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The authors are grateful for comments received from Mark Sanctuary, our discussant, Tom Prusa, and other participants at the 2012 American Law Institute conference on WTO Case Law.

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Yet Another Nail in the Coffin of Zeroing: *United States – Anti-Dumping Administrative Reviews and Other Measures Related to Imports of Certain Orange Juice from Brazil*

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1. Introduction

Over the past decade, the United States has played a game of “cat and mouse” when it comes to the use of “zeroing” in anti-dumping proceedings. As will be described below in greater detail, zeroing is a methodology employed by governments in anti-dumping investigations in which transactions with negative dumping margins are not allowed to offset those with positive margins. As a result, when aggregating transactions, the use of zeroing causes the weighted average dumping margin to be higher than it would otherwise be without zeroing. This leads to higher anti-dumping margins, much to the chagrin of US trading partners.

Beginning with the *US-Softwood Lumber V* complaint brought forth by Canada in 2002, numerous WTO Appellate Body (AB) decisions have found the US practice of zeroing to be impermissible under WTO rules. The US has consistently interpreted each ruling against it narrowly, eliminating the practice of zeroing in the specific factual context under the legal

complaint, but keeping the practice alive in other situations where the context differed ever so slightly. This narrow compliance behavior, in turn, has sparked additional cases, all of which have ruled against the use of zeroing. This incrementalist approach toward outlawing zeroing by the AB has resulted in large resource costs, for the litigants as well as the WTO as an institution (Bown and Sykes 2008). Nevertheless, because of the importance of the US as an export market and the prevalence of zeroing in US anti-dumping investigations, many trading partners have willingly expended litigation resources in an attempt to stop this US practice.

US – Orange Juice (Brazil) is yet another one in this extensive line of cases. At the time the Panel issued its report, *twenty* zeroing disputes had already come before WTO Panels.¹ All but two of these disputes have involved the US as the defendant (with the EU being the defendant in the remaining two cases). While the EU discontinued the practice of zeroing after losing its cases, the US boldly marched on with its strategy of narrow compliance, changing its use of zeroing in anti-dumping proceedings only to the extent possible to bring its measure into compliance with the WTO ruling.

However, there is hope that *US – Orange Juice (Brazil)* may indeed be among the last of this long line of WTO litigation involving the US as a defendant on zeroing. On February 6, 2012, US Trade Representative Ron Kirk announced that the US had reached agreements with the EU and Japan to end longstanding WTO disputes (*US-Zeroing (EC)* DS294, *US-Zeroing (Japan)* DS322, and *US-Continued Zeroing* DS350) over zeroing.² Under these recently concluded agreements with the EU and Japan, the US Department of Commerce (DOC) finally completed the process – which began in December 2010 – of ending the use of zeroing in most anti-dumping proceedings.³ Since the AB has repeatedly found that the use of zeroing by the US to be inconsistent with WTO rules, had the US not agreed to end the practice of zeroing, it would have been hit with retaliatory trade measures by the EU and Japan that would have potentially

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¹ For a review of the WTO cases on zeroing and its impact, see Bown & Prusa (2011). Note that besides the 18 cases listed on Table 14 of Bown & Prusa (2011), two other cases had also come before a WTO panel before the issuance of the panel report: *US-Corrosion-Resistant Carbon Steel Flat Products (Korea)* DS420 and *US-Shrimp and Diamond Sawblades From China* (DS422). A twenty-first zeroing dispute was filed after this panel report was issued, *US-Frozen Warmwater Shrimp (Vietnam)* DS429.

² Press Release, Office of the U.S. Trade Representative, United States Trade Representative Ron Kirk Announces Solutions to Years-Old Zeroing Disputes, Demonstrating Commitment to Export Growth and Job Creation (Feb. 6, 2012).

³ Note that in Section 6, we discuss the possibility that the DOC may still have left itself the leeway to use this practice in one particular form of anti-dumping case, that in which there is “targeted” dumping by a producer in a given region or over a particular time period.

resulted in hundreds of millions of dollars of lost exports. The threat of retaliatory sanctions appears to have put the contentious issue of zeroing mostly to bed, at least for now.⁴

With the EU having already discontinued the practice of zeroing and the US now having committed to do so in most contexts, hopefully, this controversial practice has been consigned to the realm of being only a historical interest. It is hard to imagine other nations, particularly smaller ones, choosing to adopt zeroing, given that two giants of the trading system (the US and EU) have failed to defend its use at the WTO. In our view, the US decision to abandon zeroing in almost all of its anti-dumping proceedings is welcome news. Ridding the WTO system of zeroing removes an onerous burden from the shoulders of the dispute settlement system. The litigation resource cost of zeroing has been tremendous on an already-taxed dispute settlement system; zeroing has accounted for almost 20% of AB reports (Bown and Prusa, 2011).

Given the stream of commentary about past zeroing cases, both in past studies in this series and elsewhere, what insights then are there to add from the *US-Orange Juice* decision, potentially one of zeroing's last gasps? We offer three points: First, while the Panel in *US-Orange Juice* certainly recognized that zeroing is prohibited in several forms of anti-dumping reviews, it cast doubt as to whether the AB may have overreached in its earlier *US-Zeroing (Japan)* decision when finding zeroing to be a violation of the "fair comparison" requirement of Article 2.4 of the WTO Anti-Dumping Agreement (ADA). Rather than challenging the AB directly however, this decision highlights how Panels, at least on longstanding issues such as zeroing where the AB has made its views clear, feel increasingly constrained by the shadow of past AB rulings. Even if Panels are not formally bound by AB rulings, a *de facto* form of vertical *stare decisis* has taken hold in certain areas where panelists are concerned about the systemic costs to the WTO dispute settlement regime of repeatedly challenging the AB's prior rulings, only then to be overturned.

Second, while the economics of zeroing are transparent and largely well understood, we note that the costs of zeroing differ depending on the context in which the practice is applied. When zeroing eliminates high price observations with larger export volumes, the damage that results is larger than the case where zeroing eliminates high price observations with lower export volume. In other words, zeroing poses a greater potential problem in situations where the price increase of the exporter's good (which necessitates the importer's use of zeroing) is driven by changes in consumer demand than changes in the cost of exporting.

⁴ As Prusa and Rubini's chapter (forthcoming) in this volume discusses, a number of zeroing disputes against the United States remain because the USDOC's new rules on margin calculations only applied prospectively. Thus, several countries have brought disputes concerning zeroed margins in pre-existing cases in order to obtain an adverse finding to force USDOC to calculate non-zeroed margins for the products.

Finally, while we express cautious optimism that the WTO dispute settlement may be seeing its last set of its zeroing challenges,⁵ we note that the door remains open for a potential re-emergence of zeroing in a limited context.⁶ Nevertheless, despite this opening, it appears that momentous litigation battles over zeroing are winding down, with future battles to be fought hopefully in negotiating rooms rather than courtrooms.

2. Background Summary of the Dispute

2.1 Past WTO Challenges on Zeroing

To understand the impact of zeroing, one needs to first understand what occurs during the investigation of an anti-dumping case. After a complaint has been filed alleging dumping by a foreign producer, the investigating authority compares the prices of export transactions with the “normal” value of the product. If the former is lower than the latter, then the foreign producer is found to have “dumped” its product. How this “normal” value is computed varies depending on the circumstances, but the ADA allows for it to be determined in various ways, depending upon the circumstances. These include with reference to home country prices, third-country prices, and/or a constructed price approach.

Prices will fluctuate with time based on a number of factors, including, but not limited to, input price fluctuations, foreign exchange fluctuations, changes in market demand conditions, etc. In comparing the price of export transactions with the normal value over a period of time, the investigating authority will encounter fluctuations in the export price over the investigation period. Disputes over zeroing arise from what happens in those instances when the investigating authority finds that the export price is actually higher than the normal value. It can treat such instances as “negative dumping” meaning that it can use these instances to offset other instances of “positive” finding (i.e., when the export price is lower than the “normal value”). Or it can simply set the value to zero for that instance. This latter practice is what is known as “zeroing.” Its significance is that its use can dramatically alter the results of an anti-dumping investigation and the calculation of anti-dumping margins to be levied.

Why is this? When investigating an allegation of dumping, investigating authorities must consider a series of export price observations over a period of time. The WTO Committee on Anti-dumping Practices has adopted a recommendation that “the period of data collection for

⁵ Given the U.S. strategy of only calculating non-zeroed margins in a pre-existing case following an adverse WTO finding for that particular case, there may still be several zeroing challenges ahead. Nevertheless, these disputes will be fairly easy to resolve, as evidenced by the quick Panel decisions rendered in *US-PET Bags (Thailand)* DS383 and *US-Zeroing (Korea)* DS402.

⁶ See *supra* note 3 and *infra* Section 6.

dumping investigations normally shall be twelve months, and in any case, no less than six months, ending as close to the date of initiation as is practicable”.⁷ Investigating authorities are free to deviate from this investigation, but it is clear that they must consider more than a single observation. Because their dumping determination is based on a series of observations in which prices fluctuate, how these particular observations are treated matters when determining the average of these interactions.

Consider then an example series where some observations are ones where the export price is higher than the normal value, but most are instances where they are lower.⁸ The former is what is to be expected, whereas the latter constitutes “dumping” under WTO law. Normally, in determining the average of these observations, the instances of “negative dumping” would be used to offset those instances of positive dumping. However, where zeroing is deployed, that is not the case. With zeroing, provided there are instances of positive dumping in the series, the investigation will inevitably result in a positive finding of dumping. Moreover, zeroing leads to a higher anti-dumping margin. This is again due to the fact that incidences of “negative dumping” are set back to zero, so as to minimize their ability to serve as an offset to incidences of positive dumping. As a result, the practice of zeroing has been highly controversial and attacked in several prior cases.

