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Tania Voon

**Evidentiary Challenges for Public Health Regulation
in International Trade and Investment Law**

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Evidentiary Challenges for Public Health Regulation in International Trade and Investment Law[#]

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ABSTRACT

Recent challenges to public health regulation such as Indonesia's challenge to the United States' tobacco flavouring ban in the World Trade Organization ('WTO'), and the WTO and investment treaty challenges to Australia's plain tobacco packaging scheme, have raised common problems of evidence in the international trade and investment law regimes. Responding states are faced with high expectations in justifying their public health measures with empirical evidence connecting the measure with its purported health outcomes. This paper compares approaches to evidence in international trade and investment law and seeks to derive lessons for policymakers in developing public health regulation with potential trade and investment treaty challenges in mind. The paper reflects on the kinds of evidence needed to successfully defend such challenges and the appropriate approach to assessing such evidence in disputes in these two fora.

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Table of Contents

I	Introduction	3
II	Evidentiary Complexities in Public International Law	6
	A International Court of Justice	7
	B World Trade Organization.....	10
	C Investment Treaty Arbitration	12
III	Evidence and Public Health Regulation.....	15
	A Evidence in the Development of Public Health Regulation.....	15
	B Evidence in Challenges to Public Health Regulation.....	17
IV	Assessing Health Evidence in Trade and Investment Disputes	18
	A Inherent Powers and Specific Rules.....	18
	B Burden of Proof.....	20
	C Standard of Proof and Standard of Review	25
	D Experts	31
	E Amicus Curiae.....	34
V	Conclusion.....	41

I INTRODUCTION

Challenges in recent years to public health regulation—such as Indonesia’s challenge to the United States’ tobacco flavouring ban in the World Trade Organization (‘WTO’),¹ and the WTO² and investment treaty challenges³ to Australia’s plain tobacco packaging scheme—have raised common problems of evidence in the international trade and investment law regimes. More specifically, responding states are faced with high expectations in justifying their public health measures with empirical evidence connecting the measure with its purported health outcomes.

Evidentiary challenges for public health regulation are exacerbated in the case of world-first measures (such as plain packaging in Australia).⁴ In these circumstances, concrete

¹ See Appellate Body Report, *United States – Measures Affecting the Production and Sale of Clove Cigarettes*, WTO Doc WT/DS406/AB/R (circulated 4 April 2012, adopted 24 April 2012). See also Tania Voon, *International Decision: United States – Measures Affecting the Production and Sale of Clove Cigarettes* (2012) 106(4) *American Journal of International Law* 824; Tania Voon and Andrew Mitchell, ‘Implications of International Investment Law for Tobacco Flavouring Regulation’ (2011) 12(1) *Journal of World Investment & Trade* 65.

² *Australia – Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Request for the Establishment of a Panel by Ukraine*, WTO Doc WT/DS434/11 (17 August 2012) (claim suspended: WTO, *Australia – Certain Measures Concerning Trademarks and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Communication from the Chairperson of the Panel*, WTO Doc WT/D434/16 (3 June 2015)); *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Request for the Establishment of a Panel by Honduras*, WTO Doc WT/DS435/16 (17 October 2012); *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Request for the Establishment of a Panel by the Dominican Republic*, WTO Doc WT/DS441/15 (13 November 2012); *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Request for the Establishment of a Panel by Indonesia*, WTO Doc WT/DS467/15 (6 March 2014); *Australia – Certain Measures Concerning Trademarks, Geographical Indications and Other Plain Packaging Requirements Applicable to Tobacco Products and Packaging: Request for the Establishment of a Panel by Cuba*, WTO Doc WT/DS458/14 (14 April 2014). See also Tania Voon and Andrew Mitchell, ‘Face Off: Assessing WTO Challenges to Australia’s Scheme for Plain Tobacco Packaging’ (2011) 22(3) *Public Law Review* 218.

³ *Philip Morris Asia Ltd v Australia* (Permanent Court of Arbitration, Case No 2012-12, UNCITRAL Arbitration Rules, ongoing), brought under the *Agreement between the Government of Hong Kong and the Government of Australia for the Promotion and Protection of Investments*, signed 15 September 1993, 1748 UNTS 385 (entered into force 15 October 1993). See also Tania Voon and Andrew Mitchell, ‘Implications of International Investment Law for Tobacco Flavouring Regulation’ (2011) 12(1) *Journal of World Investment & Trade* 65.

⁴ See generally Andrew Higgins, Andrew Mitchell and James Munro, ‘Australia’s Plain Packaging of Tobacco Products: Science and Health Measures in International Economic Law’ in Bryan Mercurio and Kuei-Jung Ni (eds), *Science and Technology in International Economic Law: Balancing Competing*

real-world evidence of the effect of particular measures (for example on sales of a particular product) may not be available at the time a measure is introduced. Instead, governments may need to rely on indirect evidence of the likely impact of a proposed measure, using proxies such as surveys of the intentions and preferences of consumers. For measures crafted to balance different health impacts within the constraints of political and legal circumstances, trade-offs may need to be made between different effects on health, and evidence will be needed to support the overall assessment of the costs and benefits of a particular measure. The complexity of public health regulation also means that the specific health effects of a particular measure may not be capable of isolation; rather, a number of health measures may operate in concert to achieve the desired results, and the evidence may necessarily reflect the implementation of these different measures acting together. A measure may also be designed to work over a number of years or even decades, for example by encouraging children not to take up smoking, meaning that the full benefit of a measure may not be apparent at the time of a legal challenge.

The significance of these problems is heightened by existing and contemplated legislation in other jurisdictions on similar matters, such as graphic health warnings and other tobacco packaging requirements in Uruguay,⁵ tobacco flavouring laws in Canada,⁶ labelling requirements on alcohol product labels in Thailand,⁷ and the pursuit of plain

Interests (Routledge, 2013) 117. See also Simon Chapman and Becky Freeman, *Removing the emperor's clothes: Australia and tobacco plain packaging* (Sydney University Press, 2014).

⁵ See *Philip Morris Brands Sàrl v Uruguay (Decision on Jurisdiction)* (ICSID Arbitral Tribunal, Case No ARB/10/7, 2 July 2013), a case brought under the *Agreement Between the Swiss Confederation and the Oriental Republic of Uruguay on the Reciprocal Promotion and Protection of Investments*, signed 7 October 1988, 1976 UNTS 389 (entered into force 22 April 1991). See also Benn McGrady, 'Implications of Ongoing Trade and Investment Disputes Concerning Tobacco: Philip Morris v Uruguay' in Tania Voon, Andrew Mitchell and Jonathan Liberman with Glyn Ayres (eds) *Public Health and Plain Packaging of Cigarettes: Legal Issues* (Edward Elgar, 2012) 173.

⁶ *Cracking Down on Tobacco Marketing Aimed at Youth Act 2009*.

⁷ WTO Committee on Technical Barriers to Trade, *Notification from Thailand of Alcoholic Beverage Control*, WTO Doc G/TBT/N/THA/437 (28 March 2014); WTO Committee on Technical Barriers to Trade, *Minutes of the Meeting of 18-19 June 2014: Note by the Secretariat*, WTO Doc G/TBT/M/63 (19 September 2014) [3.9]-[3.13]. Cf WTO Committee on Technical Barriers to Trade, *Notification from Thailand of Alcohol Beverages Control*, WTO Doc G/TBT/N/THA/332 (21 January 2010); WTO Committee on Technical Barriers to Trade, *Note by the Secretariat: Minutes of the Meeting of 23-24 June 2010*, WTO Doc G/TBT/M/51 (1 October 2010), [237]-[251].

tobacco packaging laws in countries such as France,⁸ India,⁹ Ireland,¹⁰ New Zealand,¹¹ South Africa,¹² and the United Kingdom.¹³

This paper compares approaches to evidence in international trade and investment law and seeks to derive lessons for policymakers in developing public health regulation with potential trade and investment treaty challenges in mind. The paper reflects on the kinds of evidence needed to successfully defend such challenges and the appropriate approach to assessing such evidence in disputes in these two fora. In addition to assisting policy-makers to devise health measures that will survive trade and investment law challenges, the paper aims to assist trade and investment tribunals to better understand health measures and scientific evidence related to such measures. My focus in relation to the practice of trade/investment tribunals is on their *evaluation* of scientific and technical evidence, rather than on issues relating to the *admissibility* of evidence or the *procedure* for taking evidence.¹⁴

Section II below illustrates the kinds of evidentiary complexity that have been arising in both international trade law and international investment law disputes, as well as an broader public international law disputes as exemplified in the International Court of

⁸ 'France to introduce plain cigarette packaging', *BBC* (online), 25 September 2014; Bryce Baschuk, 'France Advances Tobacco Plain Packaging Rules in Line with U.K. Law', *International Trade Daily* (online), 2 July 2015.

⁹ Soumyadeep Bhaumik, 'Private member's bill proposes plain packaging of tobacco products in India' (2013) *BMJ* 346:f953; *Love Care Foundation v Union of India*, reserved judgment, writ petition No 1078 of 2013 (21 July 2014) [24].

¹⁰ *Public Health (Standardised Packaging of Tobacco) Act 2014*; Mark Hilliard, 'Plain packaging for cigarettes signed into law in Ireland', *The Irish Times* (online), 10 March 2015; WTO Committee on Technical Barriers to Trade, *Notification from Ireland on Public Health (Standardised Packaging of Tobacco) Bill 2014*, WTO Doc G/TBT/N/IRL/1 (17 June 2014).

¹¹ *Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill*; Tariana Turia, 'First Reading of the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill (11 February 2014); WTO Committee on Technical Barriers to Trade, *Notification from New Zealand on the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill*, WTO Doc G/TBT/N/NZL/62/Add.1 (17 February 2014).

¹² Wendell Roelf, 'South Africa plans plain cigarette packaging by 2015: minister', *Reuters* (online), 24 July 2014.

¹³ William James and Martinne Geller, 'UK votes to ban cigarette pack branding, industry threatens legal action', *Reuters* (online), 11 March 2015; BBC, 'Monday in Westminster: 16 March 2015', *BBC* (online), 16 March 2015; WTO Committee on Technical Barriers to Trade, *Notification from the United Kingdom on Standardised Packaging of Tobacco Product Regulations*, WTO Doc G/TBT/N/GBR/24 (3 September 2014).

¹⁴ See the distinction drawn between these two broad issues by Jeff Waincymer, *Procedure and Evidence in International Arbitration* (Kluwer Law International, 2012) 742-743.

Justice (‘ICJ’). Section III reflects on the kind of evidence that is needed and routinely collected in developing public health regulation, while emphasising also the evidence needed in successfully defending such a regulation against attack in the international trade or investment law regimes. Section IV examines in more detail the different ways in which health evidence is used in trade and investment disputes, including through legal concepts of inherent powers, burden of proof, standard of proof and standard of review, and in the different evidentiary sources represented by experts and *amicus curiae*.

Section V concludes with some suggestions for both decision-makers in such disputes (on how better to understand and utilise health and other scientific evidence) and policy-makers in developing health regulations with an eye to potential legal challenges in international economic law. For policy-makers, evidence of different kinds and different sources may be important, addressing a range of matters including the problem the regulation targets and the way in which that targeting operates. Such evidence is particularly important where regulation draws distinctions between products or sources of supply. For tribunals, adjusting the standard of review and approach to scientific evidence to align with the obligation in question while recognising the limits of the judicial role and function may facilitate the evaluation of scientific evidence. At a more practical level, allowing greater access to the process for tribunal-appointed experts and *amicus curiae* may allow for more inclusive and impartial decision-making.

