

ITC Voting Behavior on Sunset Reviews

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Abstract: This paper is the first attempt to analyze ITC Commissioner voting behavior on sunset reviews of antidumping cases. I first discuss differences in the determination of initial antidumping investigations and sunset reviews. A key distinction is that in sunset reviews, commissioners must account for the impact of dumping protection as well as competitive forces on industry conditions. I then generate an empirical model in order to test whether ITC decision-making adheres more closely to congressionally mandated economic criterion or political considerations. Empirical results indicate that ITC determinations are overwhelmingly based on the established legal framework for sunset reviews. However, there is some evidence that factors inconsistent with the established economic criterion influence an ITC commissioner's vote to continue or cancel antidumping orders. Such factors include a general bias against industries from poorer nations as well as a country-specific bias against Chinese competitors. There is also evidence of favorable treatments towards industries located in voting districts of Senate oversight committee members. Finally, I draw comparisons to empirical results from research on ITC voting behavior in initial investigations.

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I. Introduction

One of the major innovations achieved during the Uruguay Round trade negotiations (1986-1994) was the sunset provision for antidumping orders. This provision required that antidumping orders be removed automatically after five years unless trade officials determined that "unfair" pricing and material injury were likely to result without continued protection.¹ In the absence of such a provision, antidumping orders could effectively continue forever.

Inhibiting permanent protection became important to policymakers for at least two reasons. First, fundamental industry conditions such as foreign business strategies, trade patterns, technology and market concentration levels may have changed since the imposition of duties, causing trade protection to become unwarranted. Second, the sunset provision was one of several measures proposed to generally reign in the worldwide proliferation of antidumping orders. While the vast majority of antidumping orders were carried out by a small group of countries until the 1990s (U.S., Canada, E.U., Australia and New Zealand), the last decade has seen an explosion of cases initiated by developing nations.² In part, this increase in the use of antidumping protection by developing countries has served as a safety net from the risks of the dramatic trade liberalization undergone by nations like Mexico and Brazil.³ More generally, however, the spread of antidumping was due to the understandable perception by developing countries and other non-traditional users that always

¹ See 19 U.S.C. 1675[c]

² During the 1980's, traditional users of antidumping policy initiated over 95% of the worldwide caseload of approximately 1600 cases. Beginning in about the early to mid-1990s developing countries initiated close to half of worldwide caseload. See Prusa (1999) for a complete discussion on the proliferation of antidumping.

³ See Miranda, Torres and Ruiz (1998)

serving as the target of duties was simply unfair.⁴ Moreover, at least one empirical study found that developing countries were more likely to be found guilty of injurious dumping by the U.S.⁵

There is a substantial literature on initial antidumping decisions. Some researchers have asserted that the determination process in initial antidumping cases is skewed against the foreign industry, regardless of its status as a traditional or non-traditional user. A few papers have looked at this issue with regard to the Department of Commerce (DOC), which solely determines whether dumping has occurred.⁶

The majority of analysis, however, has focused on the International Trade Commission (ITC) and the process by which it determines material injury.⁷ The aim of several of these studies has been to test the degree to which ITC commissioner voting is consistent with the antidumping rules and procedures established by congress. The alternative hypothesis in such tests is that factors other than the economic variables consistent with congressional trade statutes (henceforth referred to as “political” variables) affect ITC determinations. Moore (1992) and Hansen and Prusa (1997) find that political variables, including congressional influence, affect ITC decision-making. DeVault (1993), Finger, Hall and Nelson (1992), Baldwin and Steagall, (1994) and Herander and Schwartz (1984) also find that political factors, excluding congressional pressure, influence ITC

⁴ Antidumping duties are typically severe. According to Prusa (1999), the median antidumping duty was 16%, approximately four times the average MFN tariff average for goods produced by the same industry. Also, 20% of antidumping orders had duties exceeding 50%, while 10% of orders had duties exceeding 100%. Clearly, antidumping duties can be prohibitively high.

⁵ See Moore (1992). An opposing conclusion is found by Finger, Hall and Nelson (1982).

⁶ See White (1995) and Botluck and Litan (1991).

⁷ The DOC must first conclude that dumping has occurred before the ITC can make its final determination on whether material injury resulted from such dumping. Therefore, positive determinations from both the DOC and the ITC are required to levy antidumping duties.

determinations.⁸ Finally, Anderson (1993) finds that, on the contrary, there is no evidence that ITC commissioners base their voting decisions on political considerations.

Another reason more attention has been paid to the ITC than the DOC is that the latter almost always finds dumping to have taken place. It is much less certain, however, whether the ITC will determine that dumping has led to the material injury of U.S. firms.⁹ Perhaps because of this non-uniformity in the ITC's determinations, its behavior receives much greater scrutiny.

Since U.S. sunset cases were only initiated in July of 1998, researchers have been limited in their ability to produce academic studies on the subject. An exception is Moore (1999), who finds that the DOC is biased towards finding evidence that dumping will occur if duties are removed. To my knowledge, no articles have appeared which analyze the behavior of ITC commissioners in sunset reviews. The following study is an attempt to fill this hole in the literature.

An argument can be made that the behavior of ITC commissioners has already been analyzed sufficiently, and that applying the same tests from past studies of initial antidumping cases to sunset review data is of limited value. However, the determination process in sunset reviews is fundamentally different than regular antidumping cases. This difference lies in the fact that regular antidumping cases analyze whether dumping and material injury have already occurred, while sunset reviews determine whether dumping and material injury will occur *in the future* if duties are removed. Therefore, sunset reviews are fundamentally prospective in nature.

⁸ DeVault (1993) and Finger, Hall and Nelson (1982) find different measures of industry size significantly related to ITC decision-making. Baldwin and Steagall (1994) find a measure of total import penetration significant. Finally, Herander and Schwartz (1984) find that the number of firms in the domestic industry, a proxy for lobbying effectiveness, influences ITC determinations.

⁹ From 1980-1997, the DOC found evidence of dumping in more than 95% of all cases. During the same period, the ITC found evidence of material injury in approximately 50% of all cases. See Prusa (1999).

Analyzing ITC voting behavior in sunset reviews is important in part because it allows economists to analyze how the decision to remove antidumping protection differs from the decision to implement such protection.¹⁰ Interpreting economic conditions within the context of a protected market (i.e. after dumping duties are already in place) poses a new and considerable task for the ITC, since commissioners must disentangle the effects produced by competitive factors versus those produced by duties. Unless these causal factors can be separated, there is no way to predict the impact of dismantling a dumping order. Original dumping cases, on the other hand, only require the ITC to determine the effects of various competitive factors on the domestic industry.

