International Agricultural Trade
Research Consortium

U.S. TRADE THREATS: RHETORIC OR WAR?

by

Mylène Kherallah & John Beghin*

Working Paper # 95-7

*Mylène Kherallah is with the World Bank and John Beghin is with North Carolina State University, Department of Agricultural and Resource Economics.

We thank workshop participants at UC Davis, NC State University, Stanford University and participants at the 1994 International Agricultural Trade Consortium meetings. Special thanks to David Dickey, Barry Goodwin, Tom Grennes, Ann McDermed and Dan Sumner.

Correspondence or requests for additional copies of this paper should be addressed to:

John Beghin
Department of Agricultural and Resource Economics
North Carolina State University
Box 8110
Raleigh, NC 27695

August 1995

INTRODUCTION

U.S. trade law Section 301 enables the United States to extract unilateral concessions from its trading partners by threatening trade retaliation if the targeted countries fail to open their markets to American exports. Use of managed trade practices such as Section 301 is not likely to subside in the near future, especially if the United States trade deficit continues to rise and the Uruguay round agreement does not lead to significant foreign market opening for the United States. The new trade strategy of the United States is focusing on a "results-oriented" approach where progress in trade can be "numerically quantified". Recent negotiations related to the Japanese automobile industry are a striking example of this trend.

Although Section 301 of the 1974 Trade Act gave the President power to combat foreign trade practices, retaliatory measures were rarely ever taken. The growing U.S. trade deficit, especially with Japan, prompted Congress to work on a new trade bill to respond more aggressively to discriminatory policies toward the United States, and to leave the executive branch with less flexibility in conducting foreign trade policy. The most recent amendments to the 301 legislation are now part of Sections 301 to 310 in the Omnibus Trade and Competitiveness Act of 1988, and include the Super 301 and Special 301 provisions.[1] The 1988 amendments were the result of Congress' rising frustration with the administration's passive stand against unfair trading practices and the General Agreement on Tariffs and Trade's (GATT's) limited effectiveness in quickly resolving trade dispute matters (Milner, Maskus, Destler). The most aggressive piece of the legislation is Super 301. Super 301 requires that the U.S. Trade Representative (USTR) regularly provide a list of offending countries and their

[1] Unless otherwise noted, Section 301 in general refers to the entire legislation, including its new amendments and provisions.

unreasonable trade practices. The USTR has to set deadlines for the elimination of these practices and a prescription for retaliatory measures if the countries fail to comply. The Special 301 provision, on the other hand, targets those countries that fail to provide adequate protection of intellectual property rights for American goods.

This resurgence of managed trade practices is worrisome because it may increase trade frictions, especially if other nations follow the U.S. example and enact similar legislation. A famous example involves the threat of trade war between the United States and the European Union (EU) because of France's resistance to lower oilseed subsidies, as demanded by the USTR. The USTR negotiated with the EU under the GATT following an industry complaint under Section 301 in 1987. The dispute stalled the Uruguay round for almost a year and involved U.S. punitive threats of 200% import tariffs on EU food products. Finally in 1992, agreement was reached --mainly because of France's inability to veto the EU's decision to accept a 21% reduction in the volume of subsidized grains. Another danger with unilateralism such as Section 301 is that it is an alternative way to resolve trade disputes to the dispute settlement mechanism provided by the World Trade Organization (WTO). If effective, unilateralism could be perceived as a shortcut and substitute for "global" institutions such as the WTO, and it could undermine them and their free trade mandate (Staiger).

This paper presents an empirical analysis of the determinants of countries' concessionary or tough attitudes and the likelihood of trade war under Section 301. It attempts to quantify and clarify some of the debate regarding U.S. trade management practices and their potential effectiveness (or lack of). The empirical analysis uses Crawford's disagreement theory to classify Section 301 outcomes into four categories that distinguish between trade war,

compromise, compliance by the foreign country, and backing down from the United States. A system of two probit equations is estimated using historical data on Section 301 cases. The estimation provides estimates of the likelihood of each country standing firm and the subsequent probability of trade war. In the United States, policymakers are more likely to stand firm for cases initiated by Democratic administrations (the President or the USTR) and when the U.S. share in the world market is declining and less dependent on the targeted country's market. Foreign policymakers are more likely to stand firm in election years, and when the negotiations relate to highly protected and unionized industries. All these factors increase the likelihood of trade war. It also appears that Section 301 increases the likelihood of trade war for cases where trade liberalization may yield large welfare gains (highly protected and well organized foreign industries) and hence, this trade management practice contradicts the intent of the policy objective.

Several papers have addressed the implications of Section 301 (e.g., Bhagwati 1990a, b; Bayard and Elliott). The investigation by Bayard and Elliott is the most relevant to our study. They provide a single-equation prediction of the likelihood of a successful foreign market based on U.S. economic variables. While informative, the latter study lumps radically different strategic choices (standing firm or backing down) into the same outcome category (successful/unsuccessful opening), which, in turn, does not explain how trade wars arise. Further, treating the probability of successfully opening foreign markets as being independent of the environment in the foreign country may lead to a biased response of the success rate of Section 301. The contribution and distinctive feature of our study is to look at both the foreign country's and the U.S. political and market conditions to determine the countries' bargaining

decisions leading to four possible outcomes, one of which is trade war.

A final insight: the empirical game-theoretic literature on trade negotiations is scarce and focuses on quantifying successful negotiations with axiomatic approaches assuming efficiency and complete information (Chan, Baldwin and Clarke). This literature is mute on the more intriguing question of inefficient outcomes which our paper addresses extensively.

MODELLING THE TRADE NEGOTIATIONS UNDER SECTION 301

The legislative procedure of Section 301 starts when a specific U.S. industry, firm or association files a petition with the USTR alleging that a foreign industry or country is discriminating against U.S. exports. The USTR then initiates an investigation and holds public hearings. Recently, however, the USTR has been self-initiating investigations regarding the practices of foreign industries or countries that restrict U.S. exports. If the investigations lead the USTR to believe that the foreign country's practices impose an undue burden on U.S. commerce, then bilateral or GATT negotiations are held with the targeted foreign industry or country. If negotiations succeed, an agreement or compromise is reached, ending the petition. If negotiations fail, the USTR has the authority (since 1988), "subject to the specific direction, if any, of the President", to retaliate against the offending country by raising U.S. tariffs (Bhagwati 1990b, Office of the USTR).

Trade negotiations under Section 301 can be stylized into a two-step game à la Crawford. In Crawford, the bargaining problem is an attempt by each player to commit himself to a favorable bargaining position. Committing to a specific demand is advantageous in the sense that a player who attempts commitment signals to increase the credibility of his demand and may induce his opponent to give in. The benefit of this action is traded off by a positive probability

of disagreement. With uncertain but sometimes irreversible commitment, when players do not know if they will back down later in the game depending on the actual cost of backing down, committing to an incompatible demand and thereby risking a break-down in negotiations is a rational strategy (Crawford).

We assume that under Section 301 bargaining occurs in two stages and the players' moves are simultaneous. In the first stage, the United States attempts a commitment by demanding trade concessions from the targeted foreign country. Simultaneously, the foreign trade negotiators attempt commitment by demanding a minimum level of trade barriers on U.S. imports. Once these demands are made, it is assumed to be politically costly to back down from these demands because of loss of domestic political support and of reputation as a tough trade partner. In the second stage, the United States learns its own costs of backing down and the demands of the foreign country, and then decides whether to stick to its demand or back down from it. The foreign country proceeds similarly. The important assumption here is that neither player knows his opponent's costs of backing down. This asymmetric assumption rests on the belief that each country has more information on its own political costs of backing down than on its opponent's compliance costs (McMillan).

The perfect Bayesian Nash equilibrium solution to the game implies that empty threats are ruled out and expected payoffs are computed using Bayesian probabilities. The probability of impasse is therefore determined endogenously and depends on the parameters of the model. The Bayesian equilibrium solution always involves both players attempting commitment to some position, a dominant strategy. The positions taken, however, can be either compatible or not and depending on the parameters of the model, the equilibrium solutions can either result in a

compromise agreement or no agreement at all, an inefficient outcome. If both the United States and its trade partner commit to incompatible demands and do not back down from their positions, then the outcome is one of disagreement. If the commitment demands are compatible, then they reach a compromise solution where each player receives at least what he demanded. If only one country has achieved a successful commitment, the efficient outcome is one in which it receives its demand, while if both countries back down from their demands, then the compromise outcome is reached that is assumed to be on the payoff frontier.

Define the disagreement's welfare outcomes by w^1 and w^2, where 1 stands for the United States and 2 represents the foreign country. Figure 1 shows the different welfare level possibilities for both countries in utility space. The highest feasible welfare levels are denoted by $\bar{w}^1$ and $\bar{w}^2$. The contract zone includes the pairs (w^1,w^2) such that $\underline{w}^1 \leq w^1 \leq \bar{w}^1$ and $\underline{w}^2 \leq w^2 \leq \bar{w}^2$ with the $\underline{w}^i$'s denoting the conflict payoffs. It is assumed that the boundary of the contract zone is strictly downward sloping and differentiable so that $w^2=\phi(w^1)$ and $w^1=\Psi(w^2)$ and $\Psi=\phi^{-1}$. If both bargainers back down and reach a compromise the outcome is $(\tilde{w}^1,\tilde{w}^2)$ such that $\underline{w} \leq \tilde{w} \leq \bar{w}$ for both 1 and 2. If bargainers achieve commitment to compatible positions $(\hat{w}^1,\hat{w}^2)$, the outcome (w^1,w^2) is such that $w^1 \geq \hat{w}^1$ and $w^2 \geq \hat{w}^2$. Finally, if the United States alone stands firm to its position $\hat{w}^1$, then the outcome is $(\hat{w}^1,\phi(\hat{w}^1))$. Appendix figure 1 shows the game in the extensive form.

Under Section 301, both players presumably have attempted commitment to incompatible positions in the first stage $(\hat{w}^1,\hat{w}^2)$, otherwise the procedure would not be invoked. In the second stage, the decision then is whether to stand firm to their demands or back down. This choice will depend mainly on the costs of backing down. The optimal rule is such that if the costs of

backing down are below a certain cut-off level d^i, then player i will back down. If the costs of backing down $c^i \geq d^i$, then player i will stand firm. In stage 1, each policymaker assigns a continuous probability distribution to the potential costs of backing down in the second stage. The distribution function is denoted by $F^i(c^i)$, which is equal to $P(c \leq c^i)$. Therefore $F^i(d^i) = P(c^i \leq d^i)$ is the probability of backing down, while $(1-F^i(d^i))$ is the probability of standing firm to one's position, which is assumed independent of the bargainers' position. When demands are incompatible and retaliatory threats are invoked, the first policymaker's expected payoff is:

$$EW^1(d^1,d^2) = F^1(d^1)[F^2(d^2)\tilde{w}^1 + (1-F^2(d^2))\Psi(\hat{w}^2)] + [1-F^1(d^1)][F^2(d^2)\hat{w}^1 + (1-F^2(d^2))\underline{w}^1] - \int_0^{d^1} c^1 f^1(c^1)dc^1, \quad (1)$$

where f^1 is the density function associated with F^1. The foreign policymaker's expected payoffs are derived in a similar fashion. Each term on the right-hand side of (1) represents one of the four payoffs that country 1 can receive multiplied by the probability of occurrence of that outcome. These four outcomes are the four combinations resulting from each country backing down or standing firm and facing the opposing country's similar choices. The last term on the right-hand side represents the expected costs of backing down.

