NTBs and the WTO Agreement on Technical Barriers to Trade: The Case of PPM-Based Measures Following *US – Tuna II* and *EC – Seal Products*

Gracia Marín Durán

Introduction

In our societies, products are often subject to requirements relating to their (intrinsic and extrinsic) characteristics and/or the manner in which they are produced—i.e., processes and production methods (PPMs). Quite often too, these product requirements serve policy objectives that are generally accepted as being legitimate, such as the protection of consumers, public health, or the environment. Yet at times, product regulations can be used as a pretext for disguised protectionism in order to shield domestic producers from foreign competition. But even when genuinely prompted by legitimate policy considerations and applied in a non-discriminatory manner, product regulations and associated conformity assessment procedures can constitute considerable barriers to trade—e.g., by being unnecessarily trade restrictive to achieve the desired objective. Moreover, significant divergence in product requirements across countries may *per se* act as a barrier to international trade because it can be financially and technically difficult for producers in one country to adjust their production methods in order to be able to export their products to another country. This is particularly (though not exclusively) a hurdle for producers/exporters in developing and least developed countries, which may simply not have the capacity to meet the different regulatory requirements imposed in their various trading partners.

G.M. Durán (✉)
School of Law, University of Edinburgh, Old College South Bridge, Edinburgh EH8 9YL, UK
e-mail: Gracia.Marin-Duran@ed.ac.uk

C. Herrmann et al. (eds.), *European Yearbook of International Economic Law 2015*,
European Yearbook of International Economic Law 6,
DOI 10.1007/978-3-662-46748-0_5

As one type of non-tariff barrier (NTB) to trade, product requirements have long presented the multilateral trading system[1] with a formidable twofold challenge: first, how can one distinguish between essentially protectionist NTBs from those that pursue other 'legitimate' regulatory goals and, second, how can one uphold the inherent right of members of the World Trade Organization (WTO) to regulate in the pursuit of certain legitimate policy goals while avoiding the creation of 'unnecessary' barriers to the trade with other members. In other words, what is the appropriate balance between domestic regulatory autonomy and international trade liberalisation in the area of product regulation? The WTO Agreement on Technical Barriers to Trade (TBT)[2] is part of a broader category of WTO agreements[3] seeking to strike such a balance with regard to technical regulations, standards, and associated conformity assessment procedures. While already a concern at the time of the 1947 General Agreement on Tariffs and Trade (GATT),[4] these non-tariff measures have drastically grown in number and complexity partly as tariffs and other traditional barriers to trade have been progressively reduced or eliminated, but also in response to changing consumer concerns and societal interests: notably, as of April 2015, 19,477 (regular) TBT measures have been notified to the WTO.[5]

As aptly proposed by Howse, "in thinking about the TBT Agreement, a logical point of departure is to consider whether and how it represents a different approach to the GATT in managing the interface between liberalised trade and domestic regulation".[6] In this regard, the Appellate Body held in *EC – Asbestos (2001)* that "[. . .] although the TBT Agreement is intended to 'further the objectives of the GATT 1994', it does so through a specialised legal regime that applies solely to a *limited class of measures*. For these measures, the TBT Agreement imposes obligations on Members that seem to be *different from*, and *additional to*, the obligations imposed on Members under the GATT 1994."[7] The aim of this article is to explore the significance and implications of this statement with a specific focus on product regulations based on PPMs and in particular on so-called non-product-related PPMs (i.e., those that do not affect the physical characteristics of the final

[1] See, e.g., GATT Committee on Industrial Products, Report to the Council, L/3298, dated 22 December 1969, section I 'Non-tariff Barriers'; and more generally, WTO Secretariat (2012), pp. 39–43.

[2] Agreement on Technical Barriers to Trade, 1868 U.N.T.S. 120, replacing the plurilateral 1979 Tokyo Round Agreement on Technical Barriers.

[3] Also important is the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), 1867 U.N.T.S. 493, which deals with a specific category of product-related regulatory measures aimed at the protection of human, animal, or plant life or health from food-borne risks and risks from pests and diseases.

[4] GATT 1947, 55 U.N.T.S. 194, incorporated by reference into the GATT 1994, 1867 U.N.T.S. 187.

[5] TBT Information Management System: http://tbtims.wto.org/.

[6] Howse (2013), p. 1 (1).

[7] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R para. 80 (emphasis added).

product). The appropriateness of imposing trade measures contingent upon PPMs has long been contentious in international trade relations and arguably one of the most knotty issues in the negotiations of the TBT Agreement. The recent WTO rulings in the *US – Tuna II (2012)*[8] and *EC – Seal Products (2014)*[9] offer important insights regarding the applicability of the TBT Agreement to PPM-based measures,[10] but doctrinal ambiguity and diverging views remain in academic and other circles.

On this background, this article proceeds in three main sections. The first section introduces the product-related/non-product-related PPM distinction and outlines the main arguments for and against the validity of such a distinction. While not purporting to take sides in this broader debate, it will be questioned whether concerns surrounding non-product-related PPMs are sensibly addressed through limiting their coverage by the TBT Agreement. The second section then turns to elucidate on the extent to which PPM-based product regulations are part of the 'limited class of measures' to which the TBT Agreement applies, on the basis of an in-depth examination of the relevant provisions (Annex 1) and case law. It will be argued that the interpretative approach adopted by the WTO dispute settlement organs, which seemingly differentiates between labelling requirements and other regulatory measures in relation to non-product-related PPMs, is not supported, and is indeed rather counter-intuitive, in light of the object and purpose of the TBT Agreement. Instead, it is suggested that a contextual and teleological interpretation[11] is warranted for delineating the scope of application of the TBT Agreement to non-product-related PPMs, which considers the purpose of this agreement and the nature of the disciplines prescribed therein, as well as its relation with the GATT. On this basis, the third section analyses the extent to which the TBT Agreement imposes obligations that are 'different from' and 'additional to' those found in the GATT and discusses the implications for regulatory measures specifying non-product-related PPMs. Ultimately, this chapter concludes that the applicability of the TBT Agreement to PPM-based measures ought not to be dictated by

[8] WTO, reports of the Panel and Apppellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R and WT/DS381/AB/R.

[9] WTO, reports of the Panel and the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/R and WT/DS400/DS401/AB/R.

[10] An extensive analysis of this issue was undertaken by Conrad (2014) but this predates the *EC – Seal Products (2014)* decision.

[11] This follows the general rules of treaty interpretation set forth in Article 31 of the Vienna Convention on the Law of Treaties (VCLT), 1155 U.N.T.S. 331, whereby, in addition to the 'ordinary meaning' of the terms in the treaty provision itself (i.e., so-called textualist interpretation), treaty interpreters are required to take account of the 'context' (i.e., known as contextual or systemic interpretation and here including not only the TBT Agreement as a whole but also the GATT as a 'related agreement') as well as of the 'object and purpose' of the relevant treaty (i.e., known as teleological or purposive interpretation).

a rigid product-related/non-product-related distinction but should depend on what is meant by 'technical' content.

NTBs Based on Processes and Production Methods: Why Is the Related/Unrelated Distinction Contested?

As already noted, governments rely on non-tariff measures to intervene in the processes of production, marketing, and consumption of goods and services[12] in order to achieve a number of public policy goals, including the protection of public health and the environment, safeguarding rights of employees and consumers, prevention of deceptive practices, and national security interests. As such, product regulations are frequent among WTO members, and the fact that international trade is affected is a normal and often legitimate consequence of such regulation.[13] In doing so, governments use a variety of measures ranging from top-down 'command-and-control' regulation that is overtly trade restrictive (e.g., a product ban) to market-based mechanisms that are less trade restrictive, such as price-based measures (e.g., internal taxes) and labelling schemes. Labelling provisions are often seen as a more accommodating policy option in balancing domestic regulatory space with international trade obligations by offering a middle way between outright trade prohibitions and no domestic regulation at all. In effect, the intent of a labelling scheme is to enable consumers to decide whether and to what extent they value a particular policy goal while allowing market access to products adhering to the specified requirements rather than prohibiting their importation altogether.[14] However, as rightly argued by Howse and Regan, labelling schemes will not always achieve the same results in terms of the regulatory objective pursued, but this will depend on the nature of consumers' preferences and concerns.[15]

In terms of content, product regulations may specify mere product characteristics (e.g., texture, colour, or size) or processes and production methods. For reasons that will be discussed below, a distinction is conventionally made in the literature within the PPM category between[16]

[12] Note that the TBT Agreement only applies to agricultural and industrial products (Article 1.3), and thus services are not covered here.

[13] World Trade Organisation (2014), p. 11.

[14] See, e.g., Ankersmit and Lawrence (2012), p. 127 (128–129 and 133–134). Note, however, that labelling schemes are often aimed at *influencing* consumer behaviour and patterns of consumption and in this sense can also be trade restrictive; see, e.g., Voon et al. (2013), p. 454.

[15] Howse and Regan (2000), p. 249 (273–274), taking turtle-friendly shrimp as an example and arguing that a labelling scheme would only be equally effective if all the consumer cares about is that her/his own purchase of shrimp does not encourage the killing of turtles (and not collective behaviour) and if the extra cost of buying turtle-friendly shrimp is no serious object.

[16] See, e.g., Lowe (2014), p. 593, and other sources below.

- *product-related* processes and production methods (pr-PPMs), to refer to measures prescribing PPMs that affect the physical characteristics of the final product and thus are detectable or tangible in the product placed on the market (e.g., a prohibition on the use of hormones for cattle in the production of meat, a maximum level of lead paint in children's toys, or a minimum level of recycled content in newsprint); and
- *non-product-related* processes and production methods (npr-PPMs), to refer to measures prescribing PPMs that do *not* (or only in a negligible manner) affect the physical characteristics of the final product and thus are not readily detectable or tangible in the product placed on the market. Environmental and climate change policies are a prime example of employing measures based on npr-PPMs (e.g., a requirement that tuna fishing vessels use dolphin-friendly nets or that firms reduce greenhouse gas (GHG) emissions to a given target level),[17] but such measures are also becoming increasingly popular to address other policy concerns, such as animal welfare (e.g., a labelling scheme concerning 'free range' chicken or a requirement that eggs must be produced in conditions where battery cages hold no more than 8 laying hens per m^2) or working/social conditions (e.g., a prohibition on the sale of products made by child labour or a 'fair trade' labelling scheme for coffee).[18]

This related/unrelated distinction is popular among scholars and practitioners for its (apparent) simplicity, but it is flawed for the same reason. To begin with, as rightly pointed out by Charnovitz, the assertion that a PPM is 'unrelated' to a product is too strong and misleading, as "no PPM is employed without reference to some product".[19] Next, the related/unrelated distinction rests on separating the rationales for regulatory intervention. That is, pr-PPM-based measures are used to assure the functionality or quality of the product and thereby safeguard the consumers from any risks associated with the ingredients or other physical properties of the product.[20] Conversely, npr-PPM-based measures seek to address environmental and social externalities of the production process that are not (or not fully) internalised by the market-based pricing mechanism, and hence governments intervene to correct such a market failure by prescribing or prohibiting certain processes and production methods.[21] However, this division evidently disregards PPM-based regulations adopted for multiple regulatory purposes, which can be

[17] See, e.g., Charnovitz (2002), p. 59; Low et al. (2012), p. 485.

[18] See van den Bossche et al. (2007), pp. 8–11.

[19] Charnovitz (2002), p. 59 (66).

[20] Charnovitz (2002), p. 59 (65).

[21] Potts (2008), p. 3.

considered as product related and non-product related—e.g., a ban on genetically modified food may be adopted to address the impact of ingestion on human health as well as environmental impacts on agriculture.[22] Moreover, it is not always plausible to establish the related/unrelated distinction in practice: take the example of organic production methods in agriculture, which are generally accepted as being more beneficial to the environment, but it is debated whether the physical or nutritional qualities of the actual products are affected[23]—on this account, would organic labelling schemes be a npr-PPM-based or a pr-PPM-based measure?

While the implementation of PPM-based measures within closed national boundaries is relatively uncontroversial, the challenge associated with implementing such measures in the context of integrated global markets has become increasingly evident and contentious over the past decades. On the one hand, as competition deepens across borders, the imposition of PPM-based regulations only on domestic producers risks creating a competitive advantage for foreign producers, even though their PPMs may cause the same environmental or social externality that the regulating State is seeking to address. This provides a fundamental stimulus to use PPM-based measures as a means to 'level the playing field' between compliant and non-compliant production practices.[24] On the other hand, these measures have spurred strenuous opposition, particularly from developing countries, for several reasons.

Foremost, an argument often levelled against PPM-based measures is that, by trying to export national policy objectives and influence production/processing behaviour in a foreign country, they are inherently in conflict with the sovereign right of each State to determine its own policy priorities and level of protection and thus are objectionably extraterritorial and coercive. From this perspective, the pr-PPM/npr-PPM distinction is justified as providing a clear and appropriate dividing line between domains of sovereign authority of trading partners based on the understanding that different cultural, geographic, and economic conditions warrant specific PPMs that should not be subject to foreign influence *unless* they directly affect the products sold in, and under the jurisdiction of, the importing country (as is the case of pr-PPMs).[25] This way, a certain territorial vision of the regulatory autonomy of both the importing and the exporting States would be maintained[26]—i.e., the former should only regulate PPMs that have consequences at the consumption stage and thus for its own citizens.

However, others contend that the related/unrelated approach is based on a rather narrow conception of consumer preferences and the consequences of consumption. Indeed, the presupposition that consumers are (or should be) only concerned about the physical characteristics of products seems neither true nor desirable, given the

[22] Charnovitz (2002), p. 59 (66).

[23] Morgera et al. (2012), pp. 6–12.

[24] Howse and Regan (2000), p. 249 (280–281).

[25] Potts (2008), p. 3.

[26] Marceau and Trachtman (2014), p. 351 (411).

recognised need to promote sustainable consumption patterns.[27] Furthermore, the consumption of a product is not limited to its physical properties but, in the normal course of economic activity, has also consequences for the nature of future production—e.g., the purchase of a can of dolphin-safe tuna tends to encourage the subsequent production of dolphin-safe tuna, while the purchase of a can of dolphin-unsafe tuna would have the opposite effect, and this can be a licit cause for regulatory action even though the tuna itself is indistinguishable.[28] Even though the product characteristics are unaffected, there are several ways in which processing/production behaviour occurring outside the importing State may nonetheless have adverse effects within its territory (e.g., by causing air or water pollution) or on global commons (e.g., threat to endangered migratory species or depletion of ozone layer). But even if the damaging effects of a PPM occur entirely in the producing country, some scholars still question whether national sovereignty can provide a foundation for arguing against regulatory action by other countries: in their view, the importing country is still entitled to restrict access to its *own* (domestic) market so as to ensure that its *own* (domestic) consumption is not used to encourage npr-PPMs that it regards as harmful or immoral, whereas it remains within the authority of the foreign jurisdiction to decide whether or not to access that market.[29]

Apart from national sovereignty and extraterritoriality claims, another common objection against PPM-based measures is that these may be used for protectionist purposes or, even when pursuing legitimate policy objectives, may be disproportionate to their achievement. In addition, it is argued that PPM-based regulations hinder market access particularly for small producers in developing countries in several ways, notably, lack of information about, and complexity of, the criteria to be fulfilled; financial costs and technical difficulties in adapting processes and production methods to the standards applied by the importing country; and divergent PPM requirements in different export markets acting as a barrier to access.[30] Whereas some of these issues are also raised in relation to pr-PPM-based measures, the debate is far more heated with regard to npr-PPMs. And yet these genuine concerns are not unique to npr-PPM-based measures but can equally arise with domestic regulations specifying pr-PPMs, or indeed mere product characteristics. For instance, as Potts rightly notes, any formal distinction between products, whatever the basis is, can be designed to serve protectionist interests if so desired by the regulating State.[31] On this account, it is certainly appropriate and necessary

[27] See, e.g., Rio Declaration on Environment and Development, A/CONF.151/26, Principle 8: "to achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies."