As such, models of commissioner voting behavior on sunset reviews must differ from those used on original cases. Therefore, econometric tests performed in this paper contain variables that pertain specifically to sunset reviews and, thus, have yet to be included in previous tests of ITC decision-making. Moreover, certain variables used in original dumping cases are interpreted quite differently in sunset reviews, even to the point where the expected effect undergoes a sign reversal once the context shifts from an original to a sunset case. The results of these tests, however, are reasonably consistent with similar studies applied to original dumping cases. In sum, there is overwhelming evidence that the ITC uses the congressionally mandated criterion, including variables that apply specifically to five-year reviews, in its decision to continue or revoke dumping orders.

¹⁰ Testing ITC adherence to sunset regulation is also interesting because of the serious reluctance held by U.S. policymakers to implement a five-year review process. Although most of the traditional users of dumping policy showed a general resistance to antidumping reform during the Uruguay Round, the U.S. was the only tradition user besides New Zealand that had not already implemented a sunset policy. See Horlick (1993) for a discussion of U.S. and E.U. resistance to antidumping reform during the Uruguay Round.

However, there is also some evidence that certain political factors influence ITC voting on sunset reviews, including congressional pressure.¹¹

The organization of the rest of the paper is as follows: in section II, I provide background information regarding the process of U.S. antidumping determinations and the agencies involved in this process. In section III, I discuss some noteworthy differences in the determination of sunset reviews and original dumping cases. In sections IV and V, the data and econometric model used to analyze ITC voting behavior in sunset reviews are covered. Finally, in sections VI and VII, I present results, a summary of the paper's findings and some concluding remarks.

II. Background

The ITC is an independent, quasi-judicial government agency that administers U.S. trade remedy laws (including issues such as patent and copyright infringement as well as dumping) and provides information to the President, Congress and U.S. Trade Representative regarding trade policy. It consists of six commissioners and a large staff of lawyers, economists and other assistants. ITC commissioners are appointed by the president and approved by the Senate for a non-renewable nine-year term. No more than three commissioners may belong to a single political party.

In initial antidumping cases, the ITC makes a preliminary decision on whether imports suspected of dumping are causing or threatening the U.S. industry with material injury. If this

¹¹ It should be mentioned that ITC adherence to the sunset statutes does not imply an economically sound five-year review process for antidumping orders. Thus, the focus of this paper will not be to analyze whether the injury test in sunset cases is appropriate, but instead whether the ITC follows the rules when it issues its determinations. Hopefully, future research, analogous to Moore's (1999) analysis of DOC sunset procedure, will examine whether the ITC'S injury test in sunset reviews makes economic sense.

preliminary decision is positive, the case is handed to the International Trade Administration (ITA), an agency of the DOC, which determines whether dumping has taken place.

Dumping is defined as selling at a price in the U.S. below the price offered in the home market, after adjusting for transaction costs and quality or quantity differences of the sold good.¹² In cases where no home-market exists (i.e. the foreign industry exports its entire output), or the home price is not determined by market forces (i.e. prices are government-controlled), the "fair" price must be estimated by the DOC. This involves either attempting to calculate the product's average cost, or using prices offered in third markets.¹³

If the DOC finds that dumping has occurred, the case returns to the ITC, which must make a final determination on whether such dumping has lead to (or threatened) the domestic industry with material injury. Each commissioner casts a single vote, with a 3-3 tie resulting in an affirmative determination.

Once the order is implemented, changed circumstance and administrative reviews allow the foreign industry to seek the cancellation or lowering of duties based on a newly accessed dumping margin by the DOC. Since administrative reviews do not require proof of continued material injury to the domestic industry, it is easier for U.S. producers to remain protected once an order has been set in place. Moreover, even if dumping and/or injury cease, duties will continue unless the foreign industry can prove to the DOC that its pricing behavior has changed.

In sunset reviews, however, it is the responsibility of the domestic industry to pursue continued protection. If no domestic party shows sufficient interest (i.e. doesn't reply to a notice of

¹² See USITC Publication 2900 (1995).

initiation of review published in the Federal Register), the order will automatically be cancelled. Moreover, if the order is to remain in place, proof of both dumping and injury is required. In this sense, sunset reviews involve the same process as original dumping cases, wherein the DOC and ITC make decisions regarding dumping and material injury. However, the critical difference is that in sunset reviews, the ITC and DOC must decide whether material injury and dumping are *likely* to take place, not whether they *have already* taken place. Sunset reviews, therefore, require the ITC and DOC to make predictions about the impact of removing antidumping duties.

In the Trade Agreement Act of 1979, Congress specified variables that the Commission should consider in its material injury determination of original antidumping cases, such as declines in output, sales, market share, profits and wages. Similarly, the Uruguay Round Agreements Act (URAA) of 1994 has instructed the Commission to consider variables appropriate to the determination of sunset reviews. Commissioner reports from sunset reviews consistently state that... “Although the standard in five-year reviews is not the same as the standard applied in original antidumping and countervailing duty investigations, it contains some of the same fundamental elements.”¹⁴ In general, the Commission must consider variables contributing to the “likely volume, price effect, and impact of imports of the subject merchandise on the industry if the order is revoked.”¹⁵

In original cases, ITC commissioners must first determine if the domestic industry has been materially injured, and second, if the foreign industry under question is responsible for this injury. In

¹³ Some of the reforms achieved during the Uruguay Round dealt with the controversial method by which the DOC was estimating costs. See Mastel (1998) for a discussion of antidumping reforms produced by the Uruguay Round.

¹⁴ All commissioner reports from sunset reviews are available on the ITC’s homepage: WWW.USITC.GOV

¹⁵ See 19 U.S.C. 1675a, section 752.

sunset reviews, ITC commissioners also must contend with two questions. The first is whether dumping at significant quantities is likely to occur if duties are removed. Here, the ITC analyzes not only the likely pricing strategy of the foreign industry, but also its ability to increase or shift production from third markets to the U.S. at significant levels.

The second question is whether the domestic industry is healthy enough to withstand dumping by the foreign industry. Thus, the Commission analyzes not only potential strategies of the foreign industry, but also the vulnerability of the domestic industry to these strategies. As such, the ITC might remove an order even if it assumes the foreign industry will attempt to dump in the U.S., so long as the domestic industry is healthy enough to withstand such an attack. Similarly, an antidumping order may be removed even if the domestic industry is in poor-health, so long as the foreign industry is unlikely to dump at threatening quantities in the U.S.

