

The Effects of CUSFTA and NAFTA on Antidumping and Countervailing Duty Activity

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Abstract: This paper examines the effect of the Canadian-U.S. Free Trade Agreement (CUSFTA) and the North American Free Trade Agreement (NAFTA) on U.S. antidumping and countervailing duty (AD/CVD) case frequency and determinations against Canada and Mexico, respectively. These free trade agreements (FTAs) may have affected U.S. AD/CVD activity both through increased trade volumes and through the establishment of new Chapter 19 dispute settlement procedures to review national AD/CVD decisions when requested. Using a panel database of U.S. AD/CVD activity from 1980 through 2000, the paper generally finds no evidence that either increased import volumes or Chapter 19 dispute settlement activity affected the frequency of U.S. AD/CVD cases or affirmative determinations against Canada and Mexico. An exception is evidence that cumulative remands by Chapter 19 dispute panels to review U.S. decisions against Canada have led to fewer new affirmative AD/CVD decisions against Canada. These results have implications for future negotiations of PTAs and WTO rounds.

1. Introduction

With the success of GATT/WTO rounds in reducing traditional forms of trade protection, such as tariffs and quotas, recent focus by economists and policymakers has been on the use of antidumping (AD) and countervailing duty (CVD) laws by WTO-member countries. There is concern that the growing adoption and use of these laws by countries may threaten to roll back the free trade gains negotiated in GATT/WTO rounds since the end of World War II.^{1,2} In recent WTO meetings it has become apparent that traditional users of AD/CVD laws, particularly the United States, have been extremely reluctant to even allow these practices to be subject to future WTO negotiations.

Likewise, treatment of AD/CVD practices has been a contentious issue for recent PTAs negotiated by the United States. In negotiations for the Canada-U.S. Free Trade Agreement (CUSFTA) implemented in 1989, Canada originally proposed exemptions for both countries from each other's AD/CVD actions. Given strong U.S. objections to this, a compromise was eventually reached to establish binational panels to review AD/CVD actions between the two countries when requested by an involved party (Gantz, 1998).³ This compromise was codified in Chapter 19 of the CUSFTA. The role of these binational panels is limited to determining whether a country appropriately follows its own national AD/CVD laws in making a particular determination. Thus, national AD/CVD laws were not changed and cannot be questioned by the review panels, which was a crucial issue for the U.S. On the other hand, the process provides an

¹ See Prusa (2001) for analysis of the recent spread of AD/CD laws and their use across WTO member countries. Blonigen and Prusa (forthcoming) provides an extensive survey of the academic literature on the economics of AD activity.

² While AD/CVD activity often involves narrowly-specified import products, the high duties often imposed and other features of the administration of these programs can lead to quite significant welfare impacts. Gallaway, Blonigen and Flynn (1999) estimate that U.S. AD/CVD programs cost the U.S. \$4 billion annually using 1993 data. This placed AD/CVD programs as second only to the MultiFiber Arrangement in terms of welfare costs to the U.S.

³ This Chapter 19 review process of AD/CVD actions by binational panels was separate from a more general dispute settlement mechanism for all NAFTA-related issues stipulated in Chapter 20 of CUSFTA and NAFTA. See below for more details on the implementation and experience to date of Chapter 19 of CUSFTA and NAFTA

alternative to having national courts handle appeals of AD/CVD decisions, thus providing the possibility for greater impartiality of the review.⁴

An almost identical Chapter 19 was ultimately adopted in the subsequent NAFTA agreement as well, but not before the U.S. rejected calls by Canada for the NAFTA countries to exempt each other from their AD/CVD actions. In addition, there was substantial concern from both the U.S. and Canada over Mexico's AD/CVD laws and their application, which led to agreements by Mexico to make major procedural changes in their AD/CVD laws before implementation of NAFTA.⁵ Likewise, treatment of AD/CVD laws is a major concern in negotiations for a Free Trade Area of the Americas, with the U.S. unlikely to accept any concessions that would restrict their ability to apply U.S. AD/CVD laws.⁶

Thus, with the role of AD/CVD laws likely to be important issues in future trade negotiations over PTAs, it is important to understand the impact of previous PTAs on AD/CVD activity, such as CUSFTA and NAFTA. Given the change in the appeals process afforded through Chapter 19 of CUSFTA and NAFTA, a natural question is whether this change altered incentives sufficiently to impact AD/CVD activity. To date, there has been very little literature examining these issues.⁷ The main exception is Jones (2000), which points out that the creation of Chapter 19 binational review panels has the potential to create many more successful appeals by parties becoming subject to AD/CVD duties. This, in turn, would limit the success of domestic groups that file such actions and could lead to diminished AD/CVD activity toward

⁴ The national courts of appeals for unfair trade cases are the U.S. Court of International Trade, the Federal Court of Canada, and the Federal Fiscal Tribunal for the U.S., Canada and Mexico, respectively.

⁵ See Geisze (1994) for more details on the historical evolution of Mexican AD/CVD laws.

⁶ For example, a January 31, 2001, front-page article by *Gazeta Mercantil* reported that AD issues led to a negotiation impasse between Brazil and the U.S. in FTAA negotiations.

⁷ A small set of law journal articles and U.S. Government Accounting Office (GAO) reports have observed a number of developments with respect to the operation of the binational review panels stipulated under Chapter 19. Gantz (1998), Pippin (1999), U.S. General Accounting Office (1997), and Vega-Canovas (1997) provide descriptive assessments of how well the binational panel system of Chapter 19 reviews have worked in fulfilling their stipulated goals. These issues will be discussed more below.

other NAFTA countries. Importantly, the level of activity in the NAFTA dispute settlement process for AD/CVD cases has been substantial, with approximately 75 reviews since CUSFTA began in 1989.

On the other hand, PTAs obviously reduce trade barriers in general and lead to increased trade flows. AD/CVD decisions are supposedly based on whether imports are injuring domestic industries, so that increased import activity from a region may make this injury determination more likely, leading to a greater probability of affirmative decisions. This in turn gives domestic industries greater incentives to file AD/CVD cases, raising the level of AD/CVD filing activity. In summary, the effect of CUSFTA and NAFTA on U.S. AD/CVD activity against NAFTA countries is an open question because of these opposing effects of increased trade and a new binational dispute settlement process.

This paper will empirically examine U.S. AD/CVD actions from 1980 through 2000 to determine the effects, if any, of the CUSFTA and NAFTA on U.S. AD/CVD activity with respect to Canada and Mexico.⁸ Jones (2000), the only paper to empirically examine this issue, finds that both U.S. AD filings against Canada and Canada's AD filings against the U.S. significantly drop after the CUSFTA agreement. This is attributed by Jones to the new binational dispute settlement process put into place by CUSFTA and NAFTA.

In addition to including Mexico in its focus, this paper will improve upon Jones' (2000) statistical approach in a number of ways. First, Jones runs separate regressions for U.S. and Canadian AD/CVD activity. This limits each regression to just 18 observations and does not adequately control for trends in U.S. AD/CVD activity that may affect all countries equally. In contrast, this paper will sample and estimate U.S. AD/CVD activity across all U.S. import

⁸ The primary focus on U.S. AD/CVD activity is due to data accessibility issues, as well as the fact that the U.S. is the largest market in NAFTA and user of AD/CVD laws.

sources. Second, Jones' focus variable to estimate the effects of the Chapter 19 dispute settlement process on AD/CVD activity is simply a dummy variable indicating the years after the CUSFTA is in place. Such a variable could be picking up the effects of a myriad of changes that may have coincidentally occurred after 1989 besides the CUSFTA Chapter 19 dispute settlement process. In contrast, this paper will use detailed measures of actual Chapter 19 dispute settlement activity to provide a more accurate test of its effect on AD/CVD activity. Finally, Jones only examines the impact on the frequency of U.S. AD/CVD cases against Canada, not the outcomes. In the AD/CVD process there are two type of agents involved in the process: The domestic industry that petitions for relief and the agencies that determine whether to grant import relief. The former group determines the frequency of AD/CVD cases, while the latter group determines the outcomes of these cases. NAFTA and CUSFTA may have had quite different impacts on frequency versus outcomes of these cases and this will be explored in the paper.