To complicate the picture further, investigating authorities have taken different approaches when comparing the price of export transactions with normal value to determine the dumping margin and to calculate anti-dumping duties. Article 2.4.2 of the ADA recognizes three possibilities. The first is to compare “the weighted average normal value with a weighted average of all comparable export transactions.” The second is to compare “normal value and export prices on a transaction-to-transaction basis.” The former is known as the “weighted average to weighted average” (W-W) approach, whereas the latter is known as the “transaction to transaction” (T-T) approach. Either of the two approaches is fine under the ADA. A third approach, however, may only be used in the limited circumstance where “authorities find a pattern of export prices which differ significantly among different purchasers, regions or time periods, and if an explanation is provided as to why such differences cannot be taken into account by the use of a weighted average-to-weighted average or transaction-to-transaction approach.” Under this condition, investigating authorities are allowed to compare a “normal value established on a weighted average basis” to “prices of individual export transactions.” This third possibility, available only under limited circumstances, is known as a “weighted average to transaction” (W-T) approach.

⁷ Committee on Anti-Dumping Practices, *Recommendation Concerning the Periods of Data Collection for Anti-Dumping Investigations*, adopted 5 May 2000, G/ADP/6, at para. 1(a).

⁸ Those who prefer to see an example with numbers may wish to skip ahead and read Example 1 in *infra* Section 4.

Prior to the entry into force of the ADA on January 1, 1995, the United States and other major users of anti-dumping generally calculated anti-dumping margins using the W-T approach.⁹ However, as noted, the ADA constrained WTO members from using the W-T approach except under exceptional circumstances. In response, the US DOC adopted a new approach, known as “model” zeroing. Under model zeroing, the product alleged to have been dumped is sub-divided into a series of models. For example, a product may be sub-divided into models on the basis of differences in physical characteristics, consumer preferences, and/or end use. A “weighted average-to-weighted average” comparison is then conducted for each model rather than for the product as a whole. This model-specific W-W approach has come to be known as “model” zeroing. In contrast, where the analysis is not performed on a model-to-model basis, the approach has been described as “simple” zeroing. By nature, the T-T approach falls under the “simple” zeroing category. So too does the W-T approach even where the weighted average normal value used is one for a model of the product; this is because the export price to which it is being compared is not model-specific.

Thus, the method of comparison which results in the use of zeroing may differ. A complaint brought before the WTO may be attacking one or more of these three different comparison approaches used in determining the dumping margin.

Another area of potential difference in the fact pattern of a WTO zeroing case is the type of investigation in which zeroing is used. So far, we have spoken of an anti-dumping investigation in general terms. However, anti-dumping investigations occur under various different contexts. Specifically, zeroing has been used in five different types of anti-dumping investigations. (1) The first type is the original investigation, *i.e.*, the investigation conducted after the initial petition for anti-dumping remedies is filed. (2) A second type is an interim review or changed circumstance review. Article 11.2 of the ADA stipulates that this must occur “upon request by any interested party which submits positive information substantiating the need for a review” so long as “a reasonable period of time has elapsed since the imposition of the definitive anti-dumping duty.” (3) A third type is an administrative review. Under Article 9.3 of the ADA, an investigating authority is permitted, but not required, to determine the amount of the anti-dumping duty assessed on a foreign producer on a retrospective basis. In other words, the duty determined at the end of the original investigation is considered to be only an estimate, but the actual duty levied is determined at a later date retroactively. The administrative review is the process through which the actual duty, calculated retroactively, is determined. Because the US uses this approach, several of the WTO zeroing cases against the US, including this one, have targeted the practice of zeroing in administrative reviews. (4) A fourth type is a sunset review. Article 11.3 of the ADA stipulates that anti-dumping duties be terminated after five years,

⁹ See Prusa & Vermulst (2009) at 222.

unless a sunset review initiated before then finds “that the expiry of the duty would be likely to lead to continuation or recurrence of dumping and injury.” (5) A final type is a new shipper review. These are reviews, as authorized by Article 9.5 of the ADA, for the purposes of determining individual dumping margins for new exporters that did not export during the period of investigation but are from a country against which anti-dumping duties have been applied.

This complicated web of possibilities has meant that the fact patterns of the past WTO zeroing cases will often vary, with the type of comparison methodology and the type of investigation serving as key areas of difference. Unlike the European Union, which eliminated the use of zeroing altogether after losing the *EC-Bed Linens* case, the US has chosen to comply with WTO rulings narrowly by eliminating the use of zeroing for the particular factual circumstance in which it was challenged and lost. If a trading partner then sought to eliminate the US practice of zeroing in a different fact context, it was forced to bring another case. This has resulted in a series of prior rulings by the Appellate Body on US zeroing practices which form the backdrop for this dispute. What follows below is a quick review of these cases. In particular, pay attention specifically to the type of zeroing methodology and the type of investigation at issue in each of the cases in which the AB has ruled against the US.

First, in *US-Softwood Lumber V*, the AB invalidated the use of model zeroing under the W-W methodology in original investigations by the US DOC.¹⁰ The US then proceeded to deploy simple zeroing under the T-T methodology instead, arguing that it was complying with the ruling by eliminating the offending W-W model zeroing measure. This argument was then challenged in compliance proceedings under Article 21.5 of the DSU.¹¹ Again, the US lost. Eventually, this led the US to eliminate the use of zeroing in original investigations.

However, recall that original investigations are but one of the five different types of anti-dumping investigations in which zeroing may be used. The US has continued to retain the practice of zeroing in these other contexts, including administrative reviews under Article 9.3 of the ADA as well as new shipper reviews under Article 9.5 of the ADA. The former is especially important because the US, as noted above, assesses anti-dumping duties retrospectively, as allowed under Article 9.3.1. The original investigation establishes only a deposit rate that the importer must pay, but the actual duty is determined in these subsequent administrative reviews. Thus, what truly matters for most foreign producers is whether the US employs zeroing in the administrative reviews.

¹⁰ Appellate Body Report, *United States – Final Dumping Determination on Softwood Lumber from Canada*, WT/DS264/AB/R, 11 Aug. 2004. [*US-Softwood Lumber V*]

¹¹ Appellate Body Report, *US-Softwood Lumber V (Article 21.5)*, WT/DS264/AB/RW, 15 Aug. 2006.

US practices in Article 9.3.1 administrative reviews have been challenged in two separate cases, *US-Zeroing (EC)* and *US-Zeroing (Japan)*. In *US-Zeroing (EC)*, the AB addressed the use of W-T simple zeroing in administrative reviews, both as applied and as such. It found that the use of the W-T zeroing as applied by the US in 16 administrative reviews was inconsistent with Article 9.3 of the ADA and GATT Article VI:2.¹² The AB also declared moot the Panel's earlier ruling that the W-T simple zeroing methodology as such in administrative reviews did not violate provisions of the GATT and the ADA.¹³ In *US-Zeroing (Japan)*, the AB again affirmed that the W-T simple zeroing is not allowed in administrative reviews. It held that the use of W-T simple zeroing as applied in 11 administrative reviews was inconsistent with several provisions of the ADA (Articles 2.1, 2.4, 9.1, and 9.3) as well as GATT Articles VI:1 and VI:2.¹⁴

Despite the two AB rulings against it, the US continued to engage in zeroing in administrative reviews. While proceedings challenging US non-compliance progressed, the Europeans filed a follow-up case, *US-Continued Zeroing (EC)*. Again, the Europeans challenged the US practice of using W-T simple zeroing in administrative reviews, along with several other issues. The AB's ruling was circulated in February 2009, after Brazil had already filed its complaint in this case. Just as before, the AB ruled against the US. In 34 of the 37 administrative reviews challenged by the EC, the AB found the use of W-T simple zeroing methodology violated Article 9.3 of the ADA and GATT Article VI:2.¹⁵ In two instances, the AB chose not to complete the analysis, and in the other instance, the AB held that the challenge of a preliminary measure was premature.¹⁶

In addition to opining on the use of W-T simple zeroing in Article 9.3.1 administrative reviews, the AB has used these cases to rule on zeroing in a number of other factual contexts. In *US-Zeroing (Japan)*, Japan also had challenged the US DOC's use of W-T simple zeroing in new shipper reviews; the AB held this practice to be illegal.¹⁷ Japan also had challenged US practices in two sunset reviews in which the US had relied upon administrative reviews that had used the W-T simple zeroing methodology. The AB found that such practice violated Article 11.3 of the ADA.¹⁸ In *US-Continued Zeroing (EC)*, the EU also had challenged the US DOC's use of W-W

¹² Appellate Body Report, *United States – Laws, Regulations and Methodology for Calculating Dumping Margins (Zeroing)*, WT/DS294/AB/R, 18 April 2006 at para. 135. [*US-Zeroing (EC)*]

¹³ *Ibid.*, para. 227 (declaring moot the Panel's finding regarding Articles 1, 2.4, 2.4.2, 9.3, 11.1, 11.2, and 18.4 of the ADA and GATT Articles VI:1 and VI:2).

¹⁴ Appellate Body Report, *United States – Measures Relating to Zeroing and Sunset Reviews*, WT/DS322/AB/R, 9 Jan. 2007 at para. 176. [*US-Zeroing (Japan)*]

¹⁵ Appellate Body Report, *United States – Continued Existence and Application of Zeroing Methodology*, WT/DS350/AB/R, 4 Feb. 2009 at paras. 316 & 353. [*US-Continued Zeroing*]

¹⁶ *Ibid.*, paras. 207-12 & 354-57.

¹⁷ Appellate Body Report, *US-Zeroing (Japan)* at paras. 166 & 169 (finding violations of Arts. 2.4, 9.3, and 9.5 of the ADA and Art. VI:2 of the GATT).

