Casenote

Japan – Measures Affecting the Importation of Apples: Rotten to the Core?

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I. Introduction

The case of *Japan – Measures Affecting the Importation of Apples* (*Japan-Apples Case*),[1] is the latest in a significant line of cases in the World Trade Organization (WTO) decided under the WTO Agreement on Sanitary and Phytosanitary Measures (the SPS Agreement).[2] In the *Japan-Apples Case* the United States was vindicated in a complaint about the stringent measures required by Japan to combat the risk of introduction of the bacterium known as 'fireblight' via United States apples exported to Japan. The report of the WTO Compliance Panel was circulated on 23 June 2005.[3] Following negotiations with Washington, a mutually agreed solution with the United States was

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1 *Japan – Measures Affecting the Importation of Apples* WTO Doc WT/DS245/R (2003) (Report of the Panel) (hereafter 'PR'). See also J McDonald, 'How do you like them Apples?: the WTO and Quarantine Restrictions' (2004) 21 *Environmental and Planning Law Journal* 176; D Prevost, 'Environment; International Trade: Selected Developments regarding Health and Environmental Regulation of Relevance to the European Union' (2004) 13 *European Environmental Law Review* 38-60; D R Klinger, 'Comparing Apples to Oranges: Lessons from the Failure of US Apple Exports to Japan' (1999) 8(1) *Pacific Rim Law and Policy Journal* 131. Klinger's article focuses on putting forward the view that the ultimate cause of failure in US apple exports to Japan was not to be found in Japan's quarantine restrictions but rather in consumer rejection of the varieties registered for export by the US and other market-related factors.

2 (15 April 1994), 1867 UNTS 401.

3 *Japan – Measures Affecting the Importation of Apples Recourse to Article 21.5 of the DSU by the United States* WTO Doc WT/DS245/RW (2005) (Report of the Panel) (hereafter 'CPR'). In July 2004 the Appellate Body requested that a panel be established under art 21.5 of the WTO Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) to report on Japan's non-compliance with the outcome of these proceedings, and the Dispute Settlement Body (DSB) referred the matter back to the original panel. Meantime, there was a suspension of the arbitration proceedings requested by Japan under art 22.6 of the DSU on the subject of the US request to the DSB for authorisation to suspend concessions with respect to Japan under art 22.2 of the DSU <http://www.wto.org/english/tratop_e/dispu_e/cases_e/ds245_e.htm>.

announced by Japan at the meeting of the Dispute Settlement Body (DSB) on 31 August 2005. Some two years only had elapsed since the decision against Japan by the original Panel in July 2003, upheld by the WTO Appellate Body in November 2003.[4] This Note investigates closely several significant aspects of the *Japan-Apples Case*. These include findings on the application of the concept of proportionality, the role of the precautionary principle and the allocation of the burden of proof in circumstances of scientific uncertainty, and the importance of estimates of magnitude within risk assessment.

The *Japan-Apples Case* is potentially of particular interest in Australia, because it indicates that there is considerable scope for a successful challenge in the WTO by New Zealand against longstanding Australian restrictions on the importation of New Zealand apples maintained since 1921 after fireblight became established in 1919 in Auckland.[5] The New Zealand industry suggests that if Australian restrictions were withdrawn it is likely that an average of 50 million New Zealand apples would be exported to Australia each year, representing about 2.5 per cent of current export volume.[6] Australia estimates a figure four times as large.[7] Australian apple growers have been involved in a nation-wide campaign against the possibility of New Zealand apples entering Australia. The Australian Senate Committee on Regional and Rural Affairs and Transport has twice held inquiries related to the question of access for New Zealand apples.[8] Biosecurity Australia itself has characterised the restrictions imposed on New Zealand apples as 'stringent quarantine conditions'.[9] Australia continues to require both chlorine treatment and a minimum of six weeks cold-storage treatment of imported apples.[10] Based on the outcome in the *Japan-Apples* litigation, as outlined below, the New Zealand case against Australia appears to be a strong one.[11]

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4 *Japan – Measures Affecting the Importation of Apples* WTO Doc WT/DS245/AB/R (2003) (Report of the Appellate Body) (hereafter 'ABR').

5 The following account is drawn from a number of sources, with reference in particular to the briefing paper; Defence and Trade Select Committee, the Ministry of Foreign Affairs and Trade for the Foreign Affairs, 'What Steps Have Been Taken to Resolve the Issues Relating to Obtaining Access for New Zealand Apples to Australia, and a Timeframe for this to Occur?' (2004).

6 New Zealand Ministry of Agriculture and Forestry, *'Comments by the Government of New Zealand on Importation of Apples from New Zealand Revised Draft'* (2004), Executive Summary [vi], see also 13ff.

7 Ibid.

8 In 2001 and 2004.

9 *Fact Sheet 1: Apples from New Zealand IRA* (2004) Biosecurity Australia <http://www.affa.gov.au/content/output.cfm?ObjectID=D51B9649-3692-4F76-919200A78D716CA2>.

10 Ibid 4-5; also Fact Sheet 1.

11 The subject was registered with the Sanitary and Phytosanitary Committee of the WTO in 2005. *New Zealand Statement to the 33rd Regular Meeting of the WTO Committee on Sanitary and Phytosanitary Measures Agenda Item 4(a): Importation of New Zealand Apples into Australia – Concerns of New Zealand* WTO Doc TN/TE/W/49 (2005).

II. The WTO Agreement on Sanitary and Phytosanitary Measures

The SPS Agreement was one of the significant achievements of agricultural and horticultural exporting countries in the Uruguay Round. The Agreement regulates certain categories of import barriers imposed for reasons relating to the health of humans and animals (sanitary measures) as well as plants (phytosanitary measures). Specifically, the SPS Agreement covers import barriers imposed in response to risks from pests, diseases and food contaminants.[12] The intention behind the Agreement is to put in place a framework that will prevent the imposition of sanitary and phytosanitary trade barriers unless there are good reasons for these barriers. All SPS measures are to have a scientific basis. Article 2.2 of the Agreement states that measures must be based on scientific principles and must not be maintained without sufficient scientific evidence.[13] Article 2.2 cross-refers to article 5.7, which envisages the use of SPS measures on a temporary or provisional basis where there is insufficient scientific evidence.[14] Except where they conform to international standards,[15] the Agreement requires all SPS measures to be based on a full-risk assessment, in accordance with article 5.1 of the Agreement.[16] In *Japan-Apples*, Japan was found to be maintaining its measures in relation to United States apples without sufficient scientific evidence and to be in breach of articles 2.2 and 5.1. Neither were Japan's measures covered by article 5.7. The Compliance Panel also found Japan to be in breach of article 5.6 of the Agreement, which requires that that SPS measures be no less trade restrictive than required to achieve the level of protection sought by a member against an SPS risk.[17]

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12 For the definition of an SPS measure see annex A to the Agreement.