III. Sunset Reviews vs. Original Antidumping Cases

As discussed above, sunset reviews differ from original antidumping cases in that original cases deal with dumping that may have already occurred, while sunset cases concern dumping that may occur in the future. In a broader sense, original cases result from difficulties associated with free markets, while sunset reviews arise in the midst of distorted markets due to antidumping duties. An interesting novelty that arises from this difference is that the interpretation of certain key variables alters significantly when the perspective switches from an original to a sunset case. For example, a

high degree of subject import penetration of the subject good is usually evidence of injurious dumping in an original case, while it can be evidence in a sunset case that injurious dumping is less likely. The rationale behind this latter interpretation is that if the foreign industry is able to compete even in the presence of AD duties, then dumping is probably not its primary strategy. Evidence of this logic is seen in the published ITC opinion regarding elemental sulfur imports from Canada:

“Consequently, [the] imposition of the antidumping finding [hasn’t] caused any substantial variation in elemental sulfur from Canada in the U.S. market. This pattern suggests that the revocation of the antidumping finding...is not likely to lead to any significant increase in subject imports into the U.S. market.”¹⁶

Thus, increasing the degree of subject import penetration may decrease the possibility of an affirmative ruling in a sunset case even though it increases the probability of an affirmative ruling in an original case.

In other situations, however, the ITC views a higher degree of subject importation as evidence that injurious dumping will actually increase if duties are removed. Consider the ITC opinion regarding heavy forged hand tool imports from China:

“...[T]he continuing presence of subject imports in the market, despite the presence of antidumping duties, is an indication that subject foreign producers and exporters and U.S. importers have the contacts and distribution network necessary to support an increase in volume.”¹⁷

In light of these conflicting perspectives, the expected impact of subject import penetration on ITC voting is ambiguous in sunset reviews, despite the fact that its predicted sign is always positive in tests performed on original dumping cases.

¹⁶ Commissioner opinions for sunset reviews are available at <http://205.197.120.60/oinv/sunset.nsf>. See case AA1921-127.

¹⁷ Ibid. See case 731-TA-457-C.

A more subtle example of how the same variables can be interpreted differently in original and sunset cases is found in domestic industry health indicators such as changes in industry shipments or capacity utilization rates. In original dumping cases, declines in these variables are used as evidence that dumping by the subject country has injured the U.S. industry, thereby increasing the probability that duties will be implemented. In sunset cases, a decrease in these variables also increases the probability of an affirmative determination, but for somewhat different reasons. Since the imposition of duties often forces the foreign industry to raise its price or exit the U.S. market, domestic industry health at the time of a sunset case is linked less to subject pricing strategies than to other competitive forces. Therefore, domestic health variables serve simply as an indication of how vulnerable U.S. firms are to potential dumping.

If the link between subject pricing and current domestic health is indeed tenuous during sunset reviews, then perhaps the ITC shouldn't even consider such variables in its determination process. Without question, monitoring industry health in initial investigations is necessary to determine whether dumping has led to the material injury of domestic firms. Evidence of poor health in sunset reviews, however, simply indicates that domestic firms are more susceptible to all foreign competition, whether it is "fair" or not. In this sense, sunset reviews are a step closer to so-called "Safeguard" cases, in which a U.S. industry is granted trade relief from "fair" but highly damaging foreign competition.

Interpreting changes in domestic health variables is also problematic because it requires the ITC to determine whether such changes are due to shifts in competitive factors or simply the result of antidumping protection. For example, if duties are ultimately responsible for an increase in domestic capacity utilization levels, then removing duties will probably be followed by a return to lower rates.

On the other hand, if increased efficiency is the causal factor, then removing duties will not necessarily affect utilization rates.

Predicting whether injurious dumping will occur in the future, therefore, is a far more subtle affair than simply assessing whether a set of explanatory variables has increased or decreased. Moore (1999) strongly criticizes the DOC for rigidly adhering to a set of rules (regarding the movement of certain explanatory variables) when determining the likelihood of future dumping, especially when these rules almost inevitably lead to an affirmative ruling. Judging from commissioner reports, however, the ITC seems more likely to consider the broader context in which economic conditions and variables are evolving.

IV. The Data

From July of 1998 until the end of 1999, five-year reviews for antidumping orders set in place prior to 1995 were initiated. Despite the age of many of these so-called “transition” orders (out of 269 total cases, 31 date back to the 1970s and 140 to the 1980s) the ITC considered the same determinants here as they continue to use with orders established after 1995. For this reason, statistical analysis on the transition caseload serves as a reasonable representation of how sunset reviews are determined.¹⁸

¹⁸ Moore (1999) suggests that transition sunset reviews involve different considerations than non-transition reviews, since the former caseload was implemented with pre-WTO antidumping practices. For example, orders implemented before 1984 were not subject to cumulation (the process wherein the collective effect of all foreign dumping is considered in the determination of each country’s guilt). However, since these orders represent less than 14% of the sunset reviews decided by ITC voting, there shouldn’t be serious concern regarding the effect this has on test results.

Among the 269 sunset reviews initiated during this eighteen-month period, there were 68 cases in which no response from domestic interests led to the automatic cancellation of antidumping orders. Since such cases are decided without votes from ITC commissioners, they have been removed from the data set.¹⁹ Each of the remaining 201 cases involved usually six (though sometimes four or five) votes from commissioners to continue or revoke antidumping orders.²⁰

Affirmative determinations were reached in 142 of these 201 cases, meaning that ITC commissioners voted to continue antidumping orders approximately 71% of the time. The remaining 59 cases led to negative determinations. It seems certain, however, that a portion of the “no domestic response” group consists of cases in which domestic industries believed a negative determination was the probable outcome. Thus, it’s somewhat misleading to say that the ITC ruled to continue dumping orders 71% of the time, since this figure would perhaps be lower if all 269 cases had reached the voting phase.²¹

In Table 1, the sunset caseload is separated by region. Because the affirmative sunset determination rate against Japan is actually below the overall average of 71%, it seems likely that if a bias against this country did exist, it has since disappeared. On the other hand, if any country appears to face a negative bias, it’s China, with its striking affirmative determination rate of 96%. Of

¹⁹ Many of these ‘no domestic response’ cases involve non-manufacturing industries. Since the industries that participated in full sunset reviews (and thus make up the data set used in this paper) are almost entirely manufacturers, results drawn from econometric tests that follow should not be applied to non-manufacturing industries, in order to avoid selection bias problems.

²⁰ See the appendix for all data sources as well as an additional discussion of the variables.

²¹ It seems logical that if an industry knows it’s not going to receive continued protection, it might avoid the considerable expense involved in participating in an antidumping case. On the other hand, there is strong evidence that by simply pursuing antidumping protection, U.S. firms can alter foreign trade practices, even prior to final determinations by the DOC and ITC. See Finger (1981) for a discussion of the “harassment” factor in antidumping cases.

course, it's impossible to confirm such suspicions before controlling for the many factors that influence sunset determinations.

Table II presents the dataset according to 3-digit North American Industry Classification System (NAICS) code. The 3-digit industries with the largest number of cases, chemicals and primary metals, have determination rates not far from the overall average rate of 71%. However, since steel goods span several 3-digit SIC codes, quick conclusions are avoided regarding any positive bias this industry might receive.

