

# Internalising the Costs of Production

Regulating Sustainable Production  
Methods under WTO Law

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*For years, there has been scholarly debate on the consistency with WTO law of non-product related measures relating to processes and production methods. This paper argues that states could unilaterally enact regulations requiring sustainable process and production methods in consistence with WTO law to ensure that producers internalise the environmental costs of production. The paper argues that internalisation is consistent with the theory of comparative advantage and as such is not theoretically detrimental to the gains stemming from international trade. Taking away any unfair gain from unsustainable production vis-à-vis certain markets, the incentive to produce in an unsustainable way would decline, which has the potential to entice producers across the world to transform production. While the initiation of the proposed regulations will raise consumer prices for a period of time, in keeping with the theory of comparative advantage, the specialisation achievable by having larger markets impose these measures will create economic incentives for innovation of sustainable production methods, which will theoretically drive consumer prices back down. The proposed measures can be consistent with the GATT. It is found that the TBT does not apply, which is criticised as unwarranted. Based on the analysis it is found that regulation should lay down performance criteria so as not to restrict competition and innovation, must be non-discriminatory, and must have special provisions for developing countries. In conclusion, not regulating internalisation of environmental production costs is a political decision, as it is not inconsistent with international trade law.*

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## Introduction

In a perfect world, a conduct impacting others detrimentally, such as damaging the planet and even profiting from such damage, would be corrected. Ensuring environmentally sustainable production methods by compelling companies to internalise the environmental costs of production is one way of correcting this mistake. The world has yet to find common ground on how to ensure such sustainable development and thereby protect the planet from destruction of eco-systems, deforestation, ocean acidification, extinction of animals and an undeniable climate crisis. A multilateral, legally binding agreement with an appertaining system of enforcement<sup>1</sup>, which adequately solves these issues, has not yet been created.<sup>2</sup> Even if such an agreement could be made, and even if it were a preferable solution, it would take time, and much suggests that action must be taken fast for the sake of the climate.<sup>3</sup>

This paper argues that states could impose unilateral measures ensuring that companies internalise the environmental cost of production in consistence with WTO law and that such measures have the potential to create gains from international trade. The main arguments are that 1) unilaterally imposed measures based on process and production methods (PPMs), which internalise environmental production costs, are not inconsistent with the theory of comparative advantage, which underlies the liberalisation of international trade, and 2) governments must design such measures in a certain way in order for them to be consistent with the

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<sup>1</sup> Steve Charnovitz, 'The law of Environmental 'PPMs' in the WTO: Debunking the Myth of Illegality' [2005] 27 Yale J Intl L 59, 71 n 54.

<sup>2</sup> The recent conclusion of the Paris Agreement does not alter this fact, as it deals exclusively with climate change, and has already been criticised for not setting up effective enforcement mechanisms and being based on countries' own measures. Most commentaries see the Paris Agreement as a first step.

<sup>3</sup> See Charnovitz (n 1) 71 n 52.

General Agreement on Tariffs and Trade (GATT), which remains the relevant WTO law appertaining to such measures.<sup>4</sup>

Part 1 defines environmentally sustainable production methods, provides an overview of the types of PPM-based measures, and delimits the paper. Part 2 sets out the theory of comparative advantage, which underlies liberalised trade, and identifies how environmental regulation fits into this theory. Part 3 analyses WTO law as it applies to unilaterally imposed NPR PPM-based regulations by interpreting relevant case law. PPM-based measures have been the subject of intense debate for 20 years, yet there is a high degree of uncertainty concerning the WTO consistency of these measures.<sup>5</sup> The analysis concludes that the current status under WTO law is that NPR PPM-based regulations are not governed by the TBT, and can be designed in a GATT-consistent way.

The proposal that PPM-based measures are not inconsistent with WTO law does have its fair share of controversy as the matter is highly debated and the arguments concerning both law and policy are many: that unilateralism is detrimental to the liberalisation of trade; that environmental measures are imperialistic; that trade law cannot be a driving force in environmental issues; and that unilateral environmental measures will adversely affect competitiveness of domestic industries.<sup>6</sup> Moreover, it is questionable whether law in itself is an applicable tool for policing internalisation of environmental costs. In turn, part 5 addresses problems of the proposal.

The paper concludes that states can implement unilateral NPR PPM-regulations as such measures can be designed in a GATT-consistent way,

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<sup>4</sup> General Agreement on Tariffs and Trade, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 187, 33 ILM 1153 [hereinafter GATT].

Unless stated otherwise, any references to articles refer to the GATT.

<sup>5</sup> See Charnovitz (n 1), Thomas Cottier, ‘The Role of PPMs in Extractive Industries’ [2016] E15Initiative, ICTSD and World Economic Forum, 5-8.

<sup>6</sup> See European Commission, EU ETS Handbook, 66, [http://ec.europa.eu/clima/publications/docs/ets\\_handbook\\_en.pdf](http://ec.europa.eu/clima/publications/docs/ets_handbook_en.pdf).

which is in line with the theoretical foundation of liberalised international trade, however, current GATT law creates barriers to "levelling the playing field". It is in this approach that this paper is novel, as the analysis will show that inconsistency with WTO law cannot be claimed as a reason for states not to act on the ever-greater threat to the planet's sustainability.

## 1. PPM-Based Measures and Their Relation to Trade Law

The paper focuses on goods, and will not cover rules on services or investment. For the purposes of this paper, PPM is defined as 'the way in which products are manufactured or processed and natural resources extracted or harvested.<sup>7</sup> A PPM-based measure is one that sets out PPM requirements rather than requirements for the product itself.

This paper focuses on PPM-based measures aiming at ensuring environmental sustainability. For the purposes of this paper, "environmentally sustainable" shall be understood as something maintaining, conserving or in other ways not depleting or irreparably damaging natural resources, including, but not limited to, plants, animals, eco-systems, the climate, water, air, and the natural environment in a broader sense.

When a PPM-based measure applies not only to domestic products or producers, but also aims outward at imports, it is considered trade affecting, and is thus covered by international trade law. The requirements of PPM-based measures are often highly technical in nature, detailing e.g. which nets can be used when fishing.

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<sup>7</sup> Organisation for Economic Co-Operation and Development [OECD], *Production and Processing Methods (PPMs): Conceptual Framework and Considerations on Use of PPM-based Trade Measures*, OCDE/GD [1997], [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=OCDE/GD\(97\)137&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=OCDE/GD(97)137&docLanguage=En) accessed 30 April 2017.

PPM-based measures can be (1) product related or non-product related (NPR);<sup>8</sup> (2) targeted at states, producers, or products; and (3) designed to pertain to eco-labelling, taxes or regulations.<sup>9</sup>

(1) A PPM is considered “product related” when it has an impact on the physical characteristics of the final product.<sup>10</sup>

(2) PPM-based measures can be targeted at states, producers, or products, meaning that they can either seek to regulate the conduct of states or producers, or to regulate which products are allowed on its market.

(3) Finally, two types of NPR PPM-based measures should be introduced. The PPM-based *eco-label* is a regulation, but comes with a requirement to put signage on the product and does not necessarily block market entry for products, which do not comply with the PPM requirements set forth in the scheme.<sup>11</sup> PPM-based *regulations* can either prohibit or require certain PPMs (the organic approach), or prohibit or require certain emission or performance effects, leaving it to the producer to decide which method is best to reach the result (the functional approach). The organic approach would set out requirements for the masks in or the size of a net, while the functional approach would require

<sup>8</sup> The distinction has an impact on the applicable law.

<sup>9</sup> Jochem Wiers, *Trade and Environment in the EC and the WTO: A Legal Analysis* (1<sup>st</sup> ed. 2002) 268.

In theory PPM-based measures could also pertain to tariffs, though there are several difficulties related to introduction of new tariffs. This paper focuses on PPM-based measures, which are not tariffs, and as such are non-tariff barriers to trade. The WTO and the GATT rounds before it have always engaged in tariffication of trade restrictive measures, i.e. changing non-tariff barriers such as bans and quotas into tariffs in order to enable continuous lowering of tariffs.

<sup>10</sup> Gracia María Durán, ‘NTBs and the WTO Agreement on Technical Barriers to Trade: The Case of PPM-Based Measures Following US-Tuna II and EC Seal Products’ in Christoph Herrmann et al. (eds) *European Yearbook of International Economic Law* (2015) 87, 91.

<sup>11</sup> PPM-based regulations will normally have to ban non-compliant products in order to be effective. As shall be seen in the analysis, a measure cannot be imposed under WTO law if it does not have the ability to be effective.

that the net be designed so as to catch only grown fish, and let smaller fish through. Such regulations could be structured as a ban with exceptions or as a preconditioning for market access.

## 2. Gains from Trade: the Theory of Comparative Advantage

The need for internalising the environmental production costs is widely recognised,<sup>12</sup> but some are of the opinion that regulating is detrimental to the gains of free trade. This part sets out the economical theory for liberalised trade, and identifies why there is no conflict between it and the discussed regulation.

In the best of all worlds, governments would use proper environmental policies to ‘internali[s]e’ the full environmental costs of production and consumption—the ‘polluter pays principle,’ [...]. In this idealized world, trade liberalization would unambiguously raise welfare. However, as this is not always the case,

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<sup>12</sup> See to this effect *inter alia*: Panel Report, China – Measures Related to the Exportation of Various Raw Materials, WTO Doc. WT/DS394/R, WT/DS395/R, WT/DS398/R (adopted July 5<sup>th</sup> 2011), para 7.586; Appellate Body Report, China – Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum, WTO Doc. WT/DS431/AB/R, WT/DS432/AB/R, WT/DS433/AB/R (adopted August 7<sup>th</sup> 2014), paras 5.190-5.191 (with references).

