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**DOES ANTIDUMPING ADDRESS  
"UNFAIR" TRADE?  
THE EUROPEAN UNION'S EXPERIENCE**

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# Does Antidumping Address “Unfair” Trade? The European Union’s Experience

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## ABSTRACT

While antidumping laws were originally developed as the international trade analogue of domestic competition or antitrust policies, most vestiges of competition policy disappeared early in their evolution. Nonetheless, the formal justification for modern antidumping practice remains founded on the bedrock of countering “unfair” trading practices and preserving competitive markets. Consistent with this formal rationale, antidumping law has been replaced by competition policy mechanisms in some instances, such as in the European Union’s internal market and in a number of bilateral free trade agreements. We update and consolidate a relatively thin literature that has examined this issue formally. Adapting the established methodology, we develop a “likelihood of predatory practice” index which categorizes antidumping cases in line with the probability that they indeed constitute cases of predatory behavior which might legitimately have triggered competition policy actions had they occurred in a domestic market context. We apply this index to the European Union’s use of antidumping proceedings in its extra-EU trade over the period 2001 to 2010. Overall, we find more instances than previous studies where the EU antidumping measures address cases which would attract competition policy actions, although these are still a minority.

### Keywords:

Trade remedies, anti-dumping, competition policy, European Union

**JEL Codes:** F13, F14



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## ABBREVIATIONS

|     |                            |       |  |
|-----|----------------------------|-------|--|
| AD  | Antidumping                | HS    | Harmonized System                            |
| B&M | Bourgeois and Messerlin    | LOPP  | Likelihood of predatory practice             |
| CVD | Countervailing Duty        | USITC | United States International Trade Commission |
| EU  | European Union             |       |  |
| HHI | Herfindahl-Hirschman Index | WTO   | World Trade Organization                     |



# 1 INTRODUCTION

Proponents of trade defense instruments argue that these instruments serve as the international trade analogue of domestic market competition policies. According to this understanding, trade defense instruments address predatory and other anti-competitive business practices of foreign firms (antidumping measures) and market-distorting measures of foreign governments (countervailing measures).

However, the link between the pattern of actual use and the formal stated policy motive of countering some form of predatory practice in the absence of competition policy and other market regulatory mechanisms in the international domain is generally viewed as being weak.

With regard to antidumping measures, several papers have examined this issue formally (Hutton and Trebilcock, 1990; Bourgeois and Messerlin, 1998; Shin, 1998; and Bienen, Ciuriak and Picarello, 2012). The approach established in these papers – which remains the only viable approach that has been put forward in the literature on this issue – involves applying a series of criteria that screen out antidumping cases which involve circumstances or market characteristics that are judged unlikely to be associated with successful predation. As most cases fail to meet at least one of the multiple criteria specified, this approach has resulted in very few cases being considered as even having potential for predation. For example, a case that meets four out of five criteria for possible predation may still be excluded on the strength of the fifth criterion alone.

By contrast, case handlers whose information base on the cases in which they are involved is far deeper, including not only business confidential documentary information but also extensive interaction with both the domestic industry, the targeted exporters and other interested parties, have at least in some instances concluded that predatory intent was clearly visible in cases where the circumstantial evidence that is applied in the screening approach excludes predation.<sup>1</sup> This suggests that the screening approach that has been used to date in the literature noted above is too restrictive. There is thus an incongruence between the views of practitioners of antidumping and the academic literature, which we aim to bridge in this paper.

To address this concern, we modify the screening approach by calculating a likelihood-of-predatory-practice (LOPP) index which takes into account the number of criteria for predation that individual cases satisfy. We test this approach by examining the European Union's use of antidumping proceedings in its extra-EU trade over the period 2001-2010.

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<sup>1</sup> Personal information obtained by the authors in the course of carrying out the most recent five-year review of the EU's trade defense system.

The paper is organized as follows: Section 2 discusses the traditional theoretical construction of trade defense instruments as the international surrogate for competition policy. Section 3 presents the methodology and findings of previous empirical studies. Our methodology, which introduces several changes to earlier studies, is described in section 4, followed by a discussion of results in Section 5. Section 6 sets out our conclusions.

## **2 COMPETITION POLICY MOTIVES FOR ANTIDUMPING MEASURES**

Trade remedies have been traditionally characterized as the international trade analogue of internal market competition policies. This characterization has persisted over the years notwithstanding important differences in the substantive construction of trade defense instruments and competition law provisions that emerged at a very early stage of the development of these respective legal frameworks. The first antidumping law, which was introduced in Canada in 1904, was motivated by concerns over predation (see Finger 1992 and Sykes 1998 for accounts). New Zealand, which followed Canada in adopting antidumping legislation in 1905, targeted selective price cutting by US-based International Harvester which threatened to create a monopoly on agricultural equipment in the New Zealand market (Ciuriak 2005). Similarly, the US Antidumping Act of 1916, which was in substance an extension of its antitrust law (Finger 1992), included a requirement that the dumping had to “be done with the intent of destroying or injuring an industry in the United States, or of preventing the establishment of an industry in the United States, or of restraining or monopolizing any part of trade and commerce in such articles in the United States” (Committee on Ways and Means 1993: 417, cited in Stiglitz 1997). As can be seen, the construction of early anti-dumping laws clearly paralleled for international trade some of the concepts applied in the early competition legislation for domestic commerce.

Reflecting this, the initial formal articulation of trade defense instruments in the economic literature characterized them as the international analogue to domestic competition policy (Viner, 1923). However, as early as 1921, the scope of US antidumping law was widened to provide governmental relief against any instances of dumping, regardless of intent. As Finger (1992: 129) notes: “The 1921 act completes the shift of criteria. Any mention of antitrust criteria – conspiracy, combination, or restraint of competition – is gone. Antitrust’s injury-to-competition standard has been replaced by a diversion-of-business standard.” It is the latter standard that has prevailed in WTO law and general practice since. Nonetheless, the initial characterization of the role of trade defense instruments has survived as illustrated by the replacement of their use by competition laws within the European Union’s (EU) internal market and some bilateral trade agreements, such as the Australia-New Zealand Closer Economic Cooperation Agreement and the Canada-Chile Free Trade Agreement – notwithstanding a modern pattern of use of



antidumping measures that in the view of many observers lends little evidentiary support for the characterization.

Modern competition policy concerns itself with a wide variety of corporate business practices that restrain competition in the market place. The practices targeted are primarily those that either: (a) raise consumer prices through monopolization, cartelization, collusive practices such as market-sharing agreements, price fixing, retail price maintenance and so forth; or (b) deny access to markets to competitors, such as refusal to supply, denial of access to networks, exclusive dealing arrangements, price discrimination in selling to competing businesses (typically dominant sellers favoring firms associated with them, or vertically integrated firms selling at discriminatorily high prices to downstream un-integrated competitors) or abusing a dominant position in one market to gain market share in another through tied selling. Such anti-competitive or exclusionary practices can raise trade frictions; this has prompted multilateral initiatives to introduce stronger competition policy disciplines into the WTO rules. Antidumping addresses just one segment, and a fairly narrow one at that, of the range of these competition policy concerns: predatory pricing.<sup>2</sup> Moreover, as observed by Blonigen (2006: 875) antidumping also covers a wide range of practices that are not predatory:

“Most economists would worry about price dumping only if such behaviour were predatory in nature and intended to drive out domestic-market competitors. The definition of dumping is clearly much broader, so that practices that are not necessarily anti-competitive, such as price discrimination or pricing below average cost, are included as ‘unfair’ dumping behaviour.”

Under competition law, predatory pricing is understood as a deliberate strategy to drive competitors out of the market by setting very low prices (e.g., “cut-throat pricing”), including at below average variable costs. Since the price undercutting strategy reduces profits in the short run, and possibly results in losses that must be cross-subsidized from profits in other areas of the firm’s activity, the presumption is that, having established a dominant position or outright monopoly, the predator firm will then seek to recoup the losses by raising prices and generating monopoly profits. Accordingly, for the strategy to succeed, several conditions must apply. Importantly, arbitrage must not be possible; this is not an unlikely condition in international trade given the fixed costs of market entry. As well, market entry barriers must be high or the dominant firm must be in a position to subsequently prevent competitive entry into the market by erecting artificial barriers to entry (e.g., through advertising), or through resort to exclusionary practices on the gamble that these might escape sanctions from competition policy authorities. Since dumping as a predatory pricing strategy in an international setting inherently involves traded goods, successful execution of the strategy must therefore involve some ability to exclude subsequent new entry not only of new domestic competitors that might face high start-up costs,

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<sup>2</sup> Note that predatory pricing through foreign affiliates is addressed by competition policy authorities; it is only in cross-border trade that antidumping comes into play. As well, note that competition laws address price discrimination and that dumping is by definition price discrimination across borders. However, since the welfare effects of price discrimination are generally ambiguous, competition authorities only step in when there is abuse, which in this context would involve the customers being gouged by high prices; antidumping measures by contrast are used by authorities in the jurisdiction that is benefiting from the lower prices. So there is no parallel in this case.

but also of established global competitors from other countries. The bar that a predatory pricing strategy must clear to succeed in an international setting is thus higher than in a domestic setting.

To trigger antidumping measures, dumping must create injury to domestic industry. Hence, parallel to predatory pricing in a domestic context, it too involves price competition that is injurious. In both instances, the remedial provisions contemplate foregoing the welfare benefits to consumers of temporarily lower prices in order to prevent injury to the competitors of the dumping/predatory firm, which would lead in the longer term to damage to consumers in the eyes of the competition authorities (a consequence that is, interestingly, of no importance to trade defense authorities, as they look no further than the damage to the domestic competitor<sup>3</sup>).

At first blush, the rarity of successful predation prosecutions under competition law stands in stark contrast to the frequency of successful antidumping claims. However, the punitive nature of the sanctions in competition cases also stands in sharp contrast to the remedial nature of antidumping measures. So it is difficult to draw inferences concerning the frequency of predatory behavior from frequency of application of the two types of measures.

### **3 PREVIOUS EMPIRICAL EVIDENCE FOR ANTI-PREDATORY ANTIDUMPING MEASURES**

Several papers have applied a suite of criteria to individual antidumping cases to characterize them in terms of the possibility of successful predation and thus to bring out the extent to which the use of antidumping measures plausibly stands in place of comparable competition policies in a domestic setting.