¹⁸ *Ibid.*, para. 186.

model zeroing in sunset reviews. The AB found the US at fault in 8 of 11 sunset reviews in which the US had employed the W-W model zeroing methodology.¹⁹ In the remaining three instances, the AB again found the challenge of a preliminary measure to be premature.²⁰

With the AB consistently ruling against the US on zeroing, why is the beast not yet dead? How is it that we get to yet another zeroing dispute? The main reason is US delay in complying with the AB's rulings. At the time of Brazil's complaint, the US had not yet signaled its intention to comply with the WTO rulings against its zeroing practices. This intransigence led the EU and Japan to press ahead with compliance proceedings under Article 21.5 of the DSU for *US-Zeroing (EC)* and *US-Zeroing (Japan)*; each proceeding was then subsequently appealed to the AB.²¹ After winning the compliance proceedings, the EU and Japan sought DSU authorization for retaliation.²² It was not until February 2012, when the European and Japanese retaliation threats became real, that the US finally backed down. By then, Brazil had already pressed ahead with its own case.

A second reason is the US practice of reading the AB's holding to apply narrowly to only the particular anti-dumping measures being challenged in the case. This meant that even were the US to eliminate the use of W-T simple zeroing with respect to the particular anti-dumping measures challenged by the EU and Japan, its other trading partners lacked confidence that the US would do so in administrative reviews concerning their products. To be certain that the US DOC would stop using W-T simple zeroing in administrative reviews for a particular Brazilian product, Brazil needed to file its own case. In a way, the US, through its strategy of narrowly interpreting AB rulings on zeroing, was testing its trading partners to see if the cost of zeroing were large enough that it would be willing to burn through costly litigation resources. The Brazilian government, having already tasted the political and economic gains of earlier WTO victories against the US, decided that it was worth forging ahead. Under this context, yet another zeroing dispute arose.

2.2 The Global Orange Juice Industry

This particular zeroing case concerns orange juice. The orange juice market is dominated by producers from two countries – Brazil and the United States. Together, they account for the lion's share of global production. The trade orientation of the industries in the two countries is

¹⁹ Appellate Body Report, *US-Continued Zeroing* at paras. 382-83.

²⁰ *Ibid.*, paras. 207-12.

²¹ Appellate Body Report, *US-Zeroing (EC) (Article 21.5)*, WT/DS294/AB/RW, 14 May 2009; Appellate Body Report, *US-Zeroing (Japan) (Article 21.5)*, WT/DS322/AB/RW, 18 Aug. 2009.

²² Request for Recourse to Article 22.2 of the DSU by the European Union, *US-Zeroing (EC) (Article 22.6)*, WT/DS294/35, 2 Feb. 2010; Communication from Japan, *US-Zeroing (Japan) (Article 22.6)*, WT/DS322/37, 5 May 2010.

very different. Domestic demand for pre-squeezed orange juice is small in Brazil.²³ As a result, most of the orange juice produced in Brazil is for export. Brazil supplies over 80% percent of the global orange juice exports (USDA 2007), and Brazilian firms have invested substantial sums in building a fleet of tankers used solely to transport frozen orange juice (Sterns and Spreen 2010, 170). In contrast, the US is the world's largest consumer of orange juice. Most of the orange juice produced by US firms is for the domestic market, where its major competitors are the Brazilian producers.

The orange juice industry in Brazil is highly concentrated. In crop-year 2004-05, four firms (Coinbra, Cutrale, Citrusuco, and Montecitrus) accounted for approximately 85% of the total production of Brazilian orange juice. (USITC, 2006, VII-6) As part of the anti-dumping investigation challenged in this dispute, the US DOC investigated the export practices of three of these firms – Cutrale, Fischer (which owns Citrusuco) and Montecitrus – and applied zeroing when calculating the firm's dumping margins. Ironically, while high concentration levels typically raise concerns about monopoly pricing – which tend to be high – the position of the US DOC and the US International Trade Commission (ITC) was that the prices charged by Brazilian firms were *so low* that they caused material injury to the domestic orange juice industry.²⁴

Because the US is the world's largest consumer of orange juice, it is an important export market for Brazilian orange juice. The vast bulk of shipments by Brazilian producers to the US are of frozen orange juice, rather than not-frozen orange juice. Several of the major Brazilian producers have wholly-owned or related processing affiliates in the US. However, the importance of the US market should not be overstated. In 2003, the year prior to the filing of the anti-dumping petition by the American citrus producers and processors, exports to the US represented only 20 percent of total Brazilian exports of frozen orange juice.²⁵ By contrast, exports to the largest and most important export market, the EU, represented over 52 percent of total Brazilian exports of frozen orange-juice.²⁶

In the not-frozen orange juice segment (which represented 18 percent of total Brazilian orange juice exports in 2003), the US market was even less important. In 2003, exports of non-frozen orange juice to the US represented a mere 1 percent of total Brazilian exports.²⁷ In

²³ Brazilians prefer to drink orange juice that is freshly squeezed rather than pre-squeezed. They will squeeze oranges themselves at home or purchase from retailers juice that is freshly squeezed before them. (USITC, 2006, VII-4 n. 12). Thus, there is little demand for pre-squeezed or frozen orange juice in Brazil.

²⁴ Note that in 2011, long after the ITC determination was made and following the WTO case's conclusion, the Brazilian orange juice industry further consolidated; a merger between Citrusuco and Citrovida has resulted in the creation of the world's largest orange juice producer. See White and Kassai (2011) and "Brazil Will Allow..." (2011).

²⁵ Calculations by authors based on information provided in the UN Comtrade database for HS-200911.

²⁶ Ibid.

²⁷ Calculations by authors based on information provided in the UN Comtrade database for HS-200919.

contrast, 99 percent of non-frozen exports were destined for the EU.²⁸ The Brazilian share of the domestic US market in the not-from-concentrate orange juice market was tiny – rising from a mere 1 percent in crop-year 2001-02 to 3.3 percent in 2004-05.²⁹ Even when added with the frozen orange juice segment, Brazilian share of the US market was barely over 15% in 2004-05.³⁰

Thus, while low-tariff access to the US market affected the business interests of Brazilian orange juice producers, the zeroing case did not represent a “make-or-break case” for the Brazilian orange juice industry. Instead, Brazil’s motivation to bring forward this challenge was likely driven by the desire to strike another blow against the US for zeroing, and in doing so, reap the domestic political gain of another WTO victory against the US. In addition, large U.S. beverage manufacturers (*e.g.*, Coca-Cola and PepsiCo) are important buyers of Brazilian orange juice worldwide and presumably would want the benefit of lower duties for its US imports.³¹ One can further speculate whether Brazil may have also been motivated to bring the case in order to cultivate favor with American multinational corporations that operate downstream on the supply chain.

2.3 Factual Aspects of the Case

The specific zeroing practices challenged in this dispute arose out of a 2004 petition filed by a collection of US citrus producers and processors. That petition alleged that Brazilian producers of certain orange juice were dumping their product in the US and materially injuring domestic producers. Upon receiving this petition, the US DOC began an investigation in February 2005, resulting in case number A-351-840. On August 24, 2005, the DOC issued a preliminary determination of dumping which levied anti-dumping duties between 24.62 - 60.29 percent on Brazilian producers.³² This was followed by a final determination on January 13, 2006 that revised the final anti-dumping duties downward to between 9.73 – 60.29 percent.³³

Because the US employs a retrospective approach to assessing anti-dumping duties, the US collects only a “security” in the form of a cash deposit at the time of entry. This cash deposit rate (CDR) represents an estimate of the importer’s final anti-dumping duty payment.³⁴ Once a

²⁸ Ibid.

²⁹ See Table IV-5 in USITC (2006).

³⁰ Ibid.

³¹ For example, Tropicana (owned by PepsiCo) and Minute Maid and Simply Orange (owned by Coca-Cola Co.) are sold not only in the US but also throughout Europe and Asia. See Kiernan and McKay (2012).

³² Notice of Preliminary Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Affirmative Preliminary Critical Circumstances Determination: Certain Orange Juice from Brazil, 70 Fed. Reg. 49557 (Aug. 24, 2005).

³³ Notice of Final Determination of Sales at Less Than Fair Value and Affirmative Final Determination of Critical Circumstances: Certain Orange Juice from Brazil, 71 Fed. Reg. 2183 (Jan. 13, 2006).

³⁴ Panel Report, para. 7.83.

year, interested parties are allowed to request an administrative review to determine the final payment due for the relevant period of review. This payment is known as the importer-specific assessment rate (ISAR). The administrative review is also conducted by the US DOC, pursuant to Article 9.3.1 of the ADA. If no such review is requested, then the final anti-dumping duty assessed is the estimated rate, and the cash deposit collected as security are used to pay the duty owed.³⁵

Brazilian orange juice producers requested such an administrative review. The First Administrative Review was completed on August 11, 2008.³⁶ During this review, the US DOC employed W-T simple zeroing in calculating the dumping margins, CDRs, and ISARs. On November 27, 2008, Brazil requested consultations with the US at the WTO.³⁷ Brazil specifically challenged the DOC's use of W-T simple zeroing in calculations for two of the major Brazilian exporters, Cutrale and Fischer.