Using a richer sample involving all U.S. import sources and more detailed measures of Chapter 19 dispute settlement activity, this paper finds very little evidence that Chapter 19 activity has affected U.S. AD/CVD activity. In particular, for Mexico there is no evidence that Chapter 19 activity lowered U.S. AD/CVD filings or the number of affirmative decisions. This insignificant result is robust to measuring Chapter 19 activity as recent filings or as recent filings that led to remands for U.S. government agencies to re-determine their original decisions. Insignificant results also obtain when specifying Chapter 19 activity as cumulative filings or remands. For Canada, there is likewise no evidence that Chapter 19 dispute settlement filings or remands affected the number of U.S. AD/CVD cases against Canada. This contrasts with the findings of Jones (2000). However, while there was no effect on the number U.S. AD/CVD cases against Canada, there is evidence that cumulative Chapter 19 filings and remands did lower the number of affirmative U.S. AD/CVD decisions for Canada. Surprisingly, import penetration is

not estimated to be statistically significant variable for determining U.S. AD/CVD activity, so the increased trade volumes resulting from CUSFTA and NAFTA also are unlikely to have impacted U.S. AD/CVD activity. Similar results are found when examining AD/CVD filings and decisions in steel products alone, the sector where we observe the most U.S. AD/CVD activity.

It's important to put these results in perspective of the general trends in U.S. AD/CVD over this time period and with respect to Canada and Mexico generally. In historical terms, U.S. AD/CVD activity was relatively low after NAFTA for all import sources through the last year of sample, 2000. In addition, the data suggest that both Canada and Mexico are generally subject to significantly lower AD/CVD activity than other U.S. import sources, given that they account for a sizeable share of U.S. imports. Thus, the result that Chapter 19 activity had little effect on U.S. AD/CVD cases against Canada and Mexico does not imply that such U.S. AD/CVD activity has been high or increasing.

The next section briefly describes the institutions and procedures in place to administer antidumping laws in each of the NAFTA countries, as well as the Chapter 19 NAFTA dispute settlement process. Section 3 then takes a descriptive look at the data on NAFTA Chapter 19 dispute settlement filings, U.S. AD/CVD activity, and Canadian and Mexican shares of U.S. imports over time. Section 4 then presents an econometric framework and empirical results. Section 5 concludes and discusses various policy implications.

2. AD/CVD Investigations and Chapter 19 Dispute Settlement Procedures.

2.1. AD/CVD Investigations Procedures.

There are many common features with the application of AD/CVD protection across countries, primarily because successive rounds of GATT/WTO have codified standard practices.

Additionally, negotiations surrounding the implementation of NAFTA led to major reforms in Mexican AD/CVD statutes and procedures to make them very similar to U.S. and Canadian AD/CV procedures.⁹

AD/CVD cases begin with a petition from a domestic industry (or related party such as a labor union or trade association) for import protection against imports that purportedly are being sold at unfairly low prices; i.e, being “dumped.” Next, the AD/CVD authorities must rule on two main issues in order for remedies to be put into place. First, the AD/CVD authorities must rule on whether the alleged unfair trade practice is occurring. For AD cases, it is determined whether dumping is actually occurring by comparing transactions in the import market versus some measure of “fair” or “normal” value. If possible, the price of the same product in the foreign firm’s own market is used as the measure of fair value, and dumping is present if the import price is below the price charged by the foreign firm in its own market. In the absence of such transactions or data availability, prices to a third market or even constructed prices using the foreign firm’s cost data are used to determine fair value. For CVD cases, the AD/CVD authorities must determine whether the foreign government is providing an export subsidy to its firms and calculate the magnitude of such subsidy.

Second, for both AD and CVD cases, AD/CVD authorities must rule on whether dumped imports are causing “material injury” to the domestic industry or, alternatively, threatens to cause material injury. To make this judgment, the AD/CVD authorities examine economic data such as import penetration, domestic industry performance, macroeconomic effects, etc., to determine whether imports are a significant cause of injury or potential cause of injury to the domestic firms. In the U.S. and Canada, the dumping/subsidy calculation and injury determinations are made by

⁹ Most of the reforms were to add much-needed “due process” features to the Mexican procedures, including abolition of provisional duties before preliminary decisions, full participation by involved parties in the

separate agencies, while both decisions are made by the same agency in Mexico, the Secretaria de Comercio y Fomento Industrial (SECOFI).¹⁰

If both dumping/subsidization and material injury are found to have taken place, the AD/CVD authorities then impose AD/CVD duties in the amount of dumping/subsidy to remedy the “unfair” imports. These AD/CVD duties are then subject to subsequent periodic reviews, called administrative reviews, where the AD/CVD authorities recalculate the level of AD/CVD duties necessary to remedy current levels of unfair trade practices. If dumping/subsidization is no longer occurring for an extended period or the domestic parties are no longer interested in having the AD/CVD duties in place, they can then be revoked. It should be mentioned that most countries have procedures in place whereby the AD/CVD authorities, foreign firms, and domestic firms reach an agreement to suspend the AD/CVD investigation *in lieu* of other arrangements to stabilize market prices. These suspension agreements are relatively rare and typically involve very high-profile cases (such as U.S. cases against Japanese semiconductor chips in the 1980s) or products where only a few firms are involved.

Finally, Canada, Mexico and the U.S. AD/CVD statutes allow for appeals of AD/CVD decisions through a number of channels. First, parties involved in AD/CVD cases have the ability to appeal AD/CVD decisions to a higher national court within the country applying the unfair trade remedy.¹¹ Chapter 19 of the CUSFTA and NAFTA established another channel of appeals by providing a binational review panel, which will be described more below. Finally, as WTO

administrative process, timely written notifications of decisions, and the right to immediate appeals. See Giesze (1994) and Pippin (1999) for further details.

¹⁰ In the U.S., the International Trade Administration of the Department of Commerce determines the dumping/subsidy margin, while the U.S. International Trade Commission rules on injury. In Canada, the Department of National Revenue, Customs, Excise and Taxation (Revenue Canada) determines the dumping/subsidy margin, while the Canadian International Trade Tribunal rules on injury.

¹¹ The relevant national appeals courts are the Federal Court of Canada, the Mexican Federal Fiscal Tribunal, and the U.S. Court of International Trade

members, involved parties and governments can take AD/CVD decisions for rulings through the WTO dispute settlement process.

2.2. Chapter 19 Dispute Settlement Procedures.

Chapter 19 of CUSFTA and NAFTA put into place a binational panel review process with the express purpose of reviewing AD/CVD cases between PTA partner countries. Any party involved in an AD/CVD case involving CUSFTA/NAFTA partners can immediately file an appeal under Chapter 19. In other words, the national courts of appeals can be bypassed. For each reviewed case, a 5-member panel is chosen from the two partner countries represented in the AD/CVD case. Two panel members must come from each country represented in the dispute and are drawn from a list of 25 individuals designated by each of the two countries. The fifth member likewise is chosen from one of the represented countries' list.

The binational panel is charged with reviewing whether the AD/CVD authorities made errors in "fact or law" in making their determinations, as set out in a complaint. Thus, the *application* of the national AD/CVD law is under review, not the national AD/CVD laws themselves. The panels then decide whether to affirm the AD/CVD authorities original decision or remand the decision to the AD/CVD authorities for reconsideration. Panels cannot reverse or dismiss an AD/CVD decision.

There is general consensus that operation of the panels were running well under CUSFTA with judgments that were considered fair, non-controversial and impartial by all three countries (e.g., GAO, 1997, p.14). Many of the early decisions under CUSFTA were being administered within the stipulated 315 days, which was a substantial improvement in the standard timeline of national appeals courts. However, implementation of the panels under NAFTA has led to more problems. In particular, cases concerning Mexico have not been timely, causing concern

particularly with Mexican officials. Part of the problem has been language difficulties and finding qualified Mexican experts to sit on the panels. In addition, satisfaction with panel decisions has been much lower with the more high-profile cases, such as pork, swine, and softwood lumber cases, the latter of which ultimately was resolved by high-level negotiations between the U.S. and Canada, not the Chapter 19 settlement process.

