within the scope of provisions such as Article II and XI, the latter are usually scrutinised under the terms of Article III.[79] According to Pauwelyn, the consequences of this distinction are vital, particularly because quantitative restrictions are *prima facie* prohibited by Article XI. In contrast, pursuant to Article III, WTO members can enact domestic regulations on the sole condition that they do not discriminate between imported and domestic products.[80]

It should be emphasised that WTO adjudicatory bodies have interpreted the concept of 'restrictions' broadly, noting that certain import

---

[76] The panel also held that "a basic principle of the GATT system is that tariffs are the preferred and acceptable form of protection". WTO Panel Report, *Turkey-Restrictions on imports of textile and clothing products,* WT/DS34/R, adopted 19 November 1999, as modified by Appellate Body Report WT/DS34/AB/R, DSR 1999:VI, 2363, para. 9.63.

[77] Panel Report, *US-Shrimp,* para. 7.11.

[78] The panel in *India-Quantitative Restrictions* observed that the wording in this provision is comprehensive. In the view of the panel, the ordinary meaning of the word 'restriction' refers to "a limitation on action, a limiting condition or regulation". See WTO Panel Report, *India-Quantitative restrictions on imports of agricultural, textile and industrial products,* WT/DS90/R, adopted 22 September 1999, as upheld by Appellate Body Report, para. 5.128. See also GATT Panel Report, *Japan-Trade in semi-conductors,* L/6309, adopted 4 May 1988, BISD 35S/116 para. 104.

[79] Pauwelyn, Joost H. B., "Rien ne va plus? Distinguishing domestic regulation from market access in GATT and GATS", *World Trade Review,* 2005, 4, (2), pp. 131-170.

[80] *Ibid.*

restrictions do not need to be imposed or administered at the border in order to fall within the scope of Article XI.[81] It therefore becomes apparent that the characterisation of a measure as an import restriction or as an internal requirement is not without difficulties. The jurisprudence in *Colombia-Ports of Entry* also shows that, in order to establish a violation of Article XI, a panel has to evaluate the design, structure, and architecture of the measure at issue. Furthermore, an assessment under Article XI will consider the potential adverse effects of the measure on imports, rather than the resulting impact on trade flows.[82] Some commentators suggest that, when a measure applies to both domestic and imported products, it should be considered as an internal regulation for the purposes of Article III, and in consequence that Article XI does not apply.[83]

As argued above, the characterisation of an environmental NPR-PPM as an import ban or as a domestic regulatory requirement depends on the interpretation of the scope of the Note Ad Article III.[84] It is also worth noting that the Note Ad Article III applies to domestic measures enforced at the time or point of importation.[85] The *US-Tuna* and *US-Tuna (EEC)* reports appeared to suggest that environmental measures based on NPR-PPMs could not be covered by the Ad Note in Article III (*i. e.,* did not constitute internal regulations). In both cases, it was held that the measure at issue distinguished between products on the basis of harvesting practices.

The interaction between Article III and Article XI was not examined in the *US-Shrimp* dispute. However, in the view of Howse and Regan, the report seemed to reaffirm that NPR-PPMs should be reviewed under Article

---

[81] See WTO Appellate Body Report, *Brazil-Measures affecting imports of retreaded tyres,* WT/DS332/AB/R, adopted 17 December 2007, para. 7.371; and Panel Report, *India-Measures affecting the automotive sector*, WT/DS146/R, WT/DS175/R and Corr.1, adopted 5 April 2002, DSR 2002:V, 1827, para. 7.270.

[82] According to the panel, "it would not be necessary to consider trade volumes or a causal link between the measure and its effects on trade volumes". Panel Report, *Colombia-Ports of entry,* para. 7.252.

[83] See the opinion of Howse, Robert, Langille, Joanna & Sykes, Katie, "Written submission of non-party Amici Curiae. European Communities-Measures prohibiting the importation and marketing of seal products (WT/DS400, WT/DS401, WT/DS369)", *World Trade Organization,* 2013, p. 28.

[84] Conrad, above n. 14, at 37.

[85] Panel Report, *US-Tuna (EEC),* para. 5.8.

XI instead of Article III.[86] Despite the fact that the measure at issue was characterised as a quantitative restriction for the purposes of Article XI, the above-mentioned authors argue that such finding did not define the legal status of process-based measures.[87] In other words, that from this decision it does not follow that measures based on PPMs shall be invariably scrutinised in the context of Article XI.[88] It remains unclear whether such measures should be scrutinised under the terms of Article XI instead of Article III. On the other hand, it is clear that when a measure violates Article XI it can be nonetheless justified under Article XX of the GATT.

Although neither the panel report in *US-Tuna (Mexico)* nor the report in *US-Tuna* (EEC) were adopted, they served to shape the early stage of the debate concerning PPMs in the context of the GATT,[89] particularly in the light of important concepts such as like products and less favourable treatment under Article III. The opinion of Van Den Bossche is that, although it may be possible to argue that NPR-PPMs are covered by Article XI and not by Article III:4 of the GATT, "the broad scope of application given to Article III:4 in the case law to date pleads against the exclusion of measures regulating NPR-PPMs from the scope of application of Article III:4".[90] Environmental measures based on NPR-PPMs might be found incompatible with Article III:4 of the GATT when they provide less favourable

---

[86] See Howse and Regan, above n. 26, at 256.