‘Whenever there are ‘externalities’—where the actions of an individual have impacts on others for which they do not pay or for which they are not compensated—markets will not work well. Some of the important instances have been long understood—environmental externalities.’ Daniel Altman, *Q & A with Joseph Stiglitz*, Managing Globalization (Oct. 11, 2006, 5:03 AM) <https://web.archive.org/web/20090626040606/http://blogs.iht.com/tribtalk/business/globalization/?p=177> accessed 30 April 2017.

trade liberalization could potentially exacerbate the consequences of poor environmental policies.<sup>13</sup>

If a company produces paper towels, for which it pays all costs except for reforesting the trees felled to produce the papers, then that cost is externalised and borne by somebody or something else. In this example, the polluter does not pay. Rather, the polluting producer gains from lower costs of production while the environment and climate is damaged.

The theory of comparative advantage proposes that where relative prices on goods differ between countries in the absence of trade, then most will gain and none will lose if trading freely at intermediate prices.<sup>14</sup> Simply put, the comparative advantage derives from differences in endowment of capital and specialisation.<sup>15</sup> Countries export goods for which they hold a comparative advantage, import goods for which they do not, and gain from overall lower consumer prices and specialisation.<sup>16</sup> While there are several obvious points of criticism,<sup>17</sup> the idea of the theory is widely accepted by many economists and politicians and remains one of the primary arguments for proponents of free trade.<sup>18</sup>

<sup>13</sup> Håkan Nordström and Scott Vaughan, ‘Special Studies 4: Trade and Environment’ [1999] WTO publications [https://www.wto.org/english/tratop\\_e/envir\\_e/environment.pdf](https://www.wto.org/english/tratop_e/envir_e/environment.pdf) accessed 30 April 2017.

<sup>14</sup> David Ricardo, *On the Principles of Political Economy, and Taxation* (London, John Murray, 1817) 154–157; Joel Richard Paul, ‘The Cost of Free Trade’ [2005] xxii Brown J World Affairs 1, 6–7.

<sup>15</sup> Paul (n 14).

Many have further developed the theory on trade to find out why relative prices differ, i.e. the relative production cost differentials.

<sup>16</sup> The theory assumes perfect market conditions, i.e. a market so competitive that prices are constantly bid down to the lowest possible, which is roughly equal to the production costs plus a minimal profit. Significantly, the theory offers a truism in support of its proposition.

<sup>17</sup> See e.g. Paul (n 14) 7.

<sup>18</sup> Joel R. Paul, ‘Free Trade, Regulatory Competition and the Autonomous Market Fallacy’ [1994–1995] Colum J Eur L 29, 31 n 9.

When producers do not pay all their production costs, i.e. when not all costs are internalised, the costs of production are artificially low. This creates a cost advantage on the part of the producer, which may result in further gains, though not gains explained by the theory of comparative advantage.<sup>19</sup>

The argument is that regulation to internalise the environmental costs of production can be accepted even if the theory of comparative advantage holds true, as the two ideas are not contrary. The total cost of production does not decrease through externalisation. In keeping with the theory, it can only decrease through ingenuity in the utilisation of capital, technological advances, or economies of scale. Due to externalisation of social costs, the price of the goods does not reflect the costs of production. As externalisation is not explained or warranted by the theory, regulating internalisation cannot be inconsistent with the theory. Only if producers internalise the environmental costs of production will the gains *stemming from trade* emerge.<sup>20</sup>

Notwithstanding the primary goal of protecting the environment, states have economic incentives for regulating internalisation of environmental production costs, even though prices would invariably go up for consumers when reflecting the actual price, as such an increase might not last. The PPMs uncovered until now are not necessarily the only cost-efficient PPMs.

Only certain states can be front-runners and lead the efforts in ensuring sustainable PPMs. Small markets do not hold much leverage over international industries, whereas the demand in places such as the US, EU, or Japan is of such magnitude that industries will change in the wake of

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<sup>19</sup> Ricardo (n 14) 151-152, Paul (n 14) 12-13.

The theory states that with trade, prices can go down to the costs of production plus a minimal profit, not below the costs of production.

<sup>20</sup> Contrary see e.g. Jagdish N. Bhagwati, 'On thinking clearly about the linkage between trade and the environment', (2000) Environment & Development Economics vol. 5 no. 4, 485.

regulations. ‘The size and attractiveness of the market will be determinant factors for a PPMs’ success’<sup>21</sup> in achieving the abovementioned goals.

This reveals the inherent economic inequity of PPMs: only States with a substantial market will reasonably be able to take advantage of PPMs. However, this could also be seen as a responsibility, or even a duty, of these larger States: protection of the commons, of a public good, might require leadership.<sup>22</sup>

Chances are that front-running states will hold more bargaining power in multilateral negotiations, as they will be able to present a functioning, practically implemented system and have knowledge on potential pitfalls. If states impose regulation of the PPMs, companies will have to do two things if they want to keep their market share: they must produce sustainably, and they must find ways of doing so at the lowest cost possible in order to keep competitiveness high.<sup>23</sup> This enables them to export knowledge on the design and implementation of PPM-based measures as well as any developed hardware and technology. Such exports prior to the conclusion of a potential multilateral agreement can further expand the use of certain standards over others, which is also in the interest of states and their industries. Finally, on this note, the front-runner’s industries will hold a competitive advantage when other states start imposing similar regulations. As they have already made the transition, their costs are comparatively lower to those of industries just embarking on transitioning.

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<sup>21</sup> Ibid

<sup>22</sup> Ibid.

<sup>23</sup> On a related note, this also creates a market for consulting on how to produce sustainably at lower costs and how to make the transition to sustainable PPMs.

### 3. The Current State of WTO Law on PPM-Based Regulations

This part first sets out the fundamentals of WTO law.<sup>24</sup> WTO members have to ensure that unilaterally imposed trade distorting measures are not inconsistent with WTO law. WTO law primarily consists of the GATT and multilateral agreements. This paper focuses on the GATT and the Agreement on Technical Barriers to Trade (TBT)<sup>25</sup> as they relate to PPMs.<sup>26</sup>

WTO recognises member states' sovereign right to regulate.<sup>27</sup> However, WTO law sets limits on the member states' right to regulate, when the latter disproportionately distorts international trade.<sup>28</sup> This should be understood as a balance between member states' right to regulate, and the duty they owe to other WTO member states.<sup>29</sup> One of

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<sup>24</sup> WTO law is not relevant to a PPM-based regulation that only targets domestic producers, generally speaking. In order for any measure to be relevant for examination in the light of WTO law, it must have a potential effect on international trade.

<sup>25</sup> Agreement on Technical Barriers to Trade, 1868 U.N.T.S. 120, [hereinafter *TBT*].

<sup>26</sup> These GATT and TBT are the most relevant and provide the legal framework for the WTO legality of PPMs. The SPS could also be relevant to some PPMs though not to such measures with a purely environmental scope. It is beyond the scope of this paper to cover other WTO law.

<sup>27</sup> Appellate Body Report, United States – Measures Affecting the Production and Sale of Clove Cigarettes, WTO doc. WT/DS406/AB/R [hereinafter *Cloves*], para. 96; Robert Howse & Joanna Langille ‘Permitting Pluralism: The Seal Products Dispute and Why the WTO Should Accept Trade Restrictions Justified by Noninstrumental Moral Values’ [2012] vol. 37 Yale J Intl L 367, 410 425.

<sup>28</sup> If another member brings a complaint and a WTO Dispute Settlement Body (DSB) finds that an imposed measure is inconsistent with WTO law, then the imposing member state can comply with the finding by changing or repealing the measure. If the imposing member does not comply within reasonable time, the complaining member state can start retaliatory measures in their bilateral trade equivalent to the amount, which the DSB determined as due to the complainant.

<sup>29</sup> GATT art. XX reflects this balance, as shall be further illustrated in that part of the analysis. See Appellate Body Report, United States – Import Prohibition of

the core aspects of the right to regulate is that it is the sovereign prerogative and inviolate right of the member states to determine, which "level of protection" they seek, no matter how high.<sup>30</sup> This right is a challenge with unilateral measures: WTO law must distinguish protectionism from legitimate environmental protection, and keep the right to regulate while dissuading creations of unnecessary barriers to trade.<sup>31</sup>

The analysis draws on WTO cases, which interpret GATT provisions.<sup>32</sup> There is no principle of stare decisis under WTO law, but '[e]nsuring 'security and predictability' in the dispute settlement system, [...] implies that, absent cogent reasons, an adjudicatory body will resolve the same legal question in the same way in a subsequent case.'<sup>33</sup> The legality of NPR PPM-based measures remains unclear despite several cases, which is evident from, *inter alia*, widespread scholarly debate and the WTO website, which reiterates parts of the WTO "tool-box" of rules generally relevant to environmental issues as 'including GATT Article XX, the PPMs [...] issue, and the definition of a like product.'<sup>34</sup> A WTO DSB can settle it as per the above principle, but any general stance on the legality will most likely be avoided for as long as possible, as it is the subject of

Certain Shrimp and Shrimp Products, WTO Doc. WT/DS58/AB/R (adopted October 12<sup>th</sup> 1998), [hereinafter *Shrimp/Turtle*], para 156 on implications of art. XX.

