
Appropriate Level of Protection: The Most Misconceived Notion of WTO Law

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Abstract

Simple and elegant as a theoretical concept, an appropriate level of sanitary or phytosanitary protection (ALOP) has proven complicated to implement in World Trade Organization (WTO) dispute settlement. While the Appellate Body has insisted that ALOP must be defined with sufficient precision to apply the relevant provisions of the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), ‘high or conservative’ remains as precise a formulation of ALOP as one can get. Despite the Appellate Body’s clear guidance that SPS measures are not to be confused with ALOP, panels – including the Appellate Body – have routinely mistaken one for the other. The most to suffer has been Article 5.5 of the SPS Agreement, which prohibits ‘arbitrary distinctions’ in ALOPs applied ‘in different situations’. By substituting differences in SPS measures for differences in ALOPs and finding two different situations, i.e. two ALOPs, where there is only one, the jurisprudence has eviscerated this provision of its meaning and converted it into a peculiar version of the least-trade-restrictive-measure requirement. This article takes stock of the panel and Appellate Body jurisprudence on ALOP and offers some thoughts, de interpretatione ferenda, on the direction that future jurisprudence should take.

1 Introduction

One of the central concepts of the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (hereinafter ‘SPS Agreement’ or ‘the Agreement’)¹ is WTO members’ ‘appropriate level of protection’ (ALOP). World Trade Organization (WTO) dispute settlement panels have been tasked with

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¹ Agreement on the Application of Sanitary and Phytosanitary Measures, 1994, 1867 UNTS 493, available at www.wto.org/english/tratop_e/sps_e/spsagr_e.htm.

determining the respondent's ALOP in 10 out of 12 disputes² in which provisions of the SPS Agreement have been invoked to date. In all these instances, the complainants made claims under Article 5.6 and/or Article 5.5 of the Agreement. The former mandates that SPS measures of the importing WTO member not be significantly more restrictive to trade than necessary to achieve that member's ALOP. It provides:

... when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of sanitary or phytosanitary protection, taking into account technical and economic feasibility.*

* For purposes of paragraph 6 of Article 5, a measure is not more trade-restrictive than required unless there is another measure, reasonably available taking into account technical and economic feasibility, that achieves the appropriate level of sanitary or phytosanitary protection and is significantly less restrictive to trade.

Along with non-discrimination, the obligation to adopt only those measures which are 'necessary' to achieve a legitimate policy objective is a central pillar of the WTO legal framework.³ However, it is only the SPS Agreement that establishes a separate metric (ALOP) for the different levels (degrees) of achievement of such a policy objective (in this case, protection against SPS risks) and gauges the legality of the covered measures by reference to that metric – which is taken to exist independently of the challenged measure – rather than to the measure itself. The least-trade-restrictiveness test under Article 5.6 requires that a hypothetical alternative achieve the respondent's independently established ALOP,⁴ whereas other necessity tests generally require that an alternative measure only make the same contribution to the achievement of the respondent's policy objective as the challenged measure itself.⁵

Article 5.5, in turn, prohibits distinctions in ALOPs established in 'different situations', if such distinctions result in discrimination:

With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade. . . .

² WTO, *European Communities – Measures Concerning Meat and Meat Products (Hormones)*, DS26, DS48; WTO, *United States/Canada – Continued Suspension of Obligations in the EC (Hormones)*, DS320, DS321.

³ See, e.g., General Agreement on Tariffs and Trade, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 UNTS 187, 33 ILM 1153 (1994), Art. XX (hereinafter 'GATT'); Agreement on Technical Barriers to Trade, 15 April 1994, 1868 UNTS 120, Arts. 2.2, 5.1.2, and Annex 3(E); General Agreement on Trade in Services, 15 April 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1B, 1869 UNTS 183, 33 ILM 1167 (1994), Art. XIV (hereinafter 'GATS').

⁴ WTO, *Australia – Measures Affecting Importation of Salmon – Report of the Appellate Body*, 20 October 1998, WT/DS18/AB/R, para. 154 (hereinafter 'Appellate Body Report, *Australia – Salmon*').

⁵ For the legal test under GATT, *supra* note 3, Art. XX, see, e.g., WTO, *Brazil – Measures Affecting Imports of Retreaded Tyres – Report of the Appellate Body*, 3 December 2007, WT/DS332/AB/R, para. 156.

Although simple as a theoretical concept, ALOP has proved tricky for panels – and the Appellate Body – to operationalize. In fact, it is difficult to find another notion of WTO law that has been so consistently misconceived in dispute settlement reports. Despite the Appellate Body's clear admonition back in 1998, in *Australia – Salmon*, that a member's ALOP is not the same as its SPS measures,⁶ a number of panels have accepted the respondent's SPS requirements as its ALOP. Despite the Appellate Body's warning in the same report that a member's ALOP cannot normally be inferred from an SPS measure, both panels and the Appellate Body itself have routinely inferred, in the context of Article 5.5, the existence of two ALOPs from the existence of two measures addressing the same or similar risks but achieving different levels of protection.

This article takes stock of the panel and Appellate Body jurisprudence on ALOP and offers some thoughts, *de interpretatione ferenda*, on the direction the future jurisprudence should take. After reviewing, in Section 2, the concept of ALOP as interpreted by the Appellate Body in the context of Article 5.6, it provides, in Section 3, a summary of the respondents' ALOPs identified by panels and the Appellate Body in SPS disputes, and explains, in Section 4, why what panels have in a number of cases mistaken for ALOP was in fact an SPS measure.

Section 5 shows that on the rare occasions that the panels have actually taken the effort to determine the respondent's ALOP, they have all come up with the same outcome: a high or conservative, but not zero-risk, level of protection. While this formulation is somewhat vague, it is precisely in these terms that WTO members and relevant international organizations, such as the World Organization for Animal Health, appear to think of ALOP, too.

The misconception of ALOP has affected the interpretation and application of Article 5.5. By comparing SPS measures which address the same risk instead of comparing ALOPs, panels and the Appellate Body have reduced this provision to a replica of Article 5.6. Section 6 explains how to get the jurisprudence on Article 5.5 back on track.

2 What Is an 'Appropriate Level of Protection'?

According to the definition in Annex A(5) to the SPS Agreement, an appropriate level of sanitary or phytosanitary protection is the level of protection deemed appropriate by the member establishing a sanitary or phytosanitary measure to protect human, animal, or plant life or health within its territory. A note to Annex A(5) specifies that many Members otherwise refer to this concept as the 'acceptable level of risk'. The panel in *India – Agricultural Products* inferred from this that 'an ALOP or acceptable level of risk will express a certain threshold that denotes the position of the relevant

⁶ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 200.

Member in relation to the intensity, extent, or relative amount of protection or risk that the Member deems to be tolerable or suitable'.⁷

The Appellate Body stated as early as its second report on an SPS dispute that an ALOP must not be confused with an SPS measure:

The 'appropriate level of protection' established by a Member and the 'SPS measure' have to be clearly distinguished. They are not one and the same thing. The first is an *objective*, the second is an *instrument* chosen to attain or implement that objective. . . . [T]he determination by a Member of the 'appropriate level of protection' logically precedes the establishment or decision on maintenance of an 'SPS measure'.⁸

The Appellate Body also clarified that while '[t]he determination of the appropriate level of protection . . . is a prerogative of the Member concerned and not of a panel or of the Appellate Body',⁹ 'the SPS Agreement contains an implicit obligation to determine the appropriate level of protection' – in quantitative or in qualitative terms, but in any case, with sufficient precision to apply the respective articles of the SPS Agreement.¹⁰

This suggests that, when dealing with a risk contemplated by the definition of SPS measure in Article A(1) of the SPS Agreement (e.g., a risk arising from a disease, a pest, or an additive, contaminant, toxin or disease-causing organism in foods, beverages or foodstuffs), an importing WTO member should normally proceed as follows. At step one, it chooses the level of protection against the risk which it deems appropriate. Such level may be expressed in quantitative or qualitative terms but must in any case denote the position of the member in relation to the intensity, extent or relative amount of risk that the member deems to be tolerable or suitable. The precise numerical or qualitative (e.g. low, high, etc.) expression of the degree of protection is a policy choice, which does not require scientific justification and is not regulated by the SPS Agreement, except that in accordance with Article 5.5 the member must 'avoid' distinctions in its ALOPs applied in 'different situations' if such distinctions result in discrimination.

If the 'unrestricted risk', i.e. risk with no SPS measures in place, is lower than or equal to the member's acceptable level of risk, then no SPS measures are required (or allowed). If the unrestricted risk is above the member's acceptable level, then, at step two, the member introduces one or more SPS measures which reduce the risk to the acceptable level. The measures to be put in place are selected on the basis of a risk assessment or in accordance with the relevant international standard, as required by Articles 3 and 5.1 of the SPS Agreement. Pursuant to Article 5.6, among all the

⁷ WTO, *India – Measures Concerning the Importation of Certain Agricultural Products – Report of the Panel*, 14 October 2014, WT/DS430/R, para. 7.565 (hereinafter 'Panel Report, *India – Agricultural Products*').

⁸ Appellate Body Report, *Australia – Salmon*, *supra* note 4, paras 200–201.

⁹ *Ibid.*, para. 199.

¹⁰ *Ibid.*, paras 206–207.

available SPS measures which allow it to achieve its ALOP, the member must choose those that are least restrictive to trade.

If a WTO member did not explicitly establish its ALOP with respect to a given situation, or the panel in an SPS dispute has reasons to believe that the respondent's ALOP is different from what the respondent purports it to be, the panel may (in fact, it is held to it¹¹) identify the respondent's ALOP on the basis of 'available evidence'. It is clear that, as the panel in *Australia – Salmon* pointed out, 'any sanitary measure applied to a given situation inherently reflects and achieves a certain level of protection with respect to that situation'.¹² Since SPS measures are introduced precisely to achieve a member's intended level of protection, the respondent's SPS measures actually applied have probative value in determining the level of protection that the respondent deems appropriate in the situation in question. However, as the Appellate Body itself noted, '[t]o imply the appropriate level of protection from the existing SPS measure would be to assume that the measure always achieves the appropriate level of protection determined by the Member. That clearly cannot be the case'.¹³ While recognizing that, where the respondent did not determine its ALOP with sufficient precision, a panel may have little choice but to deduce the respondent's ALOP from its SPS measure,¹⁴ the Appellate Body has emphasized that this approach is to be avoided where possible.¹⁵

3 Appropriate Levels of Protection as Identified by WTO Panels

Against this background, [Table 1](#) summarizes the respondents' appropriate levels of protection accepted or determined by panels in all disputes under the SPS Agreement that have been decided to date. This jurisprudence will be analysed in the next sections.

¹¹ WTO, *India – Measures Concerning the Importation of Certain Agricultural Products – Report of the Appellate Body*, 4 June 2015, WT/DS430/ABR, para. 5.220 (hereinafter 'Appellate Body Report, *India – Agricultural Products*'). See also WTO, *Australia – Measures Affecting the Importation of Apples from New Zealand – Report of the Appellate Body*, 29 November 2010, WT/DS367/AB/R, paras 344, 368.

¹² WTO, *Australia – Measures Affecting Importation of Salmon – Report of the Panel*, 12 June 1998, WT/DS18/R, para. 8.107 (hereinafter 'Panel Report, *Australia – Salmon*').

¹³ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 203.

¹⁴ *Ibid.*, para. 207.

¹⁵ Appellate Body Report, *India – Agricultural Products*, *supra* note 11, para. 5.226.