II EVIDENTIARY COMPLEXITIES IN PUBLIC INTERNATIONAL LAW

Several cases in recent years demonstrate increasing challenges facing international tribunals, in both international economic law and public international law more broadly, in relation to the weighing and assessment of complex evidence, particularly in the broad context of ‘science’. These cases reflect the kinds of difficulties that arise when legally qualified tribunals are tasked with evaluating evidence in fields beyond their disciplinary expertise, in relation to not only health measures but also a wide range of other measures in dispute today. Understanding these broader problems provides a useful basis for examining in more detail the evidentiary complexity of health

regulations under challenge in international trade and investment tribunals. Below, I consider a handful of cases drawn from the International Court of Justice ('ICJ'), the WTO, and investment treaty disputes.

A *International Court of Justice*

The ICJ's decision of 20 April 2010 in the *Pulp Mills* case between Argentina and Uruguay¹⁵ reflects evidentiary problems related to the use of experts (and particularly the appearance of relevant individuals as counsel rather than experts), science as a source of knowledge, and the Court's ability to weigh and assess evidence. In that case, Argentina brought proceedings against Uruguay pursuant to a treaty between the two countries: *Statute of the River Uruguay*.¹⁶ Argentina alleged that Argentina's construction of two pulp mills on the River Uruguay affected the quality of the waters and surrounding areas contrary to the treaty and other rules of international law.¹⁷ In relation to the substantive violations alleged by Argentina, the parties 'placed before the Court a vast amount of factual and scientific material', as well as 'reports and studies prepared by the experts and consultants commissioned by each of them, as well as others'.¹⁸

Although the Court noted that the experts included as counsel would have been better presented as expert witnesses so that they could be subjected to questions from the other party,¹⁹ it nevertheless considered itself qualified to assess the evidence they provided. However, rather than undertaking 'a detailed examination of the scientific and technical validity'²⁰ of the evidence provided or discussing 'the relative merits, reliability

¹⁵ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment)* [2010] ICJ Rep 14.

¹⁶ *Statute of the River Uruguay*, signed 26 February 1975, 1295 UNTS 340 (entered into force 18 September 1976).

¹⁷ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment)* [2010] ICJ Rep 14, [1], [22].

¹⁸ *Ibid* [165].

¹⁹ *Ibid* [167]. See generally Anna Riddell and Brendan Plant, *Evidence before the International Court of Justice* (British Institute of International and Comparative Law, 2009) ch 9 ('Experts').

²⁰ *Ibid* [213].

and authority of the documents and studies prepared by the experts and consultants of the parties',²¹ the Court simply described its role as follows:

[I]t is the responsibility of the Court, after having given careful consideration to all the evidence placed before it ..., to determine which facts must be considered relevant, to assess their probative value, and to draw conclusions from them as appropriate. Thus, in keeping with its practice, the Court will make its own determination of the facts, on the basis of the evidence presented to it, and then it will apply the relevant rules of international law to those facts which it has found to have existed.²²

Several of the separate and dissenting opinions in this case illustrate the difficulties facing the ICJ in dealing with scientific evidence that this rather bland statement masks. In their joint dissenting opinion, Judges Al-Khasawneh and Simma stated:

The exceptionally fact-intensive case before us is unlike most cases submitted to the Court and raises serious questions as to the role that scientific evidence can play in an international judicial institution. The traditional methods of evaluating evidence are deficient in assessing the relevance of such complex, technical and scientific facts ... [T]he Court has approached it in a way that will increase doubts in the international legal community whether it, as an institution, is well-placed to tackle complex scientific questions.²³

In his dissent, Judge ad hoc Vinuesa emphasised: 'Despite the lack of specialized expert knowledge, the Court sets itself the task of choosing what scientific evidence is best, discarding other evidence, and evaluating and weighing raw data and drawing conclusions'.²⁴ In his view, the absence in the judgment of discussion of 'the scientific integrity of the scientific methodologies' or results:

²¹ Ibid [168].

²² Ibid.

²³ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judges Al-Khasawneh and Simma) [2010] ICJ Rep 108, [3] (citing, *inter alia*, Shabtai Rosenne, *Essays on International Law and Practice* (Martinus Nijhoff, 2007) 235, 250).

²⁴ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)* (Judge Ad Hoc Vinuesa) [2010] ICJ Rep 266, [71].

underscores the Court's lack of scientific competence and throws doubt on the Court's ability to determine whether the data is scientifically viable or credible. The Court does not have the proper expertise or knowledge to draw the expert conclusions that it makes, and this judgment fully reflects that.²⁵

In the 2014 *Whaling* case,²⁶ Japan similarly queried whether the Court could 'properly apprais[e]' 'matters of scientific policy'.²⁷ The Court's response again emphasised its usual approaches to evidence and its ability to determine on that basis: (i) whether the program in question 'involves scientific research'; and (ii) whether 'the killing, taking and treating of whales is "for purposes of" scientific research' by examining whether its 'design and implementation are reasonable in relation to achieving its stated objectives' of scientific research.²⁸ The Court took pains to distinguish its legal task from that of the scientific experts:

[T]he experts called by the Parties agreed that lethal methods can have a place in scientific research, while not necessarily agreeing on the conditions for their use. Their conclusions *as scientists*, however, must be distinguished from the interpretation of the [*International Convention for the Regulation of Whaling*], which is the task of this Court.²⁹

[T]he Court reiterates that it does not seek here to *pass judgment on the scientific merit* of the [objectives of the program].³⁰

[T]he purpose of such an inquiry is not to *second-guess the scientific judgments* made by individual scientists or by Japan, but rather to examine whether Japan, in light of [its] stated research objectives, has demonstrated a reasonable basis for annual sample sizes ...³¹

²⁵ Ibid [72].

²⁶ *Whaling in the Antarctic (Australia v Japan: New Zealand intervening)* (31 March 2014) ICJ.

²⁷ Ibid [65].

²⁸ Ibid [67].

²⁹ Ibid [82] (emphasis added)

³⁰ Ibid [172] (emphasis added).

³¹ Ibid [185] (emphasis added).

These ICJ cases, and others,³² indicate an apparent reluctance to acknowledge the growing difficulty in delineating the judicial task from the scientific in cases that involve more and more complex scientific evidence: the Court may be wary of accepting the limits of legal knowledge and skills in resolving matters that come before it. The cases also confirm the importance of relevant court rules concerning evidentiary matters, such as the use of experts and the appropriate standard of review, as discussed further below. At the same time, they indicate that rules allowing tribunals to seek impartial evidence (for example through independent experts) may be necessary but not sufficient to ensure the integrity of the Court's analysis with respect to technical or scientific facts. If the rules are not used, or if the Court is unable to decipher the differences, relevance, and significance of the evidence provided by different experts, the results may be as unsatisfying as if the rules did not exist at all.

B *World Trade Organization*

The term WTO 'tribunals' here refers to WTO panels (in practice, comprising three people selected on an ad hoc basis)³³ and the WTO Appellate Body (in effect, a standing seven-member court of appeal).³⁴ These tribunals face the same kinds of difficulties in relation to scientific evidence as the ICJ, with the added complication that the Appellate Body is technically limited to deciding issues of law³⁵ while the panel is the 'trier of facts'.³⁶ Thus, where the Appellate Body reverses a panel finding it will not 'complete' the legal analysis³⁷ to resolve the issue in dispute in the absence of (i) 'factual findings of the panel' and 'undisputed facts on the panel record';³⁸ or (ii) 'a full exploration of issues before the panel that might [give] rise to concerns about the parties' due process

³² See Rosenne, above n 23, 235-236, 239-242; Jean D'Aspremont and Makane Moïse Mbengue, 'Strategies of Engagement with Scientific Fact-finding in International Adjudication' (2014) 5 *Journal of International Dispute Settlement* 240, 253-254.

³³ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 2 ('*Understanding on Rules and Procedures Governing the Settlement of Disputes*') ('DSU') art 8(5).

³⁴ DSU art 17(1).

³⁵ DSU art 17(6).

³⁶ Appellate Body Report, *EC – Hormones*, [132].

³⁷ See generally Alan Yanovich and Tania Voon, 'Completing the Analysis in WTO Appeals: The Practice and its Limitations' (2006) 9(4) *Journal of International Economic Law* 933.

³⁸ Appellate Body Report, *EC – Seal Products*, [5.63].

rights'.³⁹ Moreover, the Appellate Body 'will not "interfere lightly" with a panel's fact-finding authority'⁴⁰ and will not find that the panel failed to comply with its obligation to make 'make an objective assessment of the matter before it, including an objective assessment of the facts of the case'⁴¹ unless the panel 'exceeded its authority as the trier of facts'.⁴²

Accordingly, WTO panels rather than the Appellate Body have the predominant task of sorting through facts and weighing the relevant evidence. This evidence routinely covers scientific and technical matters. In the 2013 panel report on *EC – Seal Products*, for example, the panel noted, 'Both sides have submitted a voluminous amount of evidence, mostly based on scientific studies and expert statements, pertaining to whether the application and monitoring of humane killing methods can be enforced in seal hunting practices'.⁴³ In the 2011 panel report on *US – Tuna II (Mexico)*, the panel took note of scientific studies submitted by the United States that 'suggest that various adverse impacts can arise from setting on dolphins, including cow-calf separation ... , as well as muscular damage, immune and reproductive systems failures and other adverse health consequences ... such as continuous acute stress'.⁴⁴ At the same time, the panel stated that other scientific studies, including certain studies submitted by Mexico, 'question these conclusions'.⁴⁵ The panel concluded that 'there is a degree of uncertainty in relation to the extent to which setting on dolphins may have an adverse impact on dolphins beyond observed mortality'.⁴⁶

As discussed further below, WTO tribunals (and panels in particular) do have tools available to assist in the collection and evaluation of evidence, including the use of experts. However, these tools do not alleviate all the difficulties arising from

³⁹ Ibid [5.69].

⁴⁰ Appellate Body Report, *EC – Seal Products*, [5.150] (citing Appellate Body Report, *US – Wheat Gluten*, [151]).

⁴¹ DSU art 11.

⁴² Appellate Body Report, *EC – Seal Products*, [5.150] (citing Appellate Body Report, *US – Wheat Gluten*, [151]).

⁴³ Panel Report, *EC – Seal Products*, [7.4].

⁴⁴ Panel Report, *US – Tuna II (Mexico)*, [7.499].

⁴⁵ Ibid [7.500].

⁴⁶ Ibid [7.504].

scientifically complex cases and the necessary intersection of law and science in resolving them. Particularly in relation to challenges to public health regulation, additional guidance and scientific understanding could help ensure appropriate decision-making in the WTO dispute settlement system.

C *Investment Treaty Arbitration*

Investment treaty tribunals frequently deal with complex scientific matters and extensive evidence on such matters from both sides. *Methanex* provides a good example of the type and extent of scientific evidence that such tribunals may face. In that 2005 case, *Methanex*, a Canadian company, brought proceedings against the United States under chapter 11 of the *North American Free Trade Agreement* ('NAFTA')⁴⁷ in respect of California's ban on the sale and use of MTBE, a gasoline additive. Methanex alleged that California:

intended to create a local ethanol industry where no significant industry had previously existed in California; to benefit the US ethanol industry; to accomplish these goals by banning ethanol's competition, namely methanol and MTBE; and that California was motivated to protect ethanol in part by political and financial inducements ... provided by the US ethanol industry; and in part because of nationalistic biases, both inherent and overt, to discriminate against and thereby harm Methanex as a Canadian entity and all other foreign methanol producers.⁴⁸

The voluminous evidence reviewed by the tribunal included scientific material concerning the health and environmental impacts of MTBE, including a 600-page report by the University of California ('UC') (1998),⁴⁹ public testimony and comment on that report,⁵⁰ a report by the California Environmental Protection Agency (1999),⁵¹ and

⁴⁷ *North American Free Trade Agreement*, signed 17 December 1992 [1994] CTS 2 (entered into force 1 January 1994) ('NAFTA').