In stage 2, the policymakers choose the cut-off level of costs d^i that maximizes their expected welfare. The first order condition to maximize $EW^1(d^1,d^2)$ with respect to d^1 yields:

$$EW^1_1(d^1,d^2) \equiv f^1(d^1)[F^2(d^2)(\tilde{w}^1-\hat{w}^1) + (1-F^2(d^2))(\Psi(\hat{w}^2)-\underline{w}^1) - d^1] = 0, \quad (2)$$

which holds for $f^1(d^1) > 0$ and $d^1 \in [0, \bar{w}^1-\underline{w}^1]$ and where subscripts indicate derivatives. The second order condition $EW^1_{11}(d^1,d^2) = -f^1(d^1) < 0$ implies that EW^1 is strictly quasi-concave, which insures the existence of a pure-strategy Nash equilibrium in the second stage.

When conducting foreign trade policy, negotiators are influenced by domestic political pressure groups that lobby for a specific trade regulation (Grossman and Helpman, Feenstra and Lewis). Policymakers maximize a political preference function that weighs the welfare of various interest groups according to their relative bargaining strengths (Becker, Zusman). The payoffs, w^i, represent the countries' political preference functions, which include the welfare of consumers, producers and the government's objective function (Rausser and Freebairn). Therefore we express w^1 and w^2 as:

$$w^1 = w^1(u_c^1, u_p^1, u_g^1) \text{ and } w^2 = w^2(u_c^2, u_p^2, u_g^2) .$$

In the United States and the foreign country, u_c^i could be measured by the equivalent or the compensating variation obtained from consuming foreign imported goods. u_p^i could be represented by the profit functions of three types of domestic producers, which may have competing interests. The three types of producers are a) producers exporting products to the foreign country, b) producers competing with the foreign country's imports, and c) producers importing inputs from the foreign country. The government's welfare function u_g^i is set equal to the tariff revenues generated from imports minus the political costs of backing down. Similar reasoning applies to EW^2 for the foreign country.

The welfare levels for the three other outcomes also depend on the associated tariff levels in each case:

$$\tilde{w}^i = w^i(u_c^i(\bar{s},\bar{t}), u_p^i(\bar{s},\bar{t}), u_g^i(\bar{s},\bar{t})),\ \hat{w}^i = w^i(u_c^i(\hat{s},\hat{t}), u_p^i(\hat{s},\hat{t}), u_g^i(\hat{s},\hat{t}))\ ,\ \underline{w}^i = w^i(u_c^i(\underline{s},\underline{t}), u_p^i(\underline{s},\underline{t}), u_g^i(\underline{s},\underline{t}),$$

$$\phi(\hat{w}^1) = (u_c^2(\hat{s},t(\hat{s})), u_p^2(\hat{s},t(\hat{s})), u_g^2(\hat{s},t(\hat{s}))),\ \psi(\hat{w}^2) = (u_c^1(s(\hat{t}),\hat{t}), u_p^1(s(\hat{t}),\hat{t}), u_g^1(s(\hat{t}),\hat{t})),$$

where the $\underline{w}^i$'s are the Nash non-cooperative outcomes; the $\tilde{w}$'s are the compromise solution

payoffs, and the $\hat{w}$'s are the payoffs when one country obtains its demand while the other country gives in to get $\phi(\hat{w}^1)$ or $\Psi(\hat{w}^2)$.

To relate the probability of both policymakers standing firm, $(1-F^1)(1-F^2)$, with the parameters of the model, four sets of shifters are considered: shifts in the probability distributions denoted by α^i, changes in the conflict payoffs $\underline{w}^i$, changes in trade barriers s and t, and changes in the transformation frontier (ϕ or Ψ) denoted by B. Defining α^1 and α^2 as positive shifts in the probability of a successful commitment, $(1-F^1)$ and $(1-F^2)$ respectively, we can rewrite $(1-F^1)(1-F^2)$ as $(1-F^1(d^1,\alpha^1))(1-F^2(d^2,\alpha^2))$. Comparative statics can be derived from the model by differentiating each expected welfare function $EW^i(d^1,d^2)$ with respect to d^i. The two resulting first order conditions are then each differentiated with respect to d^1, d^2, α^1, α^2, the w^1's and w^2's and their associated tariff levels s and t, and shifts in the frontier, B. Combining the two differentiated equations, we obtain the total effects of the α's, the w's, s and t, and B on d^1 and d^2. From these equations, we can finally derive the total impact of each parameter on the probability of a break-down in negotiations $(1-F^1)(1-F^2)$:

$$\frac{d(1-F^1)(1-F^2)}{dk^i} = -(1-F^2)(f^1)\frac{dd^1}{dk^i} - (1-F^1)(f^2)\frac{dd^2}{dk^i} \ ,$$

with $k^i = \underline{w}^i$, B, s, or t, and (3)

$$\frac{d(1-F^1)(1-F^2)}{d\alpha^1} = -(1-F^2)[(f^1)\frac{dd^1}{d\alpha^1} - \frac{\partial(1-F^1)}{\partial\alpha^1}] - (1-F^1)(f^2)\frac{dd^2}{d\alpha^1} \ ,$$

$$\frac{d(1-F^1)(1-F^2)}{d\alpha^2} = -(1-F^2)(f^1)\frac{dd^1}{d\alpha^2} - (1-F^1)[(f^2)\frac{dd^2}{d\alpha^2} - \frac{\partial(1-F^2)}{\partial\alpha^2}] \ .$$

We would like to use system (3) to explain how the probability of a break-down in negotiations, $(1-F^1)(1-F^2)$, changes with changes in fundamental parameters and exogenous variables k^i.

Signing the direction of these changes, however, requires much restrictive and simplifying structure (Crawford; Kherallah). The only terms that can be reasonably signed are the "own-shifters" effects (e.g., $dd^i/d\alpha^i$), which are negative, and the strategic interaction effects ($dd^j/d\alpha^i$), which are positive. However, the total effect on the probability of impasse remains ambiguous.

Next, we map the parameters of the model with the relevant political and economic variables. The costs of backing down to the opponent's demand involve mainly the loss of domestic political support. These political costs should rise the closer a country is to an election year, the greater the extent of domestic lobbying from exporting industries, and the deeper the anti-U.S. sentiment in the targeted country. Bayard and Elliott have suggested that making the threat more public and explicit, such as when the USTR self-initiated Section 301 cases after 1984, increases the U.S. costs of backing down. These political factors create a positive shift in the probability of successful commitment ($1-F^i$) and therefore are represented by α^i. As these political costs increase, the probability of standing firm also increases, but since the total effect of α^i on the likelihood of disagreement is ambiguous, it must be empirically determined.

On the other hand, the larger the disagreement position, $\underline{w}^i$, of a country, the more likely it will stand firm to its demand, since a larger fallback payoff increases its bargaining power. The disagreement outcome normally is largely dependent on the trade relation between the targeted country and the United States. For example, we would expect a country that is heavily dependent on its export sales to the United States to have an incentive to comply with U.S. demands because its fallback utility will decline significantly if no agreement is reached and the United States imposes punitive tariffs. This factor can be measured empirically by the ratio of a country's exports to the United States to its total exports. The ratio is expected to be

negatively correlated with $\underline{w}^i$, but its effect on the probability of impasse is ambiguous. The same effect also applies for the United States. If a large share of U.S. exports goes to the targeted country, then the U.S. fallback position if no agreement is reached will also decline, significantly decreasing its probability of standing firm.

The trade barriers, s and t, are expressed in tariff equivalence. The shifts in the frontier Ψ reflect changes in aggregate payoff possibilities due to exogenous shocks that shrink or expand the "world pie". The exogenous shocks include such things as ongoing GATT negotiations, world recession or market conditions, and the declining U.S. share of world markets.

It is also possible to estimate the effects of the bargaining strength of political pressure groups on the probability of impasse. Industries with more political clout are more likely to obtain trade outcomes in their favor because of their abilities to affect negotiators' decisions. This power is usually positively associated with the concentration level in the industry (Olson), the loss of competitive advantage, and the type of industry. The type of political regime or political rights in each country are also important institutional settings that determine the ability of pressure groups to influence policy decisions.

The choice of industry to target in the foreign country may not be random. In other words, there may be a bias in the specific industry selected for a Section 301 case creating a selection bias problem. However, given that information is not readily available on those industries and countries that are not targeted by the United States, we have to qualify the issue of this study which is: Given that a specific foreign industry has been targeted for Section 301, what is the likelihood that a trade war will break-out?

EMPIRICAL MODEL AND ESTIMATION PROCEDURE

The tough or concessionary attitudes of the United States and the targeted foreign country lead to four possible outcomes: both countries back down; the United States stands firm and the foreign country backs down; the United States backs down and the foreign country stands firm; both countries stand firm. The associated probabilities are F^1F^2; $(1-F^1)F^2$; $F^1(1-F^2)$; and $(1-F^1)(1-F^2)$. To estimate the probabilities of these four outcomes and determine the impact of the various exogenous variables on these probabilities, we follow the probit approach. The choice of backing down or standing firm is determined by whether the costs of backing down, c^i, are smaller or larger than the cut-off levels of costs d^i; i.e., $P(c^i > d^i) = (1-F^i)$. The difference between c^i and d^i is a latent variable that depends on the various political and economic factors discussed above. Define $c^i - d^i = y_i^* = \beta_i' X_i + \epsilon_i$, where ϵ_i is the error term, x_i is the matrix of exogenous variables, and $\beta_i' x_i$ is the index function. Actual data indicate whether the country backs down or stands firm. Therefore, we assign a binary variable y_i for the two outcomes: $y_i = 1$ if $y_i^* > 0$, and $y_i = 0$ if $y_i^* \leq 0$. Variable y_i is observable and is equal to 1 when country i stands firm and 0 otherwise. The probability of occurrence of $y_i = 1$ is equal to $(1-F^i)$ and can now be estimated using the probit approach by assuming that the error terms ϵ_i have a standard normal distribution. In summary, we have two probit models --one for the United States and one for the targeted countries-- of the form $(1-F^i) = Prob(y_i = 1) = \Phi(\beta' x_i)$, for i=1, 2.

Based on the political and the economic variables discussed in previous Section, we consider the following specifications:

$$1\text{-}F^1 = \Phi(ELECT1, DPIUS, SELF, EXPSU, S, T, OECDGDP, COMP1, USHR1, GATT, CONC1, TYPE, PS),$$
and
$$1\text{-}F^2 = \Phi(ELECT2, DPIF, ANTIUS, EXPSF, S, T, OECDGDP, COMP2, GATT, CONC2, TYPE, PR); \quad (4)$$

where $(1-F^i)$ is the probability of standing firm that ranges from 0 to 1 ($i=1$ for the United States and $i=2$ for the foreign country). For the United States, the dummy representing an election year (ELECT1) is equal to 1 if within that year a presidential election is held. The election year in the foreign country (ELECT2) is equal to 1 if there is any type of election held within that year, including parliamentary or presidential elections. The domestic political influence in the United States, DPIUS, is measured using two types of proxies: the amount of PAC expenditures from each firm, or organization directly affected by the Section 301 case (PACEXP), and the employment size of each industry involved as a share of total employment (EMPUS). The extent of political influence by domestic industries in the foreign country (DPIF) is also approximated by the relative employment size of that industry in the country, EMPFC. The predicted sign of this variable is ambiguous because we expect industries with small labor forces to be more efficient in influencing politicians because of lower costs of organization. On the other hand, larger industries may have more at stake and broader support and therefore policymakers may be more responsive to their plights.