Table 1: Appropriate levels of protection in WTO disputes

Dispute (short title)	Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute
<i>EC – Hormones</i>	<p>With respect to three natural hormones in dispute (testosterone, progesterone, oestradiol-17β) when used to promote growth¹⁶</p> <p>With respect to three natural hormones in dispute (i) occurring endogenously in meat and other foods and (ii) used for therapeutic or zootechnical purposes¹⁷</p> <p>With respect to three synthetic hormones in dispute (zeranol, trenbolone and melengestrol acetate (MGA))¹⁸</p> <p>With respect to carbadox and olaquindox¹⁹</p>
<i>United States/Canada – Continued Suspension</i>	<p>While the United States and Canada were the respondents, the dispute concerned the EC measures at issue in <i>EC – Hormones</i>. The formulation of the European Community’s level of protection was not discussed in the Panel or Appellate Body Reports</p>

¹⁶ WTO, *European Community – Measures Concerning Meat and Meat Products (Hormones)*, Complaint by the United States – Report of the Panel, 18 August 1997, WT/DS26/R/US, para. 8.191 (hereinafter ‘Panel Report, *EC – Hormones (US)*’); WTO, *European Community – Measures Concerning Meat and Meat Products (Hormones)*, Complaint by Canada – Report of the Panel, 18 August 1997, WT/DS48/R/CAN, para. 8.194 (hereinafter ‘Panel Report, *EC – Hormones (Canada)*’). The Appellate Body later noted:

It may be questioned whether the European Communities has established at all an appropriate level of protection in respect of naturally-occurring hormones in meat and other foods (i.e. which are part of people’s daily diet). We have accepted arguendo the assumption of the Panel that the European Communities did, for the purposes of this analysis.

See WTO, *European Community – Measures Concerning Meat and Meat Products (Hormones)* – Report of the Appellate Body, 16 January 1998, WT/DS26/R/US, WT/DS48/R/CAN, para. 2.21 n.214 (hereinafter Appellate Body Report, *EC – Hormones*).

¹⁷ Panel Report, *EC – Hormones (US)*, supra note 16, para. 8.191; Panel Report, *EC – Hormones (Canada)*, supra note 16, para. 8.194.

¹⁸ Panel Report, *EC – Hormones (US)*, supra note 16, paras 8.211., 8.265; Panel Report, *EC – Hormones (Canada)*, supra note 16, paras 8.214., 8.268.

¹⁹ Panel Report, *EC – Hormones (US)*, supra note 16, para. 8.226; Panel Report, *EC – Hormones (Canada)*, supra note 16, para. 8.229.

Table 1. Continued

Dispute (short title)	Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute	
<i>Australia – Salmon</i>	With respect to ocean-caught Pacific salmon and other Canadian salmon ²⁰	High or very conservative level of sanitary protection aimed at reducing risk to very low levels, while not based on a zero-risk approach ²¹ 'Definitely lower' than the ALOP that applies with respect to ocean-caught Pacific salmon and generally ²³
<i>Australia – Salmon (Article 21.5 – Canada)</i>	Generally ²⁴	High or very conservative level of protection aimed at reducing risk to very low levels, while not based on a zero-risk approach
<i>Japan – Agricultural Products II</i>	With respect to plants which host codling moth ²⁵	Complete mortality in large-scale tests of quarantine treatment on a minimum of 30,000 codling moths for each variety of import crop
<i>Japan – Apples</i>	No relevant findings as the panel exercised judicial economy on the United States' claim under Article 5.6 ²⁶	

²⁰ Appellate Body Report, *Australia – Salmon*, *supra* note 4, paras 158, 197, 231.

²¹ It was the Appellate Body that explicitly referred to this statement as Australia's ALOP. The panel, instead, '[saw] no need to clearly define or quantify' Australia's ALOP (Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.107). Moreover, the panel made findings under Articles 5.5 and 5.6 of the SPS Agreement in the alternative: after it had found that Australia's measures were inconsistent with Article 5.1, it considered there was no need to examine the complainant's claims under Articles 5.5 and 5.6 (*ibid.*, para. 8.102).

²² *Ibid.*, para. 8.128.

²³ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 158.

²⁴ WTO, *Australia – Measures Affecting Importation of Salmon – Recourse to Article 21.5 of the DSU by Canada – Report of the Panel*, 18 February 2000, WT/DS18/RW, para. 7.129 (hereinafter '*Australia – Salmon (Article 21.5 – Canada)*').

²⁵ WTO, *Japan – Measures Affecting Agricultural Products – Report of the Panel*, 27 October 1998, WT/DS76/R, para. 8.82 (hereinafter '*Panel Report, Japan – Agricultural Products II*').

²⁶ WTO, *Japan – Measures Affecting the Importation of Apples – Report of the Panel*, 15 July 2003, WT/DS245/R, para. 8.303 (hereinafter '*Panel Report, Japan – Apples*') (the Panel reckoned, in particular, that '[a] finding under Article 5.6 would not add anything in terms of legal implications' to its earlier finding that the measure at issue was maintained without sufficient scientific evidence, in contravention of Article 2.2).

Table 1. Continued
Dispute

Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute

(short title)

Japan – Apples
 (Article 21.5 – US)

With respect to apples²⁷

Equivalent to the one that would result from an import ban on commercial apples. In other words, the level of protection that provides a security level which will not compromise Japan's status as a free blight-free country through commercial shipment of fresh apple fruit, in the absence of illicit acts

EC – Biotech Products

No relevant findings, as the panel ruled that the 'general moratorium' on the approval of biotech products and some 'product-specific measures' at issue were not SPS measures, while for other 'product-specific measures' the complainants had not made a *prima facie* case of violation of Articles 5.5 and 5.6.²⁸

The panel exercised judicial economy in respect of the complainants' claims against EC member states' 'safeguard measures' under Articles 5.5 and 5.6.²⁹

²⁷ WTO, *Japan – Measures Affecting the Importation of Apples – Recourse to Article 21.5 of the DSU by the United States – Report of the Panel*, 23 June 2005, WT/DS245/RW, paras 8.190, 8.193 (hereinafter 'Panel Report, *Japan – Apples* (Article 21.5 – US)').

²⁸ WTO, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products – Reports of the Panel*, 29 September 2006, WT/DS291/R, WT/DS292/R, WT/DS293/R, paras 7.1405, 7.1419, 7.1725, 7.1727, 7.1741, 7.1743, 7.1746, 7.1749.

²⁹ *Ibid.*, paras 7.3378, 7.3385.

Table 1. Continued

Dispute (short title)	Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute
<i>Australia – Apples</i>	<p data-bbox="276 178 356 666">Generally ('stated' ALOP)³⁰ A high level of sanitary or phytosanitary protection aimed at reducing risk to a very low level, but not zero</p> <p data-bbox="379 178 577 1284">'De facto' ALOP's against: (1) European canker in New Zealand apples, on the one hand, and brown rot in Japanese nashi pears, on the other; (2) fire blight in New Zealand apples, on the one hand, and <i>Japanese Erwinia</i> in Japanese nashi pears, on the other</p> <p data-bbox="379 178 577 666">Having reviewed the risks associated with European canker and fire blight in New Zealand apples, the panel found that New Zealand had not demonstrated that there were distinctions in the levels of protection 'actually achieved by the measures applied in the two situations [being compared]'³¹</p>

³⁰ WTO, *Australia – Measures Affecting the Importation of Apples, from New Zealand – Report of the Panel*, 9 August 2010, WT/DS367/R, paras 2.59, 7.969 (hereinafter 'Panel Report, *Australia – Apples*'). The panel further specifies:

This ALOP is not specific to apples imported from New Zealand; it is rather part of Australia's general biosecurity policy. Using the risk estimation matrix, any combination of the likelihood of entry, establishment and spread and consequences that resulted in 'negligible' or 'very low' risk was found to meet Australia's ALOP and was considered acceptable. In such a situation, risk management measures would not be justified. If, however, the unrestricted risk was 'low', 'moderate', 'high' or 'extreme', it would be found to exceed Australia's ALOP and risk management measures were required.

See *ibid.*, para. 2.59.

³¹ *Ibid.*, paras 7.1046, 7.1088.

Table 1. Continued

Dispute (short title)	Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute
US – Poultry (China)	With respect to slaughtered poultry generally ³² [N]o slaughtered poultry, or parts or products thereof, of any kind shall be imported into the United States unless they are healthful, wholesome, fit for human food, not adulterated, and contain no dye, chemical, preservative, or ingredient which renders them unhealthful, unwholesome, adulterated, or unfit for human food'. In other words, all poultry products must be 'safe' ³³ An ALOP distinct from that which applies generally ³⁴ Very high or very conservative Safe trade or an optimal level of animal health security
India – Agricultural Products	With respect to slaughtered poultry from China With respect to avian influenza ³⁵ ALOP achievable by measures based on the World Organization for Animal Health (OIE) Terrestrial Animal Health Code (Terrestrial Code) ³⁶

³² WTO, *United States – Certain Measures Affecting Imports of Poultry from China* – Report of the Panel, 29 September 2010, WT/DS 392/R, para. 7.242 (hereinafter 'Panel Report, US – Poultry (China)').

³³ *Ibid.*, para. 7.243.

³⁴ *Ibid.*, para. 7.253: 'We therefore find that the [procedures applying to slaughtered poultry from WTO members generally] are so substantially different from [what is effectively an import ban on Chinese poultry] that they reflect a distinction in ALOPs.'

³⁵ Panel Report, *India – Agricultural Products*, *supra* note 7, paras 7.570, 7.575. Notably, India argued that its ALOP was to 'prevent ingress' of notifiable avian influenza or to ensure country freedom from the same. The Panel deemed, though, that neither formulation constituted a proper ALOP (*ibid.*, paras 7.571, 7.574).

³⁶ *Ibid.*, paras 7.580–7.581. The Panel concluded as part of its analysis under Article 5.6 that 'measures based on the recommendations of the Terrestrial Code would achieve a level of protection that is at least as high as India's "very high" or "very conservative" level of protection' (*ibid.*, para. 7.582).

Table 1. Continued

Dispute (short title)	Appropriate level(s) of protection of the importing WTO member (respondent) as identified by the WTO panel considering the dispute	
US – <i>Animals</i>	With respect to foot-and-mouth disease (FMD) ³⁷	‘[T]o prevent the introduction or dissemination of foot-and-mouth disease within the United States’ Somewhere between low and zero risk Lower than the United States’ ALOP
Russia – <i>Pigs</i>	ALOP achievable by measures based on the OIE Terrestrial Code ³⁸ Applied to the imports of the products at issue from the European Union in respect of African swine fever (ASF) ³⁹ ALOP achievable by measures based on the OIE Terrestrial Code ⁴⁰	High or conservative (but not zero risk) High or conservative
<i>Indonesia – Chicken</i> <i>Korea – Radionuclides</i>	No claims under provisions involving ALOP With respect to exposure to radiation in food ⁴¹	‘[T]o maintain radioactivity levels in food consumed by Korean consumers at levels that exist in the ordinary environment – in the absence of radiation from a major nuclear accident – and thus maintain levels of radioactive contamination in food that are “as low as reasonably achievable” (ALARA), below the 1 mSv/year radiation dose limit’

³⁷ WTO, *United States – Measures Affecting the Importation of Animals, Meat and Other Animal Products from Argentina* – Report of the Panel, 24 July 2015, WT/DS447/R, para. 7.387 (hereinafter ‘Panel Report, US – Animals’).

³⁸ *Ibid.*, para. 7.382.

³⁹ WTO, *Russian Federation – Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union* – Report of the Panel, 19 August 2016, WT/DS475/R, para. 7.752 (hereinafter ‘Panel Report, Russia – Pigs’).

⁴⁰ *Ibid.*, para. 7.826.

⁴¹ WTO, *Korea – Import Bans, and Testing and Certification Requirements for Radionuclides* – Report of the Panel, 22 February 2018, WT/DS495/R, para. 7.172 (hereinafter ‘Panel Report, Korea – Radionuclides’).