13 Art 2.2 states: 'Members shall ensure that any sanitary or phytosanitary measure is applied only to the extent necessary to protect human, animal or plant life or health, *is based on scientific principles and is not maintained without sufficient scientific evidence*, except as provided for in paragraph 7 of Article 5' [emphasis added].

14 Art 5.7 states: 'In cases *where relevant scientific evidence is insufficient*, a Member may provisionally adopt sanitary or phytosanitary measures on the basis of available pertinent information, including that from the relevant international organizations as well as from sanitary or phytosanitary measures applied by other Members. In such circumstances, Members shall seek to obtain the additional information necessary for a more objective assessment of risk and review the sanitary or phytosanitary measure accordingly within a reasonable period of time.' [Emphasis added].

15 See art 3.2 of the Agreement.

16 Art 5.1 states: 'Members shall ensure that their sanitary or phytosanitary measures are *based on an assessment*, as appropriate to the circumstances, *of the risks to human, animal or plant life or health*, taking into account risk assessment techniques developed by the relevant international organizations.' [Emphasis added].

17 Art 5.6 states: 'Without prejudice to paragraph 2 of Article 3, when establishing or maintaining sanitary or phytosanitary measures to achieve the appropriate level of sanitary or phytosanitary protection, Members shall ensure that such measures are not more trade-restrictive than required to achieve their appropriate level of

The *Japan-Apples Case* followed on the heels of *Japan – Measures Affecting Agricultural Products* (*Japan-Agricultural Products Case*), in which the Appellate Body issued its report in February 1999.[18] This case concerned Japanese restrictions on imports of eight types of fruit from the United States, intended to protect Japan from the introduction of codling moth. At the appellate level Japan was found to be in breach of articles 2.2 and 5.1 of the SPS Agreement. Also of precedential value was the case of *Australia – Measures Affecting Importation of Salmon* (*Australia-Salmon Case*), in which the Appellate Body delivered its report in October 1998,[19] agreeing with the Panel that Australia had acted inconsistently with articles 2.2 and 5.1 by maintaining an import prohibition on fresh, chilled or frozen ocean-caught salmon without a proper risk assessment, and had also acted inconsistently with article 5.5.[20] Article 5.5 of the SPS Agreement requires members to avoid arbitrary or unjustifiable distinctions in the levels of risk protection they consider to be appropriate, where such distinctions result in discrimination or a disguised restriction on international trade. Prior jurisprudence also includes the *European Communities – Measures Concerning Meat and Meat Products Case* (*EC-Hormones Case*),[21] in which the Appellate Body delivered its report in January 1998. The European Community (EC) lost its appeal in the *EC-Hormones Case*, with the Appellate Body letting stand the Panel's finding that the EC had acted inconsistently with article 5.1 in failing to ensure that its

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sanitary or phytosanitary protection, taking into account technical and economic feasibility.'

18 *Japan – Measures Affecting Agricultural Products* WTO Doc WT/DS76/R (1998) (*Japan-Agricultural Products* PR); *Japan – Measures Affecting Agricultural Products* WTO Doc WT/DS76/AB/R (1999) (*Japan-Agricultural Products* ABR).

19 *Australia – Measures Affecting Importation of Salmon* WTO Doc WT/DS18/R (1998) (*Australia-Salmon* PR); *Australia – Measures Affecting Importation of Salmon* WTO Doc WT/DS18/AB/R (1998) (*Australia-Salmon* ABR). See also *Australia – Measures Affecting Importation of Salmon – Recourse to Article 21.5 by Canada* WTO Doc WT/DS18/RW (2000) (the *Australia-Salmon* compliance proceedings); and *Australia – Measures Affecting Importation of Salmon Arbitration under Article 21.3(c) of the Understanding on Rules and Procedures Governing the Settlement of Disputes* WTO Doc WT/DS18/9 (1999) (*Australia-Salmon* CPR).

20 Art 5.5 reads: 'With the objective of achieving consistency in the application of the concept of appropriate level of sanitary or phytosanitary protection against risks to human life or health, or to animal and plant life or health, each Member shall avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade'.

21 *European Communities – Measures Concerning Meat and Meat Products Complaint by Canada* WTO Doc WT/DS48/R/CAN (1997) (Report of the Panel); *European Communities – Measures Concerning Meat and Meat Products Complaint by United States* WTO Doc WT/DS26/R/USA (1997) (Report of the Panel); *European Communities – Measures Concerning Meat and Meat Products* WT/DS26/AB/R WT/DS48/AB/R (1998) (*EC-Hormones* ABR); *European Communities – Measures Concerning Meat and Meat Products Arbitration under Article 21.3(c) of the Understanding on Rules and Procedures Governing the Settlement of Disputes* (1998) (Award of the Arbitrator).

measures were 'based on' a risk assessment.[22] The current *European Communities – Approval and Marketing of Biotech Products Case* (*EC-Biotech Case*) may also be mentioned.[23]

III. The *Japan-Apples Case*

Fireblight, known by its scientific name as *Erwinia Amylovora*, is a bacterium that renders infected apples inedible and unmarketable, causing them to shrivel up and discolour.[24] Japan is a fireblight-free country and is particularly sensitive to the serious effects that would follow from the establishment of fireblight in host plants in Japan. To combat the risk of introducing fireblight, Japan has applied strict phytosanitary measures to imported apple fruit.

The set of ten requirements comprising the measure imposed by Japan on United States apple fruit at issue in the *Japan-Apples Case* were as follows.[25] Fruit had to be produced in designated fireblight-free orchards. Designation of a fireblight-free area as an export orchard was to be made by the United States Department of Agriculture (USDA) upon application by the orchard owner.[26] The fireblight-free orchard had to be surrounded by a fireblight-free 500-metre buffer zone. The fireblight-free orchard and surrounding buffer zone had to be inspected at least three times annually. United States officials would carry out a visual inspection twice, checking the export area and the buffer zone for any symptoms of fireblight at the blossom and the fruitlet stages, while Japanese and United States officials were also jointly to conduct a visual inspection at harvest time. Additional inspections were required following any strong storm, such as a hail storm. Harvested apples had to be treated with surface disinfection by soaking in sodium hypochlorite solution. Containers for harvesting had to be disinfected by chlorine treatment. The interior of the packing facility had to be disinfected with chlorine. Fruit destined for Japan had

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22 The European Communities has now launched two new cases in the WTO alleging the illegality of authorised US and Canadian suspension of trade concessions against the EC in retaliation for EC non-compliance with the Appellate Body's 1998 report.