A dummy variable, SELF, differentiates those cases that are self-initiated by the USTR or the President from those initiated by industries. To proxy the degree of anti-U.S. feeling in the foreign country (ANTIUS), we use the size of the socialist/communist party relative to the total population in the foreign country (COMMIES), and the percentage of votes won by leftist parties at the last election, (VOTELEFT). The export share of the United States towards the foreign country (EXPSU) is defined as the ratio of the total value of U.S. exports to the foreign country over the total value of U.S. exports to the Rest of the World. Similarly, the export share of the foreign country towards the United States (EXPSF) is equal to that country's total

value of exports to the United States over its value of total exports to the Rest of the World.

For trade barriers, S and T, it is difficult to find adequate tariff-equivalent measures, since many cases involve nontariff barriers such as custom regulations, import licenses, health and technical regulations and intellectual property right infringements. To circumvent this problem, we classify the magnitude of the U.S. and foreign country's tariff-equivalent rates of non-tariff barriers into low, medium or high levels (USSL, USSM, and USSH for the United States, and FCTL, FCTM, and FCTH for the foreign country). The classification is based on various sources of information regarding the trade protection measures of several countries and their products.[2] In addition to qualitative measures on the levels of trade restrictions resulting from Section 301, binary variables are also used to estimate the impact of different types of barriers on the likelihood of backing down or standing firm. These binary variables distinguish between price control measures (PCONT), quotas and quantitative restrictions (QUOTA), and administrative or legal barriers (ADMIN).

The annual average GDP growth rate of all OECD countries (OECDGDP) is used to capture the world recession. To measure the relative product competitiveness of a country in the world, we compute revealed comparative advantage indices (COMP1 and COMP2, for the United States and the foreign country, respectively). The higher the value of the index, the more trade- competitive is that country relative to other foreign countries for that commodity.

The U.S. share in world markets (USHR1) is calculated as the ratio of total U.S. exports of the specific Section 301 targeted product over total world exports of the same product. The

---

2. Among these are the *National Trade Estimate Report on Foreign Trade Barriers* from the UTSR's office, which publishes an annual list of all the trade barriers erected by foreign countries on U.S. exports. The USTR's office also admits that in several of these cases, only a qualitative judgement can be given as to the extent of restriction imposed by several trade protection measures.

GATT dummy is set to 1 when a case is negotiated under the GATT. The concentration ratios in the United States (CR4) are the four-firm industry concentration ratios.

In addition to the four-firm concentration ratios, the intensity of union membership measures the relative degree of that industry's power in influencing trade policy. For the United States, the percentage of union membership is at the detailed industry level (USUNS). For foreign countries, the total percentage of organized labor (FCORG) is used as a proxy for overall industry strength because of lack of data, especially for developing economies. The types of industries involved in each 301 case (TYPE) are distinguished by two dummy variables, one for agriculture (AGIND) and one for manufacturing (MANIND). The intercept includes all other industry cases (services, transport, intellectual property rights).

The political rights variable (PR) in the foreign country is measured by an index developed by Freedom House to proxy the degree of political freedom to organize, vote, and elect representatives. The index is an ordinal measure that ranges from 1 to 7 with 1 representing a fully competitive electoral process and 7 representing political despotism. Finally, the PS dummy is assigned a value of one if the U.S. President is a Republican and zero if he is a Democrat. The definitions, proxies and sources for the exogenous variables listed in system (4) are summarized in Appendix Table 1. Once the two probit models described above are estimated, the impact of the selected continuous explanatory variables on the likelihood of disagreement $(1-F^1)(1-F^2)$ can be derived with standard procedures (see Kherallah for details).

RESULTS

The data used for this empirical analysis include all Section 301 cases filed with the USTR from 1975 to 1992. The cases are tabulated by the office of the USTR. Each case is

assigned a unique number and included are a short description of the country and the products targeted, the source of the complaint, the type of trade barrier involved and the outcome of the negotiations. Super 301 cases and Special 301 cases are included in the sample and are not distinguished from the rest of the cases, because once filed they are processed in the same manner as any other Section 301 case. From 1975 to 1992, ninety-two cases had been filed under Section 301 and its amendments. The last two cases were not determined by the end of 1993 and therefore are not included in the sample. Seven other cases either have been dismissed by the USTR or withdrawn by the petitioner. Therefore, a total of nine cases are excluded from the sample.

Of the 83 approved 301 cases, 6 are filed under Super 301, 4 are filed under Special 301, and 13 other cases are self-initiated by the President or the USTR. Forty-two cases are in agriculture (both raw and processed agricultural goods), 26 in non-agricultural manufacturing and 7 in services. The most targeted areas are the EU, followed by Japan, South Korea, Canada and Brazil. All but one of the cases involving the EU target their agricultural sector policies. The break-down of these cases into targeted countries and industries is presented in Appendix Table 2. Thirty-one percent of the cases result in both countries backing down, while only 20 percent lead to retaliation at least for a short period of time. The United States is most successful in Section 301 cases involving Korea and Taiwan, while the EU and Canada are relatively harder to bargain with. Surprisingly, Japan seems to respond more favorably to U.S. demands than some political opinions have led us to believe.

Classification of the actual cases into the four possible outcomes (each country can either stand firm or back down) is shown in Appendix Table 2 at the aggregated level. In some cases,

the final outcome of the negotiations is not clear and therefore there is some subjectivity in determining the decisions taken by both countries (see Kherallah for more details).[3]

To measure the effects of the different proxies and show how robust the results are, we carry a simplified extreme bound analysis (Leamer). In Table 1 we present the results of one "preferred" specification and discuss predictive performance and robustness of results.[4] Table 1 shows the marginal effects (not the coefficients) of each exogenous variable. This marginal effect is the change in the probability of standing firm due to a marginal change in the exogenous variable. The results from estimating the first probit equation in system (4) for the United States are presented in the first column of Table 1. The equation predicts 87% of the cases correctly. The model also predicts that the United States stands firm approximately 46% of the time, which is very close to the actual value of 47%. The log-likelihood ratio tests indicate a good fit and show that the set of explanatory variables is helpful in predicting the outcome of Section 301 cases.

The presidential election dummy (ELECT1) is not significant. Elections do not seem to toughen the stand of the U.S. administration against its trade partners beyond rhetoric. When ELECT1 is dropped from the model, there are no changes in the predictive ability of the probit equation or in the sign and significance of the remaining coefficients. Among the political variables, PACEXP (the value of PAC contributions by the concerned industries) is negative and

---

[3]The few studies that examine Section 301 on a case-by-case basis diverge in their classifications of the final outcomes. Low finds that of 77 cases from 1975 to 1990, only a third led to market opening, while 10 percent of the cases result in trade retaliation. Finger and Fung, on the other hand, determine that 22 percent of 82 cases examined create more trade restrictions and 62 percent are trade liberalizing.

[4] We test the hypothesis that the two equations in system (4) are independent. We cannot reject their independence. We also test the hypothesis that the error terms are homoskedastic. We fail to reject the homoskedasticity assumption.

significant in most specifications, which is somewhat against conventional wisdom. Greater lobbying efforts appear to pressure the USTR to be more flexible and to try harder to reach an agreement rather than stand firm and risk a trade war. A recent analysis by Oxford Analytica (OADB 1994a) on the U.S.-Japanese trade relations corroborates this result and interpretation. An alternative explanation is that the USTR actually is pressured through PAC contributions to take on cases that have low likelihoods of success resulting in a negative correlation between a tough U.S. attitude and political lobbying.[5] A note of caution: this result is sensitive to the exclusion of tariff dummies representing S and T. The relative employment size of the industry, EMPUS, is used alternatively to measure the political costs of backing down. The variable is not significant, which fails to support the hypothesis that smaller-sized industries are more successful in generating political pressure.

Unlike in Bayard and Elliott's study, the self-initiation (SELF) dummy has a positive and significant impact on the U.S. likelihood of standing firm. This indicates that making more credible public threats with a specific timetable for action enhances the commitment process of the United States and increases its costs of backing down. The estimations show that this effect is robust and add 0.27 points to the probability of standing firm compared to private industry initiation.[6]

The economic variable that approximates the welfare loss from a potential trade war is the U.S. export share in the foreign market (EXPSU). The export share variable has a

---

[5]We thank Dan Sumner for suggesting this last explanation.

[6]These results suggest that legislative instruments such as Super 301 and Special 301 increase the reputation of the United States as a tough trade partner and therefore the United States is less likely to back down in these cases.

significant negative impact on the probability of standing firm. This result is robust across the various specifications and indicates that the greater the export dependence of the United States on the targeted country's market, the less likely it will take a strong bargaining position because there is too much at stake in case of a trade war. A marginal increase in the export share leads to a decrease of 0.14 points in the probability of standing firm.

Both dummies for low tariff rates in the United States and the foreign country are marginally significant but have opposite effects on the U.S. trade position. If U.S. trade barriers on a specific product are low, then the probability of the United States standing firm is lower by a margin of 0.0052 compared to if there are medium-level tariffs. The U.S. is not as keen to stand tough and support industries with low trade barriers as opposed to industries that are more highly protected. The United States follows a pattern of shielding already-protected industries from any further market opening. On the other hand, if the foreign trade barrier is low, the United States is more likely to stand firm by 0.14 points because it feels it can extract more concessions from those foreign industries that are lightly protected. Higher levels of trade barriers, however, do not seem to exacerbate either of these effects. Only moving from a low to a medium threshold of trade restrictions causes this difference in the likelihood of standing firm.

The OECDGDP variable, one of the three proxies for the world/international environment, is not significant. Changes in revealed comparative advantages in the United States (COMP1), the second proxy, are not associated with any sizable changes in the likelihood of standing firm: industries petitioning for 301 tend have large degrees of comparative advantage and are mainly attempting to open more protected foreign markets to their products. The third

variable in this series is the U.S. export share in the world market (USHR1). The sign and the robustness of this variable across the specifications demonstrate that in cases where the United States has a relatively smaller share of the world export market, its likelihood of standing firm is higher by 0.097 points.

On the other hand, whether a case is negotiated under the GATT does not create a significant difference in the likelihood of standing firm. This result is consistent with that of Bayard and Elliott who find that this variable has no influence on successful openings. The domestic industries' power to influence Section 301 outcomes shows some mixed results. The four-firm concentration ratio (CR4) is insignificant both alone or together with USUNS in the regression. This finding is either an indication of the failure of this measure to capture how well an industry is organized or a sign that in highly concentrated industries, the largest firms filing for Section 301 do so even at low likelihoods of success because they capture a large share of the benefits in case of a successful outcome. The coefficient of the union membership intensity variable (USUNS) is not robust. When significant, however, it has the predicted sign, indicating that union intensity increases the likelihood that the United States will stand firm.

In contrast to the results of Bayard and Elliott, the distinction between the different types of trade barriers is not significant.[7] On the other hand, our findings suggest that both agricultural and manufacturing cases increase the likelihood of the United States standing firm compared to services and other industries, and IPR cases. The difference in the likelihood of standing firm is 0.77 for agriculture and 0.90 for manufacturing.

Finally, whether the U.S. President is Democratic or Republican influences the

[7] Their type of trade barrier dummies are slightly different than ours. They lump quotas and tariffs together, whereas we separate them into two different categories.

bargaining trade stance of the United States. The negative and significant effect of the PS dummy on the likelihood of standing firm suggests that Republicans are more likely than Democrats to back down and try to reach a compromise solution. Although the frequency of 301 cases has been approximately the same under Democratic and Republican administrations (roughly five cases per year), Democrats exhibit a tougher stance in managed trade. The recent firm demand on the Japanese car industry by the Clinton administration is a good out-of-sample check on our model.

The second column in Table 1 presents the results of the probit estimation of (4) for the foreign countries. The model predicts 77% of the outcomes correctly. Foreign countries are predicted to stand firm around 41% of the time, which is very close to the real number of times they do stand firm (42%). The likelihood ratio test is significant across specifications, indicating that the combination of exogenous variables has good explanatory power.