Hutton and Trebilcock (1990), examining 30 Canadian antidumping cases, considered contextual clues as to whether competition concerns were at issue. They screened out cases where certain conditions were not met. In particular, they considered cases as not being potentially predatory where:

1. global excess capacity in the industry implied that dumping was the natural firm-level competitive response and the resultant exit of the least efficient producers to reduce global capacity would be a good thing. 14 of the 30 cases could be excluded on this criterion (nine of which were steel cases);
2. cyclical lags in production and climatic variation in agriculture resulted in pricing below marginal cost to sell large quantities of the product, which was the rational firm-level

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<sup>3</sup> This contrast is brought out in comments from USITC Commissioners Janet Nuzum and David Rohr remarking on the results of a study showing welfare costs from the use of trade remedies: “it must be remembered that the purpose of the antidumping and countervailing duty laws is not to protect consumers, but rather to protect producers. Inevitably, some cost is associated with this purpose. However, unlike the antitrust laws, which are designed to protect consumer interests, the function of the AD/CVD laws is, indeed, to protect firms and workers engaged in production activities in the United States.” Cited in Tavares (2001).

response and not indicative of predatory intent. Four cases could be excluded on this criterion (all of them agricultural);

3. low prices were used to introduce products into a market and/or to learn by doing as the firm found its way in the market, which is legitimate business practice that benefits society and raises no predatory concerns as firms acting in this fashion clearly do not have market power. Two cases involving new product introductions could be excluded on this ground;
4. market conditions did not allow the eventual raising of prices to recoup short-term losses due to the predatory strategy; in particular, successful predation is only possible where:
  - market demand is inelastic (otherwise an attempt to raise prices reduces revenues). Six cases involved elastic demand and so could be excluded;
  - there are sufficient barriers to entry to prevent domestic firms from re-entering the market if the successful predator attempts to raise prices to recoup its losses. 11 cases featured low barriers to entry; and
  - the firm has a dominant position internationally so that producers from third countries are not in a position to step in and compete away excess profits once the domestic industry has been driven from the market. This test was sufficient to exclude all the cases;
5. the domestic industry had market power (including instances where the domestic industry is a monopolist) and antidumping measures were used to protect rents. At least 12 cases involved sectors where the domestic industry was described as dominant.

In sum, none of the 30 Canadian cases was considered as a plausible candidate for consideration as a predatory dumping case, most being ruled out on multiple grounds. The absence of international market power was easily the most consistent reason for the impracticality of a predatory strategy.

Bourgeois and Messerlin (1998; henceforth B&M) applied a five-screen test to check for the likelihood that EU antidumping applications were in a context that would be considered consistent with standard competition policy motives, such as countering predatory practices. They assessed 461 of the 658 antidumping cases initiated between 1980 and 1997 for which adequate information was available to apply their methodology.<sup>4</sup>

The B&M screens were as follows:

1. Dominant market position of the dumping firms: The criterion used by B&M for assessing possible dominance is based on the history of competition enforcement in the EU, according to which a market share of 40% is necessary for a firm to have a dominant position. B&M increased the likelihood of finding dominance by applying the test on a forecast basis (the test was applied on the basis of projected market share in the absence of trade remedies, where the projection was done on the basis of simple extrapolation of growth of the market share in the period prior to the application of measures), and the market share was the combined market share of all the firms targeted in the investigation. Despite the conservative bias thus

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<sup>4</sup> The 197 omitted cases fall into three groups: anti-circumvention cases (which are not independent new cases); investigations that were not concluded officially (e.g., where the EC firms withdrew the complaint), and a few cases terminated by the Commission but for which information was not available; see B&M (1998: 140).

introduced, this test led to the conclusion that two thirds (311 of the 461 cases) were not cases countering anticompetitive behavior.

2. No dumping or injury found: The second test examined the 150 remaining cases and eliminated those cases which were terminated by negative outcomes for all the countries involved, on the reasoning that there is no reason to suppose that antidumping cases are a response to predatory behavior if the EU investigations concluded that “no injury” or “no dumping” was present. 14 cases were screened out at this stage, leaving 136 potentially predatory cases.
3. Four or more countries are targeted simultaneously: The third test eliminated cases where more than three countries were involved in the investigation on grounds that joint predatory behavior in such cases would require an implausible level of coordination. 75 cases were screened out at this stage.
4. Eight or more firms are targeted simultaneously: The fourth test eliminated cases on a similar rationale that predatory behavior amongst many firms would involve very high costs of maintaining a “joint monopoly”. 17 of the remaining 61 cases were screened out on these grounds, leaving 44 potentially predatory cases.
5. The EU market is competitive: The fifth test examined market concentration in the EU for 28 of the remaining 44 cases where the aggregate market shares of EU firms and the total number of EU firms identified as being in the market was provided in case documentation.<sup>5</sup> Since market shares of individual firms were not available, B&M calculated Herfindahl-Hirschman indexes (HHIs) based on extreme assumptions: a minimum HHI based on the assumption that the foreign firms and the EU firms split their respective market shares evenly; and a maximum HHI based on the assumption that one foreign firm has virtually the entire foreign market share and one EU firm has virtually the whole EU market share, with the remaining firms having market shares close to zero. On the basis of these pseudo-HHIs, and using a threshold HHI of 0.18 for the existence of a concentrated market structure, B&M divided the 28 cases into three groups:
  - (i) In four of the cases both the minimum and maximum pseudo-HHI was below 0.18, their cutoff for a concentrated market, and so were ruled out;
  - (ii) 12 cases featured minimum pseudo-HHIs below the cutoff but maximums above the cutoff, leaving them indeterminate, in the absence of actual information on firm market shares; and
  - (iii) 12 cases featured both minimum and maximum pseudo-HHIs above the cutoff, leaving this group as clear-cut candidates for at least the possibility of successful predation.

Finally, B&M considered a sixth test, namely whether there are high barriers to entry in the industry, a necessary pre-condition for successful predation. They did not, however, treat this as a screen.

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<sup>5</sup> For the other 16 cases the domestic market share was not available. In two of these cases, foreign firms held small (4.5% and 6.1%) market shares while facing five and nine EU firms, respectively. B&M reasoned that both the low foreign market shares and the relatively high number of EU competitors suggested the existence of competitive markets that would not lend themselves to successful predation and so excluded these, while leaving the remaining 14 cases without a definitive conclusion.

In sum, “12 cases – that is, only 2 percent of the 461 cases screened – are possible candidates for a closer examination of predatory behavior” (Bourgeois and Messerlin 1998: 144). B&M considered that:

“This conclusion is very conservative and overstates the situation for three reasons: 7 of these 12 cases exhibit declining or stable minimum and maximum HHIs between the initial and final periods; 4 other cases involve China (for which our HHI estimates always assume the existence of one producer and exporter, and hence they systematically underestimate the level of competition and overestimate the HHIs); and none of these 12 cases involve sophisticated products for which entry barriers could be high” (Bourgeois and Messerlin 1998: 144)

Shin (1998) examined 451 antidumping investigations in the United States over the period 1980-1989. He adopted a screening approach similar to B&M’s, eliminating as possible cases of predation those instances where:

1. Negative findings were made, on the grounds that predatory intent could not have been in play if there was insufficient evidence for dumping or injury, reducing the sample of possible predation to 288;
2. The US domestic industry was not concentrated, because the existence of many US producers is indicative of low minimum efficient scale or low barriers to entry and predatory dumping would therefore unlikely to be successful.

For this purpose, Shin calculated the HHI for the HS four or five-digit sector in which the protection was provided, with an HHI of 0.18 or higher indicating a “highly concentrated” industry in US antitrust law. Shin acknowledged that the industry groupings at this level might encompass a broader group of products than that targeted by the antidumping measures but argued that firms in these groups may possess the technology and organization to produce the product if it becomes profitable and/or the products within the wider grouping may also be close demand substitutes for the targeted product.

Since this test excluded almost all cases, Shin also included cases where the HHI was below 0.18 at the four- or five-digit level but where USITC case data allowed the construction of a pseudo-HHI on the assumption that the USITC-reported market shares are split evenly amongst the number of firms indicated in the case documentation. This boosted his potential predatory case count to 86.

3. There were numerous exporters in the targeted country, since successful coordination in bearing the initial losses and in the subsequent recoupment of those losses is more difficult the greater the number of players. Shin calculated pseudo-HHIs from the case documentation. This eliminated only a small percentage of the cases, leaving 75 in the running.
4. There were five or more countries targeted, for the same coordination reasons, reducing the number of potential cases to 62.
5. Imports did not have a high degree of penetration or were not growing rapidly, since it is unlikely that dumping could create monopoly power for the foreign firms if imports were not making significant inroads into the market. Shin eliminated those cases where the case documentation showed import penetration of 20% or less, and those where negative findings were issued by the USITC on “critical circumstances”, i.e. where imports did not increase rapidly.

Applying these screens, Shin found 39 of the original 451 cases – i.e. 8.6% of all cases screened – to have potentially involved predatory motives.

As can be seen, Shin’s “screens” are conceptually similar to the B&M screens but with some different judgments concerning the threshold levels for screening out cases. His results are also similar to B&M’s showing that only a small percentage of US cases meet the criteria that would establish them as potentially involving predatory practices.

Finally, Bienen, Ciuriak and Picarello (2012) applying an approach adapted from B&M found that, of 64 EU antidumping cases initiated in the period 2005 to 2010, only seven cases (or 11% of the cases screened) could be identified in which predatory practice might have been addressed. Specifically, four of the 64 cases were screened out for targeting four or more countries (screen 1), and 37 others because the exporters targeted number eight or more in each case (screen 2). 16 others were screened out because the combined market share of the targeted exporters was too low to be considered as occupying a dominant position in the EU market (screen 3). None of the remaining cases was screened out by the remaining two screens, i.e. a concentrated EU market or a negative finding of the Commission’s investigations. Finally, if a sixth screen was applied to the seven remaining cases – i.e. the existence of global market power in order to prevent entry of new competitors after the predation period – only one case remained as a potential case of predatory behavior.

In sum, then, none of the studies undertaken so far has found any notable support for the justification of antidumping measures as a device to correct anticompetitive, predatory practices in international trade, and this despite the fact that each of the studies was considered by the respective authors as conservative by setting high thresholds for a finding that no predatory practice was at play in any given case.