23 *EC-Approval and Marketing of Biotech Products* WTO Doc WT/DS292/17 (2003) (Request for the Establishment of a Panel by Canada (Canada's Request)); *Request for the Establishment of a Panel by Argentina (Argentina's Request)* WTO Doc WT/DS292/19 (2003) ; *Request for the Establishment of a Panel by the United States (US Request)* WT/DS291/17 (2003) . In the draft conclusions to the Panel's interim report in the *Biotech Case*, which have been leaked, the Panel finds that the EC has acted inconsistently with its obligations under annex C(1)(a) of the SPS Agreement and art 8, as well as arts 2.2 and 5.1. The full report is due to be circulated officially in mid-2006.

24 For photographs of fireblight on the leaves, flowers and fruit of apple trees, see <http://web1.msue.msu.edu/vanburen/fbpicts.htm#Fruit>.

25 PR [8.25]. The requirements as expressed here are paraphrased lightly from the Panel Report.

26 At the time of the proceedings in the WTO, the designation was accepted only for orchards in the states of Washington and Oregon. Any detection of a blighted tree in this area by inspection would disqualify the orchard. The export orchard had to be free of plants infected with fire blight and free of host plants of fire blight (other than apples), whether or not they were infected.

to be kept separated post-harvest from other fruit. United States plant protection officials had to certify that fruits were free from fireblight and have been treated post-harvest with chlorine. The United States officials' certification had to be confirmed by Japanese officials and an inspection of packaging facilities carried out by Japanese officials.

The main argument put forward by the United States was that the apples it exported to Japan were all mature symptomless apples, and that, biologically, no risk of transmitting fireblight was associated with mature symptomless apples. The United States had a strong case. Examining the scientific evidence, the Panel concluded that there was only a negligible risk that fireblight would be introduced to Japan via mature symptomless apples.[27] Apples other than mature, symptomless apples might carry some risk. If infected, such an apple was capable of harbouring populations of bacteria that could survive through the various stages of commercial handling, storage and transportation.[28] However, even if apples other than mature, symptomless apples were accidentally or illegally exported to Japan,[29] the introduction of fireblight would require the transmission of fireblight from these apples to a host plant through an additional sequence of events that was deemed unlikely.[30] Nor did scientific evidence support the conclusion that infested or infected cargo crates could operate as a vector for fireblight transmission.[31] The Panel concluded that there was not sufficient scientific evidence that apple fruit were likely to serve as a pathway for the entry, establishment or spread of fireblight in Japan.[32]

Accordingly, the Panel found that Japan's SPS measure was inconsistent with article 2.2 of the SPS Agreement because it was maintained without sufficient scientific evidence. The Panel made a provisional finding to this effect,[33] which the Panel confirmed subsequently[34] after finding the measure was not justified as a temporary measure within the terms of article 5.7.[35] The Panel also found that Japan's measure was inconsistent with article 5.1 of the SPS Agreement, because it was not based on a risk assessment.[36] Japan's Pest Risk Analysis did not meet the requirements of a risk assessment under article 5.1.[37] The Panel added that Japan had nullified or impaired benefits accruing to the United States under the SPS Agreement.[38] In the exercise of judicial

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27 PR [8.153].
28 ABR [145]. This point paraphrased lightly from the Appellate Body Report. See also PR [8.157].
29 PR [8.161].
30 ABR [145]. This point paraphrased lightly from the Appellate Body Report. See also PR [8.168] and [8.171].
31 ABR [145]. This point is paraphrased lightly from the Appellate Body Report. See also PR [8.143].
32 PR [8.176].
33 PR [8.199].
34 PR [8.224], [9.1].
35 PR [8.222], [9.1].
36 PR [8.291],[9.1].
37 PR[8.290].
38 PR [9.2]. The Panel decided it was unnecessary to consider the United States' case against Japan under art 5.2 of the SPS Agreement, which identifies further factors

economy the Panel refrained from making a finding in relation to the claim that Japan had acted inconsistently with the requirement in article 5.6 of the SPS Agreement that its SPS measures be no less trade restrictive than required.[39] In relation to a WTO member's obligation under article 7 of the SPS Agreement to notify changes in its SPS measures the Panel made no finding against Japan.[40] The Appellate Body upheld the Panel's findings on articles 2.2,[41] 5.1[42] and 5.7[43] of the SPS Agreement.[44]

The Compliance Panel, assessing steps that had been taken by Japan to comply with the findings set out in the Appellate Body report, found that Japan was still in breach of articles 2.2 and 5.1 of the SPS Agreement, complementing this with a finding that Japan was also in breach of article 5.6 of the Agreement.[45] The most notable feature of the Compliance Panel's approach to the *Japan-Apples Case* was that, with the benefit of all the scientific evidence that had been put before the original Panel, as well as additional evidence presented at the compliance stage, the Compliance Panel judged that from among the ten requirements imposed by Japan on United States apple fruit only one was consistent with the SPS Agreement: Japan's requirement that apples exported by the United States be certified as free from fireblight. The remainder of Japan's requirements were in breach.

IV. Comment

A number of points of particular interest arise in the panel and Appellate Body reports in the *Japan-Apples Case*. There is not the space in this Note to do justice to all of them, and a selective approach has been taken in formulating the comments below. The SPS Agreement was primarily intended to prevent the imposition of trade barriers for sanitary and phytosanitary purposes unless they were grounded in science. At the same time, the SPS Agreement must always be interpreted in a way that recognises the rights of WTO members to take measures genuinely to protect themselves against risks to human, animal and plant life and health. It is in light of this dual function of the Agreement that the following issues ought to be considered.

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to be taken into account in a risk assessment. PR [8.292].

39 PR [8.304].

40 PR [8.327]. The Panel decided not to examine claims that Japan had acted inconsistently with the prohibition on quantitative restrictions in art XI of the GATT 1994. PR [8.329]. Nor, again in the interests of judicial economy, did the Panel examine the US claim that Japan had acted inconsistently with art 4.2 of the Agreement on Agriculture, which prohibits quantitative restrictions on agricultural goods. PR [8.333].

41 ABR [168].

42 ABR [216].

43 ABR [188].

44 The Appellate Body also found against Japan's contention on appeal that the Panel had acted inconsistently with the requirement under art 11 of the Dispute Settlement Understanding that it make an objective assessment of the matter before it. ABR [242].

