What Triggers an Anti-Dumping Petition? Finding the Devil in the Detail

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Abstract

While US anti-dumping (AD) procedures offer domestic industries substantial protection, their use is curiously limited. Under what conditions then, do domestic industries see AD as a best response? We use detailed monthly U.S. import data to investigate changes in import composition during a 24-month window immediately preceding the filing of a petition. A decomposition methodology allows a transparent comparison of imports from two groups of countries: those that are subject to an investigation and those that are not. The same decomposition can be applied to products quite similar to the imports in question, but not subject to an AD investigation. The results of these exercises suggest that industries typically employ AD when faced with a specific pattern of shocks. First, a persistent positive relative supply shock favors imports from subject countries. Second, a negative demand shock hits imports from all sources just prior to domestic industries' request for protection. The relative supply shock is a broad one; it applies both to subject commodities and to the reference product group. The demand shock, by contrast, is narrow, hitting only subject products. This narrow negative demand shock appears to be a key ingredient in the run-up to an investigation. The compound shock pattern we document is also robust in two notable subsamples of the data.

1 Introduction

Anti-dumping (AD) procedures are often seen as an egregious form of protectionism and an avenue for rent-seeking by the domestic industries that use them. Ostensibly the purpose of AD is to provide domestic firms with an avenue to seek protection from unfair import competition, with the merits of any such claim vetted by an administrative process. This process is complex and opaque, with many of the procedures clearly biased toward an outcome favorable to the domestic industry (see Blonigen (2006)). If an industry successfully petitions for protection, it can see extremely high tariffs imposed on otherwise competitive foreign rivals. Even an unsuccessful petition can generate rents for the domestic industry, since the mere existence of a case can influence the behavior of foreign firms (Staiger and Wolak (1994)). Given all this, one puzzle is domestic industries' rather infrequent use of the mechanism (Blonigen and Prusa (2003) and Crowley (2009)).[1]

The fact that the AD mechanism is used relatively infrequently and only in relation to narrowly defined products sets the scene for our main question and guides the nature of our analysis. The infrequent use suggests that AD is not necessarily used in an arbitrary manner. Consequently, gaining insight into the motivation for using the AD system is a necessary first step in understanding its contemporary purpose and whether this end is a desirable one. Specifically, we ask what is it about the products imported from the countries named in a petition that makes them viable candidates for an AD case? That is, is there anything in the time leading up to the filing of a petition that is distinctive about the products and countries named in the petition? The goal of this paper is to facilitate an assessment of AD by identifying the shocks that trigger the filing of an AD petition in terms of the source of the shocks, their manifestation and their persistence.

In order to shed light on this question we investigate the circumstances surrounding the filing of a petition by a domestic industry. We are particularly interested in detailing the kinds of changes in U.S. import patterns that precede the filing. To do so we exploit monthly data on narrowly defined products imported into the U.S. to identify common changes in the imports from the countries subject to a petition in the 24 months prior to the filing of an AD petition. The detail in the data allow us to identify changes in the characteristics of imports (such as value, price and quantity) as an unfolding process that eventually triggers a petition. Our research design and general approach to the issue of filing behavior recognize that industries considering the filing of an AD petition exist

[1] In the sample we consider, there are fewer than 15 cases filed per year, on average. These cases typically cover a quite narrow section of the product space, so only a small part of the aggregate product space is directly affected by the petitions.

in a stochastic environment. As such they expect and tolerate a certain amount of month-to-month variation in prices and quantities. The filing of a petition thus represents a move outside of the usual bounds, and may be broadly interpreted as a response to one or more shocks. Furthermore, both the domestic industry and the institution charged with assessing their claim of unfair competition need to be able to document its veracity. This requires changes in imports to be both pronounced and persistent. Our strategy relies on these requirements. We characterize movements in imports in terms of supply and demand shocks, and use monthly data to illustrate the timing and duration of these shocks.

We draw inferences about the circumstances that trigger a petition through two comparisons. First, we use a decomposition method to summarize within-product, cross-country changes in import value, price and quantity. This comparison is meaningful since not all countries supplying a subject product are named in a petition (less than a third of the countries supplying a typical subject product are named in our sample). Consistent with the notion of "cumulation" in the AD law, we aggregate imports from countries named in the petition, and then compare these imports to total imports in the "subject" commodities. Changes in composition speak to differences in supply conditions, while common movements are likely to be the result of aggregate phenomena. Second, we use the U.S. trade classification to identify suitable reference products (products that are closely related to those named in a petition but are not included in a petition themselves). We also apply the decomposition to the reference commodities, and identify both commonalities and differences in the evolution of import composition amongst both subject and reference commodities.

The evidence points to AD petitions being filed in the aftermath of a specific combination of shocks. Our analysis suggests that the typical case appears to be preceded by a broad-based, and persistent, relative supply shock favoring exports from the countries named in the petition. While the advantage to these countries is clear, aspects of the status quo remain intact; the overall level of imports from all sources and the average import price remain relatively constant in the face of the export supply shock. However, just prior to the filing, it appears that a negative demand shock affects imports from all sources, placing the preceding relative export shock in a different light. This interpretation is underscored by a comparison with the reference commodities, where the relative supply shock is also evident, and of similar magnitude. However, the reference commodities do not experience the negative demand shock, suggesting that a narrow negative demand shock is a key ingredient. Overall, it appears that an export supply shock is a necessary but not sufficient condition

for filing and that it is a particular combination of shocks that triggers the filing of an AD petition.

The empirical literature that is closest to this paper is that which uses annual data to investigate cross-industry variation in the number of petitions filed.[2] That literature looks at domestic output data and import data jointly, but is forced to aggregate the import data over time and products in order to be consistent with the output data. In contrast, we exploit both the monthly frequency of the import data and the narrow product definitions. This offers important advantages, in that we can match the narrow scope of most AD cases, and faithfully represent import dynamics and the specific timing of the filing of a petition.[3]

The paper is organized as follows. The next section reviews the existing literature on the determinants of filing that combine the trade and domestic data. We then describe the nature of the data set we construct, and how it is mapped into the AD petitions. To analyze this data and identify the underlying shocks, a decomposition methodology is set out in section four. Section five provides results, and section six concludes.

2 U.S. Anti-Dumping Institutions and Filing Behavior

The general motivation for AD laws is to provide domestic firms with a facility that can assess their claims of injury arising from unfair foreign competition. Since the initiation of a petition for protection is from a domestic industry there is a strong similarity to a legal case where an injured party (domestic firms) seeks relief from another party (foreign firms). The quasi-judicial nature of the institutions associated with AD reflect this parallel with the parties given an opportunity to reach an arrangement before official proceedings begin. Failing an agreement, both parties have scope to present evidence for and against the alleged unfair behavior.[4] A critical element for the process to operate smoothly is that the product must be well defined. This leads to a key characteristic of an AD case: the products identified in a case are very specific. Such specificity reflects the quasi-judicial nature of the injury claim since it provides a clear demarcation of those who are injured and those who are potentially responsible.