<sup>30</sup> This right is expressed in GATT art. XX, the Agreement on the Application of Sanitary and Phytosanitary Measures, and the TBT.

Robert Howse & Joanna Langille (n 27) 415 n 346 410 n 312 425 n 396.

<sup>31</sup> Durán (n 10) 88 93.

<sup>32</sup> Some cases are from the former system of the GATT. The dispute settlement system was quite different before the Uruguay Round in 1994, instating the WTO.

<sup>33</sup> Appellate Body Report, United States – Final Anti-Dumping Measures on Stainless Steel from Mexico, WTO Doc. WT/DS344/AB/R (adopted April 30<sup>th</sup>, 2008), paras 160-162 with references.

For this reason, the DSBs have quoted previous cases and developed the interpretation of GATT concepts much like civil law courts.

<sup>34</sup> Emphasis added. Available at: [https://www.wto.org/english/tratop\\_e/envir\\_e/climate\\_measures\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/climate_measures_e.htm).

heated debate.<sup>35</sup> The need for sustainable production methods finally seems to be self-evident and has been recognised by the member states of the WTO in the preamble to the Marrakesh Agreement.<sup>36</sup> The analysis will show that there is in fact room for legitimate environmental policies to be carried out through NPR PPM-based regulations.

Part 0 first examines the applicability of the TBT. Part 0 examines the consistency with the relevant core obligations of the GATT, art. I Most Favoured Nation (MFN), art. III:4 National Treatment and art. XI Quantitative Restrictions. Part 0 examines whether in the event of a violation of the core obligations, NPR PPM-based regulations can be justified under the general exceptions clause in art. XX, particularly under subsection (g), (b), and (a) as well as the chapeau. This section also touches on the matter of territoriality. Finally, part 0. sets out conclusions that clarify which considerations must be taken when designing measures for them to be GATT-consistent.

### 3.1 Applicability of the Agreement on Technical Barriers to Trade (TBT)

For the TBT to apply, the measure must constitute a “Technical Regulation”<sup>37</sup> defined as a “Document which lays down product characteristics or their related processes and production methods [...]. ”<sup>38</sup>

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<sup>35</sup> The existing cases are all rather concrete in their assessment and were carefully drafted to avoid the creation of general principles.

<sup>36</sup> Marrakesh Agreement Establishing the World Trade Organization, 1<sup>st</sup> consideration, Apr. 15, 1994, 1867 U.N.T.S. 154, [hereinafter *Marrakesh Agreement*].

<sup>37</sup> Or a “standard”, the definition of which also includes the words “related processes and production methods”, although not “their”. This does not add value to the analysis undertaken nor the discussion, and as such is left out. TBT (n 25) Annex I, 3.

<sup>38</sup> Ibid Annex I, 1., emphasis added.

The understanding of that definition is complicated by *Tuna II*,<sup>39</sup> which ruled that product labelling with a legally mandated set of requirements constitutes product characteristics, seemingly no matter if the label signals something pertaining to product characteristics, product related PPMs, or NPR PPMs.<sup>40</sup> PPM-based labelling is PPM-based regulation with an additional requirement.<sup>41</sup> Even if the only difference between two NPR PPM-based regulations is whether the required proof of compliance is a label on the actual product or a certification to be shown upon import, the one would be considered product characteristics while the other would be considered PPMs, and thus have to meet the “their related” standard. The Appellate Body (AB) in *Seals*<sup>42</sup> gave a little guidance on the interpretation of “their related,” but left as many puzzles. The AB noted the important systemic issues raised by the line between PPMs covered by the TBT and those not, and then went on to say that “their related” meant that a sufficient nexus to product characteristics had to be

<sup>39</sup> Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WTO doc. WT/DS381/AB/R, (adopted May 16, 2012), [hereinafter *Tuna II*].

There are two relevant tuna cases to this paper: *Tuna I* and *Tuna II*. *Tuna II* was a complaint brought by Mexico over a dolphin-safe labelling scheme, which was a NPR PPM-based label. The label was not mandatory for all tuna products, but the PPM requirements had to be met in order to signal anything regarding dolphins, porpoises, or marine animals.

*Tuna I* was a complaint brought first by Mexico, then by the EU over a NPR PPM-Based regulation of yellowfin tuna in order to protect dolphins. The measure was targeted at countries, which did not prove to live up to the US PPM requirements or which were intermediary in the sense that they imported such products. Report of the Panel, *United States – Restrictions on Imports of Tuna*, WTO doc. DS29/R, (adopted June 16, 1994), [hereinafter *Tuna I*].

<sup>40</sup> *Tuna II* (n 39) para. 199. In support of this reading, see Duran (n 10) 102.

<sup>41</sup> Text to n 11. It does not matter whether the eco-label is constructed as blocking market entry for non-complying products, or as was the case in *Tuna II*, does not, as *Tuna II* found that this was not decisive for the “mandatory” requirement.

<sup>42</sup> Appellate Body Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WTO doc. WT/DS400/AB/R, WT/DS401/AB/R, (adopted 22 May 2014), [hereinafter *Seals*].

proven.<sup>43</sup> It remains unclear what a sufficient nexus is.<sup>44</sup> Many scholars argue that NPR PPM-based regulations are not covered by the TBT based on a textual understanding of “their related”,<sup>45</sup> and Seals seems to support such a reading. A combined reading of these two cases suggests that NPR PPM-based eco-labels are covered by the TBT while NPR PPM-based regulations are not.<sup>46</sup> Such a distinction based solely on the way of signalling consistency with PPM requirements has no support in the TBT definition of “Technical Regulation”.

The narrow interpretation of “related” has been criticized.<sup>47</sup> This must be supported particularly in the case of technical NPR PPM-based

<sup>43</sup> Ibid, para. 5.12.

The case concerned a ban on placing seals and seal products on the EU market in order to protect public morals concerning seal welfare. The measure contained exceptions for *inter alia* indigenous communities. The Panel analysed the measure and concluded that it constituted regulation of product characteristics in the sense that products could not contain seal. It further held that the exceptions laid down criteria for administrative requirements for seal products, allowing only such products, which were hunted in accordance with the exceptions. Thus, the Panel construed the measure as “regulating product characteristics in the negative form”, constituting a Technical Regulation. Due to this finding, the Panel did not examine whether the measure constituted “related processes and production methods” in the sense of the TBT. Report of the Panel, European Communities – Measures Prohibiting the Importation and Marketing of Seal Products, WTO doc. WT/DS400/R

WT/DS401/R, (adopted 25 November 2013).

This rather creative view upon a ban did not hold up in the appeal. The AB did not examine whether the TBT applied to the NPR PPM-based measure at hand because such an assessment required more arguing by the parties and because the matter was considered novel before the AB. *Seals* (n 42) para. 5.69.

<sup>44</sup> Duran (n 10) 103.

<sup>45</sup> See among many others ibid 89; Steve Charnovitz (n 1) 59, 65.

There are some merits to the argument, as a purely textual reading of the agreement would seem to suggest that anything that is defined by its lack of relation to the product would be excluded.

<sup>46</sup> In support, Duran (n 10) 106–107.

<sup>47</sup> Duran (n 10), paper in entirety, but see in particular 103 and 106; Thomas Cottier (n 5) 6.

regulations. The WTO itself states that the TBT “is the key WTO mechanism for governing technical regulations, standards and conformity assessment procedures, including those on climate change mitigation objectives [...].”<sup>48</sup> The TBT provides a useful set of rules to NPR PPM-based regulations as such measures are often highly technical in nature, and as the TBT contains requirements, which are stricter and additional to the GATT.<sup>49</sup> In aggregate, the TBT provides a superior legal framework, as these requirements all decrease the risk of divergent and unnecessarily trade restricting measures, and thus demanding that NPR PPM-based regulation be TBT-compliant goes a long way towards policing protectionism.<sup>50</sup>

It remains unclear whether NPR PPM-based measures are covered by the TBT.<sup>51</sup> On this basis, and as many measures aiming at ensuring

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<sup>48</sup> United Nations Environment Programme and the World Trade Organization, *Trade and Climate Change*, (WTO 2009) ISBN: 978-92-870-3522-6, abstract 1-4, <[https://www.wto.org/english/res\\_e/booksp\\_e/abstract\\_trade\\_climate\\_change\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/abstract_trade_climate_change_e.pdf)>, accessed 05 May 2016.

There is no reason why climate change mitigation should be the only kind of environmental measures, for which this holds true.

<sup>49</sup> While it is beyond the scope of this paper to account for the TBT requirements in detail, they pertain to transparency, technical assistance, notification, and basing on international standards, and they are all designed and negotiated with technical regulations in mind.

<sup>50</sup> In support, Duran (n 10) 133-134.

<sup>51</sup> WTO, ‘Labelling’ (WTO) <[https://www.wto.org/english/tratop\\_e/envir\\_e/labelling\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/labelling_e.htm)>, accessed 05 May 2016, “The PPM problem” and “Technical Barriers too”.

