

Bifurcated vs. Single Injury Determination in USITC Antidumping Investigations**

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Abstract

The Trade Agreements Act of 1979 mandates that a material injury determination be made in unfair trade practices investigations. These are conducted by the U.S. International Trade Commission(USITC). The USITC has generally, but not consistently, followed a bifurcated injury determination procedure. This is controversial and is alleged to be dispositive. A bifurcated procedure militates against finding affirmatively on the basis of threat of injury. Using a cross sectional regression to explain abnormal returns generated on decision dates in the investigation of unfair practices, this paper provides a profile of firms that are likely to benefit from protection. These are the firms that are likely to be denied protection by the bifurcated procedure.

I. Introduction

The Trade Agreements Act of 1979 is the statute upon which the current structure of antidumping and countervailing duty investigations is based. This statute mandates that an injury determination be made. As Jameson(1986) details, the current administrative practice of the U.S. International Trade Commission(USITC) is generally to make a bifurcated injury determination. That is, in most cases, the USITC first decides if an industry is materially injured. If this judgment is in the affirmative, it then

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makes a separate determination as to whether the material injury is a result of dumped and/or subsidized imports. If this judgment is negative, the petition is denied. An alternative procedure would be to assess the impact of the volume and price of imports on the viability of the domestic industry : this approach may be termed the single injury determination procedure.

Jameson(1986) has argued that the legislative history and language of the statute supports a single injury determination. However, judicial interpretation(as revealed when USITC decisions are appealed to the Court of International Trade) has been inconsistent : In *American Spring Wire Corp. v. United States*, the Court's interpretation clearly supports a bifurcated determination : *Republic Steel Corp. v. United States*, however, supports a single determination procedure.

The contention, and source of the controversy surrounding the material injury determination, is that the distinction between these two procedures is dispositive. That is, under the bifurcated analysis, an industry may be deemed healthy and its petition therefore judged negatively without a thorough consideration of the impact of imports on its current, and even more importantly, future vitality. With the single determination method, the impact of imports may be disclosed and an affirmative judgment rendered, despite the apparent good health of the industry. These two different injury determination procedures may therefore result in very different decisions being made on industry petitions.

In making its material injury assessment, the Less Than Fair Value(LTFV) clause (Sections 701 and 731 of the Trade Agreements Act) directs the USITC to consider injury to the pertinent firms, threat of injury to these firms, a combination of injury and threat of injury, and the material retardation of the establishment of a domestic industry. If an investigation does not support any of these determinations, the decision is negative. The negative decisions, unlike the affirmative ones, are not made according to the above delineated categories. The purpose of the LTFV clause is to redress a competitive imbalance resulting from an unfair trade practice. It is not intended to eliminate the margin of underselling, to the extent that this underselling exceeds the dumping or subsidy margin. (As such, it should be noted that the LTFV clause should not be construed as a vehicle for rescuing beleaguered firms : the "escape clause" of the Trade Act of 1974 is a more appropriate instrument for this).

If the USITC invokes the threat of material injury criterion in its decisions, it would militate against the use of bifurcation in its administrative practice. That is, threat of injury is presumably a preinjury state, or a condition in which material injury

is impending, but not yet manifest. An industry in this condition is likely to still be healthy, but facing increasing pressure from imports. Under these conditions, an industry seeking relief from LTFV imports would be denied protection under a bifurcated procedure. However, it might be successful under a single decision process, as it would likely be losing market share.¹ To render a threat of material injury judgment, it would appear to be necessary to consider the vitality of an industry through a single decision process. Note that in making this statement, we are taking the standard for finding injury as given. Our focus is on the decision-making process of the USITC.

