TRADE EFFECTS OF TURKEY'S ANTIDUMPING DUTIES

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Abstract

Turkey has become the heaviest antidumping user in its region. In this study, we document the impact of Turkey's antidumping duties on the import flows of countries that are subject to and not subject to antidumping investigations. Our findings based on Arellano-Bond GMM modeling suggest that antidumping duties decrease imports of targeted countries (trade destruction) but increase imports of the non-targeted countries (trade diversion). Although trade diversion occurs, its effect is not big enough to eliminate the protective effect of antidumping duties. Therefore, Turkey's antidumping practice is effective both in restricting dumped imports and in protecting the domestic industry.

Key Words: Antidumping, trade diversion, non-tariff trade barriers.

Türkiye'nin Antidamping Vergilerinin Ticari Etkileri

Özet

Türkiye bölgesinde en fazla antidamping kullanan ülke haline gelmiştir. Bu çalışmada Türkiye'nin antidamping vergilerinin, soruşturmalara konu olan ve olmayan ülkelerden yapılan ithalat hacimlerine etkisi gösterilmektedir. Arellano-Bond Genelleştirilmiş Momentler Yöntemi sonucu elde ettiğimiz bulgularımız, antidamping uygulamarının soruşturmalarda hedef alınan ülkelerden yapılan ithalatı azalttığı (ticaret daralması), fakat soruşturmalarda hedef alınmayan ülkelerden ise arttırdığını (ticaret sapması) göstermektedir. Her ne kadar ticaret sapması gerçekleşse de, bunun etkisi antidamping uygulamalarının koruyucu etkisini ortadan kaldıracak kadar büyük değildir. Dolayısıyla, Türkiye'nin antidamping uygulamaları hem dampingli ithalatı kısıtlamakta, hemde yerli sanayiyi skorumakta etkilidir.

Anahtar Kelimeler: Antidamping, ticaret sapması, tarife dışı ticari koruma.

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1. INTRODUCTION

With the sharp global decrease in tariffs in particular and protectionism in general in the last 20 years, antidumping (AD) duties have become the last recourse for firms in attempt to protect themselves against foreign competitors. AD is an effective instrument to obtain temporary protection, and it has been used by many developed and developing countries. Among the developing countries, Turkey has become one of the heaviest AD users and filed the highest number of AD petitions in Eastern Europe and Middle East since 1990.[1]

In this paper, we attempt to document the trading effects of Turkey's AD duties using a dataset that combines the import data of six-digit HS products with the detailed case-level data on AD activity. First, we focus on the import values of the product-country combinations subject to AD investigation and empirically test whether AD duties have significant impacts on the trade flows of the countries that are named in Turkey's AD petitions. Moreover, we also examine the effect of Turkey's AD on the imports of countries that were not subject to investigation. This answers the question of whether AD duties are also effective as a protection instrument in addition to restricting dumped imports.

This study fits into the large set of studies devoted to the trading effects of AD duties. [Prusa (1997) and Prusa (2001) for USA, Lasagni (2000), Khatibi (2009) and Konings, Springael and Vandenbussche (2001) for EU, Niels (2003) for Mexico, Malhotra and Rus (2009) for Canada and Ganguli (2008) for India] All of these studies suggest that AD duties cause a dramatic decrease in the imports of the targeted countries. Nevertheless, the evidence on trade diversion is mixed. For instance, Prusa (1997) and Prusa (2001) demonstrate a change in the source of imports from named to unnamed countries after AD impositions on the US, whereas Konings, Springael and Vandenbussche (2001) arrive at the same conclusion only for the highly-concentrated industries in the EU.[2] We also followed the same line of research for Turkey. Our findings clearly point out that, in addition to trade-depressing effects, there is a significant trade-diverting effect of Turkey's AD activity that benefits the non-targeted countries.

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[1] See Bown (2008) for the recent proliferation of antidumping duties in developing countries.

[2] Niels (2003), Malhorta and Rus (2009), Lasagni (2000) and Ganguli (2008) also documented that trade diversion is low.

2. TURKEY AND ANTIDUMPING

There are two separate bodies that administer antidumping petitions in Turkey: 1) The Board of Evaluation of Unfair Competition in Importation (the Board), and 2) The Department of Dumping and Subsidy Investigation (the Department). The Board has the authority to make an affirmative decision or to terminate a case. It has eight members, which represent seven different public institutions and nonprofit organizations. The Department is empowered to conduct preliminary examinations and to propose that the Board pursue an investigation and to impose duties.