In the U.S. AD laws are administered by the Department of Commerce and the International

[2]The canonical paper is Staiger and Wolak (1994). We survey this literature more thoroughly later in the paper.

[3]A small literature uses detailed import data to document trade dynamics following the conclusion of an AD case. Prusa (1997) exploits product level U.S. trade data. Konings and Vandenbussche (2009) investigate the impact of European AD cases using firm level export data from France and product-level trade data from the European Union.

[4]One difference from a civil legal case is that the institution charged with the responsibility of deciding the merits of the petition typically collects information as part of it own investigation.

Trade Commission, each with a specific role in assessing the merits of a petition. The unfair competition component of a petition is assessed by the Department of Commerce. In doing so it determines whether the subject product is being sold at Less Than Fair Value (LTFV): defined as selling a product in the U.S. at less than "normal" value, which is typically based on the foreign firm's sale price in its home market. The binary nature of this comparison allows an assessment of whether, and to what degree, pricing at LTFV is occurring for each firm named in a petition.[5] The International Trade Commission determines whether the domestic industry has been materially injured, or is threatened with material injury, due to the imports from the sources named in the petition. When determining injury the International Trade Commission typically aggregates the imports from all sources that are named in a petition or named in related petitions. That is, rather than having to parse out the injury that might arise from each separate country named in a petition(s), its focus is on the aggregate level of imports from the subject countries and the associated injury to the domestic industry.[6]

While the details of AD laws vary across countries (e.g. number of agencies involved, timelines required & various procedural issues), the motivation is ubiquitous. Consequently, the theories that examine the utilization of an AD mechanism are relatively general rather than country specific. This literature has identified a number of circumstances where the domestic industry might feel justified in filing an AD petition. In general these conditions are divided into shocks that occur either in the foreign market or the domestic market. Staiger and Wolak (1992) focus on shocks to the foreign market and construct a model of stochastic foreign demand that potentially generates an excess supply that is dumped on the domestic market when foreign demand realizations are sufficiently low. Here the basis of dumping is price discrimination across markets, and dumping is shown to be optimal even when an AD law is in place (though the propensity to dump is lower because the existence of AD reduces foreign capacity). A case can also be made that a positive foreign demand shock leads to dumping as in Clarida (1993) (due to excessive entry) and Hartigan (1996) (due to an interaction with financial frictions that constrain the home firm). Despite these mechanisms Knetter and Prusa (2003) fail to find a statistically significant relationship between changes in source country GDP and filing rates in the domestic country. However, the level of aggregation seems to be important for this result. Using more detailed 3 digit ISIC data Crowley (2009) finds that a negative

[5]Consequently dumping margins can vary not only across countries named in a petition but also across firms within a country.

[6]This process is formally known as cumulation.

foreign demand shock is a significant determinant of the probability of a domestic industry filing an AD petition.

While foreign shocks are viewed as a likely motivation for foreign firms to alter their pricing in the domestic market, the weight placed on the material injury criterion suggests that other shocks may also be relevant. In particular, there may be scope for a negative domestic shock to be used as a basis for filing a petition since it is likely to be associated with both a reduced domestic price (which raises the likelihood of a domestic/foreign price differential) and injury to the domestic industry. However, such a motivation runs counter to the intent of AD laws. Nevertheless, both Knetter and Prusa (2003) and Crowley (2009) find that domestic shocks play an important role in filing behavior, along with a number of other studies (Staiger and Wolak (1994), Finger (1981), Herander and Schwartz (1984), Feinberg and Hirsch (1989), Hansen (1990), Krupp (1994), Lichtenberg and Tan (1994), Furusawa and Prusa (1996), Blonigen (2000), Sabry (2000)).

While the current literature provides insight into the source of shocks that are likely to precede an AD petition, their reliance on aggregate data means that they can only estimate propensities to file among broadly-defined domestic industries. Yet AD petitions relate to very specific products. For example 3 digit ISIC data defines 28 manufacturing sectors whereas the HS defines over 15,000 products. Given that the typical case involves approximately eight separate HS-10 codes, the ability of the previous literature to identify why a petition is filed against some HS-10 products and not others is hampered by the aggregate level of the analysis. Some sense of the difference made in the level of aggregation is apparent in the contrasting results obtained by Knetter and Prusa (2003) and Crowley (2009). Furthermore, the reliance on annual data is an additional constraint when identifying shocks since a petition can be filed at any point in the year. Consequently, if two cases in the same HS-4 category are filed in January and December of the same year, then the standard econometric approach would be to assume that the same aggregate data is responsible for both petitions being filed. This lack of precision in terms of the products covered and the time of filing undermines the confidence in the inferences drawn from the aggregate analysis. Our objective is to address these deficiencies by utilizing both the HS-10 data associated with a petition and the month that a petition was filed. This additional detail helps to identify not only why some countries are filed against and not others, but also why some products are filed against and not others.

3 Data

To achieve these goals we utilize the information on the nature of the products named in the AD petitions and combine it with detailed U.S. trade data.[7] Information on the individual anti-dumping cases are drawn from Bown (2009). This dataset contains information on the case numbers, countries filed against, HS codes and the date a petition is filed. The presence of the HS codes allows us to link this information to detailed U.S. trade data. Our trade data are the HS product level information on U.S. imports available in the monthly reports of the *U.S. Imports of Merchandise Data*.[8] These data contain substantial information on the value and quantity of imports at the product level. From this value and quantity information we derive unit values, providing us with a very detailed dataset for analysis. We use *Imports for Consumption*, the classification of U.S. imports used in U.S. antidumping investigations.[9] The value fields we employ include: 'Customs value', which measures the value of imports at the foreign port. We typically identify prices by deflating these values by a quantity measure, usually the 'first unit of quantity' as reported in the data.

Note that this data allows us to identify not only the products and countries that are subject to a petition, but also imports in the subject products from all sources (i.e. both named and non-named countries). This offers an opportunity to investigate the extent to which imports from the subject countries in the subject products are typical and in what ways they differ from the imports coming from other non-named sources. In addition we can identify a reference group of products that are similar to the subject products but that are not named in the petition. The group of related products serves as an important reference group in our attempt to understand why some products are subject to an AD petition and why others are not. In making these comparisons we track the value and quantity of imports in both named and reference products from subject and non-subject countries over the 24 months preceding the filing of an AD petition.

One issue that arises when following HS codes over time is that definitions change relatively frequently (for example over 4,500 new HS-10 codes were introduced between January 1994 and January 1996).[10] Since we analyze the shipments occurring in the previous 24 months, changes in product definitions can have a large impact on the amount of data available (for instance if the

[7] Unfortunately the relevant trade data contained in the petition is not made available to the public.

