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## **Costs and Benefits of a WTO Dispute: Philippine Bananas and the Australian Market\***

Josyline Javelosa

*Ph.D. Candidate, Food and Resource Economics, University of Florida*

Andrew Schmitz

*Eminent Scholar, Food and Resource Economics, University of Florida*

Why do governments engage in WTO disputes? What can countries expect to gain from international legal trade battles? This article examines the costs and benefits of the Philippine-Australian dispute regarding Australia's quarantine policy on Philippine fresh fruits and vegetables, a case also of keen interest to a number of countries including those in the European Union, the United States, Canada, Ecuador, Thailand, China, India, and Chile. We find that a host of institutional, political, and economic factors can trigger disputes under strong, yet debatable, expectations over winning a case in the WTO.

Keywords: bananas, cost-benefit analysis, sanitary and phytosanitary (SPS) measures, trade disputes, World Trade Organization

## Introduction

Since the World Trade Organization's inception in 1995, more than 300 cases have been brought to its dispute-settlement system. The WTO's predecessor, the General Agreement on Tariffs and Trade (GATT) dealt with only over 200 disputes in 47 years. Why do governments engage in WTO disputes? What can countries expect to gain from international legal trade battles? The increasing number of disputes is the result of expanding world trade; the increasing number of members in the international trade pact; the growing faith in the dispute-settlement system; and stricter rules negotiated in the Uruguay Round of trade talks (WTO, 2003a). Also, there is little punishment for market players that violate the rules (Butler and Hauser, 2000), and trade agreements (e.g., the new Agreement on the Application of Sanitary and Phytosanitary Measures, or the SPS Agreement) have ambiguities that trigger conflict when determining whether particular measures are legitimate or not (Isaac, 2004).

In this article, we explore the tendency toward heightened international trade battles by observing the dynamics of a pending WTO dispute, that is, the Philippine-Australian case concerning the latter's quarantine policy on Philippine fresh fruits and vegetables. We begin with an overview of the dispute and proceed to examine the institutional, political, and economic dimensions of defending or challenging a trade measure in the WTO; this examination allows us to discuss, in the concluding section, the circumstances under which governments resort to the dispute-settlement system.

## The Philippine-Australian WTO Dispute over Fresh Fruits and Vegetables

### *Chronology*

At question in the Philippine-Australian WTO dispute over fresh fruits and vegetables are Australia's quarantine measures on fresh fruit and vegetable imports, under which an *a priori* import prohibition is in place. In Section 64 of Australia's 1998 Quarantine Proclamation, it is stated that "the importation into Australia of a fresh fruit or vegetable is prohibited unless the Director of Quarantine has granted the person a permit to import it into Australia." Through the WTO dispute-settlement system, the Philippines has challenged the legitimacy of the Australian import ban as well as the procedures and criteria for granting a permit to import fresh fruits and vegetables into Australia. Table 1 summarizes the chronology of the dispute through the following stages: 1) the Australian importers' initial request for permits to import papaya, plantain, and bananas; 2) the bilateral discussions between the Australian and Philippine governments; 3) the conflict between the two governments as raised in the

WTO; and 4) the review of Australian rules governing the quarantine measures on Philippine fruit and vegetable imports.

**Table 1** Chronology of the Philippine-Australian Case over Fresh Fruits and Vegetables

Date	Event	Reference
<i>Pre-WTO jurisdiction</i>		
Pre-1994	Importers in Australia request to import Philippine fresh papaya	WT/DS270/5/Rev.1 <sup>a</sup>
1995	Importers in Australia request to import Philippine plantain	WT/DS270/5/Rev.1 <sup>a</sup>
1995	Importers in Australia request to import Philippine fresh banana	WT/DS270/5/Rev.1 <sup>a</sup>
1996-2000	Bilateral discussions	WT/DSB/M/155 <sup>a</sup>
1998	Australia issues IRA Process Handbook	BA - 1998 IRA Handbook <sup>b</sup>
2000 June	Australia initiates IRA on Philippine bananas	WT/DS270/5/Rev.1 <sup>a</sup>
2001-2002	Bilateral discussions/information exchanges	WT/DSB/M/155 <sup>a</sup>
2002 July	Australia issues June 2002 Draft IRA Report on Philippine bananas	BA - PBPM <sup>c</sup> 2002/30 <sup>b</sup>
<i>WTO jurisdiction</i>		
18 Oct 2002	Philippines requests consultations in the WTO	WT/DS270/1 <sup>a</sup>
15 Nov 2002	Philippines and Australia hold consultations joined in by Thailand and the EC	WT/DS270/5/Rev.1 <sup>a</sup>
07 July 2003	Philippines requests to establish a panel	WT/DS270/5/Rev.1 <sup>a</sup>
21/23 July 2003	DSB considers Philippine request for a panel, agreeing to revert to it	WT/DSB/M/153 <sup>a</sup>
08 August 2003	Australia releases revised IRA Process Handbook	BA - 2003 IRA Handbook <sup>b</sup>
29 Aug 2003	DSB agrees to establish panel requested by the Philippines	WT/DSB/M/155 <sup>a</sup>
07 Nov 2003	DSB agrees to establish panel requested by the EU on a similar issue	WT/DSB/M/157 <sup>a</sup>
2004 February	Australia issues Revised Draft IRA Report on Philippine Bananas	BA - PBPM <sup>c</sup> 2004/2 <sup>b</sup>
2004 June	Australia issues addendum to February 2004 Draft IRA Report (to correct error in February draft)	BA - PBPM <sup>c</sup> 2004/19 <sup>b</sup>
Late 2004	Australian government announces that Biosecurity Australia would have to review all IRAs in progress	BA - PBPM <sup>c</sup> 2005/3 <sup>b</sup>

Notes: a. WTO (2002, 2003b) documents (references starting with WT) can be accessed from <http://docsonline.wto.org>.

b. Biosecurity Australia documents (referred to as BA) are available at <http://www.affa.gov.au/biosecurityaustralia>.

c. PBPM refers to plant biosecurity policy memoranda issued by Biosecurity Australia

Acronyms: IRA: import risk analysis.