In three of the studies (Bourgeois and Messerlin 1998, Shin 1998, and Bienen et al. 2012) the failure of a case to meet any single screen was considered as sufficient for a finding of obvious absence of a predatory practice. Accordingly, notwithstanding the conservative bias in setting the threshold for individual tests, this approach may constitute an unduly strict standard of assessment if failure to meet even one criterion excludes a case. We consider the implications of easing this latter aspect of the approach in the following section.

## **4 METHODOLOGY**

Comparing the methods and responses of competition authorities to alleged predatory pricing in a domestic context with those of trade defense authorities to alleged dumping is not straightforward. In order to prove the existence of predatory pricing competition authorities usually apply a three stage process. First, it has to be assessed if the predator is a dominant firm. If this is not the case, the investigation stops. Dominance can be held by a single firm (“single

dominance”), or jointly by two or more firms (“collective dominance”). Collective dominance exists when the involved undertakings present themselves in the market in a joint manner acting in a parallel way with regard to the most important competitive parameters (prices, output, etc.) without having reached any form of implicit or explicit agreement. Collective dominance arises especially in oligopolistic markets, where companies do not need an explicit agreement in order to maintain price or reduce output compared to competitive levels. Second, if dominance has been ascertained, the authority has to determine if, through the aggressive pricing policy the dominant firm sacrifices short-term profits.<sup>6</sup> Third, in some countries the competition authority also has to show that the short-term loss can be recouped by the dominant firm.

Conversely, in order to impose antidumping measures, trade defense authorities under WTO rules<sup>7</sup> must first show that dumping – i.e., cross-border price discrimination – takes place (Art. 2 ADA). This may or may not involve sales at prices below variable or total costs. Second, it must be shown that the domestic industry of the importing country is injured by the dumping practice (Art. 3 ADA).

In order to determine if antidumping meets competition policy standards, one would ideally apply the competition policy methodology to antidumping cases. However, this is possible only to a limited extent, given the information constraints in antidumping case documentation. Therefore we calculate a likelihood-of-predatory-practice (LOPP) index by assessing the following parameters:

### 1. Dominance of targeted exporters in the importing country’s domestic market

We consider that cases in which the combined share of the targeted firms on the importing country domestic market is 40% or higher represent instances of market dominance. A quantitative threshold for the determination of market dominance is taken because it is simple to handle and usually provided in case documentation. The 40% threshold is based on the history of EU competition law enforcement as to what constitutes a dominant position.<sup>8</sup> The fact that we take the *combined* market share of targeted firms is based on the implicit (and strong) assumption that all targeted firms are collectively dominant. However, as antidumping case documentation

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<sup>6</sup> In competition policy practice, there is an international convergence among authorities to apply the Areeda/Turner rule. The Areeda/Turner rule distinguishes three different situations, depending on whether prices charged during the predation period are below average variable costs, between average variable costs and average total costs, or above total costs: (1) Only prices below average variable costs (as proxy of marginal costs) charged by dominant firms are usually considered predatory pricing. In fact, a firm should normally find it rational to stop production rather than charging prices below variable costs, considering that for each additional unit of product supplied, additional losses are incurred. The only explanation for such “prima facie” irrational behaviour would be the expectation for higher profits at a later stage. (2) Prices above average variable costs but below average total costs, on the other hand, may be considered predatory when they are clearly associated with an exclusionary intent. (3) Prices above average total costs are not considered predatory. See Gangi/Bienen (2010: 102ff.).

<sup>7</sup> The WTO legal bases for antidumping constituted by GATT Article VI and the Agreement on Implementation of Art. VI of the GATT 1994 (usually referred to as the Antidumping Agreement, ADA) provide the common basis for antidumping systems of all WTO members.

<sup>8</sup> The specific features of this test in the present study are based on Bourgeois and Messerlin (1998). Shin (1998), who examined US practice, eliminated those cases where the case documentation showed import penetration of 20% or less, and those where negative findings were issued by the USITC on “critical circumstances”, i.e. where imports did not increase rapidly.

does not provide company specific market shares, the analysis can only be based on the combined market share.

To alleviate the assumption of collective dominance of all targeted firms, we apply two qualifying tests which identify those cases where collective predatory practice is particularly unlikely due to coordination problems:

**2. Four or more countries are targeted.**

This screen rules out cases where an implausible level of coordination across countries would be required.

**3. Eight or more foreign firms are targeted**

This screen similarly rules out cases where an implausible level of coordination, across firms in this instance, would be required.

A test which would emulate the sacrifice of short-term profits of the dumping firms is not possible due to lack of data. Likewise, a recoupment test in the strict sense is not possible. However, as a proxy for the existence of high barriers to entry, which would facilitate post-predation period recoupment of losses, we assess the EU market structure. Where the EU market is concentrated, entry barriers are likely to be high, as is the probability to recoup losses. In such cases, predatory practices cannot be ruled out:

**4. The EU domestic market is concentrated**

We measure market concentration, in line with the literature, using the Herfindahl–Hirschman Index (HHI), with a threshold for a concentrated market of 0.18. Since market shares of individual companies are not available, we calculate an approximate range for the HHI based on the details provided in the case documentation. This usually provides the market share for (at least) the targeted imports, Union industry, and imports from other countries. The maximum HHI is calculated assuming that each set of suppliers is represented by only one firm. Conversely, the minimum HHI is calculated assuming that all companies in each set of suppliers have the same market share.

Given the level of aggregation of information provided in most case documentation, the maximum HHI typically exceeds 0.18<sup>9</sup> and seriously overstates the actual degree of market concentration. Therefore, the 0.18 threshold is applied to the simple average between the maximum and minimum HHI. Furthermore, cases where the HHI is close to the threshold (i.e. those where the average HHI is between 0.15 and 0.21) are considered as “inconclusive”. In some cases where the HHI could not be calculated, a judgment call was made regarding the degree of market concentration.

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<sup>9</sup> This was true in 63 out of 71 cases where the HHI could be calculated.



### **Aggregation: calculation of LOPP index**

In each of the four tests, we assign a value of “1” if a case meets the test for predatory practice; if the case does not meet the test, a value of “-1”, and if the test is inconclusive, a value of “0”. Cases in which for any of the tests no data are available are excluded. The individual values are then summed up into the LOPP index, ranging from -4 to +4, where a positive value indicates a likelihood of predatory practice while a negative one indicates the likelihood of absence of such practice. While there can be no presumption about predatory practice even if all the criteria are met, we consider that the likelihood of such practice being involved increases with the index value.

The simple addition of individual test scores implies that all tests have the same weight in the index. While subjectively a dominant position might seem to have more weight in forming a judgement than e.g. the number of firms targeted, there is no theory which would allow to justify any specific weighting. In the absence of such theory, *any* weighting could be argued to be subjective – hence the simplest (equal) weighting has been chosen. We recognize that future work is needed to improve the index by addressing econometrically the issue of weights.

Our methodology is similar to the one of B&M (1998) and Shin (1998) with regard to the individual tests. However, the main methodological difference to these studies is that we apply each test to all cases, rather than screening out cases sequentially. We do so because it cannot be excluded that cases are predatory even where they do not meet one of the tests – e.g. there might be more than eight exporters to a case but if these are orchestrated by the Government (which could be the case especially in a non-market economy country) a predatory practice might still be at work. Under previous studies, such a case would have been considered as non-predatory.

We apply the methodology to 100 EU antidumping cases<sup>10</sup> initiated during the period 2001-2010 which were not terminated due to a finding of no or *de minimis* dumping.<sup>11</sup> Note that this is another difference to the standard methodology used in the literature, where termination of a case because of no dumping *or no injury* is considered as an indication for a lack of predatory practice. However, only a finding of no dumping is conclusive evidence of an absence of predatory pricing. A finding of no injury could also mean that a predatory attempt was not successful. In general, cases with negative outcomes except the no dumping finding may contain features that prompted the authorities to undertake investigations and it is possible that complaints are withdrawn because the firms involved strike an agreement; agreements struck under duress are not necessarily indicative of an absence of competition policy concerns, they might signify quite the opposite.

Consistent with the approach of B&M and Shin, our methodology is conservative when applying the individual criteria in that it allows many cases to be considered as potentially predatory where the number of countries targeted and the number of exporters involved are still quite large. We

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<sup>10</sup> These cases involved 178 exporting countries.

<sup>11</sup> Nine cases were eliminated on that basis. See table A2 in annex.

consider this as appropriate since, in the modern context of hyper-specialization of production due to the increasingly refined division of labor amongst firms, a low level of concentration of an industry may mask a high degree of concentration in specialized niche products. Often, in industries that supply what appear to be highly substitutable commodity inputs into production processes, the ability of firms to produce to the exact specifications required by the industrial users varies. In some of these cases, there may be significant non-tariff barriers to entry into a market since the customers may have to pre-clear the supplier's production processes. For example, in the case of steel pipe that is used for drilling oil and gas exploration wells, end users need to approve a product from a new source after site visits to confirm that specification requirements have been met, and to receive a guarantee of the quality and availability of the new products, since the risk of using an unknown product in the drilling business, even if it has an international certification, is simply too high.<sup>12</sup>

At the same time, our approach allows cases to be considered as potentially predatory when the positive outcomes of criteria that are met are weighed along with the negative outcomes of other criteria.

## 5 RESULTS

Out of the 100 cases assessed initially, for 20 cases data are missing for at least one of the tests (see table A3 in annex). Therefore, the LOPP index could be calculated for 80 cases. Of these, 44% have a positive LOPP index score (indicating that predatory behavior cannot be categorically excluded, which an index reading of zero or less would suggest), compared to 39% with a negative score. In line with this, the mean LOPP index score is +0.28, showing a slight tendency that antidumping cases are found in environments which could give rise to anticompetitive behavior.

More interestingly, relatively few cases fall into the extremes (Figure 1): only five cases do not meet any of the tests (i.e., have a score of -4), while 9 out of 80 (11%) meet all of the tests and thus would have been included among the cases of potential predatory pricing if the "standard" methodology had been applied. This percentage is in line with the results of B&M (1998), Shin (1998) and Bienen et al. (2012), as described in section 3 above.