In contrast to the results of the U.S. probit model, election years in the foreign countries (ELECT2) have a positive and significant impact on foreign countries' probability of standing firm. For pluralistic countries an election year clearly increases the political cost of backing down in terms of loss of votes or Congressional support. For one party states such as China, this argument is less compelling.

The other variable approximating the political costs of backing down in the foreign countries is the relative employment size of the industry, EMPFC. EMPFC shows a significantly negative and robust marginal impact on the probability of standing firm. When smaller well-organized industries are involved, the political costs of backing down are larger. Industries with large labor forces may find it harder to organize because of the well-known free-

rider problem (Olson). In addition, larger industries have more to lose from a trade war and therefore pressure their trade representatives to be more flexible and accept an agreement to prevent a break-down in negotiations and consequent retaliation. The magnitude of the marginal effect is equal to 0.42.

Two alternative variables are used to measure the degree of anti-U.S. feeling in the foreign countries. The proportion of the population that belongs to a communist party (COMMIES) and the proportion of votes that leftist parties have won in the latest election (VOTELEFT) were both insignificant when used interchangeably in the specifications (VOTELEFT not shown).

The economic stakes variable, EXPSF, which is the share of foreign exports towards the U.S. is not significant. This result is surprising. The data suggest that countries such as South Korea and Taiwan that are heavily dependent on the United States for their exports generally have accepted U.S. demands for market opening.[8] This result may reflect the fact that other countries such as Canada and Brazil, which also have a large volume of trade with the United States, have not been as cooperative.

The tariff-level dummies USSL, USSH, and FCTL are non-significant. Only a high tariff rate in the foreign country is associated with a higher likelihood of standing firm by 0.19 points. Again, this is interpreted as a sign that heavily protected industries pressure their governments not to change their protectionist policies and to maintain the existing structure of trade barriers against competing imports. None of the world environment variables, OECDGDP, COMP2 or GATT are significant, at least not in a robust manner.

---

[8] Yoon-Je indicates that the most important bargaining leverage the United States used to open Korea's insurance market was the country's large volume of exports to the United States.

The intensity of labor organization in the foreign country, FCORG, is significant and positive. Labor unions, especially those in Europe and Japan, are politically powerful and are well known to have much influence on their governments' foreign trade policy. This suggests that the greater the intensity of union membership in any one country, the more likely that the country will stand firm to U.S. demands.

Contrary to the results of the U.S. probit model, the dummies differentiating the type of economic sectors involved are not important, while the trade barrier dummies are significant. The effects of the administrative and price restrictions are positive, suggesting that relative to qualitative measures, both types of trade measures are more likely to lead to a higher probability of standing firm. In our classification, quantitative restrictions actually are more transparent than the price control or administrative measures because they mainly represent clearly set quotas, whereas price controls include such things as subsidies, export targeting, and various types of import restrictions. Less transparent trade barriers are harder to dismantle and the U.S. meets more resistance from foreign countries when it comes to changing these types of trade practices. Quotas can be slightly increased, but more complex and indirect trade restrictions are harder to change.

The political rights variable is marginally significant. Its negative sign suggests that countries with low levels of political democracy are not as likely to stand firm. This reflects the fact that countries such as Canada and the EU, which are pluralistic, have to respond to special interest groups and therefore are less likely to back down to U.S. pressure. Countries with a less competitive electoral process such as Korea and Taiwan, however, have more political latitude in conducting foreign trade policy.

The predicted likelihood of a trade war, $(1-F^1)(1-F^2)$, is the product of the individual predicted $(1-F^i)$'s. It is 19%. The estimated marginal effects on this likelihood are tabulated in Table 2. When the coefficient of an independent variable is statistically not significant, the effect of the variable is assumed to be zero. The significant political costs variables indicate that when there is an election year in the targeted foreign country or when a case is self-initiated by the U.S. administration, the likelihood of disagreement and retaliation is higher by 0.13 and 0.11 points respectively. Both these variables increase the "reputational" cost of backing down and therefore lead to tougher negotiations.

Both PAC expenditures in the United States and a relatively larger share of employment in the targeted foreign industry have negative impacts on the probability of a trade war. The lobbying expenditure effect may not be well captured here because when collecting the PAC contributions data, only directly involved industries were considered. Contributions of those industries that may oppose the case—including foreign industries—have not been included because they cannot be clearly identified. As mentioned earlier, large American firms may also lobby for a more friendly approach to trade bargaining because they fear they will incur large losses in case of a trade war. The negative impact of employment size in the foreign country is interpreted as a sign that smaller industries are more effective in pressuring their policymakers to keep them protected from foreign competition.

Another important result is the lower probability of trade war when the United States has a large export share in the targeted foreign market. Greater economic dependency increases the economic costs of disagreement and therefore induces the United States to reach an agreement or at least not to retaliate. The tariff dummy variables again indicate that when an industry is

already well-protected, there is a tendency for it to remain so and resist liberalization. The world environment variables are all non-significant except for the U.S. share in the world export market which if declining increases the likelihood of retaliation. The United States is keen on maintaining its position as the dominant world exporter and therefore is more likely to threaten a trade war when export markets are closed to its products.

Domestic industry structure and level of organization in the United States do not seem to generate any robust effects on the likelihood of trade outcomes. The intensity of labor organization in foreign countries, on the other hand, increases the probability that the targeted country will not respond to U.S. demands and hence the likelihood of a trade war.

The most robust results are those related to the agricultural and manufacturing dummies, which have a positive impact on the likelihood of a trade war. Compared to cases in other sectors of the economy, agriculture and manufacturing cases seem to generate the most heated debates over trade liberalization. In the United States, the agriculture and manufacturing shares in GDP have been declining steadily over the years as America moves to a more service-oriented economy. This trend is accompanied by heightened pressure from these two sectors to stand firm and demand "fair-trade" rules to expand their export markets.

Both price control and administrative barriers are also more likely to generate conflicts over trade negotiations because they are less transparent than quotas. In addition, administrative, technical and legal barriers are logistically harder to dismantle. Finally, the results also suggest that a Democratic U.S. presidency is more likely to use tough trade tactics, while foreign countries with a pluralistic political system are more likely to lead hard bargaining.

CONCLUSIONS

Our results have demonstrated the importance of several economic and political variables to the likelihood of the United States and its trade partners of standing firm and the consequent possibility of a trade war situation under Section 301. The U.S. policymaker is more likely to stand firm when the case is initiated by the President or the USTR, when the foreign country's targeted trade barrier is low, when the U.S. export share in world markets is declining, when the industry involved is agriculture or manufacturing, and when the U.S. President is a Democrat. On the other hand, the United States is less likely to stand firm when its export sales are more dependent on the foreign country's market, when lobbying expenditures from the domestic concerned industries are higher, and when the petitioning domestic industry has low trade barriers.

Foreign countries stand firm more often when there is a presidential or parliamentary election going on, when the domestic targeted industry absorbs a small share of total employment, when the intensity of labor organization in the country is high, and when the targeted industry is already well protected from international competition. Furthermore, when the targeted trade barrier is non-transparent, such as legislative and administrative barriers, the foreign country is less likely to change its trade practices.

Our findings suggest an ideal set of conditions that would maximize the likelihood of a trade war due to Section 301. The conditions are that: 1) the U.S. administration self-initiates a case against a foreign country that is in the middle of an election year; 2) the targeted industry is in agriculture or manufacturing; 3) the trade barrier is not very transparent; 4) the foreign industry has a small share of total employment that generally is unionized; 5) that this same

industry is already well protected from foreign competition; 6) the United States is not very dependent on the foreign country's market for its exports; 7) the U.S. share in the world export market is declining; 8) the U.S. President is a Democrat; and 9) the foreign country has a pluralistic electoral system.

U.S. trade law Section 301 is one of the array of tools used by policy-makers to protect America from "unfair" foreign trade practices and to expand export markets abroad. However, its use may lead to a variety of inefficient outcomes, which include longer delays in reaching agreements, political confrontations, trade wars, and loss of credibility for the WTO. The findings of our study indicate that Section 301 leads to trade retaliation in 19% of the cases, but opens markets 56% of the time. Based on these figures, one might believe that the legislation is more successful than not in opening closed markets for U.S. exports. However, a closer look at the data suggests that the change in foreign countries' targeted trade barriers have been partial, small in magnitude and have involved many drawn-out and costly negotiations. Furthermore, we do not know whether market opening would have occurred without 301 either through amicable bilateral negotiations or through the GATT. Therefore, using Section 301 is risky and the returns from it are not always clear and tangible.

Activist trade policy such as 301, may increase the bargaining power of the United States but the costs and risks involved in terms of trade and political conflicts may not be worth it (Krugman, Grossman, Dixit). In addition, 301 only increases the U.S. negotiating leverage if the targeted countries remain passive. If similar types of legislation are introduced in the foreign countries, the United States' superior bargaining position is nullified and may render the United States worse off than in the initial situation. Section 301 is especially dangerous if it leads to

specific import targets. Market share quotas are not an indication of open trade. On the contrary, they suggest that the flow of goods and services will be determined by government bureaucrats and lawyers rather than by the market and free choice. Government interventions of this type create inefficiencies by diverting trade and encouraging rent-seeking behavior. They also lock-in the United States to a given import share without taking into consideration the rapidly changing trade and production patterns that may render these shares either redundant or more burdensome than initially intended.

More than 50% of Section 301 cases since 1990 involve Thailand, India, China and Taiwan. The trend towards targeting the practices of developing countries is increasing, especially in the service sector and IPR infringements. The new focus on these countries will become more important if under pressure from lobbying groups, the United States starts including labor and environmental standards as target practices. Developing countries in Asia view the unilateral approach taken by the United States as an "attempt to undermine their competitive advantage" (OADB 1994b). As the United States feels threatened by the rising export competition from developing countries, it will increasingly target these countries for "fair" trade practices.

The WTO provides governments with a useful forum in which they can delegate international trade decisions to impartial dispute settlement procedures and therefore diminish domestic pressures for protection and export promotion. The WTO now includes areas of dispute not included before such as services, agriculture, textiles, intellectual property rights and government procurement. This broader mandate and tighter enforcement mechanism may induce the United States to settle its trade disputes through the WTO instead of relying on unilateralism.

REFERENCES

Baldwin, R.E., and R.N. Clarke. "Game-Modeling Multilateral Trade Negotiations", *Journal of Policy Modeling* 80 (1987): 257-284.

Bayard, T.O., and K.A. Elliott. "'Aggressive Unilateralism' and Section 301: Market Opening or Market Closing?" *The World Economy* 15(1992):685-706.

Becker, G.S. "A Theory of Competition Among Pressure Groups for Political Influence". *The Quarterly Journal of Economics* 98(1983):373-399.

Bhagwati, J. "Departures from Multilateralism: Regionalism and Aggressive Unilateralism." *The Economic Journal* 100(1990a):1304-1317.

Bhagwati, J. "Aggressive Unilateralism: An Overview." in *Aggressive Unilateralism*, ed. by J. Bhagwati and H.T. Patrick. Ann Arbor: The University of Michigan Press, 1990b.

Chan, K.S., "The International Negotiations Game: Some Evidence from the Tokyo Round," *Review of Economics and Statistics* 67(1985): 456-464.

Crawford, V.P. "A Theory of Disagreement in Bargaining". *Econometrica* 50(1982): 607-637.

Destler, I.M. *American Trade Politics* (2d edition). Washington DC: Institute for International Economics with the Twentieth Century Fund, 1992.

Dixit, A.K. "Trade Policy: An Agenda for Research," in *Strategic Trade Policy and the New International Economics*, ed. by P.R. Krugman. Cambridge, MA: The MIT Press, 1986.