[8] Despite the public availability of this data it is relatively underutilized. An exception is Hummels and Schaur (2010).

[9] The U.S. also reports *General Imports* which measures total physical arrivals into the United States, including shipments bound for bonded warehouse or transshipment to other countries.

[10] A single HS-10 code can be replaced by a number of new codes or it maybe amalgamated with a number of other HS-10 codes. In either case the identifier associated with the old HS-10 code is deleted.

definition of a product changes in the month before an AD case is filed then only one months worth of data is available). To mitigate these problems we identify a period of time where the definitions of HS-10 products are relatively stable, 1998-2004.[11] Consequently, we are able to track almost all HS-10 product codes associated with the AD cases filed between 1998 and 2004 for 24 months preceding the filing of an AD petition.[12]

We consider 106 investigations initiated in the 1998-2004 period.[13] An investigation often includes multiple countries, and each investigation-country pair is associated with the filing of a petition. In our data there are 306 petitions filed against 56 countries. The most frequently targeted countries in the sample are China(45 petitions), Japan(21), India(18) and South Korea(18). 139 (45%) of the petitions in 59 (56%) of the investigations resulted in an affirmative determination.[14] 32 (30%) of the investigations involve steel products, while 65 (61%) occur under Byrd Amendment rules.

In terms of the U.S. import data, the sample includes 764 HS-10 products that are included in an investigation. 113 HS-4 categories contain commodities named in a petition. As we describe below, we use products within the affected HS-4 categories, but not named in a petition, as reference commodities against which to evaluate changes in the named commodities. There are 2514 products within this group of reference commodities.[15]

4 Methodology

4.1 Research design

Since our objective is to isolate the distinctive characteristics of the products and countries named in an AD petition we pursue a methodology based on the detail of the AD process. Consequently, our analysis is predicated not only on the very specific products and countries named in a petition

[11] This period is also of interest because it encompasses the adoption of the Byrd Amendment, a legal change that affected the incentives to file a petition.

[12] To evaluate the impact of HS-10 changes that do occur within our sample, we use the Pierce and Schott (2009) concordance mapping HS-10 changes over time. Since very few commodities are affected, there is little effect on the results. The bridging techniques in Pierce and Schott (2009) are not well suited to our exercise, as they tend to expand the product scope of the listed HS-10 products. We report results from a more conservative approach, which involves dropping those commodities that appear or disappear within the two-year window prior to each case we consider.

[13] 111 investigations were initiated over this period. Three pairs of investigations are near duplicates, and we keep only one investigation of each pair. We also drop two investigations from the data set for lack of quantity information in the trade data. See the data appendix for a more complete discussion of our treatment of the data.

[14] Some investigations see affirmative determinations against only a subset of the countries that were filed against.

[15] We experimented with the definition of related products by narrowing it to HS-6 non-named commodities. The results are almost identical. We retain the HS-4 definition since it allows us to include all cases (some cases are defined at the HS-6 level and would not have a reference group at the HS-6 level).

but also the very specific filing date used to evaluate the merits of the claim (i.e. import competition is evaluated prior to this particular date). As a result, all three of these dimensions play a critical role in our research design.

The quasi-judicial nature of the AD process requires a very precise definition of the products in question. The boundaries of the product space are defined sharply, excluding commodities that can be quite similar in design, construction and use. Following the terminology used in AD cases, the products included in the petition shall be identified as 'subject products.' The set of countries named in the petition (subject countries) is also typically limited to a subset of all national sources of the imported product. The distinctions between subject and non-subject products and between subject and non-subject countries is central to our analysis as it provides two natural comparisons that we exploit to isolate the unique features of the subject countries and products.

A natural reference group for the subject imports are shipments of the same product from non-subject countries (i.e. those not named in the petition). As noted previously, only a subset of countries supplying the U.S. market are actually named in a petition. The ability to compare the evolution of import values provides a perspective on why the subject countries are likely to be singled out. In particular, we are looking for any changes that are pronounced enough to potentially motivate the domestic industry to file an AD petition. Further detail is provided by making additional comparisons based on changes in unit values and imported quantity. This additional level of detail helps to provide a narrative in terms of the source of shocks since positive or negative correlations in price and quantity map into distinct sources of shocks (i.e. demand shocks are typically associated with a positive correlation while a negative correlation is more closely aligned with supply shocks).

To address the question of why these products and not others, we turn to the comparison between subject and non-subject products. The architecture of the U.S. import statistics provides a natural basis for the comparison, as it identifies very good candidates for inclusion in the group of reference commodities. Products within the same HS-4 category as the subject products are treated as the relevant reference group.[16] In the analysis of the reference products, the set of subject countries is the same as with subject products. Shocks that hit national economies within broader HS-4 category can then be observed as common movements across subject and non-subject commodities. Hence, differences in the evolution of subject and non-subject products in terms of value, price and quantity

[16] As an example, the 2001 petition involving mussels from Canada included two HS-10 products ('farmed mussels' and 'other mussels') within the larger HS-4 category covering mollusks and aquatic invertebrates other than crustaceans that are fit for human consumption. There were 29 HS-10 products within the HS-4 category that were non-subject products, including HS-10 products that track imports of oysters, cuttlefish, octopus, snails and clams.

will provide insight into the question of why only certain products were targeted and not others.

4.2 Decomposition

Since our inference is based on comparisons we adopt a decomposition methodology developed by Hummels and Klenow (2005) that facilitates comparisons both across groups and over-time.[17] The decomposition technique involves two steps. First, the trade data within each month is summarized in terms of aggregates representing subject countries/products and the appropriate comparison group. Second, a log-linear regression is used to summarize common movements in the aggregates. Our regression technique is designed to isolate common, within commodity movements in the decomposition variables, and to summarize these movements in terms of cross-product shifts in a conditional mean. The top level decomposition allows a summary of shifts in subject countries' import market share and total imports. The second level decomposition describes shifts in prices and quantities, which we interpret in terms of supply and demand shocks.

In the initial, top-level decomposition, imports from subject countries are represented as the product of the subject countries' share of total imports and total imports:

$$SM_{it} = \frac{SM_{it}}{M_{it}} M_{it} \tag{1}$$

where i indicates the product, t indicates a time period, M_{it} indicates the total value of imports in product i at time t, and SM_{it} is the value of imports from subject countries.[18] While a direct comparison between imports from subject and non-subject countries is possible the decomposition methodology incorporates additional information. In particular, we norm subject imports against imports in subject products from all sources. Such a comparison not only isolates any distinctive behavior of subject imports (through changes in the subject-country market share) but it does so relative to a base that is directly responsive to changes in domestic market conditions. That is, while we may lack the data to directly measure domestic quantities, imports from all sources do embody elements of domestic market conditions. Hence, this comparison provides insight into differences between subject and non-subject sources and information on market level outcomes.