45 CPR [9.1].

(a) Article 2.2 and the notion of proportionality

In finding that Japan's SPS measure was maintained without sufficient scientific evidence and was therefore inconsistent with article 2.2 of the SPS Agreement, the Panel considered that two of Japan's requirements established most obviously that Japan's measure as a whole was maintained without sufficient scientific evidence. These two requirements were the requirement for a 500 metre buffer zone around the United States orchards from which apples were sourced for export to Japan, and the requirement for the orchards and buffer zones to be inspected three times annually. Neither requirement was found to bear a rational relationship to the available scientific evidence, which past jurisprudence has found to be required under article 2.2. Japan's measure was clearly *disproportionate* to the risk of fireblight on the available evidence.[46] The *Japan-Apples* Panel determined that, therefore, Japan's measure was maintained without sufficient scientific evidence and was inconsistent with article 2.2.[47]

A proportionality test would be a new legal requirement not found in the SPS Agreement. No such test appears on the face of article 2.2. Presumably because of this, the Appellate Body clarified that:

> For the Panel, such "clear disproportion" *implies* that a "rational or objective relationship" does not exist between the measure and relevant scientific evidence …[48] [emphasis added]

The Appellate Body did not espouse the idea that article 2.2 involved a proportionality test, but did tolerate the Panel's reasoning on the facts of the case.[49]

Why did the Appellate Body take this approach? Although established in EC jurisprudence,[50] in the WTO there is as yet no proportionality test that applies to trade barriers to protect human, animal or plant life and health and the environment. Mention should, though, be made of the requirement that measures adopted under environmental exception to free trade found in article XX(g) of the General Agreement on Tariffs and Trade (GATT) be reasonably related to the aim in view, which has been seen as a 'light touch approach' to a proportionality test.[51] The Panel in *United States – Import Prohibition of*

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46 PR [8.181], [8.198].

47 PR [8.199], [8.224].

48 ABR [163]; see also ABR [147].

49 As noted by C Button, *The Power to Protect: Trade, Health and Uncertainty in the WTO* (2004) 49.

50 Art 30 of the EC Treaty permits quantitative restrictions on trade that are justified for environmental and health reasons or on other grounds. In considering whether a measure is necessary for health or environmental reasons, an assessment of the proportionality between a measure and its objective has for some time been the approach taken by the ECJ. See eg *Commission of the European Communities v Federal Republic of Germany* (C-131/93) [1994] ECR I-3303. See also D Gerardin, *Trade and the Environment: A Comparative Study of EC and US Law* (1997) 90f. 15; A M Arnull, A A Dashwood, M G Ross and D A Wyatt, *Wyatt and Dashwood's European Union Law* (4th ed, 2000) 348.

51 J Scott, 'On Kith and Kine (and Crustaceans): Trade and Environment in the EU

Certain Shrimp and Shrimp Products (*Shrimp-Turtle Case*) , referring to the United States legislation that had been challenged in that case, stated that:

> it appears to us that Section 609, cum implementing guidelines, is not disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation of sea turtle species. The means are, in principle, reasonably related to the ends.[52]

In *Shrimp-Turtle* the relationship of means to ends was 'observably a close and real one'. It was as substantial as that of the United States legal requirements that had been at issue in the *US-Gasoline Case*, where the United States aim was to conserve clean air.[53] Accordingly, given that sea-turtle conservation was a legitimate policy objective, the United States legislation was considered a measure 'relating to' the conservation of a natural resource under article XX(g) of GATT.

Also to be noted are comments by the Appellate Body in *Korea-Beef*, a case concerning measures defended under article XX(d) of GATT on the ground they were necessary to eliminate fraudulent representations about the origins of beef, that '[t]he more vital or important [the] common interests or values pursued, the easier it would be to accept as "necessary" measures designed to achieve those ends.' Indeed, the Panel in *Korea-Beef* found Korea's beef retail system to be a disproportionate measure that was not necessary for securing compliance with Korean law on deceptive practices.[54] However, the *Korea-Beef Case* was not a case that concerned risk to human, animal or plant, life and health.

Subsequently, the Appellate Body's parsing in *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* of the necessity test under article XX(b) of GATT appeared to pursue the possibility that risk-response measures might be evaluated in the WTO in the light of their

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and WTO' in J H H Weiler (ed), *The EU, the WTO, and NAFTA: Towards a Common Law of International Trade* (2000) 125 141. Scott holds the view that 'profound issues of legitimacy' arise where tribunals are effectively asked to define regulatory policy through applying the notion of proportionality; Ibid 162f; A Desmedt, 'Proportionality in WTO Law' (2001) 4 *Journal of International Economic Law* 441, 479. See also: C Foster, 'The Delineation of International Adjudicatory Competence in Disputes involving Potential Harm to Human Health or the Environment: Proportionality in WTO and EC Law' Australian and New Zealand Society of International Law Eleventh Annual Meeting, Wellington, 4-6 July 2003; J Peel, 'Risk Regulation under the WTO SPS Agreement; Science as an International Normative Yardstick?' (Jean Monnet Working Paper 2004) 85; C Button, above n 49, 38 and 146.

52 *United States – Import Prohibition of Certain Shrimp and Shrimp Products* WTO Doc WT/DS58/AB/R 141 (1998) (Report of the Appellate Body).

53 Ibid referring to *United States – Standards for Reformulated and Conventional Gasoline (Brazil and Venezuela v United States of America)* WTO Doc WT/DS2/AB/R (1996) (Report of the Panel).

54 *Korea-Beef* WTO Doc WT/DS161/AB/R (2001) (Report of the Appellate Body) [162], citing the Report of the Panel at [675]: Note that there is ambiguity in *Korea-Beef* about whether the 'aim' of a measure is the broad aim stated in the relevant subparagraph of art XX or the specific aim of the particular legislation or decision in dispute.

objectives.[55] The Appellate Body agreed with the Panel that controlled use of asbestos was not a reasonably available alternative to a ban, given the health interests at stake.[56] The Appellate Body confirmed that a measure could not be considered necessary in terms of article XX(b) if a member had available to it an alternative measure which was less trade restrictive and which it could reasonably be expected to employ,[57] and the Appellate Body observed that assessing reasonable availability involved a weighing and balancing process, which included evaluating the extent to which a possible alternative measure 'contributes to the realisation of the end pursued'.[58]

Yet the Appellate Body did not use the language of 'proportionality' in either *Korea-Beef* or *EC-Asbestos*.[59] Nor has it now done so in *Japan-Apples*. That is all for the best. In contrast with the EC, it is not clear that the WTO membership is sufficiently closely knit to support such an approach. Commentary on the application of proportionality in EC law has emphasised that the concept may be 'strongly evaluative',[60] and involve the European Court in actively evaluating the relative strength of the competing interests involved in a situation.[61] It has even been asked whether such activity may lie beyond the judicial function, although in its defence the needs of the Community legal system are asserted.[62] It has also been observed that the European Court has altered its approach, avoiding a strict proportionality test, instead asking whether a member state's action is 'manifestly inappropriate having regard to the objective which the competent institution is to pursue'.[63] If a proportionality

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55 R Howse and E Tuerk, 'The WTO Impact on International Regulations' in G de Búrca and J Scott (eds), *The EU and the WTO: Legal and Constitutional Issues* (2001) 324. Art XX(b) provides that: 'Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures: (b) necessary to protect human, animal or plant life or health; (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.'