See Joost Pauwelyn, ‘Tuna: The End of the PPM distinction? The Rise of International Standards?’ (International Economic Law and Policy Blog, May 22 2012), <<http://worldtradelaw.typepad.com/ielpblog/2012/05/tuna-the-end-of-the-ppm-distinction-the-rise-of-international-standards.html>>. Pauwelyn seems to interpret *Tuna II* to the effect that the decisive factor is whether a regulation or label applies to a product, not whether it regulates something physically in the product or the PPM. All NPR PPM-based regulations will for the reason previously mentioned be related to a product, and if the measure targets a product, then following Pauwelyn would suggest that all such measures are covered by the

environmentally sustainable PPMs will not have an impact on the physical characteristics of the product, and thus would be regarded as NPR, this paper focuses on NPR PPM-based measures and their consistency with the GATT.<sup>52</sup> A clarification of the applicability of the TBT to NPR PPM-based measures should be a part of the future agenda for new attempts at negotiations in the WTO.

### 3.2 The Non-Discrimination Principle: GATT art. I:1, III:4 and XIII:1

The non-discrimination principle of GATT law is codified in art. I, III, and XIII. The Most Favoured Nation Principle in art. I:1 says that any advantages bestowed upon the imported product of one member state must befall all like products imported from all other member states.<sup>53</sup> As such, there can be no discrimination between imports based on nationality. Thus, NPR PPM-based regulations that target countries, i.e. member states with lower environmental standards, are likely to be in violation of art. I:1. Pursuant to Canada Autos the obligations of art. I extend beyond *de jure* to also include *de facto* discrimination.<sup>54</sup> Like

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TBT. The AB in *Seals* has expressed this as “sufficient nexus” since. Howse and seemingly Marceau agree.

<sup>52</sup> The TBT is additional to the GATT, meaning that the TBT requirements apply additionally to the GATT requirements if applicable. Therefore, the analysis is to some extent relevant for all PPM-based measures.

<sup>53</sup> Art. I:1 reads in relevant part, with emphasis added: “*With respect to [...] all rules and formalities in connection with importation [...] and with respect to all matters referred to in paragraphs [...] 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in [...] any other country shall be accorded immediately and unconditionally to the like product originating in [...] the territories of all other contracting parties.*”

<sup>54</sup> Appellate Body Report, Canada – Certain Measures Affecting the Automotive Industry, WTO Doc. WT/DS139/AB/R, WT/DS142/AB/R (adopted 31 May 2000), [hereinafter *Canada Autos*] paras 78 and 140.

Products is a decisive test under art. I:1 that must be carried out on a case-by-case basis, and consider all pertinent evidence.<sup>55</sup> The likeness test must ascertain whether two products are in a competitive relationship. The following general criteria are usually applied: Serving similar end use, physical properties of the product, consumer taste and preference,<sup>56</sup> and international customs classification.<sup>57</sup> As NPR is defined by the lack of impact on the product characteristics, NPR PPM-based regulations will inherently not have impact on the end use, physical properties and international customs classifications<sup>58</sup> of a product. However, if consumer preference to environmentally sustainable PPMs can be shown to be of such strength that two products are not perceived as alternative, this would

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Art. III:4 does not require a separate consideration of whether a measure has been imposed “so as to afford protection” in the sense of art. III:1, Appellate Body Report, European Communities – Regime for the Importation, Sale and Distribution of Bananas, WTO Doc. WT/DS27/AB/R (adopted 9 September 1997) para 216. It is decisive whether a regulation has the effect of denying *national treatment* to *imported products*, i.e. the same treatment as the like domestic products.

<sup>55</sup> Appellate Body Report, European Communities – Measures Affecting Asbestos, and Asbestos-Containing Products, WTO Doc. WT/DS135/AB/R (adopted 12 March 2001), [hereinafter *Asbestos*] para 109.

Like Products is an accordion-like concept under WTO Law, and is not necessarily applied the same under different provisions. *Ibid* para 88. Under art. III:4 Like Products is a broader concept than under art. III:2, first sentence, as there is no equivalent to art. III:2, second sentence in art. III:4, and as art. III:1 informs art. III:4. This means that products can differ more than under art. III:2, first sentence and still be considered Like Products under art. III:4. *Ibid* paras 88-99.

<sup>56</sup> Defined in *ibid* para 101 as “*the extent to which consumers perceive and treat the products as alternative means of performing particular functions in order to satisfy a particular want or demand.*”

<sup>57</sup> Following the Report on Border Tax Adjustment, which was adopted by the 1970 by the parties to the GATT, but which has never been integrated formally into the treaties. See *ibid* paras 101-102. The list is not closed nor exhaustive or mandatory.

<sup>58</sup> There are rare examples of specific Harmonised System codes, which base classification on the PPM, e.g. Canada Agricultural Products Act, 2007, Canada Gazette, Part II, December 21, 2006.

weigh heavily on the analysis.<sup>59</sup> To date there is no case in which two identical products produced or processed differently have not been found to be ‘like’ products.<sup>60</sup> Current WTO law says that products are ‘like’ products if the only difference between them is their PPM. As such, any discrimination based on NPR PPMs would be in violation of the non-discrimination principle.

An important exception to the principle of non-discrimination is for developing countries. The enabling clause<sup>61</sup> sections 1 and 2(b) contain an exception to GATT art. I:1, allowing differential and more favourable treatment for developing countries with respect to non-tariff barriers to trade. Any exception made for developing countries must be designed to facilitate and aid in the special needs of the developing country in terms of trade, development and financing, and cannot be used to impede trade

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<sup>59</sup> In *Asbestos* (n 55) the products had the same end use and customs clarifications, but very different consumer preferences and physical properties. Where there is evidence of adverse effect of a product on the environment, the principle of *Asbestos* would most likely lead to a conclusion of the products not being like. *Asbestos* (n 55) para 114.

<sup>60</sup> Jason Potts, ‘The Legality of PPMs Under the GATT, Challenges and Opportunities for Sustainable Trade Policy’ [2008] Int’l Institute for Sustainable Development 15.

In *Reformulated Gasoline* it was found that identical products are by definition ‘like’ products. Panel Report, United States – Standards for Reformulated and Conventional Gasoline, WTO Doc. WT/DS2/R (adopted January 29<sup>th</sup> 1996), [hereinafter *Reformulated Gasoline, Panel Report*] para 3.22.

<sup>61</sup> Differential and More Favourable Treatment Reciprocity and Fuller Participation of Developing Countries, 28 November 1979, L/4903, GATT B.I.S.D. (18<sup>th</sup> Supp.), 24 (1972) <[https://www.wto.org/english/docs\\_e/legal\\_e/tokyo\\_enabling\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/tokyo_enabling_e.pdf)> [hereinafter *Enabling Clause*].

with other member states.<sup>62</sup> A NPR PPM-based regulation can thus take special account of developing countries without violating art. I:1.<sup>63</sup>

Art. III:4 on National Treatment has the objective of effective equality of competitive opportunities in the market place, banning regulation which results in less favourable treatment of foreign products, which are 'like' domestic products.<sup>64</sup> Following Tuna I, in order for a regulation to be covered by the discipline of art. III:4 it must have an impact on the inherent character of a product.<sup>65</sup> This criterion excludes almost all NPR PPM-based regulations, meaning that under the current status of GATT Law, art. III:4 is inapplicable to NPR PPM-based regulations.<sup>66</sup> That

<sup>62</sup> Ibid section 3. There are several other requirements, including most importantly the requirement to inform the other member states of intentions to offer preferential treatment to a developing country in section 4 and the non-reciprocity in section 5.

<sup>63</sup> Such design of the measure would also not violate art. III:4, as it only prohibits treatment less favourable.

<sup>64</sup> In Appellate Body Report, Korea – Measures Affecting Imports of Fresh, Chilled and Frozen Beef, WTO Doc. WT/DS161/AB/R, WT/DS169/AB/R (adopted December 11<sup>th</sup> 2000), the Appellate Body found that imported products are treated less favourably than like products if a measure modifies the conditions of competition in the relevant market to the detriment of imported products.

<sup>65</sup> Report of the Panel, *United States – Restrictions on Imports of Tuna*, DS29/R (June 16, 1994), Limited Distribution, para 5.8 [hereinafter *Tuna I*]. Reiterated by *Shrimp/Turtle* (n 29) para 381.

*Tuna I* was a complaint brought first by Mexico, then by the EU over a NPR PPM-Based regulation of yellowfin tuna in order to protect dolphins. The measure was targeted at countries, which did not prove to live up to the US PPM requirements or which were intermediary in the sense that they imported such products.

<sup>66</sup> *Tuna II* did not make a finding on the applicability of art. III:4, and as such it is not clear whether there is a difference between NPR PPM-based regulations and NPR PPM-based labelling, such as was found under the TBT. Appellate Body Report, *United States – Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products*, WTO Doc. WT/DS381/AB/R (adopted May 16<sup>th</sup> 2012), [hereinafter *Tuna II*], para 402-406. *Tuna II* was a complaint brought by Mexico over a dolphin-safe labelling scheme, which was a NPR PPM-based

means that all NPR PPM-based regulations are considered banned as quantitative restrictions by art. XI.<sup>67</sup> Art. XI:1 prohibits practically any measure, which has the possible effect of blocking trade in the event of non-compliance. As NPR PPM-based regulations will normally block trade in goods, which do not live up to the PPM requirements set forth therein, such measures violate art. XI:1. Even in the event that a measure is justified under art. XX, it must live up to art. XIII:1, which determines that quantitative restrictions cannot discriminate based on nationality.

