# **Do EU Producers and the EU Economy Really Benefit from Anti-Dumping Policy?**







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### Abstract

This report examines the effects of European Union (EU) anti-dumping measures from the points of view of effectiveness and efficiency. We analysed 39 anti-dumping cases that were investigated between 2000 and 2008. The results suggest that EU anti-dumping measures do provide some protection for EU producers. However, the level of this protection is moderate, as the protected sector gains, on average, 1 percentage point of the EU market share after the measures have taken force. Producers in third countries that are not subject to anti-dumping duties (non-targeted countries) gain, on average, as much as 8 percentage points of the EU market share.

Furthermore, the anti-dumping protection comes at a rather high price for users and consumers in the EU pay significantly higher prices on purchases from EU producers (10%) and on imports from non-targeted countries (5%) and targeted countries (28% plus 30% duty, on average). Our calculations suggest that, with every 1 euro gained in the protected sector, users and consumers pay, on average, 4.5 euro in higher prices and tariffs.

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### Introduction

Currently, around 130 anti-dumping measures are in force in the European Union (EU).<sup>1</sup> Anti-dumping measures aim to protect EU producers from alleged *price dumped imports*, i.e. goods imported below their "normal price", that are considered to cause economic injury to EU producers. The measures are expected to reduce imports from price dumping countries and increase the EU producers' sales volumes and prices on the EU market. The anti-dumping instrument, which most often comes in the form of a duty calculated on the value of goods, is seen as a vital redemption to "unfair" trade practices.







How much do EU producers benefit from these measures? Do measures effectively stop the alleged dumped imports? How much do measures affect imports from other countries? Do they improve the EU producers' sales? And, what costs come with the protection?

This report aims to address these questions by investigating EU anti-dumping cases initiated between 2000 and 2008, data on trade between EU members (which, due to the lack of accurate data on actual production, serves as an approximation for EU domestic production) and trade between the EU and the rest of the world. For each case, the study examines trade data for intra-EU imports and extra-EU imports three years before and three years after the anti-dumping investigation was initiated.

The results suggest that anti-dumping duties, in general, benefit EU producers, but that these benefits are moderate. Three years after the initiation of an anti-dumping investigation, which resulted in a duty, the market shares of countries subject to duty ("targeted countries") reduced by, on average, 9 percentage points. The market shares of EU producers increased, but only by, on average, I percentage point. Third countries, not subject to the measures ("non-targeted countries"), benefited considerably more, as the market shares for these countries increased by, on average, 8 percentage points. EU producers, however, benefited from price increases by, on average, 10 per cent after measures took force. Non-targeted countries faced, on average, 5 per cent higher prices. Targeted countries, in turn, met, on average, as much as 28 per cent higher prices.



These results are largely consistent with the research literature in this realm. Specifically, results suggest that the magnitude of diversion of imports from targeted countries to foreign non-targeted countries is not large enough to completely erase any protective effect of the duty. This leads us to agree with the conclusions of some previous studies, which suggest that anti-dumping measures in the EU seem to be *effective* in that sense.<sup>2</sup>

In order to address the question of *efficiency*, i.e. weighing up the beneficial effect compared with the costs, we extended our analysis to try to include the costs from imposing duties. In this study, EU producers' gains are compared with the loss of EU consumers, including in the concept of "consumers" all parties in EU that, at any stage, are buying

the product concerned (i.e. consumers, industrial users, importers, wholesalers, retailers etc).

Our results suggest that the anti-dumping duties come with rather high costs. For every euro the producers gain, the EU consumers lose, on average, 4.5 euro. Although estimates should be interpreted with caution, we believe that they provide a fair indication of the cost of the antidumping measures in the EU.

A detailed description of the dataset we employ is found in the Technical Annex I. Cost–benefit calculations are described in Technical Annex II. For those not yet familiar with the anti-dumping instrument, Appendix I provides a brief introduction to anti-dumping policy.