[87] In their opinion, when reaching this conclusion, the panel in *US-Shrimp* appeared to believe that the refusal of the United States to dispute the claim under Article XI was an admission of such violation. Howse and Regan note that it is upon the respondent to bring forward evidence that the measure at issue is indeed an internal regulation covered by the Ad Note in Article III, instead of an import ban amounting as a *prima facie* violation of Article XI. In consequence, although the omission of the United States could justify the finding under Article XI (which was also not appealed), such decision should not be regarded as defining the status of PPMs. See *ibid.,* 256.

[88] See also the opinion of Van den Bossche, Schrijver and Faber who also argue that "there is little, if any, support" in the case law for the idea that NPR-PPMs are covered by Article XI and not by Article III:4. The commentators also note that it is not clear whether Articles III:4 and XI can both be applicable to a NPR-PPM. However, they note that "the approach taken by the Panel in *EC, Asbestos* seems to suggest that this is not possible. Bossche, Schrijver, and Faber, above n. 65, at 86.

[89] See Marceau, above n. 22, at 7.

[90] Van den Bossche, Peter, *The law and policy of the World Trade Organization: text, cases and materials,* Cambridge University Press, New York, 2005, p. 369 (in fn 198).

treatment to imported products than to domestic like products, particularly, when modifying the conditions of competition for imported products.

The question of whether in a GATT analysis, environmental NPR-PPMs are covered by Article XI or by Article III would depend on the particular/factual characteristics of the measure at issue (*i. e.,* design and structure). It should be recalled that the design and operation of a trade measure could be particularly complex. For example, it can be composed by prohibitive and permissive aspects, that is to say, be articulated as an import ban with exceptions. *EC-Seal Products* shows that while prohibitive aspects of the Seal Regime gave rise to claims under Article XI, the discriminatory aspects of the measure with respect to the exceptions for the Inuit Communities and for Marine Resource Management exceptions were challenged under Article I and III.

2.2. Article 2.1 of the TBT Agreement

2.2.1. The Concepts of 'Likeness' and 'Less Favourable Treatment' in the TBT Agreement

The principle of 'National Treatment' in Article III of the GATT is also present in Article 2.1 of the TBT Agreement. It should be said that in disputes involving the application of the TBT Agreement, the requirements of Article 2.1 of the TBT Agreement have been interpreted in the light of the jurisprudence under Article III:4 of the GATT. This is no surprise as both provisions refer to like products and treatment no less favourable.[91] However, it was not until *EC-Seal Products* that the Appellate Body clarified that, although such provisions "should be read in a coherent and consistent manner", the legal standards in Articles 1:1 and III:4 of the GATT, and Article 2.1 of the TBT Agreements, do not have identical meanings.[92] The adjudication of claims under Article 2.1 of the TBT Agreement requires an assessment of the following elements: first, whether the measure at issue falls within the scope of the TBT Agreement; second, whether the imported and domestic products can be regarded as like products; and

---

[91] Appellate Body Report, *US-Tuna II (Mexico),* paras. 214, 215; WTO Appellate Body Report, *United States-Measures affecting the production and sale of clove cigarettes,* WT/DS406, AB/R, adopted 4 April 2012 [hereinafter *US-Clove cigarettes*] paras. 100 and 176-180.

[92] See Appellate Body Report, *EC-Seal products,* para. 5.123.

third, whether the measure at issue accords less favourable treatment to imported products.[93] As discussed below, in the assessment of likeness under the TBT Agreement, adjudicatory bodies have followed a similar approach to the one of the GATT. However, the analysis of less favourable treatment in Article 2.1 needs to take into consideration the regulatory purpose of the measure. In *US-Clove Cigarettes* the Appellate Body held that assessment of less favourable treatment in Article 2.1 involves an examination of "whether the detrimental impact of a measure on the competitive opportunities of like products stems exclusively from a legitimate regulatory distinction".[94]

It is worth noting that the panel in *US-Clove Cigarettes* was of the opinion that the regulatory purpose of the measure had to permeate and inform the likeness analysis.[95] This gave rise to the question of whether in such an approach the panel attempted to revive the "aims and effects test" that was controversial in the context of the GATT jurisprudence.[96] In spite of the above, the Appellate Body disagreed with the panel that the regulatory objective must inform the likeness analysis. It emphasised that a "purpose-based approach" poses difficulties,[97] and clarified that the assessment of likeness both under Article 2.1 of the TBT Agreement and

---

93 Appellate Panel Report, *US-Clove cigarettes,* para. 168.

94 WTO Appellate Body Report, *United States-Measures affecting the production and sale of clove cigarettes,* WT/DS406, AB/R, adopted 4 April 2012; Appellate Body Report, *US-Clove cigarettes,* para. 182 [hereinafter *US-Clove cigarettes*]. See also *EC-Seal products,* para. 5.117.

95 See Panel Report, *US-Clove cigarettes,* paras. 7.119 and 7.244.

96 See Choi, Won-Mog, "How more 'likeness' in addressing technical regulations?", *Society of International Economic Law,* 2012, 3rd Biennial Global Conference, pp. 1-29, at https://goo.gl/4SRBmU, accessed on June 10, 2013.