DSB: Dispute Settlement Body

Source: Authors' compilation

Requests for permits by potential importers of Philippine fresh papaya fruit were made before 1994, and in 1995 importers requested permits for plantain and banana. Bilateral discussions on the import requests commenced in 1996 in various fora, such as the Joint Philippine-Australian Bilateral Committee and the Association of Southeast Asian Nations (ASEAN)–Australian dialogue, in an attempt to deal with Australian imports of fruits and vegetables from the Philippines. With little progress being made, the Philippines decided to formally raise the matter in the WTO in 2002. The Philippines argued that the Australian measures had prevented access to the Australian market for Philippine fresh fruit and vegetable exports. The Philippines also argued that despite continued and persistent efforts, including bilateral discussions and exchanges of information, unreasonable import restrictions remained.

On 29 August 2003, the WTO Dispute Settlement Body (DSB) agreed to establish a panel that would rule on the complaint raised by the Philippines regarding Australia's aforementioned import policy. China, the European Union, Ecuador, India, Thailand, the United States, and Chile reserved their third-party rights to the dispute. In its meeting of 7 November 2003, the DSB also established a panel that was requested by the EU to rule on Australia's quarantine regime for imports of live animals, dead animals, and animal parts; meat and meat products; dairy products; bee products; living plants, plant seeds, and plant parts; fresh fruits; and vegetables. While it did not oppose the establishment of the panel, Australia questioned the EU's motivation for the request because, to a large extent, the EU did not have trade interests for the products under consideration (i.e., the request was not about commercial considerations). For a number of the products referred to above, Australia had no record of EU member states expressing export interests to Australia. Countries reserving third-party rights to the EU-Australia dispute were Canada, Chile, China, India, Philippines, Thailand, and the United States. As of December 2005 (i.e., over two years after the DSB agreed to establish a panel) no WTO panel has been set up to examine the Philippine-Australian case. The Philippine government (in coordination with the EU), has yet to craft the WTO panel's terms of reference.<sup>1</sup>

Australia revised its 1998 administrative process of conducting import risk analysis (IRA) in 2003 to incorporate Biosecurity Australia's (BA)<sup>2</sup> experience in conducting IRAs; the results of relevant parliamentary reviews; advice from the Australian Quarantine and Exports Advisory Council (QEAC); and comments from concerned parties. In February 2004, Australia also issued a revised draft report on the importation of fresh bananas from the Philippines, which made significant changes to the June 2002 initial draft IRA report in view of stakeholder submissions, reports, and technical information available to the IRA team. In sum, the 2004 IRA draft recommended that the importation of fresh hard-green bananas from the Philippines

be permitted subject to certain quarantine conditions. However, Australia has not begun the IRA process for Philippine fresh papaya and plantain to date.

The February 2004 Australian banana IRA draft sparked outrage from the Australian Banana Growers' Council (ABGC), banana workers, and concerned citizens, because they found it to have watered down Australia's conservative quarantine standards. A protest rally in Cairns, Australia was staged on 5 March 2004 (ABGC, 2004), and on 17 March 2004, BA revealed that a correction to the 2004 draft would have to be issued as an addendum in view of a transcription error in the electronic spreadsheet used in the estimation of risk. The addendum to the February 2004 IRA draft, issued in June 2004, recommends more stringent measures for the importation of bananas from the Philippines in relation to two diseases (Moko and banana bract mosaic virus) and one pest (mealy bugs). The comment period for the IRA procedures was extended to 15 September 2004.

In late 2004, the Australian government established BA as a prescribed agency to review all IRAs in progress. The results of their reviews will serve as the bases for issuing IRA drafts for further public comment. The IRAs affected by this announcement relate to the applications for the importation into Australia of limes from New Caledonia, table grapes from Chile, citrus from Florida, apples from New Zealand, and bananas from the Philippines. In a plant biosecurity policy memorandum dated 24 February 2005, BA announced that the draft IRAs for bananas from the Philippines and apples from New Zealand require further work, the completion of which is expected to take some months.

### *The Philippine Complaint<sup>3</sup>*

While WTO members are obliged to eliminate import restrictions generally, one of the exceptions to this general rule is the case in which restrictions are necessary to protect plant life and health. There are disciplines governing the implementation of such measures, referred to as sanitary and phytosanitary (SPS) measures, embodied in the GATT SPS Agreement. Also, there are rules contained in the GATT Agreement on Import Licensing Procedures that regulate how import licences should be administered. The Philippines' request to establish a WTO panel to examine Australian quarantine measures invoked Article XI of the GATT on the general elimination of quantitative restrictions as well as provisions of the two GATT Agreements (i.e., the SPS Agreement and the Agreement on Import Licensing).

The Philippines claims that Australia has violated several provisions of the GATT SPS Agreement, in particular those that require SPS measures to be based on

- a risk assessment taking into account various factors (Article 5);
- sufficient scientific evidence (Article 2.2);
- international standards (Article 3);

- regional conditions (of both regions of origin and destination), including pest or disease-free areas and low-pest prevalence or disease prevalence (Article 6); and
- the principle of nondiscrimination (Articles 2.3, Article 5.5).

While the product the Philippines has economic interest in is the fresh banana fruit, the Philippines framed its complaint not only on the basis of the ongoing IRA on bananas but also on the more encompassing Australian regulation on all fresh fruits and vegetables. For instance, the papaya fruit and plantain have had import requests pending since 1994 and 1995, respectively; however, a decade has elapsed and an IRA has been initiated for neither papaya fruit nor plantain. Potential questions that could be raised by the Philippines on the Australian measures include the following: Is Australia's import ban on papaya fruit and plantain justified when no IRA for either of these products has begun? Does this import ban meet the requirements of a WTO-consistent SPS measure as outlined above? If Australia argues that this import ban is only a provisional measure (SPS Article 5.7)<sup>4</sup> on the basis of insufficient scientific evidence, is nine to ten years a reasonable period of time for maintaining this ban?