3. A First Look at the Data.

As mentioned, the FTAs with Canada and Mexico led to two developments that could substantially affect U.S. AD/CVD activity. The first development is increased imports into the U.S. from these FTAs. To the extent that import penetration increases AD/CVD activity, increased imports by Canada and Mexico after their PTAs with the U.S. is a factor that could increase the instances that these countries were targets of U.S. AD/CVD activity. Figures 1 and 2 show U.S. imports from Canada and Mexico, respectively, from 1980 through 2000. Not surprisingly, import volumes increased substantially over this time from both Canada and Mexico, with the possibility that the respective FTAs increased the slope of the trend line. This observation is perhaps more true for Mexico and Canada, though it is not clear to what extent it was the Mexican peso devaluation versus the trade barrier declines from NAFTA affecting trade volumes, at least in the initial years after NAFTA. Figure 3 puts the Canadian and Mexican export performance to the U.S. in broader perspective by showing the movement of U.S. imports from Canada and Mexico as a share of total U.S. imports. Clearly, Canadian and Mexican imports were not only increasing over this time period, but doing so at a rate faster than other

import sources. However, it's not clear from the raw data that the FTAs had much of impact on the general trend of gradually rising import penetration share for either country.¹²

The FTAs also led to new dispute settlement mechanisms that brought greater external scrutiny to how the U.S. administered their AD/CVD laws, which could lower the incidence of U.S. AD/CVD activity. Table 1 details Chapter 19 dispute settlement activity from CUSFTA and NAFTA in terms of Canadian and Mexican cases brought against the U.S. There were 48 filings by Canada against the U.S. and 20 filings by Mexico against the U.S. through 2000. For both countries, roughly a third of the cases see the dispute settlement process affirm (i.e., uphold) the original decision by the U.S. agencies, a third are remanded to the U.S. agencies to be re-determined, and about a third are terminated (i.e., withdrawn) before any decision is given by the panel. As discussed by Jones (2000), the remands have led to some changes from the original decision in a handful of cases.¹³ While there is significant activity from both countries, Mexican cases have generally taken longer, with cases filed in 1998 (or later) still to be determined as of this writing. This may lead to some differences that we find in the effect of Chapter 19 activity on U.S. AD/CVD cases discussed below.

As a first look at U.S. AD/CVD activity and potential effects of CUSFTA and NAFTA on this activity, the first two rows of table 2 display average annual U.S. AD/CVD filings against Canada and Mexico for three important time periods: 1) the period before CUSFTA (1980-1988), 2) the period between CUSFTA and NAFTA (1989-1993), and 3) the period after NAFTA (1994-2000). Table 2 shows that average annual U.S. AD/CVD filings against Canada increased slightly in the period after CUSFTA, but before NAFTA, which would be consistent with higher

¹² The major structural change for both appears to be in the mid-1980s when the dollar began a substantial period of depreciation relative to other countries.

¹³ These are documented in Jones' Table 2. The biggest decision was a remand that led to elimination of the CVD on Canadian softwood lumber, which then led to negotiations between the U.S. and Canada. U.S. cases against red raspberries, pork, steel rail, live swine and magnesium also had remands that led to somewhat lower duties.

import volumes spurring greater AD/CVD activity. However, U.S. AD/CVD activity fell against both Mexico and Canada after NAFTA which is more consistent with the dispute settlement mechanism creating disincentives for U.S. domestic industries to file AD/CVD cases. This is curious since the NAFTA Chapter 19 dispute settlement process is almost identical to that adopted by the CUSFTA.

Examining U.S. AD/CVD activity for other import sources in the remaining rows of table 2 make one even more skeptical that there is anything special about the trends in the Canadian and Mexican cases over these time periods. In particular, average annual U.S. AD/CVD filings against all import sources was much lower over the 1994-2000 period. This highlights the importance of controlling for the trends in U.S. AD/CVD activity across all import sources in our statistical analysis below. This is reinforced by looking at the 3-year moving average of Canadian and Mexican shares of total U.S. AD/CVD activity over time as shown in figure 4. There is no sustained change in average Canadian share of U.S. AD/CVD activity after CUSFTA, nor is there any clear change in Mexican share after NAFTA.

Graphs of individual data series are informative, but cannot identify effects of variables on each other independent of other factors that may also be varying. Determining whether there was truly any change in U.S. behavior towards its NAFTA partners after the PTAs will obviously require more sophisticated statistical analysis that will control for the various factors affecting U.S. AD/CVD activity. Thus, we next specify an empirical framework for identifying the effects of various factors on U.S. AD/CVD activity to more formally test our hypotheses of the effects of CUSFTA and NAFTA.

3. Econometric Analysis.

3.1. Econometric Framework.

To estimate the impact of NAFTA on AD/CVD activity, we need an empirical model that is appropriate for the data we observe. Given observable data, we specify our dependent variable as the count of U.S. AD/CVD petitions against a various import source for a given year.¹⁴ Following standard practice, we assume that AD/CVD petitions across import sources and time follow a discrete distribution, such as Poisson or negative binomial. We can assume that the parameter governing the frequency of AD/CVD actions for these distributions is a linear function of explanatory variables and estimate the effect of these explanatory variables on the observed frequency of AD/CVD actions through maximum likelihood techniques.¹⁵ The Poisson distribution imposes a restriction that the variance of the dependent variable is equal to the mean of the dependent variable, whereas the negative binomial distribution allows the variance to differ from the mean. Since statistical tests suggest that the negative binomial specification allow a better fit of the data to the empirical model than Poisson, we only report negative binomial estimates below.

There have been a number of previous papers that have statistically examined the factors that determine frequency of U.S. AD/CVD action generally, and this paper follows these in determining appropriate explanatory variables. Knetter and Prusa (2000) examine the factors that affect AD annual filings for Australia, Canada, the European Union (EU) and the U.S.

¹⁴ An alternative measure of activity would be the volume of imports subject to investigations from a particular import source in a given year, since a count measure makes the implicit assumption that all cases are equally important in terms of import volume. However, import volumes for products subject to AD/CVD investigations are often not publicly reported due to confidentiality concerns when the case involves a small number of firms.

¹⁵ Examples of such papers using maximum likelihood estimation of Poisson and negative binomial distributions to model the frequency of U.S. AD activity include Knetter and Prusa (2000), Jones (2000), Feinberg (1989), and Feinberg and Hirsch (1989). A more extensive literature has examined the factors that determine the antidumping

They argue that AD filings should increase for a country in years after lower GDP growth. Lower GDP growth makes it more likely that the government agencies will find that there is injury to the domestic industry and this increases the incentives for the domestic industry to file an AD case. This rationale should also apply to CVD cases. For a similar reason, Jones (2000) argues that lower corporate profitability and higher unemployment will lead to greater AD/CVD filings. Following these papers, we include U.S. GDP growth, U.S. annual corporate profitability, and the U.S. annual unemployment rate as explanatory variables in this study.

Knetter and Prusa (2000) also examine the effect of changes in the real exchange rate on AD filings. Theoretically, they show that an appreciation of the real exchange rate may either increase or decrease AD filings. An appreciation of the exchange rate leads to greater import penetration. This increases the likelihood that the government agency will find injury to the domestic industry by reason of imports and increases incentives to file an AD petition. Again, a similar rationale should apply for CVD cases. However, Knetter and Prusa also show that an appreciation of the real exchange rate will make dumping less likely, reducing the incentives to file an AD case. In summary, theory suggests that exchange rate appreciation will make it more likely the AD case will pass the injury determination, but this effect may be overturned by an opposing effect on the dumping determination for AD cases. Empirically, Knetter and Prusa find that real exchange rate appreciations lead to greater AD filings for all four countries in their sample, including the U.S., suggesting that the injury determination (common to both AD and CVD cases) is the overriding factor. Thus, we include a measure of the real exchange rate as an explanatory variable, and likewise expect that appreciation should increase AD/CVD activity.

Other factors, besides exchange rate changes, may increase import penetration and lead to greater likelihood of an affirmative injury determination that will increase AD/CVD filings.

outcomes of these filed petitions, including Finger, Hall, and Nelson (1982), Moore (1992), DeVault (1993), Baldwin

Thus, we also include the change in import penetration as an explanatory variable, which should estimate the effect of import penetration not explained by exchange rate movements, such as trade protection changes instituted by CUSFTA and NAFTA. Higher import penetration should lead to greater AD/CVD filing activity. On a final note, we follow Knetter and Prusa (2000) in lagging each of these explanatory variables by one year, since government agencies consider economic data from recent previous years to determine injury and dumping.¹⁶

While the above discussion sets up a general empirical framework for estimating effects on AD/CVD filings, this same framework should be quite appropriate for explaining AD/CVD affirmative decisions. The premise for this is that domestic firms' and industries' decision to file AD/CVD petitions should be directly correlated with how high their expectations are that they will get an affirmative decision that leads to AD/CVD duties. However, a potential problem is that domestic firms and industries may sometimes file without the goal of AD/CVD duties. For example, Prusa (1992) develops a model where firms file cases and then withdraw them before their conclusion as a way to facilitate collusion with foreign firms. To the extent that this activity or other similar strategic activity takes place, the above empirical framework may better explain when we see affirmative AD/CVD outcomes than as an explanation for the general pattern of AD/CVD filings.