⁴⁸ *Methanex Corporation v United States (Final Award)*, UNCITRAL (NAFTA) (3 August 2005) pt II, ch D, [25].

⁴⁹ *Ibid* pt III, ch A, [3].

⁵⁰ *Ibid* [17]-[19].

⁵¹ *Ibid* [30].

‘a series of expert reports’ tendered by both parties.⁵² The tribunal explained that the ‘resulting expert testimony contained in these many reports is extremely important in this arbitration, going to the heart of the question of whether the US measures ... constitute a “sham environmental protection in order to cater to local political interests or in order to protect a domestic industry”’.⁵³

The tribunal’s reference to a ‘sham’ gives an indication of the tribunal’s assessment of the level of deference it should give to the regulators in this dispute; that is, rather than making a scientific assessment itself, the tribunal was reviewing the evidence simply to determine whether the scientific basis for the law was plausible or a disguise for a protectionist or political intent. In other words, ‘the tribunal will not act as a “science court” but will be tasked with assessing whether the science relied on was “objective” and not a “political sham.”’⁵⁴ This approach provides one way for a tribunal to avoid having to make expert judgments in areas beyond its disciplinary expertise. That this was the relevant threshold for analysis is confirmed by the tribunal’s conclusion that the UC Report:

reflect[ed] a serious, objective and scientific approach to a complex problem ... Whilst it is possible for other scientists and researchers to disagree in good faith with certain of its methodologies, analyses and conclusions, the fact of such disagreement, even if correct, does not warrant this Tribunal in treating the UC Report as part of a political sham by California.⁵⁵

In reaching this conclusion, the tribunal emphasised: that the challenged measure was ‘motivated by the honest belief, held in good faith and on reasonable scientific grounds, that MTBE contaminated groundwater and was difficult and expensive to clean up’; and the absence of ‘credible evidence’ of an intention to favour the United States ethanol

⁵² *Ibid* [41].

⁵³ *Ibid*.

⁵⁴ Rahim Moloo and Justin Jacinto, ‘Environmental and Health Regulation: Assessing Liability Under Investment Treaties’ (2011) 29 *Berkeley Journal of International Law* 1, 33.

⁵⁵ *Methanex Corporation v United States (Final Award)*, UNCITRAL (NAFTA) (3 August 2005) pt III, ch A, [101].

industry or injure methanol producers including Methanex.⁵⁶ The tribunal buttressed its conclusion by stating that it was ‘not persuaded that the UC Report was scientifically incorrect’.⁵⁷

A subsequent NAFTA chapter 11 case decided in 2010, *Chemtura*, similarly concerned the health and environmental effects of a pesticide, lindane. In that case, the US company Chemtura challenged Canadian restrictions on lindane, including the termination of its registration of lindane-based pesticides in Canada.⁵⁸ The tribunal pointed out ‘at the outset that it is not its task to determine whether certain uses of lindane are dangerous, whether in general or in the Canadian context’.⁵⁹ This position appears consistent with the general reluctance of WTO and investment tribunals to ‘second-guess’ sovereign regulatory decisions relating to scientific questions. Similarly to the *Methanex* tribunal, the *Chemtura* tribunal accordingly set the bar quite high for interfering in such a decision, this time referring to the possibility not of a ‘sham’ but of ‘bad faith’.⁶⁰ Nevertheless, the tribunal did state: ‘the Tribunal cannot ignore the fact that lindane has raised increasingly serious concerns both in other countries and at the international level since the 1970s’.⁶¹ As in the WTO,⁶² then, multilateral support for a particular regulatory approach or factual recognition may make it easier for an investment treaty tribunal to take a particular position on an ongoing scientific question.

These techniques, of recognising the tribunal’s limited (or lack of) expertise in scientific matters, focusing on the question of good faith of the respondent state, and turning to multilateral indicators of acceptable practice, may assist in preventing international investment disputes from degenerating into a factual or scientific stand-off in search of a singular ‘truth’. In appropriate contexts, these techniques might usefully be applied in the WTO as well.

⁵⁶ Ibid [102].

⁵⁷ Ibid [101].

⁵⁸ *Chemtura Corporation v Canada (Award)*, UNCITRAL (NAFTA) (2 August 2010) [32], [34].

⁵⁹ Ibid [134] (see also [153]).

⁶⁰ Ibid [145], [153].

⁶¹ Ibid [135].

⁶² See, eg, Appellate Body Report, *EC – Seal Products*, [130]-[132].

III EVIDENCE AND PUBLIC HEALTH REGULATION

A *Evidence in the Development of Public Health Regulation*

The need for evidence-based or evidence-informed policy has been increasingly recognised and debated in the public health context.⁶³ Evidence may be used in this context in different stages and ways, such as:

- (a) in identifying and measuring the relationship between a preventable risk and a disease (the need for regulation);
- (b) in the process of promoting policy development;
- (c) in determining the content of policy, by assessing the effectiveness of different proposed interventions; or
- (d) in translating a proposed intervention into practice.⁶⁴

Depending on the context and purpose for which evidence is used to support public health regulation, various forms of evidence may be used, ranging from the more objective (eg scientific literature) to the more subjective (eg media and marketing data).⁶⁵ Evidence relevant to health measures may also be quantitative (numerical) or qualitative:

Qualitative evidence can make use of the narrative form as a powerful means of influencing policy deliberations, setting priorities, and proposing policy solutions by telling persuasive stories that have an emotional hook and intuitive appeal. This often provides an anchor for statistical evidence, which, in turn, offers the powerful persuasive impact of the law of large numbers, in addition to being verifiable and having high credibility.⁶⁶

⁶³ See, eg, Roger Jones, 'Strength of evidence in qualitative research' (2007) 60 *Journal of Clinical Epidemiology* 321; Ross Brownson, Jamie Chriqui and Katherine Stamatakis, 'Understanding Evidence-Based Public Health Policy' (2009) 99(9) *American Journal of Public Health* 1576; Ross Brownson, Jonathan Fielding and Christopher Maylahn, 'Evidence-Based Public Health: A Fundamental Concept for Public Health Practice' (2009) 30 *Annual Review of Public Health* 175.

⁶⁴ Brownson, Chriqui and Stamatakis, above n 63, 1578; Brownson, Fielding and Maylahn, above n 63, 179.

⁶⁵ Brownson, Fielding and Maylahn, above n 63, 178.

⁶⁶ Brownson, Chriqui and Stamatakis, above n 63, 1577.

Studies demonstrating the superiority of combining quantitative and qualitative evidence⁶⁷ belie the suspicion with which qualitative evidence is sometimes regarded:⁶⁸ ‘the importance of qualitative studies of the attitudes, beliefs, expectations, and behaviors of patients, particularly in relation to changing their behavior in response to educational or public health interventions cannot be overestimated’.⁶⁹ The same may be said of consumers generally in their interactions with risk factors for non-communicable diseases (‘NCDs’)⁷⁰ such as tobacco and alcohol.

Research on public health policy and regulation has examined the role of researchers in developing evidence in a manner that is accessible and useful to policy-makers,⁷¹ from the initial stage of defining the relevant ‘problem’ in public health, to the later stages of identifying and selecting appropriate legal interventions.⁷² Going beyond the use of evidence in developing and implementing health policy, at the policy-making stage it is crucial to establish and craft evidence that will enable public health regulations ultimately to withstand legal challenge in international trade and investment fora. Undertaking this process may also assist in making the measure more rigorous and focused, for example by identifying evidence to support distinctions between similar products on the basis of their different health implications, and ensuring a close examination of the relationship between the measure and: the identified problem; the declared objectives; trade (eg imported products); and investment (eg foreign investors).

⁶⁷ Ibid.

⁶⁸ Jones, above n 63, 321.

⁶⁹ Ibid.

⁷⁰ See, eg, WHO World Health Assembly, *Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*, A61/8 (18 April 2008); UN General Assembly, *Resolution Adopted by the General Assembly: Prevention and Control of Non-communicable Diseases*, A/RES/64/265 (20 May 2010); UN General Assembly, *Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases*, A/66/L.1 (16 September 2011).

⁷¹ See, eg, Danielle Campbell et al, ‘Increasing the Use of Evidence in Health Policy: Practice and Views of Policy Makers and Researchers’ (2009) 6 *Australia and New Zealand Health Policy* 21; David Colby et al, ‘Research Glut and Information Famine: Making Research Evidence More Useful for Policymakers’ (2008) 27(4) *Health Affairs* 1177.

⁷² See Evan Anderson and Scott Burris, ‘Researchers and Research Knowledge in Evidence-Informed Policy Innovation’ in Tania Voon, Andrew Mitchell and Jonathan Liberman (eds), *Regulating Tobacco, Alcohol and Unhealthy Foods* (Routledge, forthcoming July 2014) 36. See also Ross Brownson, Graham Colditz and Enola Proctor (eds), *Dissemination and Implementation Research in Health: Translating Science to Practice* (Oxford University Press, 2012).

B *Evidence in Challenges to Public Health Regulation*

The precise parameters of evidence-building in WTO or investment treaty disputes depends on the specific context, including the particular treaty terms governing evidence and the substantive breaches alleged. However, in many instances, a public health measure such as a regulation governing NCD risk factor consumption will face a common set of challenges. The central task of the respondent will typically be to demonstrate that the measure is necessary or proportionate to its health objective when comparing its impact on imported products or foreign investors with its health benefits. Fulfilling that task may involve demonstrating that the measure does contribute to its objectives and that it is preferable to alternative approaches. In doing so, the respondent may need to point to evidence about matters such as:

- (a) the objectives of the measure, as revealed by its text, structure and preparatory materials;
- (b) the existence of the problem the measure is intended to address;
- (c) the relationship between the measure and the problem;
- (d) the impact of the measure on particular products, and the relationship between those products and other products treated differently or unaffected by the measure (eg the competitiveness of the products, their similarity, and consumer perceptions of the products);
- (e) the costliness or ineffectiveness of alternatives;
- (f) the impact of the measure on the problem in practice; and
- (g) the impact of the measure on international trade (eg imported products) or on foreign investments or investors.

If a measure has not yet been implemented, evidence about its impact in other contexts (eg other countries) may be relevant. If the measure has not yet been implemented anywhere, or has only recently been implemented, a respondent may face the difficulty of having to predict its impact in the future, for example through studies of how consumers are likely to respond to the measure based on their preferences expressed in other ways (eg in surveys or interviews).

If a public health measure has already been implemented in the respondent's territory, evidentiary difficulties are still likely. A respondent may have difficulty in obtaining evidence that isolates the effects of an individual measure from the effects of complementary measures, or that identifies short-term impacts of what may be a long-term policy strategy intended to work over a number of years, decades, or even generations. In the WTO, the Appellate Body has recognised these difficulties and taken a flexible approach to evidence in these circumstances, allowing scope for 'evidence or data, pertaining to the past or the present', 'quantitative projections' and 'qualitative reasoning'.⁷³ An additional problem for respondents may be the role of industry in manipulating market responses to the introduction of a novel public health measure, for example by changing prices in order to shape consumer behaviour following implementation.⁷⁴ Industry-sponsored research may also cloud the evidence.⁷⁵

A simple focus on 'science' as providing a bright-line standard for distinguishing legitimate from illegitimate regulations has proven disappointing in some international economic law contexts⁷⁶ and is likely to be equally problematic in connection with public health uncertainties (eg NCD risk factors such as alcohol). Greater sophistication and precision in tribunals' understanding and use of evidence of various kinds might enable more consistent and defensible results.