V. The Econometric Model

Although we are attempting to explain voting behavior in sunset reviews, the underlying decision rule used by commissioners is unobservable to the public. Since only the vote to actually continue or revoke a dumping order is observed, a binary discrete choice model is most appropriate. In keeping with prior research, commissioner i 's voting decision can be written as²²:

$$y_{ij} = \begin{cases} 1 & \text{if } \alpha_i + X_j\beta > \varepsilon_{ij} \\ 0 & \text{otherwise,} \end{cases}$$

where y_{ij} is commissioner i 's decision regarding sunset case j , with a value of 1 corresponding to a vote to continue duties. The row vector X is the set of independent variables used by commissioners in their decision-making rule, which vary by case j . The column vector β contains the estimated coefficients, and I also include commissioner-specific fixed effects with the

²² Moore (1992) was the first paper to model ITC voting behavior using individual commissioner votes.

intercept parameter α_i .²³ Finally, ε_{ij} is assumed to be normally distributed with a mean zero and a variance of one, making this a standard probit specification.

The explanatory variables can essentially be broken down into two categories: the first are variables representing the economic criterion the ITC has been mandated to consider in their decision-making (though such criterion would not necessarily be approved by a consensus of trade economists). The second set are “political” variables, in the sense that they should theoretically play no part in the decision of a commissioner’s vote to continue or revoke antidumping orders. Ultimately, the purpose of this paper is to test whether the coefficients on this second set of variables are jointly equal to zero.

Economic Variables

Most research on ITC decision-making use data drawn from published ITC commissioner reports. However, in many instances, key figures are removed in order to protect the privacy of both domestic and foreign firms. Since the removal of data occurs more often in cases involving particular industries, sample selection bias issues arise. By drawing foreign and domestic data from other sources, this problem is avoided (see the appendix for all data sources and additional discussion of the variables). The drawback of these other sources, however, is that they contain data only for more aggregated industries that contain the particular commodities under review. The

²³ A second option for modeling ITC voting behavior is to allow the β s to vary by commissioner. A third, and probably the most commonly employed, is to use the overall ITC determination as the independent variable, rather than individual commissioner votes. Favoring this last approach, Hansen and Prusa (1997) assert that commissioner-specific analysis possibly leads to biased results due to strategic voting behavior. For example, a commissioner may vote negative in order to appear immune to certain political pressures, as long as that commissioner knows that the final determination will be positive. To avoid this potential bias, the authors analyze overall ITC decisions instead.

result is that econometric tests performed on these aggregated data will produce inflated standard errors, although coefficient estimates should still be unbiased.

Foreign Industry Variables: Key foreign industry variables that the Commission takes into account include capacity utilization rates and total production capacity. The rationale behind the first variable is that if the foreign industry is currently operating at full capacity, its ability to increase production earmarked for the U.S. is limited. Moreover, if foreign total production capacity is only a minor fraction of the U.S. market for that good, its ability to damage the domestic industry with dumped goods is also limited.

Unfortunately, data on these variables are either unavailable or available at only an extremely general level of commodity specification and, thus, bear little information on the specific commodities involved in sunset cases. To proxy for a foreign industry's capacity to dump in the U.S. market, I have instead included the ratio of the value of total world exports of the good by the subject country (which is available at the more specific commodity level) divided by the total U.S. industry shipments of the subject good. This is admittedly a crude means of capturing the level at which a foreign industry can dump in the U.S., since exports to other countries cannot all be suddenly diverted to the U.S. Nevertheless, the ratio of foreign exports to U.S. shipments is a reasonable approximation of the maximum U.S. market share a foreign industry can obtain by dumping.

Another foreign economic variable the Commission consistently employs is the level of import penetration of the subject good held by countries other than the one involved in the particular sunset review. Commissioners seem to believe that if several countries have a substantial combined stake in the U.S. industry, then the market for the subject good is probably operating at a reasonably

high degree of international competition, and therefore less vulnerable to injurious dumping.²⁴

Moreover, if the order is revoked and dumping resumes, the burden of such dumping would be shared by a wide array of non-U.S. firms. For these reasons, the expected effect of an increasing degree of non-subject import penetration is to decrease the likelihood that a commissioner will vote to maintain duties.²⁵

Another foreign economic variable included in the model is the level of import penetration of the subject good held by the subject country. Unlike the level of non-subject foreign penetration, the effect of this variable is somewhat ambiguous, as discussed previously. On the one hand, if the subject country currently has a negligible presence in the U.S. market, the removal of duties might not recreate the optimal conditions that invite or even allow dumping to resume in the U.S. at significant quantities. From this perspective, a higher degree of subject import penetration should increase the probability that a commissioner will vote to continue duties.

On the other hand, if the subject country continues to import heavily to the U.S. even after the imposition of duties, then “unfair” pricing was probably not its primary export strategy and injurious dumping is less likely to resume if the order is revoked. In this light, a larger degree of subject import penetration should decrease the chance that a commissioner will vote to continue duties. Empirical results will hopefully reveal which effect dominates ITC voting behavior.

²⁴ An example of the importance of non-subject market penetration is seen in commissioner Askey’s opinion regarding pre-stressed concrete wire strand imports from Japan: “Given the domestic industry’s dominance of this market and strong competition from non-subject imports, it is unlikely that Japanese producers would be able to re-establish their prior market share within a reasonably foreseeable time.” See case A-588-068.

²⁵ It’s interesting to note that although a larger degree of non-subject foreign penetration usually implies a diminished market share for U.S. producers (and thus a greater degree of domestic vulnerability), the ITC focuses instead on how the subject industry’s dumping potential is impacted.

The Commission is also directed to consider the foreign pricing and volume behavior that preceded the antidumping order. If such behavior is any indication of what awaits domestic firms once duties are removed, then foreign industries originally found guilty of dumping at the highest margins are the more likely to face tough scrutiny at the ITC (and the DOC). Thus, a variable measuring the original dumping margin is included in the model, with the expectation that the higher the margin, the greater the likelihood that the ITC will deliver an affirmative ruling.²⁶

The final variable to be included in the economic model is a dummy variable indicating whether the foreign industry participated in the review process. Unfortunately, a lack of foreign participation often forces the ITC to rely on domestic reports of foreign industry data, despite the fact that such information usually appears biased in favor of continuing duties.²⁷ In an ideal setting, of course, controlling for this potential bias would be unnecessary, and the ITC would be able to gather all pertinent information without the help of the foreign industry. Under current conditions, however, the predicted impact of foreign participation is to increase the probability that a dumping order will be revoked.

It is worth noting that out of the five foreign “economic” variables included in the model, only the dumping margin and subject import penetration variables have been included in tests of ITC

²⁶ The DOC supplies the ITC with a predicted dumping margin which is then included in the sunset injury test. The DOC is advised by the URAA Statement of Administrative Action (SAA) to report, under “normal” circumstances, the original dumping margin rather than margins calculated at subsequent administrative reviews (SAA 1994; pg. 890). Therefore, using the margin from the initial investigation is a reasonable proxy for the predicted margin reported by the DOC. For a discussion of this issue, see Moore (1999).