56 *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (*EC-Asbestos*) WTO Doc WT/DS135/AB/R (2001) (Report of the Appellate Body) 173-175.

57 Ibid [171].

58 Ibid [172], citing *Korea-Beef*, above n 54, 166 and 163.

59 Some commentators view the Appellate Body's comments here as importing a proportionality test into WTO law, eg Howse and Tuerk, above n 55, 210.

60 G de Búrca, The Principle of Proportionality and its Application in EC Law' (1993) 13 *Yearbook of European Law* 105, 105fn.

61 de Búrca ibid; F G Jacobs, 'Recent Developments in the Principle of Proportionality in European Community Law' in Evelyn Ellis (ed), *The Principle of Proportionality in the Laws of Europe* (1999) 1.

62 Ibid, Jacobs 20-21; de Búrca, above n 60, 112.

63 Button, above n 49, 38, 144, citing the UK *BSE Case*, *UK v Commission* (C-180/96) [1998] 4 ECR I-2265 [97]. Compare Button's summaries of earlier remarks made by the Court in a number of cases suggesting a strict proportionality review, 145-46. These cases include the *Poultry Case*, *Commission v UK*

test involves too much intrusion into member states' regulatory authority for the EC then it is unlikely to be sustainable in the WTO.

(b) Article 5.7: the concept of scientific uncertainty, the burden of proof and the precautionary principle

Japan failed to establish that its measure was a 'provisional measure' justified under article 5.7 of the SPS Agreement.[64] Article 5.7 comprised four requirements, as set out in *Japan-Agricultural Products*, that:

- a measure be imposed in respect of a situation where 'relevant scientific evidence is insufficient';
- the measure be adopted on the basis of 'available pertinent information';
- the member imposing the measure 'seek to obtain the additional information necessary for a more objective assessment of risk'; and
- that the member 'review the … measure accordingly within a reasonable period of time'.[65]

The Panel focused on the first point, finding that this requirement was not met, on the basis that there was sufficient scientific evidence available in this case to take the situation outside this parameter of article 5.7.[66] In this case a 'wealth of information', 'an important amount of relevant evidence', was indisputably available, including information that supported Japan's requirements and information to the contrary.[67] There was a large quantity of high-quality scientific evidence, produced over time, in which the panel-appointed experts had expressed 'strong and increasing confidence'.[68] The Appellate Body upheld the Panel's finding that the relevant scientific evidence in this case was not insufficient as a matter of law.[69] The Appellate Body considered that in assessing whether relevant scientific evidence was 'insufficient' under article 5.7 it was necessary to look to article 5.1.[70] Article 5.7 had to be read as subject to the foundational discipline of article 5, the risk assessment requirement found in article 5.1.[71] 'Insufficiency' was to be understood in terms of the sufficiency of the evidence for performing an

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(C-40/82) [1982] ECR 279 [38], [44]; the *UK Poultry II Case*, *Commission v UK* (C-40/82) [1984] ECR 283 [16]; the *UK UHT I Case*, *Commission v UK* (C-124/81) [1983] ECR 203 [33]; the *France-Italian Wine Case*, *Commission v France* (C-42/82) [1983] ECR 1013 [54]; the *Denkavit II Case*, *Denkavit Futtermittel GmbH v Land Nordrhein-Westfalen* (C-73/84) [1985] ECR 1013 [14]; the *German Beer Case*, *Commission v Germany* (C-178/84) [1987] ECR 1227, 1257; and the *Greece-Butter Case*, *Commission v Greece* (C-205/89) [1991] ECR I-1361.

64 PR [8.222]. The Appellate Body also uses the term 'provisional measure', ABR [172].

65 PR [8.213].

66 PR [8.221].

67 PR [8.216].

68 PR [8.219].

69 ABR [182].

70 ABR [179].

71 As argued by the US, PR [4.207-4.208].

adequate risk assessment in the terms of article 5.1, and as defined in annex A, paragraph 4 of the Agreement. As the available scientific evidence would permit a risk assessment to be carried out, it was not possible to conclude that relevant scientific evidence was insufficient in terms of article 5.7.

Significantly, the Appellate Body rejected the idea of approaching the interpretation of article 5.7 through a 'prism of "scientific uncertainty"' as suggested by Japan. Japan considered the *Japan-Apples* Panel had attempted to interpret article 5.7 narrowly, so that it applied only to situations involving 'new uncertainty' or identification of a new risk. Japan argued that article 5.7 could also be applied in situations of 'unresolved uncertainty'. However, the Appellate Body did not engage in this issue, insisting that article 5.7 was triggered not by scientific uncertainty, but by the insufficiency of scientific evidence.

The notion of 'scientific uncertainty' is well-known as the concept that sits at the heart of the most common formulations of the precautionary principle. Principle 15 of the 1992 Rio Declaration exhorts states not to postpone environmental action on the basis of lack of full scientific certainty where there are threats of serious or irreversible damage.[72] Principle 15 is often considered the most authoritative international statement of the precautionary principle, which now permeates international environmental law and appears in a number of conventions.[73] That article 5.7 was not intended to provide an unrestricted opportunity to apply the precautionary principle has been established in earlier SPS jurisprudence:[74] WTO members did not intend, when they drafted the SPS Agreement, to provide an exemption from SPS disciplines that could be brought to bear simply through the invocation of scientific uncertainty. The whole point of the Agreement was that SPS measures had to be supported by scientific evidence. Yet, at the same time, there was a need to accommodate situations

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72 Declaration of the United Nations Conference on Environment and Development 1992 (Rio Declaration) UN Doc (14 June 1992) A/CONF.151/26/Rev.1Principle 15 reads: 'In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'

73 In particular, the ninth preambular paragraph of the Convention on Biological Diversity (5 June 1992) 1760 UNTS 79 and art 3(2) of the Framework Convention on Climate Change (9 May 1992), 1771 UNTS 107, also both adopted at Rio in 1992, refer to the principle, complementing the reflection of the principle already found in the eighth preambular paragraph of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (16 September 1987) 1522 UNTS 293. A stronger formulation of the precautionary principle is found in art 2(2) of the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR Convention), which actively exhorts parties to take action against risks even where the science is unclear. See also art 6 of the UN Agreement for the Implementation of the Provisions of the UN Convention on the Law of the Sea (10 December 1982) Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks 1995, on the application of the precautionary approach 1833 UNTS 3.

74 Above n 21, *EC-Hormones* ABR [124].

where temporary risk response measures were necessary and appropriate. The question that has remained outstanding in many respects is just how article 5.7 may be interpreted, if this provision is not intended to allow a direct application of the precautionary principle in the SPS context.