### 3.3 Justification Under GATT Art. XX: General Exceptions

If there is a violation of any of the core provisions of the GATT, there may be an applicable exception under the General Exceptions in art. XX justifying the imposed measure. Art. XX contains a two-tier test,<sup>68</sup> which must be applied to the measure as a whole.<sup>69</sup> First, the measure must be

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label. The label was not mandatory for all tuna products, but the PPM requirements had to be met in order to signal anything regarding dolphins, porpoises, or marine animals.

<sup>67</sup> The lacking application of art. III:4 brings the analysis of the core obligations short and leaves only the exceptions and the non-discrimination principle of art. XIII. This is a theoretical problem, as it seems to be far from the intention within the structure of the GATT agreement, defeating the balance between affirmative commitments and exceptions, i.e. policies and interests. Appellate Body Report, United States – Standards for Reformulated and Conventional Gasoline, WTO Doc. WT/DS2/AB/R (adopted April 29<sup>th</sup> 1996), [hereinafter *Reformulated Gasoline, AB report*], 18, which reflects this contextual understanding of the GATT.

<sup>68</sup> Ibid 22.

<sup>69</sup> As pointed out in *Reformulated Gasoline, AB Report*, it is the measure as a whole that must relate to conservation of the exhaustible natural resource. If the analysis is based only on the part of the measure that was found in violation of one of the core provisions, the end result is anticipated, as that part in most cases will have been found to be discriminatory. Thus, the balance sought in art. XX is rendered illusory. Ibid 13-14. This state of law has been confirmed recently in Appellate Body Report, *European Communities – Measures Prohibiting the Importation and Marketing of Seal Products*, WTO Doc. WT/DS400/AB/R, WT/DS401/AB/R (adopted May 22<sup>nd</sup> 2014), [hereinafter *Seals*] para 5.185.

provisionally justified by one of the explicit exceptions. For the purpose of the proposed NPR PPM-based regulations, subsections (a), (b), and (g) are of primary relevance. Second, the measure has to live up to the introductory paragraph, the chapeau, of art. XX. The analysis proceeds with the most relevant exceptions first, then discusses the inherent matter of territoriality, and finishes with the chapeau.

### 3.3.1 Provisional Justification Under GATT art. XX (g)

The scope of the subparagraph is exhaustible natural resources.<sup>70</sup> If a measure falls within the scope, then there are two requirements for provisional justification: a nexus between means and ends deriving from “relating to”, and an even-handedness test deriving from “in conjunction with”.

WTO case law on exhaustible natural resources is building: In Canadian Tuna and Herring and Salmon, it was fish.<sup>71</sup> In the Tuna cases, it was dolphins.<sup>72</sup> In Shrimp/Turtle, it was sea turtles. In Reformulated Gasoline, it was clean air.<sup>73</sup> It seems that almost anything even remotely within the realm of exhaustible natural resources can be recognized as such.

The AB expanded on the interpretation of exhaustible natural resources in Shrimp/Turtle. It interpreted the term with a view to the original

<sup>70</sup> Art. XX (g) reads with emphasis added:

(g) [measures] *relating to* the conservation of *exhaustible natural resources* if such measures are *made effective in conjunction with* restrictions on domestic production or consumption;

<sup>71</sup> Report of the Panel, United States - Prohibition of Imports of Tuna and Tuna Products from Canada, L/5198 (22 February 1982), GATT B.I.S.D. (28<sup>th</sup> Supp.) at 92 (1982) para 4.9; Report of the Panel, Canada – Measures Affecting Exports of Unprocessed Herring and Salmon, GATT Doc. L/6268 (20 November 1987), GATT B.I.S.D. (35<sup>th</sup> supp.) at 98 (1989), [hereinafter *Salmon and Herring*] para 4.4.

<sup>72</sup> *Tuna I*, (n 65); *Tuna II* (n 66).

<sup>73</sup> *Reformulated Gasoline, Panel Report* (n 60) para 6.36-6.37. This finding was not contested correctly by Brazil and Venezuela, and as such the AB did not decide on the matter.

intention, but stated that the term is not static, and then interpreted it in the context of the preamble of the Uruguay Agreement<sup>74</sup> and contemporary concerns of the environment.<sup>75</sup> The AB concluded first that it mattered not whether the resource was living or non-living/mineral and second, that renewable resources might also be exhaustible.<sup>76</sup>

This last finding was made with reference to a report from the World Commission on Environment and Development, i.e. to a non-WTO text. The WTO Director-General has stated that environmental forums should strike a deal, which sent the WTO an appropriate signal on how to employ the WTO toolbox of rules in the fight against climate change.<sup>77</sup> The use of non-WTO texts in the interpretation of the term exhaustible natural resources can be seen as necessary, given as WTO law stems from a time, when the focus on environmental sustainability was less. The inclusion of non-WTO texts in the interpretation is befitting, as the WTO should not exclude any natural resource, which the world has decided to protect, albeit in a different global governmental institution.<sup>78</sup>

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<sup>74</sup> Marrakesh Agreement (n 36).

<sup>75</sup> In the whole *Shrimp/Turtle* (n 29) para 128-131.

<sup>76</sup> *Shrimp/Turtle* (n 22) para 128 131-132.

<sup>77</sup> WTO, ‘Lamy: Doha could deliver double-win for environment and trade’ (WTO, December 9<sup>th</sup> 2007) <[https://www.wto.org/english/news\\_e/sppl\\_e/sppl83\\_e.htm](https://www.wto.org/english/news_e/sppl_e/sppl83_e.htm)> accessed 05 May 2016.

It is not in the WTO that a deal on climate change can be struck, but rather in an environmental forum, such as the United Nations Framework Convention on Climate Change. Such an agreement must then send the WTO an appropriate signal on how its rules may best be put to the service of sustainable development; in other words, a signal on how this particular toolbox of rules should be employed in the fight against climate change.’

<sup>78</sup> The inclusion of non-WTO texts will most likely widen the scope further.

In December 2015, the UN adopted 17 goals for sustainable development to be achieved by 2030. One of the objectives is to “protect the planet”, and several of the goals entail measures for sustainable production. *The UN 2030 Sustainable Development Goals*, available at <<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>>. Goal number 12 is to “Ensure sustainable consumption and production patterns”. These broad goals may hold some bearing as to how the broad categories of the GATT should be interpreted given the strong

If including all materials and substances, living or non-living, which has a function in an eco-system and which can potentially be depleted, practically all things natural are exhaustible natural resources protected by art. XX(g). This very wide scope could be criticised. From a textual perspective, "natural resource" means 'materials or substances occurring in nature which can be exploited for economic gain.'<sup>79</sup> Even if widened to just "of human utility", it would seem that e.g. dolphins would be outside the scope. However, the current interpretation is in line with the contemporary concerns regarding environmental sustainability, and reaffirms WTO member states' right to determine own environmental objectives.<sup>80</sup>

Moving on to the nexus between means and ends, and the even-handedness test, Salmon and Herring interpreted "relating to" as "primarily aimed at."<sup>81</sup> This implicates a connection between the policy and the measure, but does not say how tight the connection must be. In Shrimp/Turtle a "reasonable aim and means relationship" was found between the policy and the measure, which was enough to satisfy the criterion.<sup>82</sup> As such, the means must be reasonably related to the end. "In conjunction with" was interpreted in Reformulated Gasoline as a 'requirement of even-handedness in the imposition of restrictions, in the name of conservation, upon the production or consumption of exhaustible natural resources.'<sup>83</sup> This requirement of even-handedness is another form

relations between the organisations, particularly on trade and development. WTO, Arrangements for Effective Cooperation with Other Intergovernmental Organizations, Relations Between the WTO and the United Nations, WT/GC/W/10 (3 November 1995), <[https://www.wto.org/english/thewto\\_e/coher\\_e/wto\\_un\\_e.htm](https://www.wto.org/english/thewto_e/coher_e/wto_un_e.htm)>.

<sup>79</sup> Oxford University Press Dictionary.

<sup>80</sup> United Nations Environment Programme and the World Trade Organization, *Trade and Climate Change*, (WTO 2009) ISBN: 978-92-870-3522-6, 107.

<sup>81</sup> Salmon and Herring (n 71) para 4.6.

<sup>82</sup> Shrimp/Turtle (n 29) para 141-142.

<sup>83</sup> Reformulated Gasoline, AB Report (n 67) 20-21 (emphasis original).

of non-discrimination, as it demands that restrictions are imposed even-handedly on domestic products and on imports.<sup>84</sup>

In Tuna I, the NPR PPM-measure failed the means and ends test, as the panel found that measures aiming at forcing other states to change their policies and such coercive effect having to take place for it to be effective, could not be primarily aimed at protecting exhaustible natural resources or rendering effective restrictions on domestic production or consumption.<sup>85</sup> The AB also found that the term “made effective” does not entail a test of the effect of the measure, which the AB found to be difficult with regards to causation and in terms of the amount of time it could take before effect sets in. However, if it is clear that ‘realistically [...] a specific measure cannot in any possible situation have any positive effect on conservation goals’ this will be interpreted as the measure not being primarily aimed at conservation of exhaustible natural resources, failing the nexus test.<sup>86</sup> This can be interpreted as a sort of “suitability-test”, and may contain a requirement of some consistency in policies.