97 The Appellate Body has suggested that determining likeness on the basis of the regulatory objectives poses difficulties, especially in the analysis of measures with multiple and even conflicting purposes. It noted that such purposes "are not always easily discernible from the text or even from the design, architecture, and structure of the measure". It follows that a panel would have to identify all the objectives of a measure and/or to select those that may be relevant in the assessment of likeness. Moreover, the opinion of the Appellate Body is that the "purpose-based approach" would not necessarily enhance the regulatory autonomy for members. In particular because it puts panels into the difficult position of determining which of the various objectives pursued by the measure "are more important, or which of these objectives should prevail in determining likeness or less favourable treatment in the event of conflicting objectives". Appellate Body Panel Report, *US-Clove cigarettes,* paras. 113-115.

Article III: 4 of the GATT is about the "nature and extent" of the competitive relationship between products. The Appellate Body nonetheless stated that, in the assessment of likeness, the regulatory purposes underlying the measure can be relevant insofar as they can affect the competitive relationship between products.[98] In addition, it referred to the importance of a competition-based approach when interpreting the concept of like products for the purposes of establishing less favourable treatment.[99]

The approach above has proven to be controversial in the literature. The opinion of Mavroidis is that in *US-Clove Cigarettes*, *US-Tuna II (Mexico)* and *US-COOL*,[100] the Appellate Body has been transplanting its previous case law under Article III of the GATT into Article 2.1 of the TBT Agreement. He argues that interpreting the concept of like products in the same way as it is interpreted under the GATT (*i. e.,* from a market perspective) leads to a wrong sequence in the analysis.[101] It follows, in his opinion, that the analysis of like products should be understood as an analysis of policy-likeness instead of market-likeness.[102] Referring to *US-Tuna II (Mexico),* Mavroidis suggests that the appropriate question is not whether tuna and dolphin safe tuna are like products, but rather whether the respondent "has applied the dolphin-safe label in non-discriminatory manner across goods of different origin that meet the necessary regulatory requirements to have access to the label".[103] Mavroidis's argument is therefore that

---

98 See *ibid.,* paras. 117, 119, 120 and 156.

99 *Ibid.,* para. 116.

100 Appellate Body Report, *United States-Certain country of origin labelling (COOL) requirements,* WT/DS384/AB/R/WT/DS386/AB/R, adopted 23 July 2012 [hereinafter *US-COOL*].

101 He recalls that the test of consistency as developed by the Appellate Body in TBT cases is as follows. First, the panel develops a likeness analysis from a market perspective. Second, once the likeness has been established, the panel assesses whether a less favourable treatment has been afforded to imported like products as a result of the measure enacted by the respondent. If such is the case, the panel evaluates whether the detrimental effect stems from legitimate regulatory distinctions (*i. e.,* a legitimate policy rationale that can justify the detrimental impact). Third, if there is a claim under Article 2.2, the panel reviews the necessity of the measure. For Mavroidis, the correct sequence is to ask whether the measure at issue is necessary and then to ask whether it is applied in a non-discriminatory manner. See Mavroidis, Petros C., "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 Review,* 2013, 12, (3), pp. 509-531.

102 *Ibid.*

103 *Ibid.,* 517.

likeness in the TBT Agreement "concerns the treatment of two products that pursue the same objective",[104] that is to say, a comparison between two policy-like goods (*i. e.,* domestic 'dolphin safe tuna' *vis-à-vis* imported 'dolphin safe tuna').

The argument presented by Mavroidis has a clear significance for the analysis of the measures based on environmental NPR-PPMs in the context of the TBT Agreement. The most obvious consequence would be that the products compared for the purposes of determining likeness, are those pursuing like-policy objectives, namely those produced pursuing similar regulatory preferences associated with environmental protection. While this appears to be an interesting possibility, it is not without difficulties, particularly when measures pursue several and even conflicting objectives.[105] As suggested above, the approach in the definition of likeness is fundamental insofar as it determines the category of products that should be compared when establishing less favourable treatment.

After conducting the likeness test, in which adjudicatory bodies have opted for the traditional criteria and a competition-based approach, the next step is thus to determine whether the domestic and imported products are treated differently. In the analysis of claims under Article 2.1 of the TBT Agreement, the panel has to evaluate whether the different treatment "modifies the conditions of competition to the detriment of the imported products".[106]

2.2.2. The Concepts of 'Less Favourable Treatment' and 'Legitimate Regulatory Distinctions' in Article 2.1 of the TBT Agreement

Measures drawing distinctions between like products do not necessarily involve less favourable treatment. Arguably, the likeness between two products, for example, one "sustainably" produced and another one that has been produced with polluting methods, does not necessarily imply a violation either of Article III of the GATT or Article 2.1 of the TBT Agreement. In principle, a complainant has still to demonstrate a "less favourable treatment". This was confirmed by the Appellate Body in *EC-Asbestos* when

---

104 *Ibid.,* 519.