Table 1. Total number of antidumping filings over 1992-2008

Year	Number of cases	Number of affirmative cases
1992	4	4
1993	7	5
1994	21	8
1995	-	-
1996	-	-
1997	5	1
1998	1	1
1999	8	7
2000	7	7
2001	15	14
2002	17	17
2003	17	17
2004	32	32
2005	12	12
2006	8	8
2007	6	6
2008	23	18

Turkish AD law was enacted in 1989. Shortly thereafter, Turkey became an active AD user and filed 76 AD petitions before the World Trade Organization's (WTO) inception in 1995. However, AD activity slowed down in the early stages of the post-WTO period. Turkish firms did not file any petitions in the first two years of Turkey's WTO membership and filed only a single-digit number of petitions until 2000. The AD investigations were boosted in the post-2000 period, and leapt to a sum of 137 between 2000 and 2008. This happened alongside significant tariff liberalization. As shown in Table 1, Turkey imposed final AD duties for 92% of the initiated cases in the post-WTO period. Interestingly, Turkey experienced a significant tariff cut for the same time period and had a 77% decrease in the simple mean tariff rates. Turkey has reduced the tariff rates substantially

with the adoption of Customs Union Decision in 1996. Thereafter it has retained the import tariff of the EU that it had adopted in 1996. There were minor changes in 2001 which were introduced with the adoption of tariff changes as a requirement of the Customs Union Decision. Figure 1 shows the trend of the number of AD filings and the mean tariff rates. As shown, there is a suggestive substitution between the two.
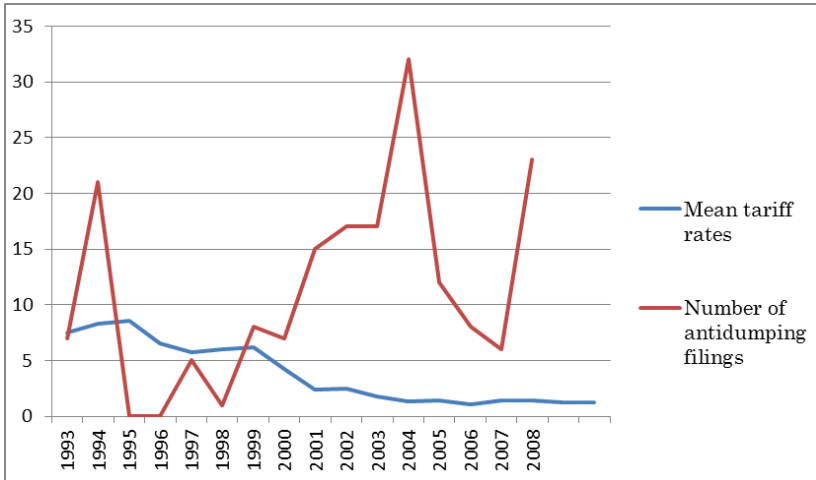

Figure 1.
Tariffs vs. Antidumping filings in Turkey

Table 2 reports the defendant countries in Turkey's AD investigations over the sample of our data. In line with worldwide AD activity, China, which is the defendant country in 34% of cases, is Turkey's number one target. When considering Turkey's top 10 targets, we notice that Turkey most frequently named the East Asian countries and its Black sea trading partners, and often imposed duties to these countries. In Table 3, we document the AD activity for the three-digit ISIC industries.[3] Textile and chemical industries together constitute almost 50% of the total cases. In particular, textile industry cases comprised 915 six-digit HS products, which correspond to 84% of the total products named in the investigations.[4] Other major industries involved in the AD investigations are rubber and iron-steel industries, both of which won 100% of their cases.

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[3]   To match the six-digit HaS(HS Harmonized System) products with their three-digit ISIC codes, we used the concordances in the *Trade, Production and Protection Database* of the World Bank.

[4]   I should note that most of the textile products are named in the AD investigations several times over the years.

When it comes to imposed AD duties, we observe that Turkey imposed special duties for 58% cases and ad-valorem duties for the remaining 42%. In terms of the ad-valorem AD duties, the average duty over the sample of our data is 34% which is far away from the mean tariff rates. In fact, this number is 3 times higher than the maximum mean tariff rate observed between 1992 and 2008. In addition, Turkey's special duties have an average of 2.65 for the duties imposed per kilogram, 1.62 for the duties imposed per unit, 258.62 for the duties imposed per ton imported. Overall, these duties are very large and Turkey is an interesting case to analyze the trading effects of AD duties.