[28] On this point, see Howse and Regan (2000), p. 249 (272–273).

[29] See, e.g., Howse and Regan (2000), p. 249 (274–279); Potts (2008), pp. 5–6; Ankersmit et al. (2012), p. 14 (24–27). For a different view, see notably Bartels (2002), p. 353 (377 et seq.)

[30] Norpoth (2013), p. 575 (578).

[31] Potts (2008), p. 5.

for WTO dispute settlement organs to enquire on a case-by-case basis into whether a given product regulation is a tool of disguised protectionism, but there is no ground for a categorical presumption against npr-PPM-based measures.[32]

Therefore, what is being questioned here is *not* the importance of the challenges posed by the implementation of PPM-based measures in the international trade context. Rather, it is whether such challenges are sensibly addressed by the conventional pr-PPM/npr-PPM distinction, which, as will be examined next, may lead to a partial exclusion of npr-PPM-based measures from the scope of application of the TBT Agreement. To put it differently, latent anxieties about npr-PPM-based regulation should not detract our attention from the principal question of how its use is most appropriately disciplined under WTO law.

NTBs and the TBT Agreement: To What Extent Does It Apply to PPM-Based Measures?

Defining Technical Barriers to Trade: Annex 1 TBT Agreement and Interpretative Choices[33]

The 'limited class' of non-tariff measures to which the TBT Agreement applies are technical regulations and standards, as well as associated conformity assessment procedures to determine whether the relevant requirements in technical regulations or standards are fulfilled.[34] Annex 1.1 of the TBT Agreement defines a *technical regulation* as a

> Document which lays down *product characteristics* ***or their related*** *processes and production methods*, including the applicable administrative provisions, with which compliance is *mandatory*. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to *a product, process or production method* (emphasis added).

Annex 1.2 TBT Agreement in turn defines a *standard* as a

[32] Howse and Regan (2000), p. 249 (280).

[33] Note that, in addition to the scope of application *ratione materiae*, the scope of application *ratione personae* of the TBT Agreement is also debated particularly with regard to private sector standards; see, *inter alia*, Arcuri (2013), p. 485.

[34] Conformity assessment procedures are defined in Annex 1.3 TBT Agreement and could include, for instance, sampling, testing, inspection, and certification procedures used to ensure that product requirements (both product characteristics and PPMs) are met. Disciplines specifically applicable to these procedures are set out in Articles 5–9 TBT Agreement, but a detailed examination is not included here. The focus is rather on the threshold question of whether npr-PPM-based measures fall within the scope of application of the TBT Agreement as technical regulations or standards in the first place.

> Document approved by a recognized body, that provides, for common and repeated use, rules, guidelines or *characteristics for products* ***or related*** *processes and production methods*, with which compliance is *not mandatory*. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to *a product, process or production method* (emphasis added).

From the structure and wording of these definitions, the key distinction between technical regulations (mandatory) and standards (not mandatory) pertains to their legal effect,[35] whereas both TBT measures may be *similar* in terms of the subject matter being addressed. In principle, both technical regulations and standards can set forth product characteristics or processes and production methods. Yet Annex 1 TBT Agreement offers only limited guidance as to the substantive content of a technical regulation or a standard, and thus it is not entirely clear how narrow is the special category of measures that are covered by the TBT Agreement. Ultimately, the precise contours of what may constitute a 'technical' barrier to trade depend on the interpretation given to the core terms of 'product characteristics' and (related) 'process and production methods'.

With regard to the former, it would seem fairly evident that 'product characteristics' include the physical properties or qualities of a product, but does it include anything else? For example, a few would question that a law requiring that seal oil pills must consist of at least 80 % seal oil or a law requiring that wine contain no more than 18 % alcohol would be both technical regulations within the meaning of the TBT Agreement. Yet what about a law requiring that wine be sold in green glass bottles, a law requiring that cigarette packets carry health warming marks, or a law requiring tuna products bear a label indicating dolphin-safe fishing methods were used? In other words, are packaging, marking, and labelling requirements themselves a 'product characteristic', irrespective of the kind of information provided? And what about a law prohibiting the use of pesticides in the production of fruits and vegetables, a law prohibiting the sale of *foie gras* from geese that were force fed, or a law regulating the GHG emissions of the factory producing the relevant products? In other words, to *which* 'processes and production methods' does the TBT Agreement apply?

[35] The distinction between a 'mandatory' technical regulation and a 'voluntary' standard is not always clear-cut and indeed was a controversial issue in the *US – Tuna II (2012)* dispute, as exemplified by the rare dissenting opinion on the matter and the critical reactions in the literature to the finding by the majority Panel and Appellate Body that the US dolphin-safe labelling scheme was a 'mandatory' technical regulation, even though there was no requirement to label tuna products as 'dolphin-safe' to access the US market (i.e., tuna products could be sold on the US market with or without the dolphin-safe label). See *inter alia*, Al-Nabhani (2012), p. 355; Davies (2014), p. 37; Silveira and Obersteiner (2013), p. 112. This issue is not, however, directly relevant to the question being addressed here, which turns on the content rather than the mandatory/non-mandatory effect of TBT measures.

It is largely undisputed that the TBT Agreement applies to measures based on PPMs affecting the physical characteristics of the final product (i.e., pr-PPMs), and this is also confirmed by the agreement's negotiating history.[36] However, it has been much debated among scholars and practitioners whether it also applies to measures based on npr-PPMs, with divergence of views centring on the differences in wording between the first and second sentences of the definitions in Annexes 1.1 and 1.2 TBT Agreement. A closer examination of these provisions reveals, indeed, that only the language of the second sentence is fully *identical* in both definitions,[37] and in both instances the adjective 'related' has been omitted in the reference to PPMs. Conversely, a subtle difference may be noticed between the first sentences of each definition with regard to PPMs: only in the case of technical regulations, does the term 'their' precede 'related' PPMs. Here again, the exact scope of application of the TBT Agreement to PPM-based measures will depend on interpretative choices: that is, how one reads 'related' and understands the relationship between the first and second sentences in each definition. What does, in fact, 'related' mean in the first sentence? And is it significant that such an adjective does not qualify the reference to PPMs in the second sentence?

Both proponents and opponents of the applicability of the TBT Agreement to npr-PPM-based measures have found arguments in the text of Annexes 1.1 and 1.2 TBT Agreement in their favour, often citing the negotiating history of the agreement as further evidence.[38] Those favouring a narrow scope of application of the TBT Agreement take the view that the expression 'related' PPMs in the first sentence refers to 'product characteristics', understood as meaning solely *physical* characteristics of products. In addition, they argue that the second sentence is subordinated to the first, in the sense that it only provides examples of the measures already covered by the first sentence. From this perspective, the TBT Agreement

[36] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 3(c).

[37] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 187, noting that "[t]he second sentence of Annex 1.2, which sets out the definition of "standard" for purposes of the *TBT Agreement*, contains language identical to that found in the second sentence of Annex 1.1. With respect to the second sentence of these provisions, the subject matter of a particular measure is therefore not dispositive of whether a measure constitutes a technical regulation or a standard."

[38] On the negotiating history of the TBT Agreement, see further below in the section *A Contextual/Teleological Interpretation of Technical Barriers to Trade – Questioning the pr-PPM/npr-PPM distinction*.

would *not* apply to *any* measure regulating npr-PPMs (i.e., those that do not affect the physical characteristics of the final product).[39] A less restrictive stance is taken by those who read the second sentence as additional to and distinct from, rather than illustrative of, the first sentence. Advocates of this view argue that, while there is uncertainty about the meaning of the term 'related' PPMs in the first sentence, its omission from the second sentence implicates that *all* labelling requirements fall within the scope of the TBT Agreement, including those relating to npr-PPMs.[40] Other scholars call into question whether the word 'related' in the first sentence actually concerns the conventional pr-PPMs/npr-PPMs distinction and instead argue that the proper interpretation of 'related' is that the PPM requirement is connected to an identifiable traded product. This interpretative approach would support a broader applicability of the TBT Agreement to *any* PPM-based measure that specifies the market access conditions of a specific traded good, regardless of whether such a PPM affects or not the physical characteristics of the relevant product.[41] For its part, the WTO Appellate Body has thrown some light on the status of PPM-based measures as 'technical' barriers to trade, although doctrinal ambiguity and controversy remain, as will be seen next.

Interpreting Technical Barriers to Trade: The Appellate Body's Approach to PPM-Based Measures

Based on the definition in Annex 1.1 TBT Agreement,[42] the Appellate Body has developed a three-pronged test to establish whether a measure[43] qualifies as a technical regulation under the TBT Agreement:

[39] See, e.g., Du (2007), p. 269 (287). This seems to have been also the position of Mexico during the negotiations of the TBT Agreement: see WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by the Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), paras. 146–147.

[40] See, e.g., van den Bossche et al. (2007), pp. 145–146; Conrad (2014), pp. 386–388.

[41] See, e.g., Howse (2013), p. 1 (3–4).

[42] At the time of writing, Annex 1.2 TBT Agreement has not been thoroughly interpreted in WTO case law; albeit in light of similarities in structure and wording with Annex 1.1 TBT Agreement, it can be expected that a similar test would be applied.

[43] Note that Annexes 1.1 and 1.2 TBT Agreement both refer to 'document', which, given its ordinary meaning as 'something written', has been considered by the Appellate Body as covering a "broad range of instruments or apply to a variety of measures". WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 185.

- the measure must apply to an 'identifiable' group of products (even if this is not expressly identified in the document);[44]
- the measure must lay down (i.e., set forth, stipulate, or provide) 'product characteristics' or 'related processes and production methods' (in either a positive or negative form);[45] and
- compliance with such product characteristics or related PPMs must be 'mandatory'.[46]

In applying this test in *EC – Asbestos (2001)*, the Appellate Body further clarified the ordinary meaning of the term 'product characteristics' through reference to its synonyms and the second sentence of Annex 1.1 TBT Agreement:

> the "characteristics" of a product include, in our view, ***any objectively definable*** "features", "qualities", "attributes", or other "distinguishing mark" of a product. Such "characteristics" might relate, *inter alia*, to a product's composition, size, shape, colour, texture, hardness, tensile strength, flammability, conductivity, density, or viscosity. In the definition of a "technical regulation" in Annex 1.1, the *TBT Agreement* itself gives certain examples of "product characteristics" – "terminology, symbols, packaging, marking or labelling requirements". These examples indicate that "product characteristics" include, ***not only features and qualities intrinsic to the product itself, but also related "characteristics"***, such as the means of identification, the presentation and the appearance of a product.[47]

On the basis of this statement, the Appellate Body appears to take the view that 'product characteristics' in Annex 1.1 TBT Agreement are *not* confined to the *physical* characteristics of products—i.e., only the first set of features and qualities above indicated (e.g., product's composition, size, shape, colour) can be said to be 'physical' *sensu stricto* (i.e., incorporated *in* the product itself). Yet the second set of '*related* characteristics' (i.e., means of identification, presentation, and appearance of a product) still refers to attributes or marks that are discernible *on* the product itself. Given that this second list is expressed in non-exhaustive terms ("such as"), how far may 'related' characteristics be stretched out, and in particular does it encompass elements beyond those enumerated in the second sentence of Annex 1.1 TBT Agreement (i.e., terminology, symbols, packaging, marking, or labelling requirements)? It does not appear from the available case law that this was

[44] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 70.

[45] Note that, when this test was first established, the Appellate Body made no reference to 'related processes and production methods', possibly because it was not relevant in the factual context of the cases at hand.

[46] WTO, report of the Appellate Body, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, para. 176.

[47] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 67 (emphasis added).

the intention behind the Appellate Body's statement: out of the six disputes where the measure at issue was found to qualify as a technical regulation laying down 'product characteristics', two concerned physical characteristics of the relevant products[48] and four labelling requirements[49] or other means of identification[50] attached to the relevant products. Thus, while the Appellate Body has avoided restricting the meaning of 'product characteristics' to the physical properties of the product, it has not gone as far as accepting that *any* feature that could be 'objectively defined' as relating to a product is a 'product characteristic', irrespective of whether it is detectable *in* or *on* the product itself.[51] Indeed, this is further corroborated by the approach taken by the Appellate Body in the recent *EC – Seal Products (2014)* dispute, which deserves greater attention here as the first WTO case in which the challenged measure was found *not* to be a technical regulation because it did not lay down product characteristics.

The *EC – Seal Products (2014)* dispute concerned the Seal Regime of the European Union (EU), which regulates the placing on the EU market of seal products and is aimed at addressing EU public moral concerns on seal welfare.[52]

[48] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 72: "It is important to note here that, although formulated *negatively* –products containing asbestos are prohibited– the measure, in this respect, effectively prescribes or imposes certain objective features, qualities or "characteristics" on *all* products. That is, in effect, the measure provides that *all* products must *not* contain asbestos fibres" (emphasis in original); WTO, report of the Panel, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R, paras. 7.31–7.36.

[49] WTO, report of the Panel, *European Communities – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs*, WT/DS290/R, paras. 7.449–7.451; WTO, report of the Panel, *United States – Certain Country of Origin Labelling Requirements*, WT/DS384/DS386/R, paras. 7.211–7.214. While *US – Tuna II (2012)* also concerned a labelling requirement under the second sentence of Annex 1.1 TBT Agreement, the Panel explicitly declined to rule on the question of whether the US labelling scheme could also fall within the scope of the first sentence: WTO, report of the Panel, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, paras. 7.78–7.79.

[50] WTO, report of the Appellate Body, *European Commmunities – Trade Description of Sardines*, WT/DS231/AB/R, paras. 187–191.

[51] For a different view, see Crowley and Howse (2014), p. 321 (325–326), referring to 'dolphin friendliness' as the relevant product characteristic in *US – Tuna II (2012)*. However, neither the Panel nor the Appellate Body explicitly assessed the measure at issue in that case under the first sentence of Annex 1.1 TBT Agreement, but rather as a labelling requirement under the second sentence: WTO, report of the Panel, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, paras. 7.78–7.79; WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 186.

[52] Regulation (EC) No. 1007/2009 of the European Parliament and of the Council of 16 September 2009 on trade in seal products (Basic Regulation) [2009] OJ L286/36; Commission Regulation (EU) No. 737/2010 of 10 August 2010 laying down detailed rules for the implementation of Regulation (EC) No. 1007/2009 of the European Parliament and of the Council on trade in seal products (Implementing Regulation) [2010] OJ L216/1, both treated as a single measure and referred to as 'EU Seal Regime'.