IV ASSESSING HEALTH EVIDENCE IN TRADE AND INVESTMENT DISPUTES

A *Inherent Powers and Specific Rules*

International courts and tribunals, including those in the WTO and under preferential trade agreements and international investment treaties, are generally acknowledged to

⁷³ Appellate Body Report, *Brazil – Retreaded Tyres*, [151]. See also Appellate Body Report, *Canada – Continued Suspension*, [562]; Appellate Body Report, *US – COOL (Article 21.5 – Canada and Mexico)*, [5.218].

⁷⁴ See Higgins, Mitchell and Munro, above n 4, 119.

⁷⁵ See Linda Rosenstock, 'Attacks on Science: The Risks to Evidence-Based Policy' (2002) 92(1) *American Journal of Public Health* 14, 15.

⁷⁶ See, eg, Jacqueline Peel, *Science and Risk Regulation in International Law* (Cambridge University Press, 2010). See also Alberto Alemanno, 'The Dialogue between Judges & Experts in the EU and WTO' in Filippo Fontanelli, Giuseppe Martinico and Paolo Carrozza (eds), *Shaping Rule of Law Through Dialogue: International and Supranational Experiences* (Europa Law Publishing, 2009) 345.

have certain inherent powers,⁷⁷ including ‘the power to manage the proceedings to the extent necessary to fulfill their adjudicative function’.⁷⁸ International trade and investment treaty tribunals might rely on these inherent powers to determine what evidence to admit and how to weigh that evidence, in the absence of formal rules of evidence governing such matters.⁷⁹

However, some formal rules regarding evidence do exist in the trade and investment spheres, in some instances concerning how to weigh the relevant evidence. In the WTO, as noted earlier, panels play the primary role in assessing evidence and must make an ‘objective assessment’ of the matter before them pursuant to DSU Art 11.⁸⁰ That is a broad rule, and ‘it is generally within the discretion of the Panel to decide which evidence it chooses to utilize in making findings’.⁸¹ In international investment law, parties may rely on a range of arbitral rules, for example by including an appropriate clause in their arbitration agreement. Common sets of arbitral rules include:

- ICSID Arbitration Rules,⁸² Rule 34(1): ‘The Tribunal shall be the judge of the admissibility of any evidence adduced and of its probative value’.
- UNCITRAL Arbitration Rules,⁸³ Art 27(4): ‘The arbitral tribunal shall determine the admissibility, relevance, materiality and weight of the evidence offered’.
- SCC Arbitration Rules,⁸⁴ Art 26(1): ‘The admissibility, relevance, materiality and weight of evidence shall be for the Arbitral Tribunal to determine’.

⁷⁷ See, eg, Anthony Arnall, ‘Does the Court of Justice Have Inherent Jurisdiction?’ (1990) 27 *Common Market Law Review* 683; Louise Symons, ‘The inherent powers of the ICTY and ICTR’ (2003) 3 *International Criminal Law Review* 369; Chester Brown, *A Common Law of International Adjudication* (Oxford University Press, 2007) 90; Andrew Mitchell and David Heaton, ‘The Inherent Jurisdiction of WTO Tribunals: The Select Application of Public International Law Required by the Judicial Function’ (2010) 31 *Michigan Journal of International Law* 561.

⁷⁸ Michelle Grando, *Evidence, Proof and Fact-Finding in WTO Dispute Settlement* (Oxford University Press, 2009) 54.

⁷⁹ For an earlier account of the need for standard rules of evidence for international tribunals, see Charles Brower, ‘Evidence Before International Tribunals: The Need for Some Standard Rules’ (1994) 28(1) *The International Lawyer* 47.

⁸⁰ DSU art 11.

⁸¹ Appellate Body Report, *EC – Hormones*, [135].

⁸² *ICSID Rules of Procedure for Arbitration Proceedings*.

⁸³ UNCITRAL Arbitration Rules as revised in 2010, with new article 1, paragraph 4, as adopted in 2013: General Assembly Resolution 68/109 (16 December 2013).

- PCA Arbitration Rules,⁸⁵ Art 27(4): ‘The arbitral tribunal shall determine the admissibility, relevance, materiality and weight of the evidence offered’.
- IBA Rules,⁸⁶ Art 9.1: the ‘Arbitral Tribunal shall determine the admissibility, relevance, materiality and weight of evidence’.

The ICSID and UNCITRAL rules are the most commonly used rules in investment treaty arbitration.⁸⁷ In any case, this brief summary illustrates the broad discretion granted to tribunals in investment treaty arbitration in weighing and assessing evidence before them. Neither the inherent power to receive and examine evidence nor these specific kinds of arbitral rules are likely to provide much guidance to parties or arbitrators as to the appropriate weight to give any evidence, or more specifically scientific evidence and other evidence outside the judicial sphere of expertise, whether in relation to health measures or otherwise.

B *Burden of Proof*

In assessing the evidence before it, including scientific evidence, a tribunal will need to determine the proper allocation of the burden of proof. International rules applicable to investment treaty arbitration do not generally directly address the burden of proof. The UNCITRAL Arbitration Rules and the PCA Arbitration Rules both state in Article 27(1): ‘Each party shall have the burden of proving the facts relied on to support its claim or defence’. This provision matches the oft-quoted statement of the WTO Appellate Body in *Wool Shirts and Blouses*: ‘the party who asserts a fact, whether the claimant or the respondent, is responsible for providing proof thereof’.⁸⁸ However, the Appellate Body went on to say in that case:

the burden of proof rests upon the party, whether complaining or defending, who asserts the affirmative of a claim or defence. If that party adduces

⁸⁴ *Arbitration Rules of the Arbitration Institute of the Stockholm Chamber of Commerce*, adopted by the Stockholm Chamber of Commerce and in force as of 1 January 2010.

⁸⁵ *Permanent Court of Arbitration Arbitration Rules 2012*, effective 17 December 2012.

⁸⁶ *IBA Rules on the Taking of Evidence in International Arbitration 2010*, adopted by a resolution of the IBA Council of the International Bar Association (29 May 2010) (‘IBA Rules’).

⁸⁷ Rahim Moloo, ‘Evidentiary Issues Arising in an Investment Arbitration’ in Chiara Giorgetti (ed), *Litigating International Investment Disputes: A Practitioner’s Guide* (Brill Nijhoff, 2014) 287, 294.

⁸⁸ Appellate Body Report, *US – Wool Shirts and Blouses*, 14.

evidence sufficient to raise a *presumption* that what is claimed is true, the burden then shifts to the other party, who will fail unless it adduces sufficient evidence to rebut the presumption.⁸⁹

The WTO Appellate Body has since clarified that it draws a distinction between the burden of proof (the complainant's burden to prove a breach of a WTO obligation, and the respondent's burden to prove that the challenged measure falls within a WTO exception) and what might be described as the evidentiary burden (the burden on each party to prove the facts it relies on):

It is important to distinguish ... the principle that the complainant must establish a *prima facie* case of inconsistency with a provision of a covered agreement from ... the principle that the party that asserts a fact is responsible for providing proof thereof. ... In the present case, the burden of demonstrating a *prima facie* case that Japan's measure is maintained without sufficient scientific evidence, rested on the United States. Japan sought to counter the case put forward by the United States by putting arguments in respect of apples other than mature, symptomless apples ... [W]e disagree with Japan's assertion that 'the shift of the burden of proof to Japan was made prematurely ...' There was no 'shift of the burden of proof' ... for Japan was solely responsible for providing proof of the facts it had asserted.⁹⁰

This passage suggests that the first part of the Appellate Body's statement in *Wool Shirts and Blouses* (along with Article 27(1) of the UNCITRAL Arbitration Rules and the PCA Arbitration Rules) identifies the party responsible for proving asserted facts, whereas the second part of the *Wool Shirts and Blouses* statement determines the outcome in the absence of proof: if the complainant fails to establish a *prima facie* claim, the claim fails; if the complainant establishes a *prima facie* claim and the respondent fails to

⁸⁹ Ibid (emphasis added).

⁹⁰ Appellate Body Report, *Japan – Apples*, [157]. Criticism of the notion of 'shifting' of the burden of proof is also found in *Rompétrol Group NV v Romania (Award)*, ICSID Arbitral Tribunal (Case No ARB/06/3, 6 May 2013) [178].

establish a defence, the claim succeeds.⁹¹ At the same time, particular facts asserted in pursuing or denying a given claim must be proven by the party asserting them.

In WTO law, then, the legal burden of proof means that the complainant is responsible for establishing a *prima facie* breach of a WTO obligation (such as national treatment under Article III:4 of the GATT 1994), while the respondent is responsible for establishing that such breach is in fact justified under a particular exception (such as Article XX(b) of the GATT 1994).⁹² Similarly, in international investment law, the tribunal in *Gallo v Canada* (2011) stated that: ‘the Claimant has to prove its case, and without evidence it will fail; but if the Respondent raises defences, of fraud or otherwise, the burden shifts, and the defences can only succeed if supported by evidence marshalled by the Respondent’.⁹³ More specifically, the tribunal in *Thunderbird v Mexico* (2006) stated (quoting *Wool Shirts and Blouses* in a footnote)⁹⁴ that ‘the party alleging a violation of international law giving rise to international responsibility has the burden of proving its assertion. If said Party adduces evidence that *prima facie* supports its allegation, the burden of proof may be shifted to the other Party, if the circumstances so justify’.⁹⁵ In investor-State arbitration, the claimant’s burden will include establishing jurisdiction, which generally requires proof that ‘it was an investor at the relevant time’.⁹⁶

This straightforward dichotomy becomes more complex in WTO law, for example, when it comes to the so-called Enabling Clause,⁹⁷ an exception to the general obligation of most-favoured nation treatment under Article I:1 of the GATT 1994, allowing developed

⁹¹ On the notion of a ‘*prima facie* case’ in WTO dispute settlement, see Brown, above n 77, 96-97.

⁹² See, eg, Appellate Body Report, *US – COOL (Article 21.5 – Canada and Mexico)*, [5.370]; Panel Report, *US – Tuna II (Article 21.5 – Mexico)*, [7.45]. See also Bradley Condon, ‘Treaty Structure and Public Interest Regulation in International Economic Law’ (2014) *Journal of International Economic Law* (advance access version, 4-10).

⁹³ *Gallo v Canada (Award)*, UNCITRAL (NAFTA) (15 September 2011) n 2. See also *Rompetrol Group NV v Romania (Award)*, ICSID Arbitral Tribunal (Case No ARB/06/3, 6 May 2013) [179].

⁹⁴ *Gallo v Canada (Award)*, UNCITRAL (NAFTA) (15 September 2011) [277].

⁹⁵ *International Thunderbird Gaming Corporation v Mexico (Award)*, UNCITRAL (NAFTA) (26 January 2006) [95].

⁹⁶ *Cementownia ‘Nowa Huta’ SA v Turkey (Award)*, ICSID Arbitral Tribunal (Case No ARB(AF)/06/2, 17 September 2009) [112].