²⁷ A failure to participate by the foreign industry is also viewed by some commissioners as a tacit admission of guilt (i.e. that dumping will resume if duties are removed). In the sunset review involving pre-stressed concrete wire strand from Japan, the majority view writes that: “In the absence of such record information, and based upon the absence of Japanese producers...to respond adequately to the Commission’s information request, Chairman Bragg infers that, if available, such information would further support the

voting behavior on original dumping cases. This highlights the fact that different considerations are involved in the implementation and the removal of antidumping duties.

Domestic Industry Variables: As mentioned in Section II, the ITC is directed to consider the potential volume and pricing behavior of the foreign industry as well as the degree to which the domestic industry is vulnerable to such behavior. Domestic profits are an excellent indicator of industry health, but this data is usually unavailable to the public to protect corporate privacy.

Therefore, in order to proxy for the health of U.S. industries seeking to maintain antidumping protection, variables measuring the percent change in both shipments and capacity are included in the model. As discussed above, the predicted effect is that an increase in each of these variables will lead to a decrease in the likelihood that a commissioner will vote to continue duties.

Political Variables

Industry Size: while the size of an industry should play no part in whether it merits antidumping protection, it seems reasonable test whether the ITC is more sympathetic to industries in which more U.S. jobs are at stake. Thus, a variable measuring industry employment at the 6-digit NAICS level is included in the model. In research on original dumping cases, Finger, Hall and Nelson (1982), Moore (1992) and DeVault (1993) all find evidence that larger industries receive favorable treatment at the ITC, while Baldwin and Steagall (1994), and Hansen and Prusa (1997) find no evidence of such a bias.

conclusion that revocation of the antidumping finding will likely result in significant volumes of subject imports to the United States.” See ITC case A-588-068.

Regional and Industry biases: Besides favoring high-employment industries, it is worthwhile to test whether the steel industry, the most frequent user of antidumping protection, receives (undeserved) positive treatment in sunset reviews. Indeed, Hansen and Prusa (1997) find evidence of a pro-steel bias in original dumping cases.

A dummy variable for cases involving China is also included in order to test whether the country's poor record in sunset reviews is due more to the economic fundamentals of each case or, instead, a negative bias. While no previous research has tested for an anti-China bias, Hansen and Prusa (1997) and Moore (1992) both fail to find evidence that Japanese industries face a negative bias at the ITC.

Consistent with Finger, Hall and Nelson (1981) and Moore (1992), I include a variable for Less Developed Countries (LDCs). That LDCs industries were more likely to face a negative bias in dumping cases seemed logical at one time, not only because they had fewer financial resources to defend themselves, but also because LDCs governments were unlikely to file their own antidumping orders against traditional users like the U.S. Although developing nations now initiate as many antidumping cases as traditional users, it still seems worthwhile to ask whether poorer nations receive equal treatment in U.S. antidumping cases. However, since the division separating LDCs and non-LDCs is drawn somewhat arbitrarily, a variable measuring the subject country's GDP per capita is included in the model, as opposed to the traditional LDC dummy variable.²⁸

²⁸ This idea was suggested by Shankha Chakraborty.

Congressional Influence: Previous research suggests that the source of congressional influence on the ITC stems more from its control over the agency's budget than its role in the confirmation of commissioners ((see Moore (1992), DeVault (1993), Anderson (1993), and Hansen and Prusa (1997)). The purpose of granting congressional control over the agency's appropriations was to hinder Presidential interference in the ITC's decisions. The result is that unlike funding for most U.S. agencies, appropriations for the ITC are determined exclusively by Congress.

Congressional oversight of the ITC is carried out by trade subcommittees from both the House Ways and Means Committee and the Senate Finance Committee. Therefore, I have mapped industries involved in sunset reviews to production facilities in the voting districts of members of both trade subcommittees. The expectation is that industries with plant facilities located in voting districts of oversight committee members are more likely to receive antidumping protection.²⁹

Finally I control for commissioner-specific fixed effects by including dummy variables for each commissioner. By simply perusing voting records from sunset reviews, it appears that some commissioners have a greater tendency than others to favor the continuation of antidumping orders. Econometric testing should reveal whether these observed patterns are due more to the influence of the explanatory variables (which are summarized with their expected signs in table III) or instead based on the biases of certain commissioners.

²⁹ Hansen and Prusa (1997) also include a variable measuring PAC contributions from protection-seeking industries to oversight committee members. They find evidence that such contributions influence original case determinations.

V. Results

Table IV summarizes probit estimates for the economic model (political variables excluded) and the full model (containing both political and economic variables) of ITC commissioner voting behavior on sunset review cases. The overall fit of both models is similar to previous tests on original dumping cases, with the percent of correct predictions ranging from 70%-80%. Moreover, the model containing political variables produces a statistically significant improvement over the economic model³⁰. Finally, results are robust to a variety of specifications not shown.³¹

Economic Variables: With the exception of Dumping Capacity and Ch_Shipments, all economic variables carry statistically significant estimated coefficients with their expected signs in both models (although the predicted sign of the Subject Penetration variable was initially determined to be ambiguous). In the full model, every economic variable except for Ch_Shipments is significant at the 1% level. Thus, there is overwhelming evidence that ITC commissioners base their voting decisions in sunset reviews on the proposed economic criterion.

The lack of significance in the shipments variable suggests that the ITC bases its measures of domestic health more heavily on capacity utilization data. Another explanation is that changes in shipments frequently do not correspond with industry profits and are therefore not the best proxy for industry health. A third possibility is that because testing is carried out on aggregated industries (that

³⁰ A likelihood ratio test was performed comparing the goodness of fit between the economic and full models. Results indicate that the improvement in fit provided by the political variables is statistically significant at the 1% level.

³¹ Other specifications include variations of the foreign dumping capacity proxy as well as a less restrictive measure of foreign participation (by including cases in which the foreign industry responded adequately to the notice of initiation but did not participate in the hearing). Also, dummy variables for E.U. members and 'Newly Industrialized Countries' (NICs) of East Asia (Singapore, South Korea, Taiwan) were included, but found to be insignificant. Lastly, a variable measuring 4-firm concentration ratios (commonly included in previous research as a proxy for lobbying power) also failed to produce a significant coefficient.

contain the subject goods), standard errors are inflated, making the observance of significant coefficient estimates less likely. Finally, the insignificance of Ch_Shipments may be evidence that the variable's predicted sign is actually ambiguous, a noteworthy departure from its clearly negative impact on original cases determinations ((see DeVault (1993) and Moore (1992)). In many sunset reviews, of course, a rise in shipments indicates that U.S. firms have a greater chance of surviving international competition without dumping protection, thereby decreasing the likelihood of an affirmative vote. In other cases, however, commissioners believe that an increase in shipments is simply the result of dumping duties, not domestic efficiency or resilience. Since removing protection in these cases will probably lead to a decline in domestic health, commissioners become more likely to vote in the affirmative. Thus, perhaps these two competing effects ultimately cancel each other out, leading to the insignificant coefficient on Ch_Shipments.