Table 2. Defendant countries in Turkey's antidumping investigations (1992-2008)

Country	Total cases	Affirmative cases
China	64	60
Taiwan	12	11
Indonesia	11	9
India	10	9
Russia	10	7
Thailand	10	7
South Korea	8	6
Bulgaria	6	4
Malaysia	6	6
Vietnam	6	6
Romania	5	5
Ukraine	4	4
Saudi Arabia	3	2
Germany	2	1
Hong Kong	2	1
Israel	2	1
Italy	2	1
Japan	2	0
Pakistan	2	1
Sri Lanka	2	2
USA	2	2
Belarus	1	1
Belgium	1	1
Brazil	1	1
Canada	1	1
Croatia	1	0
European Union	1	0
Finland	1	1
France	1	0
Georgia	1	0
Greece	1	1
Hungary	1	1
Iran	1	0
Kuwait	1	1
Moldova	1	1
Netherlands	1	1
Poland	1	0
Serbia and Montenegro	1	0

Table 3. Antidumping investigations in Turkey by three-digit ISIC

	Three-digit ISIC Industry	Number of cases	Number of affirmative cases	Number of six-digit HS products
311	Food products	0	0	0
313	Beverages	0	0	0
314	Tobacco	0	0	0
321	Textiles	52	39	915
322	Wearing Apparel except footwear	0	0	0
323	Leather products	1	1	4
324	Footwear except rubber or plastic	0	0	0
331	Wood products except furniture	5	5	13
332	Furniture except metal	0	0	0
341	Paper and products	4	0	4
342	Printing and publishing	0	0	0
351	Industrial chemicals	44	39	42
352	Other chemicals	1	1	1
353	Petroleum refineries	0	0	0
354	Miscellaneous petroleum and coal products	0	0	0
355	Rubber products	29	29	40
356	Plastic products	0	0	0
361	Pottery, china, earthenware	0	0	0
362	Glass and products	5	5	7
369	Other non-metallic min. products	3	2	6
371	Iron and steel	16	16	19
372	Non-ferrous metals	2	2	2
381	Fabricated metal products	8	8	8
382	Machinery except electrical	5	2	5
383	Machinery electric	2	2	3
384	Transport equipment	2	2	2
385	Professional and scientific equipment	1	1	1
390	Other manufactured products	10	9	11
	Total	191	163	1083

3. DATA

We obtained the data for AD activity from the *Global Antidumping Database* of the World Bank.[5] This database reports case-level information on dates of initiation, target countries, products subject to investigation and case outcomes. AD duties can be imposed on a single product category as well as on a broad product group. In the case of Turkey, this varies from four to 12 digits. Following Ganguli (2008), we aggregated all the available product codes with their six-digit equivalents.

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[5]   http://econ.worldbank.org/ttbd/gad/

After collecting the HS codes for the products in the AD cases, we constructed the import data of these products from between 1992 and 2008 from the United Nations Commodity Trade Statistics Database (COMTRADE). Finally, we deflated the import values (in US dollars) to their 1990 equivalents.

4. TRADE EFFECTS OF TURKEY'S ANTIDUMPING

4.1. Background and Estimation

Antidumping is defined under the Article VI of the GATT (and the AD Agreement of the WTO) and allows importers to impose restrictions on the exporters of a particular country if they are discriminating with regard to price (selling below the "normal value") and if this different pricing in different markets leads to material injury to the firms operating in the domestic market. AD duties are country and product specific. For instance, if the textile industry in Turkey claims that cotton shirts are being dumped from Romania and China, only the cotton shirt exporters of these two countries are imposed duties after the investigation. Therefore, AD duties are classified as "*discriminatory trade restriction,*" given the fact that they are not equally imposed on all importers. Given their non-discriminatory feature, AD duties not only affect the trade flows of the countries targeted in the investigation but also third-party countries that are not targeted. For instance, Russia might be able to sell more cotton shirts to Turkey as a result of the duties imposed on Romania and China. Consequently, AD duties might cause trade destruction (decreased imports from targeted countries) and trade diversion (increased imports from non-targeted countries).

Investigate the effect of AD duties on the import flows of the named and unnamed countries, we construct the time series data for the each AD case and start with the following equation:

$$\ln(m_{it}) = \alpha_1 \ln(m_{it-1}) + \alpha_2 D_{it} + \alpha_3 D_{it} S_i + \alpha_4 S_i + \varepsilon \tag{1}$$

where i denotes the AD case, t denotes the time in years, m_{it} is the value of imports, D_{it} is binary and equal to 1 if there is an AD duty in force at time t. S_i is a dummy equal to 1 for the countries subject to investigation. The coefficient α_2 can be interpreted as the effect of AD duties on the product-country combinations that are not subject to investigation (trade diversion), and the sum of α_2 and α_3 measures the impact of imposed AD duties on the importers of the countries that are targeted in the investigation (trade destruction). The inclusion of the lagged dependent variable is crucial in the

sense that it controls for the initial import size. In addition, we also included year dummies for aggregate variations, such as macroeconomic shocks.