105 See Appellate Panel Report, *US-Clove cigarettes,* paras. 113-115.

106 *Ibid.,* para. 162.

stating that a WTO member "may draw distinctions between products which have been found to be 'like', without, for this reason alone, according to the group of 'like' imported products 'less favourable treatment' than that accorded to the group of 'like' domestic products".[107]

As observed above, the panel in *US-Tuna II (Mexico)* stated that "equality of treatment […] does not necessarily imply identical treatment for all products, but rather an absence of inequality to the detriment of imports from any Member".[108] However, the Appellate Body established that the concept of 'equal treatment' requires an examination of the detrimental impacts of the measure in the conditions of competition in the relevant market (*i. e.,* to the groups of imported products).[109] It is important to mention that in *US-Clove Cigarettes*, the Appellate Body emphasised that, insofar as the nature of "technical regulations" is to "establish distinctions between products according to their characteristics or their related processes and production methods", such distinctions should not be interpreted as an expression of a less favourable treatment accorded to imported products.[110] This approach was also confirmed in *US-Tuna II (Mexico)*. In these cases, the Appellate Body held that Article 2.1 should not be read as meaning that "any distinctions, in particular ones that are based exclusively on particular product characteristics or on particular processes and production methods, would *per se* constitute 'less favourable treatment'".[111] This assertion can be understood as confirming that distinctions based on PPMs, at least in the context of the TBT Agreement, do not *per se* constitute less favourable treatment.

The TBT Agreement seeks to achieve the balance between trade liberalisation and the regulatory autonomy of WTO members adopting technical regulations, standards and conformity assessment procedures.[112] This regulatory autonomy plays an important role in the interpretation

---

107 Appellate Body Report, *EC-Asbestos,* para, 100.

108 Panel Report, *US-Tuna II (Mexico),* para. 7.275.

109 Appellate Body Report, *US-Tuna II (Mexico),* para. 214.

110 Appellate Panel Report, *US-Clove cigarettes,* para. 169.

111 Appellate Body Report, *US-Tuna II (Mexico),* para. 211 (citing Appellate Body Report, *US-Clove cigarettes,* para. 169).

112 See Appleton, Arthur, "The agreement on technical barriers to trade", in Appleton, Arthur E., Macrory, Patrick F. J. & Plummer, Michael G. (eds.), *The World Trade Organization: legal, economic and political analysis,* Springer, New York, 2005, pp. 371-409.

of the non-discrimination obligation under Article 2.1, particularly in the analysis of less favourable treatment. In *US-Clove Cigarettes,* the Appellate Body observed that possible detrimental effects in the competitive relation between domestic and imported products does not *per se* amount as less favourable treatment when stemming from "legitimate regulatory distinctions".[113] The same approach has been confirmed by the Appellate Body in the dispute *US-COOL*, which came after the cases *US-Tuna II (Mexico)* and *US-Clove Cigarettes*. The concept of legitimate regulatory distinctions is not defined as such, however, the Appellate Body in *US-COOL* provided the following explanation:

> […] where a regulatory distinction is not designed and applied in an even handed manner —because, for example, it is designed or applied in a manner that constitutes a means of arbitrary or unjustifiable discrimination— that distinction cannot be considered "legitimate", and thus the detrimental impact will reflect discrimination prohibited under Article 2.1. In assessing even handedness, a panel must "carefully scrutinise the particular circumstances of the case, that is, the design, architecture, revealing structure, operation, and application of the technical regulation at issue".[114]

The concept of 'legitimate' in the context of Article 2.1 evokes the language used in the *chapeau* of Article XX of the GATT. However, the Appellate Body has stressed the differences between both provisions. In *EC-Seal Products,* it held that, despite the similarities between Article 2.1 of the TBT Agreement and the *chapeau* of Article XX of the GATT, the legal tests in both provisions are not the same. According to the Appellate Body, the analysis under Article 2.1 requires the examination of whether detrimental impacts stem from legitimate regulatory distinctions rather than discrimination against imported products. On the other hand, the analysis under the *chapeau* is rather about the manner in which the measure is applied, that is to say, in a way that "that would constitute a means of *arbitrary or unjustifiable discrimination*".[115] Furthermore, it was also noted

---

[113] Appellate Panel Report, *US-Clove cigarettes,* para. 174.

[114] Appellate Body Report, *US-COOL*, para. 271 (Referring to *US-Clove cigarettes*).

[115] Appellate Body Report, *EC-Seal products,* para. 5.311 (original emphasis).

that Article 2.1 of the TBT Agreement and the *chapeau* of Article XX of the GATT have a different function and scope.[116]

2.2.3. 'Even-Handedness' as Condition of Legitimate Regulatory Distinctions

It should be noted that, as in Article I:1 and Article III:4 of the GATT, Article 2.1 of the TBT Agreement also prohibits both *de facto* and *de jure* discrimination.[117] In *US-COOL,* the Appellate Body referred to the concept of 'even-handed measures' when addressing the concept of discrimination and less favourable treatment. In doing so, the Appellate Body suggested that, although some technical regulations may have a "*de facto* detrimental impact on imports", they do not necessarily violate Article 2.1 when such a detrimental impact stems from a legitimate regulatory distinction. However, in the event that regulatory distinctions "are not designed and applied in an even-handed manner, the detrimental impact can be interpreted as discriminatory treatment prohibited by Article 2.1, and therefore, the regulatory distinction cannot be regarded as 'legitimate'".[118] In this sense, it is clear that "even-handedness" conditions the legitimacy of regulatory distinctions. As noted above, a panel must evaluate whether a regulatory distinction is even-handed by scrutinising in depth the particular circumstances of the measure, that is to say, its design, architecture, revealing structure, operation, and application.[119]

It follows that in a TBT case, a declared policy objective aiming to address environmental concerns related to PPMs can be scrutinised *ab initio* under Article 2.1 of the TBT Agreement. Such an approach does not seem to exist in the GATT jurisprudence, particularly since a "policy-test" is usually conducted by a panel when assessing whether the measure can

---

[116] For the Appellate Body, Article 2.1 is a non-discrimination obligation related to technical regulations. The question addressed under this provision is whether the "regulatory distinction" that accounts for detrimental impact is "legitimate". On the contrary, the function of the *chapeau* "is to maintain a balance between a Member's right to invoke the exceptions under the subparagraphs of Article XX and the substantive rights of the other Members under the various other provisions of the GATT 1994". Appellate Body Report, *EC-Seal products,* para. 5.312.