As discussed above, CUSFTA and NAFTA may have affected AD/CVD filings through a couple different channels. On one hand, trade barriers fell which caused increased import penetration. Thus, the estimated relationship between import penetration and AD/CVD activity along with the import penetration increases we observe after CUSFTA and NAFTA can provide

and Steagall (1994), Hansen and Prusa (1997), and Blonigen and Feenstra (1997).

¹⁶ In the U.S., the dumping determination typically examines pricing data for the previous six months before the filing of the case. In contrast, the injury determination considers data as far back as three years, with a likely emphasis on the most recent years. Knetter and Prusa (2000) found that lagging data three years, rather than just one year, did not improve statistical performance of their model.

an estimated effect of this channel on AD/CVD activity. The second channel by which CUSFTA and NAFTA may have affected AD/CVD activity is through the new dispute settlement process introduced by each PTA. To estimate this second channel we need additional explanatory variables. Using NAFTA Secretariat information on NAFTA Chapter 19 Dispute Settlement cases (and former CUSFTA Chapter 19 cases) in table 1, we can construct appropriate explanatory variables. First, we can include separate measures of annual Chapter 19 filings by Canada and Mexico against previous U.S. AD/CVD decisions, expecting that a greater number of these Chapter 19 filings reduces current filings and affirmative decisions of U.S. AD/CVD cases against Canada and Mexico, respectively. However, we also have information on the number of remand decisions which led to U.S. agencies reconsidering, and possibly overturning, their initial decisions. U.S. AD/CVD filings and decisions may only be affected when there is evidence that Chapter 19 filings lead to reconsiderations of previous U.S. AD/CVD cases. Thus, as an alternative, in our estimates below we consider measures of annual Chapter 19 remands as an explanatory variable as well.¹⁷ On a final note, we will also examine the effect of cumulative Chapter 19 dispute settlement filings and remands on U.S. AD/CVD activity, as the history of Chapter 19 activity may have a larger impact than only recent activity.

3.2. Data.

The focus in this paper is obviously on U.S. AD/CVD activity with respect to Mexico and Canada. However, we also want to include data connected with U.S. AD/CVD activity with

¹⁷ As mentioned in an earlier section, Jones (2000) is the only other study to examine the effect of Chapter 19 filings on AD/CVD activity. Jones focuses exclusively on the CUSFTA effect for Canada and the U.S. and employs a much cruder measure of Chapter 19 activity than that used here. In particular, his proxy for the effect of Chapter 19 filings is an explanatory variable that takes the value of “1” after 1988 when CUSFTA begins. Such a measure could easily be capturing a variety of unobserved effects that took place after 1988 besides the introduction of the Chapter 19 dispute settlement process.

respect to other import sources as well to serve as controls. Thus, the dataset consists of a balanced panel covering the years 1980 through 2000 and 7 import sources: Canada, Mexico, Japan, the European Union, Latin America (excluding Mexico), Asia (excluding Japan), and Rest of the World. The first four regions are the U.S.'s major trading partners, whereas the final three are commonly used regional groupings. Starting the sample in 1980 is standard in the literature, as this year represented a major change in U.S. AD/CVD law and activity. This year also saw responsibilities for administering the AD/CVD laws switched from the U.S. Treasury to the U.S. Department of Commerce and the U.S. International Trade Commission. The law and administration changes clearly gave firms greater incentives to file cases, as average annual case filings increased substantially after 1980. With seven regions and twenty-one years, our sample numbers 147 observations.¹⁸

Data on U.S. AD/CVD filing activities and decisions from 1980-1995 for the dependent variable come from the U.S. Antidumping Database constructed by the author and available from the National Bureau of Economic Research webpage: <http://www.nber.org/antidump/>. Official sources of the U.S. International Trade Commission and U.S. Department of Commerce were used to collect data on U.S. AD/CVD filings and decisions for the remaining years, 1996 through 2000. Data on NAFTA Chapter 19 dispute settlement proceedings and decisions are available from the NAFTA Secretariat at the webpage: <http://www.nafta-sec-alena.org/english/index.htm?decisions/decisions.htm>.

Data on annual U.S. corporate profits, U.S. unemployment rate, and U.S. GDP growth rate come from tables B-94, B-42 and B-1 of the *Economic Report of the President* (2002), respectively. Import penetration is the value of the regions' imports as a share of U.S. GDP, with data on import flows coming from the *Direction of Trade Statistics Yearbook*, various issues.

¹⁸ In contrast, Jones (2000) runs separate equations for the U.S. and Canada covering the years from 1980 through

The real exchange rate variable is in terms of foreign currency per dollar and are specific to the seven regions in the panel dataset. The real exchange rate data for Mexico, Canada, and Japan come from the Economic Research Service of U.S. Department of Agriculture (USDA) and are available from their website: <http://www.ers.usda.gov/data/sdp/>. The real exchange rate for the rest-of-the-world region comes from the broad index of real U.S. dollar exchange rate in Table B-110 of the *Economic Report of the President*. And the real exchange rate for the European Union, Latin American and Asian regions were calculated as trade weighted averages of the real exchange rates for important countries from those regions using the USDA database.¹⁹ Each real exchange rate index was normalized by dividing each annual observation by the indexes sample mean.

Table 3 provides descriptive statistics for the explanatory variables and various dependent variables used in the statistical analysis below, as well as the expected sign on the coefficient for each of the explanatory variables.

3.3. Econometric Analysis: Initial Specifications.

The empirical framework we use to analyze the determinants of U.S. AD/CVD activity is that described above with one additional feature: the inclusion of regional fixed effects. These regional fixed effects control for unobserved region-specific features that increase or decrease the general incidence of U.S. AD/CVD activity against a particular region, everything else equal. We

1997, which means that each regression is based on only 18 observations.

¹⁹ In particular, the Latin American real exchange rate is a trade-weighted average of real exchange rates of the following countries (trade weight in parentheses): Venezuela (0.32), Brazil(0.28), Colombia (0.11), Dom. Rep. (0.06), Chile (0.05), Ecuador (0.05), Argentina (0.05), Costa Rica (0.04), Trinidad & Tobago (0.04). The Asian real exchange rate is a trade-weighted average of real exchange rates of the following countries: Taiwan (0.24), Korea (0.19), China (0.16), Hong Kong (0.10), Singapore (0.10), Malaysia (0.05), Thailand (0.05), India (0.04), Philippines (0.04), Indonesia (0.03). European Union is a trade-weighted average of real exchange rates of major partners from region: Germany (0.30), U.K. (0.22), France (0.14), Italy (0.14), Netherlands (0.06), Belgium (0.05), Spain (0.03), Denmark (0.02), Ireland (0.02), Portugal (0.01), Greece (0.01). Trade-weights are 1990 shares of the region's total U.S. import volume.

omit a “Rest of the World” fixed effect variable to avoid multicollinearity of these regional fixed effects with the constant term. Thus, the coefficients on the regional effects can be read as the regional effect on U.S. AD/CVD activity relative to that of the “Rest of the World” region.

Table 4 provides negative binomial maximum likelihood estimates of the factors explaining U.S. AD/CVD filings and affirmative decisions. Column (1) of table 4 specifies the dependent variable as the annual number of U.S. AD/CVD filings. Many of the general results for these column (1) estimates hold for other alternative estimates we will discuss below. First, the overall fit of the equation is generally good with a Wald statistical test easily rejecting the hypothesis of jointly insignificant explanatory variables at the 99% confidence level. Second, while the fit of the equation is statistically significant, the control variables are generally not, though four of the five have correct sign. As we progress through various estimations in the rest of the paper, the general pattern is for signs on import penetration, the exchange rate and corporate profitability to be of correct sign, with corporate profitability and the exchange rate often statistically significant at standard confidence levels. The result that exchange rate appreciations are correlated with higher U.S. AD/CVD activity accords with Knetter and Prusa (2000), while Jones (2000) also found that lower U.S. corporate profitability led to a greater incidence of U.S. AD/CVD activity.