Australia's IRA on bananas from the Philippines raised potential questions about how justified Australia's prescriptions are for managing risk with respect to diseases such as Moko (banana wilt) and banana bract mosaic virus and pests such as mealy bugs. In order to meet Australia's allowable level of protection (ALOP), the quarantine measures identified to manage potential risks from Moko, for example, require that the source of imports be from an Australian-approved plantation in an area of low prevalence of Moko. The prevalence level should not exceed .003 cases (infected mats) per hectare per week, which is about 1 case per 7 hectares per year. This level should be confirmed by weekly surveys over a minimum of two years immediately preceding harvest of fruit intended for export to Australia. If the prevalence of Moko exceeds the set level in an area, the affected area will be suspended for a minimum of two years. Has Australia's ALOP taken into account as 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 as called for by Article 5.3 of the SPS Agreement? Is there not an alternative measure that could meet Australia's ALOP but that is less trade restrictive and more feasible technically and economically, as espoused by the SPS Agreement's Article 5.6? The foregoing questions are potential challenges for Australia and for the WTO panel. When taking account of economic factors, what if Australia finds that the potential damage and lost sales due

to the spread of pests and disease are outweighed by the economic gains from importation; will Australia then be obliged to relax its ALOP?

It may also be logical to question how different Australia's situation is from the markets of other Philippine banana-importing countries such as Japan, which is known to have high standards generally for its quarantine measures. Japan's imports of bananas are largely from the Philippines and these are subjected to the intricate provisions of Japan's Plant Protection Law and Japan's Food Sanitation Law (JETRO, 2003, 5–14).<sup>5</sup>

The Philippines seems to pose the following queries with regard to the Agreement on Import Licensing Procedures: If Australia's administrative process in the conduct of IRAs falls under the definition of non-automatic import licensing (Article 1.1<sup>6</sup> and Article 3.1<sup>7</sup>), has it met the exception to the requirement of observing a 30-day period or 60-day period for processing applications as stipulated in Article 3.5(f)<sup>8</sup> in the case of papaya, plantain, or banana? Are there justifiable reasons outside the control of Australia to warrant an exception to this rule? Is the administrative process for granting import permits not trade-restrictive and not more burdensome administratively than is absolutely necessary (Article 3.2<sup>9</sup>)?

### ***The Australian Contention***

The Australian government maintains that its quarantine system is fully WTO-consistent when applying measures to achieve the level of sanitary and phytosanitary protection deemed appropriate to protect human, animal, and plant life or health within its territory (WTO, 2003b, e.g., WT/DSB/M/153,155,157). Australia finds it necessary to conduct a thorough analysis of the biosecurity risk associated with Philippine banana exports because there are no existing international standards addressing the specific quarantine concerns associated with banana imports. Australia has never imported fresh bananas in the past and has no existing import conditions on which to base a response to the Philippine proposal to export. Consistent with the International Plant Protection Convention's (IPPC) International Standards for Phytosanitary Measures, Australia's IRA of Philippine bananas follows three discrete stages: 1) the initiation of pest risk analysis; 2) risk assessment; and 3) risk management. The procedures adopted under each stage are also claimed to be consistent with IPPC norms (BA, 2004, e.g., PBPM 2004/02).

## **Analysis of Dispute Costs and Benefits**

### ***Institutional Factors***

Some institutional factors that may prompt (or inhibit) pursuing a case in the WTO include the nature of the dispute and optimism of the litigants, the time factor, litigation costs, and the absence of other legal recourse.



### **Nature of the Dispute and Optimism of Litigants**

The Philippine-Australian case over bananas illustrates the complexity of quarantine issues and the ambiguity (particularly in the SPS Agreement) of the characterization of a legitimate measure. Such nature of SPS-related issues, in addition to the optimism of both parties that they have the correct interpretation of the trade law and that they may likely win the case, seem to trigger disputes that must be raised in the WTO. The expected gains of both parties from a panel ruling are likely greater than the concessions available to either of them at this stage. Thus, they are unable to settle the dispute bilaterally.<sup>10</sup> It is interesting to note however, that of the 82 cases that have generated a panel ruling (until July 2002), 90 percent have resulted in a complainant win (Guzman, 2002).<sup>11</sup>

### **Time Factor**

Attempts to settle the Philippine-Australian case bilaterally outside the WTO have been ongoing for approximately seven years, but have failed. Generally, bringing a case to the WTO provides a definite timeline in which to resolve the issue. In this particular case, however, there is no clear time frame for resolution because no WTO panel has yet been established. If the Philippines had provided the panel's terms of reference within 20 days after the DSB agreed to establish a panel, the case would have been resolved by 2006.<sup>12</sup>

### **Litigation Costs**

WTO disputes entail litigation costs (i.e., legal and organizational costs including lawyer fees, consultant fees, and time, money, and effort invested by government officials and private industry on the case), which can be substantial. The Philippines taps the expertise of the Advisory Center on WTO Law (ACWL)<sup>13</sup> to provide legal assistance. As an ACWL member, an initial estimated preferential rate the Philippines has to pay for litigation is US\$150,000. No information on lawyer fees was obtained from Australia, although one can expect that Australia will spend a considerable amount on lawyer fees.<sup>14</sup> A hypothesis on the economic analysis of domestic legal disputes that may provide an indication of litigation costs in the Philippine-Australian SPS case is Perloff and Rubinfeld's suggestion (1987) that defendants have more at stake than plaintiffs because defendants are likely to be involved in future litigation of the same type. In this situation, the loss to the defendant is greater than the plaintiff's gain. The defendant will consequently choose to spend more on trial than will the plaintiff.

If the outcome of WTO litigations were only a function of effort (i.e., litigation costs), poorer countries might have a disadvantage. Co-complainants and third parties

could play a role here in providing support when the case is argued and in reducing the relative cost of litigation to the developing-country complainant.