### **Previous Studies**

Several studies have examined the trade effects of anti-dumping policy, with quite differing results. A paper by Prusa, from 1996, analysed the effects on trade from anti-dumping cases in the US initiated between 1980 and 1988. The paper showed that the diversion of imports to third countries was substantial and left the anti-dumping instrument, to a large extent, ineffective in protecting US producers.<sup>3</sup>

More recent research has attempted to analyse anti-dumping in the EU, suggesting that there are substantial levels of import diversion to third countries.<sup>4</sup> The magnitude of such a diversion differs between the studies. However, they suggest that the diversion to domestic producers is greater for the EU than for the US, making the EU antidumping policy more effective in that sense.

Two studies that specifically asses the magnitude of the diversion of trade to actual EU producers versus non-targeted countries are those by Brenton in 2001 (published in the European Journal of Political Economy) and Khatibi in 2009 (published by the European Centre for International Political Economy). The results, and especially the conclusions, of these two studies stand somewhat in contrast with each other. In the study by Brenton, the effects of anti-dumping duties on import *volumes* (as opposed to values) are examined. The paper suggests that anti-dumping actions cause trade diversion and that this diversion primarily benefits non-EU producers. The 2009 paper by Khatibi examines the effects of anti-dumping duties on import value. This study finds evidence of substantial trade diversion, but this diversion favours EU producers over non-targeted countries.



#### Estimated impact from anti-dumping measures

# Are Anti-Dumping Measures *Effective?*

This section addresses the effects from anti-dumping duties by examining data from anti-dumping cases investigated from 2000 until 2008. The dataset was narrowed down to include only cases that resulted in both provisional and definitive duties and only those cases where the duty is expressed as an *ad valorem* tariff (a percentage of the value of the product). This resulted in 39 anti-dumping cases<sup>5</sup>. Due to the unavailability of data, all data for sales within the EU were approximated with trade within the EU – that is, sales across internal EU borders.

Figures I to 5 provide graphical representations of the effects of EU anti-dumping duties on trade inside the EU (intra-EU trade), EU imports from targeted countries and EU imports from nontargeted countries. The figures I, 3 and 5 show the unweighted average changes in imports for each case relative to the year in which the investigation is





Source: Eurostat COMEXT



initiated (year "o"). By using an unweighted average, each case has the same impact on the relative average change, no matter how large the value of the total trade in that good is.

Figure 1 shows the average changes in the value of imports over time. The effects of anti-dumping duties on imports seem to be immediate. The year after the initiation of the anti-dumping investigation, e.g. the year the provisional duty is imposed (year "1"), the imports from targeted countries decline by, on average, 20 per cent compared with the previous year.<sup>6</sup> Imports from intra-EU trade increase by, on average, 19 per cent and imports from non-targeted countries increase by, on average, 23 per cent. In the following two years, imports from targeted countries continue to decline, albeit at a slower pace. The imports from intra-EU trade remain stable at the higher level, while imports from non-targeted countries continue to rise sharply.



Figure 2. Average changes of import value market shares (Percentage)

Source: Eurostat COMEXT

Figure 2 presents the average changes in EU import market shares based on the import value.<sup>7</sup> The effects of an anti-dumping duty is somewhat easier to interpret in this figure compared to the previous one, as it, to some extent, avoids capturing underlying global trends in imports that may exist (e.g. a general increase in world trade<sup>8</sup>) and provides an immediate picture of the competition in the EU import market.

To a large extent, the figure of market shares is consistent with the figure of import value, as it indicates that the anti-dumping action has an immediate effect on trade, reducing the import shares from targeted countries by, on average, 9 percentage points and increasing import shares from non-targeted countries by, on average, 8 percentage points. The import market shares of intra-EU imports also increase after the initiation of the anti-dumping investigation, indicating that EU producers benefit from the action. However, this increase is quite modest and considerably lower than the increases of the intra-EU import value. Three years after the initiation of the investigation, the intra-EU market shares have only increased by, on average, I percentage point.

The underlying cause of the changes in import values is changes in import prices and volumes.