The negative and highly significant Subject Penetration coefficient suggests that the ITC primarily views lower subject market share as evidence that a foreign industry is incapable of competing under "fair" pricing conditions. The opposing effect, i.e. that lower subject penetration decreases the probability of a return to dumping at significant quantities, is obviously not dominant here. Thus, the effect of subject import penetration in sunset reviews is indeed opposite of its impact on original dumping cases ((see DeVault (1993) and Hansen and Prusa (1997), which both produce positive and significant coefficient estimates)). This is an important finding, since it indicates how the determination process involved in removing antidumping protections can diverge drastically from the implementation of dumping protection.

Political Variables: The estimated coefficient on industry employment is both negative and insignificant, suggesting that industries with more workers do not receive preferential treatment in

sunset reviews. There is also no evidence that industries producing steel goods receive unduly favorable ruling by ITC commissioners.

On the other hand, the positive and highly significant estimated coefficient on CHINA suggests that Chinese industries face a negative bias in five-year reviews. A similar conclusion can be drawn on cases involving poor countries in general, since the estimated coefficient on GNP/Capita is both negative and significant at the 5% level. Another interpretation of this finding is that because of language barriers and differences in legal structure and corporate accounting, industries from developing countries are less effective in defending themselves in the arena of antidumping litigation. In fact, developing countries appear more likely to either be absent or participate only marginally during the review process, forcing commissioners to rely on data provided by U.S. industries. This clearly has the effect of “stacking the cards” against poorer nations, despite the apparently sincere efforts of some commissioners to consider such cases even-handedly. Nevertheless, evidence of biases against China and developing countries remains even after controlling for foreign industry participation.

Evidence regarding the significance of congressional pressure is mixed. Although the estimated coefficient on the Senate Trade subcommittee is positive and highly significant, the House coefficient is both negative and insignificant. In other words, Senate Trade subcommittee members seem to (directly or indirectly) exert pressure on ITC commissioners to protect industries in their home states, while House Trade subcommittee members either exert no such pressure or do so unsuccessfully.

This finding is consistent with Moore (1992) but opposite of Hansen and Prusa (1997) in their studies of original antidumping cases. In the latter work, the authors suggest that since House

members have more geographically narrow constituencies and thus more narrowly defined interests, House is more likely to carry a positive and significant coefficient than Senate. On the other hand, perhaps the Senate's role in confirming ITC commissioners increases the likelihood that Senate oversight will be significant, as this study finds. Moore (1992) also suggests that the longer tenure of Senate members increases the likelihood that Senate Trade subcommittee influence will impact ITC commissioner determinations.

Commissioner-Specific Effects: Estimates from the full model indicate no evidence of biased sunset voting behavior on the part of more than half of the commissioners in the sample (Republicans Askey and Okun, Democrats Hillman and Koplan). Only one commissioner appears biased towards the cancellation of dumping orders (Crawford, a Republican), while Bragg and Miller (a Republican and a Democrat, respectively) seem inclined towards continued protection.

Table V summarizes noteworthy test findings regarding evidence of political influence in sunset reviews and original antidumping cases. Also, in order to estimate the impact of these factors on ITC sunset voting, I present marginal effects for the statistically significant economic and political variables in Table VI.³² Interestingly, the economic variable that seems to produce the largest effect (on the probability that a commissioner will vote affirmatively) is Subject Penetration. The evidence suggests that an increase in subject market share by 1% increases the chance that a commissioner

³² The estimated coefficients from a probit model cannot be interpreted as the predicted change in the dependent variable produced by a marginal change in the independent variable ($\partial y/\partial x$). In order to measure the predicted change in the probability of an affirmative commissioner vote produced by a marginal change in the continuous independent variables or a discrete change in the independent dummy variables, marginal effects are estimated from the full model. Marginal effects are calculated at the selected variable's sample mean, evaluating all other variables at their sample means.

will vote to cancel the order by almost 4%.³³ Thus, not only does this variable have the opposite effect on sunset reviews as it does in original dumping cases, its impact is relatively substantial.

Most striking is the evidence that a domestic industry increases its chances for an affirmative vote by 31% when the subject competitor is Chinese. This strong effect is perhaps unsurprising in light of China's pro-export trade policy, which one World Bank study referred to as "mercantilist".³⁴

Of greater interest, perhaps, is evidence that foreign industries can increase its chances of a favorable commissioner vote by 23% simply through participating in the review process. This marginal effect seems less dramatic given the fact that foreign industries only participated in approximately 46% of the caseload. Clearly, a failure to cooperate with ITC sunset proceedings does not ensure an affirmative determination. However, the low participation rate should cause the ITC to reflect upon its antidumping procedures. Are the questionnaires too difficult to comply with, or have foreign firms simply become pessimistic about their chances of a favorable ruling? If the latter explanation is more accurate, then the following question arises: Is this pessimism due to the belief that the ITC is biased towards protecting U.S. firms, or is it instead because many foreign firms are actually planning to resume injurious dumping and assume that it is not worth the effort to hide such plans? Future research will hopefully provide an answer to this question.³⁵

In regards to the LDC proxy variable, a country's GNP per capita would have to decline \$10,000 in order for the probability of an affirmative vote to increase by approximately four percent.

This is roughly comparable to the difference between India (GNP/Capita of \$470) and Spain

³³ The case mean subject import penetration level, where this marginal effect is calculated, is approximately 2%.

³⁴ See *China: Foreign Trade Reform*, A World Bank Country Study (1994).

³⁵ See Moore (2000) for an analysis of the decision by foreign firms to cooperate with U.S. antidumping investigations.

(GNP/Capita of \$14,120).³⁶ Finally, the marginal effect on the Senate variable indicates that an industry which is located in the home state of a Senate Finance Committee member has an increased chance of maintaining protection by slightly less than three percent.

Since much of the research on ITC voting behavior has not involved commissioner-specific analysis, I present probit results in which the dependent variable is overall ITC determination (see table VII). A major shortfall of this method is the drastic reduction in sample size, and although the estimated coefficients signs are consistent with the results above, many of the variables are no longer statistically significance.³⁷ In fact, the only economic variables in the full model that are still significant at the 5% level are the dumping margin, the subject import penetration level, and the domestic capacity utilization rate. From this perspective, the ITC appears less tied to the congressional statutes when making sunset determinations. Also, the estimated coefficient on the LDC proxy is no longer statistically significant. However, there is still strong evidence that domestic industries facing Chinese competitors or located in states belonging to Senate Finance Committee members receive preferential treatment in sunset reviews. Lastly, the inclusion of political variables leads to a more than 5% increase in correctly predicted results, a substantial improvement compared to the less than 1% gain observed in the commissioner specific analysis. This provides further evidence that the ITC is influenced by factors that are inconsistent with sunset statutory regulations.