The autocorrelation of the dependent variable indicates that the OLS estimation will provide biased estimates. Therefore, we estimate the first difference of equation (1) using the two-step Generalized Method of Moments (GMM) estimator proposed by Arellano and Bond (1991) and use multiple lags of the level of the dependent variable as instruments.[6] Moreover, as a robustness check, we first differenced equation (1) and estimated by the two-stage least squares/instrumental variable (IV) approach described by Anderson and Hsiao (1982). Once again, we used the multiple lags of the level of the dependent variable as instruments for IV specification.

4.2. Results

The estimation results for the import values are reported in Table 4. The first column reports the GMM and the second one reports the IV first difference estimations. Both estimations suggest a significant trade effect of AD duties for the named and non-named countries. Consider first the GMM estimation. In terms of the magnitude of the effect, AD duties decreased the imports of the named countries' products by 53 percent $(\alpha_2 + \alpha_3)$. Further, imports of the same products for the non-named countries increased by 7 percent (α_2). When it comes to IV estimation, the results are parallel to GMM's estimation in terms of the sign and the significance of the estimates, although IV estimation yields smaller coefficients for the change in the import values.

In summary, both the GMM and IV estimations demonstrate that Turkey's AD duties decreased imports from the countries subject to investigation and increased imports from the countries not subject to investigation.

In terms of the effectiveness of AD policy, our results suggest that AD duties dramatically restrict the dumped imported varieties. Although the non-named countries increased sales in Turkey stemming from the reduction in trade by named countries, the effect of trade diversion is small. Therefore, as also noted in Ganguli (2008) for the case of India, we may conclude that while there is evidence of trade diversion, the size of the effect is not adequate enough to decrease the protectionist effect of AD policy completely.

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[6]　Bown and Crowley (2007), Ganguli (2008).

Table 4. Estimation Results – Import values
Dependent variable: log (Import value)$_{it}$

	GMM Estimation	IV First Difference Estimation
First lag of the dependent variable	0.216	0.156
	(8.78)***	(8.40)***
D_{it}	0.075	0.053
	(2.46)**	(1.69)*
S_i	-0.234	-0.219
	(3.05)***	(1.83)
$D_{it}xS_i$	-0.604	-0.456
	(3.89)***	(2.19)**
Constant	3.629	-0.016
	(30.46)***	(1.70)*
Year dummies	Yes	Yes
R^2	-	0.65
Observations	31104	31104

Notes:. Robust t-statistics in parentheses. *significant at 10%; **significant at 5%; ***significant at 1%.

5. CONCLUSION

We have investigated the effects of Turkey's AD actions on imports of duty-imposed products using a dataset that combines the import data of the six-digit HS products with the detailed case-level data on AD activity. Our findings suggest that AD duties lead to a significant decrease in the imports of the targeted countries (trade destruction), but a shallow increase for the imports of the non-targeted countries (trade diversion). Since the magnitude of trade diversion is low, we conclude that Turkey's AD duty is effective not only in restricting the imports of the dumped products, but also in protecting the domestic industry, although trade diversion mitigates the benefits of the protection to the domestic industry to some extent.

REFERENCES

Anderson, T.W., and Hsiao, C. (1982), "Formulation and estimation of dynamic models using panel data." Journal of Econometrics, 18, 47–82.

Arellano, M., and Bond, S. (1991), "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations." Review of Economic Studies 58, 277–297.

Bown, Chad P. (2008), "The WTO and Antidumping in Developing Countries." Economics and Politics 20(2), 255-288

Bown, C., Crowley, M. (2007), Trade Deflection and Trade Depression. Journal of International Economics 72(1), 176-201

Ganguli, B. (2008), "The Trade Effects of Indian Antidumping Actions." Review of International Economics 16(5), 930-94

Khatibi, A. (2009), Trade Effects of European Antidumping Policy, ECIPE Working Paper, no.7

Lasagni, A. (2000), Does Country-Targeted Antidumping Policy by the EU Create Trade Diversion , Journal of World Trade 34(4), 137-159.

Malhotra N., and H. Rus. (2009), "The Effectiveness of the Canadian Antidumping Regime." Canadian Public Policy 35(2),187-202

Niels, G. (2003), "Trade diversion and destruction effects of antidumping policy: empirical evidence from Mexico." Mimeo OXERA and Erasmus University Rotterdam .

Prusa, Thomas J. (2001), "On the spread and impact of Anti-Dumping." Canadian Journal of Economics 34(3), 591-611

Prusa, Thomas J. (1997), "The Trade Effects of US Antidumping Actions." in Robert Feenstra (ed.), The effects of US trade protection and promotion policies. University of Chicago Press, 191-213.

Konnings, J, Vandenbussche, H., J. Konings and L. Springael. (2001) "Import diversion under European antidumping policy." Journal of Industry, Competition and Trade 1(3), 283-299.