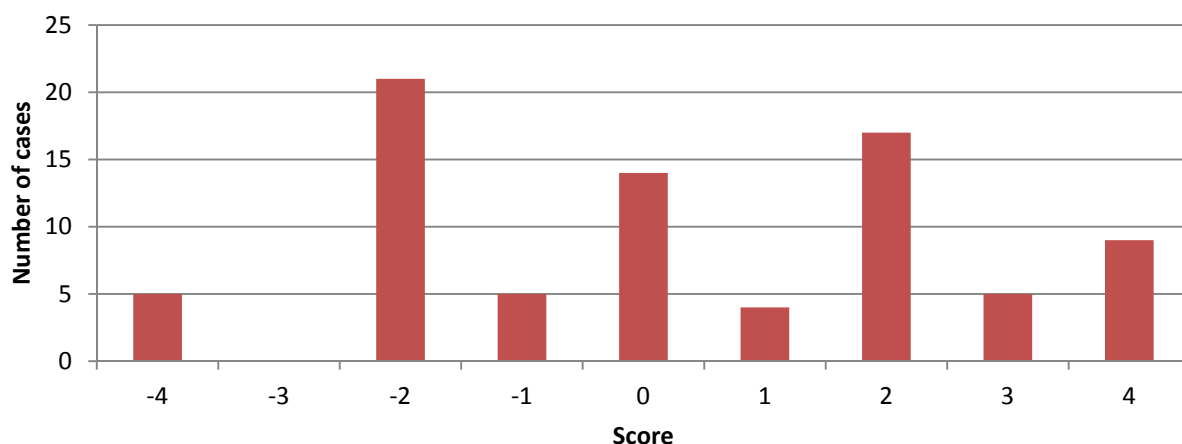
Notably, the circumstances in some cases are suggestive of the abuse of antidumping for protectionist purposes, as many critics of antidumping have decried. In particular, those cases where import market share was limited and the EU market was concentrated and/or the EU industry had a record of anticompetitive behavior have at least the "smell" of abuse. At the same

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<sup>12</sup> See the discussion of this issue in connection with Korean suppliers of pipe to the Canadian oil and gas industry in *Oil and Gas Well Casings from Korea and the United States* – CITT, Orders and Reasons: Expiry Review No. RR-2000-001, July 4, 2001; at 10-11.

time, we show that the European Union’s anti-dumping practice is more likely to have addressed predatory practices than is often supposed.

**Figure 1: Frequency of cases by LOPP index score**



Source: Authors’ calculations based on Table A1 in annex.

**Table 1: EU antidumping cases which meet all criteria for potential predatory dumping (LOPP index score of 4), 2001-2010**

| Product                      | ID     | Countries                  | Year of initiation |
|------------------------------|--------|----------------------------|--------------------|
| Sulphanilic acid             | AD.444 | China, India               | 2001               |
| Barium carbonate             | AD.475 | China                      | 2004               |
| Refrigerators (side-by-side) | AD.493 | Korea (Rep. of)            | 2005               |
| Tungsten electrodes          | AD.502 | China                      | 2005               |
| Dicyandiamide                | AD.512 | China                      | 2006               |
| Manganese dioxides           | AD.520 | South Africa               | 2006               |
| Monosodium glutamate         | AD.521 | China                      | 2007               |
| Cargo scanning systems       | AD.539 | China                      | 2009               |
| Fatty alcohols               | AD.563 | India, Indonesia, Malaysia | 2010               |

Source: Table A1 in annex.

**Table 2: EU antidumping cases which lack characteristics of predatory dumping (LOPP index score of -4), 2001-2010**

| Product   | ID     | Countries  | Year of Initiation |
|---|--------|--|--------------------|
| Tube and pipe fitting, of iron or steel           | AD.442 | Czech Republic, Korea (Rep. of), Malaysia, Russia, Slovakia        | 2001               |
| Welded tubes and pipes of iron or non-alloy steel | AD.443 | Czech Republic, Poland, Thailand, Turkey, Ukraine                  | 2001               |
| Stainless steel fasteners and parts thereof       | AD.482 | China, Indonesia, Malaysia, Philippines, Taiwan, Thailand, Vietnam | 2004               |
| Seamless pipes and tubes, of iron or steel        | AD.490 | Croatia, Romania, Russia, Ukraine                                  | 2005               |
| Welded tubes and pipes of iron or non-alloy steel | AD.523 | Belarus, Bosnia & Herzegovina, China, Russia                       | 2007               |

Source: Table A1 in annex.

## 6 CONCLUSIONS

In this paper, we revisit the issue of whether antidumping actually serves the same purpose of disciplining anticompetitive behavior in international trade as competition policy does for domestic commerce. The established approach to treating this issue systematically is to apply a series of criteria that screen out cases which involve circumstances or market characteristics that are judged unlikely to be associated with successful predation. We modify the screening approach by calculating a likelihood-of-predatory-practice (LOPP) index which takes into account the number of criteria for predation that an individual case satisfies as well as those which would tend to eliminate the case from further consideration.

We test this approach by examining the European Union's use of antidumping proceedings in its extra-EU trade over the period 2001-2010. We find that nine of 80 cases meet all the criteria for predatory practices to likely be in play and only five are excluded on all counts. Most cases thus meet some but not all the criteria for potentially successful predation. Out of the 80 cases assessed, 44% have a positive LOPP index score (indicating that predatory behavior cannot be excluded), compared to 39% with a negative score. In line with this, the mean LOPP index score is +0.28, showing a slight tendency that antidumping cases are found in environments which could give rise to anticompetitive behavior.

The LOPP index, as proposed above, is a tool for policy analysis to assist in the framing of antidumping law where it might be raised as circumstantial evidence. The probabilistic logic behind the LOPP index does provide some "moral cover" for governments applying antidumping remedies in questionable cases; however, as it does not in any way qualify the actual formal criteria required to be met under WTO law for application of antidumping measures, it would not have any effect in widening the potential application of antidumping. At the same time, this sword cuts two ways: were the LOPP index to be applied as an indicator to provide "moral support" in an antidumping case, it is much more likely to strengthen the hand of governments in making a public case against industry protectionist pressure rather than as an excuse to apply duties (where no excuse is needed).

The LOPP index also serves to situate antidumping more in the middle ground between the rather extreme criticism which it has elicited from economists as a tool of protectionism and the strong assertions of government policymakers concerning its pro-competitive role. In that sense, we believe it contributes to the policy debate on anti-dumping practice.

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# ANNEX

Table A1: Calculation of LOPP indices of EU antidumping cases initiated 2001-2010

| Product                      | Case ID | Countries       | Year of init. | Test 1 - Market Share of targeted firms $\geq 40\%$ |       | Test 2 - Less than 4 countries targeted |       | Test 3 - Less than 8 foreign firms targeted |       | Test 4 - Concentrated EU market   |                                 |   |         |         |             |         | LOPP Index |       |   |
|------------------------------|---------|-----------------|---------------|---|-------|---|-------|---|-------|---|---------------------------------|---|---------|---------|-------------|---------|------------|-------|---|
|                              |         |                 |               | Market share of targeted firms*                     | Score | Number of countries targeted            | Score | Number of firms targeted                    | Score | Number of EU producers & share in EU production                           | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score      | Score |   |
| Sulphanilic acid             | AD.444  | China, India    | 2001          | more than 40% (cumulated)                           | 1     | 2                                       | 1     | 2 (1 China, 1 India)                        | 1     | 2 (100% of EU production)   | approx. 40%                     | 18.0%   | 0       | 0.1600  | 0.3364      | 0.2482  | 1          | 1     | 4 |
| Barium carbonate             | AD.475  | China           | 2004          | more than 40%                                       | 1     | 1                                       | 1     | 5   | 1     | 1 (sole EU producer, 100% of EU production)                               | 45%-50%                         | around 10%  | 1       | 0.2820  | 0.4200      | 0.3510  | 1          | 1     | 4 |
| Refrigerators (side-by-side) | AD.493  | Korea (Rep. of) | 2005          | 42 to 50%   | 1     | 1                                       | 1     | 3   | 1     | 1 with 100% of production   | .. (only index provided)        | .. (only index provided)                            | 1       | 0.3333  | 0.5128      | 0.4231  | 1          | 1     | 4 |
| Tungsten electrodes          | AD.502  | China           | 2005          | 76%   | 1     | 1                                       | 1     | 4   | 1     | 2 EU producers, one cooperating with more than 50% of EU production (=UI) | ..                              | negligible  | 1       | 0.1740  | 0.6094      | 0.3917  | 1          | 1     | 4 |
| Dicyandiamide                | AD.512  | China           | 2006          | 40-50%  | 1     | 1                                       | 1     | 3 cooperating                               | 1     | 1 (sole EU producer, 100% of EU production)                               | 50-60%                          | 0.0%  | 1       | 0.3333  | 0.5200      | 0.4267  | 1          | 1     | 4 |
| Manganese dioxides           | AD.520  | South Africa    | 2006          | 60-70%  | 1     | 1                                       | 1     | 1   | 1     | 2 EU producers; UI: 1 cooperating (more than 50% of EU production)        | 12-28% (calculated)             | 8%; other EU producers: 4-10%                       | 1       | 0.4184  | 0.5764      | 0.4974  | 1          | 1     | 4 |
| Monosodium glutamate         | AD.521  | China           | 2007          | 38-43%  | 1     | 1                                       | 1     | 3 cooperating                               | 1     | 1 (sole EU producer,  | 42-52% (calculated)             | 10-15%  | 1       | 0.2380  | 0.4653      | 0.3517  | 1          | 1     | 4 |