### **Absence of Other Legal Recourse**

Most significantly, the WTO is the only legal forum in which to contest trade protection and assert a country's export rights. An import-competing domestic industry can always file a case within its national jurisdiction to seek trade protection in the form of trade remedies, such as antidumping and countervailing duties, which are provided for by national laws. However, there are no such alternative legal avenues<sup>15</sup> to protect the rights of importers or of consumers who may want to access better prices and a wider range of product choices from abroad. In the Philippine-Australian case, Australian distributors and consumers of bananas are limited to sourcing bananas from the domestic market when there are cheaper alternative sources of bananas elsewhere. These distributors and consumers have neither the legal recourse within Australian law to challenge the national quarantine regulation on bananas nor the option to resort to the WTO, since only governments can file a complaint within the WTO dispute-settlement system. Indirectly, the rights of Australian importers and consumers are fought for by the producers of an exporting country, and the only legal avenue they can utilize is the WTO. We foresee that more WTO disputes will be invoked to promote export interests as the clout of the consumer is strengthened through improved organization and as the ownership of companies crosses national boundaries while their operations become vertically integrated.

### ***Political Analysis***

Political dynamics may have influenced the Philippine-Australian case to be raised in the WTO. We analyze costs and benefits in terms of losses and gains in political support for governments and/or public officials who make the decision to pursue a WTO dispute.

The driving force to have the Australian import ban on fresh fruits and vegetables removed emanates from the Philippine Banana Growers and Exporters Association (PBGEA). This group is composed of major banana-industry players affiliated mostly with multinationals (i.e., Dole Philippines, Inc., Del Monte Fresh Produce Philippines, Inc., and Chiquita Brands International through Tagum Agricultural Development Company).<sup>16</sup> Also, when the dispute was formally raised in the WTO in 2002, the Secretary of the Philippine Department of Agriculture was the former chair of the PBGEA, the family-controlled Lapanday Foods Corporation, and Del Monte Philippines, Inc.<sup>17</sup> Clearly, the PBGEA could gain from liberalized banana trade.

Meanwhile, the Australian Banana Growers' Council, Inc. (ABGC) strongly resisted changes to Australia's restrictive quarantine policy. ABGC is the Australian

banana industry's peak national agro-political organization and represents 1,900 banana growers. It was established in February 1961, and in August 1992 it took the initiative of creating a full-time national secretariat based in Brisbane. Owners of banana plantations in Australia with at least one-half hectare of bananas under production (i.e., commercial banana plantation owners) may become members of ABGC. Members have to pay 2¢ per 13 kg carton of bananas sold (ABGC, 2005). It is in the interest of this group to oppose the importation of Philippine bananas.

On the other hand, the Australian dairy producers led by the Australian Dairy Corporation<sup>18</sup> (ADC) have been allies of the Philippine banana producers. The ADC fears that the Philippines will retaliate against Australia's restrictive quarantine policy and will make good its threat to ban Australian products from Philippine shores. In an attempt to stop this ban, the ADC urged the Australian government to adopt a less rigid solution to the IRA being conducted by BA. In a 2002 parliamentary hearing on the banana-quarantine process, which was prior to the complaint being filed in the WTO, the ADC submitted its position, stressing that BA should consider that A\$364.4 million dairy earnings from the Philippines are worth much more than the A\$321 million Australian banana industry (Felix, 2002).

Private interest groups with economic interests in the case spend substantial time and effort to pressure governments to support their trade positions. The ABGC, for example, is devoting considerable resources in media releases, information dissemination activities, rallies, campaigns, and research to oppose through lobbying the importation of Philippine bananas.

In the Philippines, the government has gained the political support of banana producers and other domestic producers in its move to pursue the case against Australia in the WTO. Filing a complaint in the WTO stirs the confidence of agribusiness firms, providing the impression that the Philippine government is a reliable partner in promotion of export interests. Even if the Philippines were to lose the WTO case, political gains have already been achieved in the domestic political arena (although criticisms of how the case was managed will no doubt arise<sup>19</sup>). On the international front, an image of toughness might also help the Philippines as it embarks on WTO negotiations, particularly in agriculture.

Australia has a double-edged political stake: it has to balance the conflicting interests of its domestic constituents while maintaining its international standing as a lead advocate of agricultural trade liberalization. If the WTO panel (if established) rules against Australia's measures and Australia does not comply, it weakens the country's moral authority to lead the Cairns Group<sup>20</sup> in pushing for fairer trade rules in agriculture. Australia also stands to lose the political support of sectors that may be affected by compensation or retaliatory measures, while it stands to gain the support of its local banana growers. Allowing the WTO panel to decide on the case perhaps

reduces the burden on Australia to cave in to domestic rent-seeking. If Australia loses the case and complies with the WTO ruling, it may still obtain reputation gains internationally, but at home it may be criticized for its failure to defend Australian quarantine measures. The political cost to Australian leaders may be less if the WTO ruling mandates the policy change rather than if Australia unilaterally relaxes its quarantine rules to allow Philippine banana imports into its country.

### ***Economic Assessment***

We examine the economic motivations related to the case by estimating the magnitude of the trade-related economic stakes of both the Philippines and Australia as the former challenges Australia's measure and the latter defends its *a priori* import ban on Philippine fruits and vegetables. We approximate the size of these economic stakes by focusing on the banana market, initially considering a scenario in which Australia allows the importation of Philippine bananas; it is assumed for purposes of this assessment that no pests and no disease are brought into Australia by these imports.

Section A of the technical annex provides an overview of the Australian banana market and presents the model and procedure used to calculate the welfare effects of relaxing Australia's challenged import ban. Our results show that lifting Australia's import ban will allow imports of Philippine bananas ranging from 77,000 tons to 315,000 tons, depending on how responsive producers are to price changes (table 2, columns 3 to 5). The lower Australian banana import estimate of 77,000 tons is only 24 percent of the total projected Australian banana consumption, while the upper bound of 315,000 tons implies that all of Australian banana consumption will come from imports.