4 Panels Routinely Mistake SPS Measures for ALOPs

As the Appellate Body has emphasized, the distinction between an ALOP and an SPS measure is a crucial one: while it is a sovereign right⁴² of a WTO member to set as high (or as low) a level of protection as it chooses to, the member's right to introduce and maintain sanitary or phytosanitary measures is circumscribed by the provisions of the SPS Agreement. Therefore, to 'elevate' a measure to the status of an ALOP would mean to unjustifiably exclude it from the application of the relevant disciplines of the agreement.

Despite this, panels, save for one, have never engaged in an analysis of whether the formulation of an ALOP put forward by the respondent meets the definition of ALOP in Annex A(5) of the SPS Agreement and, as a result, have on multiple occasions mistakenly treated respondents' measures as their ALOPs.

In *EC – Hormones*,⁴³ the United States specifically argued that what the EC claimed to be its ALOP – the requirement that there be no residues of certain added growth promotion hormones in meat – was, in fact, 'a measure that set a maximum residue limit, or "MRL", of zero'.⁴⁴ An ALOP, the United States argued, would be an indication of how much risk that a certain adverse event materializes the importing WTO member is willing to take.⁴⁵ As the EC claimed that it was the carcinogenic properties of the hormones at issue that prompted it to introduce the ban on meat obtained from animals that received such hormones,⁴⁶ the EC's ALOP, according to the United States, should have expressed a level of protection against cancer, i.e. an acceptable level of risk to develop cancer as a result of the consumption of such meat. Thus 'a level of protection with respect to animal drug residues in meat might be "no risk of cancer in humans"'.⁴⁷

The panel, however, thought otherwise. As part of its analysis under Article 3.1, it said:

Without limiting the possibilities of how a *level of protection* may be expressed for a particular substance, we consider that in the specific field of veterinary drugs (including the six hormones at issue), a level of protection can be directly linked to the *amount of residues* of that drug allowed either to be ingested by humans on a daily basis or to be present in a particular food. A level of protection can thus, *inter alia*, be expressed by way of setting a maximum amount of residues allowed for daily intake by humans over a lifetime (often defined as acceptable daily intake or ADI) and (or) by way of adopting a maximum amount of residues allowed to be present in a particular food (often defined as maximum residue limit or MRL). However, the fact that an

⁴² Panel Report, *EC – Hormones (US)*, *supra* note 16, para. 8.164. Panel Report, *EC – Hormones (Canada)*, *supra* note 16, para. 8.167.

⁴³ The panel and Appellate Body reports in this dispute were issued before the Appellate Body Report, *Australia – Salmon*, *supra* note 4, which contained the aforementioned pronouncements as to the difference between SPS measure and ALOP.

⁴⁴ Panel Report, *EC – Hormones (US)*, *supra* note 16, para. 4.53.

⁴⁵ *Ibid.*, para. 4.51.

⁴⁶ See, e.g., Panel Report, *EC – Hormones (US)*, *supra* note 16, para. 4.108; Panel Report, *EC – Hormones (Canada)*, *supra* note 16, para. 4.215.

⁴⁷ Panel Report, *EC – Hormones (US)*, *supra* note 16, para. 4.54.

ADI or MRL can reflect a level of protection (without *stricto sensu* itself being a level of protection), does not exclude, as the European Communities has argued, that an ADI or MRL can also be a sanitary measure in the sense of the SPS Agreement.⁴⁸

While obviously hesitant to refer to the MRL of a veterinary drug as a level of protection, not to say an ALOP proper (the panel says that an allowed amount of residues 'can be linked to', 'express' or 'reflect' a level of protection, but is not a level of protection *stricto sensu*), the panel nonetheless referred to MRLs as ALOPs in its analysis under Article 5.5 and established a violation on the basis of an inconsistency in MRLs. The complainants did not plead legal error in the panel's determination of the EC's ALOP and the Appellate Body did not reverse the panel in this respect.

An MRL, however, is not an ALOP but an SPS measure. First, while an MRL 'reflects' (or, rather, contributes to the achievement of) a certain level of protection, it is not necessarily the level that the importing WTO member deems appropriate. Second, an MRL reflects a level of protection only to the extent that we know the quantitative and qualitative characteristics of the risks involved. Otherwise, any limit is but an abstract number. For instance, an MRL for lunarium (a fictional substance) of 5 mg per kg of bovine meat says nothing either about the risk (adverse health effect) that this limit addresses or about the level of protection against that risk. Depending on the concentrations of lunarium that cause adverse health effects and on the diet of the people in the importing WTO member, this MRL may mean a high or low level of protection. If foods which contain lunarium in significant quantities (again, how much is 'significant?') constitute a major share of peoples' diet, even a low residue limit may fail to prevent adverse effects on their health. If, on the contrary, they hardly ever consume such foods, even higher residues will be relatively safe. This is the reason why (1) the MRLs recommended by *Codex Alimentarius* are derived on the basis of acceptable daily intake (ADI) of the respective substance; and (2) the Appellate Body agreed with the panel in *EC – Hormones* that the proven carcinogenicity of certain hormones does not, in and of itself, justify a ban on meat containing such hormones.⁴⁹

The panel in *Japan – Agricultural Products II* accepted as Japan's ALOP against codling moth the requirement of 'complete mortality [of codling moth] in large-scale tests of quarantine treatment on a minimum of 30,000 codling moths' for each variety of import crop.⁵⁰ The United States, again, argued that this requirement did not constitute a level of protection.⁵¹ During the interim review, 'the United States reiterated its view that – although no disagreement exist[ed] as to the level of mortality Japan requires – Japan [had] never defined its appropriate level of protection'.⁵² The panel remained adamant.

Like MRLs, pest mortality levels in (i.e. the efficacy of) quarantine treatment of commodities are not determinative, in the abstract, of the level of protection against

⁴⁸ *Ibid.*, para. 8.74 (footnotes omitted).

⁴⁹ Appellate Body Report, *EC – Hormones*, *supra* note 16, paras 199–200.

⁵⁰ Panel Report, *Japan – Agricultural Products II*, *supra* note 25, paras 8.82, 8.99.

⁵¹ *Ibid.*, para. 4.66.

⁵² *Ibid.*, para. 7.3.

the pest in question or the level of risk associated with that pest that the importing WTO member is willing to accept. Such risks (especially in cases of less than complete mortality) depend, inter alia, on the economic or environmental importance of the host plants, the climatic conditions of the importing member and the ability of the pest to survive in them; the same mortality level may reflect different levels of protection depending on other factors involved. One of the standards adopted by the Asia and Pacific Plant Protection Commission states that ‘[t]he level of efficacy required by importing countries for individual phytosanitary treatments should meet the “appropriate level of protection (ALOP)” of the importing country’,⁵³ thus confirming that treatment efficacy and ALOP are not the same and, more importantly, that there is no one-to-one correspondence between the level of treatment efficacy and ALOP. The requirement of complete or near-complete mortality in *small*-scale tests (as opposed to large-scale tests on tens of thousands of insects) may nevertheless reflect a *high* level of protection if the infestation rates of the import commodities are low.

Japan itself admitted ‘that its level of protection [was] that achieved by the import prohibition [on commodities which host codling moth] and that the level of mortality [in a quarantine treatment] it require[d] for lifting the import prohibition [was but] one of the technical requirements to ensure efficacy of [the treatment]’.⁵⁴

In the most recent SPS case, *Korea – Radionuclides*, the panel determined that Korea’s ALOP against radiation in food is ‘to maintain radioactivity levels in food consumed by Korean consumers at levels that exist in the ordinary environment – in the absence of radiation from a major nuclear accident – and thus maintain levels of radioactive contamination in food that are “as low as reasonably achievable” (ALARA), below the 1 mSv/year radiation dose limit’.⁵⁵ The panel found a violation by Korea of Article 5.6 of the SPS Agreement after it had determined that the measure proposed by the complainant, Japan, as an alternative to import prohibitions and to extensive testing of import products for radionuclides would ensure that Korean consumers’ exposure to radiation through food remained at a level below 1 mSv/year.⁵⁶ The Appellate Body reversed the panel, saying that it had unduly focused on the ‘quantitative element’ of Korea’s ALOP (1 mSv/year), while ignoring its ‘qualitative aspect’ (the ALARA principle and radioactivity levels ‘in the ordinary environment’).⁵⁷

The problem with the panel’s report, however, is broader: what the panel accepted as Korea’s ALOP is not an ALOP because (i) it does not mention the risk it protects against; (ii) it does not express any level of protection against that risk; and (iii) it says

⁵³ Asia and Pacific Plant Protection Commission (APPPC) and Food and Agriculture Organization of the United Nations. Regional Office for Asia and the Pacific, *Guidelines for the Development of Heat Disinfestation Treatments of Fruit Fly Host Commodities*, APPPC RSPM No. 1 (2004), available at <https://bit.ly/2IOwWeO>.

⁵⁴ Panel Report, *Japan – Agricultural Products II*, *supra* note 25, para. 7.3.

⁵⁵ Panel Report, *Korea – Radionuclides*, *supra* note 41, para. 7.172.

⁵⁶ *Ibid.*, paras 7.245, 7.252.

⁵⁷ WTO, *Korea – Import Bans, and Testing and Certification Requirements for Radionuclides – Report of the Appellate Body*, 11 April 2019, WT/DS495/AB/R, paras 5.26–5.38.

nothing about the level of protection that Japan *deems appropriate*. An ALOP cannot contain qualitative and quantitative ‘aspects’ – it is a ‘one-dimensional’ value, which may be either qualitative or quantitative, but not both. In this case, the ‘quantitative aspect’, the ceiling of 1 mSv/year, is analogous in its nature to MRLs discussed in the context of the *EC – Hormones* dispute, so the reasoning set out above, *mutatis mutandis*, also applies in this case. In particular, pursuant to the SPS Agreement, a WTO member is not free to establish any restriction on exposure to radiation through food it deems appropriate – any such restriction must be science-based. The threshold of 1 mSv/year did not raise questions because it is borrowed from the *Codex Alimentarius* ‘General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193–1995)’, which designates 1 mSv/year as the ‘intervention exemption level’.⁵⁸ What if, however, a WTO member adopted a lower threshold – say, 0.9 mSv/year? Or 0.1 mSv/year? Other members might ask for scientific justification.

Similarly, the ‘qualitative aspect’ is simply the level of exposure to radiation. However, while 1 mSv/year is the *threshold* level, ALARA or radioactivity levels ‘in the ordinary environment’ is the *target* level. It is not, however, a level of protection against a risk (even less, an *appropriate* level of protection) because we do not know, without more information, either the specific risk addressed or how increasing exposure to radiation in food over and above the ‘levels that exist in the ordinary environment’ – in particular, to 1 mSv/year – would affect the risks for human health. Does it increase the chances of developing a radiation-related disease or not? If it does, should Korea’s ALOP be equated with the higher level of risk, i.e. the lower level of protection, which results from the 1 mSv/year exposure? If it does not, could the panel have safely presumed that not exceeding the 1 mSv/year level in the event of allowing Japanese imports would keep Korea’s protection at the level Korea deems appropriate? If the panel had examined these issues (which may have led it to exactly the same conclusions it arrived at in its report), the Appellate Body would have had no grounds to reverse the panel citing the panel’s undue focus on the ‘quantitative element’ of Korea’s limit on exposure to radiation in food.