In essence, seal products can be placed on the EU market only where (1) such products result from seals hunted by Inuit or other indigenous communities and contribute to their subsistence (IC hunts exception), (2) such products are obtained from seals hunted for the sole purposes of marine resource management and are not placed on the market for commercial reasons (MRM hunts exception), and (3) such products are brought by travellers into the EU on an occasional basis and exclusively for their personal use (travellers exception).[53]

Referring to the Appellate Body's ruling in *EC – Asbestos (2001)*, the Panel had found that the criteria under the IC and MRM exceptions lay down 'product characteristics' on grounds that the identity of the hunter and the type or purpose of the hunt constitute "objectively definable features of the seal products that are allowed to be placed on the EU market".[54] The EU appealed this finding, arguing that "under the Panel's reasoning, virtually anything that [bears] any relation to a product could be construed as a product characteristic, and be potentially considered a technical regulation subject to the disciplines of the TBT Agreement".[55] The Appellate Body overturned the Panel's finding on this point, arguing that there was no basis in the text of Annex 1.1 TBT Agreement or previous case law "to suggest that the identity of the hunter, the type of hunt, or the purpose of the hunt could be viewed as product characteristics".[56] In this regard, the Appellate Body distinguished the EU Seal Regime from the measure at issue in *EC – Asbestos (2001)*, which consisted of a general ban on asbestos and asbestos-containing products subject to limited and temporary exceptions.[57] Unlike that measure, the EU Seal Regime does not prohibit (or permit) the placing on the EU market of products depending on whether or not seal is incorporated into the product as an

[53] WTO, report of the Panel, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/R, paras. 7.7–7.24, and WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, paras. 5.16–5.17.

[54] WTO, report of the Panel, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/R, para. 7.110.

[55] WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.3, where the EU further cautioned "this would "subsume [processes and production methods] into product characteristics" and mean that non-product related processes and production methods (PPMs) would fall within the ambit of the TBT Agreement".

[56] WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.45.

[57] WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.41: "under the French Decree, asbestos-containing products were regulated due to the carcinogenicity or toxicity of the *physical properties* of the subject products … By contrast, the EU Seal Regime *does not prohibit seal-containing products merely on the basis that such products contain seal as an input*. Rather, such prohibition is imposed subject to conditions based on criteria relating to the *identity of the hunter or the type or purpose of the hunt from which the product is derived*" (emphasis added); see also paras. 5.53–5.57, elaborating further on why the exceptions in the measure at issue in *EC – Asbestos (2001)* involved 'product characteristics', while those under the EU Seal Regime did not.

input but on the *purpose* and *type* of the seal hunt. But couldn't these criteria then qualify as 'related process and production methods' within the meaning of Annex 1.1 TBT Agreement?

The Appellate Body refrained from completing the analysis on this point, emphasising that "the line between PPMs that fall, and those that do not fall, within the scope of the TBT Agreement raises important systemic issues", and therefore "more argumentation by the participants and exploration in questioning would have been required"[58] in order to develop an interpretation of the phrase 'related' PPMs in Annex 1.1 TBT Agreement and apply it to the EU Seal Regime.[59] Nevertheless, it did signal how this 'systemic issue' may be addressed if raised in future disputes. In particular, based on the dictionary meaning of the terms in Annex 1.1 TBT Agreement, the Appellate Body considered that the reference to '*their* related' PPMs in the first sentence indicates that

> the subject matter of a technical regulation may consist of a process or production method that is ***related to product characteristics***. In order to determine whether a measure lays down related PPMs, a panel thus will have to examine whether the processes and production methods prescribed by the measure have a ***sufficient nexus to the characteristics of a product*** in order to be considered related to those characteristics.[60]

With this statement, the Appellate Body has cleared up the debated meaning of the words 'their related' PPMs in the first sentence of Annex 1.1 TBT Agreement as referring to 'product characteristics' and not merely establishing a link between the PPM and the traded product. Yet it has also left a number of puzzles unresolved. First, as a threshold step, what exactly are then these 'product characteristics' other than the physical properties of the product?[61] Second, how are Panels to determine whether a given PPM is 'sufficiently related' to such product characteristics? And third, what are the implications of this interpretative approach for PPMs covered by the second sentence of Annex 1.1 TBT Agreement, which does not include the words 'their related'?

Before the *EC – Seal Products (2014)* decision, the conventional pr-PPM/npr-PPM distinction seems to have been largely irrelevant in the context of WTO

[58] WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.69.

[59] See, however, WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, footnote 942, discussed below in the section *Nessessity Requirement*.

[60] WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.12 (emphasis added).

[61] See WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.11, restating that 'product characteristics' are not only the "features and qualities intrinsic the product itself" but "*may* also include 'related characteristics'" (emphasis in original), without specifying what these 'related characteristics' may be.

disputes concerning labelling requirements, which are enumerated in the second sentence of Annex 1.1 TBT Agreement. Some WTO Panels just followed the Appellate Body's reasoning in *EC – Asbestos (2001)* seen above:[62] the label on a product *as such* constitutes a 'product characteristic',[63] and thus it is not really relevant what kind of information is being passed on to consumers for the purpose of applying the TBT Agreement.[64] The *US – Tuna II (2012)* dispute opened the door to take a clearer position on the matter, given that the challenged dolphin-safe labelling scheme of the United States (US) conditioned eligibility for a dolphin-safe label upon (*inter alia*) the fishing method used for catching tuna. However, the Panel completely sidelined the fact that the US dolphin-safe label was based on npr-PPM criteria that were not traceable in the final tuna products. It simply found that the US measure laid down 'labelling requirements' that applied to a product (i.e., tuna products) within the meaning of the second sentence of Annex 1.1 TBT Agreement.[65] The implication from this case law seems to be that *all* labelling requirements that apply (i.e., are attached) to a product are, by definition, covered by the TBT Agreement, irrespective of the subject matter being addressed by the label (i.e., product characteristic, pr-PPM, or npr-PPM).

To sum up, what can be concluded from available jurisprudence regarding the coverage of PPM-based measures by the TBT Agreement?

- *Labelling* requirements based on both pr-PPMs and npr-PPMs are covered by the TBT Agreement.[66]
- *Other* measures (e.g., a ban) based on pr-PPMs (i.e., affecting the physical characteristics of the product) are equally covered by the TBT Agreement, but

[62] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 67, treating the second sentence of Annex 1.1 TBT Agreement as illustrative of (rather than additional to or distinct from) the first sentence. See, however, apparent shift from this stance in WTO, report of the Appellate Body, *European Communities – Measures of Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.14: "[t]he use of the words "also include" and "deal exclusively with" at the beginning of the second sentence indicates that the second sentence includes elements *that are additional to, and may be distinct from,* those covered by the first sentence of Annex 1.1" (emphasis added).

[63] See, e.g., WTO, report of the Panel, *European Communities – Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs*, WT/DS290/R, para. 7.449: "[t]he issue is not whether the content of the label refers to a product characteristic: the label on a product is a product characteristic", WTO, report of the Panel, United States – *Certain Country of Origin Labelling (COOL) Requirements*, WT/DS384/DS386/R, paras. 7.213–7.214.

[64] Kudryavtsev (2013), p. 17 (46).

[65] WTO, report of the Panel, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, paras. 7.78–7.79, explicitly refraining from considering whether the US measure could also fall under the first sentence of Annex 1.1 TBT Agreement. This particular issue was not appealed before the Appellate Body. For a similar reading, see Pauwelyn (2012b).

[66] The same could presumably apply to other elements enumerated in the second sentences of Annexes 1.1 and 1.2 TBT Agreement.

uncertainty remains in relation to npr-PPMs, turning on whether these are 'sufficiently related' to the 'product characteristics' (with both terms lacking precise definition).

The underlying rationale for this differentiated approach to labelling requirements vis-à-vis other PPM-based measures may well be motivated by a policy preference for market-based product regulation.[67] However, it could lead to a highly counter-intuitive result particularly *if* the 'sufficient nexus' test coined by the Appellate Body in *EC – Seal Products (2014)* is applied (too) narrowly in future cases—let us assume it as only encompassing PPM-based measures that leave a physical trace in the final product (i.e., pr-PPMs). This would mean, for instance, that a law requiring eggs to bear a *label* indicating that in the production process certain animal welfare requirements were met (e.g., 'no battery cages used') would seem to automatically fall under the scope of the TBT Agreement, whereas a law *banning* the sale of eggs not produced under the same animal welfare conditions may not be covered by the agreement (i.e., in our example, this would rest on the debated question of whether the use of battery cages for hens 'sufficiently' affects the physical quality of eggs). But why is the former measure any more of a 'technical' barrier to trade than the latter, given they are both based on the *very same* npr-PPM? And taking another example from climate change policy, does it make sense to subject labelling requirements based on npr-PPMs to stringent TBT disciplines (e.g., a carbon footprint label for energy-intensive products sold on the domestic market) while leaving more trade-restrictive npr-PPM regulation outside the agreement's scope (e.g., a sale prohibition on energy-intensive products with a carbon footprint above a certain level)?

This consequence seems to make little (if any) sense and therefore calls into question whether the language of Annex 1 TBT Agreement can be interpreted literally and in a vacuum, or instead what is a 'technical' barrier to trade needs to be determined in light of the object and purpose of the TBT Agreement and the specific circumstances of the case.[68] As will be argued next, such a contextual and purposive interpretation of Annex 1 TBT Agreement does not support the conventional pr-PPM/npr-PPM distinction in delimiting the scope of application of

[67] See above in the section *NTBs based on Processes and Production Methods – Why is the Related/Unrelated Distinction Contested?*.

[68] The Appellate Body itself admitted this in *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.60: "In our analysis above ... we have focused on the text and the immediate context found in Annex 1.1 as well as on previous jurisprudence by the Appellate Body. In future cases, depending on the *nature of the measure* and the *circumstances of the case*, a panel may find it helpful to seek further *contextual guidance* in other provisions of the TBT Agreement, for example, those pertaining to standards, international standards ... in delimiting the contours of the term "technical regulation". It may also be relevant for a panel to examine supplementary means of interpretation such as the *negotiating history* of the TBT Agreement or the types and the nature of claims that have been brought by the complainants" (emphasis added).

the TBT Agreement, and even less so the differentiated approach between labelling requirements and other npr-PPM-based measures emerging from the case law.

A Contextual/Teleological Interpretation of Technical Barriers to Trade: Questioning the pr-PPM/npr-PPM Distinction

As we have seen, the Appellate Body in *EC – Seal Products (2014)* indicated that a plain reading of the first sentence of Annex 1.1 TBT Agreement suggests that it only covers PPMs that are sufficiently related to the characteristics of a product. This conclusion was reached mainly on the basis of the word 'their' as referring back to 'product characteristics', and this reading would seem to be supported by the Spanish version of the TBT Agreement.[69] While it remains unsettled whether this 'sufficient nexus' test implies that only pr-PPMs (i.e., those affecting the physical characteristics of the product) are covered by the first sentence of the Annex 1.1 TBT Agreement,[70] this section cautions against such a (possible) jurisprudential development in future cases. In fact, pursuant to Article 31(1) of the VCLT, the meaning of the term 'their related PPMs' in the first sentence of Annex 1.1 TBT Agreement ought to be construed in their context and in the light of the treaty's object and purpose.[71]

Turning to Annex 1.2 TBT Agreement as the immediate context, if the textualist approach of the Appellate Body is followed, and given the absence of 'their' preceding related PPMs in the first sentence therein, a broader coverage would be presumably warranted in the case of standards (i.e., covering also npr-PPMs). But wouldn't this finding be counter-intuitive? Why scrutinise npr-PPM-based measures under the TBT Agreement only when they take the form of non-mandatory (and arguably less trade restrictive) standards and not when these take the form of mandatory technical regulations? In addition, the explanatory note to Annex 1.2 TBT Agreement states that the TBT Agreement deals with "technical regulations,

[69] The Spanish version of Annex 1.1 TBT reads: "Documento en el que se establecen las características de un producto o los procesos y métodos de producción *con ellas* relacionados, con inclusión de las disposiciones administrativas aplicables, y cuya observancia es obligatoria" (emphasis added), where "con ellas" necessarily refers back to the "características de un product" (i.e., product characteristics). The French version is, as the English, more ambiguous: "Document qui énonce les caractéristiques d'un produit ou les procédés et méthodes de production *s'y rapportant*, y compris les dispositions administratives qui s'y appliquent, dont le respect est obligatoire" (emphasis added).

[70] This was not explicitly stated by the Appellate Body but could be implied from its reasoning in *EC – Seal Products (2014)* and its emphasis on distinguishing this case from *EC – Asbestos (2001)*; see above in the section *Interpreting Technical Barriers to Trade – The Appellate Body's Approach to PPM-based Measures*.

[71] Article 31(1) VCLT; see also Article 3.2 WTO Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU), 1869 U.N.T.S. 401.

standards and conformity assessment procedures related to products or process and product methods", omitting again 'their related' and pointing to an undifferentiated approach in the coverage of technical regulations and standards with regard to PPMs. It would seem, therefore, that the meaning of the terms 'their related' PPMs in the first sentence of Annex 1.1 TBT Agreement remains ambiguous when read in light of its immediate context.

With regard to the object and purpose of the TBT Agreement, this is itself subject to debate and in particular the extent to which this agreement does "further the objectives"[72] of the GATT. One possible reading is that the TBT Agreement has essentially the same aim as the GATT and overall is ought not to be read as a more liberalising or integrating legal instrument.[73] This view would seem to be backed by the sixth recital of the Preamble of the TBT Agreement, which has been explicitly referred to in contextual analysis by the Appellate Body in *US – Clove Cigarettes (2012)*[74] and states:

> no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal or plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate, subject to the requirement that they are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail or a disguised restriction on international trade.

From this angle, just like the GATT, the TBT Agreement would be premised on the acceptance of regulatory diversity among WTO members flowing from their right to regulate and protect certain societal objectives and interests at the level they consider appropriate while disciplining 'regulatory protectionism'.[75] However, a more comprehensive reading of the Preamble of the TBT Agreement reflects a desire by the treaty drafters to go beyond non-discrimination in the direction of so-called positive integration, notably by encouraging the harmonisation of domestic regulatory measures on the basis of international standards[76] as means to avoid 'unnecessary obstacles' to international trade.[77]

---

[72] TBT Agreement, Preamble, second recital.

[73] Howse (2013), p. 1 (2).

[74] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, paras. 172–173, as relevant context of the term 'less favourable treatment' in Article 2.1 TBT Agreement.

[75] Howse (2013), p. 1 (1).

[76] See, e.g., TBT Agreement, Preamble, third recital: "*Recognizing* the important contribution that international standards and conformity assessment systems can make in this regard by improving efficiency of production and facilitating the conduct of international trade." Even if the substantive requirements in this regard are somehow qualified, see below in the section *Harmonisation on the basis of international standards*.

[77] See TBT Agreement, Preamble, fifth recital, also referred to by the WTO Appellate Body in *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, paras. 92–95.

But neither of these understandings of the purpose of the TBT Agreement excludes, *à priori*, its applicability to npr-PPM-based regulations. If, as noted earlier, there are genuine concerns that npr-PPM-based measures are a covert tool of disguised protectionism or disproportionate to achieve the legitimate objective pursued,[78] this would rather be an argument for subjecting such measures to the TBT disciplines on non-discrimination (e.g., Article 2.1 TBT Agreement for technical regulations)[79] and necessity (e.g., Article 2.2 TBT Agreement for technical regulations)[80] so as to ensure that npr-PPM-based measures—just as pr-PPM-based measures—are non-discriminatory and/or not more trade restrictive than necessary in the pursuance of certain legitimate objectives. Similarly, the GATT-plus requirement of harmonisation could potentially help in reducing the trade-restrictive effects of both pr-PPM-based and npr-PPM-based measures alike, provided a 'relevant' international standard exists.[81] In addition, it could well be that the comparatively elaborate provisions on notification and technical assistance[82] under the TBT Agreement could alleviate some of the burdens associated with PPM-based regulations, such as lack of information and adaptation costs.[83] It would thus seem inefficient that only pr-PPM-based measures are subject to these TBT requirements, while the less transparent and more costly npr-PPM-based measures are not.[84] To put it simply, it seems highly illogical to include pr-PPM-based measures and exclude npr-PPM-based measures from the scope of application of the TBT Agreement when the latter are regarded as more problematic in terms of the matters specifically addressed by the agreement.