### 3.3.2 Provisional Justification Under GATT art. XX (b) and (a)

The scope of subparagraph (b) is animal or plant life or health, and the scope of subparagraph (a) is public morals.<sup>87</sup> The range of policies falling

In *Salmon and Herring* it was interpreted as meaning ‘primarily aimed at rendering effective these restrictions.’ *Salmon and Herring* (n 71) para 4.6.

<sup>84</sup> It does not purport to mean that the measures have to be identical. *Reformulated Gasoline, AB Report* (n 67) 21.

<sup>85</sup> *Tuna I* (n 46) para 5.27.

<sup>86</sup> In the whole *Reformulated Gasoline, AB Report* (n 67) 21-22.

<sup>87</sup> Art. XX (b) and (a) read:

(b) [measures] necessary to protect human, animal or plant life or health;

(a) [measures] necessary to protect public morals;

In cases where the DSB has already found a measure to be within the scope of another subparagraph, it will often exercise judicial economy and not rule on the subsequent ones.

within the scope of animal or plant life or health is wide. In *Retreaded Tyres*, the accumulation of waste tyres was considered a risk to animal and plant health and life.<sup>88</sup> ‘The term “public morals” denotes standards of right and wrong conduct maintained by or on behalf of a community or nation’<sup>89</sup>

Invoking subparagraph (a) as a defence may seem enticing as the scrutiny of the measure may be a little less intense, given WTO’s lacking mandate in asserting whether or not something does constitute standards of right and wrong in a member state, and given the lower requirements for proof compared to the Agreement on the Application of Sanitary and Phytosanitary Measures and maybe even the even-handedness requirement of subparagraph (g). However, an environmental measure, which cannot pass those material tests is very likely to be protectionist rather than legitimised by environmental objectives. The WTO should be wary of cabining the morality exception in order to avoid abuse.<sup>90</sup>

If a measure falls within the scope of either provision then it must be proven that the measure is necessary to protect the objective for it to be provisionally justified. The necessity test is a flexible tool, applied on a

<sup>88</sup> Appellate Body Report, Brazil – Measures Affecting Imports of Retreaded Tyres, WTO Doc. WT/DS332/AB/R (adopted December 3<sup>rd</sup> 2007), [hereinafter *Retreaded Tyres*].

If a measure does fall within the scope of subparagraph b, it will very often also be covered by the Agreement on the Application of Sanitary and Phytosanitary Measures, and have to live up to those rules.

<sup>89</sup> Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WTO Doc. WT/DS285/R (adopted November 10<sup>th</sup> 2004) para 6.465; Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WTO Doc. WT/DS285/AB/R (adopted April 7<sup>th</sup> 2005) para 299. Defined in *Gambling* and since adopted by, *inter alia*, *Seals* (n 69). These are the only cases on public morals.

<sup>90</sup> See Roger Alford, ‘Morality Play at the WTO’ (*Opinio Juris*, December 5<sup>th</sup> 2013, 9:03 AM) <<http://opiniojuris.org/2013/12/05/morality-play-wto/>> accessed 05 May 2016. In cases such as *Seals* (n 46), the WTO should ensure that no irrelevant defence be considered appropriate, even if a member state tries to make such a claim.

case-by-case basis. It involves a holistic weighing and balancing of all relevant factors, including the contribution of the measure to the achievement of its objective, the trade restrictiveness of the measure, the interests at stake, and a comparison of possible alternatives, including risks.<sup>91</sup> The contribution of the measure to the achievement of the pursued objective must be analysed.<sup>92</sup> In Retreaded Tyres, it had to be “material”, in Seals it had to be “some”.<sup>93</sup> A measure is “necessary” if no alternative measure, which is not inconsistent with the GATT and which is less trade restrictive, is reasonably available to it.<sup>94</sup> In order to determine whether a measure is reasonably available, the contribution to the objective of that alternative measure is examined along with implementation difficulties.

### 3.3.3 Territoriality

One of the points of criticism of the use of NPR PPM-based regulations is that it has extraterritorial effect.<sup>95</sup> The question is whether one member

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<sup>91</sup> *Retreaded Tyres* (n 65) para 182.

<sup>92</sup> *Ibid* para 145.

<sup>93</sup> *Ibid* para 151; *Seals* (n 69), para 5.289.

<sup>94</sup> Panel Report, Thailand – Restriction on importation of and internal taxes on cigarettes, GATT Doc. DS10/R (adopted November 7<sup>th</sup> 1990), 37S/200, para 223. This WTO interpretation differs somewhat from the ILC Responsibility of States for Internationally Wrongful Acts article 25, as it operates with the mitigating “reasonably available” instead of it having to be “the only way”. It would be highly impractical to operate with the ILC version of necessity, as it would be almost impossible to prove that there be no other way.

<sup>95</sup> Any such effect is indirect, as NPR PPM-based regulations are territorial strictly speaking, as they apply upon import. The extraterritorial effect depends on a number of contingencies, such as market size, product demand and supply, and whether the PPM is already employed by the other state. Many have argued that NPR PPM-based regulation is coercive in nature. The intention of the employment of NPR PPM-based regulations is not coercive per se. The motivation could also be a reluctance to be associated with a certain kind of PPM.

See Robert Howse and Donald Reagan, ‘The Product/Process Distinction – An Illusory Basis for Disciplining ‘Unilateralism’ in Trade Policy’ (2000) 11 no. 2

state has any legitimate interest in and right to regulate something, which is outside of its legal jurisdiction.<sup>96</sup> The WTO has held that this can be permissible.<sup>97</sup> Case law suggests that imposing NPR PPM-based regulations, which can have effect extraterritorially, is not a GATT violation if there is a connection between the imposing member state and what it seeks to protect. The case law explaining this nexus remains ambiguous. In *Tuna I* it seemed no physical nexus was needed.<sup>98</sup> In *Turtle/Shrimp* the nexus was that the migratory dolphins and turtles occasionally come into contact with US waters.<sup>99</sup> Any natural resource, which moves and comes into contact with the imposing member, probably has sufficient nexus.<sup>100</sup> There have been no cases protecting immovable resources such as trees, rainforests, or soil placed in the jurisdictional territory of another member state, and no cases in which the movable resource never comes into contact with the imposing state, however, there is no reason why the protection of natural resources should be connected to geographical jurisdictions.<sup>101</sup>

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EJIL 249, 273 274-279. Actual coercion will be dissuaded by the chapeau of art. XX.

<sup>96</sup> The matter is not unique to NPR PPM-based regulations. Product related PPM-based measures and even requirements regarding product characteristics contain the exact same problem. The Ad note to Article III explicitly allows the application of a domestic regulation on a good upon its importation at the border, which indicates some assertion of legality.

<sup>97</sup> *Tuna I* (n 39) para 5.15 with note 81.

<sup>98</sup> *Tuna I* (n 39) para 5.15.

<sup>99</sup> *Shrimp/Turtle* (n 29) para 133.

<sup>100</sup> In *Reformulated Gasoline, AB Report* (n 67), there is no mention of the territorial aspect, but the same is true that clean air comes into contact with the US.

<sup>101</sup> As long as the regulation is territorial, any indirect extraterritorial effect should not hinder that a country takes a stance on the protection of nature merely because of the natural resource's physical placement.

### 3.3.4 Chapeau

If a measure is found to be provisionally justifiable within the meaning of one of the subsections of art. XX, the chapeau must be applied. The purpose of the chapeau is to ensure the previously mentioned balance so that exceptions under art. XX are not used to frustrate or defeat the legal right of other member states.<sup>102</sup> It reads in relevant part: '[...] 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** [...]'] WTO has held that the discrimination test under the chapeau of art. XX is not the same as that in art. I, III, and XI.<sup>103</sup> Reformulated Gasoline clarified that the concepts of arbitrary discrimination, unjustifiable discrimination, and disguised restriction on international trade are related, and impart meaning on each other.<sup>104</sup>

When reasons for discrimination bear no rational connection to the objective, or if parts of the measure even go against the objective, it will be indications of discrimination.<sup>105</sup> In Shrimp/Turtle, the measure was found to be coercive on other governments, which was found to be 'perhaps the most conspicuous flaw'. It was an unjustifiable discrimination, as forcing other member states to change their policies bore no relation to protecting exhaustible natural resources.<sup>106</sup> Retreaded Tyres dealt with an exception, the reason for which bore no rational relation to the objective of the measure, but rather went against it.<sup>107</sup> In Seals, none of the exceptions bore

<sup>102</sup> *Reformulated Gasoline*, AB Report (n 67) 22 with reference; *Shrimp/Turtle* (n 29) para 157.

<sup>103</sup> *Reformulated Gasoline*, AB Report (n 44) 23; *Shrimp/Turtle* (n 22) para 150.

<sup>104</sup> *Reformulated Gasoline*, AB Report (n 67).

<sup>105</sup> *Shrimp/Turtle* (n 29) para 165; *Retreaded Tyres* (n 88) para 226-228.

The analysis of the discrimination is based on the causes, not solely the effects.

<sup>106</sup> *Shrimp/Turtle* (n 29) para 161.

<sup>107</sup> The case has been read to the effect of stating that no matter to how small a degree a reason goes against the main reason for the measure that must be seen as discrimination. Donald H. Regan, 'Measures with Multiple Purposes: Puzzles from EC—Seal Products' (2015) AJIL Unbound

any relation to the main objective, as all were detrimental to it. The AB recognised, ‘certain complex [...] environmental problems may be tackled only with a comprehensive policy comprising a multiplicity of interacting measures,’<sup>108</sup> however, the implementation of the exceptions was found to be discriminatory.