Finally, in *US – Poultry (China)*, the United States offered a statement from section 466 of its Poultry Products Inspection Act (PPIA) as its poultry-related ALOP: ‘no slaughtered poultry, or parts or products thereof, of any kind shall be imported into the United States unless they are healthful, wholesome, fit for human food, not adulterated, and contain no dye, chemical, preservative, or ingredient which renders them unhealthful, unwholesome, adulterated, or unfit for human food’.⁵⁹ This statement, to use the United States’ own line of argument from *EC – Hormones*, does not contain an indication of how much risk that a certain adverse event materializes the United States is willing to take and is therefore an SPS measure (an import requirement) rather than an ALOP. However, both the complainant, China, and the panel agreed with the United States that this statement expressed the United States’ ALOP ‘for poultry in general’ (but not for

⁵⁸ Panel Report, *Korea – Radionuclides*, *supra* note 41, para. 2.25.

⁵⁹ Panel Report, *US – Poultry (China)*, *supra* note 32, para. 7.242.

poultry from China). The panel explained that it accepted this formulation as the United States' ALOP because 'the United States is free to decide its own ALOP'.⁶⁰

The only panel that has engaged, in the context of a complainant's claim under Article 5.6, in an analysis of whether what the respondent claims to be its ALOP meets the definition of ALOP was the panel in *India – Agricultural Products*. India contended that its ALOP was twofold: (i) to prevent ingress of notifiable avian influenza (NAI) through products that pose risk and (ii) exporting country freedom from NAI.⁶¹ The United States argued, once again, that neither was an ALOP: 'the first is an "objective or characterization of India's measure", and the latter is "simply the status of the exporting territory under the Terrestrial Code"'.⁶²

In this dispute, the panel engaged with the United States' argument and stated that it 'need[ed] to examine whether India ha[d] determined its ALOP within the meaning of the definition of "appropriate level of protection" or "acceptable level of risk" in Annex A(5) of the SPS Agreement'. The panel concluded:

[A]n ALOP or acceptable level of risk will express a certain threshold that denotes the position of the relevant Member in relation to the intensity, extent, or relative amount of protection or risk that the Member deems to be tolerable or suitable. We cannot discern from India's characterization of its ALOP as "prevention of ingress of LPNAI and HPNAI" the intensity, or extent, or amount of protection or risk that India will tolerate or that it considers suitable. Put differently, *India has made no comment regarding its tolerance towards NAI*. Though India has noted on numerous occasions that it seeks to 'prevent ingress' of NAI, we do not think that this alone is sufficient to meet the definition in Annex A(5). Specifically, we think it axiomatic of an SPS measure that it be directed to the 'prevention' of the materialization of sanitary or phytosanitary risks . . . We do not consider that this, on its own, is synonymous with a description of the level of protection that a Member considers suitable, nor the level of risk that a Member deems tolerable. Indeed, we are of the view that in order to be sufficiently precise, a Member's statement of its ALOP, or its acceptable level of risk, must at least satisfy the definition in Annex A(5). Therefore, we are not persuaded that India's statement satisfies this standard.⁶³

With respect to exporting country freedom from NAI, the panel stated:

[T]he Panel does not consider India's statement that its ALOP is 'country freedom from NAI', made in the context of its condition of entry, truly reflects India's ALOP. Rather, we interpret India as saying that its ALOP can only be met by products that originate in NAI-free countries, not by products from countries that are only HPNAI-free, where LPNAI may exist.⁶⁴

Considering that the risk of entry of NAI into India cannot be reduced to zero even by a total ban on imports because of potential transmission of the disease by wild birds and through illicit trade, the panel concluded that India's ALOP was 'very high' or 'very conservative', though not a 'zero-risk' level of protection.⁶⁵

⁶⁰ *Ibid.*, paras 7.243–7.244.

⁶¹ Panel Report, *India – Agricultural Products*, *supra* note 7, paras 7.553–7.554.

⁶² *Ibid.*, para. 7.555.

⁶³ *Ibid.*, para. 7.565 (emphasis added). HPNAI stands for high pathogenicity NAI, LPNAI stands for low pathogenicity NAI.

⁶⁴ *Ibid.*, para. 7.574.

⁶⁵ *Ibid.*, paras 7.567–7.570.

To be fair, it is not uncommon for WTO members themselves to treat ALOP not as an independent target metric, but as a level of protection inherent in their own SPS measures. It has been noted, for instance, that the SPS Committee's *Equivalence Decision*⁶⁶ provides that in recognizing SPS measures of exporting WTO members as equivalent to their own, importing WTO members should be guided by whether the exporting WTO member's measures 'achieve the level of protection provided by [the importing WTO member's] own relevant sanitary or phytosanitary measures' rather than by its ALOP.⁶⁷ Accordingly, Australia exempts Swiss raw-milk cheeses from the general pasteurization requirement not because the exporters' production process achieves Australia's ALOP, but because it is at least as effective at pathogen destruction as pasteurization.⁶⁸

However, while it is natural for WTO members to treat their SPS measures as reflecting their ALOP against the respective risk, panels should not substitute a member's measure for its ALOP.

At the same time, for many claims under Article 5.6, panels may save themselves the trouble of assessing the respondent's ALOP by using the measure at issue as the benchmark for comparison. For instance, in *Japan – Agricultural Products II*, the United States did not challenge Japan's requirement of complete mortality of pests in large-scale tests on an import commodity *as such*; instead, it argued that, as soon as this level of efficacy had been demonstrated with respect to one variety of a crop, other varieties should have been allowed for import, subject to the same treatment, without any additional testing. Japan, on the other hand, required that the large-scale tests be run on each variety before an import ban on the respective variety was lifted.

In these circumstances, articulating Japan's ALOP would have served no specific purpose. It would have been sufficient for the panel to say as part of its analysis under Article 5.6 that absent the complainant's challenge of quarantine treatment efficacy for the first variety of each crop (note that this could be *any* variety the exporting WTO member had chosen to get approval for first), the panel *presumes* that this efficacy level reflects Japan's ALOP, whatever it is. Since the pest involved, and by extension the adverse event and its biological and economic consequences, are the same for each variety of the same crop, achieving the same level of efficacy for any other variety would automatically mean achieving Japan's ALOP. The question would then remain the same as the one examined by the panel: whether demonstrating this efficacy level for one variety automatically means that the same treatment method will achieve the same efficacy for all the other varieties.

⁶⁶ WTO Committee on the Sanitary and Phytosanitary Measures, *Decision on the Implementation of Article 4 of the Agreement on the Application of Sanitary and Phytosanitary Measures*, G/SPS/19 (26 October 2001), available at <https://bit.ly/2UCb35f>. (hereinafter 'WTO, *Equivalence Decision*').

⁶⁷ Chris Downes, *The Impact of WTO SPS Law on EU Food Regulations* (2014), at 187. See also WTO, *Equivalence Decision*, *supra* note 66, para. 7.

⁶⁸ Downes, *supra* note 67.

5 Panels Cannot Realistically Be Expected to Go Beyond the ‘High or Conservative’ Standard in Formulating a WTO Member’s ALOP

In only five cases have panels used ‘true’ ALOPs which meet the definition contained in Annex A(5). All five ALOPs, however, look remarkably alike: all are expressed in similar qualitative terms and all denote a level of protection at the upper end of the range, but with blurred boundaries.

The trend was set by the 1998 Appellate Body report in *Australia – Salmon*. At the panel stage, Australia struggled to offer the exact wording of its ALOP, saying, instead, that it ‘had consistently adopted a conservative approach with respect to the appropriate level of protection’, with ‘[q]uarantine [being] fundamental to the protection of Australia’s unique environment’, and that ‘Australian quarantine policy, while not based on a zero risk approach, was very risk [averse]’.⁶⁹ The panel thought it unnecessary ‘to clearly define or quantify [Australia’s ALOP]’,⁷⁰ noting that, in its various written submissions, Australia qualified its ALOP as ‘a high or “very conservative” level of sanitary protection aimed at reducing risk to “very low levels”, “while not based on a zero risk approach”’.⁷¹

Contrary to the panel, the Appellate Body held that ‘the SPS Agreement contains an implicit obligation to [explicitly] determine the appropriate level of protection’, which, however, does not have to be expressed in quantitative terms.⁷² At the same time, ‘[t]his does not mean . . . that an importing Member is free to determine its level of protection with such vagueness or equivocation that the application of the relevant provisions of the SPS Agreement, such as Article 5.6, becomes impossible’.⁷³

While it is less than obvious that the panel’s sketchy characterization of Australia’s ALOP quoted above meets this standard (especially given the panel’s unambiguous statement that it would not ‘clearly define’ Australia’s ALOP), the Appellate Body said, citing the corresponding passage in the panel report,⁷⁴ that ‘in this case Australia determined its appropriate level of protection, and did so with sufficient precision to apply Article 5.6’.⁷⁵ The Article 21.5 panel composed of the same people as in the original dispute would later observe:

[A]lthough, according to the Appellate Body, Australia determined its ALOP with sufficient precision to apply Article 5.6, we find it rather difficult to evaluate whether any of the options before us would also meet Australia’s somewhat vaguely determined level of ‘a high or very conservative level of protection aimed at reducing risk to very low levels, while not based on a zero-risk approach’.⁷⁶

⁶⁹ Panel Report, *Australia – Salmon*, *supra* note 12, para. 4.179.

⁷⁰ The panel assumed that Australia’s ALOP, whatever it was, was equivalent to that achieved by the measure at issue.

⁷¹ Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.107 (footnotes omitted).

⁷² Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 206.

⁷³ *Ibid.*

⁷⁴ *Ibid.*, paras 158, 197, 231.

⁷⁵ *Ibid.*, para. 207.

⁷⁶ Panel Report, *Australia – Salmon (Article 21.5 – Canada)*, *supra* note 24, para. 7.129.

In any event, since then, panels have not gone beyond this, rather undemanding, standard. The panel in *Australia – Apples* used the same ALOP as emerged from the *Australia – Salmon* dispute: ‘a high level of sanitary or phytosanitary protection aimed at reducing risk to a very low level, but not zero’.⁷⁷ Where a panel was not satisfied with the respondent’s own expression of its ALOP, it concluded that the respondent’s ALOP was ‘very high or very conservative’ but not zero risk (*India – Agricultural Products*),⁷⁸ ‘high or conservative’ but not zero risk (*Russia – Pigs*)⁷⁹ or ‘somewhere between low and zero risk’ (*US – Animals*).⁸⁰

It appears that not only panels, but WTO members themselves will normally think about their ALOP in such terms. Australia’s ‘high level of sanitary and phytosanitary protection aimed at reducing biosecurity risks to a very low level, but not to zero’ has now been codified in law as its general ALOP against all(!) biosecurity risks.⁸¹ Many countries define their objective as the ‘prevention’ of the entry of diseases or pests. Recall that India claimed that its ALOP against avian influenza was ‘to prevent ingress of an exotic disease through products that are clearly identified as risk factors even by the OIE’.⁸² Russia argued that its ALOP was defined by the objective of the Customs Union Decision No. 317⁸³ which is to ‘prevent the entry and spread of contagious disease pathogens . . .’.⁸⁴ The United States contended that its ALOP for foot-and-mouth disease (FMD) was set out in the Animal Health Protection Act, which vests the Secretary of Agriculture with the authority to introduce import prohibitions or restrictions ‘if the Secretary determines that the prohibition or restriction is necessary to prevent the introduction into or dissemination within the United States of any pest or disease of livestock’.⁸⁵

As mentioned in the previous section, the panel in *India – Agricultural Products* considered that the objective to ‘prevent’ the entry of a disease did not express an ALOP because it did not denote ‘the intensity, or extent, or amount of protection or risk that India will tolerate or that it considers suitable’.⁸⁶ Cognizant of this ruling, the panel in *US – Animals* offered, essentially, a dual formulation of the United States’ ALOP against FMD. It found that ‘the United States’ ALOP [was] “to prevent the introduction or dissemination of foot-and-mouth disease within the United States”, which can be described as being . . . somewhere between low and zero risk’.⁸⁷ The panel in *Russia – Pigs* considered that the formulation of the ALOP put forward by Russia was ‘rather broad’

⁷⁷ Panel Report, *Australia – Apples*, *supra* note 30, paras 2.59.