In a similar vein, a differentiated approach between labelling requirements and other regulatory measures in relation to npr-PPMs seems at odds with the purpose of the TBT Agreement, whether understood as preventing 'regulatory protectionism' or 'unnecessary' barriers to trade. As illustrated earlier with the cage-free egg and high-carbon product examples,[85] it appears almost absurd to apply the TBT Agreement to a labelling requirement but not to other overtly trade-restrictive measures (e.g., a ban), even if both address the same npr-PPM and thus there is no obvious difference as to their 'technical' content. To further exemplify this point, let's imagine that in *US – Tuna II (2012)*, instead of the challenged dolphin-safe labelling scheme, the US had imposed an outright prohibition on the sale of

[78] See above the section *NTBs based on Processes and Production Methods – Why is the Related/Unrelated Distinction Contested?*.

[79] See further the section *Non-discrimination Obligations* below.

[80] See further below in the section *Necessity Requirement*.

[81] See Article 2.4 TBT Agreement for technical regulations and below the section *Harmonisation on the basis of international standards* for further discussion.

[82] See sections *Other Substantive Provisions and Procedural Obligations* below.

[83] Norpoth (2013), p. 575 (579).

[84] Low et al. (2012), p. 485 (522).

[85] See above the section *Interpreting Technical Barriers to Trade – The Appellate Body's Approach to PPM-based Measures*.

tuna products that had not been certified as caught using 'dolphin-safe' fishing methods: why would that ban be less of a 'technical' barrier to trade, even if based on identical npr-PPM criteria than the US dolphin-safe labelling scheme, while being plainly more restrictive on international trade?

On this background, one would be tempted to look for clarification in the *travaux préparatoires* of the TBT Agreement and the circumstances of its conclusion.[86] However, the negotiating history on the agreement's coverage as recorded by the WTO Secretariat reveals that the treatment of measures based on npr-PPMs by the TBT Agreement was one of the most controversial issues during the process of negotiation. Not surprisingly, the United States and Mexico—respectively, defendant and complainant in the GATT *US – Tuna I (1991)* dispute mentioned below—had divergent views on the matter. In the late 1980s, the United States advanced proposals to include measures addressing all types of PPMs within the scope of application of the TBT Agreement,[87] arguing that "[l]ack of full coverage of PPMs seriously weakened the effectiveness of the Agreement by excluding a growing body of regulations from its disciplines".[88] However, in 1989 an alternative proposal to apply the TBT Agreement only to PPM-based measures "that were necessary to ensure certain legitimate objectives of quality in a final product such as its strength, purity or safety"[89] was put forward by New Zealand and received considerable support but for one (unnamed) delegation.[90]

Ultimately, the draft text of the TBT Agreement submitted to the Brussels Ministerial Conference in 1990 contained a reference to PPMs in the first and second sentences of the definitions in Annex 1 TBT Agreement, without any qualification on the types of PPMs covered (i.e., the terms 'their related'/'related'

[86] Article 32 VCLT.

[87] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), paras. 120–126.

[88] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 121.

[89] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 131, further specifying that "[a] PPM that was required for religious purposes, for example, did not have any direct effect on the quality or the final characteristics of a product and would therefore not be covered".

[90] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 132: "One participant felt the use of PPM-based measures should be viewed in a larger context, both from the point of view of the different problems raised by those related to agricultural and industrial products and from the point of view of the use of certain PPMs related to concepts such as protection of environment, social order, and workers' health and safety."

were not used).[91] Nevertheless, later during informal consultations in October 1991, Mexico proposed inserting the terms 'related' in the definitions in Annex 1 TBT Agreement, with the intent to exclude "PPMs unrelated to the characteristics of a product from the coverage of the Agreement".[92] However, this proposal was seemingly accepted only with regard to the first sentence of the definitions in Annex 1 of the TBT Agreement, while the second sentence remained unchanged in both definitions—no specific reason is recorded for this.[93] Towards the end of the negotiations, Mexico further proposed to insert the word 'their' before 'related', "in the interests of additional clarity and to ensure that the Agreement will only address a narrow selection of processes and production methods".[94] Yet again, this proposal gathered partial consensus, and only the definition of technical regulation (but not of standard) was changed accordingly.[95]

In essence, the negotiating history of the TBT Agreement indicates that, even if a number of negotiating GATT Contracting Parties intended to exclude npr-PPM-based measures from the scope of the TBT Agreement, it was not possible to reach a clear and unambiguous agreement among negotiators on the matter.[96] As a result, *travaux préparatoires* are only of limited value in explaining the significance of the textual differences in the definitions in Annex 1 TBT Agreement. The circumstances in which the TBT Agreement was negotiated and concluded, on the other

[91] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), paras. 140–144.

[92] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 146.

[93] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 146.

[94] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 147.

[95] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), paras. 147 and 150–151.

[96] WTO, Negotiating History of the Coverage of the Agreement on Technical Barriers to Trade with Regard to Labelling Requirements, Voluntary Standards and Production Methods Unrelated to Product Characteristics, Note by Secretariat, WT/CTE/W/10, G/TBT/W/11 (29 August 1995), para. 3(c): "Towards the end of the negotiations, some delegations proposed changing the language contained in the "definitions" in Annex 1 of the Agreement to make it unambiguous that only PPMs related to product characteristics were to be covered by the Agreement, but although no participant is on record as having opposed that objective, at that late stage of the negotiations it did not prove possible to find a consensus on the proposal."

hand, appear more enlightening in this regard. As pointed out by some scholars, the negotiations of the TBT Agreement were marked by a (mis)perception among many GATT Contracting Parties, especially developing countries, that mandatory npr-PPM-based measures would *prima facie* violate the substantive obligations under the GATT and could not be justified under Article XX GATT.[97] This (mis) understanding was largely based on the two GATT Panel reports in *US – Tuna I (1991)* and *US – Tuna II (1994)*;[98] even though both reports were highly controversial, none was ever adopted due to the requirement of consensus, and they are of almost no legal value following subsequent Appellate Body case law.[99] Based on that premise, the inclusion of npr-PPM-based measures within the scope of the TBT Agreement was often (mis)perceived as an attempt to 'legalise' these measures under WTO law.

Following the conclusion of the Uruguay Round negotiations, discussions in the newly established Committee on Trade and Environment with regard to eco-labelling schemes highlight that this (mis)assumption was still widely shared,[100] and division persisted among the WTO membership on the applicability of the TBT Agreement to npr-PPM-based measures.[101] Similarly, subsequent practice by WTO members has not been fully consistent: for instance, it has been reported that many developing countries have challenged notifications of labelling requirements based on social considerations and timber production processes on the

[97] See, e.g., Charnovitz (2002), p. 59 (63–64 and 75–77), for a list of public statements by WTO officials and delegates on the GATT illegality of npr-PPM-based measures; Kudryavtsev (2013), p. 17 (43–44).

[98] Respectively, GATT, report of the Panel, *United States – Restrictions on Imports of Tuna*, DS21/R, circulated 3 September 1991, not adopted [hereinafter, *US – Tuna I (1991)*]; GATT, report of the Panel, *United States – Restrictions on Imports of Tuna*, DS29/R, circulated 16 June 1994, not adopted [hereinafter, *US – Tuna II (1994)*]. These cases concerned a US import ban on tuna products from countries that did not have a regulatory regime comparable to that of the US in order to prevent the incidental killing of dolphins in the course of tuna fishing operations. Both GATT Panels found that the US measure did not apply to 'a product as such' (but applied to the product's PPM) and as such was not covered by Article III GATT. Instead, the measure constituted an import ban prohibited by Article XI GATT and was not justified under the GATT Article XX general exceptions. For a critical discussion of this case law, see Howse and Regan (2000), p. 249 (258–268).

[99] Pauwelyn (2004), p. 575 (585).

[100] WTO Committee on Trade and Environment, Report (1996) of the Committee on Trade and Environment, WT/CTE/1 (12 November 1996), para. 70: "[...] *many delegations* expressed the view that the negotiating history of the TBT Agreement indicates clearly that there was no intention of *legitimizing the use of measures based on non-product-related PPMs under the TBT Agreement*, and that voluntary standards based on such PPMs are inconsistent with the provisions of the Agreement as well as with other provisions of the GATT. There is objection to any attempt through CTE work on eco-labelling to extend the scope of the TBT Agreement to permit the use of standards based on non-product-related PPMs" (emphasis added).

[101] WTO, Committee on Trade and Environment, Report (1996) of the Committee on Trade and Environment, WT/CTE/1 (12 November 1996), paras. 71–73.

ground that these npr-PPM-based measures are not covered by the TBT Agreement.[102] At the same time, and ironically perhaps in light of the negotiating history outlined above, it was Mexico arguing in favour of the applicability of the TBT Agreement to an npr-PPM-based labelling scheme in *US – Tuna II (2012)*.[103]

However, the belief that npr-PPM-based measures are *per se* 'GATT-illegal' prevailing during the negotiations of the TBT Agreement was later corrected by the (adopted) WTO report of the Appellate Body in the *US – Shrimp (1998)* case,[104] which concerned an npr-PPM requirement to harvest shrimp in a turtle-friendly manner. Not only did the Appellate Body make clear that Article XX GATT can, in principle, justify npr-PPM-based measures,[105] but the revised US measure—still conditioning market access on npr-PPM criteria but allowing for equivalence recognition of foreign regulatory programmes comparable in effectiveness—was found to be justified under Article XX GATT. Moreover, this is the only challenged measure to have successfully met the chapeau requirements of GATT Article XX in WTO dispute settlement proceedings to date.[106] This 'new' understanding of the status of npr-PPM-based measures under the GATT—i.e., not *per se* GATT-illegal/unjustifiable—changes profoundly the legal ramifications of incorporating such measures within the scope of application of the TBT Agreement: it does *not* alter their status from 'GATT-illegal' to 'TBT-legal' but merely permits them to be scrutinised with respect to the TBT disciplines in addition to GATT. Against this background, the key question becomes how best npr-PPM-based measures are regulated under WTO law. With a view to shedding light on this question, the next section explores the implications of applying the TBT Agreement to npr-PPM-based measures via-à-vis the GATT.

[102] Low et al. (2012), p. 485 (521).

[103] Norpoth (2013), p. 575 (581).

[104] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R.

[105] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R, para. 121, stating that "[. . .] It is not necessary to assume that requiring from exporting countries compliance with, or adoption of, certain policies (although covered in principle by one or another of the exceptions) prescribed by the importing country, renders a measure *a priori* incapable of justification under Article XX. Such an interpretation renders most, if not all, of the specific exceptions of Article XX inutile, a result abhorrent to the principles of interpretation we are bound to apply."

[106] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products /Recourse to Article 21.5 of the DSU by Malaysia)*, WT/DS58/AB/RW, paras. 144–152. For further discussion of the implications of this case law, see Charnovitz (2002), p. 59 (92–103); Potts (2008), pp. 23–26.

Npr-PPM-Based Measures and the TBT Agreement: How Different to the GATT?

TBT Agreement and GATT: Relationship and Structural Differences

As a backdrop to our comparative analysis, it is first important to clarify the relationship between the GATT and the TBT Agreement, as well as the main differences in their structure. As to the former, the TBT Agreement does not contain specific provisions concerning its relationship with the GATT. However, in *EC – Asbestos (2001)*, the WTO dispute settlement organs took the view that the relationship between the TBT Agreement and the GATT is not such that the applicability of one agreement triggers the exclusion of the applicability of the other, but both agreements can apply cumulatively to the same measure.[107] In a dispute settlement process, the issue of consistency with the TBT Agreement must in principle be examined first since this agreement deals more specifically and in detail with technical barriers to trade.[108] Yet importantly, consistency with the TBT Agreement does not lead to a presumption of consistency with the GATT,[109] and thus a TBT-consistent measure still requires analysis under the GATT. The key implication for our purpose is that we should not approach the applicability of the TBT Agreement to npr-PPM-based measures as an 'either/or' question vis-à-vis the GATT but as both agreements being capable of applying simultaneously to the same measure.[110]

In terms of structure, the GATT operates as a rule-exception framework, whereby the consistency of a measure will be first assessed against core obligations (e.g., Articles I and III GATT), with the complainant required to make a *prima facie* case. Once a violation of GATT rules has been substantiated, Article XX GATT may be raised as an affirmative defence by the respondent, which largely bears the burden of proof.[111] Conversely, the TBT Agreement only stipulates positive obligations and does not contain a general exception clause, which implies a more

[107] Cf. with Article 1.5 TBT Agreement, whereby the application of the SPS Agreement to a given measure precludes the application of the TBT Agreement.

[108] WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 80; WTO, report of the Panel, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/R, para. 8.16.

[109] Cf. with Article 2.4 SPS Agreement, whereby compliance with SPS provisions leads to a presumption of consistency with the GATT.

[110] See, however, General Interpretative Note to Annex 1A of the WTO Agreement, according to which the TBT Agreement would prevail over the GATT to the extent there is a conflict.

[111] With the exception of the necessity test, where it rests upon the complainant to first identify less trade-restrictive alternatives to the challenged measure that the respondent could have taken. The burden then shifts back to the respondent to demonstrate why the proposed alternatives are not, in fact, 'reasonably available' and thus the challenged measure remains 'necessary'. WTO, report of the Appellate Body, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, para. 156.

onerous burden of proof for the complainant in dispute settlement proceedings, as will be further illustrated below.

Before proceeding, it should be also noted that the analysis here focuses on TBT provisions applicable to mandatory technical regulations that, unlike those applicable to non-mandatory standards, have been subject to interpretation and application in WTO case law, thus providing a firmer basis for a comparative assessment with GATT disciplines.

TBT Agreement and GATT: Similar but Different Disciplines?

The substantive provisions of the TBT Agreement contain several disciplines that are similar—albeit not identical—to those found in the GATT, and notably, the non-discrimination obligations (most-favoured-nation treatment and national treatment) and the requirement to refrain from creating unnecessary obstacles to international trade. In *US – Clove Cigarettes (2012)*, the Appellate Body emphasised that the two agreements "should be interpreted in a coherent and consistent manner"[112] and held that the "balance set out in the preamble of the TBT Agreement between, on the one hand, the desire to avoid creating unnecessary obstacles to international trade and, on the other hand, the recognition of Members' right to regulate, is not, in principle, different from the balance set out in the GATT 1994, where obligations such as national treatment in Article III are qualified by the general exceptions provision of Article XX".[113] At the same time, in *EC – Seal Products (2014)*, the Appellate Body clarified that the principle of coherent and consistent interpretation does not mean that "the legal standards for *similar* obligations – such as Articles I:1 and III:4 of the GATT 1994, on the one hand, and Article 2.1 of the TBT Agreement, on the other hand – must be given identical meanings".[114] But if different sets of legal tests and standards are to lead to the same balance overall, why would it matter whether the GATT or the TBT Agreement applies to npr-PPM-based measures? As will be shown next, the answer to this question is somehow more nuanced.[115]

[112] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 91.

[113] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 96.

[114] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.123 (emphasis in original).

[115] In this sense, this contribution differs from Conrad (2014), pp. 379–381, arguing that there are no significant differences in the substantive provisions of the GATT and TBT Agreement and favouring a text-based interpretative approach to Annex 1 TBT Agreement, which would exclude from its coverage npr-PPM-based measures other than labelling/marking requirements.

Non-discrimination Obligations

The most-favoured-nation (MFN) and national treatment obligations of WTO members in relation to technical regulations are laid down in Article 2.1 TBT Agreement,[116] which reads:

> Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded ***treatment no less favourable*** than that accorded to ***like products*** of national origin and to like products originating in any other country (emphasis added).