Feenstra, R.C., and T.R. Lewis. "Negotiated Trade Restrictions with Private Political Pressure." *Quarterly Journal of Economics* 106(1991):1287-1307.

Finger, J.M., and K.C. Fung. "Can Competition Policy Control 301?" World Bank Policy Research Working Paper No. 1253. Washington, D.C.: The World Bank, 1994.

Grossman, G.M. "Strategic Export Promotion: A Critique." in *Strategic Trade Policy and the New International Economics*, ed. by P.R. Krugman. Cambridge, MA: The MIT Press, 1986.

Grossman, G.M., and E. Helpman. *Trade Wars and Trade Talks*. NBER Working Paper No. 4280. Cambridge, MA, 1993.

Kherallah, M. "Trade Bargaining with Incomplete Information: An Application to U.S. Trade Law Section 301". PhD Dissertation. North Carolina State University, Raleigh, December 1994.

Krugman, P.R. "Introduction: New Thinking about Trade Policy," in *Strategic Trade Policy and the New International Economics*, ed. by P.R. Krugman. Cambridge, MA: The MIT Press, 1986.

Leamer, E. "Sensitivity Analysis Would Help." *American Economic Review* 75(1985):308-313.

Low, P. *Trading Free: The GATT and U.S. Trade Policy*. New York: The Twentieth Century Fund Press, 1993

Maskus, K.E. "View of Trade Problems from Washington's Capitol Hill." *World Economy* 10(1987):409-423.

McMillan, J. "Strategic Bargaining and Section 301," in *Aggressive Unilateralism*, ed. by J. Bhagwati and H.T. Patrick. Ann Arbor: The University of Michigan Press, 1990.

Milner, H. "The Political Economy of U.S. Trade Policy: A Study of the Super 301 Provision," in *Aggressive Unilateralism*, ed. by J. Bhagwati and H.T. Patrick. Ann Arbor: The University of Michigan Press, 1990.

Olson, M. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press, 1965.

Oxford Analytica Data Base. "United States/Japan: Trade Relations." OADB, April 4, 1994a.

Oxford Analytica Data Base. " United States: Asia Trade." OADB, July 14, 1994b.

Rausser, G.C., and J.W. Freebairn. "Estimation of Policy Preference Functions: An Application to U.S. Beef Import Quotas." *The Review of Economics and Statistics* 56(1974):437-449.

Staiger, R.W. "International Rules and Institutions for Trade Policy." NBER Working Paper No. 4962, Cambridge, MA, 1994.

Yoon-Je, Cho. "How the United States Broke into Korea's Insurance Market." *The World Economy* 10(1987):483-96.

USTR (Office of). *Trade Policy Agenda and Annual Report of the President of the US on the Trade Agreement Program*. Washington D.C., various issues.

Zusman, P. "The Incorporation and Measurement of Social Power in Economic Models". *International Economic Review* 17(1976):447-462.

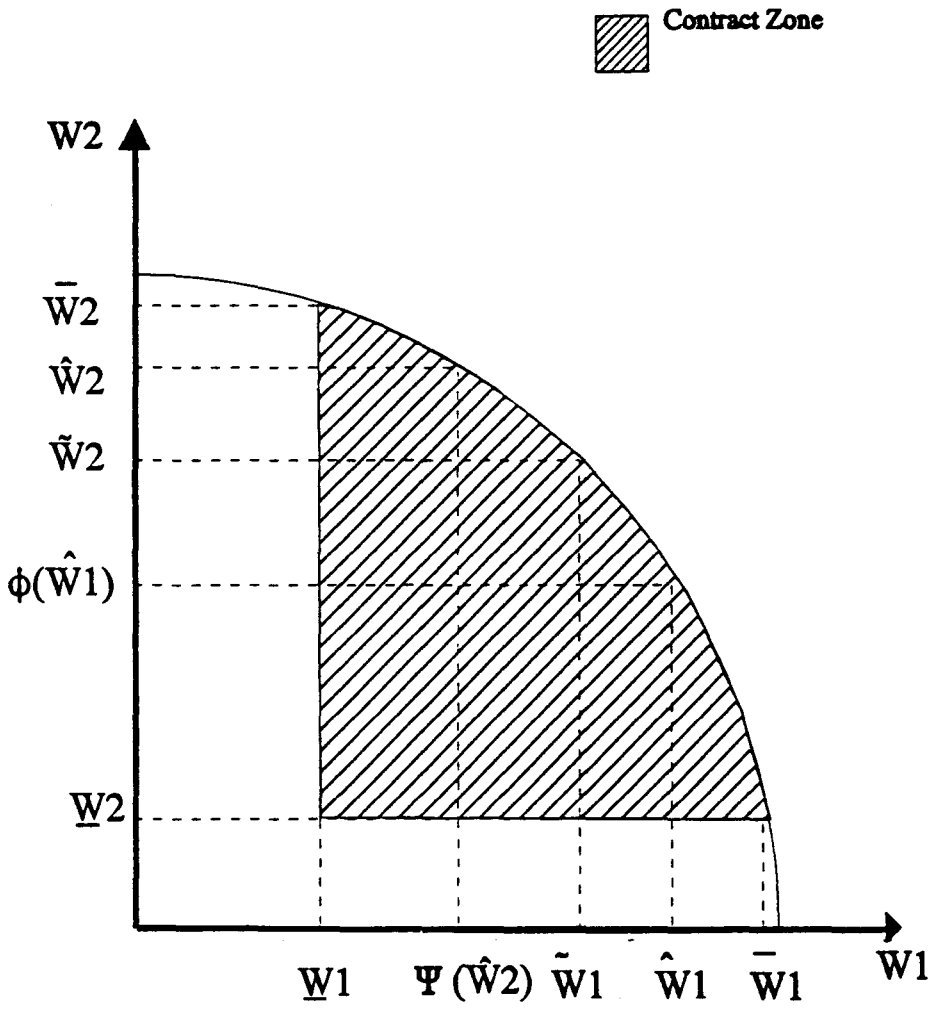


Figure 1: Welfare Possibilities in Utility Space

Table 1: Results from the Probit Estimation of (4) for the US and Foreign Countries

The Dependent Variable is Binary: $(1-F^1)=1$ if the US Stands Firm and $(1-F^1)=0$ if the US Backs Down			The Dependent Variable is Binary: $(1-F^2)=1$ if the Foreign Country Stands Firm and $(1-F^2)=0$ if the Foreign Country Backs Down		
Independent Variables		Marginal Impact & t-stat.	Independent Variables		Marginal Impact & t-stat.
Political Costs Variables	CONST.	-0.0006	Political Costs Variables	CONST.	-0.0033
		(0.03)			(0.05)
	ELECT1	0.0307		ELECT2	0.2793
		(0.99)			(3.12)
	PACEXP	-0.0275		EMPFC	-0.4169
		(1.97)			(2.85)
	SELF	0.2706		COMMIES	1.4691
		(2.02)			(1.34)
Economic Costs Variables	EXPSU	-0.1410	Economic Costs Variables	EXPSF	0.0226
		(2.24)			(0.40)
	USSL	-0.0052		USSL	-0.0157
		(1.79)			(0.74)
	USSH	0.0045		USSH	-0.0010
		(0.19)			(0.33)
	FCTL	0.1469		FCTL	-0.0130
		(1.69)			(0.46)
	FCTH	0.0632		FCTH	0.1867
		(1.42)			(2.53)
World Environment Variables	OECDGDP	0.0021	World Environment Variables	OECDGDP	-0.0077
		(0.57)			(1.20)
	COMP1	0.0013		COMP2	0.0020
		(1.41)			(1.15)

World Environment Variables	GATT	-0.0029	World Environment Variables	GATT	-0.0125
		(0.44)			(0.71)
	USHR1	-0.0972			
		(1.95)			
Industry Power Variables	CR4	-0.0117	Industry Power Variables	FCORG	0.1312
		(0.54)			(1.76)
	USUNS	0.0476			
		(1.18)			
Other Variables	AGIND	0.7731	Other Variables	AGIND	0.0215
		(2.62)			(0.46)
	MANIND	0.8980		MANIND	0.0345
		(3.03)			(0.62)
	PCONT	0.0246		PCONT	0.1543
		(0.96)			(2.03)
	ADMIN	0.0132		ADMIN	0.1249
		(0.61)			(1.65)
	PS	-0.0052		PR	-0.0052
		(1.89)			(1.60)
% of Outcomes Predicted Correctly		87%		77%	
Predicted Probability of Standing Firm a/		46%		41%	
X^2 = -2*Log(LR)		65.54		42.16	
P-value for the X^2 Test		4.98E-07		6.4E-04	

Notes: Values in parentheses are t-statistics.

a/ The actual probability of standing firm is equal to 47% for the US and 42% for the foreign countries.

Table 2: Marginal Impacts of the Independent Variables on the Probability of Disagreement, $(1-F^1)(1-F^2)$

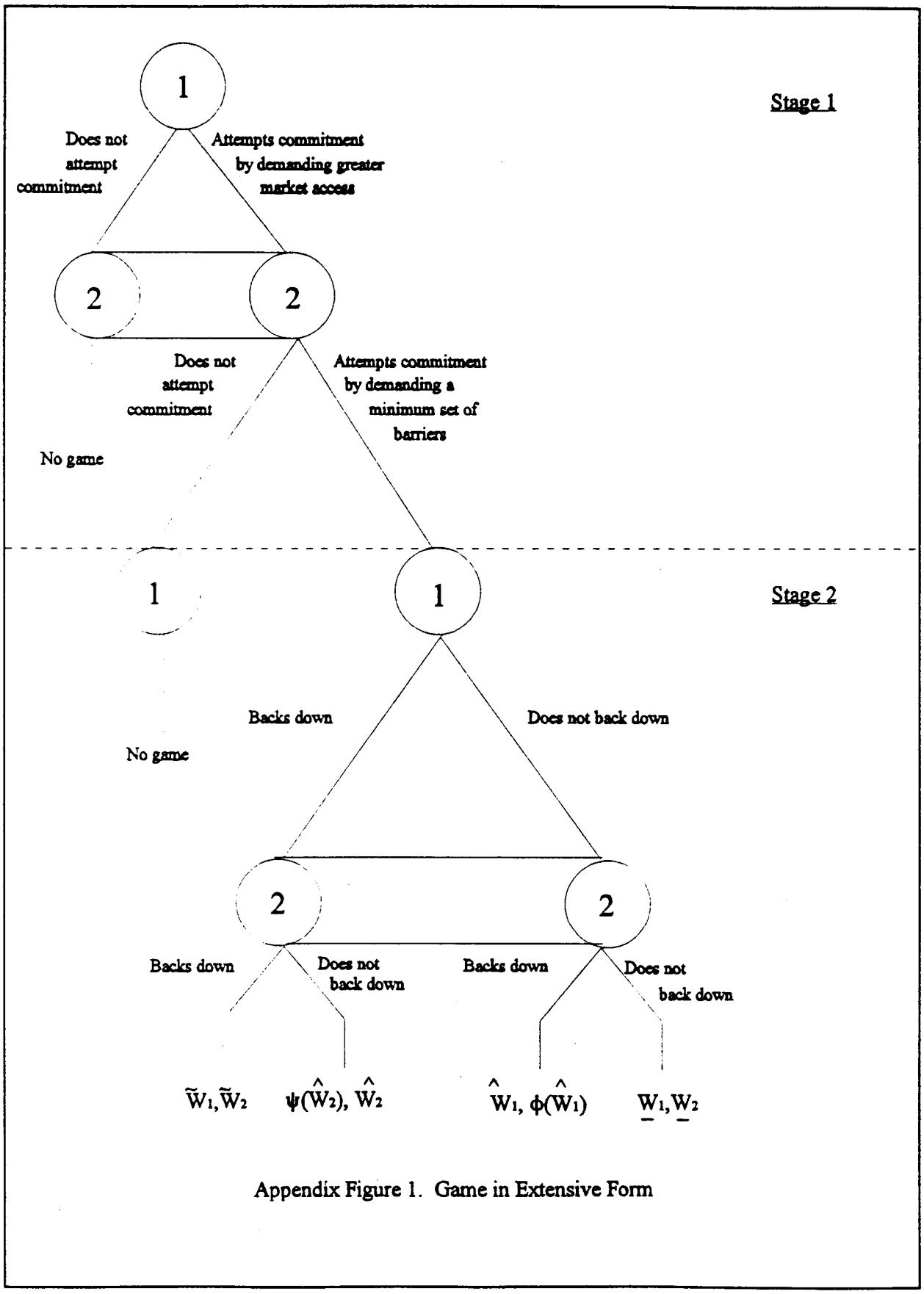
Independent Variables		Marginal Impacts	Level of Significance
Political Costs Variables	ELECT1	0	Not Significant
	ELECT2	0.1285	Significant @ the 0.2% level
	PACEXP	-0.0113	Significant @ the 5% level
	EMPFC	-0.1918	Significant @ the 0.4% level
	SELF	0.1109	Significant @ the 4% level
	COMMIES	0	Not significant
Economic Costs Variables	EXPSU	-0.0578	Significant @ the 2.5% level
	EXPSF	0	Not significant
	USSL	-0.0093	Significant @ the 7% level
	USSH	0	Not significant
	FCTL	0.0602	Significant at the 9% level
	FCTH	0.0859	Significant @ the 1% level
World Environment Variables	OECDGDP	0	Not significant
	COMP1	0	Not significant
	COMP2	0	Not significant
	USHR1	-0.0398	Significant @ the 5% level
	GATT	0	Not significant
Industry Power Variables	CR4	0	Not significant
	USUNS	0	Not significant
	FCORG	0.0603	Significant @ the 8% level
Other Variables	AGIND	0.3170	Significant @ the 0.9% level
	MANIND	0.3682	Significant @ the 0.2% level
	PCONT	0.0710	Significant @ the 4% level
	ADMIN	0.0574	Significant @ the 10% level
	PS	-0.0021	Significant @ the 6% level
	PR	-0.0024	Significant @ the 11% level