³⁶ The case mean GDP/Capita, where this marginal effect is calculated, equals \$14,485.

³⁷ I also run regressions for each commissioner separately, thereby removing the restriction that the independent variables carry equal influence across commissioners. This severely reduces sample size as well. Despite the decreased power of these tests, the predicted signs of the explanatory variables are almost entirely consistent with results reported earlier.

VI. Conclusion

There is overwhelming evidence that ITC commissioners use the congressionally mandated economic criterion when voting on five-year reviews of antidumping orders. This criterion, however, is by no means identical to the injury test that is applied to original antidumping cases. Critical differences stem from the fact that the sunset reviews occur within distorted (protected) markets, while initial investigations arise out of complications associated with free markets. Sunset reviews, therefore, require commissioners to disentangle the effects of antidumping protection from a variety of competitive forces. As a result, certain identical economic factors must be interpreted differently when the context switches from an original case to a sunset review. At times, variables that have an obvious effect during initial investigations become ambiguous within sunset reviews, and reports suggest that even commissioners struggle to evaluate certain key determinants in a consistent fashion. It is not surprising, therefore, that empirical tests applied to sunset reviews produce coefficient estimates that differ (and even change in sign) from estimates found in research on initial investigations. Moreover, variables excluded entirely from models of ITC voting on original dumping cases carry highly significant coefficient estimates in tests of sunset review voting behavior.

There is also some evidence that factors totally inconsistent with the congressional statutes influence ITC sunset determinations. Although the steel industry and industries with higher employment do not receive favorable treatment at the ITC, there appears to be a specific country bias against China and a general bias against industries from poorer nations. Evidence of such biases might shrink, however, with the use of a better proxy variable for foreign dumping capacity.

Finally, there is some evidence that congressional pressure impacts ITC voting behavior in sunset reviews. It's uncertain, however, why Trade subcommittee members from the Senate should be more likely to influence antidumping cases than corresponding members from the House of Representatives.

Comparing the estimated impact of these economic and political variables with those from studies of original antidumping cases is problematic. Differences in modeling and sample size cast doubt on comparisons between, for example, the estimated marginal effect of the Senate Trade subcommittee variable from this paper and those produced by studies of original antidumping cases. Therefore, conclusions cannot be readily drawn regarding the degree to which sunset review determinations rely more heavily on economic versus political variables, in comparison to original case determinations.

What seems certain, however, is that sunset policy does not mean the phasing out of antidumping as a mechanism for U.S. international trade relief. This is evident in the fact that 71% of the cases decided by the ITC led to the continuation of duties. Further research will hopefully shed light on the degree to which sunset review serves as a reform of U.S. antidumping policy.

Table I: Transition Sunset Reviews by Country/Region*

COUNTRY	NUMBER OF CASES	AFFIRMATIVE RATE
East Asia	88	73%
Japan	28	61%
China	26	96%
South Korea	12	67%
Taiwan	14	71%
Singapore	4	25%
Thailand	3	67%
Malaysia	1	100%
South Asia	7	86%
India	5	80%
Pakistan	1	100%
Bangladesh	1	100%
E.U.	51	63%
Canada	11	55%
Central and South America	22	77%
Argentina	4	50%
Brazil	11	91%
Mexico	5	80%
Venezuela	2	50%
Former Soviet Union Countries	20	68%
Other	3	67%
Australia	1	0%
Turkey	2	100%
Total	201	71%

*Does not include “no domestic reply” cases

Table II: Transition Sunset Reviews by NAICS 3-Digit Industry*

NAICS 3-Digit CODE	DESCRIPTION	NUMBER OF CASES	AFFIRMATIVE RATE
212	Mining	3	33%
311	Food Mfg.	7	71%
313	Textile Mills	1	100%
314	Textile Product Mills	4	75%
322	Paper Products	2	100%
325	Chemicals	41	83%
326	Rubber and Plastics	5	20%
327	Non-Metallic Mineral Products	3	100%
331	Primary Metals	69	74%
332	Fabricated Metals	51	61%
333	Machinery (except Computers and Electroi	7	50%
334	Computers and Electroi	6	33%
339	Miscellaneous	3	100%
Total		201	71%

*Does not include “no domestic reply” cases

Table III: Summary of Explanatory Variables

Variable	Name	Predicted Sign
Economic Variables		
(Total world exports of subject country) / (U.S.shipments)	Dumping Capacity	+
Foreign Non-Subject Penetration of the Subject Good	Non-Subject Penetration	-
Foreign Subject Penetration of the Subject Good	Subject Penetration	?
Foreign Participation with ITC case proceedings	Subject Participation	-
%Change in Value of Shipments	Ch_Shipments	-
%Change in Full Capacity Utilization	Ch_Capacity	-
Dumping Margin	Duty	+
Political Variables		
Industry Size (Employment)	Employment	?
Steel Industry Dummy	STEEL	?
China Dummy	CHINA	?
GNP per Capita of subject country	GNP/Capita	?
Number of House trade subcommittee members with Production facility in voting district	House	?
Number of Senate trade subcommittee members with Production facility in voting district	Senate	?

Table IV: Probit Estimates

Dependent Variable: Individual ITC Commissioner Votes on Sunset Reviews

VARIABLE	EXPECTED SIGN	ECONOMIC MODEL	FULL MODEL
Dumping Capacity	+	0.002 (0.005)	0.018** (0.006)
Non-Subject Penetration	-	-0.036** (0.007)	-0.037** (0.007)
Subject Penetration	?	-0.066* (0.028)	-0.109** (0.030)
Subject Participation	-	-0.742** (0.110)	-0.650** (0.119)
Duty	+	0.004** (0.001)	-0.004** (0.001)
Ch_Shipments	-	-0.022 (0.015)	-0.021 (0.019)
Ch_Capacity	-	-0.053** (0.010)	-0.045** (0.014)
Employment	?		-1.48E-06 (1.65E-06)
STEEL	?		0.136 (0.146)
CHINA	?		0.867** (0.233)
GNP/Capita	?		-1.13E-05* (5.39E-06)
HOUSE	?		-0.026 (0.032)
SENATE	?		0.081** (0.029)

White Corrected Standard Errors in parenthesis below coefficient estimates.
* and ** imply significance at the 5% and 1% level.