[117] Appellate Panel Report, *US-Clove cigarettes,* para. 173.

[118] Appellate Body Report, *US-COOL,* para. 271.

[119] *Ibid.*

be justified under the general exceptions of Article XX of the GATT.[120] In the light of the WTO jurisprudence discussed above, it becomes apparent that a measure based on environmental NPR-PPMs can be consistent with the national treatment obligation, provided that it does not discriminate either *de jure* or *de facto,* and provided that the possible negative effects on the conditions of competition for imported products stem exclusively from "legitimate regulatory distinctions". It is worth noting that in *US-Tuna II (Mexico)*, the panel concluded that Mexico failed to demonstrate less favourable treatment, considering that the measure was origin neutral. However, the Appellate Body reversed this finding, stating *inter alia,* that the detrimental effects of the measure on Mexican products did not "stem exclusively from a legitimate regulatory distinction".[121]

In *US-Tuna II (Mexico)* the respondent had to demonstrate that the difference in labelling conditions[122] was a legitimate regulatory distinction, and also that the detrimental impact of its measure originated in such distinction rather than reflecting discrimination.[123] The Appellate Body was not persuaded that the measure was even-handed by the United States, even accepting that the fishing method of setting on dolphins was harmful to dolphins. According to the Appellate Body, even though the measure *fully* addressed the adverse effects on dolphins resulting from the fishing method of setting on dolphins located in the Eastern Tropical Pacific (ETP), the measure did not address similar risks derived from fishing methods other than setting on dolphins outside the ETP.[124] Hence, it was expected that if the United States was concerned about both "observed" and

---

[120] The necessity test in Article XX of the GATT ensures that the measure at issue is necessary to achieve a given policy objective.

[121] See Appellate Body Report, *US-Tuna II (Mexico),* paras. 297-299.

[122] According to the Appellate Body findings, the US had different labelling conditions for tuna products containing tuna caught using the method of setting on dolphins inside the ETP and for tuna caught by other fishing methods outside the ETP. See Appellate Body Report, *US-Tuna II (Mexico),* para. 296.

[123] *Ibid.*

[124] The Appellate Body concluded that the United States did not demonstrate the fact that "the difference in labelling conditions for tuna products containing tuna caught by setting on dolphins in the ETP, on the one hand, and for tuna products containing tuna caught by other fishing methods outside the ETP, on the other hand, is 'calibrated' to the risks to dolphins arising from different fishing methods in different areas of the ocean". Appellate Body Report, *US-Tuna II (Mexico),* para. 297.

"unobserved" dolphin mortality, it should "calibrate" the risks for other dolphins outside the ETP. In other words, the measure had to be equally applied both in and outside the ETP. These factors led the Appellate Body to conclude that the different requirements applied to tuna products for the purposes of access to the US dolphin-safe label were discriminatory (*i. e.,* offered less favourable treatment). It follows that the United States could not demonstrate that the detrimental impact of the dolphin-safe labelling provisions on Mexican tuna products derived exclusively from a legitimate regulatory distinction.[125]

A question that arose in *EC-Seal Products* was whether the concept of 'legitimate regulatory distinctions' developed in the jurisprudence of Article 2.1 of the TBT Agreement could be transposed in the interpretation of non-discrimination obligations under the GATT.[126] The Appellate Body recently addressed this question and confirmed that the standard of Article 2.1 does not apply to claims under Articles I.1 and III:4 of the GATT.[127]

Conclusions

The Appellate Body has developed different tests for non-discrimination provisions under the GATT and the TBT Agreement. This article has elucidated the scope of such legal tests and therefore, identified key challenges for measures based on environmental NPR-PPMs scrutinised under Articles I:1 and III:4 GATT, on the one hand, and under Article 2.1 of the TBT Agreement, on the other hand. Much of the discussion regarding

---

[125] *Ibid.,* para. 298.

[126] See Howse and Langille (n. 13) 410; Nielsen, Laura & Calle, María Alejandra, "Systemic implications of the EU-Seal products case", *Asian Journal of WTO & International Health Law and Policy,* 2013, 8, (1), pp. 41-75. See also the posts of Simon Lester in the *International Economic Law and Policy Blog:* Lester, Simon, "What is discrimination?", *International Economic Law and Policy Blog,* 2012, at http://worldtradelaw.typepad.com/ielpblog/2012/07/what-is-discrimination.html, accessed on June 10, 2013; Lester, Simon, "Discrimination in the seal products dispute: the role of categories", *International Economic Law and Policy Blog,* 2013, at http://worldtradelaw.typepad.com/ielpblog/2013/04/discrimination-in-the-seal-products-dispute-the-role-of-categories.html, accessed on June 10, 2013; and Lester, Simon, "How I am thinking about the discrimination issues in the seal products dispute", *International Economic Law and Policy Blog,* 2013, at http://worldtradelaw.typepad.com/ielpblog/2013/02/how-i-am-thinking-about-the-seal-products-dispute.html, accessed on June 10, 2013.