Assuming that the proportion of 2003 marketing margins we used in the calculations holds, the Australian farm-gate price drops from A\$0.98/kg to A\$0.70/kg when imports come into Australia at A\$0.85/kg. This change reduces producer welfare in Australia by an amount ranging from A\$38 million to A\$70 million, while consumer welfare improves substantially by A\$175 million. Net economic welfare gains range from A\$105 million to A\$138 million; the upper bound is a case in which the import price elicits a no-production response by growers. These estimates show the case in which banana imports do not spread pests and diseases to bananas produced locally. Under this scenario, it is in Australia's net economic interest to remove the ban, although its producers clearly stand to lose.

Even if we consider an extreme case in which the importation of Philippine bananas wipes out the remaining banana production in Australia due to pest and disease contamination from Philippine banana imports, our simple model shows that Australia can still achieve net economic gains. This is shown in two scenarios (see table 2, columns 4 and 5) where the net welfare gains from banana importation

outweigh the value of remaining Australian banana production (i.e., remaining producer surplus). In addition to these gains are those that can be obtained by wholesalers/ripeners, retailers, and other users of bananas (e.g., the processing industry) due to expanded demand for their services; these latter gains are not quantified in our simple model. However, there is one scenario in which Australia can incur a net loss (see table 2, column 3). This is the case in which net welfare gains from banana importation, valued at A\$105 million, are not enough to compensate for the loss of Australian producer surplus worth A\$132 million when the remaining whole Australian banana industry is wiped out due to pests and diseases associated with Philippine banana imports.<sup>21</sup>

**Table 2** Economic Welfare Effects of Lifting the Ban on Banana Imports in Australia, 2003\*

Index	With ban	With lifting of import ban			If import price increases due to cost of quarantine measures		
	2003, actual	Supply elasticity assumptions			Supply elasticity assumptions		
(1)	(2)	0.5 (3)	1.0 (4)	>3.570 (5)	0.5 (6)	1.0 (7)	>15.1441 (8)
<b>Wholesale price (A¢/kg)</b>	<b>118</b>	<b>85</b>	<b>85</b>	<b>85</b>	<b>110</b>	<b>110</b>	<b>110</b>
Producer price (A¢/kg)	98	70	70	70	91	91	91
Distribution centre price (A¢/kg)	141	102	102	102	132	132	132
Retail price (A¢/kg)	212	153	153	153	198	198	198
Consumption ('000 tons)	276	315	315	315	285	285	285
Consumption per capita (kg)	14	16	16	16	14.3	14.3	14.3
Consumption expenditure, retail (A\$mil)	585	480	480	480	564	564	564
Production marketed ('000 tons)	276	237	199	0	267	258	0
Production value at farm gate (A\$mil)	270	167	140	0	244	236	0
<b>Imports ('000 tons)</b>	<b>0</b>	<b>77</b>	<b>116</b>	<b>315</b>	<b>18</b>	<b>27</b>	<b>285</b>
Imports (A\$mil)	0	66	98	267	20	30	314
Self sufficiency (%)	100	75	63	0	94	90	0
Change in consumer welfare (A\$mil)	n.a.	175	175	175	39	39	39
Change in producer welfare (A\$mil)	n.a.	-70	-65	-38	-18	-17	-9
<b>Change in net economic welfare (A\$mil)</b>	<b>n.a.</b>	<b>105</b>	<b>110</b>	<b>138</b>	<b>22</b>	<b>22</b>	<b>30</b>
Remaining producer surplus (A\$mil)	n.a.	132	70	0	185	118	0

\*See section A of the technical annex for model assumptions.

Source: Authors' estimates.

Another scenario is to cost out the additional expenses that Philippine banana exporters will have to incur for the Australian-imposed quarantine measures. If, due to added costs to implement quarantine requirements, the import price increases by 38.8 percent, which increases the cost, insurance, and freight (c.i.f.) import price of Philippine bananas to about A\$1.18/kg, the net welfare gains from importing bananas will be cancelled out. With anything less than a 38.8 percent import price increase on Philippine banana imports (e.g., under the scenarios in table 2, columns 6 to 8), positive net economic gains can still result for Australia.

Meanwhile, Australian imports of Philippine bananas can increase Philippine banana exports by 5 to 19 percent. Section B of the technical annex gives a profile of the Philippine banana market and shows the economic model used for approximating potential benefits to the Philippines under a scenario in which Australia allows free trade in bananas. Increased Philippine banana exports could translate to an increase in producer surplus amounting from US\$14 million to US\$63 million (table 3).<sup>22</sup>

**Table 3** Foregone Philippine Economic Surplus due to Australia's Import Ban on Bananas, 2003

Index	Scenario 1 / Supply elasticities			Scenario 2 / Supply elasticities		
	0.5	1	3.57	0.5	1	3.57
Foregone imports ('000 tons)	77	116	315	48	86	285
Year 2002 level of Phil. banana exports ('000 tons)	1,685	1,685	1,685	1,685	1,685	1,685
Percent increase in export demand (base=2002)	5	7	19	3	5	17
Year 2002 price/'000 ton of Phil. banana exports (US\$ f.o.b.)	183,317	183,317	183,317	183,317	183,317	183,317
Expected price increase/'000 ton* of Phil. banana exports due to increased export demand (US\$ f.o.b.)	8,377	12,620	34,270	5,222	9,356	31,006
Foregone economic surplus (US\$)	14,437,950	21,996,771	63,142,502	8,924,559	16,167,606	56,663,834

Scenario 1: Assumed c.i.f. import price in Australia is A\$0.85/kg or US\$651,192/'000 ton.

Scenario 2: Assumed c.i.f. import price in Australia is A\$1.10/kg or US\$842,719/'000 ton.