Figure 3 and 4 depict the average effects of antidumping duty on import volume, in terms of total volume and in terms of shares of total volume. Interestingly, the magnitudes of the changes of import volume are almost identical to those for import value, both in terms of total value and volume and in terms of market shares.

In Figure 5, the average effects of anti-dumping duty on import prices are depicted. Three years after the initiation of the investigation, the unit value prices from both extra-EU trade and intra-EU trade have increased: for imports from non-targeted countries by, on average, 5 per cent, for intra-EU trade by, on average, 10 per cent and for imports from targeted countries by, on average, 28 per cent.

The large increase in the unit value price of imports from targeted countries may seem counterintuitive, especially considering that the duty is not included in this price (i.e. the actual price the EU consumers<sup>9</sup> pay for the imports increases even more). In the case of an ordinary tariff, the prices of the foreign export will not normally rise. On the contrary, if a tariff-imposing country has the ability to impact world market prices, the tariff may decrease foreign export prices. However, as a number of researchers



Figure 4. Average changes of import volume market shares (Percentage)

Source: Eurostat COMEXT

have pointed out<sup>10</sup>, there are special features of the anti-dumping regulation that gives firms targeted by anti-dumping duties incentives to increase their prices. One probable incentive cited in earlier studies is that firms, by increasing their prices, improve their chances of avoiding the duty being extended for additional years when the normal period ends. There are additional possible reasons for this effect that we will not pursue further in this study.

The results of the above-trend statistical analysis suggest that EU anti-dumping actions, in general, have a restraining effect on imports from targeted countries and a positive effect on imports from non-targeted countries. The estimated magnitude of the effect on imports, in terms of value, from the targeted countries is consistent with previous empirical research. The magnitude concerning the effect on import value from non-targeted countries is, how-ever, somewhat stronger than suggested by some previous empirical research.<sup>III</sup>

Brenton (2001) finds no significant impact of EU anti-dumping measures on the value share<sup>12</sup> of intra-EU imports, but a strong and positive effect on the value share of non-targeted countries. Brenton's results are, in many ways, in line with the findings





from the statistical trend analysis in this study. The conclusion of Brenton, that the high degree of trade diversion to foreign non-targeted countries eliminates the beneficial impact upon EU producers, is, however, too harsh, based on the results from this study. The anti-dumping policy seems to have some positive effects for EU producers. The increase of the shares of intra-EU imports is modest, particularly in relation to the huge increase of imports from non-targeted countries, but should be seen in the light of the initially very high level of intra-EU imports. Moreover, it is important to bear in mind that there is no information about the counter-factual scenarios. In the absence of anti-dumping duties, it is most likely that the intra-EU share of the market would have, on average, decreased rather than, as has been the case, slightly increased.

In the context of the analysis, it is important to emphasise that we focus on the *average* effects of the antidumping policy on import flows of several different anti-dumping cases. Of course, there is a lot of variation among the different cases. There are a lot of factors that can influence the import flows, both external factors (e.g. the difference in the production cost between different countries) and factors related to the antidumping policy (most obviously, the size of the duty<sup>13</sup>).

## **Are Anti-Dumping Measures** *Efficient?*

The analysis above suggests that EU anti-dumping measures have some beneficial impact on EU producers, and that measures are effective in that sense. Making further use of the data in the above section, we ask the additional question: is antidumping *efficient*? Or, in other words, what costs do anti-dumping measures bring to EU users and consumers? We choose to address this question by using an economic welfare approach to compare the losses with the gains of the anti-dumping policy for the EU as a whole.

The above section established that anti-dumping measures do have an effect on prices and trade volumes. In this chapter, we examine what these effects imply in terms of costs and benefits for EU users and consumers (hereinafter referred to as the group "consumers"). Aggregated effects during a three-year period after the initiation of the investigation are calculated using a Carli index (i.e. the unweighted mean of the price or volume ratios). The effects are calculated for each product from the year before the initiation of the anti-dumping investigation (thus, relative to the year "-1"). This reference year is chosen because it is assumed to show the ex ante levels of volume and price (note that the figures in Chapter 4 present index series where the base year is the year the investigation was initiated). A full description of the calculations can be found in Technical Annex II.