The Appellate Body's determination in *Japan-Apples* not to interpret article 5.7 with reference to the concept of scientific uncertainty could be regarded by environmentalists as another nail in the coffin of the potential for the SPS Agreement to accommodate a broad application of the precautionary principle under the SPS Agreement. However, despite the Appellate Body's decision not to engage in discussion about scientific uncertainty, there remains considerable scope for the operation of the precautionary principle under the SPS Agreement. The concept of precaution will continue to have a role to play in the application of the requirement for sufficient scientific evidence found in article 2.2 of the Agreement. Recognition of the role of precaution under article 2.2 can be found in the comments of the Appellate Body in *EC-Hormones* as cited in *Japan-Apples*:

> [A] Panel charged with determining, for instance, whether "sufficient scientific evidence" exists to warrant the maintenance by a member of a particular SPS measure may, of course, and should, bear in mind that responsible, representative governments commonly act from perspectives of prudence and caution where risks of irreversible, e.g. life-terminating, damage to human health are concerned.[75]

Accordingly, panels must take heed where a member argues that the sufficiency of the scientific evidence supporting its measure ought to be assessed in light of the seriousness of the risk in question. It must be noted that the requirement under article 2.2 for SPS measures not to be maintained without sufficient scientific evidence was recognised in *Japan-Apples* as altogether distinct from the requirement that there be insufficient available scientific evidence for the conduct of a risk assessment where a party seeks to rely on article 5.7. There is no direct correlation between lack of sufficiency under article 2.2 and insufficiency under article 5.7. Precaution will therefore play a slightly different role under article 2.2 to that it might play under article 5.7.

The recognition of precaution in the application of article 2.2 does not eclipse its potential function under article 5.7. In some cases it could be found that a measure was not based on sufficient scientific evidence as required by article 2.2, even taking into account the seriousness of the risk in question, but that, taking into account the seriousness of the risk in question again, there was actually insufficient evidence to conduct a risk assessment and article 5.7 could therefore be relied upon. This is to say that the insufficiency of scientific evidence under article 5.7 may well, in practice, be evaluated in light of the character of the risk at issue in a given case. Where a risk seems a particularly serious one, and little information about the risk's magnitude or likelihood is available, and a member has not therefore yet conducted a risk assessment, then it should be possible to rely on article 5.7. It would be important to avoid a

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75 *EC-Hormones* ABR [124]; *Japan-Apples* CPR [8.105].

farcical situation where a member was required to conduct a risk assessment on a potentially major risk using minimal information, especially if it was likely the member would then be found in breach of article 2.2 of the Agreement. One remaining question is whether there should be express recognition of the significance of the potential magnitude of risks under article 5.7, and of the need to permit a precautionary approach.

As if to underscore the point that article 5.7 was not a provision that WTO members should expect easily to be able to rely upon, the Appellate Body permitted a novel approach to the allocation of the burden of proof under article 5.7 in the *Japan Apples Case*. Under the usual rules on burden of proof in international litigation, a complainant must establish the breach of an international legal rule that it asserts to have been committed by a defending party, while a defending party must establish the applicability of any exception to that rule on which it may seek to rely. This was recognised by the Appellate Body and the same practice adopted for WTO dispute settlement in *United States – Measures Affecting Imports of Woven Wool Shirts and Blouses from India*,[76] and reiterated in *EC-Hormones*.[77] Applying this approach to the situation in *Japan-Apples*, and bearing in mind that article 5.7 is not an exception to the SPS Agreement, the United States should have borne the burden of establishing a *prima facie* case that Japan's conduct was in breach of article 2.2 of the SPS agreement, including that it was not within the parameters of article 5.7. Japan's task would have been to rebut such a United States case. However, the Panel allocated the burden of proof under article 5.7 to Japan.[78] This move essentially went unquestioned by the Appellate Body. That is concerning. The burden of proof ought to be allocated to the complainant in accordance with the usual rules and the maxim *actori incumbit probatio*. If the usual rule had been applied in this case, the outcome would assuredly have been no different, but the broader point is important. Why should a party seeking to defend itself against threats to the life or health of its population or flora and fauna have to carry the burden of proof in litigation challenging any provisional measures it might take for this purpose?[79]

The Appellate Body noted that in this case the complainant had invoked article 5.7 only as an alternative to its argument that it had in fact complied with article 2.2. It is difficult to see why this might make any difference. The Appellate Body did not explain the point further, but presumably the Appellate Body believed that to leave the burden of proof with the United States would have allowed Japan to capitalise on a brace of arguments that involved a certain

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76 *United States – Measures Affecting Imports of Woven Wool Shirts and Blouses from India* WTO Doc WT/DS33/AB/R (1997) [16-17].

77 *EC-Hormones* ABR [98]. 'The initial burden lies on the complaining party, which must establish a *prima facie* case of inconsistency with a particular provision of the SPS Agreement on the part of the defending party … When that *prima facie* case is made, the burden of proof moves to the defending party, which must in turn counter or refute the claimed inconsistency'.

78 PR [8.222].

79 See the arguments to this effect put forward by Australia (AB 101) and the EC (Appellate Body 101) as third parties.

perversity: Japan would have been arguing on the one hand that there was sufficient scientific information to support its measure, but on the other hand that there was insufficient scientific information even to conduct a risk assessment. Japan would have borne the burden of proof on neither point, potentially benefiting from the benefit of the doubt each way. Yet surely a party is entitled to put arguments in the alternative to one another, no matter what their content? The Appellate Body also noted that Japan had not raised the question of the burden of proof under article 5.7 on appeal.

The unusual character of the provision in article 5.7 means that in practice it is likely to be the responding party that will first refer to the provision in pleadings. That characteristic of article 5.7 is apt to confuse. The *Japan-Agricultural Products* panel correctly regarded the burden of proof under article 5.7 as falling on the complainant, finding that the United States had established an unrebutted *prima facie* case that Japan could not rely on article 5.7.[80] In the *Japan-Agricultural Products Case* the Appellate Body referred to it as a 'qualified exemption' to article 2.2 rather than as an exception.[81] The principle at work is similar to the principle that led the Appellate Body to override the finding of the Panel in the *EC-Hormones Case* that article 3.3 of the SPS Agreement constituted an exception to article 3.1. Article 3.1 required members to base their measures on international standards except as provided for in article 3.1 and elsewhere in the Agreement. The provision in article 3.3 allowed members to introduce and maintain SPS measures that resulted in a higher level of protection than would be achieved by measures based on the relevant international standards.[82] Article 3.3 was not an exception to the provision in article 3.3. It remained for the complaining party to establish a *prima facie* case that the defending party had acted inconsistently with the SPS Agreement's risk assessment requirements as referred to in article 3.3.[83] This approach is consistent with a perspective that recognises the importance of the Agreement as an instrument for protection against risk as well as a means of challenging restrictions on free trade. Like article 3.3, article 5.7 is a provision that recognises members' rights to protect themselves against a risk, rights that were intended to be protected under the Agreement rather than eroded by gradual changes in the application of the rules on the allocation of the burden of proof.