\* Assumes that a 1 percent increase in quantity demanded raises the price of Philippine banana exports by 1 percent.

Source: Authors' estimates.

If Australia allows the importation of Philippine bananas while imposing quarantine measures in addition to what Philippine producers are already applying, the cost of these additional measures will determine the extent to which economic benefits accruing to Philippine producers will be diminished. As the cost of these quarantine measures increases, net welfare benefits for Philippine producers (and

Australian consumers) will be reduced. For example, if quarantine measures increase the import price of bananas from the Philippines to A\$1.10/kg, the new level of Australian imports will range from 18 thousand tons to 285 thousand tons (table 2, columns 6 to 8). This amount of imports will reduce the range of Philippine producer surplus from US\$14 million–US\$63 million to US\$9 million–US\$57 million.

An analysis solely based on trade-related economic costs and benefits shows that it is in the economic interest of the Philippines to attempt to open up the Australian market for its banana exports. Meanwhile, Australia may lose or win on aggregate from lifting the import ban, depending on how price responsive local supply (and demand) are and on the extent to which Philippine bananas can truly contaminate Australian local produce. More rigorous econometric methods may be applied to estimate supply (and demand) curves and derive more definitive estimates of corresponding welfare effects of trade policy options. However, crucial information on the risks that quarantine measures attempt to mitigate and the extent to which quarantine provision reduces the likelihood of the threat to the domestic industry being protected may be hard to find – and estimates or assumptions can be wanting, contentious, and subject to lobbying pressures.

## **Concluding Notes**

**B**ased on our foregoing analysis of the Philippine-Australian WTO dispute, we find a host of economic, political, and institutional factors that can provide the motivation for public officials to take their trade policy disagreements into the WTO jurisdiction. The complexity of SPS issues governed by international trade rules that allow ample discretion in the conduct of quarantine policies, compounded by the uncertainty of risks that quarantine measures purport to address, seem to spur disagreement among trading parties. We also note that the political impetus is strong for both the Philippines and Australia to bring their cases to the WTO. This observation parallels those of others who have explored the role of agricultural interest groups in border disputes (e.g., Bredahl, Schmitz and Hillman, 1987; Picketts, Schmitz and Schmitz 1991; Schmitz, 1988). While freer trade for agriculture may be in the public economic interest, reform toward further trade liberalization involves gainers and losers. Those interest groups who will lose from the policy change clearly will attempt to block the reform (and likely will influence policymakers).

While there is an economic motivation (albeit not totally unambiguous) for Australia to relax its banana-import prohibition, it seems difficult for Australia to do so with producer interest groups holding a strong political lobby. A ruling by the WTO rather than a unilateral quarantine policy change seems to be a more attractive recourse politically. On the part of the Philippines, while there seems to be a clear economic rationale for the government to pursue a WTO dispute, the sizable litigation

costs given the tight resources of the country may suggest consideration of other, less costly, routes to promote exports. Could Philippine exporters not achieve the same market-access gains by expanding old markets or by exploring markets other than Australia whose current quarantine policy will allow the importation of Philippine fruit and vegetables? We surmise that even if alternative means to achieve the same market-access gains are available, the WTO dispute process is a more attractive recourse for government leaders because of the political gains they may obtain in the process (e.g., political support of exporters – gains that may be absent or less if alternative export promotion routes are undertaken). In addition, the private sector may also push for the WTO route, because government primarily shoulders litigation costs. Meanwhile, export promotion expenses are likely to be financed by the private exporting companies. Also, the WTO dispute-settlement system will continue to be opted for by exporting countries since it is the only legal mechanism available to further open markets. Prospective importers have limited or no other recourse at all within national jurisdictions to enforce the right to import.

When costs and benefits of each option in a dispute are not fixed, game theory suggests that the choice of optimal behavior depends on the choice of the other party. It is interesting to note that no WTO panel has yet been established to hear the Philippine-Australian case more than two years after the WTO Dispute Settlement Body agreed in August 2003 to establish a panel. The Philippines can always initiate the process of panel establishment by providing the panel's terms of reference, but it has chosen not to do so. This suggests that, perhaps, the Philippines is using this as a threat tactic to have Australian fruit and vegetable imports liberalized without a formal decision by the WTO.

Throughout our discussion in this paper, we have treated expectations of winning a case in the WTO, particularly for the complainant, to be synonymous to having trade-distorting measures corrected to yield trade-related economic gains serving the national interest. How realistic are these expectations? The record of noncompliance with recent WTO rulings, such as in the Brazil-United States cotton case and the Brazil-EU sugar case, may dampen these expectations. Does the WTO dispute-settlement system have enough teeth to enforce its decisions? If the WTO dispute-settlement system is not strong enough to enforce its decisions, trade and welfare economists may not be able to recommend WTO disputes as feasible recourses to promote exports, because they are effectively diminished into political ploys with negative net present values of economic benefits and less-than-one benefit-cost ratios.