While the WTO consultations proceeded, Brazilian orange juice producers requested a second administrative review the following year. On May 22, 2009, before the Second Administrative Review was completed, Brazil requested further consultations with the United States with regard to the use of zeroing in the original anti-dumping duty investigation as well as in the Second Administrative Review.³⁸ Brazil also requested consultations regarding the continued use of the United States zeroing procedures in successive anti-dumping proceedings pertaining to the imports of certain orange juice from Brazil. The Second Administrative Review was completed on August 11, 2009.³⁹

The W-T simple zeroing methodology deployed by the DOC and challenged by Brazil operated as follows⁴⁰: Recall that in determining whether dumping is occurring and calculating the dumping margin for a given exporter, the investigating authority needs to compare the export price with normal value. The DOC used a computer program to sort through the data necessary to make this comparison. This program computed a weighted-average normal value (WANV) each month for each exporter. The program then performed a series of W-T comparisons for each exporter. In other words, it compared the export price of a specific transaction for a given exporter to the WANV corresponding to that exporter for the month in

³⁵ Ibid.

³⁶ Certain Orange Juice from Brazil: Final Results and Partial Rescission of Anti-dumping Duty Administrative Review, 73 Fed. Reg. 46584 (Aug. 11, 2008).

³⁷ Request for Consultations by Brazil, *United States–Anti-dumping Administrative Reviews and Other Measures Related to Imports of Certain Orange Juice from Brazil*, WT/DS382/1, 1 Dec. 2008.

³⁸ Request for Consultations by Brazil - Addendum, *United States–Anti-dumping Administrative Reviews and Other Measures Related to Imports of Certain Orange Juice from Brazil*, WT/DS382/1/Add.1, 27 May 2009.

³⁹ Certain Orange Juice from Brazil: Final Results of Anti-dumping Duty Administrative Review, 74 Fed. Reg. 40167 (Aug. 11, 2009).

⁴⁰ Panel Report, para. 7.85.

which the transaction occurred. For every instance in which the normal value was higher than the export price, the computer program was instructed to set the result of this comparison to zero. The results were then aggregated and then divided by the total number of export transactions to figure out the weighted-average dumping margin. Because of the zeroing, the dumping margin was higher than it would have been otherwise.

Brazil's complaint charged that the US DOC's use of W-T simple zeroing in the two administrative reviews violated several WTO treaty provisions, namely Articles 2.4 and 9.3 of the ADA and Article VI:2 of the GATT 1994. Furthermore, Brazil alleged that the US DOC's continued use of W-T simple zeroing in successive anti-dumping proceedings, including the original investigation and subsequent administrative reviews, violated the same WTO provisions as well as Article 2.4.2 of the ADA.

As expected, the ensuing consultations failed to resolve the dispute. The US, as previously mentioned, gave no indication in 2009 of any intention to abandon its practice of zeroing in administrative reviews, despite the AB's rulings against it in *US-Zeroing (EC)* and *US-Zeroing (Japan)*. Therefore, on August 20, 2009, Brazil formally requested that the Dispute Settlement Body (DSB) establish a Panel with regard to the original investigation of the aforementioned dumping case, its two administrative reviews, as well as the continued use of zeroing by the US in anti-dumping proceedings. The Panel was established on September 25, 2009. After conducting its hearings, the Panel issued its report on March 25, 2011.

The Panel, not surprisingly, ruled in favor of Brazil. It held that with respect to the two administrative reviews at issue, the use of W-T simple zeroing by the US violated Article 2.4 of the ADA because it did not allow for a "fair comparison" between export price and normal value.⁴¹ The Panel further held that the continued use of zeroing under the Orange Juice Order also violated Article 2.4 of the ADA.⁴² With respect to Brazil's other claims concerning Articles 2.4.2 and 9.3 of the ADA and GATT Article VI:2, the Panel exercised judicial economy and chose not to examine the claims.⁴³

3. The Shadow of Past Appellate Body Rulings

Was the Panel's ruling that the US practice of zeroing violated Article 2.4 of the ADA correct? The provision states:

⁴¹ Panel Report, paras. 7.155-7.161.

⁴² *Ibid.*, para. 7.193.

⁴³ *Ibid.*, para. 7.194.

A fair comparison shall be made between the export price and normal value. This comparison shall be made at the same level of trade, normally at the ex-factory level, and in respect of sales made at as nearly as possible the same time. Due allowance shall be made in each case, on its merits, for differences which affect price comparability, including differences in conditions and terms of sale, taxation, levels of trade, quantities, physical characteristics, and any other differences which are also demonstrated to affect price comparability.

The key question, as far as Article 2.4 of the ADA is concerned, is whether the practice of W-T simple zeroing allows for a fair comparison to be made.

As the Panel noted, this was the fifth case in which the question of the US DOC's use of W-T simple zeroing in administrative reviews has arisen.⁴⁴ Questions over the legality of W-T simple zeroing in periodic administrative reviews have also surfaced in *US-Zeroing (EC)*, *US-Zeroing (Japan)*, *US-Stainless Steel (Mexico)*, and *US-Continued Zeroing*. In all four of these cases, the complainant had alleged that W-T simple zeroing violated Article 2.4 of the ADA. The central legal question, therefore, was anything but novel.

In several of these earlier decisions, the Panel and the Appellate Body (AB) have disagreed in their views on the consistency of W-T simple zeroing with respect to several provisions of the ADA and GATT. We summarize the results of these disagreements below:

Past Rulings on the Consistency of Simple Zeroing in US Administrative Reviews (i.e., Article 9.3.1 Reviews)

	Panel Ruling	Appellate Body Ruling
<i>US-Zeroing (EC)</i> [DS294] (as applied in 16 reviews)	Found that simple zeroing in administrative reviews is not inconsistent with Articles VI:2 of the GATT 1994 and Articles 2.4, 9.3, 11.1 and 11.2 of the ADA	Reversed the Panel's finding with respect to Articles VI:2 of the GATT 1994 and Article 9.3 of the ADA, finding instead a violation. Upheld the Panel's finding concerning Articles 11.1 and 11.2 of the ADA, as well as the third to fifth sentences of Article 2.4 of the ADA. Declined to rule on the consistency of simple zeroing with the first sentence of Article 2.4 of the ADA.
<i>US-Zeroing (Japan)</i>	Found that simple zeroing in	Reversed the Panel's findings

⁴⁴ Panel Report, para. 7.130.

[DS322] (as such & as applied in 11 reviews)	administrative reviews is not inconsistent with Articles VI:1 and VI:2 of the GATT 1994 and Articles 2.1, 2.4, and 9.1-9.3 of the ADA both as such & as applied in 11 periodic reviews.	on both the as such and as applied claims. Found instead that simple zeroing is inconsistent with Article VI:2 of the GATT 1994 and Articles 2.4 and 9.3 of the ADA for both the as such and as applied claims. Declined to complete the analysis on claims regarding Article VI:1 of the GATT 1994 and Articles 2.1, 9.1, and 9.2 of the ADA.
<i>US-Stainless Steel (Mexico)</i> [DS344] (as such claim & as applied in 5 reviews)	Found that simple zeroing in administrative reviews is not inconsistent with Articles VI:1 and VI:2 of the GATT 1994 and Articles 2.1, 2.4, and 9.3 of the ADA both as such & as applied in 5 periodic reviews.	Reversed the Panel's finding on both the as such and as applied claims. Found instead that simple zeroing is inconsistent with Article VI:2 of the GATT 1994 and Article 9.3 of the ADA for both the as such and as applied claims. Found it unnecessary to rule on the claim concerning Article 2.4 of the ADA.
<i>US-Continued Zeroing</i> [DS350] (as applied in 29 reviews)	Ruled that simple zeroing in administrative reviews violated Article VI:2 of the GATT 1994 and Article 9.3 of the ADA. Applied judicial economy with respect to other claims, including Article 2.4 of the ADA.	Upheld Panel ruling on Article VI:2 of the GATT 1994 and Article 9.3 of the ADA. Declined to make additional findings on Article 2.4 of the ADA.

Brazil, like past complainants of the US practice of zeroing in administrative reviews, raised claims that the US practice violated Articles 2.4 and 9.3 of the ADA as well as Article VI:2 of the GATT 1994. A scan of the past rulings shows that in each of the four prior decisions, the AB has confirmed that W-T simple zeroing in administrative reviews is inconsistent with Articles 9.3 of the ADA and Article VI:2 of the GATT 1994. On the other hand, in three of the past four cases, the AB has declined to comment fully on the consistency of simple zeroing in periodic administrative reviews with Article 2.4 of the ADA. The AB has refused to endorse the view of several Panels that W-T simple zeroing is not inconsistent with Article 2.4 of the ADA, overturning such a Panel ruling on three occasions. But more frequently than not, the AB has

declined to complete the analysis so as to be able to explain why zeroing in administrative reviews is inconsistent with Article 2.4.

Only in *US-Zeroing (Japan)* did the AB address this issue, albeit briefly. The AB stated, “If anti-dumping duties are assessed on the basis of a methodology involving comparisons between the export price and the normal value in a manner which results in anti-dumping duties being collected from importers in excess of the amount of the margin of dumping of the exporter or foreign producer, then this methodology cannot be viewed as involving a ‘fair comparison’ within the meaning of the first sentence of Article 2.4.”⁴⁵ The AB then implied that the use of W-T simple zeroing methodology would result in a duty being charged that was higher than the amount of the margin of dumping because simple zeroing did not allow sales where the export price was higher than normal value to be properly taken into account.⁴⁶ Thus, it was “unfair” and in violation of Article 2.4 of the ADA.

If there is one area where *US-Orange Juice (Brazil)* advances the discussion of the zeroing jurisprudence further, it is with respect to the issue of why exactly W-T simple zeroing is inconsistent with Article 2.4’s requirement that a “fair comparison” be undertaken. Recognizing that past cases had already discussed Article 9.3 of the ADA and Article VI:2 of the GATT 1994 extensively, the Panel chose to pass on those claims, noting judicial economy. Instead, it focused its energy on discussing whether W-T simple zeroing was consistent with Article 2.4 of the ADA.