A number of the regional fixed effects are statistically significant and yield an interesting pattern. In particular, Canada and Mexico both have statistically significant negative coefficients, with the estimates suggesting that both countries experience about six less U.S. AD/CVD cases each year than the omitted “Rest of the World” region, everything else equal.²⁰ This is consistent with the much lower share of U.S. AD/CVD activity directed against these countries (as shown in

²⁰ Marginal effects are not the coefficient estimates in this non-linear specification and, instead, were numerically calculated by the econometric package STATA.

figure 4) than their U.S. import shares (shown in figure 3) would suggest. Surprisingly, the European Union has a positive coefficient, though this becomes statistically insignificant when we focus only on AD cases or only on affirmative decisions, as we discuss shortly.

Turning to our focus variables, there is little evidence that NAFTA Chapter 19 dispute settlement filings affect annual U.S. AD/CVD filings. The coefficient on NAFTA dispute settlement filings by Canada is correctly negative in sign (suggesting that greater filings decrease U.S. AD/CVD filings), but is not statistically significant at standard confidence levels. Thus, we cannot confidently say it has any effect on U.S. AD/CVD filings. The coefficient on NAFTA dispute settlement filings by Mexico is positive (the opposite sign of that hypothesized) and statistically insignificant as well. A related hypothesis is that NAFTA increased import penetration that may have increased U.S. AD/CVD activity against Canada and Mexico. Although import penetration for Canada and Mexico did increase after NAFTA, since the coefficient on import penetration is statistically insignificant, this means there is no discernible import penetration impact on U.S. AD/CVD filings that we could attribute to NAFTA.

AD activity might respond differently than CVD activity to NAFTA effects. To examine this potential difference, column (2) of table 4 specifies the dependent variable as the number of U.S. AD filings only. This has little impact on any of the coefficients, though the fit of the equation is somewhat better and more variables display statistical significance. To some extent, this is not surprising since CVD filings generally occur only in tandem with certain AD actions. The estimated effect of Mexican NAFTA dispute settlement filings on U.S. AD activity is weakly statistically positive, suggesting the perverse conclusion that dispute settlement filings are increasing U.S. AD/CVD activity against Mexico.

While NAFTA dispute settlement filings may not deter the domestic firms and industries in the U.S. from filing U.S. AD/CVD cases, it may make U.S. government agencies less likely to

rule affirmative in AD/CVD cases. After all, it is the U.S. government agencies decisions, hence their credibility, that are under review in the dispute settlement panels. Columns (3) and (4) of table 4 investigate whether these U.S. government agencies decisions are affected by specifying the dependent variable as the annual number of affirmative AD/CVD or AD only decisions against a region. In general, coefficients are of the same signs in columns (3) and (4) as with the total filings equations in columns (1) and (2), with slightly better pseudo-R²s and general fit of the equations. Once again, import penetration is not a statistically significant determinant of affirmative decisions and the NAFTA dispute settlement filing variables have no statistically significant effects.²¹

3.4. Econometric Analysis: Alternative Specifications.

As sensitivity tests, a number of alternative specifications were examined. First, year dummies were included in the empirical specification. This means that variables that only vary by time (real GDP growth rate, unemployment rate, and corporate profitability) are subsumed into these time dummies, but other potentially unobserved macro effects are also controlled for. This did not result in any qualitative changes in coefficient estimates or evidence of NAFTA dispute settlement effects on U.S. AD/CVD activity. Likewise, inclusion of a trend term did not alter results.

Many NAFTA dispute settlements were terminated before determinations were made or saw the panel affirm the U.S. government agency's rulings. Therefore, it may not be NAFTA dispute settlements filings, but instead the filings that lead to remands that have an impact on U.S.

²¹ A number of alternative import measures were tried as control regressors, including real import growth, with no change in the explanatory power of import activity for U.S. AD/CVD outcomes. One possible explanation for the poor performance of the import measures is the aggregate nature of the data: Movement in aggregate imports may mask substantial changes at the industry level. We explore this possibility in Section 3.5 below by exclusively examining U.S. AD/CVD activity in steel products.

AD/CVD activity. To examine this, we construct measures of NAFTA dispute settlement remands by Mexico and Canada and use these in place of the NAFTA dispute settlement filing measures. As with the filing measures, we lag the remand measures one year. This is particularly important for the remands as these NAFTA dispute settlement panel determinations take approximately a year to be made. The first two rows of table 5 report the coefficients for these NAFTA dispute settlement remand measures from an otherwise identical empirical specification to that in table 4, including control variables, regional fixed effects, and a constant term. As with the filings measures, the remand measures do not have any significantly negative effect on U.S. AD/CVD filings or affirmative decisions. While not reported, the coefficient on import penetration continues to be statistically insignificant, suggesting that increased import penetration to NAFTA is also not affecting U.S. AD/CVD activity.

As a final step, we next construct measures of cumulative NAFTA dispute settlement filings and remands. The cumulative history of the dispute settlement process may be important for altering behavior than just recent activity. Rows 3 through 6 in table 5 show the effect of cumulative filings and cumulative remands on U.S. AD/CVD activity. While there continues to be no effect for the case of Mexico, and interesting result obtains for Canada. Cumulative Canadian filings and remands do not affect U.S. AD/CVD filings, but do significantly decrease the likelihood of affirmative decisions. There are a number of possible explanations for the difference between Mexico and Canada. One possibility may be that there has been a longer history of the dispute settlement process for Canada and the U.S. and it takes time for various agents to understand the impact of the dispute settlement process on their incentives to file cases or rule affirmatively on case. Another related explanation is that the history of the process to date has been one of quick decisions regarding Canadian dispute settlement petitions and long delays

for Mexican petitions. Such delays in activity may make the process less effective in reducing U.S. AD/CVD activity against Mexico.

A further sensitivity test is examination of whether U.S. AD activity was affected by recent Canadian and Mexican AD activity. Mexico began applying its own AD/CVD proceedings against other countries in the late 1980s, with the U.S. as a frequent target of these actions. Such activity may then lead to greater threat of retaliation for U.S. AD/CVD activity, leading to diminished U.S. actions against Mexico. On the other hand, such activity could lead to greater activity in tit-for-tat retaliatory behavior.²² To examine this, I collected information on the number of Mexican and Canadian AD/CVD filings and affirmative decisions against the U.S. from official WTO sources,²³ and included these as regressors in the specification with a one-year lag. Like most of the results with respect to Chapter 19 filings and determinations, Canadian and Mexican AD filings against the U.S. had no statistically significant effect on U.S. AD/CVD filings and affirmative decisions.

3.5. Econometric Analysis: Steel Industry Sample.

Over a third of U.S. AD/CVD cases from 1980 through 2000 were against products in the steel industry, and Canada and Mexico were not immune from these steel cases. In fact, the percentage of steel cases in the total number of U.S. AD/CVD cases may understate their overall importance, as they often involved import volumes substantially larger than the average U.S. AD/CVD case. Thus, it is worthwhile to examine the effect Chapter 19 dispute settlement activity on U.S. AD/CVD activity in steel. The focus on a particular industry may also improve

²² Blonigen and Bown (2001) find evidence that the incidence of U.S. AD petitions and affirmative outcomes are generally lowered by the potential for retaliation threats, but do not examine this specifically for NAFTA countries. On the other hand, Prusa and Skeath (2001) find evidence of tit-for-tat AD filing behavior in worldwide AD patterns.

²³ I thank Tom Prusa for sharing data on these Mexican and Canadian AD/CVD filings since 1980. Such activity for more recent years can be found at the WTO website: http://www.wto.org/english/tratop_e/adp_e/adp_e.htm.

the fit of our econometric specification, since it is surprising that import penetration and other variables are not statistically significant in explaining aggregate U.S. AD/CVD filings and outcomes by region in the analysis above.