When making a material injury determination, the USITC is specifically directed to assess the extent to which allegedly dumped or subsidized imports are a consequential cause of injury to the industry. It is not required to take into consideration the magnitude of the dumping or subsidy margin.² Furthermore, it is not concerned with the value of protection. However, there are at least three reasons for concern as to the value to an industry to petitioning for relief under the LTFV clause. One arises from the argument delineated above that a bifurcated material injury determination precludes relief from LTFV imports that would be granted under a single injury procedure. If this relief is valuable, then the administrative practice is an important policy issue. The second stems from the tendency of the USITC not to consider dumping or subsidy margins in its administration of trade law. The value of relief from LTFV pricing would ostensibly be greater when it comprises a substantial percentage of the margin by which imports undersell domestic producers. The third is that the expected value of protection serves as a screening mechanism for firms in their decision to petition. If the administrative practice affects this value, then it also affects the demand for protection.

Interestingly, from the standpoint of evaluating the USITC's tendency towards bifurcation, the USITC has made some threat of injury determinations during the 1980's. In other words, they appear to have generally, but not consistently, followed a bifurcated approach. Using the capital market event study method, Hartigan, Kamma, and Perry

1. In conducting its investigations, the USITC collects data on output, sales, market share, profits, productivity, return on investments, capacity utilization, domestic and import prices, cash flow, inventories, employment, wages, investment, and research and development. See Jameson (1986) and Palmetier (1987a).

2. As is discussed below, the USITC makes both a preliminary and a final injury determination. It does not know the LTFV margins at the time of the preliminary judgment. As Jameson (1986) points out, the USITC is to use the same criteria for both decisions. This would appear to preclude a consideration of the LTFV margins. For alternative views as to whether the USITC should consider margins, see Jameson (1986) and Palmetier (1987b).

(1989 : hereafter, HKP) have disclosed that only in the case of threat of material injury decisions is relief from dumping valuable to the pertinent firms.³ In interpreting this market reaction to the USITC decision, it is important to consider the information the market has at the time of this decision. The USITC conducts confidential surveys of the pertinent firms as an integral part of the investigative process. These surveys are at a level of detail that is substantially in excess of that provided to the market in the corporate 10K and annual reports.⁴ Thus the USITC decision category, positive(injury, injury /threat, threat) or negative, conveys new information to the market. The decision category thereby provides an informed assessment, where this assessment is based on confidential information, as to the vitality of the firms' production of the products encompassed by the investigation.

As implemented by HKP, the capital market event technique measured the extent to which the owners of firms(i.e., the holders of the common stock of those firms) seeking import relief earned "abnormal returns," or returns significantly above or below those that would have been predicted given the firms' normal relationship with the capital market, at a set of dates of importance to the firms. The interpretation is that these abnormal returns were caused by the events that took place on the dates in question(The derivation of these abnormal returns is described in detail in the Appendix).

In the present paper, we utilize a cross section regression to explain the abnormal returns generated by the time series analysis of HKP. In so doing, we provide a profile of the industries that benefit from antidumping relief. What is interesting about this profile is the revelation that industries benefiting from antidumping relief are healthy, but are highly sensitive to a surge of LTFV imports. These industries generally would not be awarded relief if the USITC consistently followed a bifurcated approach. Thus, not only may the administrative procedure chosen by the USITC be dispositive, it may also determine whether or not the relief granted from LTFV pricing is valuable to the owners of the firm.

As to the organization of the paper : the institutional procedure in antidumping cases is reviewed in Section II. In Section III the abnormal returns are explained by industry characteristics, which are related to the administrative practices of the USITC.

3. For a general discussion of this technique and selected papers using it, see Schwert(1981). The particular method of HKP is discussed in the Appendix.

4. The Securities and Exchange Commission requires that reports be filed annually with them that provide greater detail as to operations than the annual reports that are distributed to shareholders. These are termed the 10k reports.

Section IV is a brief discussion of the implications of our findings. The details of how the abnormal returns were initially calculated is reviewed in the Appendix.

II. The Antidumping Investigation Procedure

The Trade Agreements Act of 1979 is the statute under which current anti dumping investigations are conducted. This Act transferred authority for the determination of the existence of dumping from the U.S. Department of the Treasury to the S. Department of Commerce. This transferral of authority occurred on January 1, 1980.