[127] Appellate Body Report, *EC-Seal products,* para. 5.125.

environmental NPR-PPMs focuses on the issue of "like products"; however, it is clear that even in the case that environmental NPR-PPMs do not affect the likeness of products, a panel has still to determine whether the measure affords less favourable treatment to imported like products. Moreover, when a measure based on environmental NPR-PPMs falls within the scope of the TBT Agreement, a panel has also to evaluate whether its detrimental impact on the competitive opportunities of imported products (*e. g.,* attributed to *de facto* discrimination) "stems exclusively from a legitimate regulatory distinction".

It can be argued that depending on which provisions apply, measures based on environmental NPR-PPMs are likely to face different legal challenges, particularly in terms of less favourable treatment. Should these measures be scrutinised under Article 2.1 of the TBT Agreement, a panel has to assess whether the detrimental impact competitive opportunities for like imported products stems exclusively from a legitimate regulatory distinction. As observed by the Appellate Body, a distinction cannot be considered legitimate when it "constitutes a means of arbitrary or unjustifiable discrimination". In assessing whether the measure is even-handed, a panel needs to take into consideration the specific circumstances of the measure, that is to say, its design, architecture, revealing structure, operation, and application.[128] However, if the panel decides that the measure based on environmental NPR-PPMs needs to be scrutinised under the GATT,[129] the question is therefore whether a legitimate environmental purpose can be considered when evaluating the detrimental impact caused by the measure. The approach of the Appellate Body in *EC-Seal Products* seems to confirm that in the significance given to "regulatory distinctions", different legal parameters apply both to the GATT and the TBT Agreement. It can be argued that in a GATT case, the policy analysis for measures based on environmental NPR-PPMs should be included in Article XX and not in Article III. As argued below, regulatory preferences for sustainable PPMs are more likely to be confronted with the member's right to regulate trade pursuant to Article XX (g) of the GATT.

One may think that transposing the language of "legitimate regulatory distinctions" in the analysis of the national treatment' obligations

---

[128] Appellate Body Report, *US-COOL*, para. 271.

[129] This may happen either because the measure does not fall with the scope of the TBT Agreement or because the case also involves GATT claims.

under the GATT would give NPR-PPMs better chances to pass the initial tests under the GATT.[130] Particularly because regulatory objectives associated with PPMs can qualify as legitimate regulatory purposes. However, this possibility seems unlikely in the light of the recent jurisprudence. It can be said that the test under Article III of the GATT as interpreted by the Appellate Body heavily relies on competitive relationship or detrimental impact. Unsurprisingly, some commentators have regarded this test as Draconian and "pro-trade bias".[131] In fact, the evidence is strong that such test is very difficult to satisfy and usually the defendant has to look for a justification under Article XX.

Although the consideration of "legitimate regulatory distinctions" may be regarded as an interesting innovation with potential impacts for the legality of NPR-PPMs, it appears only to apply to measures falling within the scope of the TBT Agreement. It is also important to bear in mind that the premise for developing the concept of legitimate regulatory distinctions is that technical regulations, by their very nature, establish *distinctions* between products according to their characteristics or production methods.[132] Furthermore, it seems also that the absence of a provision similar to Article XX in the TBT Agreement contributed to the development of this concept.

A further question emerging from this discussion is whether there will be an additional "test" for environmental NPR-PPMs characterised as TBT measures.[133] This is because the purpose of the measure can be analysed in two different occasions, that is to say, in the context of Article 2.1 and then in Article 2.2. It should be also recalled that a policy objective could be relevant in the assessment of likeness when it affects the competitive relationship between products. As noted above, the subject of regulatory purposes and likeness gives rise to the issue of the categories of products that should be compared for the purposes of establishing discriminatory

---

[130] The issue addressed above is of fundamental importance in the context of the legality of NPR-PPMs, since none of the environmental measures —regarded as NPR-PPMs— challenged in the GATT/WTO dispute settlement system have passed the rigorous tests under Article XX of the GATT.

[131] Cho, Sungjoon, "Let's put the AB's new article III:4 test to the test. Reply by Sungjoon Cho", *International Economic Law and Policy Blog,* 2014, at http://worldtradelaw.typepad.com/ielpblog/2014/05/lets-put-the-abs-new-article-iii4-test-to-the-test.html#comments, accessed on June 3, 2014.

[132] Appellate Body Report, *US-Tuna II (Mexico),* para. 211.

[133] If compared with NPR-PPMs reviewed under the GATT.

treatment. Referring once again to the example of *US-Tuna* cited by Mavroidis, one may ask whether the comparison under the like product analysis should refer to all tuna products, or only to tuna caught in a dolphin friendly manner.[134] It seems nonetheless that, in the assessment of likeness, both under the TBT and the GATT jurisprudence, adjudicatory bodies have opted for the traditional criteria and a competition-based approach. This article has not examined further emerging challenges stemming from the current interpretation of the *chapeau* of Article XX of the GATT and Article 2.2 of the TBT Agreement, since these will form the subject of another article.

References

Books

Conrad, Christiane R., *Processes and production methods (PPMs) in WTO law: interfacing trade and social goals,* Cambridge University Press, Cambridge, 2011.

Irwin, Douglas A., *Free trade under fire,* 3rd ed., Princeton University Press, New Jersey, 2009.

Nielsen, Laura, *The WTO, animals and PPMs,* Martinus Nijhoff Publishers, Leiden, 2007.