Notes: The predicted probability of a break-down in negotiations, $(1-F^1)(1-F^2) = (0.46)(0.42)=0.19$.
The marginal effects that are not statistically significant ($\alpha > 0.12$) are assumed to equal zero.

U.S TRADE THREATS. RHETORIC OR WAR?

APPENDIX

This appendix contains the extensive form of the disagreement game; Appendix Table 1 presents the variables definition their sources and data references, and Appendix Table 2 summarizes the data on 301 cases.



Appendix Figure 1. Game in Extensive Form

Appendix Table 1: Definition of Variables and Sources in Alphabetical Order

Variables	Definitions	Sources
ADMIN	1 if the foreign barrier is administrative or legislative, 0 otherwise	Office of the USTR Table of Section 301 Cases
AGIND	1 if the targeted product is in the agricultural industry, 0 otherwise	Office of the USTR Table of Section 301 Cases
COMMIES	Proportion of the population that belongs to a communist party	*The World Factbook*
COMP1	US Relative Product Trade Advantage =US relative product export advantage - US relative product import advantage (See Formula in Scott and Vollrath). Positive values indicate a competitive trade advantage, negative values indicate competitive trade disadvantage	US Dept. Of Commerce, Bureau of the Census *FAO Trade Yearbook* *International Trade Statistics Yearbook* UN *Commodity Trade Statistics*
COMP2	Same as COMP1 but for the FC	
CR4	US Industry four-firm concentration ratio at the 4-digit SIC code level	US Dept. of Commerce various census
ELECT1	1 if it is a Presidential election year in the US, 0 otherwise	*The World Factbook*
ELECT2	1 if there were any type of elections held within that year in the FC, 0 otherwise	*The World Factbook*
EMPFC	Proportion of Industry employment relative to total employment in the FC	*Yearbook of Labour Statistics*
EMPUS	Proportion of industry employment relative to total employment in the US	*Yearbook of Labour Statistics*
ESCAP	1 if the economic system is capitalist, 0 otherwise	*Freedom in the World: Political Rights and Civil liberties*
ESSOC	1 if the economic system is socialist, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
ESSTA	1 if the economic system is capitalist-statist, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
ESTATIST	1 if the economic system is statist, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
EXPSF	Ratio of total value of FC exports to the US over value of total FC exports to the Rest of the World (ROW)	*Direction of Trade Statistics*

Appendix Table 1 (continued)

Variables	Definitions	Sources
EXPSU	Ratio of tot. value of US exports to the FC over value of tot. US exports to ROW	*Direction of Trade Statistics*
FCORG	Total proportion of organized labor in the FC	*The World Factbook*
FCPOS	1 if the FC stands firm and 0 if the FC backs down	Office of the USTR Table of Section 301 Cases
FCTH	1 if the resulting foreign trade barrier is high, 0 otherwise	Office of the USTR Table of Section 301 Cases *National Trade Estimate Report on Foreign Trade Barriers* *International Business Practices* *The Year in Trade: Operation of the Trade Agreements Program* *Trade Policy Agenda and Annual Report of the President of the US on the Trade Agreements Program* *GATT Trade Policy Review*
FCTL	1 if the resulting foreign trade barrier is low, 0 otherwise	Same as FCTH
GATT	1 if the case is negotiated under the GATT, 0 otherwise	Office of the USTR Table of Section 301 Cases
MANIND	1 if the product targeted is in the manufacturing industry, 0 otherwise	Office of the USTR Table of Section 301 Cases
OECDGDP	Annual average GDP growth rate of OECD countries	OECD *National Accounts: Main Aggregates*
OTHIND	1 if the product targeted is in an industry other than agriculture or manufacturing, 0 otherwise	Office of the USTR Table of Section 301 Cases
PACEXP	Proportion of PAC expenditures by US interests directly affected by the case	FEC *Reports on Financial Activities*
PCONT	1 if the foreign barrier is a price control, 0 otherwise	Office of the USTR Table of Section 301 Cases
PR	Index of political rights ranging from 1 (fully competitive electoral process) to 7 (political despotism)	*Freedom in the World: Political Rights and Civil Liberties*
PS	1 if the US President is Republican, 0 otherwise	

Appendix Table 1: (continued)

Variables	Definitions	Sources
PSCMP	1 for centralized multiparty political system, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
PSCOMM	1 for communist political system, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
PSMNP	1 for decentralized multiparty political system, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
PSDPOP	1 for dominant or one-party political system, 0 otherwise	*Freedom in the World: Political Rights and Civil liberties*
PSMNP	1 for militarized non-party political system, 0 otherwise	*Freedom in the World: Political Rights and Civil Liberties*
QUOTA	1 if the foreign barrier is a quantitative restriction, 0 otherwise	Office of the USTR Table of Section 301 Cases
SELF	1 if case is self-initiated by the USTR or the President, 0 otherwise	Office of the USTR Table of Section 301 Cases
SUXS	1 if there is at least partial market opening in the FC, 0 otherwise	Office of the USTR Table of Section 301 Cases *The Economist*
USHR1	Product exports of the US to the ROW over world product exports in value terms	*International Trade Statistics Yearbook*
USPOS	1 if the US stands firm and 0 if the US backs down	Office of the USTR Table of Section 301 Cases *The Economist*
USSH	1 if the resulting US trade barrier is high, 0 otherwise	Same as FCTH
USSL	1 if the resulting US trade barrier is low, 0 otherwise	Same as FCTH
USUNM	Percentage of union membership in the major US industry involved in the case	Kokkelenburg and Sockell; Curme, Hirsch & MacPherson; Hirsch and MacPherson
USUNS	Percentage of union membership in the specific US industry involved in the case	Same as USUNMIND
VOTELEFT	Proportion of votes that leftist parties won during the last election	*The World Factbook*

Appendix Table 2: Frequency of Section 301 Cases by Countries, Sectors Targeted and Outcomes

	SECTORS TARGETED					US and FC POSITIONS (a)				FC MARKET OPENING
COUNTRY	No. of Cases	Agric. (c)	Mnfg.	Serv.	IPR	US-sf FC-sf	US-sf FC-bd	US-bd FC-sf	US-bd FC-bd	No. of Success. Cases
EU	21	20	1	0	0	2	4	7	8	11
Japan	12	5	6	0	0	3	5	0	4	9
S. Korea	8	3	2	2	1	0	3	1	4	7
Canada	7	5	1	1	0	4	0	1	2	2
Brazil	5	1	4*	0	0	1	2	1	1	3
Argentina	5	2	1	1	0	1	1	2	1	2
Taiwan	4	2	1*	0	1	0	3	0	1	4
India	4	1	0	2	1	0	0	3	1	1
Thailand	3	1	1	0	1	0	0	1	2	1
China	3	0	2*	0	1	0	2	0	1	3
Other	11	2	7	1	0	6	2	2	1	3
TOTAL	83	42	26	7	5	17	22	18	26	46
PERCENT	100.0	50.6	31.3	8.4	6.0	20.5	26.5	21.7	31.3	55.4

Notes: (a) FC= Foreign Country; bd=backs-down; sf=stands firm.
(b) 23 cases are self-initiated; 6 of which are Super 301 and 4 are Special 301; 39 cases are negotiated under the GATT.
(c) Includes raw and processed agricultural products.
* Taiwan's custom duty valuation case no. 56, and cases no.73 and 88 targeting Brazil's and China's general import restrictions are classified under manufacturing since the majority of their imports from the US are manufactured goods.

APPENDIX DATA REFERENCES

Curme, M.A., B.T. Hirsch, and D.A. MacPherson. "Union Membership and Contract Coverage in the United States, 1983-1988." *Industrial and Labor Relations Review* 44(1990):5-33.

Destler, I.M. *American Trade Politics* (2nd ed.). Washington, D.C.: Institute for International Economics with the Twentieth Century Fund, 1992.

Federal Election Commission. *Sponsor Committee Index*. Washington, D.C.: Federal Election Commission Public Records Office, 1993.

Federal Election Commission. *FEC Reports on Financial Activity, Final Report, Party and Non-Party Political Committees*. Washington, D.C.: Federal Election Commission, Volumes III and IV, 1976-1980.

Federal Election Commission. *FEC Committee Indexes No. 409 - Receipts and Disbursements*. Washington, D.C.: Federal Election Commission, 1982-1994.

Food and Agricultural Organization of the United Nations. *FAO Trade Yearbook*. Rome, various issues.

Freedom House. *Freedom in the World: Political Rights and Civil Liberties*. New York: Freedom House, 1989.

General Agreement on Tariffs and Trade (GATT) Secretariat. *Trade Policy Review*. Geneva: GATT, various countries and issues.

Hirsch, B.T. and D.A. MacPherson. "Union Membership and Coverage Files from the Current Population Surveys: Note." *Industrial and Labor Relations Review* 46(1993):574-577.

International Monetary Fund. *Direction of Trade Statistics Yearbook*. Washington, D.C.: International Monetary Fund, various issues.

International Labour Office. *Yearbook of Labour Statistics*. Geneva: International Labour Office, various issues.

Kokkelenberg, E.C. and D.R. Sockell. "Union Membership in the United States, 1973-1981." *Industrial and Labor Relations Review* 38(1985):497-543.

Organization for Economic Cooperation and Development (OECD). *National Accounts: Main Aggregates*. Paris: OECD, various issues.