I employ the same specification form to examine U.S. AD/CVD activity in steel, but replace the dependent variable and many of the control regressors with steel-specific variables. U.S. AD/CVD filings and outcomes are easily separated into steel-only cases with the data already described. Then, from annual statistical reports of the American Iron and Steel Institute, I collected annual information on U.S. steel products by country/region, U.S. steel industry profitability (return to sales), total employment, and total shipments. Thus, the import penetration variable is replaced with a U.S. steel import penetration variable that is the ratio of steel imports from a region divided by U.S. steel domestic shipments. U.S. real GDP growth variable is replaced with a U.S. steel shipment growth variable which is the one-year growth rate of steel shipments by U.S. steel firms. The corporate profitability variable is replaced with the measure of U.S. steel industry profitability -- return to sales. Finally, in place of the U.S. unemployment rate, I include a measure of one-year growth in employment in the U.S. steel industry. These variables are all lagged one year, following the specification used for the aggregate data sample. Additionally, I include a dummy variable that takes the value of "1" during the years from 1985 through 1991 when the U.S. had an effective steel quota system in place, hypothesizing that AD/CVD cases and the likelihood of affirmative decisions (if filed) will be lower during this period.

Table 6 presents negative binomial estimates of the determinants of U.S. steel AD/CVD filings and outcomes in an analogous format to table 4. Focusing on U.S. filings of steel AD/CVD and AD-only cases in columns (1) and (2), respectively, we see fairly similar results to those using data on total U.S. AD/CVD activity. Chapter 19 filings have no statistically

significant impact and, everything else equal, Canada and Mexico are statistically less likely to face any U.S. filings against their steel exports to the U.S. The estimates suggest that Canada and Mexico face about 1.5 fewer steel cases a year relative to the “Rest of the World” region.

There are a couple differences between these results for steel-only cases and all cases, however. First, the inclusion of the steel quotas dummy variable is important and indicates there were about 2.5 less steel cases against a region in a year. This is substantial given an average of 3.2 steel cases against each region every year. The other important difference is that the estimates suggest that increased import penetration leads to greater filing activity in steel products. A standard deviation increase in import penetration leads to about 0.8 more cases against a region in a year. Canadian steel import penetration has hardly changed since CUSFTA, while Mexican steel import penetration has gone up by at most half of a standard deviation. Thus, while the estimates on import penetration are significant, this has likely had little effect on U.S. AD/CVD steel cases against Canada and Mexico since the inception of the PTAs.

Columns (3) and (4) of table 6 present negative binomial estimates of the determinants of U.S. steel AD/CVD affirmative decisions. Again, we get very similar results and conclusions. Chapter 19 filings had no discernible effect, while Canada and Mexico (along with Japan) are much less likely to experience any affirmative U.S. AD/CVD decisions against their steel exports.

Alternative specifications of the Chapter 19 activity variables likewise show no significant effect on U.S. AD/CVD activity against Canadian and Mexican steel products, including variables indicating Chapter 19 remands and cumulative filings or remands. It should be noted that these variables are constructed using indicators of Chapter 19 activity with respect to all products, not just steel products. To date, Mexico has had no Chapter 19 activity with respect to U.S. cases steel products and Canada has had only a couple cases. Thus, it is

impossible to construct any Chapter 19 activity variable for Mexico in only steel products and likely uninformative to construct one for Canada.

4. Conclusion and Policy Discussion.

This paper examines the effect of the CUSFTA and NAFTA on U.S. AD/CVD case frequency and determinations against Canada and Mexico, respectively. We hypothesize that these FTAs may have affected U.S. AD/CVD activity both through increased trade volumes and through the establishment of new Chapter 19 dispute settlement procedures to review national AD/CVD decisions when requested. Using a panel database of U.S. AD/CVD activity from 1980 through 2000, the paper generally finds little evidence that either increased import volumes or Chapter 19 dispute settlement activity substantially affected the frequency of U.S. AD/CVD cases or affirmative determinations against Canada and Mexico. An exception is evidence that cumulative remands by Chapter 19 dispute panels to review U.S. decisions against Canada have led to fewer new affirmative AD/CVD decisions against Canada, though this does not hold when examining only steel products. The good news for Canada and Mexico though is that U.S. AD/CVD activity against these countries has historically been lower for both of these countries, despite their relatively large export volume to the U.S. market.

The paper's results have implications for future FTA and WTO round negotiations, as the Chapter 19 dispute settlement process was likely intended to reign in abuse of these laws by the U.S. In both the CUSFTA and NAFTA, the U.S. clearly tried to thwart any attempt by the partner countries to affect their application of AD/CVD laws. The compromise solution of Chapter 19 binational dispute settlement procedures for AD/CVD cases had the potential to affect AD/CVD activity because it allowed for timely dispute settlements by panels representing both countries involved in the case to supercede appeals to national courts. A critical holdover, however, was limiting the Chapter 19 panels (as with the national appeals courts) to only rule on whether a

country has appropriately applied its own AD/CVD laws and practices. Given sufficiently ambiguous laws about the practice of determining dumping, subsidization and injury, a whole range of practices can be ruled consistent.

In addition, the panels have no ability to enforce judgements. While government agencies from all three countries have mainly complied with remands from the panel, this process did not resolve the largest trade dispute it has faced, the softwood lumber case with Canada, which led to direct governmental negotiations. Some remands connected with U.S. cases against Canada have led to significant changes in judgements in a handful of cases, which may be why there is some evidence of the effect of cumulative remands with respect to Canada. There are no such “successful” remands concerning initial U.S. AD/CVD cases against Mexico to date. In fact, a worry with the Mexican experience is the long delays in the dispute settlement process, which makes it very unlikely it will affect U.S. behavior in the near future. Thus, while it may make government agencies more vigilant in maintaining consistency in how they apply their laws, Chapter 19 has little power to affect real change/reform in AD/CVD laws and practices.

This begs the question of possible avenues that current and future partner countries may have to persuade the U.S. to reform or eliminate its AD/CVD laws. One option is more aggressive retaliatory AD/CVD activity against the U.S. Both Canada and Mexico have substantial enough trade volumes to be able to create effective retaliation. There are a number of reasons why this likely not a good strategy. First, estimates reported above showed that U.S. AD/CVD actions do not seem to be affected by AD/CVD activity in the Canada and Mexico against the U.S. Second, such strategies could just as easily lead to a trade war, rather than an agreement to “disarm.”

A second option is make efforts to harmonize competition policies and push for folding antidumping policies into a common competition policy. Were AD/CVD practices subject to the

same strong criterion for action as current competition policy (at least in the U.S.), we would likely see almost the complete elimination of successful AD/CVD cases. However, this is exactly the problem. AD/CVD laws are explicitly devised to benefit only domestic producers, even at the expense of competitive markets and the welfare of consumers, which is in direct contradiction with competition policy. Thus, limiting AD/CVD use through harmonization with competition policy is likely a very long and difficult road.

A final alternative may be to argue for the U.S. to use safeguard actions rather than AD/CVD laws. Safeguard protection allows for governments to impose temporary protection for a domestic industry, provided that imports are a significant cause of injury to the domestic industry. The explicit condition that safeguard actions are temporary is a definite improvement over AD/CVD cases, as the U.S. currently still assesses AD/CVD duties from cases as far back as the 1970s. In addition, the injury test for safeguard actions requires a more stringent test that imports are a significant cause of injury, not just a nontrivial one. There is no required finding of dumping or subsidization for safeguard actions, but this criterion is virtually always passed anyway in AD/CVD cases. No calculation of dumping/subsidization also makes it more transparent that the action is political, rather than falling under the guise of promoting “fair trade practices,” despite having no economic basis. Finally, since safeguard actions must necessarily involve presidential action, it ensures that only nontrivial trade actions take place.