[17] Other applications of this methodology include Hillberry and McDaniel (2002), Bernard et al. (2007) and Hillberry and Hummels (2008).

[18] Products are defined at the lowest level of aggregation available in the US tariff classification. This is usually the HS-10 level, but in some cases is HS-6 or HS-8. The time subscript here represents a particular month (i.e. January 2000).

The second level decomposition separates import value in terms of prices and quantities. Total trade M_{it} is represented as

$$M_{it} = \frac{M_{it}}{Q_{it}} Q_{it} = P_{it} Q_{it} \tag{2}$$

where P_{it} is the (per unit) price, and Q_{it} is measured quantities of imports. This decomposition can also be applied to imports from subject countries:

$$SM_{it} = SP_{it} SQ_{it}. \tag{3}$$

Substituting (2) and (3) into (1) produces a representation of imports from subject countries as a series of comparisons between each component of aggregate imports and its relative counterpart:

$$SM_{it} = \frac{SP_{it}}{P_{it}} P_{it} \frac{SQ_{it}}{Q_{it}} Q_{it} \tag{4}$$

The first and second terms represent, respectively, the relative import price for subject countries and the import price from all sources. The third and fourth terms represent the relative subject country import quantity and the quantity of imports from all sources.

The terms of each of these decompositions (SM_{it}, M_{it}, etc.) are random variables that are observed in a given month, and in a given narrowly-defined commodity. A regression framework is useful for summarizing common movements in these variables over time. We adopt a simple, OLS framework, regressing each of the (logged) variables from the decomposition on dummy variables representing time periods prior to the filing date, with fixed effects included to soak up variation relevant to particular commodities and petitions, along with a number of other dimensions. The coefficients on the dummy variables representing time lags capture average shifts in the conditional mean of the LHS variables in question.

Let X_{ikst} represent one of the random variables from the decomposition. Our regression takes the form:

$$ln(X_{ikst}) = \sum_{s=1}^{8} \beta_s^X lag_s + \alpha_{ik} + \eta_t + yr + \epsilon_{iks}, \tag{5}$$

where, lag_s is a quarterly dummy capturing three months in the s^{th} lag from the filing date.[19] α_{ik} is

[19] We retain the monthly detail in the data, but report quarterly averages defined by the coefficients on quarterly dummy variables. Import shipments are lumpy when observed at this level of detail. The move to quarterly averages smooths out this lumpiness without requiring an aggregation of the data over time. Quarterly movements are still sufficient to represent the relevant dynamics of each variable.

a dummy variable indicating the HS-10 code-case pairing (with k indicating the 'product' as defined in the dumping case), and η_t is a dummy variable associated with a month, where t represents a month.[20] yr is a dummy for the year, while ϵ_{iks} is assumed to be an i.i.d. error term.

The key parameters of interest are the β_s^X coefficients. These parameters measure shifts, over time, in the conditional mean of the left hand side variable. The reference period is the 8th quarter before the filing. Positive values of β_s^X represent an increase in the level of the given X variable, relative to its level in the initial period. Changes in these parameters will be understood as representing changes in market fundamentals, and interpreted as the outcome of economic shocks. So, for example, when the average relative price of subject country imports falls while relative quantities rise, we shall interpret this change as the outcome of a supply shock.

As noted in Hummels and Klenow (2005), log-linear regressions of this sort have a quite useful property. Consider the components of (1). Let β_s^{SM} be the estimated coefficient associated with the s^{th} lag of the SM term, β_s^M the estimated coefficient associated with the M term, and β_s^{sm} the coefficient associated with the share of subject imports ($\frac{SM}{M}$). Independent regressions of each of these terms using (5) will produce estimated coefficients with the property that the coefficients on the two right hand side variables will add up to the coefficient on the left hand variable, $\beta_s^{SM} = \beta_s^M + \beta_s^{sm}$. Consequently changes in the left hand side variable (summarized by β_s^{SM}) can be decomposed in terms of shares attributable to each of the components on the right hand side. This feature applies to all the decompositions calculated.

5 Results

5.1 Decomposing Imported Values

Given the targeted nature of an AD petition, in terms of products and countries, we focus our analysis on behavior that might clearly distinguish the countries that are filed against from those that are not. Concentrating on products that are named in a petition, equation (1) decomposes the changes in the value of subject country imports into changes in common with all source countries and also changes in the share of imports associated with the subject countries. This allows us to understand the degree to which filers are responding to a general surge of imports (all imports increase together),

[20] The product described in an anti-dumping petition frequently encompasses more than one HS-10 code. α_{ik} controls for cross-commodity differences at the HS-10 level, while η_t captures seasonal changes across the entire set of HS-10 commodities that are included in the sample.

Table 1: Just a surge from subject countries or from all sources?

VARIABLES	(1) $\ln(SM_{it})$	=	(2) $\ln(\frac{SM_{it}}{M_{it}})$	+	(3) $\ln(M_{it})$
1 Qtr before file	0.11***		0.19***		-0.08***
	(0.03)		(0.02)		(0.02)
2 Qtrs before file	0.16***		0.19***		-0.03
	(0.03)		(0.02)		(0.02)
3 Qtrs before file	0.14***		0.14***		-0.00
	(0.03)		(0.02)		(0.02)
4 Qtrs before file	0.13***		0.08***		0.05**
	(0.03)		(0.02)		(0.02)
5 Qtrs before file	0.11***		0.10***		0.01
	(0.03)		(0.02)		(0.02)
6 Qtrs before file	0.04		0.08***		-0.03
	(0.03)		(0.02)		(0.02)
7 Qtrs before file	-0.04		0.02		-0.06***
	(0.03)		(0.02)		(0.02)
Constant	12.68***		-1.43***		14.11***
	(0.03)		(0.03)		(0.02)
Observations	16596		16596		16596
R^2	0.839		0.805		0.889

Estimates include month, year, petition and HS10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

or to specific pressure from the subject importers (a change in the share of imports from subject countries). Since we are pooling across all cases initiated between 1998 and 2004, the coefficients provide estimates for the typical HS-10 commodity associated with a petition.

The results of these decompositions appear in Table 1. Column (1) reveals that there is a significant increase in the value of subject imports during the two-year window preceding the filing of a petition. The β^{SM} coefficient on the dummy variable associated with the last quarter before the filing date indicates, on average, an 11 percent increase in subject country imports across all HS-10 codes that were part of an AD petition. The timing of this increase is also quite distinct, beginning about five quarters before the filing, peaking about two quarters before the filing, and then subsiding to the level of an 11 percent increase. In any case, the regressions show a sustained increase in the level of imports from subject countries over the 24 month window preceding a filing.