The language of this provision bears close resemblance with the GATT national treatment obligation applicable to internal regulation (Article III:4 GATT), while there are textual differences with the MFN obligation under the GATT (Article I:1 GATT).[117] Just as under the GATT, the determination of whether the products at issue are 'like' (or not) is of critical importance for the application of the MFN treatment and national treatment obligations under the TBT Agreement—i.e., it is only between like products that discrimination is prohibited. In this respect, the Appellate Body held in *US – Clove Cigarettes (2012)* that the determination of likeness under Article 2.1 TBT Agreement is, as under Article III:4 GATT, "a determination about the nature and extent of a competitive relationship between and among the products at issue",[118] while regulatory concerns underlying a measure (e.g., health or environmental risks associated with a given product) are only relevant to the analysis of likeness to the extent that they have an impact on that competitive relationship.[119] The traditional approach in WTO case law for determining likeness is based on the following four criteria: (1) the products' physical characteristics, (2) the products' end uses; (3) consumers' tastes and habits, (4) the products' tariff classification.[120] These criteria beg the question as to whether npr-PPMs may be relevant to the assessment of likeness: that is, could products that differ only on the basis of PPMs that do not affect their physical characteristics

[116] Analogous non-discrimination obligations are prescribed with respect to standards (Annex 3.D TBT Agreement) and with respect to conformity assessment procedures (Article 5.1.1 TBT Agreement).

[117] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.81, noting that Article I:1 GATT does not contain a 'less favourable treatment' standard but requires instead WTO members to extend '*any* advantage' granted to *any* product originating in or destined for *any* other country 'immediately and unconditionally' to the 'like product' originating in or destined for all other Members.

[118] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 120.

[119] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 119, thereby rejecting the purpose-based approach to the determination of likeness adopted by the Panel. For further discussion, see, *inter alia*, Piérola (2012), p. 347; Broude and Levy (2014), p. 357.

[120] For an overview of relevant case law, see van den Bossche (2013), pp. 325–328, 360–368, and 386–394.

(i.e., first criteria) be, nonetheless, considered 'unlike' and thus treated more favourably?

In principle, nrp-PPMs may have an impact on the preferences and tastes of consumers for products (i.e., third criteria) and hence on consumer demand and the nature and the extent of the competitive relationship between these products in a given market.[121] For instance, as van den Bossche notes, "if carpets made by children are shunned by consumers in a particular market, a situation may arise in which there is in fact no (or only a weak) competitive relationship between these carpets and carpets made by adults",[122] making children-made and adult-made carpets 'unlike' in that particular market. However, it seems improbable that this type of situation will often arise in practice: first, consumers in most markets are in their choice between products primarily guided by the price rather than the conditions (e.g., environmental, labour, or animal welfare conditions) under which the products were produced,[123] and second, even when they do genuinely care about these npr-PPM conditions, consumers may not always be able to bear the extra cost of buying environmentally friendly, animal-friendly, or labour-friendly products.[124] Furthermore, the approach of the Panel in *US – Tuna II (2012)* suggests that the intensity of consumer preferences would need to be very high for products to be deemed 'unlike' on the basis of their npr-PPMs: while recognising that the evidence presented confirmed that US consumers had a "certain preference" for dolphin-safe tuna products, such products were found to be like dolphin-unfriendly (imported) tuna products.[125] In essence, the competition-based approach to the determination of likeness is prone to ensure that a broad range of npr-PPM-based measures is scrutinised under the non-discrimination obligations, and this is equally so for the GATT and TBT Agreement.

That being said, the incorporation of the likeness criteria under GATT Article III:4 into Article 2.1 TBT Agreement would seem to undermine the view that the conventional pr-PPM/npr-PPM distinction matters for delimiting the scope of application of the TBT Agreement. First, since the question of whether a given PPM alters the physical characteristics of the final product is relevant for determining whether *one* specific substantive provision of the TBT Agreement applies

[121] This was explicitly recognised by the WTO Panel in *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, para. 7.249.

[122] See van den Bossche et al. (2007), p. 63.

[123] See van den Bossche et al. (2007), p. 64.

[124] Howse and Regan (2000), p. 249 (273).

[125] WTO, report of the Panel, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, paras. 7.249–7.251 and 7.352, noting that no "major US grocery retailers sell tuna products that contain tuna caught by setting on dolphins". Note that this issue was not addressed by the Appellate Body, as the US did not appeal the Panel's finding that Mexican (dolphin-unsafe) tuna products were 'like' (dolphin-safe) tuna products of US origin and tuna products originating in any other country: WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 202.

(i.e., Article 2.1 TBT), why should it also determine the applicability of the agreement *as a whole*? In other words, is it reasonable to apply the same legal test twice, or should the standard of proof applied in these two types of enquires (i.e., agreement/provision application) be different?[126] Second, and following from the previous point, applying the same standard of proof would put the disputing parties in a rather awkward position. For instance, say a WTO member wishes to bring a complaint against a sale ban on battery-cage eggs under Article 2.1 TBT Agreement: On the one hand, this complaining WTO member would need to show that the battery-cage PPM is sufficiently incorporated into the eggs so that the TBT Agreement applies in the first place. On the other hand, in the likeness analysis (first criteria) under Article 2.1 TBT Agreement, it would need to provide evidence to the contrary (i.e., the battery-cage PPM does not leave any, or only a minor, physical trace on eggs), so that battery-cage and cage-free eggs can be considered 'like' in terms of their physical characteristics.

Whereas there is no difference in relation to the likeness analysis between the TBT Agreement and the GATT, the 'less favourable treatment' test does appear to differ significantly. In *EC – Seal Products (2014)*, the Appellate Body confirmed that for a violation of Articles I:1 and III:4 GATT, all that matters is whether the measure at issue has a 'detrimental impact' on the competitive opportunities between like products[127]—i.e., imported for Article I:1 GATT and imported/domestic for Article III GATT.[128] This means that any npr-PPM-based measure that has an asymmetric impact on imported like products would be deemed *ipso facto* discriminatory, regardless of the regulatory purpose of the measure and no matter how incidental its effect are on competitive opportunities.[129] To retake the US dolphin-safe labelling scheme as an illustrative example, if we assume dolphin-friendly and dolphin-unfriendly tuna products are like, all that needs to be shown for a *prima facie* violation of the GATT non-discrimination obligations is that the label modifies the conditions of competition on the US market to the

[126] In favour of the latter approach, see, e.g., Pauwelyn (2012a), p. 448 (484), establishing a parallel with Article III:4 GATT and arguing that what matters at the stage of setting the scope of application of the TBT Agreement is whether the regulation at issue applies to, or affects, the internal sale of a product and not the reason why it does so (be it product-based, pr-PPM-based, or npr-PPM-based regulation).

[127] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, paras. 5.82, 5.92–5.93, and 5.116–5.117, rejecting thereby the EU's argument that the same non-discrimination standard should be applied under these GATT provisions and Article 2.1 TBT Agreement.

[128] In essence, the MFN treatment obligation prohibits a WTO member from discriminating *between* countries and thus demands a comparison between imported products, while the national treatment obligation prohibits a WTO member from discriminating *against* other WTO members and thus demands a comparison between imported and domestic products.

[129] On the rejection of the 'aims-and-effect' approach to Article III GATT, see notably Hudec (1998), p. 619; Regan (2003), p. 737.

detriment of imported (dolphin-unfriendly) products. Following such a finding, the US dolphin-safe labelling scheme would need to be justified under Article XX GATT, where the regulatory purpose of the measure becomes relevant.[130]

In contrast, and particularly due to the fact that the TBT Agreement does not contain a general exception clause similar to Article XX GATT, the Appellate Body stated in *US – Clove Cigarettes (2012)* that Article 2.1 TBT Agreement does not prohibit *any* detrimental impact on competitive opportunities for imports but only detrimental impact that does not stem exclusively from 'legitimate regulatory distinctions'.[131] An additional step enquiring into the regulatory purpose of the measure is, therefore, required for a determination of less favourable treatment under Article 2.1 TBT Agreement. The Appellate Body added that, in order to determine whether the detrimental impact on imports stems exclusively from a legitimate regulatory distinction rather than reflecting discrimination, WTO Panels should carefully scrutinise whether the measure is even-handed in its design and application.[132] In *US – COOL (2012)* and *US – Tuna II (2012)*, the Appellate Body elucidated further on the factors that may be relevant for assessing 'legitimate regulatory distinctions': in essence, regulatory distinctions (e.g., differences in labelling criteria in *US – Tuna II (2012)* or exemptions from a general rule in *US – Clove Cigarettes (2012)*) are assessed in light of the stated objective of the measure in order to determine whether difference in treatment is rationally and proportionally related to, or conversely goes against, that policy objective.[133] For instance, in *US – Tuna II (2012)*, the Appellate Body found that the difference in labelling conditions applicable under the US dolphin-safe labelling scheme was not "calibrated to the risks to dolphins arising from different fishing methods in different areas of the ocean", particularly because "the US measure *fully* addresses the adverse effects on dolphins resulting from setting on dolphins in the ETP, whereas it does 'not address mortality (observed or unobserved) arising from fishing methods other than setting on dolphins outside the ETP'".[134] In this sense,

[130] That is, first in assessing its provisional justification under one of the 'legitimate' grounds of exception recognised in paragraphs (a)–(j) of Article XX GATT, as well as in assessing 'arbitrary and unjustifiable discrimination' under the chapeau. On Article XX GATT jurisprudence, see generally van den Bossche (2013), pp. 552–580.

[131] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, paras. 174 and 179–181.

[132] WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 182.

[133] WTO, report of the Appellate Body, *United States – Certain Country of Origin Labelling (COOL) Requirements*, WT/DS384/DS386/AB/R, paras. 343–349. However, see: WTO, report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, para. 225, where the Appellate Body seemed to adopt a more flexible approach, assessing the regulatory distinction (i.e., exemption of menthol cigarettes from US general ban on flavoured cigarettes) not only in light of the primary objective of the measure (i.e., reduce youth smoking), but considering also other secondary objectives (i.e., risks of health care costs and illicit trade) presented by the US as reasons for the exemption.

[134] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 297. As a consequence,

the Appellate Body appears to conduct a 'good faith' analysis with a view to ascertaining that the responding party has not exercised its right to regulate in an abusive or arbitrary manner.

As others have pointed out, this approach to the 'less favourable treatment' test under Article 2.1 TBT Agreement closely resembles the analysis of 'arbitrary and unjustifiable discrimination' under GATT Article XX-chapeau[135] and reminds in particular of the Appellate Body's reasoning in *Brazil – Retreaded Tyres (2007)* that discrimination is 'arbitrary or unjustifiable' when it is explained by a rationale that bears no relationship to the objective of the measure or even goes against that objective.[136] Yet this does not necessarily mean that the legal tests under Article 2.1 TBT Agreement and GATT Article XX-chapeau are identical.[137] In fact, in *EC – Seal Products (2014)*, the Appellate Body stressed that the relationship of the discrimination to the objective of the measure is "one of the most important factors, but not the sole test, that is relevant to the assessment of arbitrary and unjustifiable discrimination"[138] under the chapeau of Article XX GATT. Recalling its ruling in *US – Shrimp (1998)*, the Appellate Body emphasised that additional factors may also be relevant for establishing 'arbitrary and unjustifiable' discrimination under GATT Article XX-chapeau,[139] some of which are important for npr-PPM-based measures.

Notably, the *US – Shrimp (1998)* decision suggests that npr-PPM-based measures are likely to amount to 'arbitrary discrimination' if applied in an overly rigid and inflexible manner, by conditioning market access on the adoption by the exporting country of essentially the same regulatory programme (in that case, US-approved turtle excluder devices), without any regard for the specific conditions prevailing in WTO members.[140] Conversely, it would follow from the Appellate

some tuna products caught outside the ETP were eligible for the US dolphin-safe label, even though dolphins were in fact killed or seriously injured in the course of the fishing trip (paras. 289–292).

[135] See, e.g., Marceau (2013), p. 1 (9–12); Norpoth (2013), p. 575 (592–594); Zhou (2012), p. 1075 (1118–1120).

[136] WTO, report of the Appellate Body, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, paras. 225–232, where the Appellate Body found that the rationale provided for the discrimination between MERCOSUR countries and other WTO members in the application of the import ban on retreaded tyres (i.e., a MERCOSUR tribunal ruling) "bears no relationship to the legitimate objective pursued by the Import Ban that falls within the purview of Article XX(b), and even goes against this objective, to however small a degree".

[137] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, paras. 5.293–5.313, where the Appellate Body noted the important parallels and also the significant differences between the analyses under Article 2.1 TBT Agreement and the chapeau of Article XX GATT and found that the Panel erred in applying the same legal tests.

[138] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.321.

[139] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.305.

[140] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R, paras. 164–165 and 177.

Body's ruling in *US – Shrimp (Article 21.5 – Malaysia)* that npr-PPM-based measures would not constitute 'arbitrary discrimination' if these allow sufficient flexibility by conditioning market access on the adoption by the exporting country of regulatory programmes that are comparable in effectiveness vis-à-vis the policy objective pursued.[141] It could be argued, however, that this embryonic requirement to take account of the specific circumstances prevailing in different WTO members and to recognise foreign measures as equivalent if comparable in effectiveness is not so much an additional factor under GATT Article XX-chapeau but another way of assessing the relationship of the discrimination to the objective of the measure—i.e., a failure to recognise as equivalent foreign regulatory programmes even if equally effective at achieving the policy objective pursued (e.g., protecting sea turtles) can hardly be 'reconciled with', or be 'rationally related to', that objective. Nonetheless, it would not seem appropriate to integrate these considerations as part of the analysis of 'less favourable treatment' under Article 2.1 TBT Agreement, as such a reading would render largely redundant and inutile Article 2.7 TBT Agreement dealing specifically with equivalence recognition, even if in best-endeavour terms.[142] Apart from this issue, another additional factor that could be significant in assessing 'unjustifiable discrimination' under GATT Article XX-chapeau, following *US – Shrimp (1998)* and *US – Shrimp (Article 21.5 – Malaysia)*, is the extent to which the regulating WTO member makes serious good-faith efforts to negotiate a multilateral solution before resorting to the adoption of unilateral npr-PPM-based measures.[143]

In sum, as the law currently stands,[144] whether the GATT or TBT Agreement applies to npr-PPM-based measures matters insofar as (1) it is comparatively less burdensome for the complainant to establish a *prima facie* violation of Articles I:1 and III:4 GATT vis-à-vis Article 2.1 TBT Agreement, given that the latter does not condemn detrimental impact that stems exclusively from a 'legitimate regulatory distinction', and (2) it is comparatively harder for the respondent to seek justification under Article XX GATT, as there is a broader range of factors that may lead to 'arbitrary or unjustifiable discrimination' under the chapeau vis-à-vis the 'legitimate regulatory distinction' criterion under Article 2.1 TBT Agreement.[145] It is

[141] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products (Recourse to Article 21.5 of the DSU by Malaysia)*, WT/DS58/AB/RW, para. 144.

[142] On Article 2.7 TBT Agreement, see further the section *Other Substantive Provisions* below.

[143] WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R, paras. 166–172; WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products (Recourse to Article 21.5 of the DSU by Malaysia)*, WT/DS58/AB/RW, paras. 115–134. See further, van den Bossche et al. (2007), pp. 123–127.

[144] For a thought-provoking revised interpretative approach to the chapeau requirements, see Bartels (2015)

[145] See, e.g., WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.338, where

therefore conceivable that an npr-PPM-based measure is consistent with Article 2.1 TBT Agreement and yet violates Articles I:1 or III:4 GATT while failing to be justified under Article XX GATT. That being said, this is not *per se* an argument against the applicability of the TBT Agreement to npr-PPM-based measures: as both agreements can apply cumulatively, nothing prevents a complaining party to raise both TBT and GATT non-discrimination claims if the circumstances of the case so require.