Figure 1
U.S. Imports from Canada in Billions of U.S. Dollars,
1980-2000

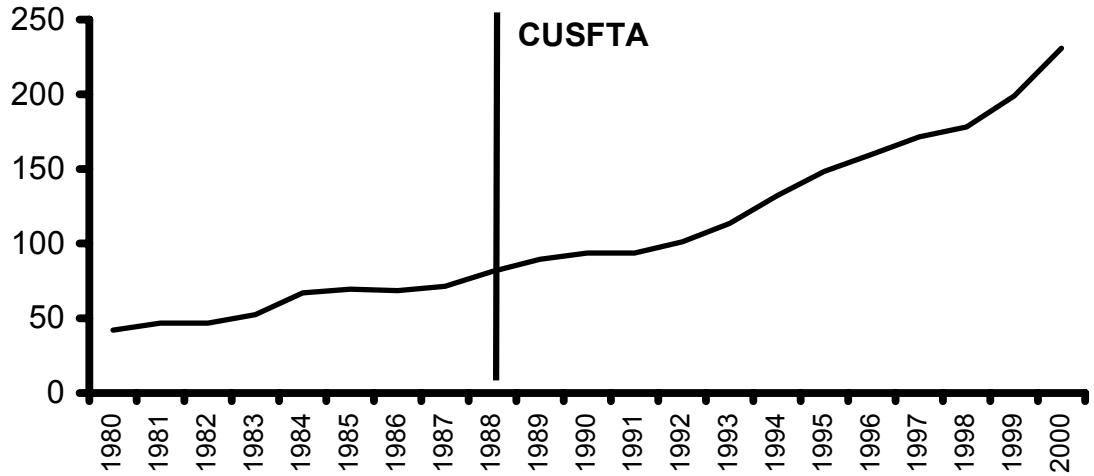


Figure 2
U.S. Imports from Mexico in Billions of U.S. Dollars,
1980-2000

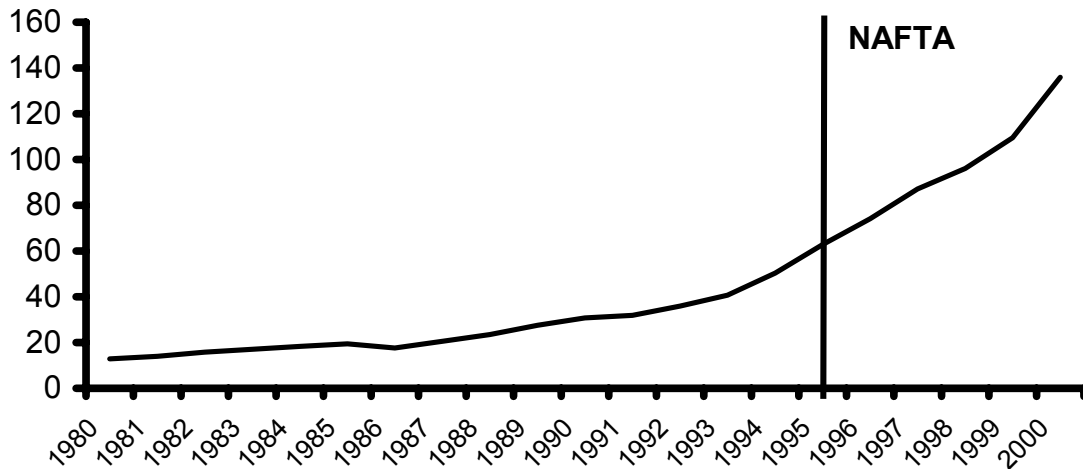


Figure 3
Shares of U.S. Imports from Canada and Mexico,
1980-2000

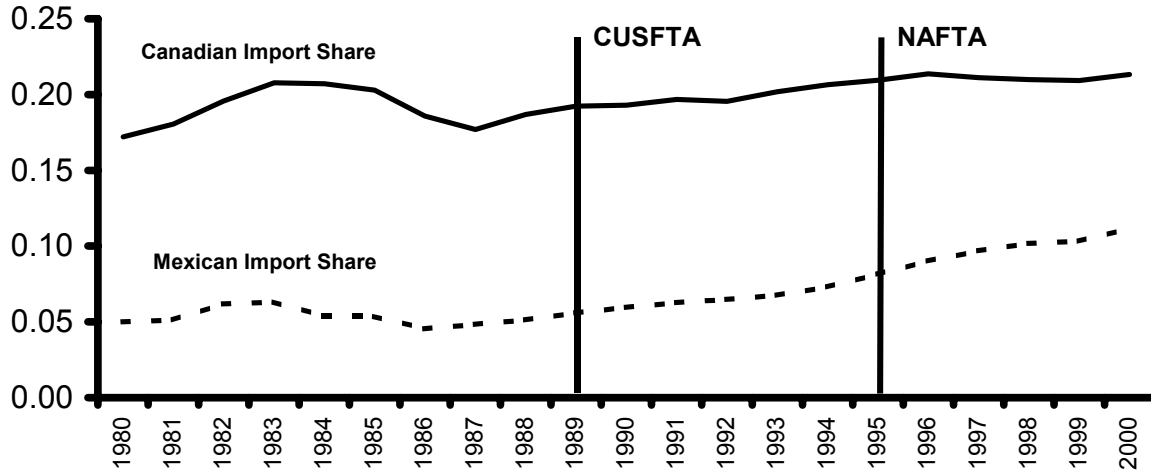


Figure 4
3-Year Moving Average of Canadian and Mexican Share
of Total U.S. AD/CVD Activity, 1980-2000

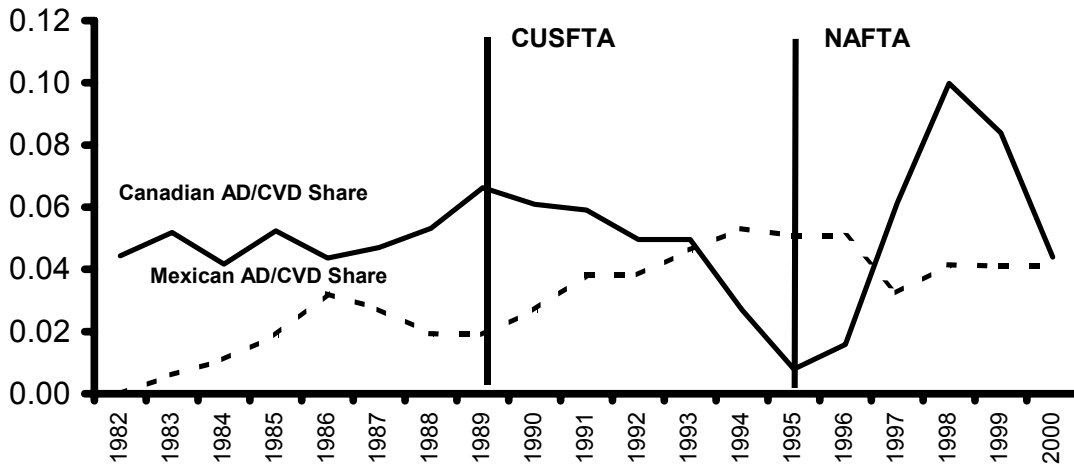


Table 1: CUSFTA and NAFTA Dispute Settlement Petitions and Determinations Against U.S. AD/CVD Actions, 1989-2000.

Year	Canadian Filings Against U.S.				Mexican Filings Against U.S.			
	Filings	Affirm	Remand	Term.	Filings	Affirm	Remand	Term.
1989	11	6	4	1	n.a.	n.a.	n.a.	n.a.
1990	3	0	1	2	n.a.	n.a.	n.a.	n.a.
1991	5	0	2	3	n.a.	n.a.	n.a.	n.a.
1992	6	1	5	0	n.a.	n.a.	n.a.	n.a.
1993	5	2	1	2	n.a.	n.a.	n.a.	n.a.
1994	1	0	1	0	1	1	0	0
1995	1	1	0	0	4	2	2	0
1996	0	0	0	0	1	0	0	1
1997	3	0	1	2	5	1	1	2
1998	2	1	1	0	3	0	0	0
1999	5	0	0	5	2	0	0	0
2000	6	0	0	3	4	0	0	0

Notes: The nine Mexican filings from 1998-2000 and three Canadian filings in 2000 are still active investigations.

Source: NAFTA Secretariat webpage: <http://www.nafta-sec-alena.org/english/index.htm?decisions/decisions.htm>

Table 2: Average Annual U.S. Antidumping and Countervailing Duty Filings by Named Country/Region and by Select Time Periods.

	Pre-CUSFTA Pre-NAFTA 1980-1988	Post-CUSFTA Pre-NAFTA 1989-1993	Post-CUSFTA Post-NAFTA 1994-2000
<u>NAFTA-partners</u>			
Canada	3.9	4.3	1.6
Mexico	1.1	3.8	1.7
<u>Other countries/regions</u>			
Japan	7.6	6.3	3.3
European Union	32.7	20.3	8.3
Latin America	10.8	11.3	4.0
Asia	13.8	22.3	14.6
Rest of the World	14.1	11.5	9.1

Sources: U.S. Antidumping Database available from the National Bureau of Economic Research webpage: <http://www.nber.org/antidump/>, and official sources of the U.S. Department of Commerce and U.S. International Trade Commission.

Table 3: Descriptive Statistics of Variables Used for Econometric Analysis and Expected Coefficient Signs for Explanatory Variables.