The prevailing conditions in other member states must be taken into account in order for a measure to live up to the chapeau. *Turtle/Shrimp* clarified that

discrimination results not only when countries in which the same conditions prevail are differently treated, but also when the application of the measure at issue does not allow for any inquiry into the appropriateness of the regulatory program for the conditions prevailing in those exporting countries.<sup>109</sup>

The US had not considered the costs of the measure upon foreign refiners in Reformulated Gasoline, which was found in violation of the chapeau. In Tariff Preferences, the EU had not made an objective determination of which countries could receive preferable tariff treatment, and the arbitrary exclusion of some developing countries was found to be discriminatory.<sup>110</sup> In *Shrimp/Turtle*, the NPR PPM-based measure was implemented in a way so that it determined not the function, but the design of the PPM, and thus did not allow for any innovation. In fact, it required other member states to employ turtle excluder devices, which the US owned the

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<<https://www.asil.org/blogs/measures-multiple-purposes-puzzles-ec%20%80%94seal-products>> accessed 05 May 2016.

<sup>108</sup> *Retreaded Tyres* (n 88) para 151; *Seals* (n 69) 152 ff. An important point made was that one of the exceptions constituted a significant carve-out of the ban, which pursued the principal objective. This was instrumental in denying justification under the chapeau.

<sup>109</sup> *Shrimp/Turtle* (n 29) para 165.

<sup>110</sup> Appellate Body Report, European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries, WTO Doc. WT/DS246/AB/R (adopted April 7<sup>th</sup> 2004) para 7.234.

IP rights to. This was found to be arbitrary discrimination, the reasons bearing no rational relation to that of protecting sea turtles.

Failing to attempt negotiation can be a violation of the chapeau. In Reformulated Gasoline, the US had not tried to negotiate their PPM-based measure with the few countries, which would be affected by it, and for this reason it did not live up to the chapeau.<sup>111</sup> If the US had tried to negotiate and such efforts had not proved feasible, then unilateral measures would not have been in violation of the chapeau. In Shrimp/Turtle, the US did engage in a good faith effort to negotiate with some, but not all shrimp exporting countries, which was found to be discriminatory.<sup>112</sup> As long as such an effort has not been pursued in a non-discriminatory manner, it is very likely that a measure will not be found to be necessary.

### 3.4 Conclusion: Design of GATT-Consistent NPR PPM-Based Regulations

Based on the preceding analysis, NPR PPM-based regulations can be GATT-consistent. This section sets out some best practice proposals on how to design NPR PPM-based regulations that are GATT-consistent based on the conclusions of the analysis.

The regulation should seek to level the playing field by imposing the regulation on both domestic and imported products to ensure the destination principle.<sup>113</sup>

In order to meet the core obligations, the measure must be non-discriminatory. To fulfil that requirement, the targets of the measure should be products. A regulation that targets states without satisfactory environmental regulation is problematic as such measures have repeatedly faced difficulties before the DSB. Also, if the policy of a state is decisive,

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<sup>111</sup> *Reformulated Gasoline*, AB Report (n 67) 28-29.

<sup>112</sup> *Shrimp/Turtle* (n 29) para 166 172.

<sup>113</sup> As of this time, there are only limited means available to ensure the competitiveness of domestic producers vis-à-vis third country export markets. See section 0 for more on this issue.

there is no room for local producers to gain market access by outperforming and internalising. As such, there is no incentive for them to do so, which will make the measure less effective in promoting sustainable production methods.<sup>114</sup> Targeting at products solves this issue.<sup>115</sup>

Due to the current state of law resulting in almost automatic violations of art. XI:1, it is important that the measure is justifiable under the exceptions in art. XX. The design and structure of a measure is important to prove that it has the relevant policy objective, as it holds a bearing on the analysis, e.g. if there is no reference to the policy objective.<sup>116</sup> The aim of the measure can be practically any sustainability issue. It remains to be seen whether a nexus to the imposing country is necessary. Measures aiming at protecting resources, which are somehow connected to the imposing state therefore stand a better chance at living up to the demands of art. XX at this moment in time. Some sustainability hazards may be so far outside the scope of the imposing state that regulating it cannot be justified.

To meet the chapeau, the measure must take into account the prevailing conditions in the states where the measure might have an effect. This has several implications. First, the measure should employ the functional approach as described in section 1, as it allows for different approaches in countries where different conditions prevail as long as the result is the same. The functional approach can generally be said to be preferential as it allows for innovation and ensures incentive for lowering

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<sup>114</sup> Charnovitz (n 1) 107.

<sup>115</sup> States will most likely see the biggest effect of unilaterally imposed measures targeted at the most environmentally damaging products first, but there are no requirements under the GATT as to which goods a state decides to regulate. See section 0 for a case of this choice mattering more in efforts to protect the competitiveness of a domestic industry.

<sup>116</sup> Panel Report, European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries, WTO Doc. WT/DS246/R (adopted December 1<sup>st</sup> 2003), paras 7.201–7.202.

the costs of sustainable production.<sup>117</sup> Second, the costs of meeting the requirements of the measure for producers from countries where different conditions prevail must be considered carefully and the proportionality of choosing one requirement over another should reflect these considerations. Third, the measure should contain exceptions for developing countries. Developing countries cannot be exempted from the measure because this could adversely affect domestic producers and the environment, which on a global scale could suffer from leakage.<sup>118</sup> Instead, developing countries should be offered help on a needs-basis in conformity with the enabling clause, by making financial and/or technical assistance available.<sup>119</sup> Fourth, the measure should have a reasonable transitional period allowing for other member states to adapt to the requirements. That period could reasonably be prolonged for developing countries.

Special care should be given in case of the measure having to encompass several policy objectives. Exceptions must be justifiable and cannot be arbitrarily discriminatory or a disguised restriction on trade. Also, the implementation of the measure must meet all of the abovementioned standards or the measure as a whole will be regarded as GATT-inconsistent.<sup>120</sup>

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<sup>117</sup> Charnovitz (n 1) 107 n.276.

<sup>118</sup> For a take on leakage concerns in real politics, see EU ETS Handbook (n 6) 60.

See on non-exemption, Joseph E. Stiglitz and Andrew Charlton, 'Aid for trade' [2006] vol. 5 no. 2 *Intl J Dev Issues* 1, 35-36 [https://web.archive.org/web/20070728170326/http://www2.gsb.columbia.edu/faculty/jstiglitz/download/2006\\_AidforTrade.pdf](https://web.archive.org/web/20070728170326/http://www2.gsb.columbia.edu/faculty/jstiglitz/download/2006_AidforTrade.pdf).

<sup>119</sup> Barbara Cooreman, 'Addressing Environmental Concerns Through Trade: A Case for Extraterritoriality' [2016] 65 *Intl Comp L Rev* Q 229, section 10.

<sup>120</sup> Gabrielle Marceau has presented an idea for an Environmental Advisory Body under the WTO to advise on how to design measures. This may well be a good idea, however, the objective of the WTO does mean that such a body could have difficulty refraining from trade liberalisation-biased suggestions. If a country should end up imposing a regulation, which turns out to be in violation of the GATT, the adverse effects are very limited, as there are no sanctions for having imposed regulations that later turn out to be GATT inconsistent. The measure

## 4. Addressing Potential Problems

### 4.1 Practical application

NPR PPM-based regulations are inherently faced with problems of enforceability and control. It is notoriously hard for the imposing state to control whether the PPM requirements were indeed met, as it does not show on the final product upon import. The regulation therefore has to entail some form of certification or labelling to be carried out in the country of production, i.e. in other jurisdictions.<sup>121</sup> The proposed type of regulations is therefore not necessarily the most effective tool to ensure sustainable production methods, but it is the only effective GATT-consistent means of dealing with the problem.

### 4.2 Eco-imperialism and issues concerning developing countries

One of the key points of criticism on PPM-based regulation is that it will most likely be imposed by rich, developed countries, and most likely have the greatest detrimental impact on developing countries, whose governments may have different priorities and hold environmental sustainability as less important than the importing country.<sup>122</sup> Developing countries may not have the necessary means to impose environmental regulation let alone live up to the regulations of other states.<sup>123</sup> Developing countries perceive such regulation as developed countries forcing their standards, even if they bear little responsibility in the climate and

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will have to be repealed or changed as per the instructions of the WTO DSB. Charnovitz (n 1).

<sup>121</sup> The Superfund case supports the legality of such an approach. UNEP/WTO (n 80) 102-104.

<sup>122</sup> Charnovitz (n 1) 62-63.

<sup>123</sup> Paul (n 14) 9.

environmental chaos.<sup>124</sup> As such, the argument regarding eco-imperialism is that PPM-based regulations coerce developing countries and other exporters to adopt the values and policies of the importing country. For example, the US market is big enough that exporters would unlikely stop their exports to the US, but rather change their PPMs. However, coercion may not be the intention of the importing country. As is clear from Shrimp/Turtle,<sup>125</sup> such an objective would also not be permissible under GATT Law. Whether a PPM-based regulation with a permissible objective of environmental sustainability ends up being coercive depends on additional contingencies such as the market size and related demand for the products in question. In the case of the US market, the choice of not exporting to the US is less free than would be the case with smaller markets. No matter the outcome of the eco-imperialist discussion and whether it can be agreed that developing countries are not being offered the same opportunities as were offered industrialised countries, due to the urgency of action pertaining to environmental sustainability, it could be argued that this coercive effect of environmentally sustainable PPMs is necessary.