While increased subject country imports might be suggestive of a damaging import surge, without

a benchmark it is not obvious that this increase in imports is associated with an increase in import competition. To provide some context column (3) reports the average behavior of imports from all sources of the HS-10 products named in a petition. As is evident, there is no tendency for total imports to rise. Indeed, in the quarter before the filing there is a general tendency for imports to decline, falling 8% below the benchmark level, on average. Since total imports from all sources is a market level characteristic it provides insight into conditions for the market as a whole. One tentative interpretation is that the products in which AD petitions are filed are likely to have experienced a negative demand shock which would account for the pronounced drop in spending on total imports of subject commodities immediately before a petition is filed.

The contrast in outcomes in columns (1) and (3) is very stark. Column (2) confirms that the underlying compositional change is very dramatic, with the subject countries' imports growing over the 24 month window by 19% more than all sources. Some back-of-the-envelope calculations put this shift in context. The simple average subject-country market share across the subject HS-10 products in the reference period, quarter 8, is 0.47. A 19 percent increase in market share over the 24 month window increases the average market share to approximately $0.47 * e^{0.19} = 0.57$. Thus, it appears that subject country imports typically represent a significant and growing share of total imports of subject commodities.

An 11 percent increase in imports from subject countries at the same time overall imports in the named products drop by 8 percent clearly indicate that subject countries look very different to other importers immediately before a petition is filed. This suggests that the subject countries are singled out for a particular reason. However, a focus on this quarter alone neglects an important phenomenon apparent in Table 1. In particular, Table 1 provides insight into the relative timing of the increase in subject imports and the decline in imports from all sources. Five quarters before filing there is a pronounced shift toward the named countries, while imports from all sources are relatively constant. This indicates that the compositional switch pre-dates the decline in expenditure on total imports in the quarter before filing. Is this differential enough to warrant an AD petition being filed against these countries in these products?

While the differential apparent in Table 1 is suggestive, it is also possible that the same features occur in other products but nonetheless these products were not subject to an AD petition. If this is the case, then it begs the question of why AD petitions were not filed in these related products as well. To gain insight into how typical these patterns are we replicate the analysis on a related set of

Table 2: Are there compound shocks in related product?

VARIABLES	(1) $\ln(SM_{it}^4)$	=	(2) $\ln(\frac{SM_{it}^4}{M_{it}^4})$	+	(3) $\ln(M_{it}^4)$
1 Qtr before file	0.16***		0.09***		0.06***
	(0.02)		(0.02)		(0.01)
2 Qtrs before file	0.14***		0.08***		0.06***
	(0.02)		(0.02)		(0.01)
3 Qtrs before file	0.10***		0.07***		0.04***
	(0.02)		(0.02)		(0.01)
4 Qtrs before file	0.09***		0.02		0.07***
	(0.02)		(0.02)		(0.01)
5 Qtrs before file	0.07***		0.01		0.06***
	(0.02)		(0.02)		(0.01)
6 Qtrs before file	0.03		-0.00		0.04***
	(0.02)		(0.02)		(0.01)
7 Qtrs before file	-0.00		-0.00		0.00
	(0.02)		(0.02)		(0.01)
Constant	11.67***		-2.01***		13.68***
	(0.02)		(0.02)		(0.01)
Observations	36029		36029		36029
R^2	0.815		0.792		0.910

Estimates include month, year, petition and HS-10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

products. Specifically, define related products as those that are in the same HS-4 product group but are not subject to AD activity over the sample period. To complete the analysis we allocate subject and non-subject countries in this group in a way that follows the original demarcation contained in the subject products. That is, if a country is named in a petition for a product, then we treat the same country as potentially subject for the related product.

If the underlying drivers are relatively broad in both the subject country and within the U.S., then the pattern apparent in Table 1 will also be evident in this reference group of related products. Table 2 presents the results of this decomposition. Similar to Table 1 the increase in imports from the subject countries is consistent with a foreign advantage that boosts imports. In fact the increase in imports in the reference products is even greater than documented in Table 1. This suggests a relatively general shock in the subject countries rather than a narrow product-specific export shock. However, the second feature (the pronounced decline in total imports) is not evident in the reference products. Inspection of column (3) reveals that imports from all sources have been consistently higher than the base period. Allowing ourselves to speculate, this suggests that rather than an economy or sector wide domestic demand shock, AD petitions are associated with product specific demand shocks. Figure 1 plots these coefficients to make this point graphically. While the blue lines (imports from subject countries) mirror each other in the two graphs, there is no such tendency for the red lines (total imports). Consequently an import surge by itself does not seem to be sufficient to trigger an AD petition. However, a relatively modest increase in imports when accompanied by a subsequent domestic demand shock (as proxied by the level of imports from all sources), does appear to be necessary for the filing of an AD petition.

5.2 Decomposition of Imports: Prices and Quantities

To this point the interpretation of demand and supply shocks as underlying the behavior of subject imports and total imports is relatively provisional since the we have only considered information on expenditures. To scrutinize this interpretation we further decompose the behavior of imports into changes in price and quantity. These results appear in Table 3. Is the decline in total imports immediately before filing likely to be due to a negative demand shock? It appears that this is the case with evidence from the first row of columns (3) and (5) of Table 3 confirming a decline in both average unit price and average quantity from all sources in the quarter immediately before filing (i.e. in equilibrium both price and quantity have declined).