Necessity Requirement

Article 2.2 TBT Agreement requires WTO members to "ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade"[146] and further provides:

> For this purpose, technical regulations shall ***not be more trade-restrictive*** than necessary to fulfil a ***legitimate objective***, taking account of the ***risks non-fulfilment would create***. Such legitimate objectives are, *inter alia*: national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment. In assessing such risks, relevant elements of consideration are, *inter alia*: available scientific and technical information, related processing technology or intended end-uses of products.

In interpreting this provision in *US – Tuna II (2012)*, the Appellate Body drew on its previous case law on the necessity test in the context of Article XX GATT,[147] which involves a sequential process of 'weighing and balancing' of a series of factors.[148] In a similar vein, the Appellate Body held that, in order to establish

several features in the EU Seal Regime are found to indicate that the regime is applied in a manner that amounts to arbitrary and unjustifiable discrimination under GATT Article XX-chapeau, in particular with respect to the IC exception. This is not only because the discriminatory treatment between seal products derived from IC hunts and those derived from commercial hunts cannot be reconciled with the objective of the measure but also due to the "considerable ambiguity" in the criteria of the IC exception coupled with the "broad discretion" in applying them, as well as the EU's failure to make "comparable efforts" to facilitate the access of the Canadian Inuit to the IC exception as it did with respect to the Greenlandic Inuit.

[146] Comparable obligations prohibiting the creation of unnecessary obstacles to trade are prescribed with respect to standards (Annex 3.E TBT Agreement) and conformity assessment procedures (Article 5.1.2 of the TBT Agreement), albeit there are significant textual differences as the second sentence of Article 2.2 TBT Agreement has no equivalent in the provisions applicable to standards.

[147] Article XX GATT: (a) necessary to protect public morals; (b) necessary to protect human, animal or plant life or health; (c) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement, including those relating to customs enforcement [...] and the prevention of deceptive practices.

[148] That is, (1) the relative importance of the interests or values furthered by the challenged measure, (2) the degree of contribution of the measure to the realisation of ends pursued, (3) its restrictive impact on international commerce, and if this yields a primary conclusion that the measure is 'necessary', this result must be confirmed by (4) comparing the challenged measure

whether a technical regulation is 'more trade-restrictive than necessary' to fulfil a legitimate objective within the meaning of Article 2.2 TBT Agreement, a 'relational' and (in most cases) a 'comparative' analysis of the following factors should be undertaken: (1) the degree of contribution made by the measure to the legitimate objective at issue, (2) the trade restrictiveness of the measure, (3) whether a less trade-restrictive measure is reasonably available that would make an equivalent contribution to the relevant legitimate objective, taking into account the risks non-fulfilment would create.[149] The Appellate Body clarified that this latter requirement in the text of Article 2.2 TBT Agreement to consider the risks non-fulfilment would create suggests an additional element in the weighing and balancing process vis-à-vis Article XX GATT. That is, under Article 2.2 TBT Agreement, the comparison of the challenged measure with less trade-restrictive alternatives ought to be made in light of the nature of the risks at issue and the gravity of the consequences that would arise from non-fulfilment of the legitimate objective.[150]

When considering the applicability of the TBT Agreement to npr-PPM-based measures, it is important to fully gauge the differences between the necessity requirement under Article 2.2 TBT Agreement and the necessity test in the context of Article XX GATT. Foremost, Article 2.2 TBT Agreement imposes a positive obligation on WTO members and therefore provides an independent basis for challenging an npr-PPM-based measure *just* on the ground that it is more trade restrictive than necessary to fulfil a certain legitimate objective. Admittedly, the complainant bears a difficult burden of proof in making a *prima facie* case under Article 2.2 TBT Agreement, and to date no successful violation of this provision has been established in WTO dispute settlement practice (at appeal stage).[151] Still, only the TBT Agreement provides the possibility of a direct and independent claim against the necessity of the trade restrictiveness of npr-PPM-based measures, *even if* these are designed and applied in a non-discriminatory manner. Conversely, under the GATT, the necessity of a measure is only scrutinised to the extent that a violation of a GATT substantive obligation (i.e., non-discrimination, market access, or others) has been previously found and Article XX GATT is raised as an

with less trade-restrictive reasonably available alternatives. For an overview, see van den Bossche (2013), pp. 556–565. For a more critical discussion, see Regan (2007), p. 347.

[149] See further van den Bossche (2013), pp. 872–878; Kudryavtsev (2013), p. 17 (59–62).

[150] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 321.

[151] WTO, report of the Panel, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R, paras. 7.429–7.432, finding that Indonesia had failed to demonstrate that the measure at issue was inconsistent with Article 2.2 TBT Agreement (not appealed); WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras. 324–331, reversing the Panel's finding that the measure at issue was inconsistent with Article 2.2 TBT Agreement; WTO, report of the Appellate Body, *United States – Certain Country of Origin Labelling (COOL) Requirements*, WT/DS384/DS386/AB/R, paras. 452–491, reversing the Panel's finding that the measure at issue was inconsistent with Article 2.2 TBT Agreement, but unable to complete the analysis.

affirmative defence by the respondent.[152] Furthermore, in the specific case of npr-PPM-based measures adopted for environmental protection purposes, Article XX(g) GATT lacks a strict necessity test.[153] Accordingly, the necessity requirement (and associated less trade-restrictive alternative test) under the TBT Agreement offers a significant advantage vis-à-vis the GATT in tackling directly concerns that npr-PPM-based measures are unnecessarily trade restrictive to achieve the desired policy goal. That being said, is Article 2.2 TBT Agreement suited to scrutinise *any* kind of npr-PPM-based measure, regardless of its aim and content?

Some guidance in this regard may be inferred from the list of policy objectives explicitly recognised as 'legitimate' under Article 2.2 TBT Agreement, which presents both similarities and differences with Article XX GATT. Both provisions share a number of legitimate policy objectives—e.g., the protection of public health and safety and of the environment—and give WTO members the sole prerogative to determine the level of protection they deem appropriate to ensure.[154] In doing so, Article 2.2 TBT Agreement—like Article XX GATT, and unlike the SPS Agreement[155]—contains no explicit territorial/jurisdictional limitation on WTO members' right to regulate, questioning the supposition that the TBT Agreement was intended to cover and discipline only PPM-based measures having an effect within the territory of the regulating State.[156] However, a significant difference is that the list of legitimate objectives under Article 2.2 TBT Agreement is illustrative and open,[157] whereas that under Article XX GATT is more elaborated but clearly exhaustive.[158]

It is therefore open to question which policy objectives may be considered legitimate within the meaning of Article 2.2 TBT Agreement, other than for the

[152] Marceau and Trachtman (2014), p. 351 (378).

[153] Article XX(g) GATT provides: "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption"; see WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R, paras. 127–145.

[154] TBT Agreement, Preamble, sixth recital; WTO, report of the Appellate Body, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products*, WT/DS135/AB/R, para. 168.

[155] SPS Agreement, Annex A.1, providing that it only covers measures aimed at protecting public health from certain specified risks "within the territory" of the regulating WTO member.

[156] The Appellate Body has not yet directly addressed the question of whether there is an *implied* jurisdictional limitation in Article XX GATT and, if so, the nature or extent of such limitation: see WTO, report of the Appellate Body, *United States – Import Prohibition of Shrimp and Shrimp Products*, WT/DS58/AB/R, para. 133, simply noting that there was a "sufficient nexus" between the migratory and endangered marine populations involved and the US, as sea turtles migrate to or traverse waters subject to the jurisdiction of the US. See generally on this issue Bartels (2002), p. 353.

[157] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 313.

[158] It contains ten grounds of exception in paragraphs (a)–(j), of which six may provide a basis for justifying otherwise GATT-inconsistent measures based on PPMs; see Potts (2008), p. 23.

four explicitly enumerated therein. Whereas the protection of 'animal health' in Article 2.2 TBT Agreement could include measures based on animal welfare criteria,[159] it is debatable whether other npr-PPMs requirements, such as fair labour practices, could be deemed 'legitimate' in this TBT context. In *US – Tuna II (2012)*, the Appellate Body took the view that it is for WTO Panels (and ultimately itself) to decide whether a particular objective is legitimate under Article 2.2 TBT Agreement and pointed out that objectives recognised in the provisions of other WTO-covered agreements may provide guidance for such an assessment.[160] This approach would imply that policy objectives listed under Article XX GATT but not under Article 2.2 TBT Agreement—such as the protection of 'public morals'[161]—could nonetheless be transposed into the latter, and thus fade away textual differences between the two provisions with regard to the aim of the measure.

Alternatively, Howse and Langille posit that the exclusion of 'public morals' from the list of legitimate objectives in Article 2.2 TBT Agreement is indicative of the more limited category of measures to which the TBT Agreement was intended to apply. In their view, the provisions of the TBT Agreement are inherently unsuited to assess the WTO consistency of "measures of a noninstrumental character that are intended to express intrinsic moral beliefs"[162] and that cannot be properly characterised as being 'technical' regulations. Support for this argument is most evidently found in the less trade-restrictive alternative test in Article 2.2 TBT Agreement that, as seen above, includes an additional element to be weighted and balanced vis-à-vis Article XX GATT: the *risks* of non-fulfilment of the objective pursued by the regulating WTO member. Therefore, the application of Article 2.2 TBT Agreement seems to implicate an identification of certain risks or dangers that the challenged measure seeks to address, as well as an evaluation of the gravity of the consequences that would arise from non-fulfilment. Arguably, it would be difficult to perform such a risk assessment for domestic product regulations that

[159] WTO, report of the Panel, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/R, paras. 7.437 and 7.499.

[160] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras. 313–314. See also WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.128, where some relation to the objectives recognised in the WTO legal *acquis* seems also preferred in the context of Article 2.1 TBT Agreement.

[161] This seemed to be the approach of the WTO Panel in *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/R, paras. 7.415–7.420, albeit this issue was not addressed by the Appellate Body after finding that the EU measure was not a technical regulation and declaring moot and with no legal effect all the Panel's findings under the TBT Agreement: WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.70.

[162] Howse and Langille (2011), p. 367 (423), pointing to the Greek roots in the notion of *techn*ē, implying something instrumental, not a moral expression or valuation.

are ostensibly grounded on moral, religious, or cultural choices and do not seek to mitigate any particular risk.

This view finds further support in the Appellate Body's statement in *EC – Seal Products (2014)*, which recognised that the notion of risk may not be equally pertinent for all legitimate policy objectives recognised under Article XX GATT: "while the focus on the dangers or risks to human, animal, or plant life or health in the context of Article XX(b) GATT may lend itself to scientific or other methods of enquiry, such risk-assessment methods do not appear to be of much assistance or relevance in identifying and assessing public morals."[163] Take, for instance, Israel's ban on the importation of non-kosher meat and meat products:[164] few would dispute the importance of the religious/cultural values and beliefs at stake for that particular community, but on which basis could we evaluate the risks of non-fulfilment?

In this regard, Article 2.2 TBT Agreement provides that, in assessing risks of non-fulfilment, relevant elements of consideration include available scientific and technical information. While this is not a strict requirement for technical regulations to be based on scientific principles or criteria,[165] it would appear that the application of Article 2.2 TBT Agreement implies some degree of 'technical content' in the measures coming under its purview.[166] To be sure, 'technical content' can take various forms but seems more pertinent for delimiting the applicability of the TBT Agreement to PPM-based measures than the rigid pr-PPM/npr-PPM distinction. In other words, the critical question is whether a given PPM requirement is based on criteria that can be considered of a 'technical' nature and seeks to address a particular risk. Yet importantly, this suggests that an assessment of whether a product regulation is a TBT measure should focus on the *technical content* of the measure rather than its declared policy objective. Otherwise, it could open the door for WTO members to tailor the objective of their product regulations to exclude the application of the TBT Agreement. Indeed, this could be particularly problematic if the view advanced above was followed that the TBT Agreement does not apply to measures that are purposely adopted for the protection of public morals, given the broad discretion given to WTO members to define for themselves what 'public morals' are within their respective territories.[167]

---

[163] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.198.

[164] WTO Trade Policy Review Body, Trade Policy Review—Report by the Secretariat: Israel, WT/TPR/S/272 (25 September 2012), section III, para. 23.

[165] This is in contrast with Article 2.2 SPS Agreement, which provides that "Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, is based on scientific principles and is not maintained without sufficient scientific evidence, except ...".

[166] This is further supported by Article 2.9 TBT Agreement, which clearly envisages that technical regulations have 'technical content': "Whenever a relevant international standard does not exist or the *technical content* of a proposed technical regulation is not in accordance with the technical content of relevant international standards ..." (emphasis added).

[167] WTO, report of the Panel, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/R, para. 6.461; for a discussion, see, e.g., Diebold (2007), p. 1.

For instance, a requirement that eggs sold in a given market be produced from hens in battery cages holding no more than 8 laying hens per m^2 could well be prompted by public moral concerns for hen welfare in that particular country, but does this mean it cannot be considered a 'technical' barrier to trade?

The point raised here is better illustrated by a comparison with the measure at issue in the *EC – Seal Products (2014)* case discussed earlier, which, while adopted to address EU public moral concerns on seal welfare, did not condition market access for seal-containing products upon compliance with animal welfare requirements.[168] As the Appellate Body noted, "[w]hile the term "technical" can have a range of meanings, it does not appear plausible that a measure that purportedly distinguishes between seal products on the basis of criteria relating to the identity of the hunter and the purpose of the hunt would be 'technical' in nature or have 'technical' content".[169] These criteria underlying the IC and MRM exceptions in the EU Seal Regime do not, in fact, differentiate between seal-containing products depending on the hunting method used and associated risks to seal suffering (i.e., humane/inhumane killing practices). Put another way, these criteria do not permit access to the EU market of seal-containing products on the basis of PPMs that are more animal friendly.[170] Instead, such criteria stem from a value judgement and policy choice on the part of the EU regarding the appropriate balance between animal welfare and other competing objectives (e.g., protection of Inuit communities),[171] which seems hardly a 'technical' matter. Admittedly, WTO members do have divergent assessments and attitudes towards animal welfare risks in seal-hunting methods in the same way that they do in respect of the dolphin-safety of fishing techniques or the health risks of lead paint in children's toys. Yet the issues raised by this kind of PPM-based measures appear more 'technical' in nature and thereby tractable to the balancing analysis based on risk assessment embodied in Article 2.2 TBT Agreement.

[168] In fact, this was the less trade-restrictive alternative measure proposed by the complainants, but it was considered not to be 'reasonably available' to the EU by both the Panel and the Appellate Body, given, inter alia, the inherent animal welfare risks and challenges found to exist in seal hunting: see WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, paras. 5.265–5.289.

[169] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, footnote 942.

[170] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, paras. 5.319–5.320, where it is recognised that these criteria are not related to seal welfare and that IC hunts can cause pain and suffering to seals in the same way as 'commercial' hunts.

[171] See further on this point Sykes (2014), p. 471 (493).

Additional Obligations Under the TBT Agreement

Having discussed the implications of applying the TBT Agreement to npr-PPM-based measures with respect to disciplines that are also found in the GATT, this section turns to consider additional GATT-plus obligations under the TBT Agreement. In doing so, the focus will be on two central disciplines of the TBT Agreement, namely, the (qualified) requirement that WTO members use relevant international standards as a basis for their technical regulations, as well as transparency and notification requirements.