Starting with the price effects, the following observations can be made:

• Intra-EU prices increase after the initiation of the anti-dumping investigation, as shown in Figure 5. This implies an economic gain for **EU producers** 

as they receive higher revenue for their products. The price increase is, on average, 12 per cent three years after the initiation of the investigation.

- For EU consumers, a higher price implies an economic loss. For the fixed basket of *ex ante* consumption products, this loss is, on average, 20 per cent three years after the initiation of the investigation. Note that the fixed basket contains different products with regard to origin: intra-EU imports, imports from targeted countries. As previously noted, the price for intra-EU imports increased by, on average, 12 per cent. The corresponding price increase for imports from foreign countries not subject to duty was 13 per cent and the price increase for imports from countries subject to duty was 74 per cent.<sup>14</sup>
- The total increase in consumer cost as a result of the price increase is, however, somewhat smaller, as consumers tend to substitute products that are relatively less expensive when prices increase. As shown in Figure 3, consumers reduce their import volume from the targeted countries and increase their import volume from the targeted countries and, especially, from the non-targeted countries. The increased cost for consumers buying a fixed *ex ante* consumption level but with the new mix of imported products (i.e. different origin country) is, on average, 19 per cent.
- For the **EU as a whole**, the increase of import prices is a net economic cost. The benefit for EU producers that results from the price increase for intra-EU imports is equal to the loss for EU con-



sumers buying EU products. The cost for consumers that arises from the price increase for extra-EU trade, however, constitutes only a cost for the EU as a whole. This cost can be interpreted as a negative *terms-of-trade effect*. In this case, the effect is quite strong, as the unit value price<sup>15</sup> from countries subject to duty increases sharply after the initiation of the anti-dumping investigation.

The following observation can be made regarding the volume effects:

• **EU producers** gain when they are selling more products. If the anti-dumping policy results in a diversion from imports from targeted countries to EU products, this may imply a large profit for EU producers, especially considering that prices have increased. For the sample used in this study, the average increase in intra-EU import volume is 9 per cent during the three-year period after the initiation of the investigation (see Figure 3). The EU import volume market shares also increase, albeit only by I percentage point, indicating that the import diversion to foreign non-targeted countries does not completely mitigate the protective effect of the duty on EU producers.

The approach employed in this report allows for the calculation of average *relative* changes from antidumping measures. Consequently, we identify the average relation between the EU producers' benefit and the EU consumers' loss by analysing the change in producer surplus and the change in consumer surplus for each of the anti-dumping cases. Such a welfare analysis suggests that the unweighted ratio between consumers' loss and producers' benefit is, on average, 4.5:1, i.e. for every euro the producers gain, consumers lose 4.5 euro.

### **Technical Annex I: The Dataset**

The dataset constructed for this report consists of all anti-dumping investigations initiated by the European Commission during the periods 2000-2001 and 2006-2008 that resulted in antidumping duties being imposed.<sup>16</sup> The dataset was narrowed down to include only cases that resulted in both provisional and definitive duties and only those cases where the duty is expressed as an ad valorem tariff (a percentage of the value of the product). This resulted in 39 anti-dumping cases.<sup>17</sup> Counted on a case-by-product type basis, the sample consists of 22 anti-dumping cases. The types of products that are targeted are both intermediate goods (approximately two-thirds) and consumer goods (approximately one-third). The input goods consist mainly of chemical products and iron and steel products.

Counted on a case-by-country basis, the selected sample consists of 39 cases. A total of 16 countries are targeted by the duties. The country that is by far the most frequently targeted is China (targeted 13 times), followed by India (targeted four times) and Russia and Thailand (targeted three times each). The average definitive countrywide duty is around 30 per cent. The duty level varies significantly however, the lowest being around 5 per cent and the highest being around 70 per cent. In many cases there are different duty levels for different firms in a targeted country, and some firms are entirely exempted from duties. As trade data were not available at the firm level, in this study, the countrywide definitive duty has been used for each country.