Scott, L., and T. Vollrath. "*Global Competitive Advantages and Overall Bilateral Complementarity in Agriculture*" USDA, ERS, Statistical Bulletin No. 850, 1992.

United Nations Statistical Office. *Commodity Trade Statistics*. New York: United Nations,

various issues.

United Nations Statistical Office. *Yearbook of International Trade Statistics*. New York: United Nations, various issues.

United States Department of Commerce (USDC). *Census of Agriculture, Subject Series*. Washington, D.C.: USDC, Bureau of the Census, various issues.

USDC. *Census of Manufactures, Subject Series*. Washington, D.C.: USDC, Bureau of the Census, various issues.

USDC. *Census of Service Industries, Subject Series*. Washington, D.C.: USDC, Bureau of the Census, various issues.

USDC. *Census of Transportation, Subject Series*. Washington, D.C.: USDC, Bureau of the Census, various issues.

USDC. *Census of Wholesale Trade, Subject Series*. Washington, DC: USDC, Bureau of the Census, various issues.

USDC. *International Business Practices*. Washington, D.C.: USDC, International Trade Administration, 1993.

USDC. *U.S. Exports, Schedule B Commodity by Country* (FT446). Washington, D.C.: USDC, Bureau of the Census, various issues.

USDC. *U.S. Industrial Outlook*. Washington, D.C.:USDC, various issues.

United States International Trade Commission (USITC). *The Year in Trade: Operation of the Trade Agreements Program*. Washington, D.C.: USITC, various issues.

United States Trade Representative (USTR) (Office of). Section 301 Table of Cases. Unpublished Computer Database.

USTR (Office of). *National Trade Estimate Report on Foreign Trade Barriers*. Washington, D.C.: Office of the USTR, various issues

USTR (Office of). *Trade Policy Agenda and Annual Report of the President of the US on the Trade Agreements Program*. Washington, D.C.: Office of the USTR, various issues.

World Factbook. *The World Factbook*. Washington, D.C.: Central Intelligence Agency, various issues.

August 15, 1995

INTERNATIONAL AGRICULTURAL TRADE RESEARCH CONSORTIUM*

Working Papers Series

Number	Title	Author(s)	Send correspondence or requests for copies to:
85-1	Do Macroeconomic Variables Affect the Ag Trade Sector? An Elasticities Analysis	McCalla, Alex Pick, Daniel	Dr Alex McCalla Dept of Ag Econ U of California Davis, CA 95616
86-1	Basic Economics of an Export Bonus Scheme	Houck, James	Dr James Houck Dept of Ag Econ U of Minnesota St Paul, MN 55108
86-2	Risk Aversion in a Dynamic Trading Game	Karp, Larry	Dr Larry Karp Dept of Ag & Resource Econ/U of California Berkeley, CA 94720
86-3	An Econometric Model of the European Economic Community's Wheat Sector	de Gorter, Harry Meilke, Karl	Dr Karl Meilke Dept of Ag Econ U of Guelph Guelph, Ontario CANADA N1J 1S1
86-4	Targeted Ag Export Subsidies and Social Welfare	Abbott, Philip Paarlberg, Philip Sharples, Jerry	Dr Philip Abbott Dept of Ag Econ Purdue University W Lafayette, IN 47907
86-5	Optimum Tariffs in a Distorted Economy: An Application to U.S. Agriculture	Karp, Larry Beghin, John	Dr Larry Karp Dept of Ag & Resource Econ/U of California Berkeley, CA 94720
87-1	Estimating Gains from Less Distorted Ag Trade	Sharples, Jerry	Dr Jerry Sharples USDA/ERS/IED/ETP 628f NYAVEBG 1301 New York Ave NW Washington, DC 20005-4788

Number	Title	Author(s)	Send correspondence or requests for copies to:
87-2	Comparative Advantage, Competitive Advantage, and U.S. Agricultural Trade	White, Kelley	Dr Kelley White USDA/ERS/IED 732 NYAVEBG 1301 New York Ave NW Washington, DC 20005-4788
87-3	International Negotiations on Farm Support Levels: The Role of PSEs	Tangermann, Stefan Josling, Tim Pearson, Scott	Dr Tim Josling Food Research Institute Stanford University Stanford, CA 94305
87-4	The Effect of Protection and Exchange Rate Policies on Agricultural Trade: Implications for Argentina, Brazil, and Mexico	Krissoff, Barry Ballenger, Nicole	Dr Barry Krissoff USDA/ERS/ATAD 624 NYAVEBG 1301 New York Ave NW Washington, DC 20005-4788
87-5	Deficits and Agriculture: An Alternative Parable	Just, Richard Chambers, Robert	Dr Robert Chambers Dept of Ag & Res Economics Univ of Maryland College Park, MD 20742
87-6	An Analysis of Canadian Demand for Imported Tomatoes: One Market or Many?	Darko-Mensah, Kwame Prentice, Barry	Dr Barry Prentice Dept of Ag Economics & Farm Mgmt University of Manitoba Winnipeg, Manitoba CANADA R3T 2N2
87-7	Japanese Beef Policy and GATT Negotiations: An Analysis of Reducing Assistance to Beef Producers	Wahl, Thomas Hayes, Dermot Williams, Gary	Dr Dermot Hayes Dept of Economics Meat Export Res Center Iowa State University Ames, IA 50011
87-8	Grain Markets and the United States: Trade Wars, Export Subsidies, and Price Rivalry	Houck, James	Dr James Houck Dept of Ag Econ Univ of Minnesota St Paul, MN 55108

Number	Title	Author(s)	Send correspondence or requests for copies to:
87-9	Agricultural Trade Liberalization in a Multi-Sector World Model	Krissoff, Barry Ballenger, Nicole	Dr Barry Krissoff USDA/ERS/ATAD 624 NYAVEBG 1301 New York Ave NW Washington, DC 20005-4788
88-1	Developing Country Agriculture in the Uruguay Round: What the North Might Miss	Mabbs-Zeno, Carl Ballenger, Nicole	Dr Nicole Ballenger USDA/ERS/ATAD 624 NYAVEBG 1301 New York Ave NW Washington, DC 20005-4788
88-2	Two-Stage Agricultural Import Demand Models Theory and Applications	Carter, Colin Green, Richard Pick, Daniel	Dr Colin Carter Dept of Ag Economics Univ of California Davis, CA 95616
88-3	Determinants of U.S. Wheat Producer Support Price: A Time Series Analysis	von Witzke, Harald	Dr Harald von Witzke Dept of Ag Economics Univ of Minnesota St Paul, MN 55108
88-4	Effect of Sugar Price Policy on U.S. Imports of Processed Sugar-containing Foods	Jabara, Cathy	Dr Cathy Jabara Office of Econ Policy U.S. Treasury Dept 15th & Pennsylvania Ave NW Washington, DC 20220
88-5	Market Effects of In-Kind Subsidies	Houck, James	Dr James Houck Dept of Ag Economics University of Minnesota St Paul, MN 55108
88-6	A Comparison of Tariffs and Quotas in a Strategic Setting	Karp, Larry	Dr Larry Karp Dept of Ag & Resource Econ/U of California Berkeley, CA 94720
88-7	Targeted and Global Export Subsidies and Welfare Impacts	Bohman, Mary Carter, Colin Dortman, Jeffrey	Dr Colin Carter Dept of Ag Economics U of California, Davis Davis, CA 95616

Number	Title	Author(s)	Send correspondence or requests for copies to:
89-1	Who Determines Farm Programs? Agribusiness and the Making of Farm Policy	Alston, Julian Carter, Colin Wholgenant, M.	Dr Colin Carter Dept of Ag Economics U of California, Davis Davis, CA 95616
89-2	Report of ESCOP Subcommittee on Domestic and International Markets and Policy	Abbott, P.C. Johnson, D.G. Johnson, R.S. Meyers, W.H. Rossmiller, G.E. White, T.K. McCalla, A.F.	Dr Alex McCalla Dept of Ag Economics U of California-Davis Davis, CA 95616
89-3	Does Arbitraging Matter? Spatial Trade Models and Discriminatory Trade Policies	Anania, Giovanni McCalla, Alex	Dr Alex McCalla Dept of Ag Economics U of California-Davis Davis, CA 95616
89-4	Export Supply and Import Demand Elasticities in the Japanese Textile Industry: A Production Theory Approach	Pick, Daniel Park, Timothy	Daniel Pick USDA/ERS/ATAD 1301 New York Ave. N.W. Washington, DC 20005-4788
89-5	The Welfare Effects of Imperfect Harmonization of Trade and Industrial Policy	Gatsios, K. Karp, Larry	Dr. Larry Karp Dept. of Ag & Resource Econ/U of California Berkeley, CA 94720
89-6	Report of the Task Force on Tariffication and Rebalancing	Josling, Tim Chair	Dr. Timothy Josling Food Research Institute Stanford University Stanford, CA 94305-6084
89-7	Report of the Task Force on Reinstrumentation of Agricultural Policies	Magiera, Stephen Chair	Stephen L. Magiera USDA/ERS/ATAD 1301 New York Ave., Rm 624 Washington, DC 20005-4788
89-8	Report of the Task Force on The Aggregate Measure of Support: Potential Use by GATT for Agriculture	Rossmiller, G.E. Chair	Dr. G. Edward Rossmiller Resources for the Future Nat'l Ctr for Food/Ag Policy 1616 P Street NW Washington, DC 20036

Number	Title	Author(s)	Send correspondence or requests for copies to:
89-9	Agricultural Policy Adjustments in East Asia: The Korean Rice Economy	Kwon, Yong Dae Yamauchi, Hiroshi	Dr. Hiroshi Yamauchi Dept. of Ag & Res. Econ. University of Hawaii 3050 Maile Way Gilmore Hall Honolulu, HI 96822
90-1	Background Papers for Report of the Task Force on The Aggregate Measure of Support: Potential Use by GATT for Agriculture	Rossmiller, G.E. Chair	Dr. G. Edward Rossmiller Resources for the Future Nat'l Ctr for Food/Ag Policy 1616 P Street NW Washington, DC 20036
90-2	Optimal Trade Policies for a Developing Country Under Uncertainty	Choi, E. Kwan Lapan, Harvey E.	Dr. E. Kwan Choi Dept. of Economics Iowa State University Ames, Iowa 50011
90-3	Report of the Task Force on The Comprehensive Proposals for Negotiations in Agriculture	Josling, Tim Chair	Dr. Timothy Josling Food Research Institute Stanford University Stanford, CA 94305-6084
90-4	Uncertainty, Price Stabilization & Welfare	Choi, E. Ewan Johnson, Stanley	Dr. E. Kwan Choi Dept. of Economics Iowa State University Ames, IA 50011
90-5	Politically Acceptable Trade Compromises Between The EC and The US: A Game Theory Approach	Johnson, Martin Mahe, Louis Roe, Terry	Dr. Terry Roe Dept. of Ag & Applied Econ 1994 Buford Avenue University of Minnesota St. Paul, MN 55108
90-6	Agricultural Policies and the GATT: Reconciling Protection, Support and Distortion	de Gorter, Harry Harvey, David R.	Dr. Harry de Gorter Dept. of Ag Economics Cornell University Ithaca, NY 14853
91-1	Report of the Task Force on Reviving the GATT Negotiations in Agriculture	Trade Update Notes	Dr. Maury E. Bredahl Ctr for Intl Trade Expansion 200 Mumford Hall Missouri University Columbia, MO 65211