Under the current procedure, a set of firms alleging an unfair trade practice must file a complaint simultaneously with the U.S. International Trade Commission (USITC) and the Department of Commerce (DoC). These two agencies make a series of decisions in conducting an investigation, the first of which is by the USITC. This decision addresses the issue of whether the petitioning firms have incurred material injury or are threatened with material injury, and must be made within 45 days of the complaint.⁵ An affirmative decision by the USITC requires the DoC to make a preliminary decision as to the existence of dumping within 160 days of the complaint.⁶ The DoC must make a final decision within 235 days of the filing of the complaint, irrespective of what it decides at the preliminary stage. An affirmative preliminary decision serves as a notice to the USITC to begin its final investigation. In other words, it serves to expedite the investigative process. It also provides the accused firms with an opportunity to respond to the DoC's preliminary investigation. An affirmative DoC final decision requires the USITC to complete its final investigation within 280 days of the filing of the petition. The USITC makes both its preliminary and final decisions according to the same criteria. As was noted earlier, a USITC decision can be appealed to the Court of International Trade.

An investigation automatically terminates with either a negative decision by the USITC (preliminary or final) or a negative final decision by the DoC. Each of these decisions is therefore critical to obtaining relief from dumping.

5. The temporal framework of an antidumping investigation may be extended through announced postponements due to difficulties in obtaining information or because of the complexity of a case. An investigation may also be terminated at time due to a negotiated settlement.

6. According to U.S. trade law, dumping is defined to exist when the U.S. price is less than the foreign market value. These comparisons are based on f.o.b. prices. Adjustments are made for cost differences based on dissimilar product specifications for sales in the two markets: some differences in marketing expenses are also taken into account.

If all three critical decisions in an investigation are affirmative, the U.S. Customs Service is instructed to apply an antidumping duty of the amount by which the DoC has determined that the offending firms' home market value exceeds the price charged in the U.S. by these firms. The dumping duty applies only to the exports of the guilty firms: no other firm's export prices are directly affected.

III. The Analysis of the Injury Determination

The focus of our analysis is the USITC's material injury decision. However, we have also analyzed the abnormal returns for the final DoC decision⁷. Although both are involved in the administrative process, the USITC and DoC have different functions: in particular, the DoC is not responsible for an injury assessment. However, the case for injury should be more compelling if the dumping margin that the DoC calculates is high, even though the USITC is not obligated to consider the dumping margin in its injury assessments. Rather, injury is taken to be a result of dumped imports, irrespective of the dumping margin. Nonetheless, assessing the contribution of the dumping margin should be interesting, and we tested for the significance of this margin as an explanation for the market's reaction to both the USITC and DoC decisions.

A. Data and Method

Table 1 reports the industries that are used in this study. The cross section analysis is a means of explaining the abnormal industry return that was revealed by HKP's time series analysis.⁸ The USITC and DoC investigation reports were the sources of information for this analysis. Because of the confidentiality of these reports, the public versions contain data that are aggregated to the industry level. Thus, our analysis was performed at the industry level. We restricted our analysis to the preliminary USITC

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7. If the market correctly anticipates the decision before it is actually made, then our focus on the USITC and DoC decisions is inappropriate. That is, the market response will have come earlier. To test for this possibility, we analyzed abnormal returns for a 5 week interval around the filing date. We did not observe significance for any category of subsequent decision. This is consistent with our previous position that the USITC decision category conveys information to the market.
 8. The focus of HKP was nonsteel antidumping petitions filed under the Trade Act of 1979. The steel industry constitutes roughly half of the antidumping petitions filed since January 1, 1980. This time period is dictated by the transferral of authority for determining the existence of dumping from the Department of the Treasury to the Department of Commerce as of January 1, 1980.