Variables	Expected Sign	Mean	Standard Deviation	Minimum	Maximum
<u>Dependent Variables</u>					
Filings of AD/CVD cases		9.31	13.14	0.00	116.00
Filings of AD cases only		6.49	7.23	0.00	46.00
Affirmative AD/CVD cases		3.54	4.08	0.00	21.00
Affirmative AD cases only		2.84	3.47	0.00	20.00
<u>Explanatory Variables</u>					
Canadian NAFTA dispute Settlement filings	-	0.30	1.41	0.00	13.00
Mexican NAFTA dispute Settlement filings	-	0.11	0.61	0.00	5.00
Canadian NAFTA dispute Settlement remands	-	0.09	0.52	0.00	5.00
Mexican NAFTA dispute Settlement remands	-	0.02	0.18	0.00	2.00
Import Penetration	+	0.01	0.01	0.00	0.03
Real Exchange Rate	+	1.01	0.15	0.68	1.46
Real GDP Growth	-	3.03	1.95	-2.00	7.30
Unemployment Rate	+	6.48	1.42	4.20	9.70
Corporate Profitability	-	4.56	1.37	0.80	6.20

Sources: See section 4.2 of the text for sources and variable construction.

Table 4: Negative Binomial Maximum Likelihood Estimates of the Determinants of the Number of U.S. AD and CVD Activity: The Effects of NAFTA Dispute Settlement Filings.

Regressors	Total Filings		Affirmative Decisions Only	
	AD and CVD	AD Only	AD and CVD	AD Only
<u>Focus Variables</u>				
Canadian NAFTA Dispute Settlement Filings	- 0.073 (-1.29)	- 0.081 (-0.97)	- 0.163 (-1.23)	- 0.154 (-1.18)
Mexican NAFTA Dispute Settlement Filings	0.140 (1.26)	0.195* (1.73)	0.018 (0.10)	0.087 (0.54)
<u>Control Variables</u>				
Import Penetration	4.165 (0.24)	0.160 (0.01)	19.809 (0.77)	- 2.925 (-0.12)
Exchange Rate	0.198 (0.42)	0.860** (2.14)	0.341 (0.71)	0.789 (1.64)
Real GDP Growth	0.045 (1.26)	0.038 (1.08)	0.026 (0.61)	0.004 (0.08)
Unemployment Rate	0.073 (1.26)	- 0.024 (-0.45)	- 0.031 (-0.44)	- 0.130* (-1.69)
Corporate Profitability	- 0.114 (-1.60)	- 0.198*** (-3.21)	- 0.158** (-2.19)	- 0.179*** (-2.82)
<u>Regional Fixed Effects</u>				
Canada	- 1.175*** (-5.17)	- 1.311*** (-5.14)	- 1.269*** (-3.20)	- 1.325*** (-3.47)
Mexico	- 1.939*** (-5.53)	- 1.921*** (-5.81)	- 1.946*** (-4.46)	- 2.018*** (-4.77)
European Union	0.639* (1.90)	0.435 (1.50)	0.109 (0.34)	0.239 (0.76)
Japan	- 0.700*** (-3.57)	- 0.373* (-1.82)	- 0.255 (-0.99)	0.160 (0.62)
Asia	0.286 (1.29)	0.455* (1.83)	0.561* (1.65)	0.914*** (2.59)
Latin America	- 0.345 (-1.37)	- 0.524** (-2.12)	- 0.167 (-0.62)	- 0.469 (-1.62)
Observations	147	147	147	147
Pseudo - R ²	0.11	0.12	0.12	0.15

NOTES: Regressor set also includes a constant term (not reported). Omitted regional fixed effect is “Rest of the World” to avoid perfect multicollinearity with the constant. t-statistics are in parentheses with ***, ** and * denoting statistical significance (two-tailed test) at the 1, 5 and 10 percent levels, respectively.

Table 5: The Estimated Effects of NAFTA Dispute Settlement Process on U.S. AD and CVD Activity for Alternative Negative Binomial Specifications.

Regressors	Total Filings		Affirmative Decisions Only	
	AD and CVD	AD Only	AD and CVD	AD Only

<u>A. Effect of Remands</u>				
Canadian NAFTA Dispute Settlement Remands	- 0.189 (-1.39)	- 0.167 (-1.09)	- 0.330 (-1.23)	- 0.295 (-1.13)
Mexican NAFTA Dispute Settlement Remands	0.634* (1.88)	0.398 (0.83)	- 0.244 (-0.44)	- 0.141 (-0.23)
<u>B. Effect of Cumulative Filings</u>				
Canadian NAFTA Dispute Settlement Cumulative Filings	- 0.020 (-1.37)	- 0.017 (-1.14)	- 0.054** (-2.55)	- 0.047** (-2.15)
Mexican NAFTA Dispute Settlement Cumulative Filings	0.021 (0.45)	0.032 (0.67)	- 0.005 (-0.08)	0.019 (0.36)
<u>C. Effect of Cumulative Remands</u>				
Canadian NAFTA Dispute Settlement Cumulative Remands	- 0.050 (-1.42)	- 0.044 (-1.24)	- 0.135*** (-2.75)	- 0.116** (-2.24)
Mexican NAFTA Dispute Settlement Cumulative Remands	0.096 (0.51)	0.156 (0.78)	- 0.033 (-0.14)	0.068 (0.30)

NOTES: These are selected coefficient estimates of interest from full empirical specifications as in table 4 that include control variables, regional fixed effects and a constant term. t-statistics are in parentheses with ***, ** and * denoting statistical significance (two-tailed test) at the 1, 5 and 10 percent levels, respectively.

Table 6: Negative Binomial Maximum Likelihood Estimates of the Determinants of the Number of U.S. AD and CVD Activity in Steel Products: The Effects of NAFTA Dispute Settlement Filings.

Regressors	Total Filings		Affirmative Decisions Only	
	AD and CVD	AD Only	AD and CVD	AD Only
<u>Focus Variables</u>				
Canadian NAFTA Dispute Settlement Filings	- 0.024 (-0.12)	0.027 (0.12)	0.100 (0.38)	0.073 (0.27)
Mexican NAFTA Dispute Settlement Filings	- 0.164 (-0.58)	0.010 (0.04)	0.170 (0.53)	0.405 (1.28)
<u>Control Variables</u>				
U.S. Steel Import Penetration	32050* (1.93)	31148** (2.00)	20231 (1.50)	26683* (1.76)
Exchange Rate	- 1.393 (-0.72)	- 0.876 (-0.47)	- 2.102 (-1.32)	- 2.963* (-1.73)
U.S. Steel Shipment Growth	2.225 (1.07)	0.649 (0.29)	1.074 (0.57)	0.325 (0.14)
U.S. Steel Employment Growth	0.268 (0.07)	- 0.102 (-0.03)	0.623 (0.19)	- 0.043 (-0.01)
U.S. Steel Corporate Profitability	- 0.024 (-0.75)	- 0.029 (-1.18)	- 0.035 (-1.46)	- 0.044** (-2.10)
U.S. Steel Quotas, 1985-1991	- 2.385*** (-4.56)	- 2.290*** (-4.50)	- 3.248*** (-4.29)	- 3.841*** (-3.45)
<u>Regional Fixed Effects</u>				
Canada	- 2.658*** (-2.69)	- 2.503** (-2.15)	- 2.629** (-2.41)	- 1.955* (-1.78)
Mexico	- 2.407** (-2.51)	- 2.649*** (-2.91)	- 2.483** (-2.16)	- 2.606** (-2.07)
European Union	- 1.203 (-1.18)	- 1.335 (-1.43)	- 0.592 (-0.88)	- 0.639 (-0.97)
Japan	- 2.471*** (-3.42)	- 1.997*** (-2.79)	- 1.576*** (-3.24)	- 0.973** (-2.00)
Asia	- 1.108* (-1.87)	- 1.280* (-1.95)	- 0.034 (-0.07)	0.220 (0.42)
Latin America	- 0.341 (-0.50)	- 1.013* (-1.67)	- 0.320 (-0.71)	- 0.395 (-0.82)
Observations	147	147	147	147
Pseudo - R ²	0.10	0.11	0.17	0.19

NOTES: Regressor set also includes a constant term (not reported). Omitted regional fixed effect is “Rest of the World” to avoid perfect multicollinearity with the constant. t-statistics are in parentheses with ***, ** and * denoting statistical significance (two-tailed test) at the 1, 5 and 10 percent levels, respectively.

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