| Product                                      | Case ID | Countries                  | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted              |       | Test 4 - Concentrated EU market                 |   |   |                                  |         |             |         |        |       |   | LOPP Index |
|--|---------|----------------------------|---------------|--|-------|---|-------|--|-------|---|---|---|----------------------------------|---------|-------------|---------|--------|-------|---|------------|
|  |         |                            |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted                                 | Score | Number of EU producers & share in EU production | Market share of Union industry*   | Market share of other imports/EU producers* (Score) | HHI min                          | HHI max | average HHI | (Score) | Score  | Score |   |            |
| Cargo scanning systems                       | AD.539  | China                      | 2009          | 40-50%                                       | 1     | 1                                       | 1     | 1  | 1     | 1   | 100% of EU production)<br>2 EU producers; UI: 1 producer (80% of EU production) | 20-30%  | very limited                     | 1       | ..          | ..      | ..     | 1     | 1 | 4          |
| Fatty alcohols                               | AD.563  | India, Indonesia, Malaysia | 2010          | 35-45%                                       | 1     | 3                                       | 1     | 7 cooperating (2 India, 2 Indonesia, 3 Malaysia)         | 1     | 1   | UI: 2 major EU producers and at least 3 small ones (100% of EU production)      | .. (only index provided)                            | .. (only index provided)         | 1       | ..          | ..      | ..     | 1     | 1 | 4          |
| Para-cresol                                  | AD.457  | China                      | 2002          | more than 30%, rapidly increasing            | 0     | 1                                       | 1     | 2  | 1     | 1   | 1 (sole EU producer, 100% of EU production)                                     | 51.0%   | 17.0%                            | 1       | 0.3051      | 0.3790  | 0.3421 | 1     | 1 | 3          |
| Hand pallet trucks and their essential parts | AD.474  | China                      | 2004          | 57%  | 1     | 1                                       | 1     | 4 cooperated   | 1     | 1   | 4 complainants (plus 1 other EU producer), more than 60% of EU production       | 23.0%   | 4.0%                             | -1      | 0.0918      | 0.3794  | 0.2356 | 1     | 0 | 3          |
| Lever arch mechanisms                        | AD.491  | China                      | 2005          | 51%  | 1     | 1                                       | 1     | 5 (2 cooperated)   | 1     | 1   | 3 complainants with 50% share; 5 EU producers with 90% share                    | .. (only index provided)                            | 0.0%                             | 0       | 0.0909      | 0.3201  | 0.2055 | 0     | 0 | 3          |
| Compressors                                  | AD.519  | China                      | 2006          | 52.90%                                       | 1     | 1                                       | 1     | Large (sampling), but 6 cooperating accounted for 93% of | 1     | 1   | 31 EU producers; UI: 2 cooperating (50% of EU production)                       | 7.8% (calculated)                                   | 26.4%; other EU producers: 12.9% | -1      | 0.0503      | 0.3723  | 0.2113 | 1     | 0 | 3          |

| Product                                   | Case ID | Countries      | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted                                   |       | Test 4 - Concentrated EU market                                     |   |   |         |         |             |         |        | LOPP Index |   |   |
|---|---------|----------------|---------------|--|-------|---|-------|---|-------|---|---|---|---------|---------|-------------|---------|--------|------------|---|---|
|   |         |                |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted  | Score | Number of EU producers & share in EU production                     | Market share of Union industry*                     | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score  | Score      |   |   |
| Citric acid                               | AD.522  | China          | 2007          | 46%  | 1     | 1                                       | 1     | exports to EU   | 0     | 2 (100% of EU production)   | 51% (calculated)                                    | 3.0%  | 1       | 0.1565  | 0.4726      | 0.3146  | 1      | 1          | 3 |   |
| Compact disks - recordable (CD-Rs)        | AD.439  | Taiwan         | 2001          | 60.10%                                       | 1     | 1                                       | 1     | Large (sampling), but 4 sampled exporters accounted for 79% of exports to EU) | -1    | 14 (sampling)   | 26, of which 9 cooperating (69.4% of EU production) | 12.6%   | 21.3%   | 0       | 0.027       | 0.3951  | 0.2113 | 1          | 1 | 2 |
| Cellulose acetate (filament yarns)        | AD.451  | Lithuania, USA | 2001          | 26%  | -1    | 2                                       | 1     | 3 (1 Lithuania, 2 USA)  | 1     | 2 complainants (93% of EU production), 1 non-supporting EU producer | .. (only changes in market share provided)          | around 1%   | 1       | ..      | ..          | ..      | 1      | 1          | 2 |   |
| Stainless steel cold-rolled flat products | AD..05  | USA            | 2002          | 12-14%                                       | -1    | 1                                       | 1     | 1 cooperating   | 1     | 6 EU producers; UI: 3 EU producers (85% of EU production)           | 64.0%   | 3.2%; other EU producers: 18%                       | 0       | 0.1534  | 0.4599      | 0.3067  | 1      | 1          | 2 |   |
| Graphite electrode systems                | AD.469  | India          | 2003          | 8%-10%                                       | -1    | 1                                       | 1     | 2   | 1     | 2 groups (more than 80% of EU production)                           | .. (only index provided)                            | 11.8%   | 1       | ..      | ..          | ..      | 1      | 1          | 2 |   |
| Trichloroisocyanuric acid (TCCA)          | AD.486  | USA, China     | 2004          | 50% China, 11% USA                           | 1     | 2                                       | 1     | 8 (6 PRC, 2 USA)  | -1    | 3 EU producers of which one with more than 50% in EU production     | .. (only index provided)                            | 4%-5%   | 0       | 0.088   | 0.3802      | 0.2344  | 1      | 1          | 2 |   |
| Grain-oriented electrical steel sheets    | AD.479  | Russia, USA    | 2004          | 13% (cumulated)                              | -1    | 2                                       | 1     | 3 (2 Russia, 1 US)  | 1     | 4 (of which 3 belonging to  | 60.4%   | 18.2%   | 1       | 0.188   | 0.4002      | 0.2941  | 1      | 1          | 2 |   |



| Product               | Case ID | Countries | Year of init. | Test 1 - Market Share of targeted firms ≥40%   |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted |   | Test 4 - Concentrated EU market                          |                                 |   |         |         |             |         |       | LOPP Index |   |
|-----------------------|---------|-----------|---------------|--|-------|---|-------|---|---|--|---------------------------------|---|---------|---------|-------------|---------|-------|------------|---|
|                       |         |           |               | Market share of targeted firms*  | Score | Number of countries targeted            | Score | Number of firms targeted                    | Score                                     | Number of EU producers & share in EU production          | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score      |   |
| (big + small)         |         |           |               | Russia and USA)  |       |   |       |   | the same group) with 90% production share |  |                                 |   |         |         |             |         |       |            |   |
| Tartaric acid         | AD.488  | China     | 2004          | 11.50%   | -1    | 1                                       | 1     | 3 cooperating                               | 1   | 5 EU producers with 95% share in EU production           | 60.9%                           | 1.9%  | 1       | 0.0849  | 0.4344      | 0.2596  | 1     | 1          | 2 |
| Silicon carbide       | AD.494  | Romania   | 2005          | Romania's share of EU imports less than 12%; therefore much smaller share of domestic market | -1    | 1                                       | 1     | 2 cooperating exporters                     | 1   | 4 EU producers representing 100% of EU production        | ..                              | ..  | 1       | ..      | ..          | ..      | 1     | 1          | 2 |
| Saddles               | AD.508  | China     | 2006          | 26% (rapid increase)   | -1    | 1                                       | 1     | 4   | 1   | 7 (99% of EU production) = UI                            | 58.0%                           | 8.0%  | 0       | 0.0650  | 0.4104      | 0.2377  | 1     | 1          | 2 |
| Coke (over 80mm)      | AD.518  | China     | 2006          | 28%  | -1    | 1                                       | 1     | 1 cooperating                               | 1   | 7 EU producers; UI: 5 cooperating (75% of EU production) | 51.3%                           | 0%; other EU producers: 20%                         | 0       | 0.1510  | 0.3816      | 0.2663  | 1     | 1          | 2 |
| Citrus fruits         | AD.524  | China     | 2007          | 71.10%   | 1     | 1                                       | 1     | 16 (sampling)                               | -1  | 4 (100% of EU production)                                | 27.1%                           | less than 2%  | 0       | 0.0500  | 0.5794      | 0.3147  | 1     | 1          | 2 |
| PSC wires and strands | AD.529  | China     | 2008          | 8.20%  | -1    | 1                                       | 1     | 7 cooperating                               | 1   | 22 EU producers = UI                                     | 80.3%                           | 11.0%   | 0       | 0.0303  | 0.6636      | 0.3470  | 1     | 1          | 2 |
| Sodium metal          | AD.535  | USA       | 2008          | US share of EU import market was less than 20%; therefore                                    | -1    | 1                                       | 1     | 1   | 1   | 1 EU producer (100% of EU production)                    | ..                              | ..  | 1       | ..      | ..          | ..      | 1     | 1          | 2 |

| Product                 | Case ID | Countries          | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted |       | Test 4 - Concentrated EU market  |  |   |         |         |             |         |       | LOPP Index |   |
|-------------------------|---------|--------------------|---------------|--|-------|---|-------|---|-------|--|--|---|---------|---------|-------------|---------|-------|------------|---|
|                         |         |                    |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted                    | Score | Number of EU producers & share in EU production  | Market share of Union industry*            | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score      |   |
|                         |         |                    |               | share of domestic market much less           |       |   |       |   |       |  |  |   |         |         |             |         |       |            |   |
| Molybdenum wires        | AD.540  | China              | 2009          | 27.1% (calculated)                           | -1    | 1                                       | 1     | 1 cooperating                               | 1     | 2 EU producers; UI: 1 producer (more than 80% of EU production)                              | .. (only index provided)                   | 15-20%  | 1       | ..      | ..          | ..      | 1     | 1          | 2 |
| Sodium gluconate        | AD.544  | China              | 2009          | 24.80%                                       | -1    | 1                                       | 1     | 2 cooperating                               | 1     | UI: 2 EU producers (100% of EU production)   | 64.7%                                      | 10.4% (calculated)                                  | 1       | 0.2401  | 0.4909      | 0.3655  | 1     | 1          | 2 |
| Coated fine paper       | AD.552  | China              | 2010          | over 4%                                      | -1    | 1                                       | 1     | 2 cooperating                               | 1     | 14 EU producers  | 88.0%                                      | 8.1%  | 0       | 0.0561  | 0.7760      | 0.4161  | 1     | 1          | 2 |
| Melamine                | AD.554  | China              | 2010          | 6.50%  | -1    | 1                                       | 1     | 7 (5 cooperating)                           | 1     | UI: 5 EU producers (3 complainants - 90% of EU production)                                   | 86.0%                                      | 6.2%  | 1       | 0.1485  | 0.7477      | 0.4481  | 1     | 1          | 2 |
| Ring binder mechanisms  | AD.440  | India, Indonesia   | 2001          | 8%-13%                                       | -1    | 2                                       | 1     | 2 (1 India, 1 Indonesia)                    | 1     | 2 (1 complainant, 1 other)   | .. (only changes in market share provided) | .. (only changes in market share provided)          | 0       | ..      | ..          | ..      | 1     | 0          | 1 |
| Silicon metal (silicon) | AD.461  | Russia             | 2002          | 4.80%  | -1    | 1                                       | 1     | 3   | 1     | 3 (100% of EU production)  | 36.7%                                      | 58.4%   | 0       | 0.045   | 0.2613      | 0.1535  | 0     | 0          | 1 |
| Zeolite A powder        | AD.553  | Bosnia & Herzegov. | 2010          | 10-15%                                       | -1    | 1                                       | 1     | 1   | 1     | Sampling - 8 EU producers (50% of EU production), sampled 4 producers (37% of EU production) | 85-90%                                     | negligible  | 0       | ..      | ..          | ..      | 1     | 0          | 1 |
| Open mesh fabrics of    | AD.558  | China              | 2010          | 51%  | 1     | 1                                       | 1     | More than 16                                | -1    | UI: 19 EU  | 46.0%                                      | negligible  | -1      | 0.0274  | 0.4717      | 0.2495  | 1     | 0          | 1 |