Table 1
Industries Included in the Study

USITC Case No.	No. of Firms	Industry	Date Filed	Against
TA-731-4	6	Countertop Microwave Ovens	8/24/79	Japan
TA-731-7	3	Electric Motors	8/27/79	Japan
TA-731-25	2	Anhydrous Sodium Metasilicate	5/15/80	France
TA-731-29	3	Asphalt Roofing Shingles	6/21/80	Canada
TA-731-31	3	Barium and Strontium Carbonate, Sodium Nitrate	9/9/80	FRG, Italy
TA-731-49	1	Fireplace Mesh Panels	8/11/81	Taiwan
TA-731-90	3	Chlorine	4/5/82	Canada
TA-731-101	2	Griege Polyester Printcloth	8/5/82	PRC
TA-731-108	5	Portland Hydraulic Cement	9/23/82	Australia, Japan
TA-731-110	2	Bicycles	9/24/82	Korea, Japan
TA-731-118	4	Lightweight Polyester Filament Fiber	1/4/83	Korea, Japan
TA-731-134	8	Color Television Receivers	5/3/83	Korea, Taiwan
TA-731-139	3	Acrylic Sheet	7/28/83	Taiwan
TA-731-187	6	Potassium Chloride	3/30/84	GDR, USSR,
	1			Israel, Spain
TA-731-190	5	Stainless Steel Wire Cloth	5/31/84	Japan
TA-731-200	1	Radial Tires	7/20/84	Korea
TA-731-204		Grand and Upright Pianos	9/21/84	Korea

and final DoC decisions because the HKP time series results for the final USITC decision were not sufficiently interesting. (This lack of interest at the time of the final USITC decision is not surprising since by then the important information in a case has already been revealed, and hence incorporated into the price of the common stock).

Our cross section analysis utilized the regression technique. The dependent variable consisted of the cumulative average petition abnormal returns for each critical decision (the $CAR_{i,t}$: see the Appendix). To explain the $CAR_{i,t}$, we utilized three categories of regressors: injury measures, import penetration measures, and a limited variable designed to capture the category of decision. In selecting our regressors, we were guided by a need to measure both firm performance and labor market conditions: this is

because labor and business are frequently considered distinct interest groups in seeking economic rents through government regulation. It must be recalled, however, that the distribution of the value of the firm among shareholders, managers, and labor is an internal decision of the firm.

The injury measures were the rate of change of employment in the relevant firms for activities directly connected with producing the pertinent products over the period covered in the investigation, usually three years (CE) : the level of profit as a percent of sales of the petitioned product (P) : and the percentage the petitioned products represented of total establishment sales (S).⁹ The import penetration measures were the DoC final dumping margin (D) : imports of the petitioned products from all countries as a percentage of domestic consumption of these products (MT) : imports of the petitioned products from countries accused of dumping as a percentage of domestic consumption (MD) : and the rate of change of imports from accused dumpers as a percentage of domestic consumption (CMD).^{10,11}

Because the time series results of HKP for the entire investigation only produced significance when the decision category was threat, we constructed a limited independent variable (CAT) to reflect this.¹² Thus, CAT was equal to one if the category was threat *and* the decision to award protection was affirmative. In all other cases, CAT was defined to be zero. To put this somewhat differently, since HKP's results indicate that the stock market did not distinguish among negative, positive-injury, and positive-injury /threat decisions, we regarded these decisions as belonging to a single category in our attempt to explain the $CAR_{i,t}$.¹³ To further justify our definition of CAT, we per-