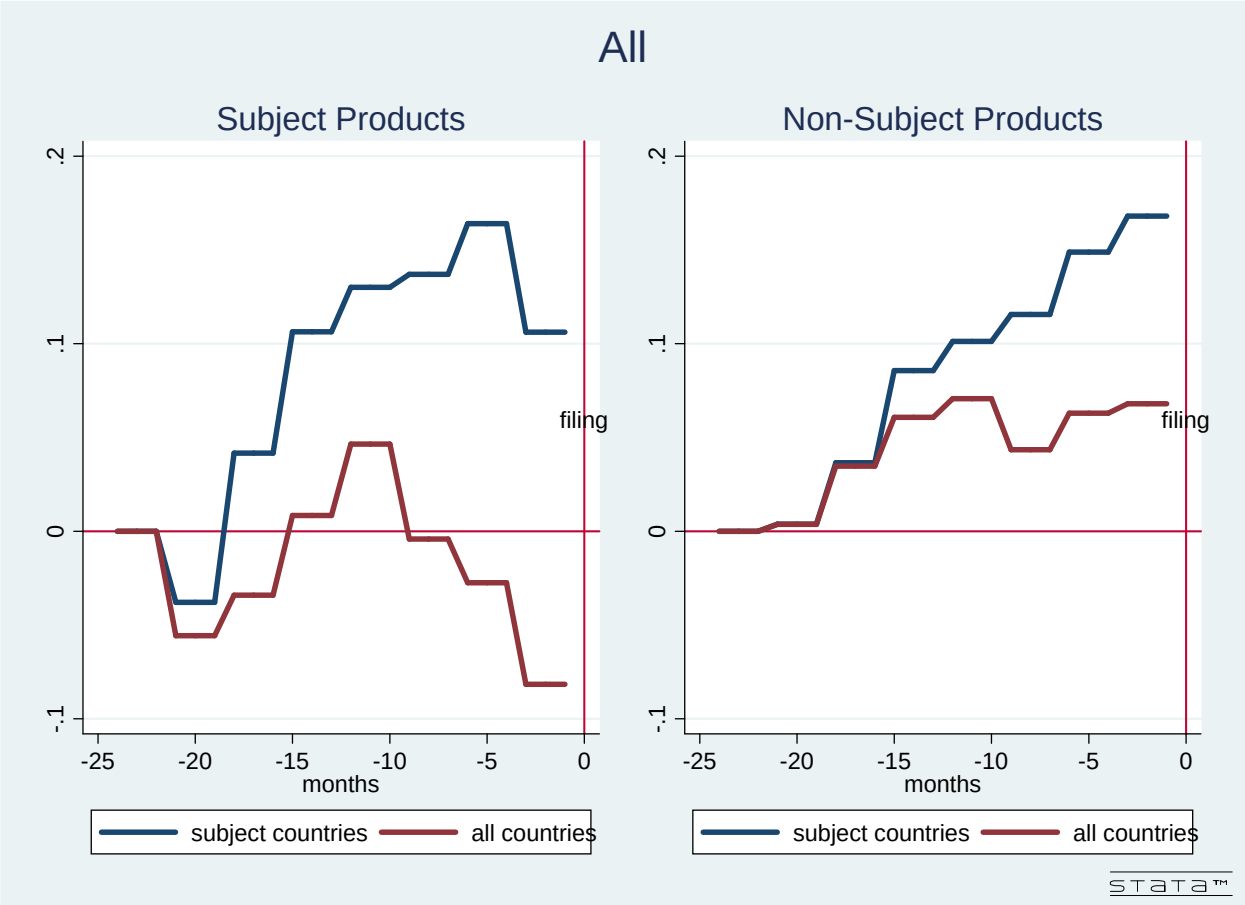

Figure 1: Subject and all sources imports: HS-10 vs HS4

Table 3: Is the surge driven by lower prices or higher quantities?

VARIABLES	(1) $\ln(SM_{it})$	=	(2) $\ln(\frac{SP_{it}}{P_{it}})$	+	(3) $\ln(P_{it})$	+	(4) $\ln(\frac{SQ_{it}}{Q_{it}})$	+	(5) $\ln(Q_{it})$
1 Qtr before file	0.11***		-0.03**		-0.03***		0.22***		-0.06**
	(0.03)		(0.01)		(0.01)		(0.03)		(0.02)
2 Qtrs before file	0.16***		-0.03**		-0.02*		0.22***		-0.01
	(0.03)		(0.01)		(0.01)		(0.03)		(0.02)
3 Qtrs before file	0.14***		-0.04***		-0.01		0.18***		0.01
	(0.03)		(0.01)		(0.01)		(0.03)		(0.02)
4 Qtrs before file	0.13***		-0.03**		-0.00		0.12***		0.05**
	(0.03)		(0.02)		(0.01)		(0.03)		(0.02)
5 Qtrs before file	0.11***		-0.01		-0.00		0.11***		0.01
	(0.03)		(0.02)		(0.01)		(0.03)		(0.02)
6 Qtrs before file	0.04		-0.01		-0.01		0.09***		-0.02
	(0.03)		(0.02)		(0.01)		(0.03)		(0.02)
7 Qtrs before file	-0.04		0.01		0.00		0.01		-0.06**
	(0.03)		(0.02)		(0.01)		(0.03)		(0.02)
Observations	16596		16596		16596		16596		16596

Estimates include month, year, petition and HS-10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

While the picture that emerges for imports from all sources is consistent with a negative demand shock, however, if one were to focus instead on just the subject countries then a very different story applies. In fact the behavior of prices and quantity from these sources is consistent with a positive export supply shock - a price decline of 6% (derived from (2)+(3)) and an increase in quantity of 16% (derived from (4)+(5)) in the quarter immediately before filing.[21] This suggests that the subject countries receive a persistent favorable export supply shock that more than offsets the negative domestic demand shock. Moreover, the interaction of these two shocks generate market outcomes that are *prima facie* consistent with the criteria for an AD petition - aggressive pricing by foreign firms (from the export supply shock) that is correlated with domestic injury (potentially associated with the negative demand shock).

The relative timing of these shocks is also informative. If one takes the initial emergence of the foreign export supply shock as approximately 15 months before filing, then it seems that the transmission of the shock into the domestic market is handled in such a way as to keep the overall extent of foreign competition relatively constant. That is, columns (3) and column (5) indicate that aggregate imported quantities and prices are essentially unchanged from five quarters before filings through the penultimate quarter before filing. However, a negative demand shock in the final quarter before filing places the foreign export supply shock into a harsher light for the domestic industry. Consequently, it is not necessarily a miscalculation on the part of a foreign firm that induces an AD petition, but rather a subsequent demand shock which changes domestic circumstances for the worse.

Table 4 provides the same decomposition of the value of imports into price and quantity components for the related products that were not filed against. The analysis of imported values suggested that the major difference between the subject products and the related products was the absence of a domestic demand shock. This is confirmed by columns (3) and (5) which show that quantities shipped from all sources are uniformly higher than the base period. Moreover, the average price is also lower. These outcomes are more consistent with a pronounced supply shock and there is little evidence of a demand shock. This speaks directly to the breadth of the various shocks, with the relative export supply shock apparent in both subject and related products for subject countries, but the negative domestic demand shock is only documented in the subject products. Consequently, the countries that are filed against do seem to exhibit characteristics that might make them likely

[21] There maybe many potential sources of the relative export supply shock. For example, Debaere (2010) documents how changes in third country standards can motivate a relative export shock.

Table 4: Are similar shocks evident in related but non-subject products?

VARIABLES	(1) $\ln(SM_{it}^4)$ =	(2) $\ln(\frac{SP_{it}}{P_{it}})$ +	(3) $\ln(P_{it})$ +	(4) $\ln(\frac{SQ_{it}}{Q_{it}})$ +	(5) $\ln(Q_{it})$
1 Qtr before file	0.16***	-0.02	-0.04***	0.11***	0.10***
	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
2 Qtrs before file	0.14***	0.00	-0.03***	0.07***	0.09***
	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
3 Qtrs before file	0.10***	-0.00	-0.03***	0.07***	0.07***
	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
4 Qtrs before file	0.09***	0.01	-0.03***	0.01	0.10***
	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
5 Qtrs before file	0.07***	0.01	-0.02**	0.00	0.08***
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
6 Qtrs before file	0.03	-0.01	-0.00	0.00	0.04***
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
7 Qtrs before file	-0.00	-0.01	-0.02**	0.00	0.02
	(0.02)	(0.02)	(0.01)	(0.02)	(0.02)
Observations	36029	36029	36029	36029	36029

Estimates include month, year, petition and HS-10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Are similar shocks evident in Steel products?