⁷⁸ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.570.

⁷⁹ Panel Report, *Russia – Pigs*, *supra* note 39, paras 7.751–7.752.

⁸⁰ Panel Report, *US – Animals*, *supra* note 37, para. 7.387.

⁸¹ Biosecurity Act 2015, Chapter 1, Part 1(5).

⁸² Panel Report, *India – Agricultural Products*, *supra* note 7, paras 7.553.

⁸³ Customs Union Decision No. 317 ‘On the Application of Veterinary Measures in the Eurasian Economic Union’, 18 June 2010, cl. 2.1.2.

⁸⁴ Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.741.

⁸⁵ Panel Report, *US – Animals*, *supra* note 37, paras 7.373–7.374 (emphasis added).

⁸⁶ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.565.

⁸⁷ Panel Report, *US – Animals*, *supra* note 37, para. 7.387 (emphasis added).

and only ‘provided an indication of what level of protection [was] being sought’.⁸⁸ This conclusion was perhaps, at least in part, due to the fact that the panel worked with an inaccurate translation of the Customs Union Decision No. 317, in which the relevant objective was expressed as ‘to ensure protection of the customs union territory of the Customs Union against the import and spread of contagious disease pathogens’,⁸⁹ which is, admittedly, too vague a statement of the level of protection sought. As noted above, Customs Union Decision No. 317 actually sets the objective of *preventing* (‘недопущение’) the entry of contagious disease pathogens into the customs union territory.

It is questionable that ‘very high or very conservative’ and other similar formulas for expressing ALOP are more meaningful than the ‘prevention of the entry of a disease’. In its ordinary sense, ‘to prevent’ means ‘to preclude’, ‘to keep from happening’, which translates to a near-zero (or negligible) risk of entry via channels that are under reasonable control of competent government authorities. The existence of disease vectors, such as wild birds (in the case of avian influenza), or other transmission factors, such as illicit trade, which are not under control of such authorities, means that the entry of the disease cannot be completely ruled out, but this does not cancel the fact that the government may aim to keep controlled routes reasonably impervious to the disease.

The World Organization for Animal Health (OIE) Terrestrial Animal Health Code (Terrestrial Code),⁹⁰ the international standard which lays down recommendations on veterinary measures to be taken in international trade in animals and animal products, is no more precise. In fact, the Code itself is silent on what level of protection is achieved by applying the measures it recommends. However, complainants, as part of their claim under Article 5.6, have proposed Terrestrial Code measures as an alternative which both was less trade restrictive and achieved the respondent’s ALOP. The panels therefore had to determine what level of protection could be achieved by following the Terrestrial Code standards.

The official position of the OIE, reflected in each of the three panel reports, has been that the measures recommended by the Code ‘provide for *safe trade* in animals and animal products’⁹¹ or, as stated in the User’s Guide to the Terrestrial Code, ensure ‘an optimal level of animal health security’.⁹² In response to a question from the panel in *US – Animals*, the OIE explained that, ‘[a]s stated in Part A point 2 of the User’s Guide

⁸⁸ Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.745.

⁸⁹ *Ibid.*, para. 7.741 (emphasis added).

⁹⁰ See the most recent version of World Organization for Animal Health (OIE), *Terrestrial Animal Health Code (Terrestrial Code)*, available at www.oie.int/standard-setting/terrestrial-code/ (last visited 22 November 2020).

⁹¹ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.577; Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.825. See also Panel Report, *US – Animals*, *supra* note 37, paras 7.380, 7.384 (emphasis added).

⁹² Panel Report, *US – Animals*, *supra* note 37, paras 7.380, 7.384. See also Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.580; Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.826 (emphasis added).

to the Terrestrial Code: “The recommendations in each of the disease chapters . . . are designed to *prevent the disease in question being introduced into the importing country* (emphasis added) . . .”⁹³

Arguably, therefore, both ‘prevention of entry’ and ‘safe trade’ can be validly interpreted to mean as low a risk of entry via controlled channels as reasonably achievable subject to effective implementation of the measures. After all, the panel in *India – Agricultural Products*, which refused to accept ‘prevention of ingress of notifiable avian influenza’ as India’s ALOP, had no difficulty accepting that ‘safe trade’ meant trade ‘free from risk’⁹⁴ (despite the OIE’s remark that ‘a zero risk importation policy may require total prohibition on all imports or the imposition of . . . disproportionately onerous [measures]⁹⁵) and concluding, after mere three and a half lines(!) of analysis, that ‘an optimal level of security’ ensured by the measures recommended by the Terrestrial Code translates into ‘a level of protection that is at least as high as India’s “very high” or “very conservative” level of protection’.⁹⁶

Such a generic ALOP could arguably characterize most, if not all, WTO members’ policy relating to the protection against most SPS risks which are relevant to their society. ‘[N]o WTO Member’, it has been observed, ‘has articulated its ALOP with any degree of precision’; partly because acknowledging that any material risk, no matter how little, is acceptable would be politically inappropriate, but more importantly because ‘the complexities of analysing risks involved with biological systems and the lack of relevant technical and economic data’ make it ‘practically impossible for governments to provide any degree of precision in describing ALOP, either qualitatively or quantitatively’.⁹⁷

An International Plant Protection Convention (IPPC) expert working group, which consisted of representatives of a few national SPS authorities and was tasked with drafting a standard on the concept of appropriate level of protection, made a reference to this statement, noting that ‘[t]he ALOP is a vague and politically sensitive issue’ and that the group ‘was not aware of any useful or relevant examples [of how the appropriate level of protection ha[d] been determined by . . . countries], although it [had] reviewed all the presented material[,] and found that none provided any guidance as to how the ALOP, where articulated, had in fact been set’.⁹⁸

Absent positive evidence to the contrary, a panel can safely presume that the respondent’s ALOP is ‘(very) high or (very) conservative’ or, in the case of a disease or a pest, ‘to prevent the entry’ of such disease or pest. These qualitative formulations are

⁹³ Panel Report, *US – Animals*, *supra* note 37, para. 7.380.

⁹⁴ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.580.

⁹⁵ *Ibid.*, para. 7.568. In this respect, see the United States’ comments during the interim review, *ibid.*, para. 6.63.

⁹⁶ *Ibid.*, para. 7.582.

⁹⁷ Gascoine, ‘The “Appropriate Level of Protection”: An Australian Perspective’, in K. Anderson, C. McRae and D. Wilson (eds), *The Economics of Quarantine and the SPS Agreement* (2001) 132, at 137.

⁹⁸ IPPC, *Report of the Meeting of the Expert Working Group on Appropriate Level of Protection*, 28 August–1 September 2006, Ottawa, Canada (2007), at 2–3, available at www.ippc.int/en/publications/1157/ (hereinafter ‘Expert Working Group Report’).

legally – and diplomatically – convenient because, on the one hand, they respect the right of importing members to effectively protect their territory against SPS risks by setting the bar for hypothetical alternative measures under Article 5.6, literally, ‘high’ or ‘very high’, but, on the other, do not make this bar unattainable, especially given a significant degree of indeterminacy of what constitutes ‘low’ risk or how much (or little) risk amounts to the ‘high’ or ‘very high’ level of protection.

Panels, however, should be careful to explain any differences in their formulations of the respondent’s ALOP as compared to previous panels, especially if such differences may be interpreted as having substantive content. For example, it is unclear if the ‘high’ level of protection is lower than ‘very high’, and if it is, where the boundary lies between the two. For one, Russia would hardly accept that the level of protection against African swine fever it deems appropriate, which the panel found to be ‘high’ or ‘conservative’, is lower than that of India with respect to avian influenza, which another panel labelled ‘very high’ or ‘very conservative’ – indeed, both argued that their level of protection was to ‘prevent’ the entry (or re-introduction) of the respective disease into their countries.⁹⁹ At the same time, given the references of the panel in *Russia – Pigs* to the relevant paragraphs of the panel report in *India – Agricultural Products*, the former, it must be assumed, made a conscious choice of designating Russia’s ALOP as ‘high’ or ‘conservative’ as opposed to India’s ‘very high’ or ‘very conservative’, without, however, offering any explanations as to the difference.

This ambiguity has also resulted in three contradictory findings as to the level of protection that can be achieved by following the Terrestrial Code recommendations. The panel in *India – Agricultural Products* found that the Terrestrial Code measures reflect a level of protection that is ‘at least as high as India’s “very high” or “very conservative” level of protection’¹⁰⁰ because, in particular, the panel understood ‘safe’ to mean ‘free from risk’.¹⁰¹ The panel in *Russia – Pigs* concluded that ‘an optimal level of security’ achieved by the application of the measures based on the Terrestrial Code means a ‘high or conservative’ level of protection.¹⁰² The panel in *US – Animals* simply held that the level of protection against FMD achieved by measures based on the Terrestrial Code is lower than the ALOP of the respondent in the case, which it had determined to be ‘somewhere between low and zero risk’.¹⁰³ While the levels of ‘at least as high as “very high” or “very conservative”’ and ‘high or conservative’ already appear to be irreconcilable because the former is, on face value, higher than the latter, the panel report in *US – Animals* adds to the confusion by suggesting that the level

⁹⁹ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.553; Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.741.

¹⁰⁰ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.582.

¹⁰¹ *Ibid.*, para. 7.580.

¹⁰² Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.826.

¹⁰³ Panel Report, *US – Animals*, *supra* note 37, paras 7.387, 7.440. The panel’s conclusion that the United States’ ALOP against FMD is higher than the level of protection reflected in the measures recommended by the Terrestrial Code was based on the panel’s finding that the United States’ import requirements in question were more stringent than those contemplated by the Terrestrial Code (see, e.g., *ibid.*, para. 7.382).

achieved by following the recommendations in the Terrestrial Code may be even lower – namely, below the range of ‘low and zero risk’.¹⁰⁴

6 Article 5.5: What Are ‘Different Situations’ and What Is ‘Discrimination’?

The only restriction on ALOPs in the SPS Agreement is contained in Article 5.5, which proscribes arbitrary and unjustifiable distinctions in ALOPs in ‘different situations’, if such distinctions result in discrimination. Three elements of this provision make it stand out from WTO agreements’ other non-discrimination norms, such as Article XX of the GATT,¹⁰⁵ Article XIV of the GATS¹⁰⁶ or Article 2.3 of the SPS Agreement. First, the obligation is not to exclude any arbitrary distinctions in ALOPs, but rather to ‘avoid’ them. This begs the question whether Article 5.5 lays down an obligation of outcome or, in fact, an obligation of conduct. Surprisingly, the Appellate Body never discussed it in its reports. It said in *EC – Hormones* that ‘the desired consistency [in ALOPs] is a goal to be achieved in the future’ and that ‘the statement of that goal does not establish a *legal obligation* of consistency of appropriate levels of protection’,¹⁰⁷ but this pronouncement (i) was related to the introductory words of Article 5.5 (‘With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection . . .’) rather than to the word ‘avoid’; and (ii) does not appear to have had any legal effect because in all disputes involving Article 5.5, including *EC – Hormones*, panels and the Appellate Body have required consistency in ALOPs *here and now*. The rest of this section is based on the assumption that the obligation in Article 5.5 is that of outcome.

Second, Article 5.5 is not concerned with discrimination as such, but rather with arbitrary differences in ALOPs, *if* such differences result in discrimination. Third, a violation of Article 5.5 occurs where arbitrarily different ALOPs are applied in ‘different situations’ rather than ‘between countries where the same conditions prevail’.¹⁰⁸

A ALOPs Adopted in ‘Different Situations’

The text of Article 5.5 suggests that it applies only where two or more ‘different situations’ exist. ‘Situation’ must refer to a set of circumstances in which only one distinct ALOP can be adopted. If it is possible to apply a second *independent* ALOP, different from the first one, then two ‘situations’ exist for the purposes of Article 5.5. The

¹⁰⁴ If ‘low’ risk reflects a ‘high’ level of protection, then anything above ‘low’ risk is less than a ‘high’ level of protection.