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9. Recall from footnote 1 that the USITC collects data on a battery of variables that are candidates for measures of firm injury. From this list, we selected net operating profit as a percent of sales because it tends to be correlated with the other indicators of firm performance, and because economic theory assumes an objective function of profit maximization (While we would have preferred to express this variable in terms of total firm sales, the USITC only reports it relative to establishment sales). The limited degrees of freedom of our regression and the fact that some of the other indicators are not reported in every investigation also contributed to our decision.
 10. Because the rate of change of total imports as percent of consumption is highly correlated with the rate of change of imports from alleged dumpers as a percent of consumption, we did not use the former variable.
 11. Recall that the USITC is specifically directed by the trade law to consider these variables in making its decisions.
 12. An inspection of the residuals indicate that the results were not driven by one or two industries.
 13. A negative decision does not necessarily mean that a set of firms is healthy. All that can be inferred is that there is insufficient evidence to link imports to the firms' financial position. Recall that in a bifurcated material injury determination, injury must first be established. Then the role of imports is examined. Ostensible, negative decisions pertain to industries that meet only the former criterion. Presumably the firms are in actual or anticipated difficulty for them to have undertaken the filing for relief.

formed an ANOVA for the means of each of the three affirmative decision categories and found significant differences at the one percent level. The null hypothesis was that the means were equal. These results are reported in Table 2.¹⁴ Thus it appears to be the case that the market reaction to threat decisions differs significantly from that to all other decisions.

Table 2
ANOVA Results

Source	df	Sum of Sq.	Mean Sq.	F Ratio
Between Groups	2	5.216	2.608	5.61
Within Groups	22	10.222	.465	
Total	24	15.438		

The cross section analysis will provide a profile of industries that benefit from anti-dumping relief. This profile will reveal the importance of the tendency of the USITC to make bifurcated injury determinations.

If firms that are threatened with material injury benefit most from affirmative antidumping verdicts, then all of the injury variables will be positively related to the abnormal returns from the time series in HKP. Positive coefficients for CE and P indicate a more viable industry, and hence one that should be better able to take advantage of the protection afforded by antidumping measures. A higher S suggests importance of the petitioned products to the pertinent firms, and hence the protection afforded should be correspondingly more valuable. On the other hand, CE and P would be negatively related to abnormal returns if firms that had incurred actual material injury were the primary beneficiaries of antidumping relief. A positive sign would still be conjectured for the coefficient of S.

Higher values of the import penetration variables MD, CMD, and MT are more likely to be associated with actual injury, which HKP report as not associated with a positive market response to dumping relief. We thus anticipate negative signs for these variables. If materially injured firms gained the most from protection, these signs would be expected to be positive. A higher D implies a larger expected increase in the price of

14. For the ANOVA, we used all of the affirmative petitions from the time series of HKP without regard to whether cross section data was available. Thus the degrees of freedom in the ANOVA and the cross section differ.

the imports after antidumping duties are imposed, which should be advantageous to the domestic industry. We conjectured a positive sign for D , in accordance with the usual interpretation of increased import duties as benefitting domestic firms.

As the above discussion reveals, injured firms and threatened firms have different characteristics. The variables that are significant in the cross section regression will establish a profile of a successful petition that proves beneficial. In so doing, it will reveal the importance of the USITC decision making procedure.

B. Results¹⁵

We separated our cross section analysis of the USITC preliminary and DoC final decisions because each agency has a different function in the investigation process. Similarly, the cross section structural variables upon which the abnormal returns were hypothesized to depend were different. The results are reported in Table 3.

a. The USITC Decision (Panel A of Table 3)

The first regression utilized two measures of injury, profit as a percent of sales (P) and the percent of the petitioned products in total establishment sales (S). Only the coefficient of P was significant: surprisingly, the coefficient of S was insignificant.¹⁶ The coefficient of the penetration measure used, the rate of change of imports from accused dumpers as a percent of domestic consumption (CMD), was negative and highly significant. Thus, a high rate of growth of imports is very damaging to the domestic firms. The category variable (CAT) was also highly significant. This finding supports the time series result of HKP that the decision category is critical to determining whether anti-dumping relief is beneficial to the pertinent firms. It may be that the market views the USITC categorization and decision as reflecting confidential information that was gathered during the investigation. If this interpretation is correct, it is not surprising that the decision category is a significant variable.