Substantive Obligations

Harmonisation on the basis of International Standards

Whereas the GATT does not specifically require the use of international standards,[172] the TBT Agreement encourages both the development and use of international standards as a means to advancing regulatory convergence and preventing unnecessary barriers to trade. As explicitly recognised in its Preamble, harmonisation on the basis of international standards can facilitate the conduct of international trade by reducing differences in regulatory requirements, lowering transaction costs, and increasing production efficiency.[173] In line with this premise, Article 2.4 TBT Agreement provides with respect to technical regulations:[174]

> Where technical regulations are required and ***relevant*** international standards exist or their completion is imminent, Members ***shall use*** them, or the relevant parts of them, as a basis for their technical regulations ***except*** when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems (emphasis added).

In addition, with a view to harmonising technical regulations on as wide a basis as possible, WTO members are required to "play a full part, within the limits of their resources, in the preparation by appropriate international standardising bodies of international standards".[175] The obligation of WTO members to base their technical regulations on relevant international standards is further strengthened by the so-called safe haven in Article 2.5 TBT Agreement, whereby technical

[172] Whether a measure is based on an international standard may still have a bearing on the necessity test and chapeau analysis under Article XX GATT, but the point made here is that there is no positive requirement to rely on international standards as the basis for domestic regulations under the GATT.

[173] TBT Agreement, Preamble, third and fourth recitals.

[174] Analogous obligations are prescribed with respect to standards (Annex 3.F TBT Agreement) and with respect to conformity assessment procedures (Article 5.4 TBT Agreement).

[175] Article 2.6 TBT Agreement.

regulations are rebuttably presumed to be consistent with the necessity requirement of Article 2.2 TBT Agreement if they are in accordance with the relevant international standard(s). It should be stressed, however, that such rebuttable presumption only exists for technical regulations pursuing one of the legitimate policy objectives explicitly enumerated in Article 2.2 TBT Agreement. Arguably, this could be seen as an indication that the TBT Agreement was not intended to promote harmonisation in other policy fields—e.g., intrinsic religious/cultural values as discussed above[176] or even labour standards.[177]

While glaringly framed in mandatory terms ("shall use"), the obligation prescribed in Article 2.4 TBT Agreement is not absolute but qualified and balanced by the need to grant WTO members some 'policy space'. This flexibility finds expression in a number of ways.[178] For instance, the requirement to use relevant international standards 'as a basis' for technical regulations leaves some room for manoeuvre in terms of actual application.[179] In addition, WTO members are exempted from using a relevant international standard as the basis for their technical regulations if such a standard is an 'ineffective or inappropriate means' for the fulfilment of the legitimate objectives pursued. Even if this deviation from relevant international standards is explicitly provided for as an exception in Article 2.4 TBT Agreement ("except"), it falls upon the complainant to demonstrate that the international standard in question is an effective and appropriate means for achieving the legitimate objective of the regulating WTO member.[180] A *prima facie* violation of Article 2.4 TBT Agreement is therefore difficult to prove.[181] Notwithstanding these limitations, the harmonisation requirement of Article 2.4 TBT Agreement can considerably add to GATT disciplines in diminishing the trade-restrictive effects of domestic product regulations and promoting regulatory cooperation among WTO

[176] See above the section *Necessity Requirement*.

[177] For a similar view, see Howse (2014).

[178] See also Article 12.4 TBT Agreement, which provides that developing-country WTO members should not be expected to use international standards as a basis for their technical regulations or standards, which are not appropriate to their development, financial, and trade needs.

[179] WTO, report of the Appellate Body, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, paras. 243–249, coming down to a requirement of non-contradiction between the technical regulation and the relevant international standard. See further, Wijkström and McDaniels (2013), p. 1013 (1030–1031).

[180] WTO, report of the Appellate Body, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, paras. 274–275 and 287, referring to its jurisprudence under Article 3 SPS Agreement and finding that there is no 'rule-exception' relationship between the first and second sentences of Article 2.4 TBT Agreement. For a critique of the burden of proof under Article 2.4 TBT Agreement, see Mavroidis (2013), p. 509 (523–524).

[181] A violation of Article 2.4 TBT Agreement was successfully established in *EC – Sardines (2002)* with respect to Codex Stan 94, but not in *US – COOL (2012)* with respect to the CODEX-STAN 1-1985, which was considered a 'relevant' international standard but 'ineffective' and 'inappropriate' for accomplishing the objective sought by the challenged measure. For a more detailed discussion of this case law, see further Kudryavtsev (2013), p. 17 (64–67); Wijkström and McDaniels (2013), p. 1013 (1031–1032).

members. In principle, this GATT-plus obligation is no less important for npr-PPM-based measures,[182] *provided* a 'relevant' international standard can be shown to exist (or will come into existence imminently).

However, the TBT Agreement offers no guidance on what is an international standard, under what conditions it must be adopted, and when it may be deemed relevant for the purpose of applying Article 2.4 TBT Agreement.[183] This is markedly different from the SPS Agreement, which specifically names three international standardising bodies[184] as responsible for setting the international standards that are deemed relevant and can create a presumption of SPS/WTO consistency.[185] For its part, the Appellate Body has thrown some light on these issues in *EC – Sardines (2002)* and *US – Tuna II (2012)*, but there remains considerable uncertainty as to the concrete boundaries of relevant international standards in the TBT context.

At one level, the Appellate Body has broadened the harmonisation potential of Article 2.4 TBT Agreement by ruling in *EC – Sardines (2002)* that relevant international standards can include standards not adopted by consensus within the international standardising body.[186] This significantly departs from the position of the TBT Committee in the 2000 Decision on Principles for the Development of International Standards[187] and may have the somewhat controversial consequence that WTO members are bound to take into account by virtue of Article 2.4 TBT Agreement international standards that they did not accept—in fact, rejected—

[182] Notably, in *US – Tuna II (2012)*, Mexico raised a claim of violation of Article 2.4 TBT based on the dolphin-safe standard established by the Agreement on International Dolphin Conservation Programme (AIDCP). The Appellate Body, however, found that this was not a 'relevant' international standard within the meaning of Article 2.4 TBT Agreement because the AIDCP is not open to the relevant bodies of at least all Members and thus not an 'international standardising body' for purposes of the TBT Agreement: WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras. 398–399.

[183] Annex 1.2 TBT Agreement only defines the term 'standard', while Annex 1.4 TBT Agreement only defines an 'international body or system' as a "body or system whose membership is open to the relevant bodies of at least all Members".

[184] These are (1) the Codex Alimentarius Commission (CAC) with respect to food safety, (2) the World Organisation for Animal Health (formerly International Office for Epizootics, OIE), and (3) the Secretariat of the International Plant Protection Convention (IPPC) in the area of plant health (Annex A.3 SPS Agreement).

[185] Article 3.2 SPS Agreement.

[186] WTO, report of the Appellate Body, *European Communities – Trade Description of Sardines*, WT/DS231/AB/R, paras. 219–227. Note, however, that this issue was not later addressed by the Appellate Body in *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, para. 353.

[187] WTO Committee on Technical Barriers to Trade, Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with relation to Articles 2, 5 and Annex 3 of the Agreement, reproduced in: Decisions and Recommendations Adopted by the WTO Committee on Technical Barriers to Trade since 1 January 1995, G/TBT/1/Rev.10 (9 June 2011), p. 46, Principle 3 'Impartiality and Consensus'.

within the relevant international standardising body.[188] At the same time, and in line with the TBT Committee's 2000 Decision,[189] the Appellate Body introduced an important caveat in *US – Tuna II (2012)* that relevant international standards within the meaning of Article 2.4 TBT Agreement need to be adopted by a standardising body[190] whose membership is open on a non-discriminatory basis to the relevant bodies of at least all WTO members.[191]

WTO members, for their part, could play a more influential role in delineating the harmonisation requirement of Article 2.4 TBT Agreement by establishing the bodies or/and standards that are to be recognised as relevant under the agreement. The TBT Committee's 2000 Decision sets out important principles and procedures that should be observed in international standard setting—i.e., transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and concerns of developing countries—but leaves the nature of relevant international standards rather open-ended. In the context of the Doha Development Round negotiations,[192] some WTO members have sought to promote the explicit identification of relevant international standardising bodies under the TBT Agreement. In their view, this would facilitate regulatory convergence and avoid competition

[188] Marceau and Trachtman (2014), p. 351 (392).

[189] WTO, Committee on Technical Barriers to Trade, Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with relation to Articles 2, 5 and Annex 3 of the Agreement, reproduced in: Decisions and Recommendations Adopted by the WTO Committee on Technical Barriers to Trade since 1 January 1995, G/TBT/1/Rev.10 (9 June 2011), p. 46, Principle 1 'Openness'; see WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras. 370–379, referring to the Decision as a 'subsequent agreement' within the meaning of Article 31(3)(a) of the VCLT informing the interpretation of the terms in the TBT Agreement.

[190] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras 356–357, finding that an international standardising body is a "body that has recognised activities in standardisation" and not necessarily an international organisation.

[191] WTO, report of the Appellate Body, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WT/DS381/AB/R, paras. 398–399, disqualifying the AIDCP as an 'international standardising body' on the basis that new parties can accede only by invitation and parties to the AIDCP have to take the decision to issue an invitation by consensus. The Appellate Body further elaborated on the notion of 'open body' as one that does not apply restrictions on membership by WTO members (para. 364), accession to which should be practically automatic (para. 386), and it must be open at every stage of standard development (para. 374). For a more detailed and critical discussion of WTO case law on Article 2.4 TBT Agreement, see Wagner (2013), p. 238.

[192] WTO Negotiating Group on Market Access, Textual Report by the Chairman, Ambassador Luzius Wasescha, on the State of Play of the NAMA Negotiations, TN/MA/W/103/Rev.3/Add.1 (21 April 2011), para. 4.

between standard-setting bodies, market fragmentation, and unnecessary compliance costs.[193]

However, other WTO members oppose the designation of any particular international standardising body under the TBT Agreement, arguing that whether a standard is relevant, effective, and appropriate in fulfilling a member's particular regulatory or market need depends on the standard itself and not the body that develops it. It is further posited that a limited number of named bodies could not produce the breadth and diversity of standards needed in light of the broader range of regulatory measures covered by the TBT Agreement when compared to the SPS Agreement.[194] While these claims are not misplaced, it would be then useful for WTO members to focus on the nature of the standard itself and further elaborate on the Principle of 'Relevance and Effectiveness' in the 2000 Decision. Such a principle emphasises that a solid scientific/technical basis will significantly contribute to making international standards relevant and effective,[195] but what exactly is meant by 'technical' content? Would, for instance, core labour standards developed by the International Labour Organization[196] be considered sufficiently

[193] WTO Negotiating Group on Market Access, International Standards—Communication from Mauritius on behalf of the ACP Group, JOB/MA/80 (14 January 2011); WTO Negotiating Group on Market Access, International Standardisation—Communication from the Delegations of the European Union, India, Malaysia, Norway, the Philippines, Switzerland and Thailand, JOB/MA/81 (19 January 2011); and WTO Negotiating Group on Market Access, International Standardisation—Communication from the Delegations of the European Union, India, Malaysia, Norway, the Philippines, Switzerland and Thailand, TN/MA/W/142 (13 April 2011), p. 2, proposing a non-exhaustive list of bodies issuing 'relevant international standards' for the purpose of the TBT Agreement, including the International Organisation for Standards (ISO), the International Electrotechnical Commission (IEC), the International Telecommunication Union (ITU) and Codex Alimentarius.

[194] See, e.g., WTO Committee on Technical Barriers to Trade, Good Practice for the Acceptance of Results of Conformity Assessment: Second Triennial Review of the Agreement—Contribution from Australia, G/TBT/W/138 (28 July 2000); WTO Negotiating Group on Market Access, International Standards in Support of Trade and Economic Development: Strengthening the Contribution of the Committee Decision—A Proposal from the United States, TN/MA/W/141 (29 March 2011).

[195] WTO, Committee on Technical Barriers to Trade, Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with relation to Articles 2, 5 and Annex 3 of the Agreement, reproduced in: Decisions and Recommendations Adopted by the WTO Committee on Technical Barriers to Trade since 1 January 1995, G/TBT/1/Rev.10 (9 June 2011), p. 46, Principle 4 'Effectiveness and Relevance', providing that: "In order to serve the interests of the WTO membership in facilitating international trade and preventing unnecessary trade barriers, international standards need to be relevant and to effectively respond to regulatory and market needs, as well as scientific and technological developments in various countries".

[196] Available at: http://www.ilo.org/dyn/normlex/en/f?p=1000:12000:0::NO. *Cf* with ISO 26000 standard on social responsibility, which contains a disclaimer to the effect that, for the purpose of WTO law, "it is not intended to be interpreted as an 'international standard', 'guideline' or 'recommendation', nor is it intended to provide a basis for any presumption or finding that a measure is consistent with WTO obligations": http://www.iso.org/iso/catalogue_detail?csnumber=42546.

technical and relevant in the context of the TBT Agreement? Such guidance from WTO members would also assist in clarifying to which technical barriers to trade they intended the TBT Agreement, including its harmonisation requirement, would apply.

Other Substantive Provisions

Apart from the core harmonisation requirement just examined, the TBT Agreement contains other substantive provisions that add to the basic disciplines of the GATT. For instance, in recognition that harmonisation on the basis of international standards may not be desirable in all contexts due to divergent national preferences and circumstances, Article 2.7 TBT Agreement requires WTO members to "give *positive consideration to accepting* as equivalent technical regulations of other Members, even if these regulations differ from their own, provided they are satisfied that these regulations adequately fulfil the objectives of their own regulations".[197] Similarly, the TBT Agreement explicitly recognises the specific challenges faced by developing-country and least-developed-country WTO members in relation to TBT measures and includes provisions on both technical assistance and special and differential treatment. Pursuant to Article 11 TBT Agreement, WTO members shall, upon request and "on mutually agreed terms and conditions", provide advice and technical assistance to developing-country and least-developed-country members with regard to, *inter alia*, meeting the technical regulations of the requested member,[198] the establishment of national standardising bodies and regulatory bodies for the assessment of conformity with technical regulations and standards,[199] participation in the international standardising bodies and in international or regional bodies for conformity assessment.[200] In addition, Article 12 TBT Agreement grants special rights to developing-country and least-developed-country WTO members in terms of implementing their TBT obligations[201] and further requires other members to "take account" of their "special development, financial and trade needs" in the implementation of the TBT Agreement as well as in the preparation and application of technical regulations.[202]

As the *US – Shrimp (1998)* case demonstrates, recognition of equivalence can play an important role in addressing the trade-restrictive effects of npr-PPM-based measures, particularly where harmonisation is not plausible or desirable. Similarly, technical assistance and special and differential treatment may alleviate the

[197] (Emphasis added). A similar provision on recognition of equivalence with respect to conformity assessment procedures is found in Article 6.1 TBT Agreement.

[198] Article 11.3.2 TBT Agreement.

[199] Articles 11.2 and 11.3.1 TBT Agreement.

[200] Articles 11.2, 11.6 and 11.7 TBT Agreement.

[201] See, e.g., Articles 12.4 and 12.8 TBT Agreement.

[202] Articles 12.2 and 12.3 TBT Agreement.

adjustment costs faced by developing and least developed countries in meeting both pr-PPM and npr-PPM requirements in their export markets. However, a common shortcoming of these TBT provisions is that they are couched in hortatory language—e.g., 'give positive consideration', 'take into account'. As illustrated by the *US – Clove Cigarettes (2012)* and *US – COOL (2012)* cases in relation to Article 12 TBT Agreement, this type of 'best-endeavour' obligations are not easily enforceable in WTO dispute settlement and have been interpreted as not prescribing any particular result.[203] These additional TBT provisions are therefore of limited value but entail at least a formal recognition of some of the difficulties associated with the implementation of domestic product regulations, including those based on npr-PPMs, in the international trade context.