¹⁰⁵ GATT, *supra* note 3.

¹⁰⁶ GATS, *supra* note 3.

¹⁰⁷ Appellate Body Report, *EC – Hormones*, *supra* note 16, para. 213.

¹⁰⁸ See GATT, *supra* note 3, Art. XX and GATS, *supra* note 3, Art. XIV (referring to ‘like’ conditions); SPS Agreement, Art. 2.3 (referring to ‘identical or similar’ conditions – in ‘members’ rather than ‘countries’).

ALOPs applied in those situations may then be compared and a violation of Article 5.5 established.

No generally accepted definition of ALOP exists that would shed light on when two, as opposed to only one, different levels of protection can genuinely be established. ALOP being a WTO term, the IPPC expert working group mentioned above refrained from offering any definition because, in its view, it falls outside the mandate of the IPPC.¹⁰⁹

However, since ALOP is a level of protection against an adverse event or health effect, it is reasonable to assert that only one level of protection may exist against any given adverse event or health effect. For instance, if a certain pest is exotic to an importing WTO member, and the entry, establishment or spread of that pest would have biological or economic consequences that the importing member would like to avoid, this member cannot conceivably adopt more than one ALOP against the entry, establishment or spread of that pest. Having two different ALOPs would make no sense: one cannot simultaneously have a high level of protection against locusts and a low level of protection against locusts.

In other words, ALOP is origin- and product-neutral. The ALOP against a particular adverse event or effect to human, animal or plant life or health is the *overall* objective of a WTO member's biosecurity policy in respect of that adverse event or health effect. Such an objective cannot be established for some products of some origins at one level and for other (or the same) products of other origins at a different level, because the lower origin- and product-specific ALOP will inevitably compromise the overall level of protection of the importing WTO member against that adverse event or health effect. A person in a room with two windows cannot establish different levels of protection against mosquitos that get into the room through the left window as opposed to those that find their way inside through the right window: if one of the windows is not closed, the hypothetical person will end up with a room full of biting mosquitos. The bite of a 'right-window' mosquito is no less unpleasant than the bite of a 'left-window' mosquito. If the left window faces an area with fewer or no mosquitos, then the person may adjust their measure accordingly (for instance, they may keep the left window slightly open, but shut the right window tight), but it does not change that person's ALOP against mosquitos one tiny bit.

Another example. Assume a WTO member's ALOP against human infection with a high pathogenicity strain of avian influenza (AI) in its territory is 'very high'.¹¹⁰ In other words, only a 'very low' or negligent chance of infection is deemed acceptable. If that member adopts a low level of protection against the strain of avian influenza present in poultry from exporting country X, its general (and only 'true') ALOP will no longer be as high as it would otherwise have been. If the actual rate of human infection by that strain of AI in the member's territory is above 'very low' or negligent, the ALOP is not attained; whether ducks from exporting country X or chickens from exporting country Y are the culprits is irrelevant. There is no such thing as ALOP 'for'

¹⁰⁹ Expert Working Group Report, *supra* note 98, at 2.

¹¹⁰ An infection of poultry caused by an influenza A virus (see OIE Terrestrial Animal Health Code, *supra* note 90, Art. 10.4.1). Some avian influenza viruses can transmit from birds to humans and cause disease.

country X poultry – it is all one and the same general ALOP against the strain of avian influenza in question.

It is, of course, possible to adopt different ALOPs against a human disease, on the one hand, and, say, a pest, on the other. These adverse events are so unrelated to one another (unless the pest may transmit the disease in question to humans) that the ALOPs are hardly comparable for the purposes of Article 5.5. Whether different ALOPs can be adopted for different strains of the same disease will depend on the particular characteristics of the disease and, specifically, on whether different ALOPs can be meaningfully established so that one does not affect the other.

The Appellate Body and the four panels that decided disputes involving claims under Article 5.5 fundamentally erred by treating measures addressing the same adverse event or health effect as ‘different situations’. The very first panel, that in *EC – Hormones*, agreed with the parties that ‘different situations’ include those ‘where the same substance or the same adverse health effect [in that case, carcinogenicity] is involved’¹¹¹ and then proceeded to compare the EC’s measures (MRLs) which it mistook for ALOPs.

The panel in *Australia – Salmon* concluded that it could ‘compare situations under Article 5.5 if these situations involve either a risk of “entry, establishment or spread” of the same or a similar disease or of the same or similar “associated biological and economic consequences” and this irrespective of whether they arise from the same product or other products’.¹¹² The Appellate Body affirmed.¹¹³

Following suit, the panel in *US – Poultry* found the existence of two different situations where the United States’ measures in respect of Chinese poultry, on the one hand, and poultry of other origins, on the other, aimed to protect against the risk of the same bacteria, *Salmonella*, *Campylobacter* and *Listeria*, being present in imported products.¹¹⁴

Finally, the panel in *Australia – Apples* compared situations which involved *different* plant diseases and different products (European canker in New Zealand apples versus brown rot in Japanese nashi pears; fire blight in New Zealand apples versus *Japanese Erwinia* in Japanese nashi pears). The panel took the existence of different situations for granted and focused, instead, on their comparability.¹¹⁵ Having found that fire blight (*Erwinia amylovora*) in New Zealand apples and *Japanese Erwinia* in Japanese nashi pears involved the risk of similar diseases, the panel concluded that the situations at hand were comparable and, applying the same logic to European canker in New Zealand apples and brown rot in Japanese nashi pears, found that these two situations were comparable too.¹¹⁶

¹¹¹ Panel Report, *EC – Hormones (US)*, *supra* note 16, paras 8.176, 8.208–8.209; Panel Report, *EC – Hormones (Canada)*, *supra* note 16, paras 8.179, 8.211–8.212.

¹¹² Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.117.

¹¹³ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 146.

¹¹⁴ Panel Report, *US – Poultry (China)*, *supra* note 32, para. 7.236.

¹¹⁵ Panel Report, *Australia – Apples*, *supra* note 30, para. 7.941.

¹¹⁶ *Ibid.*, paras 7.949, 7.954, 7.959, 7.960.

The panels have followed the guidance of the Appellate Body in *EC – Hormones* that only those situations may be compared that present a degree of similarity:

The situations . . . cannot, of course, be compared unless they are comparable, that is, unless they present some common element or elements sufficient to render them comparable. If the situations proposed to be examined are *totally* different from one another, they would not be rationally comparable and the differences in levels of protection cannot be examined for arbitrariness.¹¹⁷

To all the panels and the Appellate Body, each measure represented a ‘different situation’ within the meaning of Article 5.5, so they have invariably started off by an inquiry into whether the respective situations were comparable and none asked themselves whether the situations were actually different – in other words, whether they dealt with more than one situation.

If we accept that measures addressing the same adverse event or health effect constitute one situation, at least three of the four panels would have had to find that Article 5.5 did not apply because there was only one situation at hand in which only one ALOP could have been adopted. The measures compared in *EC – Hormones* were intended to protect against the same adverse health effect in humans (cancer); those in *Australia – Salmon* – against the same fish disease within each of the four comparisons (though the specific disease in each comparison may have been different from that in another); and those in *US – Poultry (China)* – against the same pathogenic bacteria (*Salmonella*, *Campylobacter* and *Listeria*) potentially present in poultry products of different origins. In all those situations, the same adverse events or health effects were also fraught with the same or similar biological and economic consequences.¹¹⁸

The measures at issue in these three disputes should have been reviewed under Article 5.6. After all, the complaints under Article 5.5 were nothing but another way for the complainant to assert a claim that the measures were more trade-restrictive than required.

The panel in *Australia – Apples*, on the other hand, should have checked whether the situations at issue presented enough differences to conclude the existence of two situations rather than just one. The panel, for instance, observed:

Fire blight (*Erwinia amylovora*) in apples and *Japanese Erwinia* in nashi pears are not the same diseases. They are very similar diseases, though. One of the experts consulted by the Panel, Dr Deckers, confirms that, while in some respects the risks involved in the two pests might be different, ‘[t]here is a great similarity between the *Japanese Erwinia* associated with nashi pears and *Erwinia amylovora* on apples from New Zealand. In both cases it concerns a bacterial disease on fruits, the one *Japanese Erwinia* on pear and the other fire blight one on apple and pear’.¹¹⁹

And then:

Biological similarity is a key element of the comparison of the two diseases. In this respect, the Panel finds the following arguments and evidence submitted by New Zealand particularly

¹¹⁷ Appellate Body Report, *EC – Hormones*, *supra* note 16, para. 217.

¹¹⁸ See, e.g., Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.121.

¹¹⁹ Panel Report, *Australia – Apples*, *supra* note 30, para. 7.945.

convincing: 'Japanese *Erwinia* is very hard to differentiate from *E. amylovora*. Each produces very similar symptoms and analysis at the molecular level is used to distinguish between the two'.¹²⁰

The panel should have inquired into the possibility of establishing independent ALOPs against these diseases. If a lower level of protection against one disease would automatically entail a reduction in the level of protection against the other, then it is reasonable to conclude that only one, common, ALOP can be established against both diseases and only one situation therefore exists within the meaning of Article 5.5. If, instead, the level of protection against one disease can be reduced without compromising protection against the other, two independent ALOPs can be established and two different situations therefore exist which may nevertheless be comparable if they are characterized by comparable biologic or economic consequences.

To designate each SPS measure as a separate 'situation' and assign it its own ALOP is contrary to everything the Appellate Body has ever said about the appropriate level of protection to the point of depriving the concept of its meaning. Different measures applying to different products of different origins but addressing the same adverse event contribute to the single ALOP against that adverse event, but do not give rise to different ALOPs. The panel in *India – Agricultural Products* followed precisely this logic when it concluded that, despite its import ban, India could not attain, and therefore could not have adopted, a zero-risk ALOP against avian influenza 'because the disease is transmitted not only through commercial channels of trade, but also by wild birds and informal and illicit trade'.¹²¹ For the panel, there could be no separate ALOP in respect of wild birds or illicit trade – both these disease pathways simply reduced India's attainable ALOP against avian influenza.

In a similar vein, the panel in *Russia – Pigs* deemed that, despite a ban on the import of pigs and pig products from the EU, Russia's ALOP against infection of susceptible animals with African swine fever (ASF) could not be zero-risk because, among other things, ASF-affected Russia had not completely banned intra-Russia trade in products obtained from susceptible animals.¹²² The panel in *US – Animals*, too, downgraded the United States' ALOP against infection of susceptible animals with FMD to 'somewhere between "low risk" and "zero"', because the United States did not ban imports from FMD-affected countries other than the complainant WTO member.¹²³

B Difference in Measures Equated to Difference in ALOPs and the Consequent Logical Impasse under Article 5.6

Even assuming, for the sake of argument, that the measures under comparison in the Article 5.5 disputes were adopted in 'different situations', a finding of a difference in the levels of protection that those measures achieved would have required at least

¹²⁰ *Ibid.*, para. 7.947 (footnotes and references omitted).

¹²¹ Panel Report, *India – Agricultural Products*, *supra* note 7, para. 7.569.

¹²² Panel Report, *Russia – Pigs*, *supra* note 39, para. 7.749.