In order to investigate these instructional relationships further, we substituted the change in employment variable (CE) for S . It is noteworthy that the coefficient of CE was insignificantly different from zero. It appears that the viability of the firms as vie-

15. We also specified the CAT limited variable as interactive with other variables. However, it did not perform as well as the specification reported in the text, and hence the interactive results are not reported.

16. Recall that there are measurement problems with this variable: see footnote 9.

Table 3
Cross Setion Results^{a,b}

Panel A : USITC Preliminary Decision (Number of industries=17)

	<u>Constant</u>	<u>P</u>	<u>S</u>	<u>CMD</u>	<u>CAT</u>	<u>R-Sq</u>
1. Coef.	.0282	.0055***	.0002	-.0003***	.6375***	.78
S.E	(.0277)	(.0015)	(.0005)	(.0001)	(.1018)	
2. Coef.	<u>Constant</u>	<u>P</u>	<u>CE</u>	<u>CMD</u>	<u>CAT</u>	<u>R-Sq</u>
S.E	.0430*	.0052***	.0003	-.0003***	.6423***	.78
	(.0191)	(.0014)	(.0006)	(.0001)	(.1020)	

Panel B : DoC Final Decision (Number of industries=17)

	<u>Constant</u>	<u>MD</u>	<u>D</u>	<u>CAT</u>	<u>R-Sq</u>
1. Coef.	.0473**	-.0021***	.0007	-.0098	.46
S.E	(.0217)	(.0007)	(.0005)	(.0351)	
2. Coef.	<u>Constant</u>	<u>MT</u>	<u>D</u>	<u>CAT</u>	<u>R-Sq</u>
S.E	.0418	.0010	.0013*	-.0344	.32
	(.0323)	(.0007)	(.0006)	(.0510)	

Notes :

a : The variables are (see the text for more complete definitions) :

P=profit as a percent of sales of the petitioned products :

S=petitioned products as a percent of total establishment sales :

CMD=rate of change of imports from alleged dumpers as a percent of domestic consumption :

CAT=one if it is a threat petition, affirmatively decided, zero otherwise :

CE=rate of change of employment in the relevant firms :

MD=imports from alleged dumpers as a percent of domestic consumption :

MT=total imports as a percent of domestic consumption :

D=final DoC dumping margin.

b***,**, * : denote significance at the one, five, and ten percent levels, respectively.

wed by the market is only contingent upon their profitability.¹⁷ This is presumably because firms with higher profits are in a preinjury state, i.e., their profits have not yet been eroded.¹⁸

b. DoC (Panel B of Table 3)

The first regression here incorporated the category variable (CAT) and two penetration variables, the level of imports from alleged dumpers as a percent of domestic consumption (MD) and the dumping margin (D). In this regression, the coefficient of MD is negative and highly significant. The dumping margin (D), somewhat surprisingly, is not significantly different from zero. However, we have already suggested that high dumping margins may be associated with injury, and this may dilute the positive impact on firm value of an anticipated increase in the domestic price level of the relevant products. On the other hand, Jameson (1986) and Palmetier (1987b) have pointed out that the USITC does not consider dumping margins in its assessment of injury. That is, the injury decision is "by reason of imports, not by reason of dumping margins." Hence, the dumping margin, in this point of view, would not be expected to be significant.¹⁹

The level of dumped imports (MD) is important in the first DoC regression, whereas the change in this level (CMD) has significant explanatory power in the regression for the preliminary USITC decision. Apparently rates of change in import pressure are a more accurate indicator of the difficulties firms face in meeting the competition from imports. However, the level of dumped imports as a percent of consumption becomes a more accurate indicator when the existence of dumping is the issue.

In the second DoC regression we substituted imports of the petitioned products from all countries as a percentage of domestic consumption (MT) for MD. In contrast to MD, the coefficient of MT was not significantly different from zero. Thus, the response of the market to dumping is quite narrowly circumscribed by the investigation of the

17. Note that it is possible for a firm to maintain its profitability-to-sales ratio by contracting output as imports rise. This could erroneously lead to the conclusion that injury had not occurred, if the profitability/sales ratio were the only data on firm performance collected by the USITC. Because we control for the rate of change of employment in the regression, we avoid this problem.