One argument that could be put forward regarding the allocation of the burden of proof under article 5.7 is that the burden of proof ought to be allocated to the United States under article 5.7 because of the precautionary principle. The precautionary principle is often described as 'reversing the

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80 Agricultural Products, PR [8.58]-[8.59].

81 ABR [80].

82 *EC-Hormones* ABR [124]. The Appellate Body has noted that, in explicitly recognising the right of members to establish their own appropriate level of sanitary protection, art 3.3 constitutes a further instance of the reflection of the precautionary principle in the SPS Agreement].

83 'Evidence before International Courts and Tribunals', a pilot project carried out by the British Institute of International and Comparative Law, British Institute of International and Comparative Law, 2002, see appendix containing case study on *EC Measures concerning Meat and Meat Products*.

burden of proof'. Instead of requiring proof that harm is certain, a decision-making body will be expected to take precautionary action in response to a risk unless it is proven that harm will not eventuate. However, references to the 'burden of proof' in the literature on the precautionary principle are references to the allocation of the burden in an administrative setting. They are not references to the allocation of the burden in an adjudicative setting. If the precautionary principle is to be given effect in this way in the context of adjudication, then this would have to be recognised as a novel development. There is conceivably scope for taking such a step, but further careful thought would need to be given to the idea, and to whether employing the precautionary principle in this way might prejudice the certainty of the adjudicatory process. For the present, it is sufficient to point out that the application of the usual rules on allocation of the burden of proof would place the burden on the United States under article 5.7.

(c) Understandings of 'risk assessment' in article 5.1

The Panel found that Japan's measure was not based on a 'risk assessment' as required by article 5.1.[84] Japan's Pest Risk Analysis was not sufficiently specific to apple fruit[85] and, for this and other reasons, failed adequately to address the likelihood of the entry, establishment or spread of fireblight through the importation of apples.[86] Further, the Pest Risk Analysis did not evaluate the risk of fireblight 'according to the SPS measures which might be applied' in accordance with the test established in *Australia-Salmon*.[87]

The Panel rehearsed the definition of a risk assessment found in annex A, paragraph 4 of the SPS Agreement, according to which a risk assessment is defined as:

> *The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences*; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs. [emphasis added]

In *Australia-Salmon*[88] and *Japan-Agricultural Products*[89] the Appellate Body had clarified that the first limb of this definition required the following three steps:

1) identifying the disease and its potential consequences;
2) evaluating the likelihood of entry etc as well as the potential biological and economic consequences; and

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84 PR [8.291].
85 PR [8.271].
86 PR [8.280].
87 PR [8.287]-[8.288]; ABR [208]-[209].
88 *Australia-Salmon* ABR [121]; also *Australia-Salmon* (art 21.5 - Canada) [7.41].
89 *Japan-Agricultural Products* ABR [112].

3) evaluating the likelihood of entry etc according to the SPS measures that might be applied.[90]

Following this formula, the *Japan-Apples* Panel applied the definition of 'risk assessment' only in terms of requiring an *evaluation of the likelihood of entry [of fireblight] and an evaluation of the likelihood of potential consequences*. Consistent with the approach in previous cases, no consideration of whether Japan's risk assessment evaluated the magnitude of the potential consequences of entry, establishment or spread of the disease was undertaken. The Appellate Body restated the same three steps as the Panel and evaluated the Panel's findings in the same terms, with the same ongoing omission.[91] Although it is entirely feasible to read paragraph 4 of annex A, quoted above, as involving an *evaluation of the likelihood* of the entry, establishment or spread of a pest or disease *and* an *evaluation of the consequences*, there has thus to date been an ongoing failure to acknowledge that such an interpretation is possible.

The Compliance Panel's task under article 5.1 differed from that of the original Panel in that the Compliance Panel was required to focus on whether Japan's new 2004 Pest Risk Analysis fulfilled the requirements of a risk assessment under article 5.1. The Compliance Panel had already found that four new studies referred to by Japan did not provide the sufficient scientific evidence required to justify Japan's continued measures under article 2.2. Now the Compliance Panel drew a new link between article 2.2 and article 5.1, adopting the view that where the conclusions of a risk assessment were not sufficiently supported by the scientific evidence then there was no risk assessment 'as appropriate to the circumstances' under article 5.1.[92] The Compliance Panel therefore reached the conclusion that Japan had continued to fail to comply with article 5.1.[93]

Serious consideration needs to be given to the trend in SPS cases of omitting to recognise assessment of magnitude as integral to risk assessment. In *Japan-Apples* Japan's assertions that fireblight could have serious biological and economic consequences in Japan were accepted silently, and remained unquestioned.[94] In the context of a possible New Zealand case against Australian restrictions on New Zealand apples it might be noted that the Australian draft import risk analysis (IRA) incorporates some evaluation of the potential biological and economic consequences of the establishment of fireblight in Australia. New Zealand has taken issue with the content of this

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90 PR [8.250].
91 ABR [196].
92 CPR [8.136].
93 CPR [8.145]; [9.1(b)].
94 *Japan Apples,* Art 5.3 states that: 'In assessing the risk to animal or plant life or health in determining the measure to be applied for achieving the appropriate level of sanitary or phytosanitary protection from such risk, Members shall take into account the *relevant economic factors: the potential damage in terms of loss of production or sales in the event of entry, establishment or spread of a pest or disease; the costs of control or eradication in the territory of the importing Member*; and the relative cost-effectiveness of alternative approaches to limiting risks.' [emphasis added]

evaluation.[95] For example, New Zealand challenges the view of Australian industry that the effect of fireblight is 'catastrophic'.[96] The New Zealand concerns serve to underline the central significance of evaluations of magnitude within risk assessments. Indeed, evaluation of certain aspects of the magnitude of a risk is in fact envisaged under article 5.3 of the SPS Agreement.