⁹⁷ *Decision on Differential and More Favourable Treatment, Reciprocity, and Fuller Participation of Developing Countries*, GATT Doc L/4903, BISD 26S/203 (28 November 1979) (‘Enabling Clause’) (now incorporated into the GATT 1994).

country WTO Members to grant preferential tariff treatment to developing country WTO Members. According to the Appellate Body, the respondent has the burden of ‘invoking the Enabling Clause as a defence’ and proving that the challenged measure satisfies its conditions.⁹⁸ However, the complainant must identify the particular provisions within the ‘extensive requirements set forth in the Enabling Clause’ with which the challenged measure is allegedly inconsistent.⁹⁹

The application of the general rule on burden of proof may also be uncertain in the context of the *Agreement on Technical Barriers to Trade* (‘TBT Agreement’),¹⁰⁰ which has been raised in WTO claims against Australian and United States tobacco control measures.¹⁰¹ Article 2.1 of the TBT Agreement requires Members to ‘ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favourable than that accorded to like products of national origin and to like products originating in any other country’. In *US – Tuna II (Mexico)*, the Appellate Body suggested that in the context of this provision, the complainant must prove its claim of less favourable treatment but the respondent may rebut a *prima facie* claim of inconsistency by showing ‘that the detrimental impact on imported products stems exclusively from a legitimate regulatory distinction’¹⁰² (although some uncertainty remains regarding the complainant’s responsibility in relation to the alleged legitimate regulatory distinction).¹⁰³

This justification of ‘legitimate regulatory distinction’ has been developed across three modern TBT cases,¹⁰⁴ although the Appellate Body recently decided that it does not apply to the corresponding non-discrimination obligations in GATT 1994 (national

⁹⁸ Appellate Body Report, *EC – Tariff Preferences*, [105], [115].

⁹⁹ *Ibid* [113], [115].

¹⁰⁰ See above n 140.

¹⁰¹ See above nn 1-2.

¹⁰² Appellate Body Report, *US – Tuna II (Mexico)*, [216]. See also Appellate Body Report, *US – COOL*, [272].

¹⁰³ Panel Report, *US – Tuna II (Article 21.5 – Mexico)*, [7.51], [7.59].

¹⁰⁴ *Ibid*; Appellate Body Report, *US – Clove Cigarettes*, [174]; Appellate Body Report, *US – COOL*, [271]. See also Tania Voon, Andrew Mitchell and Catherine Gascoigne, ‘Consumer Information, Consumer Preferences and Product Labels under the TBT Agreement’ in Michael J Trebilcock and Tracey Epps (eds), *Research Handbook on the WTO and Technical Barriers to Trade* (Edward Elgar, UK, 2013) 454.

treatment under Article III:4 and MFN treatment under Article I:1).¹⁰⁵ One rationale for this analytical distinction, suggested by the Appellate Body, is that the TBT Agreement lacks a general exception provision corresponding to GATT Article XX.¹⁰⁶ In defending a public health measure, a respondent WTO Member may therefore need to present evidence as to the relationship between: any detrimental impact on imported products and a legitimate regulatory distinction (in the context of TBT Art 2.1); and the measure and its public health objectives (in the context of GATT Art XX). Scientific evidence may be relevant in both contexts.

Article 2.2 of the TBT Agreement states, *inter alia*, ‘technical regulations shall not be more trade-restrictive than necessary to fulfil a legitimate objective, taking account of the risks non-fulfilment would create’. In *US – COOL*, the Appellate Body indicated that the complainant must first make a *prima facie* case of inconsistency with this provision, including generally by identifying a ‘possible alternative measure’, after which the respondent must rebut the case, ‘for example, by demonstrating that the alternative measure identified by the complainant is not, in fact, “reasonably available”, is not less trade restrictive, or does not make an equivalent contribution to the achievement of the relevant legitimate objective’.¹⁰⁷ This analysis of alternative measures is similar to that undertaken under GATT Article XX. Again a respondent WTO member defending a public health measure would need to articulate and establish the legitimate objective of the measure as well as explaining the difficulties with alternatives (eg higher costs or lower contribution to the health objective), supported by scientific evidence where available.

Ultimately, the question of which party has the legal burden of proving a particular claim or defence, or the evidentiary burden of proving particular facts, may be of only theoretical consequence in most cases. The tribunal (whether a WTO panel or an investment treaty tribunal) will simply assess the evidence before it and determine whether a treaty violation exists. A more important factor, particularly when it comes to

¹⁰⁵ Appellate Body Report, *EC – Seal Products*, [5.130].

¹⁰⁶ *Ibid* [5.125].

¹⁰⁷ Appellate Body Report, *US – COOL*, [379]. See also Appellate Body Report, *US – Tuna II (Mexico)*, [323]; Appellate Body Report, *US – COOL (Article 21.5 – Canada and Mexico)*, [5.338].

novel public health measures, may be the standard of proof or standard of review applied in assessing the evidence, as discussed in the following section.

C *Standard of Proof and Standard of Review*

The investment treaty tribunal in *Rompetrol v Romania* defined the ‘standard of proof’ as follows, in contrast to the ‘burden of proof’:

the Tribunal thinks that a word of clarification is in order, specifically as to the burden of proof vs. the standard of proof. The Tribunal believes that the distinction between the two can be stated quite simply: the burden of proof defines which party has to prove what, in order for its case to prevail; the standard of proof defines how much evidence is needed to establish either an individual issue or the party’s case as a whole.¹⁰⁸

The tribunal in *Rompetrol* identified the ‘normal rule’ for the standard of proof as the ‘balance of probabilities’, while recognising that ‘allegations of seriously wrongful conduct by a state official’ such as fraud or bad faith might in some circumstances require a correspondingly greater preponderance of evidence.¹⁰⁹ Similarly, Judge Greenwood in his separate opinion in the ICJ case of *Pulp Mills* (discussed above) indicated that a higher standard of proof was required for ‘charges of conduct as grave as genocide’ but that ‘the balance of probabilities (sometimes described as the balance of the evidence’ was the (lower) standard applicable to ‘allegations that a State has violated environmental obligations under a treaty concerning a shared watercourse’.¹¹⁰

WTO tribunals have been less specific in their articulation of the standard of proof than these examples from investment law and the ICJ.¹¹¹ Instead, WTO tribunals have more

¹⁰⁸ *Rompetrol Group NV v Romania (Award)*, ICSID Arbitral Tribunal (Case No ARB/06/3, 6 May 2013) [178].

¹⁰⁹ *Ibid* [183] (referring in [182] to Judge Higgins’ suggestion in a separate opinion that ‘the graver the charge the more confidence must there be in the evidence relied on’: *Oil Platforms (Iran v United States) (Judgment of 6 November 2003)* [2003] ICJ Rep 225, 234, [33] (Judge Higgins)). See also Waincymer, above n 14, 768.

¹¹⁰ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judgment)* [2010] ICJ Rep 221, 230, [26] (Judge Greenwood).

¹¹¹ See, eg, Panel Report, *US – Tuna II (Article 21.5 – Mexico)*, [7.60]-[7.67]; Panel Report, *Japan – Apples*, [7.4].

often examined the applicable ‘standard of review’.¹¹² This concept, which has also been addressed in the context of investment treaty arbitration,¹¹³ refers to the level of deference granted by a tribunal to the state and its decision-makers. The standard of review may differ according to the relevant treaty text, varying (for example) from one WTO agreement to the next.¹¹⁴

The Appellate Body has identified Article 11 of the DSU as specifying the general standard of review. That provision states that ‘a panel should make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and conformity with the relevant covered agreements’. According to the Appellate Body, this provision means that ‘the applicable standard of review is neither *de novo* review as such, nor “total deference”, but rather the “objective assessment of the facts”’.¹¹⁵ (However, as scholars have pointed out, Article 11 does not directly address the standard of review: a tribunal could be both objective and deferential or objective and non-deferential.)¹¹⁶

More specifically, Article 17.6 of the Anti-Dumping Agreement¹¹⁷ contains the following two distinct standards of review, applicable to facts and law respectively:

- (i) in its assessment of the facts of the matter, the panel shall determine whether the authorities’ establishment of the facts was proper and whether their evaluation of those facts was *unbiased and objective*. If the establishment of the facts was proper and the evaluation was unbiased and

¹¹² See, eg, Jacqueline Peel, ‘Of Apples and Oranges (and Hormones in Beef): Science and the Standard of Review in WTO Disputes under the SPS Agreement’ (2012) 61 *International and Comparative Law Quarterly* 427.

¹¹³ See, eg, Valentina Vadi and Lukasz Gruszczynski, ‘Standards of Review in International Investment Law and Arbitration’ (2013) 16(3) *Journal of International Economic Law* 613; Stephan Schill, ‘Deference in Investment Treaty Arbitration: Re-conceptualizing the Standard of Review’ (2012) 3(3) *Journal of International Dispute Settlement* 577.

¹¹⁴ See generally Ross Becroft, *The Standard of Review in WTO Dispute Settlement: Critique and Development* (Edward Elgar Publishing, 2012).

¹¹⁵ Appellate Body Report, *EC – Hormones*, [117].

¹¹⁶ Claus-Dieter Ehlermann and Nicolas Lockhart, ‘Standard of Review in WTO Law’ (2004) 7(3) *Journal of International Economic Law* 491, 495.

¹¹⁷ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A (‘*Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994*’) (‘Anti-Dumping Agreement’).

objective, even though the panel might have reached a different conclusion, the evaluation shall not be overturned;

(ii) the panel shall interpret the relevant provisions of the Agreement in accordance with customary rules of interpretation of public international law. Where the panel finds that a relevant provision of the Agreement admits of more than one *permissible interpretation*, the panel shall find the authorities' measure to be in conformity with the Agreement if it rests upon one of those permissible interpretations.¹¹⁸

Article 17.6 provides for a relatively undemanding standard of review in relation to both law and fact. However, arguably, the Appellate Body has effectively read Article 17.6(ii) out of the treaty.¹¹⁹

On one view, in the investment context, a more deferential standard of review should apply to public interest regulation such as public health measures.¹²⁰ Mooloo and Jacinto argue against a deferential standard of review separate from the treaty text, maintaining that the necessary deference is built into the State's obligations under the investment treaty, when properly interpreted.¹²¹ For example, as Ortino has explained, 'an interpretation of the fair and equitable treatment standard that requires bad faith in order to establish a breach of the investment treaty may be seen as more deferential than one that requires ... the host State to maintain "a stable legal and business environment."' ¹²² He goes on to maintain that 'the nature of the underlying treaty norm should influence the intensity of the review':¹²³ 'rule-like norms and process-type norms

¹¹⁸ Anti-Dumping Agreement art 17.6 (emphasis added).

¹¹⁹ See, eg, Tania Voon, 'The End of Zeroing? Reflections Following The WTO Appellate Body's Latest Missive' (2007) 34(3) *Legal Issues of Economic Integration* 211, 218-219. Cf Holger Spamann, 'Standard of Review for World Trade Organization Panels in Trade Remedy Cases: a Critical Analysis' (2004) 38(3) *Journal of World Trade* 509, 511-512.

¹²⁰ See, eg, William Burke-White and Andreas von Staden, 'Private Litigation in a Public Law Sphere: The Standard of Review in Investor-State Arbitrations' (2010) 35 *Yale Journal of International Law* 283, 295.

¹²¹ Rahim Mooloo and Justin Jacinto, 'Standards of Review and Reviewing Standards: Public Interest Regulation in International Investment Law' in Karl Sauvant (ed), *Yearbook on International Investment Law & Policy 2011-2012* (Oxford University Press, 2013) 539, 566-567.

¹²² Federico Ortino, 'The Investment Treaty System as Judicial Review' (2013) 24 *American Review of International Arbitration* 437, 460.

¹²³ *Ibid* 463.

should be subject to a more intensive review compared to standard-like norms and result-oriented norms'.¹²⁴ This conclusion may accord with the relatively complex structure for identifying the appropriate standard of review in WTO law, depending on the relevant WTO agreement and provision within that agreement being examined.