18. This is consistent with the Hartigan, Perry, and Kamma (1986) result that affirmative escape clause verdicts are not valuable to the firms that seek relief under Section 201 of U.S. trade law. The injury standard for escape clause cases is more stringent than it is for "unfair" trade decisions. To the extent that there were abnormal returns, they were positively related to profitability.

19. We also inserted the dumping margin into the USITC regression: it was not significantly different from zero.

accused dumpers.

The CAT variable was not significant in either DoC regression. It would appear that the decision category is not related to the DoC final decision. This is perhaps not too surprising, because the DoC does not determine, or have any influence on, the category of the decision.^{20,21}

IV. Implications for the Injury Decision

The cross section regressions have disclosed that the administrative procedure followed in the injury decision is important in determining the value of antidumping relief for the pertinent firms. Those industries that benefit from relief from dumping are characterized by healthy profitability and a low rate of increase in imports from alleged dumpers. That is, they are not yet suffering material injury. This profile is just the sort that would be judged negatively under a consistent application of a bifurcated determination procedure. The financial health of these firms would preclude an affirmative injury verdict, and the USITC would not consider the current or future impact of imports on the financial condition of the industry.

In advocating an administrative practice, however, it is important to recognize that either approach entails a particular bias or source of error. The errors are errors of omission and errors of commission. Under errors of omission, some firms that do not yet manifest injury are denied protection. With commission, some firms that do not warrant protection are awarded it. The current practice of the USITC is, in general, to err on the side of omission. That is, firms that are in a preinjury or threat state generally do not get relief. As the cross section regressions indicate, however, this is when relief is valuable.²²

In choosing to err on the side of omission, the USITC may be affecting the pool of petitioners and the timing of their petitions. If business perceives antidumping relief to

20. It should be noted that dropping the S and CE variables in Panel A of Table 3 made no difference in terms of the significance of the remaining variables: similarly for D and MT in Panel B.

21. Table 3 reports the results of a regression analysis in which the dependent variable consisted of cumulative average petition abnormal returns for each critical decision. Thus autocorrelation in the time series that produced the CAR's is a potential problem. In the finance literature, however, it is commonly assumed that markets are reasonably efficient and that security residual returns are reasonably independent across time. Tests of our residuals in HPK(1986) confirm this. For more on this issue, see Perry(1982).

be lacking in value, they are less likely to seek it. Alternatively, they may postpone seeking protection until actual injury occurs and the protection, although more probable, is less valuable. It is natural to question why petitions take place if the market deems an affirmative decision inconsequential. Although it is not the question we are addressing, we may conjecture that managers are trying to convince stockholders and employees that they are doing all they can to enhance the firm's vitality.

One can argue, as Jameson(1986) has done, that the administrative practice of the USITC is properly determined through the will of Congress. However, it is interesting to observe that the USITC has *generally* adopted an administrative bias toward errors of omission, and has *generally* rendered affirmative judgments that are not valuable to industries pursuing antidumping relief. It may be that the USITC is no the captured or protectionist agency that might be expected in its role as a forum for the complaints against imports by domestic business and labor.

22. In discussing the errors inherent in the USITC's administrative procedure, we make two implicit assumptions which appear reasonable. The first is that firms which are granted relief in the bifurcated procedure would still be granted antidumping relief under a single decision. Because the law is expressed as by reason of dumped imports, rather than by reason of dumping, this appears to be a fair assumption. The second is that the value of antidumping relief revealed in our cross section results does not arise because of errors of commission. Rather, it arises because firms that are actually in a threat state are in a better position to take advantage of the change in competitive balance induced by antidumping duties. Because our results are broadly based, and not dependent on one or two industries, we believe the assumption to be reasonable. However, it should be noted that we cannot distinguish errors of commission from true threat cases in our analysis. To do so would require evidence that the USITC did not consistently apply its standard. Since injury has not been given a precise quantitative measure by the USITC, and is generally impressionistic, this is precluded.