Elsewhere in international law it is understood as a matter of course that risk assessment includes an assessment of magnitude. The definition of 'risk' in article 2(a) of the 2001 International Law Commission's draft Articles on Prevention of Transboundary Harm, for example, applies the concepts of probability and magnitude:

> Risk of causing significant transboundary harm includes risks taking the form of a high probability of causing significant transboundary harm and a low probability of causing disastrous transboundary harm.[97]

The same approach is adopted in the Commission's 2004 draft Principles on the Allocation of Loss in the Case of Transboundary Harm arising out of Hazardous Activities.[98] The Cartagena Protocol on Biosafety to the Convention on Biological Diversity provides that risk assessments are to entail evaluation of the possible adverse effect of living modified organisms on the conservation and sustainable use of biodiversity, including specifically both an evaluation of the likelihood of such effect being realised[99] and an evaluation of the consequences.[100] The EC Communication on the Precautionary Principle also indicates that a risk assessment should address a hazard's possibility of occurrence and potential severity.[101]

Assessments of the likelihood of harm eventuating from a particular risk mean little if they are not complemented with assessment of the magnitude of the harm envisaged. The International Standard for Phytosanitary Measures on Pest Risk Analysis for Quarantine Pests (ISPM11), referred to in the *Japan-Apples Case*, identifies the assessment of potential economic, including environmental, impacts of introduction of a pest as interrelated with an

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95 'Comments by the Government of New Zealand on Importation of Apples from New Zealand Revised Draft IRA Report February 2004', above n 6, Executive Summary [xi], and body of the document [9] and 123ff.

96 Ibid, body of the document [9], and, examining the effect of fireblight in New Zealand, [62ff].

97 Draft articles on Prevention of Transboundary Harm from Hazardous Activities. Report of the International Law Commission on the work of its Fifty-third session, Official Records of the General Assembly, Fifty-sixth sess, Suppl No 10 (A/56/10), Chapter V, <http://www.un.org/law/ilc/texts/prevention/preventionfra.htm>.

98 The draft Principles, together with their Commentary, can be found in ch VII of the Report of the International Law Commission on its Fifty-sixth Session, 2004, <http://www.un.org/law/ilc/index.htm>, under 'Sessions'.

99 Annex III 8b.

100 Annex III 8c.

101 Sect 5 of annex III, and text, of *Communication from the Commission on the Precautionary Principle* Commission of the European Community Brussels 02.02.2000 Com (2000) 1.

assessment of the probability of the pest's introduction and spread.[102] Likewise, the Guidelines on Risk Assessment issued by the Office International des Epizooties (OIE) define risk assessment as 'the process of identifying and estimating the risks associated with the import of a commodity and evaluating the consequences of taking those risks'.[103]

The main reason why reference to magnitude has been omitted from conceptions of risk assessment under the SPS Agreement is that estimations of the magnitude of risks to human, animal and plant life and health may involve subjective aspects, including value judgments. This is difficult terrain for a science-based legal regime. The preference has been to attempt artificially to isolate these value judgments, recognising them only in relation to articles 2 and 3 of the Agreement, where recognition is given to a member's right to decide on the level of protection it chooses to adopt against a given risk as part of the member's 'risk-management' strategy. Yet the reality is that assessing magnitude is part of assessing risk.

What might be permitted or required in a risk assessment that took magnitude more fully into account by evaluating the potential biological and economic consequences associated with the entry, establishment or spread of a pest or disease? The Appellate Body has said that some evidence of an objectively definable risk is always required for a member to establish an SPS measure, there is a requirement that there be an 'ascertainable risk'.[104] Assessment of magnitude is already present in WTO risk assessment in this respect. However, the 'ascertainable risk' test provides only a baseline or starting point. Panels could perhaps be expected further to require that the more subjective aspects of the magnitude attributed to a risk be articulated and explained. Given that SPS measures must be 'based on' risk assessments, it could be argued that members are not permitted to adopt or maintain SPS measures unless they bear a connection back to the member's evaluation of the consequences of a risk. In other words, an additional level of scrutiny of the process through which members decide to adopt and maintain SPS measures could be imposed. Panels might check whether risk assessments include an evaluation of potential consequences. No prejudice to members' rights to set their own level of protection against risks would necessarily be entailed, provided that panels bore this entitlement in mind. Neither should such an approach be considered to prejudice the effectiveness of the requirement for SPS measures to be based on scientific principles and not maintained without sufficient scientific evidence.

Notions of 'proportionality' might ultimately have a role to play as indicators that estimates of magnitude are not genuine. Such proportionality criteria could be read into the law to achieve this purpose, although caution should be exercised about the broader use of such tests, as discussed earlier. Where a complainant cast doubt on the genuineness of a member's estimates of

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102 PR [2.28]. See ISPM11.
103 *Australia-Salmon* PR [8.78].
104 *Hormones* ABR [186]; Ibid, *Australia-Salmon* ABR [125].

magnitude, a respondent might well choose to support its case with reference to evidence such as the results of public consultation processes, copies of correspondence and minutes of government meetings. Examination of such materials is not an unprecedented step for a panel to take. We may look in particular to the Appellate Body's analysis in *EC-Hormones* of EC compliance with article 5.5 of the SPS Agreement.[105] Evidence drawn from governmental consultation with the populus would not necessarily always constitute definitive evidence that an SPS measure was genuine.

It will be recalled that it was submitted earlier in this paper that the particular risk to which a measure was addressed might be taken into account in assessments of the sufficiency of scientific evidence under article 2.2 and the insufficiency of scientific evidence under article 5.7 of the SPS Agreement. For the potential magnitude of risks to be considered in these contexts, alongside estimates of the probability of their realisation, is consistent with accepting magnitude as an integral aspect of risk itself.

Conclusion

While it may appear on the surface merely to have been another complex quarantine case, the *Japan-Apples Case* raised a number of issues of importance in relation to the extent of WTO members' rights to protect themselves against risks to human, animal and plant life and health within their jurisdiction. As discussed in this Note, these included the question whether there is a role for a proportionality test in this field of law, as well as how the precautionary principle may apply and how the burden of proof should be allocated in cases involving scientific uncertainty, and whether risk assessment under the SPS Agreement should be interpreted as including assessment of the magnitude of a risk.

A careful balance between requirements for SPS measures to have a scientific basis and recognition of national regulatory autonomy will continue to be pursued in the context of WTO dispute settlement. Indeed, several disputes under the SPS Agreement have been pending in the WTO against Australia, but have not been initiated. Complainants have been holding off since Australia announced that its import risk analyses would be temporarily frozen while Biosecurity Australia was re-established as an independent agency outside the Department of Agriculture, Fisheries and Forestry (DAFF). So far as the possibility of a case challenging Australia's restrictions on apple imports being brought by New Zealand is concerned, a win against Australia could be expected, on the basis of the relevant science and of the decision in *Japan-Apples*. Nevertheless, it should be recalled that from a wider perspective the arguments of countries who may be seeking at least in part to protect

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105 J Scott and E Voss advocate the demonstration of the authenticity of public opinion in 'The Juridification of Uncertainty: Observations on the Ambivalence of the Precautionary Principle within the EU and the WTO' in C Joerges and R Dehousse (eds), *Good Governance in Europe's Integrated Market* (2002) 253, 286.

themselves against risks to human, animal and plant life and health will not be 'rotten to the core'. Rather, they are crucial to developing good jurisprudence on the legitimacy and legality of states' risk response measures in an internationalising world.