Number	Title	Author(s)	Send correspondence or requests for copies to:
91-2	Economic Impacts of the U.S. Honey Support Program on the Canadian Honey Trade and Producer Prices	Prentice, Barry Darko, Kwame	Dr. Barry E. Prentice University of Manitoba Dept of Ag Economics & Farm Management Winnipeg, Manitoba R3T 2N2 CANADA
91-3	U.S. Export Subsidies in Wheat: Strategic Trade Policy or an Expensive Beggar-My-Neighbor Tatic?	Anania, Giovanni Bohman, Mary Colin, Carter A.	Dr. Colin Carter Dept of Ag Economics Univ. California-Davis Davis, CA 95616
91-4	The Impact of Real Exchange Rate Misalignment and Instability on Macroeconomic Performance in Sub-Saharan Africa	Ghura, Dhaneshwar Grennes, Thomas J.	Dr. Thomas J. Grennes Dept of Econ & Business North Carolina State Univ P.O. Box 8109 Raleigh, NC 27695-8109
91-5	Global Grain Stocks and World Market Stability Revisited	Martinez, Steve Sharples, Jerry	Steve Martinez USDA/ERS/ATAD 1301 New York Av NW -#624 Washington, DC 20005-4788
91-6	The Export Enhancement Program: Prospects Under the Food, Agriculture, Conservation, and Trade Act of 1990	Haley, Stephen L.	Dr. Stephen L. Haley Dept of Ag Economics & Agribusiness Louisiana State University 101 Ag Admin Bldg Baton Rouge, LA 70803-5604
91-7	European Economic Integration and the Consequences for U.S. Agriculture	Gleckler, James Koopman, Bob Tweeten, Luther	Luther Tweeten Dept of Ag Economics & Rural Sociology Ohio State University 2120 Fyffe Road Columbus, OH 43210-1099
91-8	Agricultural Policymaking in Germany: Implications for the German Position in Multilateral Trade Negotiations	Tangermann, Stefan Kelch, David	David Kelch ATAD/ERS/USDA 1301 New York Ave NW-624 Washington, DC 20005-4788

Number	Title	Author(s)	Send correspondence or requests for copies to:
91-9	Partial Reform of World Rice Trade: Implications for the U.S. Rice Sector	Haley, Stephen	Stephen L. Haley Dept of Ag Economics & Agribusiness Louisiana State University 101 Ag Administration Bldg Baton Rouge, LA 70803
91-10	A Simple Measure for Agricultural Trade Distortion	Roningen, Vernon Dixit, Praveen M.	Vernon O. Roningen ATAD/ERS/USDA 1301 New York Ave NW-624 Washington, DC 20005-4788
92-1	Estimated Impacts of a Potential U.S.-Mexico Preferential Trading Agreement for the Agricultural Sector	Krissoff, Barry Neff, Liana Sharples, Jerry	Barry Krissoff ATAD/ERS/USDA 1301 New York Ave NW-734 Washington, DC 20005-4788
92-2	Assessing Model Assumptions in Trade Liberalization Modeling: An Application to SWOMPSIM	Herlihy, Micheal Haley, Stephen L. Johnston, Brian	Stephen Haley Louisiana State University Dept AgEc & Agribusiness 101 Administration Bldg Baton Rouge, LA 70803
92-3	Whither European Community Common Agricultural Policy, MacSharried, or Dunkeled in the GATT?	Roningen, Vernon	Vernon O. Roningen ATAD/ERS/USDA 1301 New York Ave NW-624 Washington, DC 20005-4788
92-4	A Critique of Computable General Equilibrium Models for Trade Policy Analysis	Hazledine, Tim	Tim Hazledine Bureau of Competition Policy - 20th Floor Economic & Intl Affairs Place du Portage I 50 Victoria Street Hull, Quebec CANADA K1A 0C9
92-5	Agricultural Trade Liberalization: Implications for Productive Factors in the U.S.	Liapis, Peter Shane, Mathew	Peter S. Liapis USDA/ERS/ATAD 1301 New York Ave NW-624 Washington, DC 20005-4788

Number	Title	Author(s)	Send correspondence or requests for copies to:
92-6	Implementing a New Trade Paradigm: Opportunities for Agricultural Trade Regionalism in the Pacific Rim	Tweeten, Luther Lin, Chin-Zen Gleckler, James Rask, Norman	Luther Tweeten Ohio State University Dept of Ag Economics 2120 Fyffe Rd Columbus, OH 43210-1099
92-7	The Treatment of National Agricultural Policies in Free Trade Areas	Josling, Tim	Tim Josling Stanford University Food Research Institute Stanford, CA 94305
92-8	Shifts in Eastern German Production Structure Under Market Forces	Paarlberg, Philip	Philip L. Paarlberg Purdue University Dept of Ag Economics Krannert Bldg West Lafayette, IN 47907
92-9	The Evolving Farm Structure in Eastern Germany	Paarlberg, Philip	Philip L. Paarlberg Purdue University Dept of Ag Economics Krannert Bldg West Lafayette, IN 47907
92-10	MacSherry or Dunkel: Which Plan Reforms the CAP?	Josling, Tim Tangermann, Stefan	Tim Josling Stanford University Food Research Institute Stanford, CA 94305
93-1	Agricultural and Trade Deregulation in New Zealand: Lessons for Europe and the CAP	Gibson, Jim Hillman, Jimmye Josling, Timothy Lattimore, Ralph Stumme, Dorothy	Jimmye Hillman University of Arizona Dept of Ag Economics Tucson, AZ 85721
93-2	Testing Dynamic Specification for Import Demand Models: The Case of Cotton	Arnade, Carlos Pick, Daniel Vasavada, Utpal	Dr. Daniel Pick USDA/ERS/ATAD 1301 New York Av NW-#734 Washington, DC 20005-4788
93-3	Environmental & Agricultural Policy Linkages in the European Community: The Nitrate Problem and Cap Reform	Haley, Stephen	Stephen L. Haley USDA/ERS/ATAD 1301 New York Av NW-#740 Washington, DC 20005-4788

Number	Title	Author(s)	Send correspondence or requests for copies to:
93-4	International Trade in Forest Products: An Overview	Puttock, G. David Sabourin, Marc Meilke, Karl D.	David Puttock Faculty of Forestry University of Toronto 33 Willcocks St Toronto, Ontario CANADA M5S 3B3
93-5	Measuring Protection in Agriculture: The Producer Subsidy Equivalent Revisited	Masters, William	William A. Masters Purdue University Dept of Ag Economics West Lafayette, IN 47907
93-6	Phasing In and Phasing Out Protectionism with Costly Adjustment of Labour	Karp, Larry Paul, Thierry	Larry Karp Univ of Calif-Berkeley Ag and Resource Economics Berkeley, CA 94720
93-7	Domestic and Trade Policy for Central and East European Agriculture	Karp, Larry Spiro, Stefanou	Larry Karp Univ of Calif-Berkeley Ag and Resource Economics Berkeley, CA 94720
93-8	Evaluation of External Market Effects & Government Intervention in Malaysia's Agricultural Sector: A Computable General Equilibrium Framework	Yeah, Kim Leng Yanagida, John Yamauchi, Hiroshi	Hiroshi Yamauchi University of Hawaii Dept of Ag & Resource Econ 3050 Maile Way-Gilmore 104 Honolulu, HI 96822
93-9	Wheat Cleaning & Its Effect on U.S. Wheat Exports	Haley, Stephen L. Leetmaa, Susan Webb, Alan	Stephen L. Haley USDA/ERS/ATAD 1301 New York Av NW-#740 Washington, DC 20005-4788
94-1	The Economics of Grain Producer Cartels	Gleckler, James Tweeten, Luther	Luther Tweeten The Ohio State University Dept of AgEcon & Rural Soc 2120 Fyffe Rd Columbus, OH 43210-1099

Number	Title	Author(s)	Send correspondence or requests for copies to:
94-2	Strategic Agricultural Trade Policy Interdependence and the Exchange Rate: A Game Theoretic Analysis	Kennedy, Lynn P. von Witzke, Harald Roe, Terry	Harald von Witzke University of Minnesota Dept of Ag & Applied Econ 1994 Buford Ave - 332h COB St. Paul, MN 55108-6040
94-3	Declining U.S. Tobacco Exports to Australia: A Derived Demand Approach to Competitiveness	Beghin, John Hu, Fan	John Beghin OECD Development Centre 94 Rue Chardon-Lagache 75016 Paris FRANCE
94-4	Alternative Oligopolistic Structures in International Commodity Markets: Price or Quantity Competition?	Carter, Colin A. MacLaren, Donald	Donald MacLaren Department of Agriculture University of Melbourne Parkville, Victoria 3052 AUSTRALIA
94-5	Labor Adjustment and Gradual Reform: Is Commitment Important?	Karp, Larry Paul, Thierry	Dr. Larry Karp University of CA-Berkeley Dept of Ag & Res Economics 207 Giannini Hall Berkeley, CA 94720
94-6	The Economic Implications of Chemical Use Restrictions in Agriculture	Hartmann, Monika Schmitz, P. Michael	P. Michael Schmitz Johann Wolfgang Goethe-Universität Institute of Ag Economics D-60325 Frankfurt am Main Zeppelinallee 29 GERMANY
95-1	Intra-Industry Trade in Agricultural Products in the Western Hemisphere: Preliminary Evidence and Implications for Economic Integration	Roberts, Donna	Donna Roberts USDA/ERS 1301 New York Ave NW Washington, DC 20005-4788
95-2	U.S. Imports of Canadian Wheat: Estimating the Effect of the U.S. Export Enhancement Program	Haley, Stephen	Stephen L. Haley USDA/ERS/CAD 1301 New York Av NW-#740 Washington, DC 20005-4788

Number	Title	Author(s)	Send correspondence or requests for copies to:
95-3	Restricting Wheat Imports from Canada: Impact of Product Differentiation and U.S. Export Policy Goals	Haley, Stephen	Stephen L. Haley USDA/ERS/CAD 1301 New York Av NW-#740 Washington, DC 20005-4788
95-4	Analysis of U.S. Export Enhancement Targeting and Bonus Determination Criteria	Haley, Stephen Skully, David	Stephen L. Haley USDA/ERS/CAD 1301 New York Av NW -#740 Washington, DC 20005-4788
95-5	Challenges in Quantitative Economic Analysis in Support of Multilateral Trade Negotiations	Meilke, Karl D. McClatchy, Don de Gorter, Harry	Harry de Gorter Cornell University Dept of Ag, Res & Mngr Econ 102 Warren Hall Ithaca, NY 14853-7801
95-6	Wheat Buffer Stocks and Trade in an Efficient Global Economy	Makki, Shiva S. Tweeten, Luther Maranda, Mario J.	Luther Tweeten Ohio State University Dept of Ag Econ & Rural Soc 2120 Fyffe Road Columbus, Ohio 43210
95-7	U.S. Trade Threats: Rhetoric or War?	Mylène Kherallah John Beghin	John Beghin N Carolina State University Box 8110 Raleigh, NC 27695

*The International Agricultural Trade Research Consortium is an informal association of university and government economists interested in agricultural trade. Its purpose is to foster interaction, improve research capacity and to focus on relevant trade policy issues. It is financed by the USDA, ERS and FAS, Agriculture Canada and the participating institutions.

The IATRC Working Paper Series provides members an opportunity to circulate their work at the advanced draft stage through limited distribution within the research and analysis community. The IATRC takes no political positions or responsibility for the accuracy of the data or validity of the conclusions presented by working paper authors. Further, policy recommendations and opinions expressed by the authors do not necessarily reflect those of the IATRC.

Correspondence or requests for copies of working papers should be addressed **to the authors** at the addresses listed above.

A current list of IATRC publications is available from:

Laura Bipes, Administrative Director
Department of Applied Economics
University of Minnesota
231 Classroom Office Building
1994 Buford Ave
St. Paul, MN 55108-6040, U.S.A.