VARIABLES	(1) $\ln(SM_{it})$ =	(2) $\ln(\frac{SP_{it}}{P_{it}})$ +	(3) $\ln(P_{it})$ +	(4) $\ln(\frac{SQ_{it}}{Q_{it}})$ +	(5) $\ln(Q_{it})$
1 Qtr before file	0.14***	-0.04**	-0.03***	0.28***	-0.06*
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
2 Qtrs before file	0.18***	-0.04**	-0.00	0.28***	-0.06*
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
3 Qtrs before file	0.15***	-0.05**	-0.00	0.23***	-0.03
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
4 Qtrs before file	0.13***	-0.06***	-0.01	0.18***	0.02
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
5 Qtrs before file	0.16***	-0.04*	-0.01	0.19***	0.02
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
6 Qtrs before file	0.05	-0.03	-0.02	0.13***	-0.03
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
7 Qtrs before file	-0.06	0.00	0.00	0.02	-0.09***
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
Observations	10294	10294	10294	10294	10294

Estimates include month, year, petition and HS-10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

candidates for an AD petition, but a product specific negative demand shock appears to be an important contributing factor.

5.3 Robustness Exercises

The previous section argued that at least two shocks precede an AD petition: a broad and sustained foreign shock, followed by a relatively narrow domestic demand shock. These results were based on pooled data, so it is of interest to examine whether these patterns are evident amongst cases with different characteristics. With this in mind we consider two broad subsamples, one based on product characteristics and the other based on a temporal consideration. In both cases the results presented are based on estimates associated with equation (4).

Consider first a subsample limited to cases involving the steel industry, which is a heavy user of the anti-dumping law. Studies of anti-dumping activity have shown differences between cases involving the steel industry and other cases. We break out cases involving the steel industry, which

Table 6: Are similar shocks evident under the Byrd Amendment?

VARIABLES	(1) $\ln(SM_{it})$ =	(2) $\ln(\frac{SP_{it}}{P_{it}})$ +	(3) $\ln(P_{it})$ +	(4) $\ln(\frac{SQ_{it}}{Q_{it}})$ +	(5) $\ln(Q_{it})$
1 Qtr before file	0.05	-0.02	0.00	0.18***	-0.11***
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
2 Qtrs before file	0.08**	-0.01	0.00	0.15***	-0.07**
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
3 Qtrs before file	0.10**	-0.05**	0.01	0.17***	-0.02
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
4 Qtrs before file	0.11***	-0.03	0.02	0.09**	0.04
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
5 Qtrs before file	0.09**	0.02	0.02	0.05	0.01
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
6 Qtrs before file	0.00	-0.01	-0.01	0.07**	-0.05
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
7 Qtrs before file	-0.07*	0.01	0.01	-0.03	-0.07**
	(0.04)	(0.02)	(0.01)	(0.04)	(0.03)
Observations	8921	8921	8921	8921	8921

Estimates include month, year, petition and HS-10 fixed effects
Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

constitute 34 of the 106 cases we consider. Table 5 presents the results, which are consistent with the compound shock thesis. The pronounced relative export supply shock is evident from six quarters prior to filing with higher relative quantities imported (column 4) and lower relative prices (column 2). Nevertheless the average import price and quantity remain relatively constant until the penultimate quarter before filing. In contrast, in the quarter before filing the average steel product experiences a decline in import prices of 3% and a decline in import volume of 6% for subject steel products. This strongly suggests that both a relative export supply shock followed by a sharp decline in domestic demand precede the filing of AD cases involving steel products.

Consider next a period defined by a significant change in AD law. The *Continued Dumping and Subsidy Offset Act of 2000*, also known as the "Byrd Amendment," significantly changed the incentives to file anti-dumping cases, as it directed the collected tariff revenues to the filing firms.[22]

[22]Reynolds (2006) finds evidence that the Byrd Amendment increased the number of petitions filed. Reynolds and Liebman (2006) identify a relationship between firms that gain from the amendment, their contributions to members of Congress and members' support for the Amendment. Reynolds and Liebman (2006) contains a description of the amendment as well as a legislative history.

We focus on cases filed after January 1, 2001, the day the Act went into effect.[23] The results are contained in Table 6 and are once again are broadly consistent with the compound shock thesis. A relative supply shock is evident in column (4), though its origin appears to be slightly later than documented for steel products. The negative domestic demand shock is also documented with a decline in imports from all sources of 11%.

Evidence from the steel and Byrd cases illustrates that the evidence for the compound shock thesis is consistent across important subsamples. Of course, deviations from the pattern identified above could occur within other subsamples. Nonetheless, these two seem to be natural and obvious subsamples in which to evaluate the robustness of the pattern observed in the complete sample. On the basis of these exercises, the compound shock thesis appears to be a robust aspect of filing behavior.

6 Conclusion

The recognition that firms operate in a stochastic environment often means that it takes some time to determine which shocks are transitory and which are more long lived. On top of these dynamic issues, a firm needs to infer the source of any shock since this is likely to play a large role in determining the appropriate response. These considerations are particularly important in relation to initiating an AD petition since this is only an appropriate course of action if the shocks are relatively persistent and are associated with increased import competition. If the shocks are foreign in nature, then the inferential problem is complicated further as the foreign firms may alter their behavior to mitigate the price effects associated with the shock. While solving this problem in real time is particularly difficult, some sense of the various shocks can be gained from the vantage of hindsight. By examining the dynamic path of detailed trade data in the period before the filing of an AD petition we have tried to identify the shocks that, on average, precede the filing of a petition.

We find that the typical case is preceded by at least two shocks, one foreign and one domestic. The foreign shock is asymmetric in nature and only impacts a subset of all countries supplying a narrowly defined product to the U.S. While we are unable to identify the exact nature of the

[23]The sample split captures more than the change in the law of course. There is a change in presidential administrations at this time. There are also changes in macroeconomic phenomena such as a reduced average GDP growth rate and shift in the direction of the USD exchange rate that roughly coincide with this split. The subsample considered also contains relatively few steel cases, as the steel safeguard action implemented in March of 2002 limits the number of AD cases in steel. Our sample split is thus a rough robustness check against the possibility that any of these phenomena, including the Byrd Amendment, might affect our results.

foreign shock (it could be a positive or negative foreign demand shock or a positive foreign supply shock), we track its implications in terms of when it occurs and how it is initially transmitted to the domestic market. While this change is pronounced, it occurs in such a way as to preserve aspects of the pre-shock equilibrium with the average import price and quantity from all sources remaining relatively static. This is consistent with the notion that foreign firms modify their behavior to avoid unduly aggressive price competition since this is likely to be met with an AD dumping petition. Despite these efforts of the foreign firms, a subsequent negative domestic demand shock amplifies the changes, especially in relation to prices. This provides a set of conditions which align with those associated with dumping, an increase in imports associated with lower import prices and also domestic injury. Consequently, it appears that the compound nature of shocks is an important trigger for the filing of an AD petition.