Yet, even on this question, the Panel did not consider itself entirely free to make up its own mind. Despite the limited discussion in the AB opinion in *US-Zeroing (Japan)*, the AB had clearly answered the question. Use of W-T simple zeroing in administrative reviews for the sake of retrospective duty assessment under Article 9.3.1 of the ADA was not permissible. This was true for both as such and as applied claims. The Panel therefore recognized,

Although adopted panel and Appellate Body reports do not bind WTO Members beyond parties to a particular dispute, the Appellate Body has expressed the view that ensuring ‘security and predictability’ in the dispute settlement system, as contemplated in Article 3.2 of the DSU, implies that, absent cogent reasons, an adjudicatory body will resolve the same legal question in the same way in a subsequent case. Indeed, the Appellate Body has held that ‘following the Appellate Body’s conclusions in earlier disputes is not only appropriate, but is what would be expected from panels, especially where the issues are the same’.

. . . Institutionally, the fact that all Appellate Body reports overturning panel

⁴⁵ Appellate Body Report, *US-Zeroing (Japan)*, para. 168.

⁴⁶ *Ibid.*, paras. 154-55 (cited in para. 168 as a cross-reference explanation for the AB’s rationale for its ruling on the claim concerning Article 2.4 of the ADA).

findings on the question of ‘zeroing’ have been adopted by the DSB implies acceptance by all WTO Members of their contents, and bestows upon them systemic legitimacy.⁴⁷

The Panel, rightly in our opinion, recognized that although it was not bound by *US-Zeroing (Japan)*, the AB’s prior proclamation on the very question did serve as a source of legitimate consideration (and constraint) on its deliberations. The excerpt above quoted by the Panel notes the AB’s expectation, as stated in *US-Oil Country Tubular Goods Sunset Reviews* and repeated in subsequent cases, that where the legal issues is identical, Panels are expected to follow the AB’s prior conclusions.⁴⁸ Thus, while the Panel could choose to deviate from the AB’s past ruling that W-T simple zeroing in administrative reviews contravened Article 2.4 of the ADA, doing so would largely be a reflection of the Panel’s obstinacy. Unless its ruling was crafted in such a way so as to manage to convince the AB that its past decision was wrong, it would be simply overruled.

Indeed, in *US-Stainless Steel (Mexico)*, the AB, when discussing a Panel’s deviation from an established AB ruling on similar facts, noted, “Ensuring ‘security and predictability’ in the dispute settlement system, as contemplated in Article 3.2 of the DSU, implies that, absent cogent reasons, an adjudicatory body will resolve the same legal question in the same way in a subsequent case.”⁴⁹ In a subsequent zeroing case, *US-Continued Zeroing*, the Panel, while affirming that it was not bound to follow vertical *stare decisis*, nevertheless recognized that nor “should a panel make a finding different from that in an adopted earlier Panel or Appellate Body report on similar facts and arguments without careful consideration and examination of why a different result is warranted, and assuring itself that its finding does not undermine the goals of the system.”⁵⁰

This Panel appears to have taken these directives seriously. It recognized that it was not bound to follow the past precedent as laid forth by the AB in *US-Zeroing (Japan)*. But if it was to deviate from that ruling, it also recognized that it would need to elaborate on a set of cogent reasons for why such a deviation was necessary, given the costs triggered in terms of undermining “security and predictability” of the dispute settlement system. The Panel, therefore, stopped short of deviating and tempting the AB to overrule it. Instead, it simply offered a much more elaborate discussion of the arguments on both sides of the question of

⁴⁷ Panel Report, para. 7.132 (citations omitted).

⁴⁸ Appellate Body Report, *United States—Sunset Reviews of Anti-Dumping Measures on Oil Country Tubular Goods from Argentina*, WT/DS/268/AB/R, 29 Nov. 2004, para. 188.

⁴⁹ Appellate Body Report, *US-Final Anti-dumping Measures on Stainless Steel from Mexico*, WT/DS344/AB/R, 30 Apr. 2008, para. 160.

⁵⁰ Panel Report, *US-Continued Zeroing*, para. 7.180.

whether W-T simple zeroing in administrative reviews under Article 9.3.1 of the ADA was inconsistent with the “fair comparison” obligation of Article 2.4 of the ADA.

Such a move falls squarely within the range of the Panel’s discretion. Article 11 of the DSU directs that a Panel “should make an objective assessment of the matter before it, including an objective assessment of the facts of the case and the applicability of and the conformity with the relevant covered agreements, and make such other findings as will assist the DSB in making the recommendations or in giving the rulings provided for in the covered agreements.” Given the arguments raised by both the US and Brazil on this question, to analyze the various points raised is exactly what is to be expected of a Panel that is taking its charge to perform an “objective assessment” seriously.

The Panel identifies two questions raised by Brazil’s challenge: (1) “[W]hether the obligation in the first . . . sentence of Article 2.4 to ensure a ‘fair comparison’ between export price and normal value applies outside of the context of what is described in the remainder of the provision, namely beyond the selection of transactions and use of adjustments to account for differences between export price and normal value which affect their comparability” and (2) If yes, then “whether the use of ‘simple zeroing’ to calculate a margin of dumping is unfair.”⁵¹

The first question is one regarding whether the “fair comparison” obligation is a narrow or broad requirement. A narrow reading of the obligation would mean that it is specific to the contexts mentioned in Article 2.4, namely: (a) the selection of transactions to be used for comparing export price to normal value and (b) the use of adjustments when making such a comparison. A broad reading would encompass other contexts beyond Article 2.4, including retrospective duty assessment proceedings under Article 9.3.1.

On this question, we witness the shadow of past AB rulings. In *US-Zeroing (Japan)*, when examining the same question, the Panel declared that “the requirement of a fair comparison set out in the first sentence of Article 2.4 is an independent legal obligation that is not defined exhaustively by the specific requirements set out in the remainder of Article 2.4 and is not limited in scope to the issue of adjustments to ensure price comparability,” noting that a previous Panel in *US-Zeroing (EC)* had reached a similar conclusion.⁵² This position was then endorsed implicitly by the AB, as reflected by the fact that the AB then proceeded to assess the compatibility of zeroing in retrospective duty assessment (which is not discussed in the remainder of Article 2.4) with the “fair comparison” obligation of Article 2.4.⁵³ Moreover, in *US-Zeroing (EC)*, the AB had explicitly stated that “the legal rule set out in the first sentence of Article 2.4 is expressed in terms of a general and abstract standard. One implication of this is

⁵¹ Panel Report, para. 7.140.

⁵² Panel Report, *US-Zeroing (Japan)*, para. 7.157.

⁵³ Appellate Body Report, *US-Zeroing (Japan)*, para. 168.

that this requirement is also applicable to proceedings governed by Article 9.3.”⁵⁴ The answer to the first question therefore had been clearly answered by the AB in the past. The obligation applied broadly.

The Panel, in deciding this question, referenced the rationale given in past WTO rulings. It discussed a point noted in the *US-Zeroing (EC)* rulings that the “fair comparison” reference in the first sentence of Article 2.4, which serves as a chapeau to the rest of the provision, must be doing some work beyond addressing the price comparisons expressed in the remainder of the provision.⁵⁵ To interpret the provision as not having any independent meaning beyond the scope of price comparison adjustments discussed in Article 2.4 would render the sentence inutile. Hence, the Panel declared that “fair comparison” obligation “must apply to discipline the ‘comparison’ between export price and normal value *whenever* undertaken during an anti-dumping proceeding, including during duty assessment.”⁵⁶ The obligation therefore extends to the comparisons made in Article 9.3.1 retrospective duty assessment determinations of the sort at issue in this case.

However, while the Panel referenced these past AB rulings, it is not altogether clear that the Panel necessarily agreed fully with the AB’s past interpretation. One of its Panel members went so far as to emphasize his view that “the correct interpretation of the ‘fair comparison’ requirement set out in the first sentence of Article 2.4 is not as clear as previous Panels and the Appellate Body appear to have suggested.”⁵⁷ He noted that the first sentence of the chapeau must be interpreted in light of the context of the rest of the chapeau, including the last sentence which also makes reference to a “fair comparison.” In his opinion, an examination of the fuller context suggests that the scope of Article 2.4 is limited to that of price comparability and adjustments and not that of an enlarged scope encompassing Article 9.3 administrative reviews. As a result, the panelist declared that he “finds there to be strong grounds to doubt the broad interpretation of the scope of the ‘fair comparison’ requirement made by previous Panels and the Appellate Body.”⁵⁸

Yet, despite apparently holding the view that past Panels and the AB got it wrong on the first question, this panelist did not go so far as to vehemently declare his disagreement vehemently. Instead of trying to convince his fellow panelists to join him in challenging the correctness of the past rulings, or expressing a dissent (had he failed in this endeavor), the panelist resigned himself to accepting the subordinate role of the Panel in the WTO dispute

⁵⁴ Appellate Body Report, *US-Zeroing (EC)*, para. 146 (citation omitted).

⁵⁵ Panel Report, para. 7.142.

⁵⁶ *Ibid* (emphasis added). Note that the Panel further added in footnote 240 the clarification that this does not mean “that a ‘comparison’ between export price and normal value is *required* in *all* anti-dumping proceedings.”

⁵⁷ *Ibid.*, para. 7.143.

⁵⁸ *Ibid.*

settlement hierarchy. He noted that despite his intellectual objections, “that, on balance, and in light of the systemic considerations [concerning security and predictability in WTO dispute settlement proceedings], the view of the Appellate Body should be followed on this issue.”⁵⁹ Such action is a reflection of the extent to which the norm of a *de facto* vertical *stare decisis* has taken hold in the mind of panelists, at least with respect to an issue such as zeroing where the AB has made its position adamantly clear.