| Product  | Case ID | Countries                  | Year of init. | Test 1 - Market Share of targeted firms ≥40%  |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted        |       | Test 4 - Concentrated EU market                                      |                                 |   |         |         |             |         |       | LOPP Index |   |
|--|---------|----------------------------|---------------|---|-------|---|-------|--|-------|--|---------------------------------|---|---------|---------|-------------|---------|-------|------------|---|
|  |         |                            |               | Market share of targeted firms*   | Score | Number of countries targeted            | Score | Number of firms targeted                           | Score | Number of EU producers & share in EU production                      | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score      |   |
| <b>glass fibres</b>                                  |         |                            |               |   |       |   |       |  |       |  |                                 |   |         |         |             |         |       |            |   |
| <b>Polyethylene terephthalate (PET)</b>              | AD.468  | Australia, China, Pakistan | 2003          | China 6.4%, Australia 1.5%  | -1    | 3                                       | 1     | 13 (2 Australia, 9 China, 2 Pakistan)              | -1    | 11 (7 complainants, 4 others), 97% of EU production                  | 76.0%                           | 9.6%  | 0       | 0.0531  | 0.5911      | 0.3221  | 1     | 1          | 0 |
| <b>Okoumé plywood</b>                                | AD.471  | China                      | 2003          | 18.70%  | -1    | 1                                       | 1     | Large, 5 cooperated                                | 0     | 10 complainants (sampling), 85% of EU production                     | 57.1%                           | 13.9%   | 0       | 0.0396  | 0.3803      | 0.2100  | 0     | 0          | 0 |
| <b>Granular polytetrafluoroethylene (PTFE) resin</b> | AD.485  | China, Russia              | 2004          | 34.5% (China and Russia combined)   | -1    | 2                                       | 1     | Large (but only 5 cooperating - 3 China, 2 Russia) | 0     | 3 complainants with 81% share in EU production; 2 other EU producers | 32.9%                           | 25.1%   | 0       | 0.1096  | 0.2903      | 0.1999  | 0     | 0          | 0 |
| <b>Salmon</b>  | AD.487  | Norway                     | 2004          | 59.60%  | 1     | 1                                       | 1     | Large (102)  | -1    | 24 EU producers  | 2.8%                            | 19.4%   | -1      | 0.0035  | 0.3630      | 0.1833  | 0     | -1         | 0 |
| <b>Ethyl alcohol</b>                                 | AD.492  | Guatemala, Pakistan        | 2005          | Guatemala and Pakistan share of EU imports was less than 6% of total EU imports and therefore much smaller share of domestic market | -1    | 2                                       | 1     | 3 in Pakistan and 3 in Guatemala were investigated | 1     | Large number of Union producers supported the complaint              | ..                              | ..  | -1      | ..      | ..          | ..      | 1     | -1         | 0 |

| Product                                    | Case ID | Countries                  | Year of init. | Test 1 - Market Share of targeted firms ≥40%       |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted |       | Test 4 - Concentrated EU market  |                                 |   |         |            |                     |        |       | LOPP Index |   |
|--|---------|----------------------------|---------------|--|-------|---|-------|---|-------|--|---------------------------------|---|---------|------------|---------------------|--------|-------|------------|---|
|  |         |                            |               | Market share of targeted firms*                    | Score | Number of countries targeted            | Score | Number of firms targeted                    | Score | Number of EU producers & share in EU production                              | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max    | average HHI (Score) | Score  | Score |            |   |
| Compact disks - recordable (CD-Rs)         | AD.500  | China, Hong Kong, Malaysia | 2005          | 48% cumulated (8% Hong Kong, 32% China, 8% Taiwan) | 1     | 3                                       | 1     | Large (sampling)                            | -1    | 1 cooperating (50% of EU production) =UI                                     | ..                              | 37.0%   | -1      | 0.000<br>0 | 0.2193              | 0.1097 | -1    | -1         | 0 |
| Strawberries (frozen)                      | AD.505  | China                      | 2006          | 20%  | -1    | 1                                       | 1     | 5   | 1     | 25 cooperating (29% of EU production) = UI; 8 sampled (14% of EU production) | 59% (EU production)             | 15.6%   | -1      | ..         | ..                  | ..     | 1     | -1         | 0 |
| Ironing boards                             | AD.506  | China, Ukraine             | 2006          | 48% (cumulated)                                    | 1     | 2                                       | 1     | 9 (8 China, 1 Ukraine)                      | -1    | 4 cooperating (45% of EU production) = EU; at least 17 others                | 24.0%                           | ..  | -1      | 0.040<br>0 | 0.2880              | 0.1640 | 0     | -1         | 0 |
| Peroxosulphates                            | AD.511  | China, Taiwan, USA         | 2006          | 36.1% (China 20.9%, USA 9.3%, Taiwan 5.9%)         | -1    | 3                                       | 1     | 9 (6 China, 2 USA, 1 Taiwan)                | -1    | 2 (100% of EU production) = UI   | 58.5% (calculated)              | 5.4%  | 1       | 0.1862     | 0.3995              | 0.2929 | 1     | 1          | 0 |
| Dihydromyrcenol                            | AD.514  | India                      | 2006          | 17.30%   | -1    | 1                                       | 1     | 2 cooperating exporters                     | 1     | 5 EU producers; UI: 3 cooperating (more than 40% of EU production)           | 34.2%                           | 20%; other EU producers: (calculated)               | -1      | 0.094<br>6 | 0.2681              | 0.1813 | 0     | -1         | 0 |
| Aluminium Foil                             | AD.534  | Armenia, Brazil, China     | 2008          | 49% (Armenia 5.3%, Brazil 12.8%, China 30.7%)      | 1     | 3                                       | 1     | 8 (6 China, 1 Brazil, 1 Armenia)            | -1    | 6 EU producers; UI: 5 producers (more than 60% of EU production)             | 33.0%                           | 13.0%   | -1      | 0.056<br>7 | 0.2288              | 0.1427 | -1    | -1         | 0 |
| Seamless pipes and tubes, of iron or steel | AD.533  | China                      | 2008          | 17.10%   | -1    | 1                                       | 1     | Large (sampling)                            | -1    | 23 EU producers; UI: 15 producers  | 63.6%                           | 12.9%   | 0       | 0.027<br>0 | 0.4372              | 0.2321 | 1     | 1          | 0 |

| Product                                       | Case ID | Countries           | Year of init. | Test 1 - Market Share of targeted firms ≥40%    |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted                                     |       | Test 4 - Concentrated EU market  |                                 |   |         |         |             |         |       |       |    | LOPP Index |
|---|---------|---------------------|---------------|---|-------|---|-------|---|-------|--|---------------------------------|---|---------|---------|-------------|---------|-------|-------|----|------------|
|   |         |                     |               | Market share of targeted firms*                 | Score | Number of countries targeted            | Score | Number of firms targeted  | Score | Number of EU producers & share in EU production                          | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score |    |            |
| Continuous filament glass fibre products      | AD.549  | China               | 2009          | 14.20%  | -1    | 1                                       | 1     | 8 cooperating   | -1    | (90% of EU production)<br>UI: 11 EU producers (100% of EU production)    | 71.9%                           | 13.8%   | 0       | 0.0495  | 0.5371      | 0.2933  | 1     | 1     | 0  |            |
| Ring binder mechanisms                        | AD.559  | Thailand            | 2010          | 15%   | -1    | 1                                       | 1     | 1   | 1     | UI: 2 EU producers (100% of EU production)                               | 24.0%                           | 50.8%   | -1      | 0.0513  | 0.2883      | 0.1698  | 0     | -1    | 0  |            |
| Hollow sections                               | AD.462  | Russia, Turkey      | 2002          | 6.7% (Turkey; Russia dumping de minimis)        | -1    | 2                                       | 1     | 20 (1 Russia, 19 Turkey) - sampling   | -1    | 14 complainants (8 in sample - 54% of EU production), 12 other producers | 61.9%                           | 7.7%  | -1      | 0.0276  | 0.3936      | 0.2106  | 1     | 0     | -1 |            |
| Polyester staple fibres                       | AD.472  | China, Saudi Arabia | 2003          | 17.6% (China, Saudi Arabia and Korea cumulated) | -1    | 2                                       | 1     | 7 (5 China, 2 Saudi Arabia), plus 5 from Taiwan and Korea (simultaneous review) | 0     | 6 complainants (49% of EU production), 2 others                          | 29.0%                           | 19.0%   | -1      | 0.0136  | 0.1512      | 0.0824  | -1    | -1    | -1 |            |
| Magnesia bricks                               | AD.483  | China               | 2004          | 14.90%  | -1    | 1                                       | 1     | 9 cooperating   | -1    | 4 EU producers with 53% production share (largest 2 have 51% combined)   | .. (only index provided)        | .. (only index provided)                            | 0       | 0.0966  | 0.2106      | 0.1536  | 0     | 0     | -1 |            |
| Sweet corn (prepared or preserved in kernels) | AD.507  | Thailand            | 2006          | 12.70%  | -1    | 1                                       | 1     | Large (20, sampling)  | -1    | 18 of which 6 cooperating (70% of EU production)                         | 55.9%                           | 3.8%, other EU producers: 27.6%                     | -1      | 0.0592  | 0.4062      | 0.2327  | 1     | 0     | -1 |            |
| Stainless steel bars                          | AD.555  | India               | 2010          | 11.80%  | -1    | 1                                       | 1     | 22 (sampling)   | -1    | UI: 24 EU producers (4   | 81.0%                           | 7.0%  | -1      | 0.0280  | 0.6749      | 0.3514  | 1     | 0     | -1 |            |