Appendix : The Calculation Of Abnormal Returns

As was explained in the Introduction, the purpose of this paper is explaining abnormal returns in order to sharpen the focus of the injury decision by the USITC. Hartigan, Kamma, and Perry(1989 : HKP) have determined that these returns were significant(positive) only when an industry was threatened with injury. We use their abnormal returns in the present paper, and below explain how they were computed.

a. Data

USITC investigation reports were used to identify those firms reported in dumping complaints under Section 731 of the U.S. trade law(excluding complaints involving the steel industry : see footnote 6). This included all firms that were judged(by the USITC) to be potentially affected by the alleged dumping, not just the firm or group of firms that filed the complaint. By including all affected firms, and not just petitioners, HKP avoided the potential problem of excluding those firms that were affected but did not petition. That is, they avoided the "free-rider" problem and its concomitant underestimation of the importance of protection.

The source for security returns(which were adjusted for stock splits and dividends) was the Daily Return tape compiled by the Center for Research in Security Prices(CRSP) at the University of Chicago. The analysis includes only those investigations that had at least one firm for which data were available from fifty-six weeks before the petition was filed until two weeks after the last decision. Table I identifies the 17 petitions included in the analysis, along with the corresponding number of firms that had an adequate amount of data to be used for cross section purposes.

b. Method

HKP began by estimating the normal relationship each pertinent firm had with the market as a whole, using weekly return data :

$$R_{iw} = a_i + B_i R_{mw} + U_{iw} \quad (1)$$

where :

- R_{iw} is the continuously compounded rate of return for security i in week w :
- a_i is a constant :
- B_i is the systematic risk(beta) of security i :
- R_{mw} is the continuously compounded rate of return in week w for the market

portfolio, proxied by the return on an equally weighted portfolio composed of all common stocks on the New York Stock Exchange and the American Stock Exchange : and

U_{iw} is a disturbance term with the usual properties.

Equation(1) was estimated for each firm in the sample using weekly returns from fifty-six weeks before the petition was filed to five weeks before this filing date.

After the parameters of the model were estimated, they were used to compute weekly abnormal returns(residuals) for each of the five weeks immediately surrounding each critical decision(that is, from two weeks before, through two weeks after, each decision week). This interval was chosen because of several considerations. First, the two prior weeks were included in case news of the decision became public(and hence the market reaction occurred) before the formal decision date. Second, the two weeks after the decision were included in case there were delays in the market's acquisition of and reaction to news of the decision. Third, it is difficult to pin down the precise point in time when information about these decisions became public knowledge : after the formal vote is taken, it is usually one or two days until there is a public announcement, and it is not until another two or more days pass that this information appears in the Federal Register. Thus, there could easily be a week between the vote and the effective dissemination of this information.

Abnormal returns(residuals) were calculated for each firm i in each week w according to :

$$e_{iw} = R_{iw} - (a_i + B_i R_{mw}) \quad (2)$$

The computation of the residuals removes the security's normal return, with each weekly residual reflecting that security's abnormal performance for that week. For each week w , these residuals were averaged over all the firms in each petition j to generate an average petition weekly residual, AR_{jw} :

$$AR_{jw} = \frac{1}{N_j} \sum_{i=1}^{N_j} e_{iw} \quad (3)$$

where N_j is the number of firms covered by petition j .

To account for the possibility that there might be leakages or lags in the assimilation of information regarding each decision, HKP calculated the Cumulative Average Residual for each petition j for each administrative decision k (CAR_{jk}). CAR_{jk} is the sum of the AR_{jw} for the time interval (w_k-2) through (w_k+2) , where w_k is the week of decision k . Note that the market reaction(i.e., abnormal return) for each decision should be independent of the others because each is based upon different information.

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