For all products listed in the anti-dumping cases, data on trade between EU members (intra-

EU imports) and trade between the EU and the rest of the world (extra-EU imports) have been collected. For the cases initiated between 2000 and 2001, data for the EU15 are used and for the cases initiated between 2006 and 2008, data for the EU25 are used. The data were retrieved from the Eurostat COMEXT database.

As the focus of this study is to examine the benefits for EU producers, what is important is not the changes in imports between EU countries but *changes in total domestic sales in all EU countries.* Data on EU domestic sales for the products concerned are, unfortunately, not available. However, it is likely that movements in intra-EU trade relative to imports from non-EU members are representative for the competitiveness of EU firms. Hence, it is reasonable to expect that the elasticity of substitution between intra-EU imports and extra-EU imports is very similar to that between EU domestic sales and extra-EU trade.

For each case, the imports to the EU and the trade between the EU members are tracked three years before and three years after the anti-dumping investigation was initiated.<sup>18</sup> As the COMEXT database does not yet include data for the last four months of 2011 (the third year for the cases initiated 2008), these monthly figures have been extrapolated using an average of the previous months' figures.

The year of initiation of the anti-dumping investigation is indicated by year "o". For the selected cases in this study, the provisional duty was generally imposed the year after the year of initiation (thus, during year "i") and definitive duty was



generally imposed the following year (thus, during year "2"). It would have been desirable to track the changes in imports five years after the imposition of the definitive duty, as this is the normal period an anti-dumping duty is in force. This was, however, not possible given the selected time periods.

The dataset with import statistics contains information on the *value* of the imported products (expressed in euro) and information on the corresponding *volume* of imported products (expressed in tons). A *unit value price*, which is used as a proxy for the import price, is calculated as the total value of imports divided by the total volume of imports. In order to construct a unit value price that reflects the transaction price as much as possible, the division of value with volume has been made on the most disaggregated data. For instance, when an anti-dumping case consists of several products (i.e. a *product type* consists of several *CN products*<sup>19</sup>) and there are a number of targeted countries, the unit value price of each CN product from each targeted country has been calculated separately. The unit value price of one product type from one country is then received by weighting the unit value prices of all the different CN products with weights based on the value of the CN product in year "-I" (when the values are assumed not to be influenced by the anti-dumping action).

Note that the value of the imported products is expressed in nominal terms. Usually, nominal values are deflated into real values using a GDP deflator, or some other aggregated price index. However, using deflators based on aggregated prices does not seem appropriate in this case, as the level of aggregation is rather low. Import price indices on a more detailed level could have been used. This has not been done in this study, which is important to bear in mind when interpreting the results.

Case number	Product	Targeted countries	Countrywide duty	Initiation of AD investigation
AD.429	Steel ropes and cables	Russia	50.7%	2000
		Thailand	42.8%	
		Turkey	31.0%	
AD.431	Lamps (integrated electronic compact fluorescent)	China	66.1%	2000
AD.432	Polyethylene terephthalate film (PET film)	India	29.3%	2000
		Korea	13.4%	
AD.436	Ferro molybdenum	China	22.5%	2000
AD.438	Zinc oxides	China	28.0%	2000
AD.439	Compact disks – recordable	Taiwan	38.5%	2001
AD.442	Tube and pipe fittings, iron or steel	Korea	44.0%	2001
		Malaysia	75.0%	
		Russia	43.3%	
AD.443	Welded tubes and pipes, iron or non-alloy steel	Thailand	35.2%	2001
		Turkey	6.0%	
		Ukraine	44.1%	
AD.444	Sulphanilic acid	China	33.7%	2001
		India	20.5%	
AD.446	Polyester textured filament yarn (PTY)	India	7.9%	2001
AD.506	Ironing boards	China	42.3%	2006
		Ukraine	7.0%	
AD.507	Sweetcorn	Thailand	14.3%	2006
AD.508	Saddles	China	29.6%	2006
AD.511	Peroxosulphates	China	71.8%	2006
		Taiwan	22.6%	
		USA	39.0%	
AD.514	Dihydromyrcenol	India	7.5%	2006
AD.516	Ferro-silicon	China	31.2%	2006
		Egypt	18.0%	
		Kazakhstan	33.9%	
		Russia	22.7%	
		FYROM	5.4%	
AD.520	Manganese dioxides	South Africa	17.1%	2006
AD.521	Monosodium glutamate	China	39.7%	2007
AD.522	Citric acid	China	42.7%	2007
AD.529	PSC wires and strands	China	46.2%	2008
AD.530	Wire rods	China	24.0%	2008
AD.534	Aluminium foil	Armenia	13.4%	2008
		Brazil	17.6%	
		China	30.0%	