| Product                                       | Case ID | Countries              | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted   |       | Test 4 - Concentrated EU market                                    |                                 |   |         |         |             |         |       | LOPP Index |       |
|---|---------|------------------------|---------------|--|-------|---|-------|---|-------|--|---------------------------------|---|---------|---------|-------------|---------|-------|------------|-------|
|   |         |                        |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted  | Score | Number of EU producers & share in EU production                    | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score |            | Score |
| Polyester textured filament yarn (PTY)        | AD.446  | India                  | 2001          | 6.70%  | -1    | 1                                       | 1     | 12 (sampling)   | -1    | sampled: 67% of EU production)                                     | 23.0%                           | 37.0%   | -1      | 0.0268  | 0.2772      | 0.1520  | 0     | -1         | -2    |
| Bed linen                                     | AD.464  | Pakistan               | 2002          | 24.70%                                       | -1    | 1                                       | 1     | Large (sampling - 178 exporters responded)  | -1    | Large (sampling): 29 EU producers cooperated, 45% of EU production | 18.9%                           | 56.4%   | -1      | 0.0016  | 0.4148      | 0.2082  | 0     | -1         | -2    |
| Trout (large rainbow trout)                   | AD.466  | Faeroe islands, Norway | 2002          | 16.7% (cumulated)                            | -1    | 2                                       | 1     | Large (sampling)  | -1    | Large (sampling)   | 21.7%                           | 3.3%  | -1      | 0.0000  | 0.0761      | 0.0380  | -1    | -1         | -2    |
| Bicycles                                      | AD.476  | Vietnam                | 2004          | 8.70%  | -1    | 1                                       | 1     | Large (sampling, 6 Vietnamese and 21 Chinese exporters [simultaneous review] responded) | -1    | Large (sampling, 54 EU producers responded)                        | 51.0%                           | 36.0%   | -1      | 0.0061  | 0.2888      | 0.1475  | -1    | -1         | -2    |
| Castings                                      | AD.477  | China                  | 2004          | 31.10%                                       | -1    | 1                                       | 1     | Large (sampling, 33 exporters responded)  | -1    | Large (sampling, 24 EU producers responded)                        | 38.8%                           | 8.5%  | -1      | 0.0092  | 0.2545      | 0.1318  | -1    | -1         | -2    |
| Polyester filament apparel fabrics (finished) | AD.481  | China                  | 2004          | 39.30%                                       | -1    | 1                                       | 1     | Large (49 requested MET)  | -1    | UI: 7 EU producers (30% of EU production)                          | 9.8%                            | 31.1%   | -1      | 0.0079  | 0.2608      | 0.1343  | -1    | -1         | -2    |
| Chamois leather                               | AD.496  | China                  | 2005          | 31.7% (rapid increase)                       | -1    | 1                                       | 1     | Large (sampling)  | -1    | 8 (95% of EU production); UI: 3 (56% of EU production)             | 32.3%                           | 19.9%   | -1      | 0.0348  | 0.2254      | 0.1301  | -1    | -1         | -2    |
| Plastic sacks and bags                        | AD.497  | China,                 | 2005          | 18.3% (China,                                | -1    | 3                                       | 1     | Large   | -1    | Hundreds (31   | 20.2%                           | 13.8%   | -1      | 0.000   | 0.0933      | 0.0467  | -1    | -1         | -2    |

| Product                                     | Case ID | Countries                                  | Year of init. | Test 1 - Market Share of targeted firms ≥40%          |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted                       |       | Test 4 - Concentrated EU market                                     |                                 |   |         |         |         |             |         | LOPP Index |       |
|---|---------|--|---------------|---|-------|---|-------|---|-------|---|---------------------------------|---|---------|---------|---------|-------------|---------|------------|-------|
|   |         |  |               | Market share of targeted firms*                       | Score | Number of countries targeted            | Score | Number of firms targeted  | Score | Number of EU producers & share in EU production                     | Market share of Union industry* | Market share of other imports/EU producers* | (Score) | HHI min | HHI max | average HHI | (Score) | Score      | Score |
|   |         | Malaysia, Thailand                         |               | Malaysia & Taiwan cumulated)                          |       |   |       | (sampling): 108 China, 36 Malaysia, 17 Thailand                   |       | cooperating, 31% of EU production)                                  |                                 |   |         | 0       |         |             |         |            |       |
| Footwear (with uppers of leather)           | AD.499  | China, Vietnam                             | 2005          | 8.8% (China), 14.4% (Vietnam)                         | -1    | 2                                       | 1     | Large (sampling)  | -1    | Large (sampling): 814 complainants                                  | 23.2%                           | 32.3%                                       | -1      | 0.000   | 0.1053  | 0.0527      | -1      | -1         | -2    |
| Cathode-ray colour television picture tubes | AD.503  | China, Korea (Rep. of), Malaysia, Thailand | 2006          | 19.4% (cumulated)                                     | -1    | 4                                       | -1    | 5 (2 China, 1 Korea, 1 Malaysia, 1 Thailand)                      | 1     | 3 EU producers = UI   | 37.7%                           | ..  | 0       | 0.054   | 0.1798  | 0.1173      | -1      | -1         | -2    |
| Polyester staple fibres                     | AD.509  | Malaysia, Taiwan                           | 2006          | 13.4% (Taiwan), 2.0% (Malaysia)                       | -1    | 2                                       | 1     | 9 (Taiwan, sampling), 2 (Malaysia)                                | -1    | 18 EU producers; UI: 3 cooperating (more than 25% of EU production) | 14.5%                           | 29%, other EU producers: 41%                | -1      | 0.020   | 0.2312  | 0.1258      | -1      | -1         | -2    |
| Silico-manganese                            | AD.513  | China, Kazakhstan, Ukraine                 | 2006          | 10.4% (China and Kazakhstan cumulated), 23% (Ukraine) | -1    | 3                                       | 1     | 8 (4 China, 1 Kazakhstan, 3 Ukraine)                              | -1    | 5 EU producers; UI: 4 cooperating (88% of EU production)            | 24.9%                           | 38.7%, other EU producer: 3.3%              | -1      | 0.036   | 0.1866  | 0.1115      | -1      | -1         | -2    |
| Ferro-silicon                               | AD.516  | China, Egypt, Kazakhstan, Russia, FYROM    | 2006          | 51.2% (cumulated)                                     | 1     | 5                                       | -1    | 9 cooperating (3 China, 2 Egypt, 1 Kazakhstan, 1 FYROM, 2 Russia) | -1    | 7 EU producers; UI: 6 cooperating (9% of EU production)             | 17.7%                           | 30.0%                                       | -1      | 0.0343  | 0.3135  | 0.1739      | 0       | -1         | -2    |
| Fasteners, iron or steel                    | AD.525  | China                                      | 2007          | 26%   | -1    | 1                                       | 1     | 120 (sampling)  | -1    | more than 300; UI: 46 cooperating (27% of EU production)            | 17.0%                           | 17.0%                                       | -1      | 0.000   | 0.1254  | 0.0627      | -1      | -1         | -2    |
| Candles, tapers and the like                | AD.528  | China                                      | 2008          | 34.50%  | -1    | 1                                       | 1     | Large (41 cooperating)  | -1    | UI: 31 EU producers (sampling),                                     | 36.1%                           | 3.4%  | -1      | 0.0071  | 0.2505  | 0.1288      | -1      | -1         | -2    |

| Product                                     | Case ID | Countries                        | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted  |       | Test 4 - Concentrated EU market   |                                 |   |         |         |             |         |       | LOPP Index |    |
|---|---------|----------------------------------|---------------|--|-------|---|-------|--|-------|---|---------------------------------|---|---------|---------|-------------|---------|-------|------------|----|
|   |         |                                  |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted                     | Score | Number of EU producers & share in EU production   | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score      |    |
| Wire rod                                    | AD.530  | China, Moldova (Rep. of), Turkey | 2008          | 5% (China), 2.5% (Turkey), 1.3% (Moldova)    | -1    | 3                                       | 1     | 9 cooperating (2 China, 1 Moldova, 6 Turkey) | -1    | accounting for 60% of EU production<br>UI: 6 groups of EU producers (45% of EU production)          | 31.8%                           | 4.6%  | -1      | 0.0184  | 0.1065      | 0.0625  | -1    | -1         | -2 |
| Biodiesel                                   | AD.531  | USA                              | 2008          | 17.20%                                       | -1    | 1                                       | 1     | 54 cooperating                               | -1    | more than 40 EU producers cooperating (more than 60% of EU production); UI: 10 sampled EU producers | 29.8%                           | 2.2%  | -1      | 0.000   | 0.1189      | 0.0594  | -1    | -1         | -2 |
| Aluminium road wheels                       | AD.541  | China                            | 2009          | 3% (OEM segment) and 34% (AM segment)        | -1    | 1                                       | 1     | Large (36 cooperating)                       | -1    | 30 EU producers   | 82.3% (OEM), 48.5% (AM)         | approx. 17%   | -1      | ..      | ..          | ..      | 1     | -1         | -2 |
| Polyester high tenacity filament yarn       | AD.547  | China, Korea (Rep. of), Taiwan   | 2009          | 18.8% (China), 11.9% (Korea), 4% (Taiwan)    | -1    | 3                                       | 1     | 17 (11 China, 4 Korea, 2 Taiwan)             | -1    | UI: 4 EU producers (78% of EU production)   | 39.2%                           | 8.0%  | 0       | 0.046   | 0.2112      | 0.1286  | -1    | -1         | -2 |
| Ceramic tiles                               | AD.560  | China                            | 2010          | 6.50%  | -1    | 1                                       | 1     | Large (105 responses to sampling enquiry)    | -1    | more than 500 EU producers  | 88.0%                           | approx. 3%  | -1      | 0.0016  | ..          | 0.0016  | -1    | -1         | -2 |
| Seamless pipes and tubes of stainless steel | AD.565  | China                            | 2010          | 18.40%                                       | -1    | 1                                       | 1     | at least 31 (sampling)                       | -1    | UI: 21 EU producers (2 sampled account for more than 50% of EU production)                          | 59.1%                           | 22.5%   | -1      | 0.0177  | 0.3902      | 0.2039  | 0     | -1         | -2 |
| Tube and pipe fitting of iron or steel      | AD.442  | Czech Republic,                  | 2001          | 12.3% (cumulated)                            | -1    | 5                                       | -1    | 6 coop + non-cooperating                     | -1    | at least 9 EU producers; UI:  | 47.9%                           | 16.0%   | -1      | 0.084   | 0.2702      | 0.1775  | 0     | -1         | -4 |