Is this behavior to be welcomed? On the one hand, where countless litigation resources have been expended on this single topic of zeroing and where the AB has clearly indicated its willingness to overturn Panel rulings that are inconsistent with its prior rulings, perhaps it is the right call. Doing so avoids the cost of yet another appeal on a topic already adjudicated in an earlier case. Yet, on the other hand, in establishing the AB, countries explicitly rejected modeling the WTO dispute settlement regime along the lines of a common law regime where the rulings of an appellate court carry the weight of *stare decisis*. Among the advantages of the WTO model is that it gives future Panels the power to re-examine previously-decided questions and to highlight ways in which past Panels and the AB may have erred. But this advantage holds only if panelists actually exert this power. Where they find themselves unwilling to do so out of fear that they will simply be overturned by the AB, then it is the regime itself that suffers.

On balance, we find that on this particular question, the panelist’s behavior is, from a pragmatic perspective, the right course of action. By highlighting his intellectual disagreement, he is drawing attention to arguments for why the past AB ruling on this question may be wrong. In that sense, he is not abdicating his responsibility to raise questions about the correctness of past rulings. Yet, on this particular question, he recognizes that even were his view to prevail, this would be immaterial to the outcome of this dispute. Even if the US’s actions on simple zeroing were found to not violate Article 2.4 of the ADA because the scope of the provision’s “fair comparison” requirement does not encompass the proceedings at hand, the US zeroing practices are still likely to be inconsistent with other WTO obligations, namely Article 9.3 of the ADA and Article VI:2 of the GATT 1994. Thus, the outcome of this dispute does not turn on this question *per se*. To flag the issues for the AB to reconsider at a later date, if necessary, seems to be the right call, at least when compared to the alternative of forcing all sides to march down the road yet again of expending resources for an appeal where the overall outcome will not change, even if this question is decided differently. We would disagree, were it the case that we would expect many more future challenges on this same legal question. In that situation, the importance of getting the law right would outweigh any questions of resources. But in this particular instance, the odds of such future challenges appear to be minimal, given the recent changes announced in US zeroing practices.

⁵⁹ Ibid.

On the second question of whether the use of W-T simple zeroing methodology in assessing the anti-dumping duty in Article 9.3.1 administrative reviews actually violated Article 2.4, again, the Panel recognized the shadow of the AB's past ruling in *US-Zeroing (Japan)*. It highlighted the fact that the AB had previously found that the use of W-T simple zeroing methodology was not fair because it "would result in duty collection from importers in excess of the margin of dumping established in accordance with Article 2."⁶⁰ This Panel, as a result, decided the question the same way, noting that its decision was based in part on its "taking into account important systemic concerns."⁶¹ This, of course, is shorthand way for stating that it again did not wish to disturb the "security and predictability" of WTO jurisprudence on this question, given that the AB had already ruled on it and would likely overrule any disagreement with its ruling.

Yet, again, the Panel expressed some reservation with the correctness of the AB's prior ruling. It signaled its agreement with the US argument that the concept of "fairness" is highly malleable and context-dependent.⁶² The Panel highlighted language from the *US-Softwood Lumber V* Panel suggesting that were the W-T simple zeroing as well as the W-W model zeroing methodologies both acceptable, then even if the W-T approach resulted in a higher margin than the W-W approach, it could not be deemed inherently unfair.⁶³ In contrast, were the former prohibited but the latter accepted, then it would be unfair. Thus, according to the Panel, the second question turns on the question whether the W-T simple zeroing methodology is an acceptable mode of comparison under the ADA.⁶⁴

The Panel then proceeded to point out that the AB, upon examining this question in past disputes, had answered this question in the negative. Yet, the Panel's decision reads more like a resignation of the fact that the Panel is constrained by the AB's prior answer rather than an enthusiastic affirmation of the AB's interpretation. Relying on the interpretation norms of the Vienna Convention on the Law of Treaties, the Panel first highlighted the fact that there is textual ambiguity. The Panel declared, "In our view, the language of Article 2.1 of the AD Agreement and Article VI:1 of the GATT 1994 is drafted in such general terms that render both provisions potentially capable of either of the two conceptions of 'dumping' advanced by the parties" – with one being that comparisons must be made for a product on the whole (i.e., W-W model zeroing) and the other that they can also be transaction-specific (i.e., W-T simple zeroing).⁶⁵

⁶⁰ Panel Report, para. 7.146 (citing Appellate Body Report, *US-Zeroing (Japan)*, para. 168).

⁶¹ Panel Report, para. 7.153.

⁶² *Ibid.*, para. 7.152.

⁶³ *Ibid.*, para. 7.151 (citing Panel Report, *US-Softwood Lumber V*, para. 5.74).

⁶⁴ *Ibid.*, para. 7.153.

⁶⁵ *Ibid.*, para. 7.91.

Given this textual ambiguity, the Panel then turned to the object and purpose of the agreement. The Panel elaborated on several reasons for why it thought the drafters of the provision may have viewed a transaction-specific approach as acceptable: First, the Panel noted that GATT negotiators and ADA negotiators may have viewed the term “product” as having a transaction-specific meaning since they clearly had expressed such a view when using the term in other treaty provisions outside of the anti-dumping context.⁶⁶ Second, the Panel also noted that an approach which required only a product-on-the-whole approach (i.e., W-W model zeroing) for Article 9.3.1 retrospective reviews of anti-dumping duties “seems to be incongruent and not in keeping with how prospective normal value systems have traditionally operated.”⁶⁷ Third, on the historical background to this issue, the Panel expressed “sympathy for the view that a transaction-specific notion of ‘dumping’ was recognized by the Contracting Parties to the GATT 1947” which subsequently signed the Tokyo Round Anti-Dumping Code.⁶⁸ The Panel then concluded that its analysis strongly suggests that the “Members held, if not accepted, differing views about what ‘dumping’ meant at the time of the closure of the Uruguay Round.”⁶⁹

In short, the Panel was not convinced that W-T simple zeroing was necessarily forbidden and that the only acceptable methodology is the W-W model zeroing approach. But having seen other Panel’s challenge the AB’s interpretation only to be then overturned, the Panel did not dare to pick yet another fight with the AB. It went about as far as it could go in terms of expressing its doubts about the wisdom of the AB’s prior judgment, only to then concede that it would follow the AB’s prior ruling since the AB has made its views clear. In short, the Panel acquiesced to the AB’s decision on the legal question because doing so would best guarantee the “security and predictability” of the WTO dispute settlement system.⁷⁰

Again, while not bound by vertical *stare decisis*, the Panel report in *US-Orange Juice (Brazil)* indicates the influential power that past AB rulings have on future Panel decisions. Even where the Panel may disagree with the AB’s past jurisprudence, it may decide that the costs of raising a challenge are too large and damaging to the system for it to bother. This is especially true in an issue such as zeroing, where the questions have been litigated repeatedly and the AB has stuck to its position firmly despite Panel challenges. Instead, as this Panel has done, the

⁶⁶ Ibid., para. 7.108 (noting how “the drafters of the GATT understood the meaning of the word ‘product’ could have a transaction-specific meaning in the particular context of customs valuation, which in turn also suggests that it cannot be categorically excluded that negotiators may have held the same view about the meaning of ‘product’ when it appears” in the ADA and GATT Article VI).

⁶⁷ Ibid., para. 7.112.

⁶⁸ Ibid., para. 7.124.

⁶⁹ Ibid., para. 7.126.

⁷⁰ Ibid., para. 7.133.

panelists may simply articulate their doubts, but at the end of the day, follow the AB's approach because of the need for "security and predictability" in dispute settlement.

4. The Economics of Zeroing: Anything Left to Say?

The textbook illustration of dumping in international trade usually compares a firm's pricing behavior across two national markets or the price in the export market with the fair value of the product (often measured by its cost of production with a reasonable allowance for profit). As is well known, if a firm is confronted with different demand conditions in two countries (usually captured by differences in the elasticity of demand) then it is optimal for it to engage in international price discrimination. When such discrimination manifests itself as a lower price in the foreign market, the firm is said to be 'dumping'.

The international price discrimination based textbook illustration of dumping is special in many regards. Perhaps its most important limitation is that it presents a *snapshot* comparison of two distinct prices at a point in time. Given only two prices, determining dumping becomes a trivial task: is the price abroad lower than that in the firm's domestic market or not? Of course, in the real world, firms export and sell domestically over multiple time periods and changes in underlying market conditions often necessitate price adjustments on their part.

In a world of multiple price observations, the most obvious way to define dumping over any particular time period requires a method for aggregating all of the price observations within that time period. At its core, WTO disputes over zeroing – of which there have been many – reflect a disagreement with respect to the method used for *aggregating the information* contained in a particular set of price observations.

An example helps.

Example 1: Suppose a Brazilian firm exports to the US market for 4 time periods (say months) and alters its price once every period. Furthermore, let the firm's price in Brazil (when converted to dollars) or the fair normal value of its product be constant over this time period at \$65 per unit.

Suppose further for simplicity that the firm exports 50 units of output in each time period. The value of total exports over all four periods is easily calculated to be \$13000.

Table 1 shows how the firm's price in the US changes over the relevant time horizon.

Time Period	US Price	Units of US Sales	Dumping Margin	Dumping Margin with Zeroing

1	\$50	50	\$15	\$15
2	\$80	50	\$-15	\$0
3	\$80	50	\$-15	\$0
4	\$50	50	\$15	\$15

According to Table 1, the firm is dumping in the US in periods 1 and 4 but not in periods 2 and 3. The weighted average dumping margin (WADM) can be easily calculated by weighing the DM in each period by the associated export sales and dividing by the value of total export sales. Given the information in Table 1, the WADM equals zero since the positive dumping margins (DMs) in periods 1 and 4 exactly offset the negative ones in periods 2 and 3 and sales are equal across all periods. Since the WADM is zero (rather than positive), a dumping investigation based on it would find that no dumping has occurred.