#### Table 1. Anti-dumping cases in the dataset

Source: European Commission, Trade defence (http://trade.ec.europa.eu/tdi/completed.cfm)

# **Technical Annex II: Welfare Effects of Anti-Dumping Duties on EU Producers and Consumers**

The estimated average ratio between EU producers' benefit and EU consumers' loss (see Chapter 5) is based on an analysis of changes of producer surplus and consumer surplus for each of the antidumping cases in the selected sample.

The changes of surpluses are calculated by using the following equations:

where

P = Import unit value price Q = Import volume i = Product concerned j = Country AD = Countries subject to anti-dumping duties NAD = Countries not subject to anti-dumping duties EU = Intra-EU t = Year 1, year 2, year 3

 $P_{\rm AD}$  is the unit value price from countries subject to anti-dumping duty, including the cost of the duty (i.e.  $P_{\rm iAD} = P_{\rm iAD} + (\rm I+T_i)~P_{\rm iAD}$ , where T = cost of the duty tariff).

	Producer gain	Consumer loss
"First-order effects" (effects of price changes at given volumes)	d Pieu Qieur-1	$\sum_{j} dP_{ij} Q_{ijt-1};$ $j = AD, NAD, EU$
"Second-order effects" (effects of changes in volume arising from price changes)	(1/2) dP <sub>IEU</sub> dQ <sub>IEU</sub>	$ (1/2) \sum_{j = AD, NAD, EU} dP_{ij} dQ_{ij}; $
Total effects	dPieu Qieu⊷ +(1/2) dPieu dQieu	$ \sum_{j} dP_{ij} Q_{ijt-7} $ + (1/2) $\sum_{j} dP_{ij} dQ_{ij}; $ <sub>j</sub> = AD, NAD, EU

#### Table 2. Welfare effects of anti-dumping duties on EU producers and consumers

# **Appendix I: Introduction to Anti-Dumping**

#### • What is dumping?

An exporting company is dumping if it exports a product at a price lower than its "normal value". The normal value of a product is considered to be the comparable domestic price or the export price to a third country, or the cost of production plus a reasonable addition for selling costs and profit. If the country does not have market economy status, the normal value may be established on the basis of the prices in an analogue country.

- What are **anti-dumping measures**? Countries can apply anti-dumping measures to counteract the dumped imports. An antidumping measure is usually in the form of a duty.<sup>20</sup> The level of the duty is based on the dumping margin, which consists of a comparison between the export price and the normal value of the product concerned.
- What is the **legal framework** for anti-dumping measures?

For World Trade Organization (WTO) members, the law of anti-dumping has to comply with WTO legislation (the Agreement on the implementation of Article VI of the General Agreement on Tariffs and Trade 1994). WTO

legislation requires that an anti-dumping measure may only be applied if it can be shown that the dumped imports have caused material injury to a domestic industry that produces a similar product. National legislation may go beyond WTO provisions, i.e. set the bar higher for applying measures other than those foreseen at WTO level. The EU regulation (Council Regulation (EC) No 1225/2009) stipulates an additional condition that states that measures should not be applied if they are not in the public (i.e. the EU) interest. The EU regulation also provides a compulsory lesser duty rule: the level of the duty is limited to the minimum level necessary to offset injury.