Procedural Obligations

An important, and perhaps underestimated, set of provisions in the TBT Agreement is the notification, consultation, and publication requirements, which go considerably beyond the transparency obligations found in the GATT.[204] Essentially, WTO members are obliged to notify other members, through the WTO Secretariat,[205] of proposed technical regulations[206] that have a significant impact on trade and are not in accordance with relevant international standards. Such advance notification must take place at an early appropriate stage, when amendments can still be introduced so that written comments by other WTO members can be taken into account.[207] WTO members are further required, upon request, to explain the justification for technical regulations in terms of the necessity (Article 2.2) and harmonisation (Article 2.4) requirements of the TBT Agreement.[208] Once technical regulations have been adopted, WTO members shall ensure that these are published

[203] WTO, report of the Panel, *United States – Certain Country of Origin Labelling (COOL) Requirements*, WT/DS384/DS386/R, paras. 7.790–7.799; WTO, report of the Panel, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/R, paras. 7.630–7.648.

[204] Article X GATT.

[205] The WTO Secretariat has further taken active steps to provide transparency with respect to measures coming under the purview of the TBT Agreement and most notably with the establishment of the TBT Information Management System: http://tbtims.wto.org/.

[206] Similar notification and publication provisions are found with regard to standards (Annex 3 L-O TBT Agreement) and conformity assessment procedures (Articles 5.6–5.9 TBT Agreement).

[207] Article 2.9 TBT Agreement; see also Article 2.10 TBT Agreement, providing a special procedure for technical regulations adopted to address urgent problems of safety, health, environmental protection, or national security, whereby WTO members are subject to certain notification and consultation obligations only after the adoption of the measure.

[208] Article 2.5 TBT Agreement.

promptly or otherwise made available in such a manner as to enable interested parties in other members to become acquainted with them.[209] Importantly, a reasonable interval is required between the publication of technical regulations and their entry into force "in order to allow time for producers in exporting members, and particularly in developing-country members, to adapt their products or methods of production to the requirements of the importing member".[210]

Being clearly mandatory and for the most part enforceable in WTO dispute settlement proceedings, these procedural requirements are of great benefit in promoting *ex-ante* and *ex-post* transparency of domestic product regulations in general[211] and are equally (if not more) significant for npr-PPM-based measures, given their alleged complexity and opaqueness. Coverage of these measures by the TBT Agreement would enable their review by the TBT Committee which, as Mavroidis and Wijkström show, has been a successful vehicle for information exchange, dialogue, and mutual understanding on a large subset of NTBs among WTO members.[212] In particular, the TBT Committee has acted as a forum to discuss the so-called specific trade concerns (STCs) with regard to notified draft measures or the implementation of existing ones. In fact, according to the WTO database, 42/460 STCs raised in the TBT Committee have already dealt with npr-PPMs concerns.[213]

Concluding Thoughts: Chasing Away Old GATT Phantoms Over PPMs

As we have seen, the negotiations of the TBT Agreement were conducted under a cloud of suspicion surrounding the use of trade measures contingent upon npr-PPM criteria, as well as a misperception that such measures were *per se* 'GATT-illegal'. In such circumstances, it is not surprising that the Uruguay Round negotiators failed to reach consensus on a precise and unambiguous text regarding the scope of application of the TBT Agreement, with the sticky point being the coverage of measures specifying npr-PPMs. And yet, almost 20 years after the conclusion of the TBT Agreement, this issue remains hotly debated among WTO members and in the literature. As a point of departure, it is posited that old GATT phantoms concerning

[209] Article 2.11 TBT Agreement. For a more detailed examination, see Prévost (2013), p. 120.

[210] Article 2.12 TBT Agreement; see further report of the Appellate Body, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WT/DS406/AB/R, paras. 275–297, where it was found that the US had acted inconsistently with Article 2.12 TBT Agreement. Note that these TBT provisions refer to 'methods of production' without any ('related') qualification.

[211] On the benefits of *ex-ante* and *ex-post* transparency, see Prévost (2013), p. 120 (121–124).

[212] Mavroidis and Wijkström (2013), p. 204 (230–237).

[213] TBT Information Management System, available at: http://tbtims.wto.org/web/pages/search/stc/Results.aspx.

npr-PPM-based product regulation ought to cease haunting these WTO and academic discussions. That is, recognising the correct legal status of npr-PPM-based measures under the GATT1994 is a precondition to reasonably assessing what is really at stake if such measures are incorporated into the scope of the TBT Agreement: it does *not* alter their status from 'GATT-illegal' to 'TBT-legal' but merely permits them to be scrutinised with respect to the TBT disciplines in addition to GATT.

Accordingly, the central question is whether npr-PPM-based measures can be sensibly regulated under TBT Agreement in addition to GATT. The debate over the applicability of the TBT Agreement to npr-PPM-based regulation cannot, therefore, be disassociated from more fundamental questions of why the agreement was concluded in the first place and what it adds to the GATT. Arguably, focusing on this more pragmatic, implication-based perspective to the debated applicability of the TBT Agreement to npr-PPM-based measures can help in bridging enduring divisions among WTO members. In other words, why exactly does it matter whether the TBT Agreement applies to these measures for the balance between domestic regulatory autonomy and international trade liberalisation? This article has sought to shift attention in this direction by pondering on the implications of applying the TBT Agreement to npr-PPM-based measures vis-à-vis the GATT.

Meanwhile, the WTO dispute settlement organs have thrown some light on the extent to which PPM-based measures are covered by the TBT Agreement, although doctrinal ambiguity remains as recapitulated in the table below:

Type of measure	Pr-PPM	Npr-PPM
Labelling requirements	✔	✔
Other measures	✔	? ('sufficient nexus' to product characteristics)

In adopting a literal reading of the definitions in Annex 1 TBT Agreement, the WTO dispute settlement organs are presumably favouring a differentiated approach between labelling requirements and other regulatory measures in relation to npr-PPMs, which is patently at odds with the very object and purpose of the TBT Agreement. Indeed, this leads to a seemingly unreasonable consequence of subjecting less trade-restrictive labelling requirements based on npr-PPMs to more stringent TBT disciplines, while leaving highly trade-restrictive npr-PPM regulation (i.e., a sale ban) outside the agreement's scope. On this background, this article has cautioned against applying the 'sufficient nexus' test established in *EC – Seal Products (2014)* too restrictively (i.e., as only incorporating pr-PPMs) in future cases and against interpreting the language of Annex 1 TBT Agreement textually and in the vacuum. Rather, what is and is not a 'technical' barrier to trade needs to be delineated on the basis of contextual and teleological analysis that, as it was argued, does not support a strict pr-PPM/npr-PPM distinction or a general exclusion of npr-PPM-based measures from the scope of application of the TBT Agreement. Quite the contrary, as it was shown, the TBT Agreement has considerable potential vis-à-vis the GATT in addressing some of the challenges raised with regard to npr-PPM-based regulation, including through an independent

necessity requirement, an additional harmonisation requirement, and enhanced transparency obligations. Yet to be clear, the argument being made here is *not* that the TBT Agreement should apply to *all* npr-PPM-based measures but that whether it applies or not needs to be evaluated on the basis of the *technical* content of the measure at issue and the extent to which it is amenable to scrutiny under the GATT-plus disciplines of the TBT Agreement.

Following from the previous point, the critical questions remain: what is 'technical' content, and, as with any ambiguous term in the WTO agreements, who should decide on this question? As rightly alluded by the Appellate Body in *EC – Seal Products (2014)*,[214] the term 'technical' can have a variety of meanings, and it is beyond the scope of this article to attempt to identify definitional parameters. Ideally, further clarification from the WTO membership regarding what is and is not deemed technical in the TBT context would be preferred, for instance in the context of the ongoing Doha Round discussions on relevant international standards under the TBT Agreement. Pending such guidance, and should the matter be raised more explicitly by WTO members in future disputes, the cautious case-by-case analysis advanced by the Appellate Body in *EC – Seal Products (2014)*—i.e., depending on the nature of measure and circumstances of the case[215]—may well be a wise approach for its own legitimacy within the multilateral trading system.

Acknowledgements The author is deeply grateful to Lorand Bartels, Marisa Goldstein, James Harrison and Simon Lester for their useful comments and insights on an earlier draft. She is solely responsible for any errors or omissions herein.

References

Al-Nabhani F (2012) The TBT Agreement: examining the line between technical regulations and standards. Global Trade Customs J 7(9):355

Ankersmit LJ, Lawrence JC (2012) The future of environmental labelling: US – Tuna II and the scope of the TBT. Leg Iss Econ Integr 39(1):127

Ankersmit L, Lawrence J, Davies G (2012) Diverging EU and WTO perspectives on extra-territorial process regulation. Minn J Int Law 21:14

Arcuri A (2013) The TBT Agreement and private standards. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 485

Bartels L (2002) Article XX of GATT and the problem of extraterritorial jurisdiction – the case of trade measures for the protection of human rights. J World Trade 36(2):353

Bartels L (2015) The chapeau of the general exceptions in the WTO GATT and GATS Agreements. Am J Int Law 109 (forthcoming)

[214] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, footnote 942.

[215] WTO, report of the Appellate Body, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WT/DS400/DS401/AB/R, para. 5.60.

Broude T, Levy FI (2014) Do you mind if I don't smoke? Products, purpose and indeterminacy in US – measures affecting the production and sale of clove cigarettes. World Trade Rev 13(2): 357
Charnovitz S (2002) The law of environmental 'PPMs' in the WTO: debunking the myth of illegality. Yale J Int Law 27:59
Conrad CR (2014) Process and production methods (PPMs) in WTO law – interfacing trade and social goals. Cambridge University Press, Cambridge
Crowley MA, Howse R (2014) Tuna – Dolphin II: a legal and economic analysis of the appellate body report. World Trade Rev 13(2):321
Davies A (2014) Technical regulations and standards under the WTO Agreement on technical barriers to trade. Leg Iss Econ Integr 41(1):37
Diebold N (2007) The morals and order exceptions in WTO law: balancing the toothless tiger and the undermining mole. J Int Econ Law 10(1):1
Du MM (2007) Domestic regulatory autonomy under the TBT Agreement: from non-discrimination to harmonization. Chin J Int Law 6(2):269
Howse R (2013) Introduction. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 1
Howse R (2014) The Seals Hearing Day I (Part I). International Economic Law and Policy Blog, 18 March 2014. http://worldtradelaw.typepad.com/ielpblog/2014/03/the-seals-hearings-day-i-part-i.html
Howse R, Langille J (2011) Permitting pluralism: the seal products dispute and why the WTO should accept trade restrictions justified by noninstrumental moral values. Yale J Int Law 37:367
Howse R, Regan D (2000) The product/process distinction – an illusory basis for disciplining 'Unilateralism' in trade policy. Eur J Int Law 11(2):249
Hudec R (1998) GATT/WTO constraints on national regulation: requiem for an aim and effects test. Int Lawyer 32(3):619
Kudryavtsev A (2013) The TBT Agreement in context. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 17
Low P, Marceau G, Reinaud J (2012) The interface between the trade and climate change regimes: scoping the issues. J World Trade 46(3):485
Lowe ER (2014) Technical regulations to prevent deceptive practices: can WTO Members protect consumers from [un] fair-trade coffee and [less-than] free-range chicken? J World Trade 48(3):593
Marceau G (2013) The new TBT jurisprudence in US – clove cigarettes, WTO US – Tuna II and US – COOL. Asian J WTO Int Health Law Policy 8(1):1
Marceau G, Trachtman JP (2014) A map of the world trade organization law of domestic regulation of goods: the technical barriers to trade agreement, the sanitary and phytosanitary measures agreement, and the general agreement on tariffs and trade. J World Trade 48(2):351
Mavroidis PC (2013) Driftin' too far from shore – why the test for compliance with the TBT Agreement developed by the WTO Appellate Body is wrong, and what should the AB have done instead. World Trade Rev 12(3):509
Mavroidis PC, Wijkström E (2013) Moving out of the shadows: bringing transparency to standards and regulations in the WTO's TBT Committee. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 204
Morgera E, Bullón C, Marín Durán G (2012) Organic agriculture and the law – FAO legislative study, vol 107. http://www.fao.org/docrep/016/i2718e/i2718e.pdf
Norpoth J (2013) Mysteries of the TBT Agreement resolved? Lessons to learn for climate policies and developing country exporters from recent TBT disputes. J World Trade 47(3):575
Pauwelyn J (2004) Recent books on trade and environment: GATT phantoms still haunt the WTO. Eur J Int Law 15(3):575

Pauwelyn J (2012a) Carbon leakage measures and carbon tax adjustments under WTO law. In: Van Calster G, Prévost D (eds) Research handbook on environment, health and the WTO. Edward Elgar, Cheltenham, p. 448

Pauwelyn J (2012b) Tuna: the end of the PPM distinction? The rise of International Standards? International Economic Law and Policy Blog, 22 May 2012. http://worldtradelaw.typepad.com/ielpblog/2012/05/tuna-the-end-of-the-ppm-distinction-the-rise-of-international-standards.html

Piérola F (2012) The treatment of 'Likeness' and a new rejection of the 'Aim and Effects' test in US – clove cigarettes. Global Trade Customs J 7(8):347

Potts J (2008) The legality of PPMs under the GATT: challenges and opportunities for sustainable trade policy. http://www.iisd.org/pdf/2008/ppms_gatt.pdf

Prévost D (2013) Transparency obligations under the TBT Agreement. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 120

Regan DH (2003) Further thoughts on the role of regulatory purpose under Article III of the general agreement on tariffs and trade: a tribute to Bob Hudec. J World Trade 37(4):737

Regan DH (2007) The meaning of 'necessary' in GATT Article XX and GATS Article XIV: the myth of cost-benefit balancing. World Trade Rev 6(3):347

Silveira LDO, Obersteiner T (2013) The scope of the TBT Agreement in light of recent WTO case law. Global Trade Customs J 8(4):112

Sykes K (2014) Sealing animal welfare into the GATT exceptions: the international dimension of animal welfare in WTO disputes. World Trade Rev 13(3):471

van den Bossche P (2013) The law and policy of the World Trade Organization, 3rd edn. Cambridge University Press, Cambridge

van den Bossche P, Schrijver N, Faber G (2007) 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. The Hague: The Ministry of Foreign Affairs of the Netherlands. https://openaccess.leidenuniv.nl/bitstream/handle/1887/12563/Unilateral%20Measures%20Addressing%20Non%20Trade%20Concerns.pdf?sequence=1

Voon T, Mitchell A, Gascoigne C (2013) Consumer information, consumer preferences and product labels under the TBT Agreement. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 454

Wagner M (2013) International standards. In: Epps T, Trebilcock M (eds) Research handbook on the WTO and technical barriers to trade. Edward Elgar, Cheltenham, p 238

Wijkström E, McDaniels D (2013) Improving regulatory governance: international standards and the WTO TBT Agreement. J World Trade 47(5):1013

World Trade Organisation (2014) The WTO Agreements series – technical barriers to trade. http://www.wto.org/english/res_e/publications_e/tbttotrade_e.htm

WTO Secretariat (2012) World Trade Report 2012 – trade and public policies: a closer look at non-tariff measures in the 21st century. https://www.wto.org/english/res_e/publications_e/wtr12_e.htm

Zhou W (2012) US – clove cigarettes and US – Tuna II (Mexico): implications for the role of regulatory purpose under Article III:4 of the GATT. J Int Econ Law 15(4):1075