How does zeroing fit into the process? The practice of zeroing essentially assigns zeros to all negative dumping margins when calculating the WADM, which in turn has repercussions for both the determination of dumping as well as the level of anti-dumping duty that is eventually imposed. In this example, if the dumping margin in periods 2 and 3 is set to zero, the WADM ends up being 11.54% which would indicate that the firm is indeed dumping in the US market. Thus, if the dumping investigation incorporates zeroing then it finds dumping even though the WADM in the absence of zeroing actually equals zero.

For economists, that are generally quite opposed to anti-dumping (and for good reason), the practice of zeroing seems to make a bad policy even worse. As such, it is difficult to conceive of *any* circumstances under which zeroing can help reduce the harm caused by anti-dumping. As Example 1 indicates, it is conceptually clear that zeroing can lead an importing nation to find in favor of dumping even when there is no dumping on average. Furthermore, by inflating the dumping margin, zeroing can also lead to higher anti-dumping duties.

In addition to these well understood points, Bown and Prusa (2011) make two additional observations about the consequences of zeroing. First, zeroing tends to treat the price in the firm's domestic market (or the fair market value) different from what it actually is. This is because whenever the firm's foreign price is above that in its domestic market, a zeroing policy enacted by the foreign country treats the firm's price there as being the same as its price in its domestic market since, by definition, zeroing sets the dumping margin to zero for such pairs of price observations. Such manipulation of market data is problematic for obvious reasons. Second, they correctly note that "zeroing is driven by price variations" and that if "the foreign firm charged exactly the same price for all transactions, then zeroing would not matter." Thus, to understand the consequences of zeroing, one needs to take a closer look at the causes and consequences of price variations (which we do below).

What arguments do supporters of zeroing make in its defense? Perhaps the most common argument is based on an analogy between zeroing and speeding. Briefly speaking, according to this rationale, it is appropriate to disregard periods of negative dumping margins since these do no harm to domestic industry just as driving below the speed limit does not generate undue risks for others (assuming that the speeding limit is optimally chosen by society with that goal in mind to begin with). When a driver speeds by a traffic police car, all previous driving instances where the driver *did not* break the speed limit do not affect the police officer's decision to determine whether or not a traffic violation has occurred at that particular instant. Such a course of conduct on the part of the police office is reasonable because *each and every speeding incident* has the potential to cause serious harm to others. But is dumping like speeding? In other words, by charging a low price for a day (or even a month say) can a foreign firm cause material damage to the local industry? In our view, in their analysis of *Softwood V* zeroing case between Canada and the US, Bown and Sykes (2008) correctly note that "...individual transactions at 'dumped' prices are generally of no concern whatsoever. They are simply not analogous to dangerous behaviors such as speeding that are properly subjected to sanction."

Indeed, for the speeding analogy to be a suitable defense of zeroing, a single instance of dumping ought to be sufficient to do significant damage to domestic. It is difficult to conceive of any real market in which this would be true. Even the typical monopolization concern with respect to dumping (often expressed in the somewhat sensationalistic phrase 'predatory dumping') is not credible in the context of an isolated instance of dumping. Indeed, as Bown and Sykes (2008) note "anti-dumping duties are routinely used in industries where monopolization concerns are fanciful." Indeed, if a foreign firm were to charge a very low price for a short time with the intention of driving out a domestic competitor, it is unlikely to make much headway since the domestic competitor will not shut down even when it is suffering losses in the short run since it would want to avoid having to incur entry/start-up costs in the future. And if the low price charged by the foreign firm were to be permanent, there is again no reason to impose an anti-dumping duty since a country imports precisely those goods that other countries can produce more cheaply than it. The possibility of harm exists only in a limited set of circumstances where the foreign firm is able to sustain a low price for a considerable period so as to chase the domestic competitors out of the market and then erect high barriers to entry, so as to preserve a monopoly on the market. In practice, this is difficult to execute, especially with the penalties under competition laws serving a deterrent against any such action.

Despite the fact that most economic commentators tend to agree that anti-dumping is simply another form of protectionism that should be generally avoided and that, if used, dumping ought to be defined on the basis of all price observations that span the relevant time

period, the WTO's dispute settlement process has struggled to come to terms with the appropriate definition of dumping. Indeed, even informed parties have disagreed over this issue: as we noted earlier, the decisions of previous WTO Panels that have decided zeroing disputes have often been over-turned by the Appellate Body (AB) that has repeatedly ruled that the notion of dumping applies to the "product as whole" and ought to be based on the *entire set of price observations* over the relevant time period. Thus, the AB has ruled that a country cannot pick and choose price observations in a manner that is unambiguously biased in favor of finding dumping. As should be clear from the discussion above, we are in agreement with this position of the AB, at least generally in contexts where transaction-specific considerations are not mentioned in the ADA, even though several WTO Panels have struggled with the issue and expressed skepticism over the AB's approach.

As we noted above, many analysts have noted that zeroing inflates dumping margins and thereby leads to more affirmative findings of dumping and the eventual application of higher anti-dumping duties. What we want to argue next is that the issue is not just that of ignoring instances where prices are high on average; it may also be important to account for *why* prices fluctuate in the first place. In particular, the consequences of zeroing when prices fluctuations are driven by changes in market demand conditions are likely to be somewhat different than when they are driven by changes in costs of accessing foreign markets (say due to changes in factor markets, technology, transportation costs/trade barriers, or the exchange rate).

As we will demonstrate below, this distinction matters. If high prices in export markets are caused by increases in demand, then they are correlated with high export sales; whereas when they are caused by an increase in costs of exporting, they are correlated with low export sales. We show below that the nature of this correlation between prices and export sales affects the WADM in a way that makes zeroing a relatively more insidious policy when price fluctuations are driven by changes in market demand as opposed to costs. Thus, the relative harm done by zeroing would be greater in the former scenario.

Consider first the case where prices changes are driven by variations in market demand over time.

Example 2 (when demand changes drive prices): Let the demand curve in the US during periods of low demand (periods 1 and 4) be given by $p=100-q$ while that in periods of high demand (periods 2 and 3) by $p=160-q$. For simplicity, normalize the marginal cost (MC) of exporting to zero and consider the price decisions of a Brazilian firm.

The profit-maximizing Brazilian firm sets marginal revenue equal to marginal cost which means that in periods of high demand it solves $MR=160-2q=MC=0$. This implies that the firm's exports to the US in periods 2 and 3 equal 80 units each. Similarly, in periods 1

and 4 it solves $100-2q=0$ which gives its exports as $q=50$. As can be observed from Table 2 below, price in the US market equals \$50 in periods 1 and 4 and \$80 in periods 2 and 3 (found by solving the relevant demand curves for p , given the firm's sales). The total value of exports over all four periods equals \$17800.

As in Example 1, let the firm's price in its home market (i.e. Brazil) be constant at \$65, because demand is assumed to not fluctuate there over time. Given this, the firm's dumping margin (DM) in the US is positive in periods 1 and 4 (it equals \$15) whereas it is negative in periods 2 and 3 and (it equals \$-15). Thus the firm dumps in periods 1 and 4 but not in periods 2 and 3.

Time Period	US Price	Units of US Sales	Dumping Margin	Dumping Margin with Zeroing
1	\$50	50	\$15	\$15
2	\$80	80	\$-15	\$0
3	\$80	80	\$-15	\$0
4	\$50	50	\$15	\$15

Using the information in Table 2, the WADM is calculated to be -5.1%. Thus, a dumping determination based on either the WADM would find in favor of the firm (i.e. that no dumping occurred in the US).

With zeroing however, the negative DMs are excluded from the calculation and the ADM as well as the WADM under zeroing ends up being 8.4% which would then indicate that dumping did occur.

A comparison of Examples 1 and 2 yields two insights. First, the WADM is lower in Example 2 even though prices are the same in both cases. This is intuitive: high price observations are accompanied by higher sales levels in Example 2 and therefore carry a greater weight when calculating the WADM. Second, zeroing tends to inflate the WADM to a greater degree in Example 2 (from -5.1% to 8.4%) precisely because it drops observations that carry more weight in the absence of zeroing.

Now consider the case where the changes in export prices are induced by fluctuations in the cost of exporting.

Example 3 (when cost changes drive prices): Suppose US market demand in all periods is given by $p=100-q$. Further suppose that the MC of exporting fluctuates over time. In periods 1 and 4, MC equals zero (as in example 1) while in periods 2 and 3 it equals \$60.

From Example 1, we know that the firm's sales in periods 1 and 4 equal 50 units each with the associated price of \$50. In periods 2 and 3, the firm's exports are found by solving $MR=100-2q=60$ which gives $q=20$ and $p=100-20=\$80$.

Observe that, by design, the price levels over the four periods are the same across all three examples: in periods 1 and 4 the price equals \$50 whereas in periods 2 and 3 it equals \$80. However, in the current example, the high prices in periods 2 and 3 are associated with *lower* sales levels of 20 each whereas in Example 2 they are associated with *higher* sales levels of 80 each.

Table 3 presents the relevant calculations for this example.

Time Period	US Price	Units of US Sales	Dumping Margin	Dumping Margin with Zeroing
1	\$50	50	\$15	\$15
2	\$80	20	\$-15	\$0
3	\$80	20	\$-15	\$0
4	\$50	50	\$15	\$15

Using the information contained in Tables 2 and 3, it is easy to show that even though the price observations are the same in both cases, the WADM is not. When demand variations drive price changes (*i.e.*, in Table 2), the WADM is actually -5.1% (without zeroing) whereas it is 11.0% when price variations are induced by cost changes (*i.e.*, in Table 3). In other words, a dumping investigation based on the WADM in Example 2 would *not* find dumping whereas it would find dumping in the current example even though the observed prices are the same in both cases!