## References

- ABARE (Australian Bureau of Agricultural and Resource Economics). 2004. Agricultural outlook to 2008-2009. <http://www.abare.gov.au>
- ABGC (Australian Banana Growers' Council). 2003. Industry statistics. <http://www.abgc.org.au>
- \_\_\_\_\_. 2004. Scientific criticism at the heart of Biosecurity Australia report. Media release, 8 March 2004. <http://www.abgc.org.au>
- \_\_\_\_\_. 2005. The Council. <http://www.abgc.org.au>
- BA (Biosecurity Australia). 1998-2005. IRA handbooks and various documents pertaining to "Banana from the Philippines IRA". <http://www.affa.gov.au>
- Bredahl, Maury, Andrew Schmitz, and Jimmie Hillman. 1987. Rent seeking in international trade: The great tomato war. *American Journal of Agricultural Economics* 69(1): 1-10.
- Butler, Monika, and Heinz Hauser. 2000. The WTO dispute settlement system: A first assessment from an economic perspective. *The Journal of Law, Economics and Organization* 16(2): 503-533.
- Currie, John M., John A. Murphy, and Andrew Schmitz. 1971. The concept of economic surplus and its use in economic analysis. *The Economic Journal* 81(323): 741-799.
- Cyberdyaryo. 2003. Militant farmers give Cito "Gawad Ipa". Press release, 26 May 2003. <http://www.cyberdyaryo.com>
- DA-AMAS (Philippine Department of Agriculture-Agribusiness Marketing Assistance Service). 2004. Banana industry situation report. <http://www.philonline.com.ph/~webdev/da-amas/banana.html>
- Fagan, Robert. 2004. Banana production in the Philippines. Macquarie University's Human Geography Resource Set. [http://www.es.mq.edu.au/humgeog/Bananas/farm\\_study.htm](http://www.es.mq.edu.au/humgeog/Bananas/farm_study.htm)
- FAOSTAT data. 2004. Philippine banana exports. Rome: FAO.
- Felix, Rocel. 2002. *Aussie dairy farmers lobby for RP bananas, pineapples*. The Philippine Star, 30 September 2002.
- GATT Secretariat. 1994. The results of the Uruguay Round of multilateral negotiations: The legal texts. Geneva: GATT.
- Guzman, Andrew, and Beth Simmons. 2002. To settle or empanel? An empirical analysis of litigation and settlement at the World Trade Organization. *The Journal of Legal Studies* 31(1, part 2): S205.
- Guzman, Andrew. 2002. The political economy of litigation and settlement at the WTO. Research Paper No. 98, Berkeley: UC Berkeley School of Law – Public Law and Legal Theory.
- Isaac, Grant. 2004. The SPS Agreement and agri-food trade disputes: The final frontier. *The Estey Centre Journal of International Law and Trade Policy* 5(1): 43-55.

- James, Sallie, and Kym Anderson. 1998. On the need for more economic assessment of quarantine/SPS policies. *Australian Journal of Agricultural and Resource Economics* 42(4): 425–444.
- JETRO (Japan External Trade Organization). 2003. Marketing guidebook for major imported products: Fresh fruits. [http://www.jetro.go.jp/ec/e/market/mgb/data\\_e/1/10.pdf](http://www.jetro.go.jp/ec/e/market/mgb/data_e/1/10.pdf)
- Josling, Timothy E., and Timothy G. Taylor (eds). 2003. *Banana Wars: The Anatomy of a Trade Dispute*. Cambridge: CABI Publishing.
- Kisanwatch. 2001. Dispute settlement in the WTO. <http://www.kisanwatch.org>
- Orden, David. 2002. Mexico-US avocado trade expansion. Paper presented at the conference *Keeping the Border Open*, sponsored by the Policy Disputes Information Consortium, Puerto Vallarta, Mexico, March 2002.
- Perloff, Jeffrey, and Daniel Rubinfeld. 1987. Settlements in private antitrust legislation. In *Private Anti-trust Legislation*, eds. Steven Salop and Lawrence White. Cambridge: MIT Press; as cited in Cooter, Robert, and Daniel Rubinfeld, 1989, Economic analysis of legal disputes, *Journal of Economic Literature* 27(3): 1067–1097.
- Picketts, Valerie, Andrew Schmitz, and Troy Schmitz. 1991. Rent seeking: The potash dispute between Canada and the United States. *American Journal of Agricultural Economics* 73(2): 255–265.
- Schmitz, Andrew. 1988. GATT and agriculture: The role of interest groups. *American Journal of Agricultural Economics* 70(5): 994–1005.
- Schmitz, Andrew, Hartley Furtan, and Katherine Baylis. 2002. Theoretical considerations. In *Agricultural Policy, Agribusiness, and Rent-seeking Behavior*. Toronto: University of Toronto Press, 4:83–118
- Statistics New Zealand. 2003. Overseas trade imports (personal communication).
- UNCTAD (United Nations Center for Trade and Development). 2002. Banana market information marketing chain. New York: UNCTAD.
- WTO (World Trade Organization). 2003a. Understanding the WTO: Settling disputes – A unique contribution (more cases can be good news). Geneva: WTO.
- \_\_\_\_\_. 2002, 2003b. Various DSB and case documents pertaining to “Australia – Certain Measures Affecting the Importation of Fresh Fruit and Vegetables”. <http://docsonline.wto.org>
- X-rates.com. 2004. Exchange rates collected from the Federal Reserve Bank of New York. New York: The Federal Reserve Bank.
- Yin, Robert. 1994. *Case Study Research: Design and Methods*. 2<sup>nd</sup> ed. Applied Social Research Methods Series, Vol.5. Thousand Oaks: Sage Publications.

## Endnotes

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1. Article 6.2 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU) provides that in case the applicant requests the establishment of the panel with other than standard terms of reference, the written request shall include the proposed text of special terms of reference. The standard terms of reference of panels are as follows: “To examine, in the light of the relevant provisions in (name of the covered agreement(s) cited by the parties to the dispute), the matter referred to the DSB by (name of party) in document ... and to make such findings as will assist the DSB in making the recommendations or in giving the rulings provided for in that/those agreements(s).” (GATT Secretariat, 1994)
2. Biosecurity Australia is a major operating group within the Australian Government Department of Agriculture, Fisheries and Forestry. It is responsible for import risk analyses (IRAs) and assessments of quarantine risks associated with commodity and germplasm imports, as well as technical negotiations on export market access issues. It also works with other relevant agencies to address Australia’s participation in international standard-setting organizations and WTO activities with respect to sanitary and phytosanitary measures.
3. This section draws from the Philippines’ request to establish a WTO panel (WT/DS270/5/Rev.1). Through a reading of the Philippine complaint from an outside observer’s perspective, the authors attempt to elaborate on the issues raised by the Philippines and relate them to Australia’s measures and obligations as members of the WTO.
4. Article 5.7 of the SPS Agreement reads as follows:

In cases where relevant scientific evidence is insufficient, a Member may provisionally adopt SPS measures on the basis of available pertinent information, including that from the relevant international organizations as well as SPS measures applied by other Members. In such circumstances, Members shall seek to obtain additional information necessary for a more objective assessment of risk and review the SPS measure accordingly within a reasonable period of time. (GATT Secretariat, 1994)
5. In 2002, 79.4 percent of Japan’s banana imports came from the Philippines (JETRO, 2003, 4).
6. Article 1.1 of the Agreement on Import Licensing Procedures reads as follows:

For the purpose of this Agreement, import licensing is defined as administrative procedures used for the operation of import licensing regimes requiring the submission of an application or other documentation (other than that required for customs purposes) to the relevant administrative body as prior condition for importation into the customs territory of the importing Member. (GATT Secretariat, 1994)
7. Article 3.1 of the Agreement on Import Licensing Procedures reads as follows:

Non-automatic import licensing procedures are defined as import licensing not falling within the definition contained in paragraph 1 of Article 2

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- (“Automatic import licensing is defined as import licensing where approval of the application is granted in all cases ....”). (GATT Secretariat, 1994)
8. Article 3.5(f) of the Agreement on Import Licensing Procedures reads as follows:  
The period for processing applications shall, except when not possible for reasons outside the control of the Member, not be longer than 30 days if applications are considered as and when received, i.e., on a first-come, first-served, basis, and no longer than 60 days if all applications are considered simultaneously. (GATT Secretariat, 1994)
  9. Article 3.2 of the Agreement on Import Licensing Procedures reads as follows:  
Non-automatic licensing shall not have trade-restrictive or distortive effects on imports additional to those caused by the imposition of the restriction.  
Non-automatic licensing procedures shall correspond in scope and duration to the measure they are used to implement, and shall be no more administratively burdensome than absolutely necessary to administer the measure. (GATT Secretariat, 1994)
  10. As long as there are gains from settlement, parties are expected to reach an agreement to maximize their joint gains. However, in a case with an all or nothing character (for example health and safety regulations), transfers can be limited (more so than if the case were about issues such as tariffs). Thus, there is less room to compromise (Guzman and Simmons, 2002).
  11. Guzman (2002) suggests that asymmetry in the payoffs from the panel ruling and asymmetry in the cost of delay contribute to an explanation of the complainant win rate.
  12. The authors’ estimated timeline based on actual events and timetable outlined in the Understanding on Rules and Procedures Governing the Settlement of Disputes (GATT Secretariat 1994) and the WTO dispute-settlement primer can be found at [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/disp2\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/disp2_e.htm). Guzman (2002) notes that there are significant opportunities for delay in the dispute process, and from the defendant’s perspective, delay is desirable – all else equal – because WTO rules permit the defendant to maintain the disputed practice as the case is ongoing, political leaders continue to gain political and economic rents from the activity, and there is no offsetting cost for losing defendants to pay damages for violative activities.
  13. The Advisory Center on WTO Law (ACWL) is a public international organization independent of the WTO that was established in 2001 to provide legal advice on WTO law, support in WTO dispute-settlement proceedings, and training in WTO law to developing countries and customs territories, countries with economies in transition, and least-developed countries.
  14. Kisanwatch, a public information website that monitors the impact of developments in world trade on Indian agriculture and farmers’ livelihoods, cites that international law firms dealing with WTO disputes (usually U.S.-based) charge anything from US\$250 per hour to US\$1,000 per hour in fees (Kisanwatch, 2001).
  15. Competition policy and antitrust regulations somehow address these consumer rights, but only in a domestic context.

16. See multinational affiliation of Philippine banana companies in Fagan (2004). The Philippines started exporting bananas in the late 1960s upon the establishment of plantations by the multinationals. A list of PBGEA members is available from DA-AMAS (2004).
17. The Department of Agriculture, the Department of Trade and Industry, and the Department of Foreign Affairs are the primary executive offices in charge of this WTO trade dispute in the Philippines.
18. On 1 July 2003, Dairy Australia replaced Australian Dairy Corporation (ADC) and Dairy Research and Development Corporation (DRDC), assuming their functions other than the export control functions, which returned to government.
19. Some militant farmer groups are critical of the former Secretary of Agriculture, during whose term the dispute was formally raised at the WTO. A farmer leader was quoted as saying that the “Secretary of Agriculture’s programs only benefit big landlords and agro-corporations, while farmers receive a bunch of empty promises. His fanatical implementation of agricultural trade liberalization and the rampant importation of agricultural products in accordance with World Trade Organization (WTO) policies continue to inflict havoc to farmers’ lives mainly for the benefit of U.S. agro-corporations. We cannot expect a Cabinet member who represents big agro-corporations to heed the demands of the poorest sector of the country.” (Cyberdyaryo, 2003)
20. Australia leads the Cairns Group (CG) of 17 countries, which together account for one-third of the world’s agricultural exports. Since it formed in 1986, the CG has succeeded in putting agriculture on the multilateral trade agenda and keeping it there. The Cairns Group is an excellent example of successful coalition building in the trade area. By acting collectively it has had more influence and impact on the agriculture negotiations than any of its individual members could have had independently. Members of the group are Argentina, Australia, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Guatemala, Indonesia, Malaysia, New Zealand, Paraguay, the Philippines, South Africa, Thailand, and Uruguay.
21. Alternatively, we can model the contraction in output and additional production costs for pest and disease control as a shift to the left in the Australian banana supply curve to approximate welfare changes under such a scenario where banana imports that can contaminate local produce with pests and disease are allowed.
22. In the absence of studies looking into the effect of increased demand on Philippine export prices, we assumed that a unit increase in quantity demanded will cause a unit increase in the Philippine export price for bananas. In addition to farm-level producer gains, there will also be gains from the transport of bananas, which is usually done through independent reefer carriers or by the fleet owned by the multinational banana companies (UNCTAD, 2002).

The technical annex to this paper, pages 78-83 is available as a separate document.

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