Van den Bossche, Peter, *The law and policy of the World Trade Organization: text, cases and materials,* Cambridge University Press, New York, 2005.

Vranes, Erich, *Trade and the environment: fundamental issues in international law, WTO law and legal theory,* Oxford University Press, New York, 2009.

Book chapters

Appleton, Arthur, "The agreement on technical barriers to trade", in Appleton, Arthur E., Macrory, Patrick F. J. & Plummer, Michael G.

---

[134] A further idea steaming for the case *Canada-Renewable energy,* relates to the possibility of analysing different markets for environmentally friendly products (*e. g.,* markets for environmentally friendly products and markets for non-environmentally friendly products). However, it remains to be seen whether the issue of different markets discussed in a case involving subsidies analysis, can apply for the analysis of NPR-PPMs under the GATT and the TBT Agreement. Due to the lack jurisprudence addressing this specific issue in the context of the GATT and the TBT Agreement, this article did not cover such analysis. See WTO Appellate Body Report, *Canada-Certain measures affecting the renewable energy generation sector,* WT/DS412/AB/R WT/DS426/AB/R, adopted 24 May 2013.

(eds.), *The World Trade Organization: legal, economic and political analysis,* Springer, New York, 2005, pp. 371-409.

Egelund Olsen, Birgitte, "Gaining intergovernamental acceptance: legal rules protecting trade", in Milne, Janet E. & Andersen, Mikael Skow (eds), *Handbook of research on environmental taxation,* Edward Elgar Publishing, Cheltenham, 2012, pp. 192-210.

Read, Robert, "Process and production methods and the regulation of international trade", in Perdikis, Nicholas & Read, Robert (eds.), *The WTO and the regulation of international trade: recent trade disputes between the European Union and the United States,* Edward Elgar Publisher Limited, Cheltenham, 2005, pp. 239-266.

Tietje, Christian, "Process-related measures and global environmental governance", in Winter, Gerd (ed.), *Multilevel governance of global environmental change: perspectives from sciencie, sociology and the law,* Cambridge University Press, New York, 2006, pp. 254-274.

Vranes, Eric, "Climate labelling and the WTO: the 2010 EU ecolabelling programme as a test case under WTO law", in Herrmann, Christoph & Terhechte, Jörg Philipp (eds.), *European yearbook of international economic law 2011,* Berlin-Heidelberg, Springer, 2011, pp. 205-237.

Articles

Benoit, Charles, "Picking tariff winners: non-product related PPMs and DSB interpretations of 'unconditionally' within article I:1", *Georgetown Journal of International Law,* 2011, 42, (2), pp. 1-24.

Charnovitz, Steve, "The law of environmental 'PPMs' in the WTO: debunking the myth of illegality", *Yale Journal of International Law,* 2002, 27, (1), pp. 59-110.

Howse, Robert & Langille, Joanna, "Permitting pluralism: the seal products dispute and why the WTO should accept trade restrictions justified by noninstrumental moral values", *Yale Journal of International Law,* 2012, 37, (2), pp. 368-432.

Howse, Robert & Levy, Philip I., "The TBT panels: US-Cloves, US-Tuna, US-COOL", *World Trade Review,* 2013, 12, (2), pp. 327-375.

Howse, Robert & Regan, Donald, "The product/process distinction-an illusory basis for disciplining 'unilateralism' in trade policy", *European Journal of International Law,* 2000, 11, (2), pp. 249-289.

Hudec, Robert E., "GATT/WTO constraints on national regulation: requiem for an aim and effects test", *The International Lawyer,* 1998, 32, (3), pp. 619-649.

Marceau, Gabrielle, "The new TBT jurisprudence in US-Clove cigarettes, WTO US-Tuna II, and US-COOL", *Asian Journal of WTO and International Health Law and Policy,* 2013, 8, (1), pp. 1-39.

Mavroidis, Petros C., "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 Review,* 2013, 12, (3), pp. 509-531.

Nielsen, Laura, & Calle, María Alejandra, "Systemic implications of the EU-Seal products case", *Asian Journal of WTO & International Health Law and Policy,* 2013, 8, (1), pp. 41-75.

Pauwelyn, Joost H. B., "'Rien ne va plus? Distinguishing domestic regulation from market access in GATT and GATS", *World Trade Review,* 2005, 4, (2), pp. 131-170.

Shaffer, Gregory, "The WTO Tuna-Dolphin II case: United States-Measures concerning the importation, marketing and sale of tuna and tuna products", *The American Journal of International Law,* 2013, 107, (1), pp. 192-199.

Van den Bossche, Peter, Schrijver, Nico & Faber, Gerrit, "Unilateral measures addressing non-trade concerns. A study on WTO consistency, relevance of other international agreements, economic effectiveness and impact on developing countries of measures concerning non-product-related processes and production methods", *Ministry of Foreign Affairs of The Netherlands,* 2007, (1).

Other documents

Cho, Sungjoon, "Let's put the AB's new article III:4 test to the test. Reply by Sungjoon Cho", *International Economic Law and Policy Blog,* 2014, at http://worldtradelaw.typepad.com/ielpblog/2014/05/lets-put-the-abs-new-article-iii4-test-to-the-test.html#comments, accessed on June 3, 2014.

Choi, Won-Mog, "How more 'likeness' in addressing technical regulations?", *Society of International Economic Law,* 2012, 3rd Biennial Global Conference, pp. 1-29.