Table IV: Probit Estimates (con't)

Dependent Variable: Individual ITC Commissioner Votes on Sunset Reviews

VARIABLE	EXPECTED SIGN	ECONOMIC MODEL	FULL MODEL
ASKEY (Republican)	?	0.283 (0.186)	-0.473 (0.327)
BRAGG (Republican)	?	1.686** (0.214)	1.056** (0.337)
CRAWFORD (Republican)	?	-0.255 (0.271)	-1.116** (0.416)
OKUN (Republican)	?	1.242** (0.216)	0.482 (0.345)
HILLMAN (Democrat)	?	1.046** (0.192)	0.372 (0.329)
KOPLAN (Democrat)	?	1.196** (0.195)	0.530 (0.331)
MILLER (Democrat)	?	1.402** (0.206)	0.764* (0.336)
# of Observations		846	846
Log Likelihood		-444.43	-410.09
% Correct Pred		74.82	75.30

White Corrected Standard Errors in parenthesis below coefficient estimates.
* and ** imply significance at the 5% and 1% level.

Table V: Summary of Findings on Political Variables

POLITICAL INFLUENCE	Moore (1992)	DeVault (1993)	Hansen and Prusa (1997)	SUNSET REVIEWS
Country-Specific Effects	No (Japan) Yes (LDC)		No (Japan) Yes (EU)	Yes (China) Yes (LDC)*
Industry Size	Yes	Yes	No	No
Pro-Steel Bias			Yes	No
House Trade Comm	No	No	Yes	No
Senate Trade Comm	Yes	No	No	Yes

*Other specifications that included dummy variables for the E.U. and NICs produced no evidence of biases involving these countries.

Table VI: Marginal Effects of Statistically Significant Probit Estimates *

Estimated Change in Probability of an Affirmative Vote

VARIABLE	Change in Probability
Dumping Capacity	0.64
Non-Subject Penetration	1.33
Subject Penetration	-3.91
Subject Participation	-23.21
Duty	-0.15
Ch_Capacity	-1.62
CHINA	30.97
GNP/Capita	-4.05E-04
SENATE	2.91

*Evaluated at the sample means of variables from the full model.

Table VII: Probit Estimates
Dependent Variable: ITC Determination on Sunset Reviews

VARIABLE	EXPECTED SIGN	ECONOMIC MODEL	FULL MODEL
Constant		-0.028 (0.350)	-1.093 (0.754)
Dumping Capacity	+	0.001 (0.012)	0.022 (0.014)
Non-Subject Penetration	-	-0.011 (0.014)	-0.018 (0.016)
Subject Penetration	?	-0.132 (0.072)	-0.206* (0.085)
Subject Participation	-	-0.203 (0.245)	0.352 (0.277)
Duty	+	0.008* (0.004)	-0.009* (0.004)
Ch_Shipments	-	-0.002 (0.037)	-0.023 (0.042)
Ch_Capacity	-	-0.067** (0.024)	-0.079** (0.030)
Employment	?		-3.27E-06 (3.96E-06)
STEEL	?		-0.168 (0.352)
CHINA	?		1.389* (0.588)
GNP/Capita	?		-2.77E-06 (1.33E-05)
HOUSE	?		-0.128 (0.079)
SENATE	?		0.189** (0.075)
# of Observations		140	140
Log Likelihood		-90.17	-78.70
% Correct Pred		70.00	75.43

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APPENDIX: Data Sources and Additional Discussion of Variables

1. Individual ITC commissioner votes were obtained from U.S. ITC commissioner reports at WWW.USITC.GOV.
2. Changes in 6-digit NAICS industry ‘value of shipments’ and 4-digit SIC industry ‘4th-Quarter full capacity utilization rates’ were obtained from *the Annual Survey of Manufacturers*, U.S. Bureau of Census.
 - Changes in industry shipments and capacity were calculated using 1997 and 1998 data. Commissioner reports indicate that data from the current and previous year are most heavily considered in determining the health of an industry. Therefore, modeling voting behavior on cases initiated after the first half of 1999 might be improved upon by including 1999 data. However, since the entire caseload spans only a one-and-a-half year period, it seemed advantageous to use data from a single time period. Moreover, since certain cases are concluded much more quickly than others, some sunset reviews initiated during 1999 utilized data from only the first or second quarter of 1999 while others used annual 1999 data. Therefore, deciding exactly which cases should include annual 1999 data would perhaps be problematic.
3. The concordance between 4-digit SIC and 6-digit NAICS industry data is offered by the U.S. Bureau of Census.
4. 6-digit NAICS industry employment data for the entire U.S. as well as House and Senate Trade subcommittee voting districts were obtained from *County Business Patterns*, U.S. Bureau of Census.
5. A Senate Trade subcommittee member is considered to have an industry facility in his or her state if there are at least 100 employees in a 6-digit NAICS industry.
A House Trade subcommittee member is considered to have an industry facility in his or her district if there are at least 20 employees in a 6-digit NAICS industry.
 - Since a senator represents the population of an entire state, while a congressperson represents only a portion of a state, it seems reasonable to have different criterion for the Senate and House Trade subcommittee variables. In other words, it’s probably the case that more jobs must be at stake before a Senator is compelled to take action in the interests of an industry, as compared to a Congressperson. Moreover, if the criterion for the ‘Senate’ variable was only 20 workers (as opposed to ‘at least 100 workers’), than almost all 6-digit NAICS sunset industries would be represented by Senate Trade subcommittee members. By using different size criterion, however, the variation of sunset industry representation among House and Senate Trade subcommittee members is allowed to be roughly the same. Results regarding the significance of the Senate variable remain, however, even when the criterion is reduced to the level of 20 workers.
6. Data on (1998) 6-digit NAICS U.S. imports and exports were obtained from the U.S. ITC.
7. Foreign world exports data, except for Taiwan, were obtained from the *Tradestat*, The United Nations.
 - Since most countries do not collect data according to the NAICS classification system, it was necessary to first translate sunset review commodities into HTS (Harmonized Tariff Schedule) form before calculating the foreign dumping capacity proxy variable. Great care was taken by the author to match the 6-digit NAICS sunset industries into 6-digit HTS commodities, which is the level of classification offered by the U.N. for country-specific trade data.
8. Taiwanese world exports data were obtained from *The Center For International Data*, Institute of Government Affairs, directed by Robert Feenstra.
 - Because the U.N. data excludes Taiwan, an additional data source was needed for sunset cases involving Taiwan. Unfortunately, the world trade flows data collected by Feenstra’s Institute of Government Affairs offers data only through 1997. Also, the Taiwanese data is available at the 5-digit SITC level of classification. This meant that the 6-digit NAICS sunset industries had to be matched to 5-digit SITC commodities.

9. Original dumping margin data were obtained from Bruce Blonigen's antidumping web site:
<http://darkwing.uoregon.edu/~bruceb/adpage.html>.
10. Foreign participation data were obtained from ITC commissioner reports at WWW.USITC.GOV.
A more general measure of foreign participation is also tested, in which participation is allowed to include an adequate foreign response to the 'notice of institution of review'. Results are robust to this second measure.