Intuitively, when demand increases drive price changes, the high price observations (*i.e.* those for which the DM is negative) end up receiving a greater weight in the calculation of the WADM relative to the case where cost changes are the driving factor.

An important observation can be made from Tables 2 and 3: while zeroing leads to a reversal in the sign of the WADM under the demand case (from -5.1% to 8.4%), it does not do so under the cost case (where the WADM goes from 11% to 18.3%). *Thus, zeroing is more likely*

to convert a negative finding regarding dumping into a positive one when price changes result from demand changes as opposed to cost changes.

While the two examples are rather specific, the insight that they are based on is fairly general: when zeroing eliminates high price observations with larger export volumes, it will tend to do more damage relative to the case where it eliminates high price observations with smaller export volumes.

Which of these two scenarios is more applicable in a particular case would depend upon the context. In the present case, weather shocks in the US reduced the output of local OJ producers thereby leaving larger residual demand for Brazilian exporters. Thus, it was a negative supply shock to the domestic OJ industry in the US that translated into a larger residual demand curve facing Brazilian exporters which in turn lead to an increase in their exports. Furthermore, it is well known that the material injury test applied during dumping investigations is often based on rising import volumes doing serious harm to domestic industry (as opposed to falling import volumes). This suggests that the demand scenario described in Example 2 might be more relevant for a typical anti-dumping case relative to the cost scenario described in Example 3.⁷¹ Of course, zeroing tends to have the strongest effect on the outcome of the dumping investigation precisely when it eliminates high price observations associated with large export sales by foreign sellers.

5. Resolving the Orange Juice Dispute

The US chose not to appeal the Panel's rulings. On December 28, 2010, a few months before the Panel decision was rendered, the US DOC had already issued a notice, pursuant to Section 123(g) of the Uruguay Round Agreement Act, seeking comments on a proposal to modify its methodology for calculating anti-dumping margins and duty assessments involving the elimination of zeroing.⁷² With this policy shift already underway, the US did not find it necessary to appeal the Panel's decision, especially given that the AB had already made its position on the legal issues clear in prior rulings.

On June 17, 2011, the Dispute Settlement Body adopted the Panel's recommendations and rulings. The US was given until March 17, 2012 to implement the recommendations and rulings. A month prior to this deadline, the US DOC issued its policy change that discontinued

⁷¹ Of course, reductions in the cost of exporting can also lead foreign exporters to increase their sales volumes but such increases in sales would be accompanied by price decreases as opposed to price increases. As a result, such observations would *not* be dropped under a zeroing policy.

⁷² Anti-dumping Proceedings: Calculation of the Weighted Average Dumping Margin and Assessment Rate in Certain Anti-dumping Duty Proceedings, 75 Fed. Reg. 81533 (Dec. 28, 2010).

the use of zeroing in administrative reviews, new shipper reviews, expedited anti-dumping reviews, and sunset reviews.⁷³ As noted earlier, the US did so in order to avoid retaliation from the EU and Japan stemming from the earlier WTO zeroing cases. The US then informed the WTO that the policy modification also addressed the outstanding issues in this dispute.

At the same time, the US ITC was engaged in a sunset review of the anti-dumping order against certain Brazilian orange juice. This review resulted in an ITC decision in March 2012 to terminate the anti-dumping duties on Brazilian orange juice altogether; the termination was to be effective as of March 9, 2011.⁷⁴ Based on the US DOC policy change on zeroing and the ITC's decision to terminate anti-dumping duties on Brazilian orange juice altogether, the two countries entered into an agreement on April 3, 2012 stating that they had resolved their dispute.⁷⁵

From an economics standpoint, there was little justification for the anti-dumping duties against Brazilian orange juice or the use of zeroing in determining and calculating those duties. At no point did Brazilian orange juice producers pose an anti-competitive threat. As noted earlier, at the start of the imposition of anti-dumping duties, the Brazilian share of the US domestic orange juice market hovered around 15 percent. Moreover, the share was not steadily increasing. Instead, it had fluctuated – increasing to 15.9 percent in crop-year 2002-03 before falling to 10.7 percent in 2003-04 before rising back up again the following year.⁷⁶

Nor were the anti-dumping duties particularly effective in stemming the flow of Brazilian orange juice into the American market. Even after the preliminary anti-dumping duties were imposed in 2005, Brazilian orange juice imports continued to rise. In 2007, the US imported a record \$270 million in frozen Brazilian orange juice. This represented more than a doubling from the \$129 million imported in 2002, and a more than three-fold increase over the recent low of \$85 million in 2004.⁷⁷

Such fluctuations are not surprising since given that round oranges, the variety most commonly used for producing orange juice, are a highly perishable commodity. Supply conditions in orange juice production are intimately linked to variations in the crop volume of round oranges. This link is so strong that growers of round oranges were found by the ITC to be

⁷³ Anti-dumping Proceedings: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Anti-dumping Duty Proceedings; Final Modification, 77 Fed. Reg. 8101 (Feb. 14, 2012)

⁷⁴ Press Release, U.S. International Trade Commission, USITC Makes Determination in Five-Year (Sunset) Review Concerning Certain Orange Juice from Brazil (Mar. 14, 2012); Revocation of Anti-dumping Duty Order: Certain Orange Juice from Brazil, 77 Fed. Reg. 23659 (Apr. 20, 2012)

⁷⁵ Understanding Between Brazil and the United States Regarding Procedures Under Articles 21 and 22 of the DSU, WT/DS382/11 (10 April 2012).

⁷⁶ See Table IV-5 in USITC (2006).

⁷⁷ See UN Comtrade database for HS-200911.

part of the domestic industry when making its injury determination. As the dissenting commissioners in the ITC's injury investigation noted "...the impact of weather and other factors on the US crop resulted in significant volatility in US round orange production during the period examined."⁷⁸ It was this underlying volatility, rather than any anti-competitive behavior, that indirectly led to changes in imports of orange juice from Brazil via its effect on domestic production of orange juice in the US.⁷⁹ When crop volumes of domestic round oranges fall, Brazilian orange juice imports increase, even if anti-dumping duties raise costs. The main effect of the anti-dumping duties in this instance was not protection for American orange juice producers, but rather higher prices for downstream American consumers.

Therefore, it is clear that the anti-dumping duties against certain Brazilian orange juice were not economically necessary nor were they welfare-enhancing. Moreover, since zeroing in administrative reviews, at least in the early years, was practiced in the face of increasing export volumes due largely to demand changes resulting from exogenous shocks (in the supply of round oranges), we suggest that the damage from zeroing was larger in this context than it would be in others. The termination of anti-dumping duties for certain Brazilian orange juice is therefore welcome news. It has, along with other market forces, brought orange juice futures down 40 percent in 2012, which should be welcome news for consumers.⁸⁰

6. Concluding Thoughts: So Is This the End of the WTO Zeroing Disputes?

Does *US-Orange Juice (Brazil)*, along with *US-Shrimp (Vietnam)*, represent the end of the zeroing disputes at the WTO? Technically, the answer remains no. Four cases remain pending before the WTO concerning US zeroing practices: *US-Zeroing (Korea)* DS402, *US-Carbon Steel Flat Products (Korea)* DS420, *US-Shrimp and Diamond Sawblades (China)* DS422, and *US-Frozen Warmwater Shrimp (Vietnam)* DS429.

Yet, the DOC's announcement on February 14, 2012 that it would discontinue the practice of zeroing in administrative reviews (under Article 9.3.1 of the ADA) as well as new shipper reviews, expedited anti-dumping reviews, and sunset reviews will certainly lessen the probability of further conflicts. The era of major substantive battles over US zeroing practices may be drawing to a close.

⁷⁸ USITC (2006) at 39.

⁷⁹ Ibid. This view finds support in the empirical analysis of Carter and Mohapatra (2006) who find that FCOJ imports from Brazil were larger when domestic supplies in the US were relatively low. Similarly, they also find a strong negative correlation between domestic FCOJ inventories in the US and imports from Brazil. Finally, they show that imports of FCOJ from Brazil did not have a significant impact on the price of orange juice in the US over the relevant time period, a finding that is consistent with the position of dissenting USITC commissioners.

⁸⁰ Wexler (2012).

Two points are worth noting. In order to enjoy the benefits of the DOC's policy eliminating zeroing in administrative reviews, foreign producers subject to anti-dumping duties must request a review during the window of the product's annual review. By placing the impetus on producers rather than making this review automatic, larger foreign producers with the financial means to request and participate in the annual retrospective reviews are placed at an advantage. The smaller producers that fail to expend resources to call for an administrative review in which zeroing is not done will still find themselves subject to CDRs calculated on the basis of zeroing. Countries should therefore seek to ensure that all their exporters subject to anti-dumping duties will seek an administrative review and assist smaller exporters, who may be resource constrained, with such reviews. Otherwise, the effects of zeroing may continue to linger on.

Second, even if the zeroing disputes disappear altogether, the issue is not altogether dead. The US continues to seek, albeit with little or no support, a clarification that zeroing is allowed through Doha Round negotiations. To the extent that the ghost of zeroing continues to hover, it will be increasingly in the rooms of the Rules Negotiation.

Still, in light of the fact that a US negotiating proposal on zeroing is unlikely to succeed, when the history of zeroing is written years from now, what may be most significant about *US-Orange Juice (Brazil)* may not be the decision itself, but the way in which the Panel flagged concerns about past AB decisions without openly disagreeing. On a longstanding issue, the Panel, though not bound by the AB, recognized and accepted its subordinate role. In doing so, it helped deliver yet another nail in the coffin of the WTO's longest-running dispute settlement drama.

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