7 Data Appendix

In this appendix we detail the decisions that were made in the construction of the dataset. We analyze the AD petitions filed between 1998 and 2004. Over this period there were 315 AD petitions filed, where a petition consists of a country-case pair. In terms of International Trade Commission investigation numbers this cover the sequence from 731-TA-776 to 731-TA-1089. As described above, the process of cumulation allows the International Trade Commission to combine petitions for the purpose of determining injury. This process is governed by the similarity of the products involved and the filing of the petitions on the same date (amongst other considerations). Through this process there were 111 injury investigations initiated over this period. However, not all of these cases satisfy the criteria for inclusion in our dataset. Two cases we dropped since, for administrative reasons, the original case was dropped and a very similar petition was almost instantly refiled (relating to the same products and countries). To avoid double counting due to this refiling the following cases were eliminated:

- 44'-Diamino-22'-Stilbenedisulfonic Acid Chemistry
- Live Cattle

In addition two very similar investigations were conducted simultaneously into "Certain Tissue Paper Products" and also "Crepe Paper Products" covering an almost identical set of products and an identical set of countries. To avoid double counting we only include "Crepe Paper Products" in the dataset. Finally two other cases were dropped since no quantity information was available in the U.S. trade data. These two cases are:

- Ironing Tables And Certain Parts Thereof
- Aperture Masks

A critical component of the analysis is an ability to link an AD petition with the relevant trade data. This exploits the listing of cases and HS codes in Bown (2009). However, for a few cases the HS codes listed is not consistent across countries. This occurs because some countries are dropped after the initial investigation and the definition of subject "product" is subsequently varied. For the sake of consistency, the definition of the subject "product" in the initial investigation is applied to all subject countries. The cases affect are:

- Honey
- Magnesium
- Structural Steel Beams
- Certain Circular Welded Carbon Quality Line Pipe
- Foundry Coke

The table below lists the 106 cases that are included in the dataset.

Case	Year	Case	Year
Certain Preserved Mushrooms	1998	*Stainless Steel Bar	2001
Butter Cookies	1998	*Welded Large Diam. Line Pipe	2001
*Stainless Steel Round Wire	1998	Folding Gift Boxes	2001
Extruded Rubber Thread	1998	Auto Glass Windshields	2001
*Stainless Steel Plate In Coils	1998	Oleoresin Paprika	2001
Emulsion Styrene-Butadiene Rubber	1998	Mussels	2001
*Stainless Steel Sheet And Strip	1998	Greenhouse Tomatoes	2001
*Elastic Steel Sheet And Strip	1998	Spring Table Grapes	2001
*Hot Rolled Carbon Steel Flat Products	1998	Softwood Lumber	2001
Live Cattle	1998	Silicomanganese	2001
DRAMS One Megabit & Above	1998	Folding Metal Tables & Chairs	2001
Creatine Monohydrate	1999	Polyethylene Terephthalate Film	2001
*Cut-To-Length Carb Steel Plate	1999	*Structural Steel Beams	2001
Polyester Staple Fiber	1999	*Circ-Weld Non-Alloy Steel Pipe	2001
Nitrile Rubber	1999	Indiv Frozen Red Raspberries	2001
Aspirin	1999	Gum Arabic	2001
*Cold-Rolled Carbon Steel Products	1999	Blast Furnace Coke	2001
Non-Frozen Apple Jce Concen	1999	*Carbon & Alloy Steel Wire Rod	2001
*Crude Petroleum Oil Products	1999	*Cold-Rolled Steel Products	2001
*Small Diameter Pressure Pipe	1999	Sulfanilic Acid	2001
*Large Diameter Pressure Pipe	1999	Ferrovanadium	2001
Synthetic Indigo	1999	Pneumatic Directional Cntrl Vlves	2002
*Structural Steel Beams	1999	*Ball Bearings	2002
Ammonium Nitrate	1999	*Non-Mall Cast Iron Pipe Ftgs	2002
Paintbrushes	1999	*Silicon Metal	2002
*Seamless Stnless Steel Hollow	1999	*Oil Ctry Tubular Goods	2002
*Tin Mill Products	1999	Urea Ammonium Nitrate Solution	2002
Expnble Polystyrene Resins	1999	*Lawn & Garden Steel Fence Posts	2002
Citric Acid And Sodium Citrate	1999	Coldwater Pink Shrimp	2002
*Butt-Weld Pipe Fittings	2000	Frozen Fish Fillets	2002
*Steel Wire Rope	2000	Saccharin	2002
*Steel Concrete Rebar	2000	Polyvinyl Alcohol	2002
Anhydrous Sodium Sulfate	2000	Durum & Hard Red Spring Wheat	2002
Desktop Note Count & Scan	2000	Barium Carbonate	2002
*Stainless Steel Angles	2000	*Malleable Iron Pipe Ftgs	2002
Foundry Coke	2000	Refined Brown Aluminum Oxide	2002
Honey	2000	Crtn Ceramic Station Post Insltrs	2003
Ammonium Nitrate	2000	*Prestress Concrete Steel Wire Strnd	2003
Pure Magnesium	2000	Allura Red Coloring	2003
*Hot-Rolled Carbon Steel	2000	44'-Diamino-22'- Acid Chem	2003
Low Enriched Uranium	2000	Hydraulic Mag Circuit Breakers	2003
* denotes a steel investigation		* denotes a steel investigation	

Case	Year
*Lt-Walled Rect. Pipe And Tube	2003
*Certain Aluminum Plate	2003
Certain Processed Hazelnuts	2003
Wooden Bedroom Furniture	2003
Hand Trucks	2003
Carbazole Violet Pigment 23	2003
Kosher Chicken	2003
Crt Frz & Can Wmwater Shrimp	2004
Outboard Engines	2004
Crepe Paper Products	2004
Magnesium	2004
*Crt Circ Weld Carb Qly Line Pipe	2004
Live Swine	2004
Pet Resin	2004
*Silicon Metal	2004
Chlorinated Isocyanurates	2004
Purified Carboxymethylcellulose	2004
Polyvinyl Alcohol	2004

* denotes a steel investigation

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