The abstract descriptions of standard of proof and standard of review in WTO and investment law do not clearly identify the way in which tribunals will assess scientific and other evidence related to specific health measures. Moreover, as noted above, the relevant standards may differ according to the nature of the alleged breach. Some examples of the extent of deference granted in particular cases may be instructive.

In the WTO dispute *US – Clove Cigarettes*, the United States had to justify under Article 2.1 of the TBT Agreement the structure of its ban on flavoured cigarettes, because clove cigarettes (primarily imported from Indonesia) were subject to the ban while menthol cigarettes (primarily domestically produced) were not.¹²⁵ The United States argued that including menthol in the ban would impose significant burdens on its health care system in respect of menthol smokers' withdrawal symptoms and would also risk the creation of a black market in menthol cigarettes.¹²⁶ However, arguably engaging in a *de novo* review, the Appellate Body reached its own conclusion (in the apparent absence of evidence on this point from the parties) that if menthol cigarettes were banned, menthol smokers would simply start smoking regular cigarettes.¹²⁷ Accordingly, the Appellate Body held that the detrimental impact of the ban on imported clove cigarettes did not stem exclusively from a legitimate regulatory distinction and therefore was inconsistent with TBT Art 2.1.¹²⁸ This case provides an example of the high level of evidence that is likely to be required (that is, the stringent standard of review applicable) in justifying a discriminatory (health or other) measure in the WTO, whether under TBT Art 2.1 or GATT Art XX.

¹²⁴ Ibid 467.

¹²⁵ Appellate Body Report, *US – Clove Cigarettes*, [224].

¹²⁶ Ibid [225].

¹²⁷ Ibid.

¹²⁸ Ibid [225]-[226].

The same conclusion can be drawn from the WTO case of *Brazil – Retreaded Tyres*. In that case, the Appellate Body characterised as ‘arbitrary or unjustifiable discrimination within the meaning of the chapeau of Article XX’ of GATT 1994 the exemption of MERCOSUR countries from a ban on the importation of retreaded tyres, even though Brazil implemented the exemption in order to comply with a ruling of a MERCOSUR arbitral tribunal.¹²⁹ However, *Brazil – Retreaded Tyres* also demonstrates the relatively deferential approach that the Appellate Body frequently takes to WTO Members’ chosen ‘level of protection’: in this case, ‘the reduction of the risks of waste tyre accumulation to the maximum extent possible’.¹³⁰ Neither the Panel nor the Appellate Body questioned this objective. Moreover, the Appellate Body emphasised that the contribution of the import ban to the objective did not need to be quantified¹³¹ (although in order to be ‘necessary’ under Article XX(b) the ban must be ‘apt to make a material contribution to the achievement of its objective’ rather than making a merely ‘marginal or insignificant contribution’).¹³²

In the investment context, *Methanex* again provides a useful example of a tribunal’s reasoning in assessing evidence, and the applicable standard of review. According to Ortino, ‘the tribunal’s review of the regulatory process and scientific evidence in particular was a necessary component in determining whether the California ban was motivated by legitimate concerns or was intended to discriminate between ethanol and methanol producers’.¹³³ Orellana suggests that the tribunal ‘reviewed the scientific evidence presented, with a view to determining not its ultimate scientific validity but, rather, its credibility as the basis of regulatory measures’.¹³⁴ This characterisation accords with the description above of the approach of the *Methanex* tribunal.

¹²⁹ Appellate Body Report, *Brazil – Retreaded Tyres*, [228], [223].

¹³⁰ *Ibid* [134], [144].

¹³¹ *Ibid* [146].

¹³² *Ibid* [150].

¹³³ Ortino, above n 122, 467.

¹³⁴ Marcos Orellana, ‘The Role of Science in Investment Arbitrations Concerning Public Health and the Environment’ (2006) 17 *Yearbook of International Environmental Law* 48, 72. See also Moloo and Jacinto, above n 54, 33, 49.

A similar approach—of reviewing scientific evidence for credibility but not necessarily absolute accuracy—can also be seen in the WTO, with the Appellate Body explaining the search for scientific evidence that is ‘reputable’ or ‘legitimate ... according to the standards of the relevant scientific community’.¹³⁵ Aspremont and Mbengue have characterised this framework for standard of review as ‘Radical Epistemically Deferent Rationality’: ‘the scientific findings are evaluated on the basis of the standards of the scientific community concerned’.¹³⁶ However, they point out that this approach ‘fails to recognize that methods of validation of scientific knowledge are as instable as the knowledge itself’ and also ‘presupposes that the adjudicative body is well-versed in the methods of the epistemic field concerned’.¹³⁷

The identification of the appropriate standard of review relates directly to the way in which tribunals address evidence provided by experts. Just as a WTO Panel cannot conduct a *de novo* review, so too must it refrain from using expert evidence to do so. In the *Continued Suspension* case, the WTO Appellate Body cautioned, in relation to Article 5.1 of the SPS Agreement:

a panel may not rely on the experts to go beyond its limited mandate of review. ... The panel may seek the experts’ assistance in order to identify the scientific basis of the SPS measure and to verify that this scientific basis comes from a *qualified and respected source*, irrespective of whether it represents *minority or majority scientific views*. It may also rely on the experts to review whether the reasoning articulated on the basis of the scientific evidence is *objective and coherent*, and whether the particular conclusions drawn by the Member assessing the risk find *sufficient support* in the evidence. ... The consultations with the experts, however, should not seek to test whether the experts would have done a risk assessment in the

¹³⁵ Appellate Body Report, *Canada – Continued Suspension*, [591].

¹³⁶ Aspremont and Mbengue, above n 32, 267.

¹³⁷ Ibid 268. See also Markus Wagner, ‘Law Talk v. Science Talk: The Languages of Law and Science in WTO Proceedings’ (2011) 35 *Fordham International Law Journal* 151, 160.

same way and would have reached the same conclusions as the risk assessor.¹³⁸

I now turn to examine in more detail to the role of experts in trade and investment disputes.

D *Experts*

The role of ‘experts’ before different tribunals, whether as members of a disputing party’s delegation or as independent experts, may significantly affect the course of the proceedings, particularly if the members of the tribunal themselves do not have background in the relevant substantive or technical fields such as statistics, economics, or public health.

WTO panels have a ‘right to seek information and technical advice from any individual or body which it deems appropriate’,¹³⁹ including by consulting ‘experts’ or requesting ‘an advisory report in writing from an expert review group’ with respect to ‘a factual issue concerning a scientific or other technical matter raised by a party’.¹⁴⁰ Like others involved in the WTO dispute settlement process, experts appointed by a panel must be ‘independent and impartial’ and must sign a disclosure form regarding those requirements.¹⁴¹ An expert appointed by a WTO panel may be expected to be more independent than an expert appointed by a party to the dispute. Thus, a ‘technical expert group’ established under the TBT Agreement is explicitly ‘under the panel’s authority’ and cannot generally include a citizen or government official of a party to the

¹³⁸ Appellate Body Report, *US – Continued Suspension*, [592] (emphasis added).

¹³⁹ DSU art 13.1.

¹⁴⁰ DSU art 13.2. See also *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A (‘Agreement on Technical Barriers to Trade’) (‘TBT Agreement’) art 14.2; *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A (‘Agreement on the Application of Sanitary and Phytosanitary Measures’) (‘SPS Agreement’) art 11.2; *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A (‘Agreement on Subsidies and Countervailing Measures’) (‘SCM Agreement’) art 4.5.

¹⁴¹ WTO, *Rules of conduct for the understanding on rules and procedures governing the settlement of disputes*, WT/DSB/RC/1 (11 December 1996) rr II:1, III:2, IV:1, annex 3. See also Appellate Body Report, *US – Continued Suspension*, [436].

dispute.¹⁴² Nevertheless, a WTO panel would generally consult the parties on proposed expert appointments or invite the parties to propose particular experts, in addition to consulting relevant international bodies.¹⁴³

ICJ judges (in dissent) have, perhaps surprisingly, identified the WTO as having:

most contributed to the development of a best practice of readily constituting outside sources in order better to evaluate the evidence submitted to it ... Various WTO panels have heard the experts put forward by the parties, have made recourse to specialized international organizations or agencies for information, or have outright heard the views of experts appointed by the Panel ...¹⁴⁴

However, Gruszczynski highlights a number of difficulties posed by the consultation of experts in the WTO. WTO panels seem reluctant to make use of the possibility of expert 'groups', instead selecting a number of individual experts. This approach may enable a wider diversity of views (rather than the development of a group consensus) but may also make it harder for the panel to reconcile these different views.¹⁴⁵ Thus, disputes may arise as to which experts to rely on and the panel's ability to make that assessment.¹⁴⁶ In addition, the independence of experts may be questioned even if they are not paid, appointed or nominated by any party. For example, an expert tied to an organisation or standards relevant to the issues in dispute may be more likely to present views aligned with a particular outcome or perspective.¹⁴⁷

¹⁴² TBT Agreement annex 2, [1], [3]. See also DSU appendix 4, [2], [4].

¹⁴³ See, eg, Panel Report, *EC – Hormones (US)*, [VI.6], [VI.7]; Panel Report, *Japan – Apples*, [6.2] (approach also followed in Panel Report, *US – Shrimp*; Panel Report, *Australia – Salmon*; Panel Report, *Japan – Agricultural Products*).

¹⁴⁴ *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay) (Judges Al-Khasawneh and Simma)* [2010] ICJ Rep 108, [16].

¹⁴⁵ Lukasz Gruszczynski, 'The role of experts in environmental and health-related trade disputes in the WTO: deconstructing decision-making processes' in Monika Ambrus et al, *The Role of 'Experts' in International and European Decision-Making Processes: Advisors, Decision Makers or Irrelevant Actors?* (Cambridge University Press, 2014) 216, 224-225, 236. See also Joost Pauwelyn, 'The Use of Experts in WTO Dispute Settlement' (2002) 51 *International and Comparative Law Quarterly* 325, 328-329.

¹⁴⁶ See, eg, Panel Report, *US – Continued Suspension*, [7.416]; Appellate Body Report, *Australia – Apples*, [314].

¹⁴⁷ Gruszczynski, above n 145, 225-227, 236.

Arbitral rules used in investment treaty disputes also sometimes explicitly allow tribunals to call on their own experts (separately from party-appointed experts),¹⁴⁸ who must generally be available for questioning by the tribunal and the parties at a hearing.¹⁴⁹ An expert must usually be impartial and independent and/or declare their impartiality and independence from the parties¹⁵⁰—and in some cases the tribunal¹⁵¹—or that their statements ‘will be in accordance with my sincere belief’.¹⁵² Under the *Protocol for the Use of Party-Appointed Expert Witnesses in International Arbitration* developed by the Chartered Institute of Arbitrators (‘CI Arb’), party-appointed experts must declare, *inter alia*, that ‘this is my own, impartial, objective, unbiased opinion which has not been influenced by the pressures of the dispute resolution process or by any party to the arbitration’.¹⁵³ That Protocol, which parties and tribunals may ‘adopt ... in whole or in part or ... use ... as a guideline in developing their own procedures’,¹⁵⁴ also specifies that party-appointed experts are to assist the tribunal and not ‘advocate the position of the Party appointing them’.¹⁵⁵

As in the WTO, the independence and impartiality of experts, particularly when appointed by parties rather than the tribunal, are open to question. The CI Arb Protocol states what must be implicit in other arbitral contexts that allow party-appointed experts: ‘Payment by the appointing Party of the expert’s reasonable professional fees for the work done in giving ... evidence shall not, of itself, vitiate the expert’s impartiality’.¹⁵⁶ Yet the very fact that a party pays particular experts to present their views necessarily colours the experts’ opinions, even if the expert themselves is blind to that influence. Similarly, a declaration that the opinion expressed by experts is their

¹⁴⁸ See IBA Rules arts 5-6. On the different approaches to experts in the civil and common law systems, see also Waincymer, above n 14, 931.