| Product  | Case ID | Countries  | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted     |       | Test 4 - Concentrated EU market                                       |                                 |   |         |         |             |         |       | LOPP Index |    |
|--|---------|--|---------------|--|-------|---|-------|---|-------|---|---------------------------------|---|---------|---------|-------------|---------|-------|------------|----|
|  |         |  |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted                        | Score | Number of EU producers & share in EU production                       | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) | Score | Score      |    |
|  |         | Korea (Rep. of), Malaysia, Russia, Slovakia                        |               |  |       |   |       | from Russia and Korea                           |       | 4 cooperating (60% of EU production)                                  |                                 |   |         |         |             |         |       |            |    |
| <b>Welded tubes and pipes of iron or non-alloy steel</b> | AD.443  | Czech Republic, Poland, Thailand, Turkey, Ukraine                  | 2001          | 24.1% (cumulated)                            | -1    | 5                                       | -1    | Large (sampling Turkey)                         | -1    | 19 EU producers; UI: 9 cooperating producers (65.8% of EU production) | 41.9%                           | 8.2%  | -1      | 0.0195  | 0.2404      | 0.1299  | -1    | -1         | -4 |
| <b>Stainless steel fasteners and parts thereof</b>       | AD.482  | China, Indonesia, Malaysia, Philippines, Taiwan, Thailand, Vietnam | 2004          | 34.5% (cumulated)                            | -1    | 7                                       | -1    | Large (sampling)                                | -1    | 7 EU producers; UI: 5 cooperating (54% of EU production)              | 27.8%                           | 14.5% (calculated)                                  | -1      | 0.0214  | 0.2173      | 0.1194  | -1    | -1         | -4 |
| <b>Seamless pipes and tubes, of iron or steel</b>        | AD.490  | Croatia, Romania, Russia, Ukraine                                  | 2005          | 21.5% (cumulated)                            | -1    | 4                                       | -1    | 11 cooperating (3 Romania, 4 Russia, 4 Ukraine) | -1    | At least 20 EU producers; UI: 6 complainants (57% of EU production)   | 36.7%                           | 6.0%  | -1      | 0.026   | 0.1845      | 0.1054  | -1    | -1         | -4 |
| <b>Welded tubes and pipes of iron or non-alloy steel</b> | AD.523  | Belarus, Bosnia & Herzegovina, China, Russia                       | 2007          | 18.7% (cumulated)                            | -1    | 4                                       | -1    | Large (sampling)                                | -1    | 19 EU producers; UI: 17 cooperating producers (95% of EU production)  | 62.8%                           | 18.0%   | -1      | 0.0232  | 0.3944      | 0.2088  | 0     | -1         | -4 |

\* in IP, except where stated otherwise

Source: Case documentation as published in the Official Journal; calculations by the authors.

**Table A2: EU antidumping cases initiated 2001-2010 eliminated from index calculation based on finding of no/de minimis dumping**

| Product                                  | Case ID | Countries                           | Year of initiation | Comment   |
|--|---------|-------------------------------------|--------------------|---|
| Compact disks - recordable (CD-Rs)       | AD.454  | India                               | 2002               | Terminated (no dumping)   |
| Salmon                                   | AD.458  | Chile, Faeroe Islands               | 2002               | Terminated (FI: no dumping; Chile: Community interest)                            |
| Polyester high tenacity filament yarn    | AD.473  | Belarus, Korea (Rep. of), Taiwan    | 2004               | Terminated (no dumping Belarus, Korea, no causal link Taiwan)                     |
| SBS thermoplastic rubbers                | AD.478  | Korea (Rep. of), Russia             | 2004               | Terminated (Korea: no dumping)  |
| Steel ropes and cables                   | AD.489  | Korea (Rep. of)                     | 2004               | Terminated (de minimis dumping margin)  |
| Pentaerythritol                          | AD.504  | China, Russia, Turkey, Ukraine, USA | 2006               | Terminated (Turkey no dumping, others: no causal link)                            |
| Polyvinyl alcohol (PVA)                  | AD.517  | China, Taiwan                       | 2006               | Terminated (Taiwan: de minimis dumping; China: no causal link)                    |
| Polyethylene terephthalate (PET)         | AD.545  | Iran, Pakistan, UAE                 | 2009               | Terminated (de minimis dumping - Pakistan, UAE, non-materiality of injury - Iran) |
| Purified terephthalic acid and its salts | AD.550  | Thailand                            | 2009               | Terminated (de minimis dumping margin)  |

Source: Case documentation as published in the Official Journal.

**Table A3: Cases excluded from calculation of LOPP index due to lack of data**

| Product  | Case ID | Countries        | Year of init. | Test 1 - Market Share of targeted firms ≥40% |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted |       | Test 4 - Concentrated EU market                 |                                 |   |         |         |             |         | LOPP Index |       |       |
|--|---------|------------------|---------------|--|-------|---|-------|---|-------|---|---------------------------------|---|---------|---------|-------------|---------|------------|-------|-------|
|  |         |                  |               | Market share of targeted firms*              | Score | Number of countries targeted            | Score | Number of firms targeted                    | Score | Number of EU producers & share in EU production | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI | (Score) |            | Score | Score |
| Sodium cyclamate                               | AD.467  | China, Indonesia | 2002          | .. (only index provided)                     | 0     | 2                                       | 1     | 6 (5 in China, 1 Indonesia)                 | 1     | 1 (sole EU producer, 100% of EU production)     | .. (only index provided)        | 0.0%  | 1       | ..      | ..          | ..      | 1          | 1     | 3     |
| Vinyl acetate                                  | AD.566  | USA              | 2010          | ..   | 0     | 1                                       | 1     | 4   | 1     | UI: 2 EU producers (100% of EU production)      | .. (only index provided)        | .. (only index provided)                            | 1       | ..      | ..          | ..      | 1          | 1     | 3     |
| Wireless wide area networking modems           | AD.561  | China            | 2010          | ..   | 0     | 1                                       | 1     | ..  | 0     | UI: 1 EU producer (100% of EU production)       | ..                              | ..  | 1       | ..      | ..          | ..      | 1          | 1     | 2     |
| Tris (2-chloro-1-methylethyl) phosphate (TCPP) | AD.562  | China            | 2010          | ..   | 0     | 1                                       | 1     | 4 cooperating                               | 1     | ..  | ..                              | ..  | 0       | ..      | ..          | ..      | 1          | 0     | 2     |
| Magnetic disks (3,5" microdisks)               | AD.448  | India            | 2001          | ..   | 0     | 1                                       | 1     | ..  | 0     | ..  | ..                              | ..  | 0       | ..      | ..          | ..      | 1          | 0     | 1     |
| Carbon blacks (rubber)                         | AD.452  | Egypt, Russia    | 2001          | ..   | 0     | 2                                       | 1     | ..  | 0     | ..  | ..                              | ..  | 0       | ..      | ..          | ..      | 1          | 0     | 1     |



| Product  | Case ID | Countries                                     | Year of init. | Test 1 - Market Share of targeted firms ≥40 % |       | Test 2 – Less than 4 countries targeted |       | Test 3 – Less than 8 foreign firms targeted     |       | Test 4 - Concentrated EU market                               |                                 |   |         |         |                     |       | LOPP Index |    |    |
|--|---------|---|---------------|---|-------|---|-------|---|-------|---|---------------------------------|---|---------|---------|---------------------|-------|------------|----|----|
|  |         |   |               | Market share of targeted firms*               | Score | Number of countries targeted            | Score | Number of firms targeted                        | Score | Number of EU producers & share in EU production               | Market share of Union industry* | Market share of other imports/EU producers* (Score) | HHI min | HHI max | average HHI (Score) | Score | Score      |    |    |
| Hot-dipped metallic-coated iron or steel flat-rolled products      | AD.526  | China   | 2007          | ..  | 0     | 1                                       | 1     | Large (sampling)                                | -1    | ..  | ..                              | ..  | 0       | ..      | ..                  | ..    | 1          | 0  | 0  |
| Hot-rolled coils (flat rolled products of iron or non alloy steel) | AD..11  | Egypt, Hungary, Iran, Libya, Slovakia, Turkey | 2001          | ..  | 0     | 6                                       | -1    | ..  | 0     | ..  | ..                              | ..  | 0       | ..      | ..                  | ..    | 1          | 0  | -1 |
| Lighters (disposable)  | AD..10  | China, Indonesia, Malaysia, Vietnam           | 2002          | ..  | 0     | 4                                       | -1    | ..  | 0     | ..  | ..                              | ..  | 0       | ..      | ..                  | ..    | 1          | 0  | -1 |
| Stainless steel cold-rolled flat products                          | AD.527  | China, Korea (Rep. of), Taiwan                | 2008          | ..  | 0     | 3                                       | 1     | 17 (10 Taiwan, 3 Korea, 4 China)                | -1    | large (sampling; 2 groups accounted for 66% of EU production) | ..                              | ..  | -1      | ..      | ..                  | ..    | 1          | -1 | -1 |
| Hollow sections  | AD.537  | Belarus, Turkey, Ukraine                      | 2008          | ..  | 0     | 3                                       | 1     | 18 (2 Belarus, 13 Turkey - sampling, 3 Ukraine) | -1    | Large (sampling of 4)   | ..                              | ..  | -1      | ..      | ..                  | ..    | 1          | -1 | -1 |

Source: Case documentation as published in the Official Journal.

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