Ehring, Lothar, "*De facto* discrimination in WTO law: national and most-favoured-nation treatment —or equal treatment—", *The Jean Monnet Center for International and Regional Economic Law & Justice,* 2001, p. 1.

Howse, Robert, Langille, Joanna & Sykes, Katie, "Written submission of non-party Amici Curiae European Communities - Measures prohibiting the importation and marketing of seal products (WT/DS400, WT/DS401, WT/DS369)", *World Trade Organization,* 2013.

Hudec, Robert E., "'Like product': the differences in meaning in GATT articles I and III", *Worldtradelaw.net,* 2000, accessed on June 10, 2013.

Lester, Simon, "Discrimination in the seal products dispute: the role of categories", *International Economic Law and Policy Blog,* 2013, at http://worldtradelaw.typepad.com/ielpblog/2013/04/discrimination-in-the-seal-products-dispute-the-role-of-categories.html, accessed on June 10, 2013.

Lester, Simon, "How I am thinking about the discrimination issues in the seal products dispute", *International Economic Law and Policy Blog,* 2013, at http://worldtradelaw.typepad.com/ielpblog/2013/02/how-i-am-thinking-about-the-seal-products-dispute.html, accessed on June 10, 2013.

Lester, Simon, "What is discrimination?", *International Economic Law and Policy Blog,* 2012, at http://worldtradelaw.typepad.com/ielpblog/2012/07/what-is-discrimination.html, accessed on June 10, 2013.

OECD, "Processes and production methods (PPMs): conceptual framework and considerations on the use of PPM-based trade measures", 1997.

Pauwelyn, Joost, "Tuna: the end of the PPM distinction? The rise of international standards?", *International Economic Law and Policy Blog,* 2012, at https://goo.gl/XF11A9, accessed on June 10, 2013.

Qin, Julia, "Should there be a single non-discrimination obligation for trade in goods? Julia Qin reply to liberality", *International Economic Law and Policy Blog,* 2014, at https://goo.gl/TKTCNw, accessed on May 30, 2014.

WTO reports

GATT Panel Report, *Japan-Trade in semi-conductors,* L/6309, adopted 4 May 1988, BISD 35S/116.

GATT Panel Report, *United States-Restrictions on imports of tuna,* DS21/R, DS21/R, 3 September 1991, unadopted, BISD 39S/155.

GATT Panel Report, *United States-Restrictions on imports of tuna,* DS29/R, 16 June 1994, unadopted.

GATT *Working Party Report on Border Tax Adjustments,* GATT BISD 18S/97, December 2, 1970.

WTO Appellate Body Report, *Brazil-Measures Affecting imports of retreaded tyres,* WT/DS332/AB/R, adopted 17 December 2007.

WTO Appellate Body Report, *Canada-Certain measures affecting the automotive industry,* WT/DS139/AB/R, WT/DS142/AB/R, adopted 19 June 2000, DSR 2000:VI, 2985.

WTO Appellate Body Report*, European Communities-Measures affecting asbestos and asbestos-containing products,* WT/DS135/AB/R, adopted 5 April 2001, DSR 2001:VII, 3243.

WTO Appellate Body Report*, Japan-Taxes on alcoholic beverages,* WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R*,* adopted 1º November 1996, DSR 1996:I, 9722.

WTO Appellate Body Report*, Korea-Measures affecting imports of fresh, chilled and frozen beef,* WT/DS161/AB/R, WT/DS169/AB/R, adopted 10 January 2001, DSR 2001:I, 5.

WTO Appellate Body Report, *United States-Certain country of origin labelling (COOL) requirements,* WT/DS384/AB/R/WT/DS386/AB/R, adopted 23 July 2012.

WTO Appellate Body Report*, United States-Import prohibition of certain shrimp and shrimp products,* WT/DS58/AB/R, adopted 6 November 1998, DSR 1998:VII, 2755.

WTO Appellate Body Report, *United States-Measures affecting the production and sale of clove cigarettes,* WT/DS406, AB/R, adopted 4 April 2012.

WTO Appellate Body Report*, United States-Measures concerning the importation, marketing and sale of tuna and tuna products,* WT/DS381/AB/R, adopted 13 June 2012.

WTO Appellate Body Report. *US-Tuna II (Mexico)-Measures concerning the importation, marketing and sale of tuna and tuna products,* WT/DS381/AB/R, adopted 13 June 2012.

WTO Appellate Body Reports*, European Communities-Measures prohibiting the importation and marketing of seal products,* WT/DS400, WT/DS401 and Add.1*,* circulated on 22 May 2014.

WTO Panel Report*, Colombia-Indicative prices and restrictions on ports of entry,* WT/DS366/R and Corr.1, adopted 20 May 2009, DSR 2009:VI, 2535.

WTO Panel Report, *India-Measures affecting the automotive sector,* WT/DS146/R, WT/DS175/R and Corr.1, adopted 5 April 2002, DSR 2002:V, 1827.

WTO Panel Report, *India-Quantitative restrictions on imports of agricultural, textile and industrial products,* WT/DS90/R, adopted 22 September 1999.

WTO Panel Report, *Turkey-Restrictions on imports of textile and clothing products,* WT/DS34/R, adopted 19 November 1999, as modified by Appellate Body Report WT/DS34/AB/R, DSR 1999:VI, 2363.