¹⁴⁹ See, eg, LCIA Arbitration Rules arts 21.1(a), 21.2; ICC Arbitration Rules (as in force from 1 January 2012) art 25(4); IBA Rules art 6(6); UNCITRAL Arbitration Rules art 29. Cf NAFTA art 1133.

¹⁵⁰ See, eg, LCIA Arbitration Rules arts 21.1(a).

¹⁵¹ See, eg, IBA rules art 6(2).

¹⁵² ICSID Arbitration Rules r 35(3).

¹⁵³ Chartered Institute of Arbitrators, *Protocol for the Use of Party-Appointed Expert Witnesses in International Arbitration*, art 8(1)(b) (September 2007) (‘CI Arb Protocol’). See also art 4(1).

¹⁵⁴ *Ibid* preamble [2].

¹⁵⁵ *Ibid* preamble [4].

¹⁵⁶ *Ibid* art 4(2).

'true, professional opinion'¹⁵⁷ or their 'sincere'¹⁵⁸ opinion may not be sufficient to ensure independence from the parties where appointed by the parties. Yet party-appointed experts are traditionally more often used than tribunal-appointed experts.¹⁵⁹ Although tribunal appointed-experts may give rise to different issues,¹⁶⁰ a greater willingness on the part of tribunals to appoint their own experts rather than relying on party-appointed experts could enhance independence of experts, although the appointment of additional experts may increase costs of the proceeding.¹⁶¹

Even with tribunal-appointed experts, the problem of how to reconcile conflicting expert opinions remains. Various ways have been suggested for mitigating this problem, such as having the parties jointly appoint and brief a single expert;¹⁶² having the tribunal appoint two experts from lists prepared by the parties ('expert teaming');¹⁶³ and having party-appointed experts meet to determine the areas of agreement and disagreement, issue a joint expert report,¹⁶⁴ or engage in expert conferencing together with the tribunal ('hot-tubbing').¹⁶⁵

E *Amicus Curiae*

As in some domestic courts, an *amicus curiae* or 'friend of the court' other than a party to the dispute may sometimes make an unsolicited submission to a WTO tribunal or investment treaty tribunal. In the WTO, non-disputing WTO Members may participate in panel and appellate proceedings as *third parties* or third participants respectively, subject to some formal requirements.¹⁶⁶ These non-disputing Members may sometimes have different views than those of the disputing parties, and sometimes panels or the

¹⁵⁷ Ibid art 8(1)(e).

¹⁵⁸ ICSID Arbitration Rules r 35(3).

¹⁵⁹ Brooks Daly and Fiona Poon, 'Technical and Legal Experts in International Investment Disputes' in Giorgetti, above n 87, 323, 335.

¹⁶⁰ See Waincymer, above n 14, 932-934.

¹⁶¹ Ibid 937.

¹⁶² Ibid 935-936.

¹⁶³ Klaus Sachs and Nils Schmidt-Ahrendts, 'Protocol on Expert Teaming: A New Approach to Expert Evidence' in Albert Jan van den Berg (ed), *Arbitration Advocacy in Changing Times* (ICCA Congress Series, 2010 Rio vol 15) 135.

¹⁶⁴ See, eg, CIArb Protocol art 6(1)(b); IBA Rules art 5(4); Russellyn Carruth and Bernard Goldstein, 'The Asbestos Case: A Comment on the Appointment and Use of Nonpartisan Experts in World Trade Organization Dispute Resolution Involving Health Risk' (2004) 24(2) *Risk Analysis* 471, 477-478.

¹⁶⁵ Daly and Poon, above n 159, 368-373.

¹⁶⁶ See DSU arts 10.2, 17.4; WTO Appellate Body, *Working Procedures for Appellate Review*, WTO Doc WT/AB/WP/6 (16 August 2010) r 24 (working procedures).

Appellate Body may adopt reasoning suggested by a third party or third participant even if not endorsed by one of the parties. However, the views of both parties and third parties/participants are by definition ‘state-based’, in contrast to the range of views that may be provided by *amici curiae*.¹⁶⁷

The parameters for submissions by *amici curiae* in WTO dispute settlement are amorphous. Neither the DSU nor the Appellate Body’s working procedures refer explicitly to such submissions. Nevertheless, the Appellate Body has held that WTO panels have the discretion to accept submissions by *amici curiae* pursuant to DSU Articles 11-13,¹⁶⁸ and that the Appellate Body itself enjoys such a discretion pursuant to DSU Article 17.9 (which allows it to develop working procedures) and Rule 16(1) of its working procedures (which allow it to devise appropriate procedures for issues not specifically covered therein).¹⁶⁹ The Appellate Body’s development of procedural rules for the acceptance of *amicus curiae* briefs in *EC – Asbestos*¹⁷⁰ proved highly controversial, with many WTO Members criticising this approach as an instance of unwarranted judicial activism.¹⁷¹ Perhaps in response, panels and the Appellate Body today appear cautious about accepting *amicus curiae* briefs¹⁷² (unless they are incorporated into a party’s submissions),¹⁷³ and even where such a brief is accepted it will routinely be found ‘not relevant’, not ‘necessary’, or ‘not useful’ in resolving the

¹⁶⁷ On the potential utility of *amicus curiae* briefs, see generally Caroline Foster, ‘Social Science Experts and Amicus Curiae Briefs in International Courts and Tribunals: The WTO Biotech Case’ (2005) 52(3) *Netherlands International Law Review* 433.

¹⁶⁸ Appellate Body Report, *US – Shrimp*, [106]. See also Panel Report, *Australia – Salmon (Article 21.5 – Canada)*, [7.8]-[7.9].

¹⁶⁹ Appellate Body Report, *US – Lead and Bismuth II*, [39]. See further Arthur Appleton, ‘Amicus Curiae submissions in the *Carbon Steel* Case: Another Rabbit from the Appellate Body’s Hat?’ [2000] *Journal of International Economic Law* 691.

¹⁷⁰ WTO, *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products: Communication from the Appellate Body*, WTO Doc WT/DS135/9 (8 November 2000).

¹⁷¹ See, eg, WTO General Council, *Minutes of Meeting Held in the Centre William Rappard on 22 November 2000*, WTO Doc WT/GC/M/60 (23 January 2001); WTO DSB, *Minutes of Meeting Held in the Centre William Rappard on 5 April 2001*, WTO Doc WT/DSB/M/103 (6 June 2001) [46], [47], [49], [54], [55], [57]. See also Geert Zonnekeyn, *The Appellate Body’s Communication on Amicus Curiae Briefs in the Asbestos Case: An Echternach Procession?* (2001) 35(2) *Journal of World Trade* 553.

¹⁷² See, eg, Panel Reports, *Canada – Renewable Energy / Canada – Feed-in Tariff Program*, [1.12]-[1.13].

¹⁷³ See, eg, Appellate Body Report, *US – Shrimp*, [89].

dispute.¹⁷⁴ WTO Members continue to discuss this issue in the so-called DSU review (negotiations to reform the DSU), with the most recent publicly available Chair's report indicating that 'Not all Members have been equally comfortable with the manner in which unsolicited *amicus curiae* briefs have been handled by adjudicators, and there remain serious concerns for some over the acceptance of such briefs'.¹⁷⁵

One concern about unsolicited *amicus curiae* briefs is the potential for a violation of procedural fairness, in that the disputing parties may not have sufficient opportunity to respond to arguments presented in those briefs. However, this concern is easily addressed. Provided that the briefs are provided in a timely manner (with the tribunal able to decline to accept them if they are not, as has happened in the past),¹⁷⁶ a WTO panel or the Appellate Body may direct parties' attention to relevant arguments, through oral questioning and written communications, offering a chance to respond.¹⁷⁷

In the investment context, allowance of *third party* participation is rarer, but does exist, for example under NAFTA, which allows other NAFTA parties to make submissions on NAFTA interpretation in an investment dispute under chapter 11.¹⁷⁸ *Amicus curiae* submissions are covered by some specific provisions in international investment law. For example, in 2003 the NAFTA Free Trade Commission issued recommended procedures to allow for (other) non-disputing parties to apply for leave to make a submission, pursuant to which a tribunal would consider factors such as the extent to which:

- (a) the non-disputing party submission would assist the Tribunal in the determination of a factual or legal issue related to the arbitration by bringing a perspective, particular knowledge or insight that is different from that of the disputing parties;

¹⁷⁴ See, eg, Appellate Body Report, *US – Lead and Bismuth II*, [42]; Appellate Body Report, *EC – Seal Products*, [1.15]; Panel Report, *EC – Approval and Marketing of Biotech Products*, [7.11] (see also [6.196]).

¹⁷⁵ WTO DSB Special Session, *Special Session of the Dispute Settlement Body: Report by the Chairman, Ambassador Ronald Saborío Soto*, WTO Doc TN/DS/26 (30 January 2015) 7-8 (emphasis in original).

¹⁷⁶ See, eg, Appellate Body Report, *EC – Seal Products*, [1.15].

¹⁷⁷ See, eg, Panel Report, *US – Tuna II (Mexico)*, [7.9]. See also (in relation to experts) Caroline Foster, 'The Consultation of Independent Experts by International Courts and Tribunals in Health and Environment Cases' (2009) 20 *Finnish Yearbook of International Law* 391, 405.

¹⁷⁸ NAFTA art 1128.

- (b) the non-disputing party submission would address matters within the scope of the dispute;
- (c) the non-disputing party has a significant interest in the arbitration; and
- (d) there is a public interest in the subject-matter of the arbitration.¹⁷⁹

Some arbitral rules and international investment agreements¹⁸⁰ also specifically allow tribunals to accept submissions from non-parties, including since 2006 (with reference to similar considerations) the ICSID Arbitration Rules.¹⁸¹ In 2013, new UNCITRAL rules were introduced to address transparency in treaty-based investor-state arbitration, which include a similar allowance of submissions by non-disputing parties, subject to consultation with the parties and consideration by the tribunal of factors (a) and (c) above.¹⁸² In the absence of specific rules or guidelines, a tribunal might rely on its inherent powers or broad procedural provisions in determining whether to accept an unsolicited *amicus curiae* submission,¹⁸³ as has happened in several disputes.¹⁸⁴

Investment tribunals seem to share the reluctance of WTO tribunals to accept and rely on *amicus curiae* submissions, although perhaps to a lesser degree in some cases. In *Biwater Gauff*, for example, the tribunal characterised the observations by *amici curiae* as ‘useful’, stating that these submissions had ‘informed the analysis of claims’.¹⁸⁵ In *Glamis Gold*, by contrast, the tribunal stated that, although it ‘appreciate[d] the

¹⁷⁹ NAFTA, *Statement of the Free Trade Commission on non-disputing party participation* (7 October 2003) [6].

¹⁸⁰ US Model BIT (2012) art 28(3).

¹⁸¹ ICSID Arbitration Rules, r 37(2). See also Christina Knahr, ‘The new rules on participation of non-disputing parties in ICSID arbitration: Blessing or curse?’ in Chester Brown and Kate Miles (eds), *Evolution in Investment Treaty Law and Arbitration* (Cambridge University Press, 2011) 319; *Biwater Gauff (Tanzania) Ltd v Tanzania (Award)* (ICSID Arbitral Tribunal, Case No ARB/05/22, 24 July 2008) [62].