Another argument is that by imposing PPM-based regulations, the developed importing countries make it more expensive for the developing export countries to enter their markets. There is truth to this criticism, but it is misguided. WTO law does not hinder member states from imposing trade affecting regulation on product characteristics, as long as this is done in a non-discriminatory way. Thus, as long as the measure pertains to something, which is traceable in the final product, if imported like products are offered equal regulatory treatment as domestic products, there are no GATT violations. The question therefore arises whether it is somehow more costly or trade restrictive to developing countries to

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<sup>124</sup> ICTSD, 'WTO, UNEP Issue Joint Report on Trade and Climate Change' [2009] Vol. 13, No. 24 Bridges <http://www.ictsd.org/bridges-news/bridges/news/wto-unep-issue-joint-report-on-trade-and-climate-change>. uploaded 1 July 2009, accessed 5 May 2016.

<sup>125</sup> *Shrimp/Turtle* (n 29).

regulate the product characteristics than the PPM. Intuitively, this would differ on a case-by-case basis. No evidence supports that the way a product is processed or produced is *per se* harder or costlier to change than the actual product.<sup>126</sup> Therefore, while it may hold true that PPM-based regulation will make it harder for developing countries to enter developed country markets, this is already true for product characteristics, which is considered compliant with WTO law. Two wrongs do not make a right, and so it is important for the imposing country to regulate in a way, which considers the conditions of the exporting countries as concluded in section 0. As shown, preferential treatment of developing countries on this basis is in compliance with WTO law.

### 4.3 Regulatory Competition

Countries may be deterred from unilaterally imposing high standards of sustainable PPMs because of regulatory competition. Regulatory competition, in this case environmental, is the idea that countries with lower standards attract producers, and thus, jobs and exports, as producers can benefit from low costs of production due to externalised environmental costs. While these countries and producers are economically rewarded, the loss of competitiveness<sup>127</sup> is detrimental to countries with higher standards, and causes damage, sometimes irreparable, to the planet.<sup>128</sup>

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<sup>126</sup> Howse and Regan (n 95) 285-287.

<sup>127</sup> Competitiveness should be understood as the ability of firms and sectors to maintain profits and market shares. The effect upon the competitiveness depends upon a number of reasons, such as the intensity of the direct cost incurred by the industry, the trade exposure and energy intensity of the industry, the design of the regulation in the sense of exemptions and alleviations as well as the policy of other countries.

<sup>128</sup> The damage to the environment is not just the result of leakage, i.e. the ratio of increased pollution or environmental damage in one region as the result of regulation or constraints in another. Such damage is inherent without regulation, as the markets have not proven to be able to correct it. Paul (n 18) 32 n 12.

Regulatory competition and why it is theoretically problematic under WTO law is best explained by example. Assume that non-rubber shoes cannot be placed on the US market unless utilised tree has been reforested, so that all producers pay their suppliers to reforest any utilised tree products. This levels the playing field on the US market. Assuming that Brazil does not have the same regulation, producers from Brazil have an advantage in lower costs of production than the US producers. This incentivises the US producers to move production out of the US as their competitiveness is threatened in third country markets. Brazil's lack of environmental measures is not regarded as a subsidy under WTO law, even if it confers a benefit on producers, as there is no financial contribution from Brazil.<sup>129</sup> If the US, on the other hand, were to somehow help their domestic producers in order to level the playing field in Brazil and third-country markets, then Brazil could legally countervail against such subsidies, thus re-establishing the advantage for its producers. This dynamic means that there is no other viable option for the US to ensure the competitiveness of their producers than to deregulate, creating a (de)regulatory "race to the bottom".<sup>130</sup> Even if industries do not move their production, regulatory competition still offers an unfair advantage to free riders.<sup>131</sup> Some interpret this notion as a glaring hole in the system, while others maintain it is part of the embedded liberalism of free trade. While many measures are in place to counter other gains from unfair competition such as dumping, well-functioning measures are not in place for countering the abuse of the environment. As such, protecting the competitiveness of the domestic industry becomes one of the major problems of regulating PPMs, but it can be mitigated even under current WTO law.

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<sup>129</sup> Agreement on Subsidies and Countervailing Measures, 1869 U.N.T.S. 14, art. I.1.

<sup>130</sup> Paul (n 18) 29 n 4.

<sup>131</sup> Such countries are often referred to as free riders or environmental regulation havens.

Competitiveness on the domestic market can be ensured by designing the regulation as pertaining to all products placed on the market. If foreign producers have already made the necessary investments in changing the PPMs, they could have a comparative advantage in producing sustainably. This advantage can be adjusted for by the transitional period. It should provide producers with a reasonable timeframe so as to make the necessary changes as economically efficient as possible.

Competitiveness on third country markets proves more difficult. GATT art. VI:4 allows rebates on exports for taxes, which are not to be paid on the foreign market, however, there is no such right to offer rebates when the products are destined for countries, which do not have the same environmental regulations. One possible solution is to exclude products destined for export from the PPM requirements. However, that would mean that producers could continue producing in unsustainable ways, which would be counterproductive to the objective of the measure. While this may seem a necessary trade off, it could make the PPM-based regulation inconsistent with GATT law.<sup>132</sup>

A simple, yet not entirely altruistic solution to this problem is for the regulation to target only products that do not produce enough to export, leaving exporting industries free of any PPM-based regulation to begin with. This protects the domestic industry in a GATT-consistent way. However, it creates incentive for adversely selecting the products to target in order to ensure competitiveness.

Some scholars seem to be of the opinion that levelling the playing field should not even be justifiable by reference to the general exceptions of art. XX.<sup>133</sup> On the contrary, allowing for export rebates based on lack of internalisation of environmental production costs in the destination country would be a welcome change of pace at the WTO. Were that

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<sup>132</sup> See section 0, in which the requirements of exemptions under the chapeau are discussed. A significant carve-out such as this bears no relation to the objective of conservation of exhaustible natural resources.

<sup>133</sup> See Charnovitz (n 1) 106 n 274. The matter is highly debated.

possible, products would be targeted based on their adverse environmental impact rather than their competitive impact. Countervailing duties may be an alternative option, if a WTO DSB is ever to find lack of regulation to internalise environmental costs to be a hidden subsidy.<sup>134</sup>

#### 4.4 Unilateralism as a barrier to both trade and multilateral agreements

Divergent unilateral PPM-based measures are inherently barriers to trade. If producers must comply with different regulations and standards for different markets, economies of scale is less efficient than if producers can produce in the same way for every market. The requirement to engage in negotiations before imposing regulations can help mitigate this problem. However, forging international, multilateral environmental agreements is no easy task, and it will most likely still be long before that goal is reached, not to mention the establishment of an international enforcement mechanism and the setting in of the effects.

Divergent unilateral PPM-based measures may even make it harder to forge a multilateral agreement on sustainable production methods. However, treaty-making negotiations can also benefit from unilateral actions as it proves a willingness to act, so-called policy-forging unilateralism.<sup>135</sup> ‘Where international legal norms are still lacking, unilateral acts [...] could serve to promote the adoption of new international norms that are necessary to clarify the ‘grey areas’ of international practice.’<sup>136</sup>

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<sup>134</sup> Joel Paul proposes an anti-social dumping duty to be imposed at import. See Paul (n 14).

<sup>135</sup> Charnovitz (n 1) 71.

<sup>136</sup> Cooreman (n 97).

## Conclusion

Unilaterally imposed NPR PPM-based regulations have been proven to not be inconsistent with the theory of comparative advantage. However, it is no free exercise, particularly in small economies. Prices for consumers will be higher – at least initially. This has been shown to be no different than regulation of product characteristics. Additionally, like any idea taken to the extremes has adverse effects, blind liberalisation of trade has the potential to destroy the planet. States have an opportunity to act to correct the externalisation of environmental costs of production, and may thereby bring trade one step closer to rewarding the product of highest comparative advantage. Further, such action may influence the outcome of multilateral environmental agreements.

The analysis of current GATT provisions shows that PPM-based regulations can be compliant with WTO law though there are restrictions that police discrimination and measures imposed as a veiled attempt at protectionism. To balance the need for protecting the environment and the liberalisation of trade, it is the opinion of this author that the TBT should apply to technical PPM regulations, no matter if the PPM in question leaves a trace in the final product. The TBT imposes several relevant requirements on unilateral measures, which can only be allowed if the reasons for imposing the measure can pass muster as aiming at protecting the environment.

There are some serious barriers to unilateral action notwithstanding that law may not be an appropriate tool for handling environmental challenges. Regulatory competition remains a problem with no good tools available through WTO law. Also, the environment may be quite unattractive as campaign material for politicians as the thought of prices rising, industries' competitiveness threatened, and money spent by both government and companies does not work wonders for popularity. Environmental sustainability through internalising the environmental costs of production requires leadership. As this paper has shown that PPM-based measures can indeed be consistent with WTO law and the theory underlying international trade law, if governments choose not to regulate,

it will be from a lack of political will, not because there are genuine legal barriers.