¹²³ Panel Report, *US – Animals*, *supra* note 37, para. 7.382.

a comparison of the levels of risks associated with the respective products. The *EC – Hormones* panel ignored the risk factor altogether. It concluded that the EC had applied different ALOPs in respect of the different substances at issue (growth promotion hormones and the veterinary drugs carbadox and olaquinox) on the sole ground that the EC had established different MRLs for them,¹²⁴ i.e. applied to different substances measures of different trade restrictiveness. As mentioned above, the complainants did not claim legal error in this reasoning and the Appellate Body did not disturb it.¹²⁵

The panel in *Australia – Salmon* said it *assumed* that a difference in the measures imposed in different situations reflected a distinction in Australia's ALOPs. The panel recognized that the specific risk at issue in the situations compared may affect the level of protection achieved by applying one SPS measure or another, but reckoned that it might take the risk factor into account in its analysis under the second element of Article 5.5, i.e. whether any distinctions in ALOPs were arbitrary or unjustifiable.¹²⁶ Based on a 'rather substantial' difference in the measures applied by Australia, on the one hand, to salmon products (import prohibition), and to other products (import allowed with or without control), on the other,¹²⁷ the panel inferred 'a difference in the levels of protection considered to be appropriate by Australia for each of the four comparisons'.¹²⁸

The Appellate Body implicitly endorsed the panel's approach to establishing a difference between ALOPs when it stated, with no other evidence at hand than this 'rather substantial' difference in the measures compared, that '[t]he level of protection reflected in Australia's treatment of herring used as bait and live ornamental finfish [was] definitely lower' than that applied to ocean-caught Pacific salmon.¹²⁹ In completing the legal analysis for the panel of what it took to be another comparable situation, the Appellate Body also found that Australia's ALOP for Canadian salmon was different from that for other fish and fish products, based on the difference in the trade restrictiveness of SPS measures applicable to these products.¹³⁰

¹²⁴ Panel Report, *EC – Hormones (US)*, *supra* note 16, paras 8.191, 8.212, 8.265; Panel Report, *EC – Hormones (Canada)*, *supra* note 16, paras 8.194, 8.215, 8.268.

¹²⁵ The Appellate Body reversed the panel's findings under Article 5.5 on other grounds: namely, because it held that either the situations at issue were not comparable or the arbitrary or unjustifiable distinctions in the EC's ALOPs did not result in discrimination (Appellate Body Report, *EC – Hormones*, *supra* note 16, paras 221, 246).

¹²⁶ Panel Report, *Australia – Salmon*, *supra* note 12, paras 8.123–8.124.

¹²⁷ As proposed by Canada, the panel compared Australia's sanitary regime for ocean-caught Pacific salmon with that for (i) uncooked Pacific herring, cod, haddock, Japanese eel and plaice for human consumption; (ii) uncooked Pacific herring, Atlantic and Pacific cod, haddock and European eel for human consumption; (iii) fresh whole or frozen herring for use as bait; and (iv) live ornamental finfish.

¹²⁸ Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.129.

¹²⁹ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 158. The Appellate Body spoke only of the comparator situations (iii) and (iv) (*supra* note 127: herring for use as bait and live ornamental finfish) because the panel, having found arbitrary distinctions in ALOPs in these situations vis-à-vis ocean-caught Pacific salmon, decided not to proceed with an analysis for the first two situations (Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.143).

¹³⁰ Appellate Body Report, *Australia – Salmon*, *supra* note 4, para. 232.

After Australia had relaxed its requirements for imported salmonids and tightened those for non-salmonids and live ornamental finfish, the gap between the trade restrictiveness of the measures narrowed. The compliance panel then stated that its earlier approach based on the substantial difference in measures was not appropriate anymore. With two out of three experts attesting that Australia's new measures achieved the same or similar level of protection, the panel, which still could not make up its mind about where to factor in the risks associated with the products, refrained from ruling on the existence of different ALOPs, but concluded that in any case there was no *arbitrary or unjustifiable* difference.¹³¹

Citing the panel report in *Australia – Salmon*, the panel in *US – Poultry (China)* reasoned that a 'substantial difference' in the measures applied was sufficient, absent evidence of a difference in risks, to conclude that the respondent applied different ALOPs in the respective situations. Thus the panel found that the United States measure, which essentially amounted to a prohibition of imports of poultry products from China, on the one hand, and the permission to import poultry products from other WTO members subject to certain standard procedures, on the other hand, 'reflect[ed] a distinction in the ALOPs applied in two different but comparable situations'.¹³² Though the panel's statement that it is for the respondent to prove the existence of a difference in the levels of risk seems problematic as unreasonably relieving the complainant of the burden of proof,¹³³ the panel at least recognized that the level of risk affects the level of protection attained by a measure addressing that risk.

Having pointed out that '[m]easures are indicative – although not necessarily conclusive – of a Member's ALOP'¹³⁴ and that 'a Member's ALOP in a specific situation cannot be deduced solely from the SPS measures the Member applies',¹³⁵ the panel in *Australia – Apples* said it would 'assess whether Australia's measures reflect different ALOPs, by looking at both the measures applied by Australia in the various situations identified by New Zealand, and the risks against which such measures are applied'.¹³⁶ The panel concluded 'that New Zealand ha[d] not demonstrated that there [were] distinctions in the levels of protection actually achieved by the measures applied in the two situations',¹³⁷ because, in one instance, the panel was unable to understand

¹³¹ Panel Report, *Australia – Salmon (Article 21.5 – Canada)*, *supra* note 24, paras 7.92–7.94. The panel reached the same conclusion with respect to the treatment of salmonids, on the one hand, and pilchards, on the other (*ibid.*, para. 7.101).

¹³² Panel Report, *US – Poultry (China)*, *supra* note 32, para. 7.253.

¹³³ *Ibid.*, para. 7.250. The Panel said: '[T]o prove that such substantially different measures were needed to achieve the same ALOP, the United States would have to demonstrate that poultry products from China presented a greater risk than poultry products from other WTO Members' (*ibid.*). It is not entirely clear whether the panel expected this demonstration on the part of the United States because China had already raised a presumption that its poultry products posed no greater risk than poultry products from other WTO members, or because, in the view of the panel, it was for the respondent to prove the difference in risks. The fact that the panel did not explicitly lay this burden of proof on China anywhere in the report suggests that the latter was true.

¹³⁴ Panel Report, *Australia – Apples*, *supra* note 30, para. 7.974.

¹³⁵ *Ibid.*, para. 7.976.

¹³⁶ *Ibid.*, para. 7.979 (emphasis added).

¹³⁷ *Ibid.*, paras 7.1046, 7.1088.

'how the overall risks involved in the two situations [being compared] relate to each other',¹³⁸ and in the other evidence pointed to a higher risk associated with the complainant's product vis-à-vis a comparable situation.¹³⁹

The panels' precipitation to infer the existence of two distinct ALOPs from the existence of two SPS measures addressing the same adverse event (the panel in *Australia – Apples* being a laudable exception) could not but create problems for the panels' analysis under Article 5.6, which implies the existence of a single ALOP. Therefore, the panel in *EC – Hormones* exercised judicial economy under Article 5.6. The panel in *US – Poultry (China)* was understandably confused about which of the two ALOPs (which it had found the United States applied to poultry products from China, on the one hand, and those of other origins, on the other) it should apply in its analysis under Article 5.6. While the complainant argued that the respondent's measure should be assessed with respect to the lower ALOP, the panel said that 'it [was not] an appropriate role for [it] to engage in a speculative exercise of what ALOP a Member should apply to protect its own territory from public health risks'.¹⁴⁰ Eventually, citing this circumstance and the lack of information on file about the risk posed by Chinese poultry products (which, however, did not prevent the panel from making a finding under Article 5.5), the panel stated that 'an analysis under Article 5.6 would be inappropriate for [it] to engage in as it would be entirely speculative and be exceeding [its] role under Article 11 of the DSU to make an objective assessment of the matter'.¹⁴¹

The panel in *Australia – Salmon* used the level of protection reflected in the challenged measure as Australia's ALOP and turned a blind eye to its earlier finding under Article 5.5 that some of Australia's SPS measures reflected a lower ALOP.¹⁴² The Appellate Body reversed the panel because, it held, Australia's ALOP was lower than that reflected in the challenged measure ('zero-risk level'); however, it was unable to not complete the legal analysis.¹⁴³

The compliance panel in *Australia – Salmon* and the panel in *Australia – Apples* used Australia's officially stated ALOP ('providing a high level of protection aimed at reducing risk to a very low level, but not to zero') for the purposes of their analysis under Article 5.6,¹⁴⁴ and avoided a hard choice only because the former panel had found, in the context of Article 5.5, that Australia's measures proposed for comparison by Canada achieved the same or a similar level of protection, and the latter panel ruled that New Zealand had not proved the existence of distinctions in Australia's ALOPs.¹⁴⁵

¹³⁸ *Ibid.*, para. 7.1046. In the first instance, the panel compared the risks of European canker in New Zealand apples and of brown rot in Japanese nashi pears.

¹³⁹ *Ibid.*, paras 7.1085. In the second instance, the panel compared the risks of fire blight in New Zealand apples and of *Japanese Erwinia* in Japanese nashi pears.

¹⁴⁰ *Ibid.*, paras 7.333–7.334.

¹⁴¹ *Ibid.*, para. 7.336.

¹⁴² Panel Report, *Australia – Salmon*, *supra* note 12, para. 8.173.

¹⁴³ Appellate Body Report, *Australia – Salmon*, *supra* note 4, paras 197, 204, 212.

¹⁴⁴ Panel Report, *Australia – Salmon (Article 21.5 – Canada)*, *supra* note 24, para. 7.129; Panel Report, *Australia – Apples*, *supra* note 30, para. 7.1136.

¹⁴⁵ Panel Report, *Australia – Salmon (Article 21.5 – Canada)*, *supra* note 24, paras 7.92–7.101; Panel Report, *Australia – Apples*, *supra* note 30, paras 7.1046, 7.1085.

The panels' and the Appellate Body's reading of Article 5.5 is plainly incompatible with that of Article 5.6. Under Article 5.5, the existence of two different measures addressing the same adverse event or health effect, where one measure is more trade restrictive than the other, has been taken to imply the existence of two different ALOPs against that adverse event or health effect, if the difference in the trade restrictiveness of the measures could not be justified by the difference in the risk addressed (i.e. by the difference in the likelihood of the occurrence of the adverse event or health effect and the magnitude of its biological and economic consequences).

Under Article 5.6, however, two measures of this kind have always been compared against *the same* ALOP. To prove a violation of Article 5.6, the complainant must put forward an alternative measure, which is significantly less restrictive to trade than the measure at issue, is technically and economically feasible and achieves the respondent's ALOP. In the context of Article 5.6, the measure at issue and its less trade-restrictive alternative (the alternative will often be a measure that is already in place in the respondent WTO member, but applies to products of WTO members other than the complainant) will be deemed to be aimed at achieving the same overall ALOP.

C *Arbitrary Distinctions in ALOPs That 'Result in Discrimination'*

For a violation of Article 5.5 to occur, two conditions must be met: (i) there must be an arbitrary difference in ALOPs and (ii) this difference must result in discrimination. Arbitrary differences in ALOPs not resulting in discrimination are not prohibited.

In WTO agreements, discrimination 'refer[s] to results of the unjustified imposition of differentially disadvantageous treatment',¹⁴⁶ i.e. to less favourable treatment of products of one origin vis-à-vis like products of another origin. There is no reason why discrimination should mean something different in the context of Article 5.5.

It is noteworthy in this connection that the article mentions both discrimination *and* a disguised restriction on international trade as criteria for violation. As the Appellate Body noted in *US – Gasoline* in the context of the chapeau of Article XX, these terms impart meaning to one another: "disguised restriction", whatever else it covers, may properly be read as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade . . .'.¹⁴⁷ Since 'disguised restriction on international trade' means a restriction on the flow of *goods*, the word 'discrimination' as used in Article 5.5 should be read as referring to discriminatory treatment of *goods*.