¹⁸² UNCITRAL Rules on Transparency in Treaty-based Investor-State Arbitration, as adopted in 2013: General Assembly Resolution 68/109 (16 December 2013) art 4.

¹⁸³ See, eg, *ICSID Convention* art 44; UNCITRAL Arbitration Rules art 17(1).

¹⁸⁴ See, eg, *Methanex Corporation v United States (Decision on Amici Curiae)*, UNCITRAL (NAFTA) (15 January 2001) [53].

¹⁸⁵ *Biwater Gauff (Tanzania) Ltd v Tanzania (Award)* (ICSID Arbitral Tribunal, Case No ARB/05/22, 24 July 2008) [62], [392].

thoughtful submissions made by a varied group of interested non-parties’, it did ‘not reach the particular issues addressed by these submissions’.¹⁸⁶

In the Philip Morris claim against Uruguay under the Switzerland–Uruguay Bilateral Investment Treaty,¹⁸⁷ the World Health Organization (‘WHO’) has submitted an *amicus curiae* brief, together with a request to file a written submission pursuant to the ICSID Arbitration Rules (r 37(2)). The evidence that may be presented by the WHO may be relevant to both this dispute and the Australian disputes in the WTO and under the Australia–Hong Kong Bilateral Investment Treaty,¹⁸⁸ particularly given the existence of the *WHO Framework Convention on Tobacco Control* (‘FCTC’),¹⁸⁹ to which Australia, Hong Kong, and Uruguay are among the 168 parties and Switzerland is a signatory. Not surprisingly, Uruguay supported the WHO’s request to file a written submission, while Philip Morris opposed it. The tribunal allowed the filing, in its discretion under r 37(2), after considering the factors specified in that rule, including that the WHO has a significant interest in the proceeding and that the submission: addresses a matter within the scope of the dispute; brings a perspective, knowledge or insight that is different from that of the disputing parties; and will not unduly burden or unfairly prejudice either party. In reaching this conclusion, the tribunal implicitly rejected the claimant’s contention that the request should not be granted because the WHO lacks independence from Uruguay.¹⁹⁰

In the ICJ, international organisations have a special status, in that an express provision of the court’s statute allows it to ‘request of public international organizations information relevant to cases before it’ and also specifies that the court ‘shall receive such information presented by such organizations of their own initiative’.¹⁹¹ In comparison, as is generally the case in international investment law, the WTO rules do not expressly refer to interventions by other international organisations. Under the

¹⁸⁶ *Glamis Gold Ltd v United States (Award)*, UNCITRAL (NAFTA) (14 May 2009) [8].

¹⁸⁷ See above n 5.

¹⁸⁸ See above nn 2-3.

¹⁸⁹ *WHO Framework Convention on Tobacco Control*, adopted 21 May 2003, 2302 UNTS 166 (entered into force 27 February 2005) (‘FCTC’).

¹⁹⁰ *Philip Morris Brands Sàrl v Uruguay (Procedural Order No 3)* (ICSID Arbitral Tribunal, Case No ARB/10/7, 17 February 2015).

¹⁹¹ *Statute of the ICJ* art 34(2). See Rosenne, above n 23, 238.

General Agreement on Tariffs and Trade 1947 ('GATT 1947'),¹⁹² the predecessor to the WTO, a dispute settlement panel asked the WHO for input in a dispute involving (*inter alia*) the imposition by Thailand of restrictions on the importation of cigarettes. In its report, the panel set out the WHO's comments extensively.¹⁹³ The panel also relied in its reasoning on evidence submitted by the WHO, but perhaps in a counterintuitive manner. Although the panel agreed with the WHO and the parties that 'smoking constituted a serious risk to human health',¹⁹⁴ the panel used evidence submitted by the WHO to suggest that Thailand could have introduced different measures rather than an import ban to restrict demand and supply of cigarettes, such as a ban on cigarette advertising and increases in tobacco prices.¹⁹⁵ Accordingly, the panel found that Thailand's import ban was not 'necessary to protect human, animal or plant life or health' within the meaning of Article XX(b) of the GATT 1947¹⁹⁶ (now incorporated in the GATT 1994).¹⁹⁷ The panel's use of the WHO's evidence may demonstrate, in relation to concerns about the independence of non-disputing parties, that even where an international organisation (or unsolicited *amicus curiae* submission) would appear to 'side' with one of the disputing parties, a tribunal may choose to use its evidence against that party.

The GATT panel in *Thailand – Cigarettes* seemed to downplay the existence of other measures in Thailand to control tobacco consumption, described by the WHO as 'recommended WHO smoking control policies' such as 'a law prohibiting all forms of tobacco advertising'.¹⁹⁸ The panel also seemed to ignore the WHO's statements about the differences between domestic and foreign cigarettes, such as: the use by western manufacturers of 'the use of additives' that 'made smoking western cigarettes very easy

¹⁹² *General Agreement on Tariffs and Trade*, GATT Doc LT/UR/A-1A/1/GATT/2 (signed 30 October 1947) ('GATT 1947').

¹⁹³ GATT Panel Report, *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes* ('*Thailand – Cigarettes*'), GATT Doc DS10/R, adopted 7 November 1990, BISD 37S/200, [51]-[57].

¹⁹⁴ *Ibid* [73].

¹⁹⁵ *Ibid* [78]-[79].

¹⁹⁶ *Ibid* [81].

¹⁹⁷ GATT 1947, as incorporated in *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1A ('*General Agreement on Tariffs and Trade 1994*') ('GATT 1994').

¹⁹⁸ GATT Panel Report, *Thailand – Restrictions on Importation of and Internal Taxes on Cigarettes* ('*Thailand – Cigarettes*'), GATT Doc DS10/R, adopted 7 November 1990, BISD 37S/200, [52].

for groups who might not otherwise smoke, such as women and adolescents’, while ‘creat[ing] the false illusion ... that thee brands were safer’;¹⁹⁹ the significantly larger marketing budgets of foreign manufacturers compared to local producers;²⁰⁰ and the specific design by US manufacturers of ‘special brands aimed at the female market’.²⁰¹

In more recent years, the WTO Appellate Body has recognised that some problems—such as some environmental or health concerns—must be targeted through a number of measures simultaneously, no one of which is expected to ‘work’ on its own. Moreover, a measure that is already being used alongside a challenged measure (such as excise tax increases alongside plain packaging) cannot be a reasonably available ‘alternative’ for the purposes of demonstrating that a challenged measure is not ‘necessary’.²⁰² Against that background, a WTO tribunal might take further notice of the WHO’s evidence regarding the existing tobacco control measures in Thailand and the difference between domestic and foreign cigarettes. Nevertheless, Thailand would still face the same general difficulty, which is that international trade law has an inherent suspicion of discriminatory and even differentiated measures as between domestic and foreign products, because such discrimination frequently reflects a desire to protect domestic industry. The same underlying principle may be seen in international investment law.²⁰³ The defence of the Uruguay and Australian cases is thus greatly strengthened by the fact that their challenged measures neither implicitly nor explicitly discriminate against imported products or foreign producers.

Calls for acceptance of *amicus curiae* briefs may become more frequent and more intense as disputes in international trade and investment law turn to significant public policy issues, particularly in relation to public health matters. Tribunals may need to overcome their intuitive reluctance to accept and rely on such briefs, which reluctance may perhaps be more pronounced in relation to NGOs and industry bodies than international organisations. The ultimate decision to accept *amicus curiae* briefs and the reference to be made to them in deliberations and in written reasons is rightly left to

¹⁹⁹ Ibid.

²⁰⁰ Ibid

²⁰¹ Ibid [54].

²⁰² Appellate Body Report, *Brazil – Retreaded Tyres*, [151], [172].

²⁰³ See, eg, Moolo and Jacinto, above n 54, 30.

the discretion of the tribunal. However, the identification of relevant factors such as those specified by the NAFTA Free Trade Commission and the ICSID Arbitration Rules may help tribunals and parties to direct their consideration and disagreement to relevant matters as the tribunal makes that decision. More targeted wording along these lines could helpfully be adopted in the DSU (should the WTO Members succeed in reaching agreement on this kind of reform) or alternatively in the Appellate Body's own working procedures, amendments to which are in any case subject to WTO Member comment. Increased precision of this kind might help WTO tribunals to feel freer in their reference to *amicus curiae* briefs, notwithstanding the history of criticism levelled by WTO Members.

V CONCLUSION

Given recent challenges under international trade law and international investment law to national health measures such as Australia's tobacco plain packaging law and the United States' flavoured cigarette ban, domestic policy-makers must recognise the evidentiary burden placed on health measures in such a challenge. This knowledge needs to be brought forward to the early stages of policy development to provide the best chance of a successful future defence. The gathering and development of evidence in the development of appropriate health measures with a view to a trade or investment challenge can take place alongside the usual collection of evidence that takes place in selecting the most effective measure and ensuring its consistency with domestic law, regulation and policy. Evidence of the following kinds may be important in defending a health measure in a trade or investment tribunal:

- a) quantitative and qualitative evidence;
- b) evidence from before, during, and after implementation of the measure;
- c) evidence from within and outside the relevant country or sub-national jurisdiction;
- d) evidence from public consultations and empirical studies;
- e) evidence from relevant international bodies or organisations;

- f) evidence of the existence and extent of the problem the measure is intended to address, including the financial costs the problem imposes and the broader health and social costs of not addressing the problem;
- g) evidence of the government's intended 'level of protection' in protecting against or addressing the identified problem;
- h) evidence of the objectives of the measure, the relationship between the identified problem and those objectives, and how the measure contributes to those objectives;
- i) evidence of alternatives to the chosen measure and their relative costs, benefits and weaknesses; and
- j) evidence of the impact of the measure in practice, including the impact on the problem, and the impact on domestic and imported products and domestic and foreign objectives.

In addition, significant evidence must be obtained to justify on health grounds any discriminatory aspects of the measure, such as differentiation between competing products (eg cigars vs cigarettes) or between products from different countries, or discrimination against imported products or foreign investors. Lawyers from different ministries should be involved throughout the process, with communication and coherence between, for example, health and trade ministries.

At the same time, trade and investment tribunals, like other international tribunals, need to recognise the limits of their expertise and draw on appropriate resources to supplement their knowledge and skills in other disciplinary areas. The broad discretion granted to these tribunals to manage their own proceedings (particularly in the investment context) means that they have considerable freedom in marshalling evidence from other disciplines but also creates a danger that they may not utilise the various available tools to best effect. Rather than placing themselves in the shoes of the scientist, or pretending that scientific knowledge and method need not be investigated in 'simply' applying the law to the facts, trade and investment tribunals may be able to mitigate the difficulties created by scientifically complex disputes such as those concerning health measures by:

- a) adopting a standard of review that gives due deference to national authorities and decision-makers, taking account of the obligations under examination;
- b) reviewing scientific evidence not for accuracy but for good faith, legitimacy, and consistency with multilateral markers and recognised approaches within the relevant field;
- c) standing ready to use specific or inherent powers to appoint experts when necessary, and employing mechanisms such as joint expert reports and expert conferencing to assist in minimising and resolving contradictions between different expert opinions; and
- d) being willing to accept and consider relevant *amicus curiae* briefs from, for example, NGOs and international organisations, taking account of factors such as whether the brief provides insights or opinions different from those of the parties, the public interest in the dispute, and the interest of the entity making the submission in the dispute.

The complexities of trade and investment litigation on health measures and other regulations involving scientifically novel or uncertain issues cannot be resolved with a single solution. The suggestions in this paper are intended to help bridge the gap between trade and investment tribunals on the one hand and public health officials and policy-makers on the other, as each attempts to understand the other's world.