• **EU statistics** of anti-dumping measures During 2005 and 2010, the EU has had around 130 anti-dumping measures<sup>21</sup> in force per year. Each year the EU has imposed around seven new measures. Most of the measures are against imports of chemicals (25%) and basic metals (22%). The countries most frequently targeted are China (42%) and Malaysia, Taiwan, Thailand and the USA (7% respectively).

### **Notes**

- 1 An anti-dumping measure against one product from two countries is here counted as two measures.
- 2 See, for instance, Lasagni (2000).
- 3 Prusa, 1996.
- 4 See Lasagni (2000), Vandenbussche et al. (2001), Brenton (2001), Falvey et al. (2006) and Khatibi (2009).
- 5 An anti-dumping measure against one product from two countries is counted as two measures.
- 6 The effect on imports from targeted countries can be seen already in t0, which indicates that the market interprets that an anti-dumping investigation will result in duties being imposed (which, in fact, is usually the case).
- 7 Market shares for targeted countries are calculated as the unweighted average of the ratios between the value of imports from targeted countries and the total value of imports (i.e. targeted and non-targeted extra-EU imports and intra-EU imports). Market shares for the other groups are calculated using the same methodology.
- 8 The decline in world trade in the wake of the global financial crisis at the end of 2008 is another example of such an underlying trend. However, this crisis affected Asian countries to a lesser extent than countries in the rest of the world, which may be relevant in this context, as many of the EU duties are against imports from China. Underlying trends that affect imports from different geographical sources in different ways are not controlled for.
- 9 Remember that the concept "consumers" includes all parties in EU that, at any stage, are buying the product concerned. This study does not analyse which of these parties actually bears the cost of the higher prices.
- 10 See Prusa (1996) and the National Board of Trade (2011).
- 11 As the method of using unweighted average time series is sensitive to outliers, it is important to control for this. Albeit large variations, there are no apparent outliers in the dataset with regard to imports from non-targeted countries. The imports from these countries show a substantial upward trend in a majority of the cases.
- 12 Besides the study of Brenton, the effects of EU anti-dumping policy on market shares does not seem to have been investigated further.

- 13 Prusa (1996) finds that the duty size and number of countries targeted are important factors (the trade diversion is greater the larger the size of the duty and lower the more countries that are targeted).
- 14 The increase in cost is here seen from the consumers' perspective, and the price for countries subject to duty is therefore equal to the unit value price plus the increment cost for the duty. The unit value price (i.e. the price exclusive of duty) increased by, on average, 32 per cent.
- 15 Note: the price is exclusive of duty. The cost of duty for the consumers is equal to revenue for the "EU government".
- 16 It would have been desirable to include the products listed in the investigations initiated during 2002 and 2005. However, this is not easily done due to the EU enlargement in 2004.
- 17 One case (Case AD533: Seamless pipes and tubes of iron or steel) has been excluded as there were other anti-dumping cases concerning this product from other countries during different time periods.
- 18 The EU enlargement in 2004 implies that the trade flows during the third year for those cases launched in 2001 could be somewhat biased: intra-EU trade is supposed to be underestimated and imports from countries not subject to anti-dumping measures are supposed to be overestimated. This bias may also exist for the cases launched during 2006–2008, as in 2007 the EU expanded to include Bulgaria and Romania. The EU27 imports from these countries, as a share of the total intra-EU27 imports, are, however, small (it has been around 1 per cent per year during 2003–2010), as are the EU27 exports to these countries as a share of the total intra-EU27 exports (around 1 to 2 per cent per year).
- 19 The products in the anti-dumping cases are defined by the 8-digit Combined Nomenclature (CN) system.
- 20 The measures usually take the form of an ad valorem duty, i.e. a duty calculated on the value of the invoice, but they could also be a specific duty, i.e. a duty calculated on another parameter other than the value, such as weight. Price undertakings, i.e. agreeing to sell at a minimum price, are also possible measures.
- 21 An anti-dumping measure against one product from two countries is here counted as two measures.

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