Thus, discrimination, for the purposes of Article 5.5, refers to less favourable treatment of products of an exporting WTO member vis-à-vis like products of the importing WTO member or like products of other exporting WTO members. Article 5.5 then lays down a prohibition on arbitrary or unjustifiable distinctions in ALOPs which result in less favourable treatment of products of an exporting WTO member. At the same time, arbitrary or unjustifiable distinctions in ALOPs that do not result in such less favourable treatment are not prohibited.

¹⁴⁶ WTO, *Canada – Patent Protection of Pharmaceutical Products – Report of the Panel*, 17 March 2000, WT/DS114/R, para. 7.290.

¹⁴⁷ WTO, *United States – Standards for Reformulated and Conventional Gasoline – Report of the Appellate Body*, 29 April 1996, WT/DS2/AB/R, at 25.

A violation of Article 5.5, then, may occur only if two arbitrarily different ALOPs adopted by an importing WTO member and the respective two different risks affect like products. There can be no violation if the affected products are not like.

Assume that a WTO member has adopted a high ALOP against a certain animal disease with severe biological or economic consequences, which is reflected in a highly trade-restrictive measure, such as a ban on imports from exporting countries affected by the disease. Assume also that the same WTO member has adopted a low ALOP against a certain pest, the spread of which in the WTO member in question poses similar or more severe economic consequences, but there are no, or only minimal, restrictions on imports from infested countries. As the economic consequences of the disease or the pest spreading across the importing member's territory are similarly grave, the respective ALOPs are comparable, and the difference between them may be found to be arbitrary.

Article 5.5, however, does not prohibit such arbitrariness as long as it has no detrimental impact on the competitive opportunities of products originating in one WTO member vis-à-vis like products originating in another WTO member. Since the more restrictive measure will affect animal products while the more lenient measure will affect plant products, chances are that such products will not be in a competitive relationship and will therefore not be like.

If, however, two arbitrarily different ALOPs against two different animal diseases affecting different animals (e.g. one affecting cattle and the other poultry) are adopted, it is much more likely that the products affected by such ALOPs will be in a competitive relationship and will therefore be like.

This, I believe, is a reasonable reading of the obligation laid down in Article 5.5, which gives meaning to all of its elements and fits well with the wider context. According to this interpretation, Article 5.5 does not prohibit inconsistent ALOPs, as long as this inconsistency does not affect the competitive opportunities of like products of different origin and does not, therefore, distort competition in international trade. Only those inexplicable inconsistencies are outlawed that result in products of some WTO members being treated more favourably than products of other WTO members. As everywhere else in the WTO agreements, discrimination is to be understood in terms of effects – in this case, the effect of a difference in ALOPs – on the competitive opportunities of like products.

The jurisprudence, though, took a very different turn. 'Discrimination' in the context of Article 5.5 has been read by the Appellate Body to mean the existence of protectionist intent: arbitrariness in the setting of ALOPs raises a suspicion of discrimination, but this suspicion may be dispelled if the respondent successfully substantiates the difference in its ALOPs by reasons unrelated to trade protectionism.¹⁴⁸ As a consequence, the existence of discrimination has been established on the basis of 'warning signals', indeterminate 'additional factors' and the regulator's legislative intent.

¹⁴⁸ Boris Rigod, *Optimal Regulation and the Law of International Trade: The Interface Between the Right to Regulate and WTO Law* (2015), at 227.

It all started with the Appellate Body observing in *EC – Hormones* that ‘the difference in levels of protection that is characterizable as arbitrary or unjustifiable is only an element of (indirect) proof that a Member may actually be applying an SPS measure in a manner that discriminates between Members or constitutes a disguised restriction on international trade . . .’,¹⁴⁹ and thus such difference ‘may in practical effect operate as a “warning” signal that the implementing *measure* in its application *might* be a discriminatory measure or *might* be a restriction on international trade disguised as an SPS measure . . .’.¹⁵⁰ The Appellate Body subsequently found that what the panel had determined, and the Appellate Body itself confirmed, to be an unjustifiable difference in the EC’s ALOPs applied with respect to the banned growth promotion hormones, on the one hand, and the veterinary drugs carbadox and olaquinox (which were not banned in the EC at the time of the dispute), on the other hand, did not constitute discrimination. The Appellate Body explained that this was because the EC had at least two good reasons for introducing the hormone ban: public anxiety concerning the potential health effects of the hormones, and the EC’s mandate to establish an internal market in beef by harmonizing internal regulations of its member states.¹⁵¹

Following the Appellate Body’s guidance, the panel in *Australia – Salmon* came up with three ‘warning signals’ that may warrant a finding of discrimination under Article 5.5: the arbitrary character of a difference between ALOPs; the ‘rather substantial’ magnitude of the difference; and an inconsistency of the disputed SPS measure with Article 5.1 (the absence of adequate risk assessment to support the measure) and/or Article 2.2 of the SPS Agreement.¹⁵² The panel also put forward three other ‘additional factors’ specific to the case, of which the Appellate Body approved two: the substantial and unexplained change in Australia’s final risk-analysis report that recommended that the import ban at issue remain in place, countering the draft report which recommended that the ban be lifted; and the lack of restrictions on the movement of the salmon products within Australia against the background of the import ban at issue.¹⁵³ Relying on these considerations, the panel found that the arbitrary distinction in the respondent’s ALOPs resulted in discrimination.

The panel in *US – Poultry (China)* noted that it had become customary for disputing parties to structure their arguments under the third element of Article 5.5 according to the ‘warning signals’ template.¹⁵⁴ Having established the existence of all the three signals¹⁵⁵ and one additional factor (an irreconcilable difference between the 2006 determination by the US Food Safety and Inspection Service that Chinese poultry was safe and the 2008 finding by Congress that it was dangerous),¹⁵⁶ the panel proceeded to find that ‘discrimination was occurring, in particular because [the measure

¹⁴⁹ Appellate Body Report, *EC – Hormones*, *supra* note 16, para. 240.

¹⁵⁰ *Ibid.*, para. 215.

¹⁵¹ *Ibid.*, paras 245–246.

¹⁵² Panel Report, *Australia – Salmon*, *supra* note 12, paras 8.149–8.151.

¹⁵³ *Ibid.*, paras 8.154–8.155; Appellate Body Report, *Australia – Salmon*, *supra* note 4, paras 170–177.

¹⁵⁴ Panel Report, *US – Poultry (China)*, *supra* note 32, para. 7.283.

¹⁵⁵ *Ibid.*, para. 7.288.

¹⁵⁶ *Ibid.*, para. 7.290.

at issue] applie[d] only to China'.¹⁵⁷ 'Having determined that the differences in ALOPs are unjustified', noted the panel, 'we can reasonably conclude that the differences in ALOPs result in discrimination against China'.¹⁵⁸

The Appellate Body's 'warning signals' approach is unconvincing. It suggests that a respondent may somehow justify a difference between ALOPs that at an earlier stage was found to be arbitrary and unjustifiable. If public anxiety and the European Communities' mandate to establish an internal market in beef were not a manifestation of discrimination and were a sufficient reason to introduce an import ban on hormone-treated beef, why is the EU's respective hormones-related ALOP arbitrary in the first place?

Arguably, the confused jurisprudence on discrimination in Article 5.5 stems from the same misconception of ALOP discussed in the previous section. Panels and the Appellate Body should have refused to apply Article 5.5 in *EC – Hormones, Australia – Salmon* and *US – Poultry* for want of two situations and two ALOPs at issue. Measures addressing the risk associated with the same disease or the same bacterium are *per force* different instruments to achieve the same ALOP. For two different ALOPs to be adopted, there must be two different risks (adverse events) involved.

7 Conclusion

Panels should be careful not to confuse the respondent's SPS measure with its ALOP. While the definition provided in Annex A(5) of the SPS Agreement is in itself sufficient to tell one from the other, panels may find helpful the guidance offered by the panel in *India – Agricultural Products*: an ALOP, or acceptable level of risk, will express a certain threshold that denotes the position of the relevant WTO member in relation to the intensity, extent or relative amount of protection or risk that the member deems to be tolerable or suitable. An upper threshold on the residues of hazardous substances in foods (*EC – Hormones, Korea – Radionuclides*) or a lower threshold on efficacy of quarantine treatment (*Japan – Agricultural Products II*), while being thresholds, do not speak of the Member's tolerance for risk or, for that matter, what specific risk they address and are therefore not ALOPs but SPS measures. For all the same reasons, the requirements for the sanitary condition of imported animal products (*US – Poultry (China)*) do not constitute an ALOP either.

Evidence suggests that WTO members generally think of their ALOP in terms of 'high' or 'conservative' level of protection, 'low' or 'very low' level of risk or 'prevention' of entry of a disease or a pest. The World Organization for Animal Health – a specialized intergovernmental organization whose core function is to prevent the spread of animal diseases and recommend trade measures based on the most up-to-date scientific information – has been unable to give a more precise articulation of the level of protection achievable by applying its recommendations contained in the Terrestrial Code than 'safe trade' or 'an optimal level of animal health security'. Panels should

¹⁵⁷ *Ibid.*, para. 7.291.

¹⁵⁸ *Ibid.*

not be held to a higher standard. In most cases, 'high or conservative' will be as specific as it can get.

Sometimes, when deciding claims under Article 5.6 of the SPS Agreement, panels do not have to identify the respondent's ALOP at all, and may use the measure at issue as the benchmark. This will be the case, for instance, when a dispute concerning a sanitary or phytosanitary treatment concerns not its trade-restrictiveness as such, but rather its effectiveness as applied to the different products at issue and the respondent's unwillingness to extend the same treatment to other products without additional conditions (*Japan – Agricultural Products II*).

Protection against biosecurity risks is like a chain: it is only as strong as its weakest link. It is impossible to lower the bar for some goods of some origins as a way of applying preferential trade treatment without compromising the entire system of prevention of entry, establishment or spread of a disease or pest. Thus, the idea of ALOP established for select goods of specified origin is an oxymoron: for the purposes of ALOP, the source of the hazard and of its associated risks does not matter. While it is true that more or less protective measures may be applied deliberately or inadvertently to susceptible goods of different origins, the level of protection implicit in any of such measures does not constitute an independent ALOP, but only contributes to the overall, aggregate ALOP, which is also the only ALOP possible.

Article 5.5 prohibits certain arbitrary or unjustifiable distinctions in ALOPs, i.e. in the levels of protection against *different*, yet somehow comparable risks. It does not deal with measures which target the same risk but achieve different levels of protection against it – such situations are specifically addressed by Article 5.6. The claims made under Article 5.5 in *EC – Hormones*, *Australia – Salmon* and *US – Poultry (China)* should have been made and considered under Article 5.6. The panel in *Australia – Apples* should have analysed if the risks addressed by the measures suggested by the complainant for comparison under Article 5.5 were sufficiently different, so that two independent ALOPs against those risks could be established and a meaningful claim under Article 5.5 made. If the risks were not sufficiently different, the complainant should have made a claim under Article 5.6 instead.

Article 5.5 prohibits only those arbitrary or unjustifiable distinctions in ALOPs that result in discrimination. 'Discrimination' refers to a less favourable treatment of an exporting WTO member's products. Article 5.5 therefore is only concerned with arbitrary distinctions between ALOPs (which target different risks) if such ALOPs affect like products of different origin and the distinction between the ALOPs has a detrimental impact on the competitive opportunities of an exporting WTO member's products vis-à-vis like products of other exporting WTO members or of the importing WTO member.

This means that, in all likelihood, Article 5.5 will be a dormant provision – and rightly so. Not only would it be difficult to *prove* that a certain WTO member actually established two different ALOPs against two different, yet comparable, risks, it would also be difficult to *find* a WTO member that would consciously do so. ALOP, by definition, is a conscious choice.